

Canadian Fitness Safety Standards[®]

3rd Edition



Canadian Fitness Safety Standards[®]



3rd edition

*Published by Ontario Association of Sport and Exercise
Sciences Inc. (OASES)*

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ISBN: 978-0-9687941-1-1

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OASES gratefully acknowledges the financial support of the Ontario Trillium Foundation, an agency of the Ministry of Tourism, Culture, and Recreation. With \$100 million in annual funding from the province's charitable gaming initiative, the Foundation provides grants to eligible charitable and not-for-profit organizations in the arts, culture, sports, recreation, environment and social service sectors.

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Development of Fitness Safety Standards in Canada

Injuries and possibly death are always a potential risk whenever people engage in exercise. In most instances, such injuries and fatalities can be averted when precautionary measures are in place. With the exception of spas and pools, there is no legislation that demands safety standards be met; however, the law does dictate that facility owners must provide due diligence with respect to offering a safe environment for their members.

Between 1980 and 1987 there were six deaths in fitness facilities that required a Coroner's Inquest. Deaths occurred due to the following situations:

- a drowning in a pool
- a drowning in a whirl pool
- a bar bell fell on an individual in an unsupervised weight room
- heat prostration in sauna
- cardiac arrest with no staff qualified in CPR on site

1987

In some instances these deaths could have been prevented; therefore on August 28th, 1987, an agreement was reached between the Ministry of Tourism and Recreation (MTR), now the

Ministry of Health Promotion, and the Ontario Association of Sport Sciences (OASS), now the Ontario Association of Sport and Exercise Sciences (OASES). OASS was to establish a Fitness Safety Standards Committee (FSSC) to develop safety standards for the fitness industry so that the fitness community could conduct its activities in a safe and orderly environment.

Preface

At various stages during the deliberations, the FSSC considered related legal issues which are summarized in this book. The original report contained Standards, Guidelines and Recommendations for each of the areas. A major research project was commissioned to determine the nature, incidence and severity of injuries experienced by participants in fitness related activities in Ontario's fitness facilities. The researchers were asked to correlate the injuries with potential contributing factors and propose standards and guidelines to reduce the incidence and/or severity of fitness injuries. The research findings may be found in Articles & Research Papers Appendix C -1.

1997

The second revision to the Fitness Safety Standards was completed in 1997. The document was revised by OASES using the Delphi Technique; a process by which twenty-six experts in the field provided input into the validity of the information in the document and obtained consensus amongst the panel with respect to their suggested revisions. The Fitness Safety Standards document was then revised by OASES to reflect the opinions of the panel of experts.

The three levels of Standards, Guidelines and Recommendations were subsequently revised into Standards and Recommended Guidelines for each of the major operating components of the fitness industry.

2004

OASES created a new Fitness Safety Advisory Council (FSAC) who would be responsible for the process of this third review of the Standards and Recommended Guidelines. The Delphi Method was used again to ensure consensus within the industry; however, this review was conducted via the Internet with an on-line survey and forum that was posted on the OASES web site. This three-month process was controlled by five Moderators, who were

chosen for their expertise in each of the areas. The Moderators were directed to obtain consensus based on the relevance and feasibility of each statement. They continued to revise the Standards and Recommended Guidelines until consensus was reached from over 300 registered participants across Canada. The Moderators then presented their recommendations to the Fitness Safety Advisory Council, who in turn presented their report for approval to the OASES Board of Directors. The final document was approved in August 2004.

OASES was successful in obtaining a four-year grant from the Ontario Trillium Foundation to conduct this third revision, and provide ongoing promotion for the new Standards. A web site was developed, *www.CanadianFitnessMatters.ca* which lists facilities across Canada, and highlights those that are in compliance with the Canadian Fitness Safety Standards® through the facility recognition program entitled *Safety Matters!* More information on this program may be found in the section of this book entitled “Historical Review of the 2004 Canadian Fitness Safety Standards®”, and the facility recognition application form is copied in Forms Appendix B-1.

Throughout its work, the FSSC, FSAC and OASES have assumed a common law duty to all who will use the standards, that the Report has not been negligently prepared. The contents of the document are based on sound and confirmable scientific and technical data both from an historical and experience-related perspective. Every reasonable attempt has been made to assure the completeness and accuracy of the major sections up to the time of approval by the OASES Board of Directors.

Notwithstanding the care taken in the preparation of the report, FSSC, FSAC and OASES hereby claim that the document is based upon the scientific, technological, and professional opinions of the moment, and that it is not to be taken to be applicable and appropriate for an unlimited period of time. Accordingly, the Standards and Recommended Guidelines contained in this report were deemed to be applicable for not more than five years (i.e. January 2010).

The original document was submitted to the Ministry of Tourism and Recreation in February 1990 by:

Norman Gledhill, Ph. D.
Chair,
Fitness and Safety Standards Committee

Greg W. Poole, M. Sc.
Chair,
Ontario Association of Sport and Exercise Sciences

The second document was submitted to OASES Board of Directors in February 1997 by:

John Frittenburg
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Patricia Clark
Executive Director
OASES

Norm LaVoie, Ph.D.
Chair
OASES

The third document was submitted to OASES Board of Directors in August 2004 by:

Blake Ferris, Ed.D.
Chair,
Fitness Safety Advisory Council

Tracy Gedies, Ed.D.
Chair,
Ontario Association of Sport and Exercise Sciences

Reference

Clark, P., *Safe Exercise*, Fitness Business Canada, Nov/Dec, 28-30, 2004.



This third edition of the Canadian Fitness Safety Standards® Book represents an important continuation of a pioneering health protection initiative that began in 1987 between the Ontario Ministry of Tourism and Recreation and the Ontario Association of Sport and Exercise Sciences (OASES), then known as the Ontario Association of Sport Sciences. This 20-year process represents a successful and dedicated effort by OASES to promote exemplary safety practices within a widely diversified fitness industry.

The goal then, as now, was to create, promote and encourage voluntary compliance with ‘best practices’ or standards for enhancing fitness safety within a broadly oriented fitness services industry.

Recognizing the importance of public safety and health protection within the fitness industry, the Ontario Trillium Foundation, in 2003, supported a four year OASES initiative to review and revise an earlier version of the fitness safety standards as well as to

Introduction

encourage greater awareness and compliance of them within a much more diversified fitness industry.

Standards of ‘best practice’ are still of vital importance to ensure that the health benefits associated with participation in fitness programs and services offered to the public are not threatened or compromised by exposure to unnecessary risks of accidental incidents, injuries, infections and other health related trauma. This reasoning has guided OASES and its Fitness Safety Advisory Council (FSAC) in fashioning the document that follows.

The entire process has involved a rigorous, open and thorough consultation with representatives of the Canadian fitness industry. The resulting Canadian Fitness Safety Standards® had to meet strict criteria for both relevance and feasibility before approval by the OASES Board of Directors.

The result has led to the creation of a unique fitness industry safety standards compliance recognition program called *Safety Matters!* Consumers can now look for and find clubs that comply with the standards described in this book. They can also browse an extensive online directory of Canadian fitness facilities and services from our innovative public website, www.canadianfitnessmatters.ca, in which fitness safety is prominently featured.

The highly interactive and industry-wide consultative process employed in the development of the Canadian Fitness Safety Standards® establishes an efficient and community-based method for future fitness safety standard reviews and updates. It is my sincere hope that the content of this book will serve the best safety interests of fitness consumers, fitness educators and industry service providers.

Blake F. Ferris, Ed.D.

Chair, OASES Fitness Safety Advisory Council

Past Chair, OASES

Members of the 1987 Fitness Safety Standards Committee (FSSC)

Chair:

Norm Gledhill, Ph.D.
York University,
Toronto

Members:

Cathy Beaumont
YWCAs of Ontario,
Toronto

Barb Dickson
Employee Lifestyle Management,
Toronto

Barbara Elson
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Confederation College, Northern Ontario,
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Paula Wagar
Ontario Physical and Health
Education Association,
Peterborough

Dale Wood
Parks and Recreation Federation of Ontario,
Mississauga

Members of the 1997 Expert Panel

The panel was not to exceed thirty members, and they were to represent both “experts” and those working in the field (e.g. fitness directors). The following individuals participated in the “paper and pencil” exercise using the Delphi Method to gain consensus.

Bob Bowes Ottawa	George Dickson Toronto	Olga Labaj Pickering	Richard Thomas Midland
Tony Brenner London	Rick Dominico Unionville	Cathy McNorgan Hamilton	Stephanie Todd Hanmer
Laurie Burns Georgetown	Blake Ferris Ottawa	Don Paterson London	Larry Vezina Thunder Bay
John Campbell Ottawa	Norm Gledhill Ottawa	Greg Poole Ottawa	Warren Watson Markham
Pierre Chartier Ottawa	John Griffin Toronto	Allan Scott Toronto	Ron Weese Aurora
Doug Cowan Mississauga	Ruth Hanton Toronto	Marc Stupp Mississauga	
Barb Dickson Toronto	Jay Kell North York	Cheryl Tensen Toronto	

Members of the 2002 – 2006

Fitness Safety Advisory Committee (FSAC)

Chair:

Blake Ferris, Ed.D.
Ottawa

Members:

Athletic Therapist
Representative
Kelly Parr

Ontario Athletic Therapist
Association
Toronto

Canadian Safety Council
Representatives
Jack Smith / Carole Deavey
Canada Safety Council
Ottawa

Community College
Representative
Norm Naisbitt
Fanshawe College
London

Employee Fitness
Representatives
Cheryl Finn / Doug Weaver
Fanshawe College, London

Municipal Representative
Kevin Smith
Town of Ajax, Ajax

OASES Representative
Patricia Clark
OASES Executive Director
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Police Fitness Personnel of
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Marion Reeves
Peel Police, Mississauga
Gary Goguen
Hamilton Police, Hamilton

Private Fitness Club
Representative
Allan Scott
Cambridge Club
Toronto

Rehabilitation Representative
Cathy McNorgan
Active Home Rehab /
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Waterloo

YMCA Representative
Cathyann White /
Ida Thomas
YMCA Ontario
Toronto

Moderators for the 2004 Review

Bob Bowes
Co-ordinator,
Municipal Employee's Active Living Club,
City of Ottawa
Ottawa

Paul Compton
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Carleton University, Ottawa

Bob Grisdale, DC
LifeMark Health, Ryerson University
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Toronto

OASES Board of Directors 2002- 2006

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Tracy Gedies, Ed.D.
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Directors:
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Doug Lafreniere
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Employee Fitness Representative
Adrienne Sutton
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Municipal Fitness Representative
Warren Watson
Centennial Fitness Centre
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Larry Stinson
Peterborough

Private Fitness Representative
Allan Scott
Cambridge Club
Toronto

University Representative
Glen Kenny, Ph.D.
University of Ottawa
Ottawa

YMCA Representative
Ida Thomas
Toronto

2004 Canadian Fitness Safety Standards®



The Fitness Safety Standards Advisory Council (FSAC) was established by OASES in 2002 to fulfill three broad goals:

Executive Summary

1) To promote a greater awareness of, use of, and voluntary compliance with the Canadian Fitness Safety Standards®.

2) To create an on-going review mechanism to keep the Canadian Fitness Safety Standards® current.

3) To create a revenue generating mechanism which would allow OASES to continue to advocate and advance fitness safety standards and practices in the Province of Ontario.

These three goals have been achieved through the following methods:

1) On-going marketing and promotion of the revised standards in national fitness trade magazines, consumer magazines, newspapers, and the CanadianFitnessMatters.ca website.

2) The development of the on-line survey and forum on the OASES web site.

3) a) The creation of the CanadianFitnessMatters.ca website; Canada's first on-line fitness facility directory.

b) The creation of *Safety Matters!*, a program which recognizes facilities for their compliance with the Canadian Fitness Safety Standards®.

Notwithstanding the care taken in the preparation of this document, FSAC and OASES hereby claim that the report is based upon the scientific, technological, and professional opinions of the moment, and that it is not to be taken to be applicable and appropriate for an unlimited period of time. Accordingly, the Standards and Recommended Guidelines contained in this document are deemed to be applicable for not more than five years, (i.e. January 2010).

Canadian Fitness Safety Standards[®] and Recommended Guidelines

Fitness Related Personnel

Standard #1

All fitness facility personnel and other fitness service providers shall be qualified in first aid and CPR.

Standard #2

Fitness personnel shall be certified in the area with which they are providing program services (e.g. fitness appraisal, personal training, aerobic classes, aqua fitness classes etc.)

Recommended Guideline #1

Where certification is not available, fitness personnel working with special exercising populations should participate in training programs specific to that population (e.g. pregnant women, seniors, people with disabilities).

Recommended Guideline #2

Training programs for fitness personnel should include information on participant screening, participant education and the risk of injury during physical activity.

Recommended Guideline #3

Training programs for fitness personnel should emphasize the important safety role of fitness personnel, in instruction, supervision and monitoring of high risk activities or areas.

Pre-Screening & Informed Consent

Standard #3

Fitness service providers shall provide or require a pre-activity screening procedure (e.g. PAR-Q or appropriate signs).

Standard #4

Facility operators and other fitness service providers shall inform participants of the risks inherent in physical activity participation and fitness facility use.

Recommended Guideline #4

Individuals planning to engage in physical activity should, at a minimum, be screened by the PAR-Q (physical activity readiness questionnaire) and /or the PAR Med-X (physical activity readiness medical exam).

Recommended Guideline #5

Fitness service providers should encourage new or renewing members / clients to complete an Informed Consent Agreement before engaging in the programs and services offered.

Recommended Guideline # 6

When an individual is screened out by the PAR-Q from taking part in physical activity, medical clearance using the PAR Med-X should be obtained before he / she takes part in physical activity.

Recommended Guideline # 7

Facility operators should post public signs which encourage participants to exercise caution if they are unfamiliar with either the activity to be undertaken, or their current level of fitness.

Special Exercising Populations

Standard #5

Fitness service providers shall recommend that pregnant women obtain medical advice regarding their participation in physical activity.

Standard #6

Fitness service providers shall recommend that individuals 70 years of age and over receive medical advice before initiating a physical activity program or increasing their physical activity.

Standard #7

Maximal testing of individuals who:

- a) are not accustomed to regular strenuous exercise, or
- b) are males over 40 years of age, or
- c) are females over 50 years of age

shall be conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS (Advanced Cardiac Life Support).

Recommended Guideline # 8

For all other individuals (not identified in Standard #7), unsupervised maximal tests may be conducted, provided participants have, at a minimum, been screened for medical risks by the PAR-Q or a physician.

Recommended Guideline # 9

The PAR-Med X for Pregnancy questionnaire should be utilized in pre-exercise medical consultations with pregnant women.

Emergency Procedures

Standard #8

Facilities and other environments in which fitness related activities are offered shall have in place an Emergency Action Plan which shall be practiced twice per year and reviewed with all NEW staff at the commencement of their employment.

Standard #9

All injuries, accidents or emergencies in fitness facilities and other fitness related environments shall be documented in writing and retained.

Standard #10

A designated complement of First Aid equipment shall be readily available in fitness facilities and other fitness related environments.

Standard #11

Immediate access to in-house first aid services must be available from qualified personnel. Contact information for external medical services (e.g. ambulance/hospital emergency phone numbers) must also be posted and phones readily accessible in all high risk/injury areas (e.g. pools, fitness testing, and weight training areas)

Recommended Guideline #10

In combination with the PAR-Q, the participants should have the option of completing a pre-exercise Medical Information Form to 1) recognize potential risks or limitations 2) advise EMS or hospital personnel when providing treatment.

Recommended Guideline #11

Safety signs indicating emergency procedures should be posted in all activity areas.

Communicable Disease Prevention

Standard #12

Fitness service providers shall provide employee training pertaining to the awareness, prevention and control of communicable diseases.

Fitness-Related Environments

Standard #13

All fitness related environments and equipment shall be clean, well maintained, and free from hazards.

Standard #14

Access to a clean drinking water supply is required at or near all physical activity areas.

Standard #15

The number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercises. Participant numbers may also be defined by building code restrictions and/or fire code regulations.

Standard #16

All fitness testing equipment shall be checked, cleaned and calibrated as required.

Standard #17

Floors in wet areas shall have a non slip surface with adequate drainage to prevent the pooling of water.

Standard #18

Whirlpools, spas and tubs shall comply with the Recommended Standards for the Operation of Public Spas (Ministry of Health & Long term Care Act , June 2001).

Standard #19

Electrical panels shall be covered. Receptacles located in wet areas of a building and associated with the pool, such as a locker and change room, require ground fault circuit interrupters of the Class A type.

Standard #20

A fire alarm system shall be installed in a building as determined by building code requirements. (Ontario Building Code 3.2.4.1)* Portable fire extinguishers shall be installed in all buildings (Ontario Building Code 3.2.5.17).*

* or existing provincial/territorial code or regulations as applicable

Recommended Guideline #12

Staff are required to carry out ongoing inspection, reporting, and/or maintenance of all areas and equipment, as part of their day-to-day activities.

Recommended Guideline #13

The surface for all recreational areas should be appropriate for the intended use(s). They should be free from obstructions to participants, and if outdoors, properly graded for adequate drainage.

Recommended Guideline #14

Sport or recreational playing areas should be separated from roadways by a fence, wall or buffer zone, but should be accessible by emergency vehicles. Spectator areas should be a safe distance from playing surfaces so as to avoid collisions with participants.

Recommended Guideline #15

Adequate lighting, including emergency lighting, should exist throughout indoor and outdoor areas of the facilities.

Recommended Guideline #16

All sports court areas (e.g. floor surfaces, doors, playing fixtures, markings etc.) should comply with national sport governing body regulations and/or manufacturers safety regulations.

Recommended Guideline #17

Air temperature, water temperature, humidity, and air circulation in all indoor areas should be monitored and properly controlled.

Recommended Guideline #18

All squash, racquetball, and badminton participants should wear appropriate eye guards approved by the Canadian Standards Association.

Recommended Guideline #19

Group exercise floor areas should be constructed with materials (e.g. sprung wood, ballistic rubber overlay) that reduce the potential of repetitive impact injury.

Recommended Guideline #20

All equipment, (cardio, resistance machines, free weights, etc.) should be placed in a logical sequence to maximize efficient traffic flow and allow safe and effective use of the equipment.

Recommended Guideline #21

Direct supervision in high risk/injury areas (e.g. gymnasium and weight training areas) should be provided at all times by qualified personnel (e.g. certified in First Aid, CPR, strength conditioning).

Recommended Guideline #22

Participants (particularly beginners) should be provided with one or more instructional sessions by qualified staff in order to ensure they can use the exercise equipment safely.

Recommended Guideline #23

Signs are to be posted in weight lifting areas, with detailed instruction, pictures and safety precautions to guide participants in proper use of the equipment.

Recommended Guideline #24

To promote good hygiene and safety, participants are to wear appropriate footwear and apparel.

Recommended Guideline #25

Shower (wet) areas should not be directly connected to exercise areas (pools excluded).

Recommended Guideline #26

Activity areas that are typically unsupervised (e.g. squash courts) should be monitored hourly and/or have signs informing participants of appropriate precautions (e.g. protective eye equipment, proper footwear and clothing).



Chapter 1

Development of the Original 1987 Ontario Fitness Safety Standards

The original Fitness Safety Standards Committee (FSSC) was established in 1987 to advise the Government of Ontario on matters pertaining to the development of safety standards for the fitness industry. The Ministry of Tourism and Recreation directed the Committee to specifically:

- represent a cross-section of the fitness service delivery community including both for-profit and not-for-profit agencies. In addition, there was to be two members from the Ministry, including one representative from the Fitness Section and one from the Community and Safety Initiatives Section of the Sports and Fitness Branch.
- coordinate the development of safety standards for the fitness industry including standards relating to equipment, training and experience required by professional staff working in the fitness industry, and operating standards that will ensure the safety of participants.
- investigate the nature and incidence of injuries in the fitness industry including the collection of research on the frequency, type and cause of injuries.
- recommend a means by which those individuals participating in fitness activities can be assured that reasonable care has been taken to ensure their safety and an indication of the acceptability of such recommendations by the fitness industry. The FSSC attests that the above conditions were attended to properly.

During the development of the original standards, legal council was sought to respond to a variety of concerns. The FSSC had been advised that;

- whereas the constituencies which are represented on the FSSC were identified by the MTR as being representative of the fitness community, and
- whereas the members of the FSSC who represent the various constituencies were named by those constituencies and involved their constituency fully in establishing the safety standards, and
- whereas many other major fitness related groups were invited to become corresponding members and were sent periodic updates informing them of the work of the FSSC and requested to provide feedback on FSSC proposals, then it can be anticipated that the standards developed by the FSSC will be recognized as the acceptable standards of safety in matters concerning fitness related safety issues.

The FSSC held fourteen meetings to develop the contents of the final report. Between meetings the committee members were asked to contact members within their represented sector and provide feedback at the following meeting. A major research project was commissioned to determine the nature, incidence and severity of injuries that had occurred in fitness related activities. The final document contained twenty Standards, twenty-four Guidelines, and thirty-two Recommendations.

Full details of the historical development of the original Fitness Safety Standards Committee, the 1987 Standards document, and the research findings may be found in the Articles & Research Papers Appendix C- 2.

2000 Fitness Safety Standards Expert Panel Review

Information on the Delphi Method was obtained from Olga Malott, a senior researcher at the Centre for Applied Health, at the University of Waterloo. She recommended that the number of panel members should not exceed thirty individuals. Participants were selected for their expertise, knowledge and experience relative to all major operating components of the Ontario fitness industry. Three surveys were mailed out to the panel members. The first survey asked for the most information while each subsequent version had fewer questions based on the consensus that had been reached previously. The three key elements in the process were:

- 1) Anonymity – the panel members did not know who was on the panel and the answers were based on their independent view of the presented issue.
- 2) Feedback – the panel members received a chart of the responses to the first questionnaire and could compare their ratings and rationales with that of the rest of the group.
- 3) Repetition – the panel members went through three rounds of questionnaires with each successive round narrowing the focus until there was agreement among the members on the key elements related to the issue under consideration.

Panelists were asked if the Standard, Guideline or Recommendation should:

- i) continue to receive its original emphasis
- ii) be downgraded, or
- iii) be upgraded

In each case, a 9-point scale was provided to allow members to effectively express their opinion. They also provided a written rationale for their decision on each statement.

The final document contained 17 Standards and 82 Recommended Guidelines, of which 43 of the Guidelines related to the fitness environment.

Current Review Leading to the 2004 Canadian Fitness Safety Standards®

Patricia Clark

Preamble

The Fitness Safety Advisory Council (FSAC) was formed in 2002 as an ad hoc committee of the OASES Board of Directors. The mandate of the Council was:

- 1) To promote a greater awareness of, use of, and voluntary compliance with the Canadian Fitness Safety Standards®.
- 2) To create an on-going review mechanism to keep the Canadian Fitness Safety Standards® current.
- 3) To create a fitness safety revenue generating mechanism to allow OASES to continue its intention to advocate and advance fitness safety standards and practices in the Province of Ontario.

To achieve the mandate of the Council, the following tasks were completed:

- 1) Conducted an industry base-line survey for awareness and compliance with the second edition of the Fitness Safety Standards, funded by the Ministry of Citizenship, Culture and Recreation (MCzCR).
- 2) Applied to, and received, a four-year grant from the Ontario Trillium Foundation.
- 3) Created the Fitness Safety Advisory Council.
- 4) Developed a thorough and transparent review process via an on-line survey and forum.
- 5) Recruited Forum Moderators.
- 6) Created a marketing strategy to increase awareness and compliance with the revised Canadian Fitness Safety Standards® through the development of www.canadianfitnessmatters.ca.
- 7) Developed and implemented a facility safety recognition program, known as *Safety Matters!*
- 8) Conducted a second survey to determine the increase of awareness and compliance with the Canadian Fitness Safety Standards® (to be completed in 2007).

Chronology of Events Leading to the 2004 Canadian Fitness Safety Standards©

Date	Activity
October 2001	Initial meeting to discuss project
November 2001	Grant submission to MCzCR for base line survey
January 2002	Creation of the Fitness Safety Advisory Council
April 2002	Baseline survey conducted for awareness and compliance of the 2 nd ed. of the Safety Standards
May 2002	Grant submission to Ontario Trillium Foundation (OTF)
June 2003	Marketing strategy developed
March 2003	Four-year grant received from OTF in the amount of \$354,000
December 2003	Development of Facility Recognition process
January 2004	Tomahawk Technology received tender for development of the on-line forum
May 7-13, 2004	First live Survey and Forum open
May 25-28, 2004	Second live Survey and Forum open
June 3-12, 2004	Third live Survey and Forum open - consensus reached
June 22, 2004	Recommendations for revised Standards presented and approved by Forum Moderators
June 23, 2004	Moderator's recommendations presented to Fitness Safety Advisory Council for approval
August 2004	FSAC recommendations presented and approved by OASES Board of Directors
August 2004	New Canadian Fitness Safety Standards® launched with CanadianFitnessMatters.ca web site and <i>Safety Matters!</i> program
March 2007	Second awareness and compliance survey to be completed.

Safety Standards Awareness and Compliance in the Fitness Industry (2002)

A survey, funded by the Ministry of Citizenship, Culture and Recreation (MCzCR), was conducted with the industry. The purpose was to obtain baseline data with respect to the industry's awareness and compliance with the second edition of the Fitness Safety Standards and Recommended Guidelines.

A telephone survey was conducted with fitness practitioners across Ontario. The survey sample was taken across all sectors and all regions in the province. There were 340 successful surveys conducted between April, 1 – 12, 2002. Fifty-two percent of the respondents were aware of the Standards. Compliance varied from forty percent to eighty-six percent, depending on the specific standard. There was no significant regional deviation in the results. The full summary of the survey may be found in the Articles and Research Papers Appendix C-3.

The results of that survey were used to justify a grant submission to the Ontario Trillium Foundation in 2002. The objective of the grant proposal was to increase both awareness and voluntary compliance with the Safety Standards. OASES was successful in receiving a four-year grant in the amount of \$354,000 to review, revise and promote the new Standards.

Choosing the Review and Revision Methodology (2004)

The Fitness Safety Advisory Council (FSAC) agreed to revise the Standards and Recommended Guidelines using the Delphi Method. This Method had been used previously in 1999, when the second edition of the Fitness Safety Standards was reviewed. At that time, a panel of twenty-six experts participated in a "paper and pencil" process. Internet technology has made significant advancements since 1999, and the Council decided to develop an on-line survey and forum which allowed for input from fitness practitioners from across the country.

The Delphi Method

We would like to acknowledge the assistance and advice that was provided by Dr. Murray Turoff, Hurlburt Professor of MIS, Information Systems Department at the New Jersey Institute of Technology (NJIT). Since 1974, Dr. Turoff has been involved in the development and evaluation of Computer Mediated Communication Systems and associated investigations of group processes using the Delphi and Group Decision Support systems. Dr. Turoff has been the designer of a significant number of successful Delphi studies and is responsible for the development of the Policy Delphi structure. He also developed the first Computerized Conferencing System.

Fitness Safety Standards Review Process Using the Delphi Method

The Delphi Method used in the 2004 Standards Review was a written communication process that employed a series of surveys (with discussions between surveys), to help arrive at a consensus decision within a group of interested stakeholders. The survey questions were tailored specifically to two principal criteria for reviewing each standard and recommended guideline. These criteria were:

- 1) *relevance* as a safety issue
- 2) *feasibility* as either a required “duty of care” or recommended industry practice.

The Delphi methodology also provided survey response options for keeping, changing, or retiring a standard, as well as provisions for creating new standards. A series of up to three surveys on each standard or recommended guideline allowed groups with a common interest to eventually arrive at consensus, or determine that more work was needed before consensus can be reached. For a detailed description of the Delphi Process go to:

<http://www.is.njit.edu/pubs/delphibook/index.html#toc>.

Forum Moderators, with expertise in specific areas were recruited to facilitate the survey and forum process. The six areas for the survey and forum were:

- Fitness Related Personnel
- Emergency Procedures
- Communicable Diseases
- Fitness Environment
- Pre-screening and Informed Consent
- Special Exercising Populations

Four surveys were originally scheduled between May and June 2004, however consensus was reached with the stakeholders after three surveys were completed. At the close of the first survey there were 308 registered members in the survey database. The surveys received a varied number of responses ranging from one to over fifty replies. The results of the surveys and forum comments may be viewed at <http://forum.oases.on.ca/users/login.aro>. The login and user password are the same. Simply type in the word “Demo” in both fields, and the Forum Archives and Survey Results may be viewed.

The following questions were asked for each Standard. A sample of a survey questionnaire may be found in the Articles and Research Papers Appendix C-4.

1. How IMPORTANT/RELEVANT is the Standard as a fitness industry safety practice?
2. How FEASIBLE/WORKABLE is the Standard as a fitness industry safety practice?
3. NOW WHAT? Should the Standard be:
4. SUGGESTED CHANGES: What change(s) would you suggest for the Standard?
5. NEW PROPOSAL: If the Standard has prompted you to suggest a new, but closely related Standard or Recommended Guideline in this topic area, it would be to create:

Survey/Forum Respondent Demographics

With the exception of fitness suppliers, all occupational focus categories were represented in the survey and forum respondents.

The “Occupational Sectors” represented were as follows:

- Commercial
- Charitable
- Education
- Hospitality
- Martial arts
- Municipal
- Workplace

The “Occupational Focus” within each sector represented were as follows:

- Facility manager/administrator
- Program manager/administrator
- Fitness consultant/personal trainer/coach
- Fitness industry supplier
- Group fitness instructor
- Educator/researcher
- Allied health professionals

The majority of members participating in the on-line survey and forum were from Ontario; however, there was representation from both western and eastern Canada. There were numerous comments posted on the forum for members to read and respond to prior to the next round of survey questions. A consensus was reached where there was a minimum of 30 votes on a particular question, with 67% agreement on that question.

Following each survey and forum, the Moderators met with the FSAC Chairman, and the OASES Executive Director. Each Standard and Recommended Guideline was discussed, and based on the forum comments and the survey results it was determined which questions had reached consensus and which questions needed to be posted again and/or revised.

Three Reviewing Filters Employed

The on-line forum and surveys took place over a period of three months. This was the first “filter” or level of the standards review process. The second “filter” took place when the forum was adjourned. In late June 2004, the forum moderators met to review and synthesize the results for each of the six areas. This was followed by a meeting with the Fitness Safety Advisory Council to vet their recommendations and obtain approval. The third “filter” took place in August 2004 when the FSAC recommendations were presented, vetted and eventually approved by the OASES Board of Directors.

Major Differences between the 2nd and 3rd editions of the Fitness Safety Standards

At the completion of this process there were two significant changes to the document:

1. The name changed from the Ontario Fitness Safety Standards to the Canadian Fitness Safety Standards®, as input to the revisions was received from across the country.
2. Previously there were eight sections, with a total of eighteen Standards and eighty-two Recommended Guidelines. Of those eighty-two Guidelines, forty-three were in the area pertaining to the construction, operation and maintenance of fitness related environments. In the third edition there are now six categories with a total of twenty Standards and twenty-six Recommended Guidelines. Many Recommended Guidelines were combined together, and some no longer applied and were therefore removed. Any building codes that were previously Recommended Guidelines automatically became a Standard.

The revised six categories are:

- Fitness Related Personnel
- Pre-Screening and Informed Consent
- Special Exercising Populations
- Emergency Procedures
- Communicable Disease Prevention
- Fitness Related Environments

2007 Survey

A final on-line safety standards awareness and compliance survey of the fitness industry will across Canada will be completed by March 2007. The purpose of the second survey is to determine if awareness of, and compliance with, the Canadian Fitness Safety Standards® has increased. The results of the survey will be posted on the CanadianFitnessMatters.ca web site.

Makes Good Business Sense

Prudent operators are already providing safe fitness environments. They are meeting the safety needs of customers and staff while balancing economic and operation resources. Beyond meeting the moral commitment to provide a safe environment to consumers, they know that looking out for the welfare of their clients makes good business sense. By planning ahead and adopting a comprehensive safety target based on voluntary compliance, they will be better prepared to prevent injury, and the organization can benefit as well.

Benefits of Compliance

Meet Consumer Expectations

Consumer expectations are changing. The public expects more from fitness facilities and programs. The issue of safety is growing in importance in the minds of fitness consumers. With more and more public information available about how to

choose a safe fitness facility or program, these expectations will only increase. Members are now concerned about staff qualifications, emergency procedures, the spread of communicable diseases, exercising in a safe and clean environment, and being screened for health risks.

Market Safety Strategy

An effective safety strategy can help to develop confidence and foster loyalty among clients and staff. By ensuring that the facility's strategy is visible, and that the actions of the staff during an emergency are appropriate to the situation, the negative effect upon the victims and bystanders will be lessened. React appropriately, and goodwill will be fostered – a valuable tool in marketing the services of the facility to current and future clients. Act inappropriately and the facility and staff will stand to lose the confidence of the members.

Enhance Public Image

By establishing safety standards and developing a strategy that will help put these standards in place, the facility will stand apart from those that are not consumer focused. To assist with this promotion, a program entitled *Safety Matters!* was designed to recognize facilities across Canada for their compliance with the Canadian Fitness Safety Standards®. Further information on this recognition program is within this document, and a facility application form may be found in the Forms Appendix B-1.

Meet Legal Responsibilities

The Canadian Fitness Safety Standards® are not legislated. However, in so much as they are current and reflect accurate safety measures needed to protect clients, staff and others, it is likely they will be used to gauge safety operating practices in legal proceedings. Liability can best be avoided by taking all practical precautions in the design and operation of a facility or program.

The proactive approach of including safety in an overall operating strategy will better serve the customers, improve public image, protect clients, staff and guests from injury and in doing so meet legal and moral responsibilities.

(adapted from Fitness Safety Standards Workshop Workbook , 1990)

A Voluntary Approach to Increase Awareness and Compliance with the Standards

Two new products were developed by FSAC to encourage voluntary compliance with the new Canadian Fitness Safety Standards.



CanadianFitnessMatters.ca

1) The New Web Site: CanadianFitnessMatters.ca

This web site houses a registry of over 10,000 fitness and health related facilities across Canada. It is Canada's first online fitness facility directory. It is a shopping guide to fitness facilities, designed to help consumers make informed choices about important fitness matters.

It allows owners or directors to register their facility, free of charge, and provide information on the services and amenities that are offered at their facility. Once registered, the facility may then apply for recognition of compliance with the Canadian Fitness Safety Standards®, through the *Safety Matters!* program.



2) The New Facility Recognition Program: Safety Matters!

Safety Matters! is a program that recognizes facilities that are in compliance with the Canadian Fitness Safety Standards®. Facilities that are recognized for their compliance receive many benefits:

- Premium placement on the web site
- Safety recognition icon, designating the facility is recognized for their compliance
- A web link to their facility's website
- A 50-word ad to promote their facility
- Certificate, poster and door decal promoting their recognition
- The preferred placement on the web site would look similar to this sample listing:



Your Club

Someplace

424-222-222

Website: www.yourclub.ca

Email: info@yourclub.ca

Your club is a 25,000 square foot family fitness and sports centre offering personal training, group fitness classes, basketball, tennis, weight, and cardio rooms and group programs.

A retail store, "Smoothie" Bar, and babysitting services are on site. Annual memberships are available. Visit us for a tour of our facility.

When consumers are shopping on CanadianFitnessMatters.ca for a fitness facility in their geographical area, those facilities that are recognized for their compliance with the Safety Standards will be at the top of page, with a large ad promoting their facility. Consumers will more than likely pursue membership at a "recognized" facility over one that is not compliant with the safety standards.

The *Safety Matters!* facility application form may be found in the Forms Appendix B-1. It is also available on the web site at www.CanadianFitnessMatters.ca.

Canadian Fitness Safety Standards® Facility Audit

Commitment is the first step in moving towards compliance. The owners/operators/ directors and staff must be committed to the process and value the importance of providing a safe environment for their clients.

The *Canadian Fitness Safety Standards® Facility Audit* has been designed to help fitness service providers assist in determining how compliant a facility is with the Canadian Fitness Safety Standards®. The audit may be done by in-house staff or by a trained auditor.

This comprehensive tool lists the current twenty safety standards and twenty-six recommended guidelines. The audit process includes a full inspection of the facility identifying the degree of compliance to the Canadian Fitness Safety Standards® and Recommended Guidelines, with a rating as follows:

- 1) SM = Standard met
- 2) WT= Working towards standard
- 3) NP= No plans to practice standard
- 4) NA= Standard not applicable to facility

The auditor simply checks the appropriate box beside each standard as it relates to the facility, and then adds up the score at the end. The recommended guidelines are also included as a reference, but are not used when applying for the *Safety Matters!* facility recognition. When the audit is completed it will provide the staff with a starting point to work towards compliance.

A staff person may complete the audit process, however, if an auditor were hired, they would also be able to offer recommendations on how to achieve compliance where necessary.

The Facility Audit tool may be found in the Forms Appendix B-2.

Consumer Education: How to Choose a Quality Fitness Facility

A checklist brochure was developed to assist consumers in choosing a quality fitness facility. There are four sections in the checklist, which highlight specific qualities in a fitness facility, relating to that section. (i.e. facility, staff, programming, fees). The consumer may simply ask these questions to the staff member, and then determine which facility they wish to join. A sample of the checklist may be found on the web site at www.CanadianFitnessMatters.ca or in the Forms Appendix B-3, B-4 (French).

Standards Are Relevant to a Variety of Facilities

One of the objectives in the all three of the review processes was to establish safety standards that would pertain to a variety of fitness related services. Examples of such facilities, services and programs are noted below, but are not limited to only those noted in the chart.

Public/Private/ grams	Educational Institutions	Community Facilities	Fitness Services & Pro-
Commercial Centres			
Condominiums,	Pre-Schools	Church Halls	Clinical Exercise Programs
Apartments & Rentals	Elementary Schools	Community Centres	Employee Fitness Programs
Corporate Fitness Ctres	Secondary Schools	Rental Facilities	Holistic Health Offerings
Dance Studios	Private Schools	Sr. Citizen Centres	Master's Athletic Programs
Golf and Country Clubs	Colleges & Universities	Youth Clubs	Personal Fitness Consulting
Hotels and Motels			Pre-Natal and
Not-for-profit Agencies			Post-Natal Classes
Public Fitness Clubs			Wellness Programs
Private Fitness Clubs			
Resorts and Spas			
Sport Specific Studios (karate, tae kwon do, etc.)			

References

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<http://web.njit.edu/~turoff/>
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www.njit.edu. 2003

Chapter 2

Fitness Related Personnel

Patricia Clark

Preamble

The issue of certification has been discussed since the early 1900's with respect to creating professionalism in the area of leisure services, as noted in an article by Markham-Starr in 2005. But what exactly does "professionalism" mean? Boone discusses the importance of understanding this term, and believes that professionals must have the following:

- i) a code of ethics, by which they follow
- ii) a commitment to life-long learning, fairness and truthfulness
- iii) an attitude of respect and accountability, to clients, colleagues, and society.

In the early 1980's there were many excellent models developed in North America for the training and certification of fitness related personnel by organizations such as;

- American College of Sports Medicine
- Canadian Society for Exercise Physiology
- National Strength and Conditioning Association
- YMCA and YWCA of Canada, and many more.

The certifications are very specific to some, but not all of the services that are required in the fitness industry. The criteria for entry into such programs are not consistent. Some require a university degree, and many do not. The knowledge and competences required to be awarded certification also varies considerably from one agency to another.

In the mid 1990's, based on the work of the now defunct National Fitness Leadership Advisory Committee (NFLAC), there was a national standard for the basic fitness leader and specialty fitness leader. In the early 2000's the committee reformed under the name of National Fitness Leadership Alliance (NFLA). The organization is a group of provincial not-for profit organizations within Canada, who are dedicated to developing national certification standards for fitness leaders.

There has been an exponential growth of certifications developed over the past ten years in Canada and the United States. This is an issue for all professions, not just the fitness industry. We are not alone with our concerns of ensuring that quality certifications are being offered to fitness practitioners. The issues noted in an article entitled "Computer Criticisms" also relate to the fitness industry.

- i) There is a tremendous growth in the number of related certifications.
- ii) There is relative ease to obtain many of these certifications which has led to their "devaluation" in the minds of many people working in the field.
- iii) Exams are available on the Internet, which may allow an individual to obtain a certification without the necessary knowledge or understanding.
- iv) Some certification agencies have included practical tests.

v) Some organizations may simply raise their fees for certification, in an effort to reduce the number of re-writes, and increase their profit with each participant.

McDougall wrote an article in Men's Health Magazine in 2005, entitled "An Exercise in Insanity." He discusses the issue that there are thousands of unqualified individuals working as personal trainers. He states that there have been many incidents where people have been hurt. But his point of the article is that there needs to be an awareness of what makes a good certification, and employers need to be aware of who they are hiring on as staff.

In an article in Fitness Business Canada in 2004, Clark suggests specific criteria that should be considered by a fitness practitioner when choosing an organization for their certification:

- i) Program Quality
 - Are there pre-requisites for the course?
 - Is the exam process validated?
- ii) Certifying Agency
 - What is the history of the organization?
 - Do they offer national or provincial certification?
 - What are the qualifications of their instructors/trainers?
 - Are they not-for-profit or for-profit?
 - Do they administer both the training and certification?
- iii) Certification Process
 - Are the courses accessible?
 - Are the costs reasonable?
 - Do they provide insurance for members once certified, and if so, at what cost, and what coverage?
 - Do they offer continuing education opportunities?
 - Do they require recertification, and if so what is the process?

Nogradi wrote about the impact of certification for Parks and Recreation. The results from his survey of practitioners, breaks down the key elements in certification and the benefits associated with the certification process.

Valued Key Elements in a Certification Program:

It is *very* important that the certification program include:

- continued learning requirements
- standards for acceptable performance and ethical practice
- clearly stated primary purpose and mandate for the profession
- work experience
- academic achievement

It is *quite* important that the elements of a certification program include:

- competencies in terms of specialized knowledge, skills, and abilities
- clearly defined scope of practice
- objective measurement of competence
- penalties and sanctions for violating standards
- provisions for limiting entry to the profession to those certified

Valued Benefits associated with the Certification:

It is *very* important that the certification:

- demonstrates to others the need for specialized skills
- provides evidence that a certified person is competent
- promotes continued learning

It is *quite* important that the certification:

- promotes successful performance on the part of the practitioner
- guides employers regarding hiring practices
- provides legal support
- provides liability insurance
- protects jobs for those who are certified

Of most importance however, the respondents to the survey wanted the certification to provide them with the recognition for their competence, achievement and effort.

With all the concerns and issues that have been raised about certification, has it been worth it and have we improved the industry? Humble, in his article “Certifiably Worth It,” comments that the “benefits of certification are endless,” and that all stakeholders must participate in the promotion of the certification process. The benefits of certification according to this author are:

- i) to continue to learn in the profession with continuing education
- ii) to professionally better oneself
- iii) to increase employability
- iv) to have the ability to interact with other professionals in the same field of interest.

The author continues to write that in addition to personal benefits, there is also an external benefit, which is that the “commitment to validate what we are doing through a certification program is critical to enhancing the profession.” But to achieve success it involves a unified effort by all stakeholders, who include supervisors, employees/practitioners, educators, and associations/agencies.

The sentiments of Humble are echoed by an article published by Anderson, where he believes that a collaborative effort is needed to define examination standards and the scope of practice, particularly in the area of personal trainers.

In 1995, DuBois wrote an article entitled “Certification: How to Spot the Real Thing.” He believes that employers need to educate themselves on the difference in the certifications available in their areas. Some certifications stay current and are well-respected requiring the individuals to have a high level of competence and skill in order to become certified with that agency. For a price, any one can become certified. Although certification adds credibility to any program, the employer must look at the certification required by the individual job, and then decide which certification will best fit those needs.

The literature clearly validates the need for the certification of fitness practitioners, the role of the employer when hiring certified staff, and the issues surrounding the variety of certifications available to practitioners. This complex issue still requires extensive national consultation and eventual consensus among various Canadian training agencies currently offering professional fitness certifications. For this reason, FSAC and OASES determined that it was neither feasible nor within their review mandate to set and apply a comprehensive certification criterion that defined a personnel selection safety standard applicable across the diverse range of services offered with the entire Canadian fitness industry. This is an industry-wide issue that the FSAC and OASES hopes will be resolved by the industry itself so that a strong safety standard can be offered in a future edition.

Fitness Business Canada annually publishes a list of Certification and/or Training Organizations in Canada, which includes information about each organization and the programs that they offer. The 2006 publication lists 61 organizations across Canada. This is by no means an exhaustive list of all organizations in Canada. The publication may be found in the Articles & Research Papers Appendix C-5.

Standard #1

All fitness facility personnel and other fitness service providers shall be qualified in First Aid and CPR.

Standard #2

Fitness personnel shall be certified in the area with which they are providing program services (e.g. fitness appraisal, personal training, aerobic classes, aqua fitness classes, etc.)

Recommended Guideline #1

Where certification is not available, fitness personnel working with special exercising populations should participate in training programs specific to that population (e.g. pregnant women, seniors, people with disabilities).

Recommended Guideline #2

Training programs for fitness personnel should include information on participant screening, participant education and the risk of injury during physical activity.

Recommended Guideline #3

Training programs for fitness personnel should emphasize the important safety role of fitness personnel in instruction, supervision and monitoring of high risk activities or areas.

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Chapter 3



Blake Ferris, Ed. D.

Preamble

The Fitness Safety Advisory Council (FSAC) recognizes that regular participation in leisure time physical activity is a relatively safe behaviour for most people. Risks to health are minimal and benefits typically far exceed any harmful consequences when exercise is pursued within the skill and tolerance capacities of the average person. In fact, it could be argued that the risks of sedentary living are considerably greater than those associated with a regular and moderately active

lifestyle. The relative safety of exercise and the considerable free choice people can employ when doing various types of physical activity implies a degree of personal responsibility in order to prevent injury.

Accidents can easily result from a careless or cavalier approach to participation. Indeed, an individual may accept personal risks that are beyond those that another person would safely tolerate. For example, a beginning

Pre-Screening and Informed Consent

skier who chooses to ski on a trail marked for those with advanced skills is not exercising reasonable judgement. Similarly, one who has been sedentary for months or years is at increased risk to health when beginning an exercise program that is beyond the functional reserve permitted by the fitness of that person's anatomy or physiology. Regrettably, some participants will be less knowledgeable and responsible than others when personal risk is at stake. Thus perceptions of common sense and moderation as well as personal safety practices can vary considerably among people.

Regardless of an individual's responsibility, fitness service providers have an obligation to attempt to identify individuals who may be at a risk of injury for given types and amounts of physical activity. The Fitness Safety Advisory Council recommends that pre-activity screening is a necessary and reasonable first step in protecting the safety of consumers who intend to engage in formal individual/group fitness programs and other fitness related services offered by the industry.

The use of pre-activity screening procedures can help to identify people who may need medical clearance before exercising as well as those who would benefit from direct supervision or more specialized classes or programs. For example, people whose ability to participate in physical activity is limited due to illness, dis-

ability, special medical condition, age, recent surgery, pregnancy and medication, would be considered at higher risk than those not so affected. By following such procedures, the risk of client injury should be minimal.

The following standards are meant for application in those situations where risk of participation in physical activity can be influenced by the general health and fitness of the participant. At the very least, they should be implemented by the administration of a simple questionnaire before admittance to a formal program of physical activity. As such, no diagnostic intent is implied ... only the identification of potential conditions that could influence safe and enjoyable participation in physical activity.

Standards Related to Pre-Activity Screening

Two levels of pre-activity screening are proposed:

1. General screening to detect the presence of symptoms that warrant a medical evaluation before participation in activity.
2. Specific screening for clinical use by medical and allied medical practitioners for people who require special advice or precautions concerning their intention to undertake physical activity.

Two standardized forms are recommended for these two levels of screening. For general screening purposes, the Physical Activity Readiness Questionnaire, or PAR-Q, has been in use for over three decades. For more specific screening, the Physical Activity Readiness Medical Examination, or PAR Med-X, and the PAR Med-X for Pregnancy were developed to complement the original PAR-Q. They were designed to expedite physician referrals for those with positive response(s) to the PAR-Q and for those individuals who are pregnant and wish to exercise.

General Screening

The PAR-Q should be routinely administered by fitness service providers to individuals who:

- plan to have a physical fitness appraisal
- begin a membership in facilities offering physical activity / fitness programs or services
- enroll as non-members in individual or group physical activity / fitness programs or services that are appropriately matched to the functional fitness of the participant. A sample of the PAR-Q may be found in Forms Appendix B-5, B-6 (French version).

Specific Screening

It is the intention of the FSAC to encourage physicians to promote and prescribe physical activity as a legitimate, health enhancing behaviour. When indicated, physicians can encourage and guide their patients to engage in regular physical activity even though they may not have extensive medical training in exercise science. For example, courses in exercise physiology, exercise testing and prescription are not necessarily included in medical training programs.

The Physical Activity Readiness Medical Examination, or PAR Med-X, is one possible tool to assist physicians in assessing individuals at risk. Although it has never been tested on a physician population as to its validity and practicality, it is regarded by the FSAC as a reasonable guideline to consider.

Recognizing that physicians often require a variety of tools in making clinical judgments, the FSAC recommends that the PAR Med-X be widely available for physicians to use in situations where more specific pre-activity screening is indicated. This acknowledgement encourages a guideline for practice without restricting physicians from using other acceptable methods to evaluate the capacity of a person to engage safely in physical activity.

It is therefore recommended that the PAR Med-X be widely available to fitness service providers and encouraged for referral use by physicians in situations where specific, pre-activity screening is indicated either from a positive response to one or more PAR-Q questions or from other referral mechanisms. In addition, these safety standards and recommended guidelines for the screening of participants planning to engage in fitness related activities should be widely circulated to consumers, the fitness industry and medical and allied medical personnel. A sample of the PAR Med-X may be found in Forms Appendix B7, B8 (French version).

Informed Consent

The FSAC believes that consumers of the programs and services provided by the fitness industry be informed of the various risks associated with pursuing their choices. This information should be available to participants at any time upon request. For new clients enrolling for the first time in a program or service, it is recommended that a consent form be administered which incorporates the following principles:

1. **Description of Event** — The description should be a concise statement about the nature of the activity. For example, a weight-lifting club should set out the types of weights, machines, and types of instruction that are available; instructors if they are to be available, and any general policy that might exist with respect to that facility.
2. **Risk Warning** — This section should address some of the risks that might be inherent in the activity. Participants should be aware of the fact that rules and regulations will be posted in locations throughout the premises, and that instructors are available to assist if required.
3. **Informed Consent** — In this area the participants will acknowledge that they are aware of the nature of the activity and the risks involved. Notwithstanding the above, they agree, and have the ability to agree, to participate in the activity. This section would also indicate that they possess no known health reason for not participating in the activity.

In addition, the following considerations should be taken into account in constructing the Informed Consent Document:

- User friendly and easy to read and understand by the average person; informative but not cluttered with legal or medical jargon; short and simple.
- Ethical — does not intimidate the end-user nor require a voluntary surrender of that person's basic rights; is responsible and realistic.
- Widely applicable — can easily be used as a model for clubs or community recreation facilities; adaptable by fitness consultants who independently offer programs or services to the public.
- User focused — clearly states the general responsibilities and risks inherent in one's choice to participate in fitness oriented activities.
- Honest — specifies the intent and responsibility of the service provider and the potential limitations or capacities of the organization, staff and/or volunteers.

For those activities where risks specific to the activity can be detailed (e.g. SCUBA, martial arts, maximal exercise testing, etc.) it is recommended that these risks be made known to clients in advance of their first experience by writing an appropriate clause in the consent agreement. A sample of an informed consent agreement may be found in the Forms Appendix B-9. It may be used as a model from which to develop more specific consent documents for more widespread use in the Canadian fitness industry. It is important to point out that individual organizations should develop their own Informed Consent Documents specific to the activities they offer.

It is important to state that the adoption or use of this form should in no way absolve a fitness service provider or agency from their responsibility to identify the more common risks and related consequences associated with client participation at their facility.

The FSAC recognizes the administrative difficulties associated with presenting consent forms to clients every time they want to engage in an activity. Clearly, it is not administratively reasonable to do this for “pay as you play” customers who may not be members of a facility. The FSAC recommends that, as a standard, facility managers ensure that public signs are displayed that encourages new, casual and regular users to exercise caution if they are unfamiliar with either the activity or their current ability or fitness level. It is also advisable to have a sign-in system for all guests or a walk-in user that includes a paragraph at the top of each page in the sign-in log stating:

As a guest or casual user of this facility, I acknowledge and accept the risk of injury or medical problem that could arise from my participation in the programs and services provided or from any other use of the facilities. I also acknowledge that I have had the opportunity to undergo more detailed screening (the PAR-Q for example) for potential risks that I may knowingly or unknowingly have. I freely choose not to participate in such screening and hereby register with my full assumption of any such risks.

This Guest Sign-In Log form may also be found in Forms Appendix B-10.

Standard #3

Fitness service providers shall provide or require a pre-activity screening procedure (e.g. Par-Q or appropriate sign).

Standard #4

Facility operators and other fitness service providers shall inform participants of the risks inherent in physical activity participation and fitness facility use.

Recommended Guideline #4

Individuals planning to engage in physical activity should, at minimum, be screened by the Par-Q (Physical Activity Readiness questionnaire) and/or the Par Med-X (Physical Activity Readiness Medical Exam).

Recommended Guideline #5

Fitness service providers should encourage new or renewing members/clients to complete an Informed Consent Agreement before engaging in the programs and services offered.

Recommended Guideline #6

When an individual is screened out by the Par-Q from taking part in physical activity, medical clearance using the Par Med-X should be obtained before he/she takes part in physical activity.

Recommended Guideline #7

Facility operators should post public signs which encourage participants to exercise caution if they are unfamiliar with either the activity to be undertaken, or their current level of fitness.

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Chapter 4



Adapted from the original work of L. Wolfe, Ph.D.

Preamble

Many people need guidance to help prevent possible injuries related to exercise, and in particular strenuous exercise. There are certain groups such as pregnant women, older adults, and individuals involved in maximal testing, that are known to be a higher risk and require more intensive screening.

Special Exercising Populations

Pregnant Women

Women who are pregnant represent a unique population with special needs for exercise participation due to the following conditions:

- i) Their low incidence of Coronary Artery Disease.
- ii) The possibility of competition between exercising maternal muscle and the fetus for oxygen delivery, heat dissipation and glucose availability.

Moreover, conventional methods for fitness testing and exercise prescription may be invalid because of the considerable metabolic and cardio-respiratory adaptations that accompany pregnancy.

The information concerning exercise and pregnancy provided in this screening document is designed for expectant mothers, their physicians and their fitness professionals. It is based on the currently available scientific literature pertaining to exercise in pregnancy.

Many pregnant women would like to exercise, and healthy women with uncomplicated pregnancies should be able to exercise. Since the fetus and the mother's exercising muscle may compete for blood flow and oxygen delivery, it is essential that enough maternal physical reserve exists to satisfy the needs of both. Thus, it is prudent for women in poor health, or with a history of obstetric problems to forgo strenuous exercise. In addition, in the absence of specialized guidelines regarding exercise during pregnancy, some physicians prefer that their patients take a very conservative approach to exercise.

A medical evaluation with specialized counseling pertaining to exercise during pregnancy is strongly recommended for pregnant women considering an exercise program. The PAR Med-X for Pregnancy was developed to address this need.

Since there is no other screening device for pregnant women who wish to exercise, the FSAC recommends using the current version of the PAR Med-X for Pregnancy. A sample PAR-Med-X for Pregnancy may be found in the Forms Appendix B-11, B-12 (French version).

Older Adults

Older adults represent a large population with special needs for exercise participation. For example, beyond the age of 60 years, it appears that the maximal heart rate varies markedly and the use of age-predicted maximal heart rate may result in a predicted sub-maximal workload being maximal. Therefore, alternative methods should be explored for the evaluation of fitness and prediction of training intensities in the elderly (e.g. rate of self-paced walking).

Children and Youth

Children up the age of 12, and youth between the ages of 13 and 18, are frequently subjected to activities which require maximal performance, yet very little information is available concerning their pre-exercise screening.

Special Considerations for Maximal Exercise Testing of Apparently Healthy Individuals

Use of maximal exercise tests to evaluate the fitness of apparently healthy individuals is generally not necessary. Although maximal tests are more accurate, they involve greater risks than submaximal tests.

Standard #5

Fitness service providers shall recommend that pregnant women obtain medical advice regarding their participation in physical activity.

Standard #6

Fitness service providers shall recommend that individuals 70 years of age and over receive medical advice before initiating a physical activity program or increasing activity.

Standard #7

Maximal testing of individuals who:

- a) are not accustomed to regular strenuous exercise
- b) are males over 40 years of age or,
- c) are females over 50 years of age

shall be conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS (Advanced Cardiac Life Support).

NOTE: For the purposes of the above considerations, the following are some examples of maximal exercise tests: Cooper 12 minute run, CAHPER Youth Fitness Test, Wingate Cycle Test, Treadmill Test, etc.

Recommended Guideline #8

For all other individuals (not identified in standard #7), unsupervised maximal tests may be conducted, provided participants have, at a minimum, been screened for medical risks by the Par-Q or a physician.

Recommended Guideline #9

The Par Med-X for Pregnancy questionnaire should be utilized in pre-exercise medical consultations with pregnant women.

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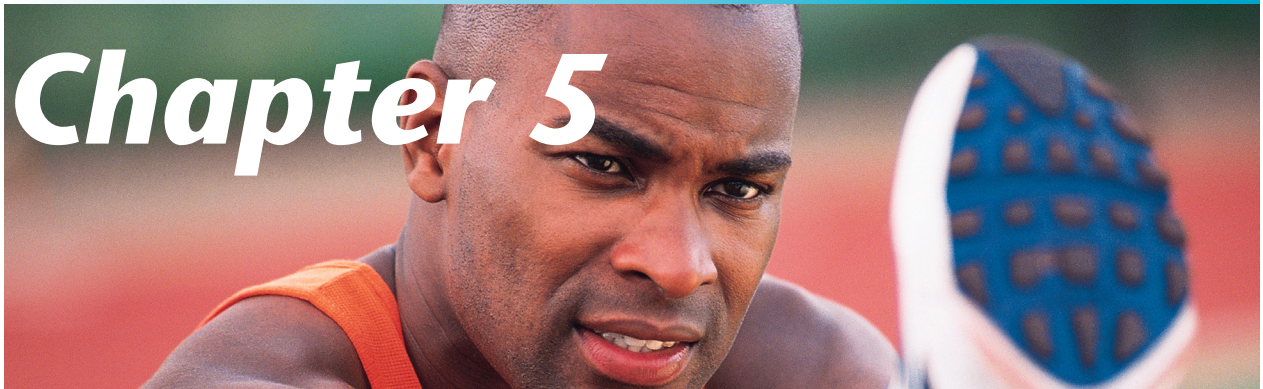
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Chapter 5



Adapted from the original work of R. Thomas, M.D.

Preamble

Inherent in the physical nature of the fitness revolution are the possibilities of an acute injury, the aggravation of a chronic problem, or even a life-threatening event. It is important, therefore, that appropriate procedures be in place to deal with potential emergencies. As well, within the fitness industry there are many non-physical activity factors which could predispose people to a need for emergency care; for example whirlpool baths, saunas, tanning beds, and lounges serving alcoholic beverages. Because there are major differences among fitness environments, both

Emergency Procedures

in facility design, and in the type of fitness equipment employed, it is the responsibility of the owner, operator and/or employees of a fitness facility to be aware of the specific risks associated with their facility and equipment and to have plans in place to deal with emergency situations. Furthermore, with the ever-growing societal interest in exercise, many special needs groups are becoming involved in fitness

activities and fitness personnel must be sensitive to the particular needs of these various groups.

The creation of a safe environment for fitness related activities is the legal responsibility of the fitness facility operator and fitness personnel. However, although they must be knowledgeable about emergency procedures and equipment, it is not the intention to require these individuals to become emergency paramedics. Creating a safe environment can be done through organization, documentation, education, appropriate equipment, and surveillance.

Organization

In any emergency situation, it is essential that an orderly progression of events be carried out to ensure that the victim obtains appropriate care as quickly as possible. For this to be done in an efficient and effective manner, any environment that offers fitness related activities should have in place an Emergency Action Plan (EAP).

Within the EAP, the roles of the individuals providing the basic care should be clearly defined. It is recognized that within different fitness environments, the number of these basic care providers may vary markedly. Therefore, the EAP must be tailored to the requirements of each individual facility. However, there are some common points that should be included in every EAP.

- There must be a “Charge Person” in control of the situation. This individual must take charge and assess the severity of the emergency. Depending on the

severity, the Charge Person may utilize local assistance, or decide that an ambulance should be called. The Charge Person, whenever possible, should stay with the victim until professional care is available. Ideally, two individuals within the fitness environment should be capable of assuming the responsibilities of the Charge Person at any time.

- If an ambulance or outside assistance is required, someone must be pre-assigned as the “Call Person.” The duties of the Call Person should be to know the location of all available telephones within a facility. Proximal to each phone should be an up-to-date, prepared list of numbers for the ambulance, fire department and police, and the location of the facility. In most areas 9-1-1 is the emergency number to call. The Call Person has the duty of meeting the ambulance or other professionals at the access entrance and directing them to the emergency site. It is also important that relatives of an injured participant be notified as to the nature of the problem and the location of the individual.
- Someone should be assigned the responsibility of controlling the crowd that may gather around the injured person during an injury situation. The “Control Person” should be prepared to keep spectators and participants from interfering with the Charge Person or the Call Person and recruit others in authority positions to help keep control over participants and spectators.

All duties within the EAP must be carried out in a calm and organized manner. Practice usually increases efficiency and effectiveness.

Documentation

In today’s society, proper documentation of an emergency event is the key to a successful defense against litigation where negligence is not involved. Furthermore, the possibility of preventing a serious injury or life-threatening event is enhanced by prior knowledge and documentation. Legally all documents must be maintained for a minimum of one year; however, it is recommended to keep all documents for a minimum of two years. Within the fitness environment documentation can be accomplished in a number of ways.

1) *Medical Information Form*: Pre-activity screening can be accomplished via the PAR-Q or the physician-completed PAR Med-X. However, there is also a need for a Medical Information Form, a sample of which may be found in the Forms Appendix B-13. This should be filled out by the participant prior to engaging in a fitness activity, and the form should be kept on record at the fitness facility. The form could be filled out at the same time as the PAR-Q. The fitness leader or consultant should review each participant’s Medical Information Form prior to the commencement of a fitness program. This would allow recognition of potential risks and/or limitations in certain fitness activities.

Another function of the Medical Information Form is to accompany the fitness participant to a doctor or hospital in an emergency situation. This would expedite the need for obtaining medical and biographical information. It is difficult to obtain this information when a patient is unable to communicate. It is important that all information on the Medical Information Form be kept up-to-date and confidential. The confidentiality of such information cannot be understated and must be handled with great discretion.

Based on the current privacy laws, it would be necessary to have permission from the client to release any medical information to a third party. Consent for the release of information to medical or paramedical personnel, in the case of a future

emergency, should be obtained on the Medical Information Form, and signed by the client or member, as stated in section 4.3.1 of the Access to Information and Privacy Act – Principles Set Out In The National Standard Of Canada, Model Code For The Protection Of Personal Information, Can/Csa-Q830-96. The Information and Privacy Act in the Freedom of Information Act is under provincial jurisdiction. Please refer to the following web site to ensure compliance with local laws and commissions (<http://www.justice.gc.ca/en/ps/atip/provte.html>).

2) *Incident Report Form*: It is obviously also of great importance that all incidents, accidents or emergencies are documented. This information should be used in the ongoing evaluation of the emergency procedures and equipment. Again, the confidentiality of this information is important. A sample Incident/ Accident Form may be found in the Forms Appendix B-14.

Education

All fitness personnel should have training in basic first aid and Cardio-Pulmonary Resuscitation (CPR), and there should always be one, or two (ideally) people present in a fitness facility who are certified in basic CPR. With the increasing participation in fitness activities, there has been an increase in soft tissue injuries and Sports Medicine Research has provided some insight into the prevention and treatment of such injuries. Knowledge of prevention strategies and basic initial care of these injuries must be part of the fitness personnel's education.


The special needs of the groups such as the physically and intellectually challenged can also be addressed through education of fitness personnel. A list of organizations and resources that can be used to assist in the education of fitness personnel in the initial care and prevention of injuries and emergencies can be found in the Supplement Appendix A-2. This education process must be ongoing with constant updating and re-certification.

Equipment

There is a minimum amount of first aid equipment that is required in emergency and non-emergency situations for use by qualified individuals. A list of recommended and optional equipment for these situations can be found in the Supplement Appendix A-3. However, it should be pointed out that for some fitness venues, standards for equipment are already in place. For example around a pool, the Public Health Act stipulates what equipment is needed. Due to regional variations of ambulance response time, distance, and local conditions, the listed optional equipment may be useful.

The majority of the equipment has been chosen in order to give initial care for fitness related injuries. Rubber gloves should be compulsory in all facilities dealing with body fluids such as blood, urine and feces. Note that despite the concern of contracting a communicable disease, the use of an airway is not recommended for basic CPR.

All equipment should be readily available in an easily accessible location known to all qualified personnel. It must be easily transportable to the scene of the injury or accident within the fitness facility and it must be checked on a regular basis and re-stocked and updated as necessary.



The available use of Emergency Automatic Defibrillators (EAD) is ever increasing and is certainly recommended for public facilities. However, at the time of the third edition revisions, EADs were not necessarily “financially feasible” for all facilities, and therefore they were not included in the current standards and recommended guidelines.

Surveillance

Even though a system of standards for emergency procedures and equipment is in place, one cannot assume that it is working well. There has to be one or more agencies that monitor the situation at both the local and provincial levels. To facilitate the monitoring, standard reporting forms could be used in all fitness facilities. This would enable monitoring agencies to assess both positive and negative trends in the fitness industry.

Standard #8

Facilities and other environments in which fitness related activities are offered shall have in place an Emergency Action Plan which shall be practiced twice per year and reviewed with all new staff at the commencement of their employment.

Standard #9

All injuries, accidents or emergencies in fitness facilities and other fitness related environments shall be documented in writing and retained.

Standard #10

A designated complement of First Aid equipment shall be readily available in fitness facilities and other fitness related environments.

Standard #11

Immediate access to in-house first aid services must be available from qualified personnel. Contact information for external medical services (e.g. ambulance, hospital emergency phone numbers) must also be posted and phones readily accessible in all high risk/injury areas (e.g. pools, fitness testing, and free weight areas).

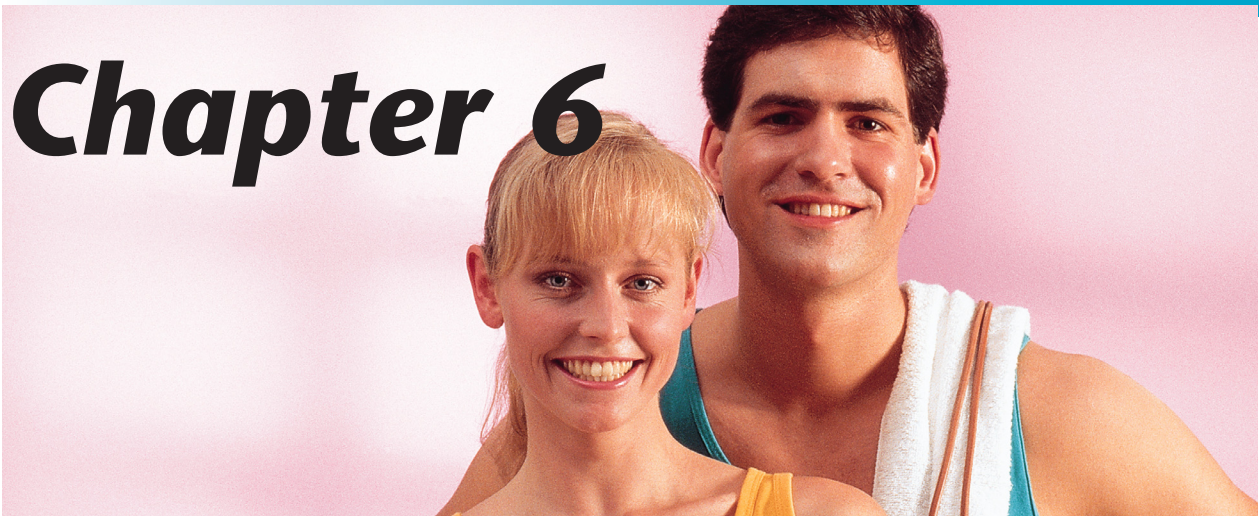
Recommended Guideline #10

In combination with the Par-Q, the participants should have the option of completing a pre-exercise Medical Information Form to 1) recognize potential risks or limitations 2) advise EMS or hospital personnel when providing treatment.

Recommended Guideline #11

Safety signs indicating emergency procedures should be posted in all activity areas.

Chapter 6



Adopted in part from: Communicable Diseases Policy, Ministry of Correctional Services, Ontario, 1989.

Revised by B.Grisdale, MSc., DC, A. Popadopoulos, MBA, CPHI(C)

Preamble

A communicable disease is a disease which may be transmitted directly or indirectly from one individual to another in the following ways:

- through contact with blood, urine, feces or other bodily fluids
- by air-borne droplets through coughing and sneezing or,
- via environments in which micro organisms can thrive such as unsanitary locker rooms, and damp towels.

To safeguard the employees and clients of fitness facilities from the spread of communicable diseases, the FSAC recommends that individuals use a common sense approach in conducting their fitness activities. If an employee or client

is suffering from an illness, they should excuse themselves from work or fitness activities.

Most communicable diseases are preventable. The practice of good hygiene (from the simple practice of hand washing to more intensive tasks such as cleaning facilities) is an important part of primary prevention. Due to the nature of the fitness facility environment and the proximity of fitness class participants to one another, some communicable diseases have the potential to spread unless appropriate procedures are followed by fitness facility employees. It is also important that adolescents, adults and older adults who are either participants or employees, have up-to-date immunization booster shots in accordance with recommended health practices set out by the Ministry of Health.

During the past five years, the issue of communicable diseases has presented a unique challenge to the delivery and consumption of public and private services. Operating procedures for communicable diseases have changed to the extent that a "new normal" now exists with regard to the duty and obligation on the part of service providers. Failure on the part of service providers to maintain adequate safeguards will undoubtedly have legal and monetary penalties to reflect the potentially devastating impact on public and individual health.

Communicable Disease Prevention

Given these changes it is not difficult to see how a sneeze at the gym can now be viewed in a very different context, by us all. It is advisable for fitness service providers to re-evaluate their role in the management of communicable diseases in their fitness facilities. This is because, by definition a “new normal”, changes the context of standards, guidelines and operating procedures.

Considering feedback from the fitness industry and experts in public health, the FSAC and OASES have set about to recommend the minimum steps necessary to maintain an acceptable communicable disease standard of “awareness, prevention and control” to meet the requirements of the new standard in this document. Recognizing that the challenge to meet minimal standards of competence acceptable under the current legislative and public health framework, also had to be realistic and economically feasible, we have outlined below a *two-step level of awareness and control that could assist in prevention* of further disease dissemination and therefore constitute a reasonable and minimum set of procedures to meet the new Standard.

First Step - Awareness

Personnel should be aware of general signs and symptoms of acute disease that indicate someone is ill and a possible source of infection. Personnel should be able to detect, in the facility environment, individuals who are obviously unwell or identify sources and sites of infectious agent transmission or operating procedures that could be a source of risk.

Straightforward signs and symptoms of illness which one can observe include individuals who are/or demonstrate:

- coughing/sneezing
- skin discoloration
- signs of distress that can be categorized as mild and manageable without need of intervention
- those who are unusually lethargic or make frequent trips to the washroom etc.,
- individuals who demonstrate signs of functional limitation up to and including disorientation and collapse.

In general, the transmission of infectious agents can be categorized into two general groupings:

- 1) the most common, via person-to-person contact (common source exposures such as sharing/touching) and airborne-droplet spread
- 2) the least common and more dangerous, through direct contact with blood and bodily fluids.

Clearly, the level and type of communicable diseases present in the fitness facility environment could be characterized by the more common non-enteric (non-bodily fluid exchange) methods such as airborne-droplet spread and sharing/touching amongst infectious individuals. Nevertheless, familiarity with both general methods of infectious agent transmission should be part of a reasonable program of awareness, prevention and control in fitness facilities.

Ten Signs and Symptoms of Acute Infectious Disease

1. Coughing, Sneezing
2. Temperature -- fever, chills
3. Vomiting
4. Diarrhea
5. Wounds, open sores
6. Myalgia – (muscle pain not activity related)
7. Numbness and Tingling (not injury related)
8. Balance Difficulty
9. Vision Changes
10. Disorientation

Second Step – Control

Personnel should demonstrate an awareness of a *modified set of universal precautions* (infectious disease control guidelines) that are specific to personnel working in fitness facilities.

Six Universal Precautions

Specific details for Fitness Facilities may be found in the Supplement Appendix A-4.

1. Hand washing
2. Use of appropriate barrier techniques
3. Cleaning and sanitizing
4. Proper disposal techniques
5. Not sharing personal items
6. Report exposures

Access to Programs

Regardless of health status, participants should not unreasonably be denied access to fitness programs. Instructors should tell participants who are visibly sick to remove themselves from participation and advise them that returning home is in everyone's best interest.

Fitness Testing Precautions

Fitness appraisals should not normally be conducted on participants known to have a communicable disease. Clearance for such individuals should be given by a physician. Blood samples for the purpose of a fitness appraisal, should be conducted only by those who are qualified to do so, and have knowledge of the aforementioned precautions.

Standard Procedures for Infection Control

What follows is a review of standard guidelines and procedures with regard to infection control as provided by the Canadian Center for Occupational Health and Safety. <http://www.ccohs.ca/oshanswers/prevention/ppe/universa.html>. A modified set of procedures suitable to fitness facilities are highlighted in the boxed text.

Infectious diseases are caused by viruses, bacteria, parasites and fungi. These organisms can be spread from person to person through:

- blood and other body secretions
- droplets breathed, sneezed or coughed out of the nose or mouth
- skin-to-skin contact
- sexual contact.

Universal precautions are infection control guidelines designed to protect workers from exposure to diseases spread by blood and certain body fluids.

The Laboratory Centre for Disease Control, Health Canada and the U.S. Centers for Disease Control have developed the strategy of “Universal Precautions” to prevent contact with blood and body fluids— (specifically semen, vaginal secretions, synovial fluid, cerebrospinal fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid), which are clearly not typically a source of exposure in fitness facilities.

Universal precautions do not necessarily apply to materials that fitness facility personnel may more commonly come into contact with such as: feces, nasal secretions, sputum, sweat, tears, urine, vomitus, saliva. However, a reasonable and responsible approach is as follows: when it is difficult to identify the specific body fluid or when body fluids are contaminated by blood, universal precautions should be applied. When in doubt – take the safest approach.

What are the Universal Precautions?

1. Personal Protective Equipment (PPE) – The purpose of PPE is to prevent blood and body fluids from reaching the workers’ skin, mucous membranes, or personal clothing. It must create an effective barrier between the exposed worker and any blood or other body fluids. PPE includes, but is not limited to, gloves, lab coats, gowns, shoe covers, goggles, glasses with side shields, masks, and resuscitation bags.

Fitness facilities should have reasonable PPE available (such as protective gloves) to ensure that an effective barrier between the person and the potentially hazardous substance can be established.

2. Work practice controls – These refer to practical techniques that reduce the likelihood of exposure by changing the way a task is performed. Examples of activities requiring specific attention to work practice controls include:

- hand washing
- handling of used needles and other sharp instruments
- contaminated reusable sharp instruments
- collecting and transporting fluids and tissues according to approved safe practices.

Fitness facilities should have a set of general safety/infectious transmission management policies and emergency procedures that are available and periodically reviewed by facility personnel. Routine infection control tasks are to be reviewed and altered to ensure practices are using the best available techniques to protect fitness facility employees. For example, a more recent common practice of providing alcohol-based sanitizing gel dispensers is being used in many public/ private facilities.

Standards of practice in this regard should be regularly reviewed and corroborated with current clinical and public health standards; for example, recognition that a publicly available tissue dispenser or re-usable equipment “wipe-rags” that are not cleaned or regularly replaced could, ironically, be a source of infectious agent transmission.

3. Engineering controls – refer to methods of isolating or removing hazards from the workplace.

Fitness facilities should have a set of operating guidelines with regard to disposal of suspected contaminated materials. These guidelines are to be reviewed and altered to ensure practices are using the best available controls to protect fitness facility employees.

A “Training Outline for a Communicable Disease Management Strategy” was developed for the training and education of fitness practitioners. This document may be found in the Supplement Appendix A-4.

In the previous guide book, there was one Standard and three Recommended Guidelines. These have been revised into one single Standard, in one sentence. The purpose of the change was to improve the clarity of the Standard.

Standard #12

Fitness service providers shall provide employee training pertaining to the awareness, prevention and control of communicable diseases.

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Public Health Division and Long-Term Care Homes Branch Ministry of Health and Long-Term Care October 2004. http://www.health.gov.on.ca/english/providers/pub/pubhealth/ltc_respoutbreak/ltc_respoutbreak.html

Chapter 7



*Revised from Construction, Operation and Maintenance of
Fitness related Environments, FSSC Guidelines 2000*

Preamble

The Fitness Safety Advisory Council has developed the following standards and recommended guidelines for improving the safety of fitness related environments. Notwithstanding the recommendations below, the FSAC does NOT consider this section of this document to be an exhaustive coverage of safety issues related to the construction, operation and maintenance of fitness facilities.

Fitness Related Environments

Buildings

For the purpose of this section of the book, the term “fitness facility” is synonymous with fitness related environments. This includes buildings, structures, playing fields and physical plant annexes which are generally (but in some instances not exclusively) used for fitness related activities. All facilities should conform to the Federal and Provincial Building Code as deemed by their classification. Facilities should also conform to their Provincial Fire Code. Provincial contacts are referenced in the Supplement Appendix A-5.

Given that many facilities were constructed during a period of time when many of today’s Building and Fire Code regulations were not yet in effect, it is recommended that every effort be made to upgrade facilities to meet presently existing standards.

Another facility that may be adjacent to a playing field is a field-house or dressing room structure. The construction and operation of these facilities should follow the same general procedures as outlined for buildings and structures.

Playing Fields

Playing fields are usually multi-purpose in nature. Many of these standards and recommended guidelines apply equally to tracks, vita parcours and bicycle paths.

Inspections

Due to the variety of activities that take place on such surfaces, inspection of the grounds is essential. Inspection should include the removal of debris such as broken bottles, soft drink cans, and other sharp objects. Fields used for football or rugby may incur hazardous divots in the grassed surface.

Proper grading

The grading of a field is necessary for many reasons:

- To allow for adequate drainage to run from a high centre to a low sideline.
- To design the playing field to have an upward graded embankment surrounding it in order to provide the added stopping power of gravity by making the person run up a graded surface.
- In the case of a buffer zone, it should allow for a run-off area from the playing field's sideline area to any public or private thoroughfare.

Lighting

If activities are planned for dusk and non-daylight hours, proper lighting is also essential. Lighting intensity is measured in candle power, and this intensity varies depending on its use. Professional expertise is usually sought when a facility is to be illuminated for dusk and non-daylight use.

For additional information on illumination measurements, refer to the Supplement Appendix A-6.

Racquet Courts

Potential hazards exist with some glass walls in racquet courts. The particular hazard is found with the glass court doors. When a body comes into contact with the glass court door, the gap between the door and the actual wall increases. Should a player's hand be in the area of the enlarged gap, the potential for pinching fingers and possibly severing fingers does exist. Providing a cover molding around the gap would prevent fingers from accidentally entering. There is a glass wall adaptor kit available which can fit most glass door openings. All glass-backed court facilities should be examined regularly to determine the potential for injuries resulting from excessive gapping of glass doors upon impact. Owners of such facilities should investigate and install an appropriate safety measure to protect the court player from such injuries. Doors to courts should open inward to avoid potential collision with a passer-by and allow for quick evacuation in an emergency.

Flooring

There is a concern arising from the number of injuries to ankles, knees, and hips being reported by participants in racquet games. As such, flooring is a primary concern and the surface of racquet courts should be constructed with shock absorption in mind. A sprung wood floor is preferable. The texture of the floor finish should limit the amount of slipping during normal use, along with the use of proper footwear by participants. Routine cleaning also helps to ensure the floors retain a non-slip condition.

Walls

The walls of a racquet court should be constructed of materials that can withstand high impact forces (body slams, ball impact, racquet frame impacts) and

will not break, chip, crack, splinter or shatter under normal use related to racquet sports. Regular inspections and repairs should be part of routine maintenance procedures.

Lighting

Lighting is very important for an enclosed area such as a racquet court. Participants must be able to see the ball clearly. A minimum of 50 foot candles or higher is standard for lighting and lights need to be protected from ball impact. Each court should also be equipped with an emergency lighting system to provide instant illumination sufficient to allow safe exiting of a court, and court access corridors.

Ventilation

There is concern over proper ventilation and temperature conditions within racquet courts. Air exchangers would be the ideal for keeping fresh air circulating in court areas, however many courts are of a subterranean nature, or do not offer immediate access to a roof area for air duct installation. The cost for air exchangers may be prohibitive and, as such, they are to be considered only as an option at the discretion of the facility owner/operator. However, air circulation can be accomplished with protected ventilation fans placed in the upper reaches of courts where the ball would normally be considered out-of-play. The temperature of a court area usually reflects the individualized preference of participants and a need to environmentally control multiple court areas. Individualized climate control of racquet courts is not economically feasible. An average room temperature of 18-20 degrees centigrade is the norm for court facilities.

Equipment Related to Racquet Sports

Potential for injury exists as a result of participants using faulty equipment, or the improper use of equipment. Eye guards are essential and must be approved by the Canadian Standards Association. Racquets which are cracked, splintered, or shattered should not be used. Facilities that rent equipment should examine equipment before it is given out and after it is returned. Use of non-slip grips and proper grip sizing are recommended.

Gymnasiums and Exercise Rooms

Hazards

Fire extinguishers or electrical panels that pop open may be very hazardous for participants in the room, and must be covered or removed.

Flooring

Flooring is a primary concern given the number of back and leg injuries experienced by participants in exercise classes conducted in such facilities. Where possible, exercise room floors should be constructed of a shock absorbing material such as ballistic rubber overlay or sprung wood (1" thick plywood). Where floor quality is not adjustable to the above standard, exercises should be structured in order to minimize movements that create forceful impacts to feet and legs when contacting hard floors. If possible, high density foam should be employed to reduce impact. Footwear selection (specific to the activity involved) can also reduce the possibility of impact injuries. Flooring should be inspected before each use for loose material, foreign objects etc.

The Deutsches Institut für Normung (DIN) suggest six criteria that should be met for multiuse exercise floor areas. For additional information on the DIN Floor Standards, please refer to the Supplement Appendix A-8.

Ventilation

Environmental control in exercise facilities is very important. Exhaustion due to excessive sweating which causes body fluid depletion is a concern. This condition may lead to other complications. All exercise rooms should be equipped with proper ventilation and air conditioning systems. Maximum temperature should not markedly exceed 20 degrees centigrade. Programming should be modified appropriately during conditions of extreme heat and high humidity.

Accessibility to a water supply (water fountain, bottled water, or washroom facility with sinks) is also essential.

Group Exercise Class Size

Overcrowding of classes is a major concern as it poses a major hazard to the performance of exercise, and inhibits safe enjoyment of the fitness activity. Too large a class also obstructs the instructor's view of the participants. The capacity of an exercise class should be determined based on the following factors:

- The availability of mirrors to assist the instructor in monitoring the movement of participants.
- The type of movements to be followed (low impact aerobic versus high impact aerobic; stationary versus dance routines).
- The participant fitness level (i.e. beginner versus advanced).
- The qualifications of the instructor (experienced versus beginner).
- The building code load restrictions and fire code regulations for the capacity of the room.

The space per person varies significantly depending on the type of exercise being conducted. As an example, a Yoga class, or a spinning class requires much less space per person than does a group exercise class. As each class is different in structure, the number of participants should vary accordingly. It is essential that each participant has unrestricted and safe movement within the class. Provincial fitness organizations recommend instructors teach with a maximum of 20 – 30 students per instructor.

Weight Equipment

The positioning of weight equipment in the facility should be considered carefully; not only for the progressive work-out of body parts, but also to avoid overcrowding.

The selection of equipment should be done in line with the needs of the users. Busy weight rooms require top-of-the-line equipment. Also, there appears to be a need to obtain some consistency in the design, manufacture, installation and maintenance of such equipment. There does not appear to be a standard for the manufacture of weight equipment. All types of injuries can occur in a weight lifting facility because of simple things such as improper lifting techniques, lack of adequate supervision, insufficient space, faulty equipment, and misuse of equipment.

The design of weight equipment has improved in terms of providing safety devices, but there is no consistency from one manufacturer to another. An example of this is the use of guards or shields around weight stacks, because reports have indicated that injuries to fingers have occurred in the use of stack-weights which do not have guards.

Weight Room Supervision

Given that weightlifting is something that is pursued on an individual basis, and that there is a variety of equipment that supports such activity, some common sense rules should apply when using this equipment. In the case of free weights a spotter should always be used, especially when lifting heavy amounts of weight in activities such as the bench press. The design of variable resistance and isokinetic equipment does not require spotters; however, common sense should prevail in the amount of weight an individual attempts to displace.

Fitness Testing

There is a concern over the potential for injury resulting from the poor quality of testing equipment perhaps due to lack of care and maintenance. Re-calibration should be carried out if variances are found to exist in the equipment. Unaccustomed participants should be spotted when using a treadmill. Cleanliness is a very important prerequisite to running any type of testing operation. Ideally mouth-pieces should be disposable or at a minimum sterilized between uses.

Change Rooms

Potential for injury to patrons exists in shower and change areas. One of the most common accidents in facilities results from members slipping on wet floors. Floor surfaces should be constructed of a slip resistant material within building code safety standards. All showers should be designed with a back-flow safety valve to prevent sudden surges of extreme hot or cold water. In addition, water temperature should be governed by a temperature valve limiting the range at which the water temperature can be adjusted. In order to prevent pooling, drainage systems should be designed to remove water from all areas of the floor at a rate greater than the flow of water coming from all available sources. All change facilities should be equipped with a separate drying area which will minimize the amount of water being transported into the changing area. Daily cleaning is essential with particular attention to the prevention of communicable diseases.

Public Spas (Whirlpools, Spas and Hot Tubs)

Provincial legislation regulates the operation and maintenance of whirlpools, hot tubs and spas. Compliance with provincial legislation is mandatory. The legislation may be obtained from the provincial government office which regulates such acts. For example, in Ontario, the Operation of Public Spas, is mandated through the Ministry of Health & Long Term Care, Health Protection and Promotion Act, Ontario Regulation 428/05. A copy of the act may be found in the Legislation Appendix D-1.

Standard #13

All fitness related environments and equipment shall be clean, well maintained and free from hazards.

Standard #14

Access to a clean drinking water supply is required at or near all physical activity areas.

Standard #15

The number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercises. Participant numbers may also be defined by building code restrictions and/or fire code regulations.

Standard #16

All fitness testing equipment shall be checked, cleaned and calibrated as required.

Standard #17

Floors in wet areas shall have a non-slip surface with adequate drainage to prevent the pooling of water.

Standard #18

Whirlpools, spas and tubs shall comply with the Recommended Standards for the Operation of Public Spas (Ministry of Health & Long Term Care Act, June 2001).

Standard #19

Electrical panels shall be covered. Receptacles located in wet areas of a building and associated with the pool, such as locker and change rooms, require ground fault circuit interrupters of the Class A type.

Standard #20

A fire alarm system shall be installed in a building as determined by building code requirements. Portable fire extinguishers shall be installed in all buildings. *Please see existing provincial/territorial code or regulations as applicable.

Recommended Guideline #12

Staff are required to carry out ongoing inspection, reporting and/or maintenance of all areas and equipment as a part of their daily activities.

Recommended Guideline #13

The surface for all recreational areas should be appropriate for the intended use(s). They should be free from obstructions to participants, and if outdoors, properly graded for adequate drainage.

Recommended Guideline #14

Sport or recreational playing areas should be separated from roadways by a fence, wall or buffer zone, but should be accessible by emergency vehicles. Spectator areas should be a safe distance from playing surfaces so as to avoid collisions with participants.

Recommended Guideline #15

Adequate lighting, including emergency lighting should exist throughout indoor and outdoor areas of the facilities.

Recommended Guideline #16

All sports court areas (e.g. floor surfaces, doors, playing fixtures, markings etc.) should comply with national sport governing body regulations and/or manufacturers safety regulations.

Recommended Guideline #17

Air temperature, water temperature, humidity and air circulation in all indoor areas should be monitored and properly controlled.

Recommended Guideline #18

All squash, racquetball and badminton participants should wear appropriate eye guards approved by the Canadian Standards Association.

Recommended Guideline #19

Group exercise floor areas should be constructed with materials (e.g. sprung wood, ballistic rubber overlay) that reduce the potential of repetitive impact injury.

Recommended Guideline #20

All equipment, (cardio, resistance machines, free weights etc.) should be placed in a logical sequence to maximize efficient traffic flow and allow safe and effective use of the equipment.

Recommended Guideline #21

Direct supervision in high risk/injury areas (e.g. gymnasium and weight training areas) should be provided at all times by qualified personnel (e.g. certified in First Aid, CPR, strength conditioning).

Recommended Guideline #22

Participants (particularly beginners) should be provided with one or more instructional sessions by qualified staff in order to ensure they can use the exercise equipment safely.

Recommended Guideline #23

Signs are to be posted in weight lifting areas, with detailed instruction, pictures and safety precautions to guide participants in proper use of equipment.

Recommended Guideline #24

To promote good hygiene and safety, participants are to wear appropriate footwear and apparel.

Recommended Guideline #25

Shower (wet) areas should not be directly connected to exercise areas (pools excluded).

Recommended Guideline #26

Activity areas that are typically unsupervised (e.g. squash courts) should be monitored hourly and/or have signs informing participants of appropriate precautions (e.g. protective eye equipment, proper footwear and clothing).

References

- Ontario Fitness Council, Fitness Knowledge Training Program.
Tharrett, M.S., J.A. Peterson. ACSM's Health/Fitness Facility Standards and Guidelines, 2nd ed. Human Kinetics, USA, 1997.

A – Supplements

Appendix A – Supplements

- 1 – Glossary of Definitions*
- 2 – National Contacts for Emergency Care and First Aid*
- 3 – First Aid Kit Recommendations from St. John’s Ambulance*
- 4 – A Training Document for a Communicable Disease Management Strategy*
- 5 – Provincial Offices for Building Codes*
- 6 – Illumination Measurements*
- 7 – DIN Floor Standards*



Glossary of Definitions

Fitness

Fitness is a functional quality of well-being that is influenced by and associated with participation in physical activity. Well-being reflects the overall quality of life and involves the optimum interaction of an individual's physical, mental and social capabilities. Physical activity refers to activity involving large muscle groups, total body movement, significant energy expenditure and pleasurable reinforcing activities typically pursued in recreation and sport.

Fitness Facility

Any premise, whether operated for profit or otherwise, in which participants can engage in fitness activities. The safety standards will pertain specifically to the fitness related activities conducted in these facilities.

Fitness Facility Operator

The owner or agent of a facility at which fitness related activities are offered.

Fitness Facility Personnel

Individuals who are responsible for supervising, administering, or implementing fitness related activities.

Fitness Service

The activities, programs and services provided by an individual, organization or institution to people who choose to engage in individual or group physical activities organized and conducted by the fitness service provider. Such services may include personal consulting on fitness matters, the development of personalized fitness programs, the supervision of fitness activities, the giving of instruction on the use of fitness equipment, and the monitoring of personal progress in relation to fitness matters.

Fitness Service Providers

Individuals who are responsible for supervising, administering, or implementing fitness related activities.

Legislation

The act of making laws and passing acts by a legislative body. (e.g. Provincial Government).

Recommended Guideline

The delineation of fitness related qualifications and/or conduct which are deemed highly advisable and are strongly recommended to ensure participant safety in fitness oriented physical activities. It is a strong recommendation to take the action described even though it may not always be feasible to implement as a common standard of business practice or legal duty of care.

Recreation

All those activities a person or group chooses to do in order to make leisure time more interesting, more enjoyable and more satisfying. The central element of this definition is that of choice which, in turn, implies the freedom to choose. The second element is that recreational activities can be pursued individually, as well as collectively. The last aspects to be noted are those of satisfaction, interest and enjoyment, indicating that recreational experiences ought to be physically, emotionally, psychologically, socially, and intellectually enriching.

Special Exercising Populations

An individual or group of individuals who require advanced knowledge and expertise from the fitness facility personnel. Examples of such groups would include, but not limited to; pregnant women, seniors, people with disabilities, etc.)

Sport

An activity which requires a significant level of aerobic or anaerobic involvement, and participants may engage in either a structured or unstructured environment. The purpose of the activity is declaring a winner or simply for relaxation, personal enjoyment, satisfaction, competition or non-competition. It generally involves formal rules, procedures and requires tactics, strategies and specialized neuromuscular skills.

Standard

The delineation of fitness related qualifications and/or conduct which are deemed essential to ensure participant safety in fitness oriented physical activities. A standard is related to a “legal duty of care”, it is the accepted approach in law, and acts as the standard of care in that instant.

National Contacts for Emergency Care and First Aid

Red Cross National Office
170 Metcalfe St., Suite 300
Ottawa, Ontario
K2P 2P2
Tel. (613) 740-1900
Fax. (613) 740-1911
www.redcross.ca
feedback@redcross.ca

St. John's Ambulance
National Office
1900 City Park Dr., Suite 400
Ottawa, Ontario
K1A 1A3
Tel. (613) 236-7461
Fax. (613) 236-2425
www.sja.ca
clientservices@nhq.sja.ca

National Office Lifesaving Society
287 McArthur Ave.
Ottawa, Ontario
K1L 6P3
Tel. (613) 746- 5694
Fax. (613) 746- 9929
www.lifesaving.ca
experts@lifesaving.ca

Provincial offices may be found on their web sites.

First Aid Kit Recommendations from St. John's Ambulance

Compact First Aid Kit



Light and compact enough to be tucked into a backpack or looped onto a belt - perfect for the outdoors enthusiast. Contains the materials to tend to small and medium-sized wounds.

Contents:

- 3 Cleansing Wipes
- 6 Adhesive Bandages 1.9 cm x 7.5 cm
- 1 Knuckle Bandage
- 1 Fingertip Bandage
- 1 Adhesive Square 5 cm x 7.5 cm
- 2 Gauze Pads 7.5 cm x 7.5 cm
- 1 Gauze Bandage 5 cm x 4.5 cm
- 1 Gauze Bandage 7.5 cm x 4.5 cm
- 1 Pair of Scissors
- 1 Pair of Tweezers
- 1 First Aid Pocket Guide
- 1 Adhesive Tape 1.25 cm x 2.3
- 1 Triangular Bandage
- 12 Safety Pins

For more information, visit www.sja.ca

Sport First Aid Kit



From splints to cold compresses this kit contains the necessary first aid supplies to deal with sports injuries.

Coaches and trainers will appreciate its compact size – easy to add to a gym or sport bag.

This kit contains the essential materials to deal with large, medium and small-sized wounds as well as burns.

Contents:

Small Wounds

- 6 Cleansing Wipes
- 6 Adhesive Bandages 1.9 cm x 7.5 cm
- 3 Adhesive Squares 5 cm x 7.5 cm
- 2 Knuckle Bandages
- 2 Fingertip Bandages
- 2 Non-Adherent Pads 5 cm x 7.5 cm

Medium Wounds

- 2 Cleansing Wipes
- 1 Elastic Gauze Bandage 5 cm x 4.5 m
- 4 Gauze Pads 10 cm x 10 cm
- 1 Abdominal Pad 19 cm x 20 cm

A Training Document for a Communicable Disease Management Strategy

**Developed by Canadian Fitness Matters
for
The Canadian Fitness Safety Standards**

Communicable Diseases:

Standard #1

Fitness service providers shall provide employee training pertaining to the awareness, prevention and control of communicable diseases.

Communicable Diseases: more responsibility for us all.

The Canada Fitness Safety Standards & Recommended Guidelines were revised in 2004. The resultant standards and recommended guidelines are a refinement and clarification of those previously published in the Fitness Safety Standards Guide Book, 2000.

The 6 categories (Fitness Related Personnel, Emergency Procedures, Communicable Diseases, Fitness Environment, Pre-Screening and Informed Consent, and Special Exercising Populations) were also considered in terms of their current relevance with respect to changes that have occurred since the 2000 Guide Book.

During the past five years in Ontario, the issue of Communicable Diseases has presented a unique challenge to the delivery and consumption of public and private services. **Operating procedures for Communicable Diseases have changed to the extent that a "new normal" now exists with regard to the duty and obligation on the part of service providers.** Failure on the part of service providers to maintain adequate safeguards will undoubtedly have legal and monetary penalties to reflect the potentially devastating impact on public and individual health.

Given these changes it is not difficult to see how a sneeze at the gym can now be viewed in a very different context, by us all. It is advisable for fitness service providers to re-evaluate their role in the management of communicable diseases in their fitness facilities. This is because, by definition a new normal, changes the context of standards, guidelines and operating procedures.

Our Goal.

Considering feedback from the fitness industry and experts in public health, OASES has set about to recommend **the minimum steps necessary to maintain an acceptable standard of communicable disease "awareness, prevention and control" to meet the requirements of the new standard in the 2005 Canadian Fitness Safety Standards.** Recognizing that the challenge to meet minimal standards of competence acceptable under the current legislative and public health framework, also had to be realistic and economically feasible, we have outlined below a **2-step level of awareness and control that could assist in prevention** of further disease dissemination and therefore constitute a reasonable and minimum set of procedures to meet the new Standard.

Awareness and control are core elements of prevention, which together form a communicable disease management strategy. Please refer to Appendix A for a training outline for the awareness, prevention and control of communicable diseases.

1st Step Awareness

Personnel should be aware of general signs and symptoms of acute disease that indicate someone is ill and a possible source of infection. Personnel should be able to detect, in the facility environment, individuals who are obviously unwell or identify sources and sites of infectious agent transmission or operating procedures that could be a source of risk.

Straightforward signs and symptoms of illness which one can observe include individuals who are/or demonstrate: coughing/sneezing, skin discoloration, showing signs of distress that can be categorized as mild and manageable without need of intervention or those who are unusually lethargic or make frequent trips to the washroom etc. and finally, as the level of illness becomes more severe, individuals can demonstrate signs of functional limitation up to and including disorientation and collapse.

In general, the transmission of infectious agents can be categorized into two general groupings:

- 1) first and most common, via person-to-person contact (common source exposures such as sharing/touching) and airborne-droplet spread and
- 2) secondly, least common and more dangerous, through direct contact with blood and bodily fluids.

Clearly, the level and type of communicable diseases present in the fitness facility environment could be characterized by the more common non-enteric (non-bodily fluid exchange) methods such as airborne-droplet spread and sharing/touching amongst infectious individuals. Nevertheless, familiarity with both general methods of infectious agent transmission should be part of a reasonable program of awareness, prevention and control in fitness facilities.

10 Signs and Symptoms of Acute, Infectious Disease

- 1. Coughing, Sneezing**
- 2. Temperature -- fever, chills**
- 3. Vomiting**
- 4. Diarrhea**
- 5. Wounds, open sores**
- 6. Myalgia – (muscle pain not activity related)**
- 7. Numbness and Tingling (not injury related)**
- 8. Balance Difficulty**
- 9. Vision Changes**
- 10. Disorientation**

2nd Step Control

Personnel should demonstrate an awareness of **a modified set of universal precautions** (infectious disease control guidelines) that are specific to personnel working in fitness facilities.

6 Universal Precautions

**For specific details for Fitness Facilities
(see Appendix A "Prevention & Control")**

- 1. Hand washing**
- 2. Use of appropriate barrier techniques**
- 3. Cleaning and sanitizing**
- 4. Proper disposal techniques**
- 5. Not sharing personal items**
- 6. Report exposures**

What follows here is a review of standard guidelines and procedures with regard to infection control as provided by the Canadian Center for Occupational Health and Safety. A modified set of procedures suitable to fitness facilities are highlighted in the boxed text.

Infectious diseases are caused by viruses, bacteria, parasites and fungi. These organisms can be spread from person to person through: blood and other body secretions; droplets breathed, sneezed or coughed out of the nose or mouth; skin-to-skin contact; sexual contact.

Universal precautions are infection control guidelines designed to protect workers from exposure to diseases spread by blood and certain body fluids.

The Laboratory Centre for Disease Control, Health Canada and the U.S. Centers for Disease Control have developed the strategy of "Universal Precautions" to prevent contact with blood and body fluids— specifically (semen, vaginal secretions, synovial fluid, cerebrospinal fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid), which are clearly not typically a source of exposure in fitness facilities.

*Universal precautions **do not necessarily apply** to materials that fitness facility personnel may more commonly come into contact with such as: feces, nasal secretions, sputum, sweat, tears, urine, vomitus, saliva. **However**, a reasonable and responsible approach is as follows: **when it is difficult to identify** the specific body fluid or when body fluids are contaminated by blood, **universal precautions should be applied. When in doubt – take the safest approach.***

What are the Universal Precautions?

- 1. Personal Protective Equipment (PPE)** - The purpose of PPE is to prevent blood and body fluids from reaching the workers' skin, mucous membranes, or personal clothing. It must create an effective barrier between the exposed worker and any blood or other body fluids. PPE includes but is not limited to gloves, lab coats, gowns, shoe covers, goggles, glasses with side shields, masks, and resuscitation bags.

Fitness facilities should have reasonable PPE available (such as protective gloves) to ensure that an effective barrier between the person and the potentially hazardous substance can be established.

2. **Work practice controls** – These refer to practical techniques that reduce the likelihood of exposure by changing the way a task is performed. Examples of activities requiring specific attention to work practice controls include: hand washing, handling of used needles and other sharps and contaminated reusable sharps, collecting and transporting fluids and tissues according to approved safe practices.

Fitness facilities should have a set of general safety/infectious transmission management policies and emergency procedures that are available and periodically reviewed by facility personnel. Routine infection control tasks are to be reviewed and altered to ensure practices are using the best available techniques to protect fitness facility employees. For example, a more recent common practice of providing alcohol-based sanitizing gel dispensers is being used in many public/ private facilities. Standards of practice in this regard should be regularly reviewed and corroborated with current clinical and public health standards, for example: recognition that a publicly available tissue dispenser or re-usable equipment "wipe-rags" that are not cleaned or regularly replaced could, ironically, be a source of infectious agent transmission.

3. **Engineering controls** - refer to methods of isolating or removing hazards from the workplace.

Fitness facilities should have a set of operating guidelines with regard to disposal of suspected contaminated materials. These guidelines are to be reviewed and altered to ensure practices are using the best available controls to protect fitness facility employees.

Canadian Fitness Matters wishes to thank and acknowledge the following individuals for their contribution to the development of this Communicable Disease Training Document:

- 1) Dr. Bob Grisdale MSc, DC
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Lecturer – School of Nutrition and School of Continuing Education –
Ryerson University, Toronto
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A Training Outline for a Communicable Disease Management Strategy

**Developed by Canadian Fitness Matters
for
The Canadian Fitness Safety Standards**

Awareness, Prevention and Control of Communicable Diseases Canadian Fitness Safety Standards and Recommended Guidelines 2005

Awareness:

Awareness training includes employee orientation to the following information on Communicable Diseases:

*Chicken Pox**

Chicken Pox is recognized by fever, tiredness and loss of appetite followed by the appearance of small pink spots which change to blisters before crusts form. Chicken pox is spread by direct contact with the infected person, as well as indirectly through clothing, sheets and face cloths that have come in contact with the blister fluid. When blisters become dry, the person is no longer contagious. Generally there are no complications or serious effects of this disease, but please notify your local health unit if you are pregnant, on chemotherapy, HIV positive or immunosuppressed.

Conjunctivitis (Pink Eye)

Pink Eye is recognized by runny, red eyes accompanied by a crusted discharge. It is spread by both direct and indirect contact with any contaminated items such as tissues, door handles and clothing. The victim is no longer contagious when discharge discontinues from the eye. There are antibiotics for this disease as it is not severe.

Diarrhea

Diarrhea is recognized by frequent loose, watery or bloody stools. It can be spread by contact with contaminated food, water or soiled articles of clothing or fecally contaminated hands. It is contagious for the duration of the illness, but there is no need of antibiotics for common cases.

Fifth Disease (slapped face)

(Low Risk for adults, High Risk during pregnancy as exposure can increase changes of unborn contracting Fifth Disease by 0.3%).

Fifth Disease is recognized by a low fever, distinctive rash that begins with a 'slapped cheek' appearance, changes to lace-like body rash on arms then legs. The rash may become worse when exposed to sunlight or heat. It is spread by secretions from nose and throat and is contagious until rash disappears. There is low risk of complications, but please notify your Health Unit if you are pregnant.

Food Poisoning

Food poisoning may include several symptoms such as nausea, vomiting, diarrhea and onset might be gradual or sudden. It is spread through contaminated food or water or by person to person contact. Victim is contagious until several weeks after symptoms are over. Physician may prescribe medication on a case by case basis.

Giardiasis

Symptoms can include chronic diarrhea, fatigue, weight loss, stomach pain. Victim may have organism present but not have any symptoms. It is spread by contact with contaminated food and water, contact with soiled articles and person to person contact. The victim is contagious for the duration of the symptoms. Physician may prescribe medication on a case by case basis.

Hand, Foot, Mouth Disease

Recognized by small ulcers in the mouth, mild fever, small water spots on the palms, soles and between fingers and toes or buttocks. It is mainly seen in very young children, and can be spread by contact with discharges of nose and throat or fecally contaminated hands. It is difficult to prevent the spread of illness, as it is not severe.

Head Lice

Recognized by lice in hair, itchy scalp. It spreads easily through head to head contact, and indirectly through sharing hats and clothing as well as brushes and hairclips. Victim is contaminated as long as there are lice in the hair. Please see physician for medicated treatment.

Hepatitis A, B*, C*

Hep A is transmitted through the ingestion of food or water contaminated by fecal matter. Hep B and C are not. The onset of symptoms of Hep A are abrupt with fever, malaise, weight loss, nausea and abdominal cramping. The person is no longer contagious after the first week of the onset of jaundice. Immune to the disease often lasts for life afterwards. Disinfection measures include proper sanitation methods when dealing with fecal matter and personal hygiene, with special attention to hand washing.

Hepatitis B and C are transmitted through blood and body fluids. In most cases there are no initial symptoms of the disease. Anyone with Hep B and C can be infectious from weeks before a positive blood test confirms the disease and for the rest of their lives. Disinfection for surfaces exposed to body fluids that may be contaminated with B and C requires a bleach/water solution. Inoculation is available for Hepatitis B but not C. There is now treatment available for Hepatitis C.

Impetigo

Infected lesions are superficial pustules that burst and form thick yellow crusts. Often around nose, mouth, arms and lower part of legs. It is spread through contact with infected person or articles, and often spread on hands. Victim is contagious for a week until antibiotics are given.

*Influenza**

Fever, chills, headache, muscle aches and cough. It can be spread through contact with secretions from nose, mouth and throat. Victim is generally contagious for a week. Please notify your Health Unit if you are immunosuppressed.

*Measles**

Fever, cough, eyes are red and sensitive to light, red blotchy rash that lasts for at least 3 days, appears on face first then spreads to rest of the body. It is spread by contact with infected person (coughing or sneezing), or soiled articles of clothing from discharge of nose and throat. Measles are extremely infectious. Victim is contagious 5 days before onset of rash to 4 days after. Please call Health Unit immediately for all victims, especially if you are pregnant, on chemotherapy, immunosuppressed due to other reasons, not immunized, or immunized before 1st birthday.

Meningitis (bacterial) (low risk but very serious if exposed)*

Fever, vomiting, loss of energy, headache, stiff neck and back. It spreads from contact with secretions from nose, throat and mouth. It is contagious until 24 hours after starting proper antibiotics. Please call Health Unit immediately, especially if you were exposed.

*Meningitis (viral)**

Same symptoms as bacterial meningitis and it is spread the same way, but the period of contagion is variable and one must call Health Unit immediately.

*Mumps**

Fever, swelling and tenderness of one or both sides of face. It is spread through contact with infected person or articles soiled with discharge from nose, mouth or throat. Victim is contagious from 7 days before swelling to 9 days after. Please call Health Unit immediately, especially if you are pregnant or not immunized.

*Pertussis (Whooping Cough)**

Red, running eyes and dry hacking cough. Coughing occurs in spasms often with a high-pitched 'whoop', vomiting and sometimes seizures. Cough is often worse at night and may last several weeks. It is spread through contact with infected person or articles contaminated with discharge from nose, mouth and throat. Victim is contagious from 7 days after exposure to 3 weeks after receiving antibiotic treatment. Please notify Health Unit, especially if not adequately immunized for age.

Pinworms

Anal itching, disturbed sleep, irritability and sometimes secondary infection of the scratched skin. Worms may be seen at anus. It is spread by direct transfer of eggs from hands or indirectly through clothing, bedding, food or other articles contaminate with eggs. Eggs can survive up to 3 weeks in environment. Victim is contagious up to 3 weeks after antibiotic treatment begins. Close contacts should be examined by physician and treated if testing positive.

Ringworm (scalp) (High Risk fungal infection)

Skin infection, scaly, mildly itchy rings. Hair breaks off leaving bald spot. It is spread by direct or indirect contact with skin or scalp lesion, spread through person to person or animal to person. Victim is contagious as long as lesions are present and viable spores persist on contaminated materials. Please see physician for treatment.

Ringworm (body) (High Risk fungal infection)

Flat, spreading ring shaped area, moist or crusted. Reddish around edges with white scales in centre. Spreads in the same way as scalp ringworm and is contagious for the same length of time. Treatment from physician is highly recommended.

Roseola

Fever, rash which begins as fever subsides. It is unknown how it spreads and it is not very contagious. Victim is contagious while fever is present.

*Rubella (German measles)**

Mild fever, cold symptoms, swollen neck glands, rash. It is spread by contact with infected person or articles soiled by body secretions. Victim is contagious 1 week before onset of rash to 1 week after. Please notify Health Unit, especially if pregnant or not immunized.

Scabies

Lesions around finger webs, wrists, elbows, skin folds, armpits, lower portion of buttocks, belt line. Itching is more intense at night. It is spread by direct skin to skin contact and through clothing only if infected person wore clothing immediately beforehand. Victim is contagious until all mites are destroyed, usually after 1-2 treatments. Please see physician for treatment.

*Scarlet Fever**

Fever, headache, sore throat, vomiting, fine red rash that feels like sandpaper, flushing of cheeks, white area around mouth. It is spread by direct contact with infected person. Victim is contagious until 24 hours after starting antibiotic treatment. Please see physician for treatment.

Shingles (Please see Chicken Pox)

Painful patch of blisters which may appear in crops in irregular fashion along nerve pathways. A reactivation of the chicken pox virus that can survive for many years is the nerve pathways in an inactive form. It is not as infectious as chicken pox. Someone who has shingles can give a person chicken pox, but you cannot contract shingles from someone who has shingles.

Strep Throat

Fever, sore throat, redness and white spots on throat. It is spread by direct contact with infected person. Victim is contagious from onset of symptoms to 24 hours after beginning antibiotic treatment. Please see physician for treatment.

TB (Tuberculosis)

Coughing lasting more than 3 weeks, fatigue, fever, and weight loss. It is spread by droplets in the air from person coughing. Victim is contagious from onset of symptoms to 1-2 weeks after treatment begins. Please contact Health Unit for advice.

*Vaccines Available, indicating very low risk.

Control & Prevention:

Control and prevention training includes employee orientation to the following information:

Routine Practices:

Routine Practices are used to prevent skin or mucous membrane contact with all body fluids, including blood, secretions and excretions (except sweat). Routine Practices replaces a combination of universal precautions and body substances precautions. Infections can occur when infectious body fluids come in contact with broken skin, the mucous membranes of the eyes, nose and mouth, or through sexual contact. Routine Practices help protect against all infectious diseases.

6 Steps of Routine Practices:

- 1-Handwashing
- 2-Use of appropriate barrier techniques
- 3-Cleaning and sanitizing
- 4-Proper disposal techniques
- 5-Not sharing personal items
- 6-Report exposures

1. Handwashing

Handwashing is your best defense against any infection. Wash your hands before and after potential contact with body fluids and after removing gloves.

Handwashing Techniques

1. Wet hands
2. Use soap
3. Lather
4. Rinse
5. Towel dry
6. Turn taps off with towel

2. Barrier Techniques

Gloves: Should always be worn when there is potential for contact with body fluids. Change gloves after each contact with body fluid.

CPR: Masks and resuscitation bags should be available in a facility to prevent a possible body fluid exposure.

Masks, Eyewear and Protective Clothing: Generally intended for use by healthcare workers in high-risk settings. Use during procedures where splashing may occur.

3. Cleaning & Sanitizing

Wear protective gloves and use paper towels to clean up all body fluid spills. Dispose of paper towels appropriately. Wash the area with soap and water and rinse. Disinfect affected area with one part bleach to 9 parts water solution for 10 minutes. Use paper towels to absorb the bleach and residue.

4. Proper Disposal Techniques

Contaminated Waste: Dispose of articles soiled with blood or body fluids in plastic bags tied at the top. If the first bag is visibly soiled or leaking, double-bag the article before discarding in the garbage.

Laundry: Handle body fluid soiled laundry as little as possible. Place in leak-proof bags for transport to laundry. Rinse in cold water using gloves and machine wash in hot water using regular laundry detergent.

Sharps: Any object that could break, cut or puncture the skin can be considered a "sharp". Proper handling and disposal techniques must be used to avoid injuries from contaminated sharps.

-Do not recap, bend or break used needles.

-Sharps must be discarded in a non-breakable container with a lid.

-Sharps containers should not be overfilled and must be disposed of through a hazardous waste disposal company.

5. Avoid Sharing Personal Items

Personal items such as razors, toothbrushes, needles, etc, should not be shared. They may have come in contact with infectious body fluids.

6. Report Exposures Immediately

Report to your employer all significant exposure to body fluids as you may need post-exposure treatment.

Personal Services Disinfection

How to Prepare Disinfectant Using Household Bleach:

The solution must be made fresh every day to preserve strength. Household bleach solution is 5% sodium hypochlorite solution (50,000 ppm available chlorine).

High Level of Disinfection:

1:10 dilution of bleach (1 part bleach to 9 parts water)- ¼ cup bleach with 2 ¼ cups water

Use on semi-critical items, items that may accidentally penetrate the skin and/or come into contact with blood or body fluids.

Use to clean surfaces following contact with blood or body fluids or where sterilization is not possible.

Intermediate Level of Disinfection:

1:100 dilution of bleach (1 part bleach to 99 parts water)- 1 tsp bleach with 2 cups water

Use on semi-critical items, items that may accidentally come in contact with blood or body fluids or penetrate the skin. (For example, containers for dirty instruments)

Low Level of Disinfection:

1:500 dilution of bleach (1 part bleach to 499 parts water)- 1 tsp bleach with 10 cups water

Use on non-critical items, items that come in contact but do not penetrate the skin, or those that do not ordinarily touch the client. These items do not come into contact with blood or body fluids. May be used for routine housekeeping, such as washing floors or surfaces.

*Please note that Cedar wood used in most saunas have natural anti-bacterial properties but still need to be properly cleaned. Patrons should take proper precautions when using saunas, by using a towel while inside, and showering or washing afterwards.

*Signs should be posted in order to educate the general public of these basic health precautions.

*please note that WHMIS for workers does not cover Communicable Diseases, only Hazardous Material and Waste Management.

Canadian Fitness Matters wishes to thank and acknowledge Jennifer Logan, for her work in collecting and collating the appendix information.

References

Beck CK: Infectious diseases in sports. Med Sci Sports Exerc 2000;32 (7 suppl):S431-S438

Howe WB: Preventing infectious disease in sports. The Physician and Sportsmedicine 2003;31:23--9.

Howe WB: Avoiding infections, staying healthy, performing well: Patient Adviser - Practice Essentials. The Physician and Sportsmedicine 2003: 31 – #2.

Mast EE, Goodman RA: Prevention of infectious disease transmission in sports. Sports Med 1997; 24. (1):1-7

The Kid's Health Manual "Communicable Disease Exclusion Guidelines" section 3 pages 16- 28, published by the Wellington Dufferin Guelph Public Health Unit.

A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes
Public Health Division and Long-Term Care Homes Branch
Ministry of Health and Long-Term Care
October 2004
http://www.health.gov.on.ca/english/providers/pub/pubhealth/ltc_respoutbreak/ltc_respoutbreak.pdf

Web Sites

Center for Disease Control and Prevention
<http://www.cdc.gov/page.do>

CCOHS- Canadian Centre for Occupational Health and Safety
http://www.ccohs.ca/oshanswers/prevention/ppe/universa.html#_1_4

CanOSH- Canada's National Occupational Health and Safety Website
www.canoshweb.org
Includes listings, resources and contacts for each province and region as well as National and Federal resources.

College of Physiotherapists of Ontario
www.collegept.org/college/content/pdf/en/guide/B.infectioincontrol.pdf




Public Health Agency of Canada
http://www.phac-aspc.gc.ca/new_e.html







Other




Accredited Training Options:


CCOHS- Canadian Centre for Occupational Health and Safety
1-800-668-4284
Joanna Curtis joannac@ccohs.ca
5 courses: Health & Safety Committees, Health & Safety Training for Managers and Supervisors, Health & Safety for Managers & Supervisors in the Canadian Federal Jurisdiction, Office Ergonomics, WHMIS for Workers

Provincial Offices for Building Codes

<p>ALBERTA</p> 	<p>Municipal Affairs, Public Safety Division Safety Services 16th floor, 10155 - 102nd Street Edmonton, Alberta T5J 4L4 Toll Free: 1 866 421-6929 Fax: (780) 427-8686 E-mail: safety.services@gov.ab.ca</p> <p>Purchase codes: Book: Learning Resource Distribution Centre Tel. (780) 427-5775 Fax: (780) 422-9750</p> <p>CD: IRC Publications Tel: 1-800-672-7990 Fax: (613) 952-7673</p>
<p>BRITISH COLUMBIA</p> 	<p>Ministry of Community, Aboriginal and Women's Services Housing and Building Policy PO Box 9951 Stn Prov Govt Victoria, B.C. V8W 9R3 Telephone: (250) 356-9011</p> <p>Office of the Fire Commissioner PO Box 9491 Stn Prov Govt Victoria, B.C. V8W 9N7 Telephone: (250) 356-9000 Email: ofc@gem8.gov.bc.ca</p> <p>Safety and Standards P.O. Box 9490 Stn Prov Govt Victoria, B.C. V8W 9N7 Telephone: (250) 387-4095</p> <p>Purchase codes: Crown Publications Tel. (250) 386-4636 Fax. (250) 386-0221</p>
<p>MANITOBA</p> 	<p>Manitoba Labour Office of the Fire Commissioner 508-401 York Avenue Winnipeg, Manitoba R3C 0P8 Telephone: (204) 945-3322 Fax: (204) 948-2089 Toll Free: 1-800-282-8069 Email: firecomm@gov.mb.ca Code amendments Tel. (204) 945-3322</p>

NEW BRUNSWICK 	Public Safety Safety Services Barker House, Floor: 4 P. O. Box 6000 Fredericton, New Brunswick E3B 5H1 Telephone: (506) 453-3992 Fax: (506) 453-7481
NEWFOUNDLAND & LABRADOR 	Government Services and Lands P.O. Box 8700, Confederation Building St. Johns, Newfoundland A1B 4J6
NORTHWEST TERRITORIES 	Municipal and Community Affairs Office of the Fire Marshal P.O. 1320 Yellowknife, Northwest Territories X1A 2L9 Telephone: (867) 873-0260
NOVA SCOTIA 	Nova Scotia Environment and Labour Public Safety Divison P.O. Box 697 Halifax, Nova Scotia B3J 2T8 Tel: (902) 424-5721 Toll-free: 1-800-559-3473 Fax: (902) 424-3239 NS amendments Purchase amendments
NUNAVUT 	Community Government and Transportation Office of the Fire Marshal Box 14 Cape Dorset, Nunavut X0A 0C0 Telephone: 867-975-5300 Fax: 867-975-5305
ONTARIO 	Municipal Affairs and Housing Building and Development Branch 2nd Floor, 777 Bay Street Toronto, Ontario M5G 2E5 E-mail: codeinfo@gov.on.ca Public Safety and Security Ontario Fire Marshal's Office 5775 Yonge Street, 7th Floor Toronto, Ontario M2M 4J1 Telephone: (416) 325-3100 Fax: (416) 325-3126 Purchase codes: Tel.: 1-888-361-0003 Fax: (416) 369-0600

<p>PRINCE EDWARD ISLAND</p> 	<p>Department of Community and Cultural Affairs Planning and Inspection Services Division P.O. Box 2000 31 Gordon Drive Charlottetown, Prince Edward Island C1A 5S3 Telephone: (902) 368-5280 Fax: (902) 368-5526</p>
<p>QUEBEC</p> 	<p>Régie du bâtiment du Québec Direction de la normalisation 800, place D'Youville, 15 étage Québec, Quebec G1R 5S3 Tél.: (418) 643-0067 Télec.: (418) 646-9280 normalisation@rbq.gouv.qc.ca</p> <p>Ministère de la Sécurité Publique Direction de la Sécurité incendie 2525 boul Laurier, 6e étage Sainte-Foy, Quebec G1V 2L2 Tél.: (418) 643-8256 Télec.: (418) 644-4448</p> <p>IRC Publications Tel: 1-800-672-7990 Fax: (613) 952-7673</p>
<p>SASKATCHEWAN</p> 	<p>Corrections and Public Safety Protection and Emergency Services 310 - 1855 Victoria Avenue Regina, Saskatchewan S4P 3V7</p> <p>Building Standards - SBC Telephone: (306) 787-4113 Fax: (306) 787-9273 Email: buildingstandards@cps.gov.sk.ca</p> <p>Saskatchewan amendments to the NBC:</p> <p>Office of the Fire Commissioner - SFC Telephone: (306) 787-3774 (Regina) or (306) 933-5063 (Saskatoon) Fax: (306) 787-9872</p> <p>Purchase Fire Code & 1990 Plumbing Code: Tel.: (306) 787-6894 E-mail: qprinter@justice.gov.sk.ca</p>

<p>YUKON</p> 	<p>Community Services Consumer and Safety Services Box 2703 Whitehorse, Yukon Canada Y1A 2C6 Telephone: (867) 667-5811 Toll free (In Yukon): 1-800-661-0408 information@gov.yk.ca</p>
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Reference

http://www.nationalcodes.ca/prov_links_e.shtml

Illumination Measurements

Luminous (Light Level)

This is the amount of light measured on the work plane in the lighted space. The work plane is an imaginary horizontal, tilted or vertical line where the most important tasks in the space are performed. Measured in footcandles (fc or lux in metric), light levels are either calculated, or in existing spaces, measured with a light meter. A footcandle is actually one lumen of light density per square foot; one lux is one lumen per square meter. Like lumens, footcandles can be produced as either initial or maintained quantities.

Footcandle:

A footcandle is a measure of light intensity. A footcandle is defined as the amount of light received by one square foot of a surface that is one foot from a point source of light equivalent to one candle of a certain type.

Lux:

The metric unit of measure for illuminance of a surface. One lux is equal to one lumen per square meter. One lux equals 0.0929 footcandles.

References:

ACSM's Health/Fitness Facility Standards and Guidelines, 3rd ed. Human Kinetics publ. 1997.

DIN Floor Standards

The flooring for a multiuse exercise area should adhere to Deutsches Institut für Normung (DIN) standards. These standards require that a floor meet six criteria:

1. Shock Absorption – a floor’s ability to reduce the impact of contact with the floor surface. The greater the shock absorption, the more protective it is because it reduces impact forces. An aerobic floor, for example, would need more shock absorption than a basketball court.

2. Standard vertical deformation – the actual vertical deflection of the floor upon impact. The greater the deformation, the more the floor defects downward. Floors with minimal deformation are not good at absorbing impact forces.

3. Deflective indentation – the actual vertical deflection of the floor at a distance 50 cm from the point of impact. The greater the indentation the more likely impact at one spot will cause deflection at a distant point.

4. Sliding characteristics – the surface friction of the finished floor. A floor with poor sliding characteristics would be inappropriate for aerobics or basketball.

5. Rolling load – a floor’s ability to withstand heavy weight without breaking or sustaining permanent damage.

This DIN criteria are then used to evaluate the effectiveness of a floor. A floor will have one of the three functions:

1. Sports function – enhances athletic performance. Surface friction and ball reflection are important.

2. Protective function – reduces the risk of injury (e.g. from a fall) during activity. Shock absorption is important here.

3. Material-technical function- meets both the sports and protective functions.

In a health / fitness facility, the gymnasium and multipurpose floors are classified under sports function or material-technical function. The aerobics floor is classified under protective functions, with some sports function characteristics.

A floor surface that has a material-technical function should meet the following DIN criteria:

Shock absorption	53% minimum
Standard vertical deformation	2.3 mm minimum
Deflective indentation	15% maximum
Sliding characteristics	0.5 to 0.7 range
Ball deflection	90% minimum
Rolling load	337.6 lb

Reference:

Tharrett, S., Peterson, J., ACSM’s Health / Fitness Facility Standards and Guidelines, 2nd ed. Human Kinetics, USA, 1992.

B – Forms

Appendix B – Forms

- 1 – Facility Recognition Application Form*
- 2 – Canadian Fitness Safety Standards® Facility Audit*
- 3 – Choosing a Quality Fitness Centre*
- 4 – Choisir un bon centre de conditionnement physique*
- 5 – PAR-Q and You*
- 6 – Q-AAP et VOUS*
- 7 – PARmed-X*
- 8 – X-AAP*
- 9 – Sample — Informed Consent Agreement*
- 10 – Guests Log Sign In*
- 11 – PARmed-X for Pregnancy*
- 12 – X-AAP pour femmes enceintes*
- 13 – Information Required for a Medical Form*
- 14 – Information Required for an Incident/Accident Report Form*



CanadianFitnessMatters.ca

Fitness Safety means Business – For You

FITNESS FACILITY SAFETY REGISTER APPLICATION FORM

Recognition of your fitness facility is an excellent way of adding value to your centre. You will be demonstrating to your staff and members your commitment to quality and the importance of safety within your facility. Upon completion and acceptance of your application form, your facility will then be one step closer to obtaining nationally recognized accreditation status.

This application process has been designed for ease of completion, but with appropriate documentation to ensure compliance with the Canadian Fitness Safety Standards.



Benefits of being a recognized fitness facility

- * The facility listing receives premium placement on the CanadianFitnessMatters.ca web site, with a 50 word ad promoting your facility.
- * The facility listing receives a safety icon designating it's compliance with the Canadian Fitness Safety Standards.
- * Consumers are provided with a direct link to your web site and information about your facility.
- * You will attract new members and maintain current ones, because you will be demonstrating that you care about the safety of your members.
- * You will reduce potential client injuries and other safety and health risks, and possibly lower your insurance costs.
- * You will boost staff morale, accountability and pride in the facility.
- * The promotional materials that you receive support your recognition status, and will help create the look of a safe, professional environment.
- * You will have the opportunity for co-operative advertising and promotional contests to create awareness and excitement around your facility.

1. Application Procedures

Recognizing that there are a variety of sizes and types of fitness facilities, you have been provided with options in some of the areas to verify your facility's compliance with a specific Standard. You only need to complete one of the options in each section, based on your facility and its operating procedures. There are also mandatory questions that follow for each Standard, and in some cases, you are required to provide documentation verifying your procedures. This additional information must be attached, and mailed or faxed in with your application.

A. You have chosen to download the application form, and mail or fax in the document.

B. Forms may be mailed to:

Canadian Fitness Matters
P.O. Box 1166
Shelburne, ON
L0N 1S0

Forms may be faxed to: 1-519-925-9853

C. Upon receipt of the Fitness Facility Safety Register Application, the necessary documents and appropriate payment, the application will then be reviewed. If all requirements are met, you will be notified that the application has been approved.

A letter will be sent, in addition to your certificate, door decals, and posters. Instructions will also be sent to you to allow you to add additional information to your listing in the on-line directory on the Canadian Fitness Matters website.

Should you have any questions regarding the completion of the application form, you may contact the OASES office at 1-888-942-2620 or via email at info@canadianfitnessmatters.ca

2. Application Requirements

To be able to complete the application process, please ensure you follow the process as outlined, and have the documents listed below, to include them with your submission to the office.

- i) Complete and submit the application form as required
- ii) Sign and submit the Memorandum of Agreement (copy in application form)
- iii) Send payment in full to OASES/Canadian Fitness Matters office

The following documents must accompany the application form.

- 1) Job descriptions for fitness-related staff OR provide the dates of first aid and CPR training, and certifications accepted at your facility
- 2) Emergency action plan
- 3) Injury reporting form
- 4) Cleaning schedule
- 5) Equipment maintenance schedule

3. Fee Structure – Application & Renewal Fees

The fee structure has been based on the size of the facility determined by the number of employees (full-time and part-time). There is also a reduced fee for those institutions that have two or more facilities, that are owned or operated by the same company and that abide by the same policies and procedures.

Size of Facility	Number of Employees incl. part time & full time	Fee for Initial Recognition
Small	1 – 5	\$99.00
Medium	6 – 20	\$149.00
Large	21 +	\$199.00
Chains	Not applicable	\$99.00/facility
2 or more facilities		

Payment Procedures: Application fees must be paid in full prior to the review of the application. Should the facility not receive the recognition status, a refund will be made to the facility, with a \$25 non-refundable administrative fee.

Renewal Fees: Annual renewal of your application will be necessary to maintain your recognition status. The renewal fee will be as noted above, based on the size of your facility, minus the \$25.00 administrative charge.

FITNESS FACILITY SAFETY REGISTER APPLICATION FORM

Contact Information:

Name of Facility applying for recognition:

Name of Parent organization/business if part of a franchise or chain:

Name of Contact: _____

Position: _____

Address of facility: _____

City: _____

Province: _____

Postal Code: _____

Phone Number : _____ ext. _____

Fax Number: _____

Email address of contact: _____

Email address of facility: _____

Web site address of facility: _____

FITNESS RELATED PERSONNEL

Standard #1:

All fitness facility personnel and other fitness service providers shall be qualified in first aid and CPR.

Note: "Fitness facility personnel and other fitness service providers" refers to fitness appraisers, consultants, leaders, personal trainers, management, and program support staff (e.g. facility supervisors, lifeguards, weight room attendants). It does not include operational support such as cleaning staff, locker room attendants, reception, maintenance, pro shop, and food servers.

Method of Verification

1. How do you maintain current CPR and First Aid for your fitness-related personnel?

2. You may answer either option #1 or option #2 below.

Option #1

Submit job descriptions & qualifications of staff.

☐ Job descriptions attached (please indicate if attaching)

OR

Option #2 (if limited number of facility staff)

Provide date of CPR & First Aid and certifying agency.

Date: _____

Agency:

- | | |
|--|---|
| <input type="checkbox"/> Heart and Stroke Foundation | <input type="checkbox"/> Red Cross |
| <input type="checkbox"/> St. John's Ambulance | <input type="checkbox"/> Lifesaving Society |
| <input type="checkbox"/> Other _____ | |

Standard #2

Fitness personnel shall be certified in the area with which they are providing program services. (e.g. fitness appraisal, personal training, aerobic classes, aqua fitness classes, etc.)

Method of Verification

1. How do you verify that all staff will maintain current certifications in the areas with which they are providing program services?

Complete either option #1 or #2 below

Option #1

Submit job descriptions, with qualifications, indicating certifications accepted.

Please indicate below if selecting Option #1 (to attach job descriptions.)

- ☐ Job descriptions attached
- ☐ Job descriptions attached as per Question #1

OR

Option #2: Indicate which certifications are accepted by your organization.

- ☐ ACE American Council on Exercise
- ☐ ACSM American College of Sports Medicine
- ☐ AEA Aquatic Exercise Association
- ☐ AFAA Aerobics & Fitness Association
- ☐ AFLCA Alberta Fitness Leadership Certification Association
- ☐ AFPA American Fitness Professionals & Associates
- ☐ (A)SFA American Senior Fitness Association
- ☐ BCRPA British Columbia Recreation and Parks Association
- ☐ CALA Canadian Aqua fitness Leaders Alliance
- ☐ Can-Fit-Pro Canadian Association of Fitness Professionals
- ☐ CCAA Canadian Centre for Activity and Ageing
- ☐ CHEK Corrective High-Performance Exercise Kinesiology
- ☐ CIAR Cooper Institute for Aerobic Research
- ☐ CPTN Certified Personal Trainers Network
- ☐ CSEP Canadian Society for Exercise Physiology
- ☐ Miller Pilates Dianne Miller Pilates Centre
- ☐ IFPA International Fitness Professionals Association
- ☐ ISSA International Sports Science Association
- ☐ Jazzercise Jazzercise
- ☐ JPD Just Pilates & Dance Inc.
- ☐ MFC Manitoba Fitness Council
- ☐ AAHFRP Medical Exercise & Post Rehab Conditioning Specialists
- ☐ MRC Mount Royal College
- ☐ NATABOC National Athletic Trainers' Assoc. Board of Certification Inc.
- ☐ NDEITA National Fitness Professional Training Association
- ☐ NEPA National Exercise Prescription Accreditation
- ☐ NFPT National Federation of Professional Trainers
- ☐ NGA National Gym Association
- ☐ NSCA National Strength & Conditioning Association
- ☐ NSFLLA Nova Scotia Fitness & Lifestyle Leaders Association
- ☐ OFC Ontario Fitness Council
- ☐ PACE Pro-Fit Enterprises
- ☐ Second Wind Second Wind Pilates
- ☐ SPI Sport Performance Institute
- ☐ SPRA Saskatchewan Parks & Recreation Association
- ☐ STOTT Stott International Certification Centre
- ☐ WaterART WaterArt Fitness Training and Certification
- ☐ YM/ YWCA Young Men's or Young Women's Christian Association

☐ Other _____

PRE-SCREENING AND INFORMED CONSENT

Standard #3

Fitness service providers shall provide or require a pre-activity screening procedure (eg. PAR-Q or appropriate signs).

Method of Verification

1. Indicate the procedures used at your facility for pre-activity screening.
-
-

Standard # 4

Facility operators and other fitness service providers shall inform participants of the risks inherent in physical activity participation and fitness facility use.

Method of Verification

1. Indicate the procedures at your facility to inform your participants of the inherent risks in physical activity.
-
-

SPECIAL EXERCISING POPULATIONS

Standard #5

Fitness service providers shall recommend that pregnant women obtain medical advice regarding their participation in physical activity.

Method of Verification

1. What method do you use to inform pregnant women to obtain medical advice regarding their participation in physical activity?
-
-

Standard #6

Fitness service providers shall recommend individuals 70 years of age and over receive medical advice before initiating a physical activity program or becoming much more physically active.

Method of Verification

1. What method do you use to inform individuals 70 years of age and over to receive medical advice before initiating a physical activity program or becoming much more physically active?
-
-

Standard #7

Maximal testing of individuals who:

- a) are not accustomed to regular strenuous exercise, or
- b) are males over 40 years of age, or
- c) are females over 50 years of age

shall be conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS. (Advanced Cardiac Life Support)

Method of Verification

1. Do you provide maximal testing as a service at your facility?
☐ Yes ☐ No

2. If any of the above three statements in Standard #20 are relevant to the clientele that you test, what staff position(s) is responsible for the administering the test, and what are their qualifications?

Staff position

Qualifications

EMERGENCY PROCEDURES

Standard #8:

Facilities and other environments in which fitness related activities are offered shall have in place an Emergency Action Plan (EAP) which shall be practiced twice per year and reviewed with all NEW staff at the commencement of their employment.

Method of Verification

1. Provide a copy of your Emergency Action Plan.

☐ EAP attached

2. Provide the last two dates whereby the Emergency Action Plan was practiced.

Date

Date

3. How do you ensure new staff are orientated to the Emergency Action Plan?
-
-

Standard #9:

All injuries, accidents or emergencies in fitness facilities and other fitness related environments shall be documented in writing and retained.

Method of Verification

1. Submit sample of injury reporting form.

☐ Injury reporting form attached

2. How long are your injury reporting forms retained?
-
-

Standard #10

A designated complement of First Aid equipment shall be readily available in fitness facilities and other fitness related environments.

Method of Verification

1. There is a first aid kit in my facility
☐ Yes
☐ No, explain _____

2. Location of first aid kit(s) in facility.

Standard #11

Immediate access to in-house first aid services must be available from qualified personnel. Contact information for external medical services (e.g. ambulance/hospital emergency phone numbers) must also be posted and phones readily accessible in all high risk/injury areas (e.g. pools, fitness testing, and weight training areas).

Method of Verification

1. Is there always a staff person qualified in CPR/First Aid on-site, while the fitness facility is open?

- ☐ Yes
☐ No, explain _____
☐ N/A, explain _____

2. List the high risk areas in the facility.

3. Phones are readily accessible in all high risk/injury areas.

- ☐ Yes
☐ No, explain _____
☐ N/A, explain _____

4. What is the emergency contact information posted by the phones?

COMMUNICABLE DISEASES

Standard #12

Fitness service providers shall provide employee training pertaining to the awareness, prevention and control of communicable diseases.

Note: A training document has been developed by OASES, from Public Health documents, regarding awareness, prevention and control of communicable diseases. It is strongly recommended that this be used to inform your staff, which will then allow you to comply with this Standard. It may be obtained on the website at www.canadianfitnessmatters.ca. **Safety Resources tab.**

Method of Verification

1. Is your employee training inclusive of the awareness, prevention, and control of communicable diseases, as identified in the Communicable Disease Management Training Document?

☐ Yes ☐ No

2. How do you practice compliance with this Standard?

FITNESS ENVIRONMENT

Standard #13

All fitness related environments and equipment shall be clean, well maintained, and free from hazards.

Method of Verification

1. How is your equipment maintained? If there is no equipment please indicate.

2. Provide a copy of your maintenance schedule. If not applicable please indicate, and explain.

☐ Maintenance schedule attached ☐ N/A, explain _____

3. How is your facility kept free from hazards? What procedures are in place to avoid potential hazards?

4. Provide a copy of your cleaning schedule.

☐ Cleaning Schedule attached

Standard #14

Access to a clean drinking water supply is required at or near all physical activity areas.

Method of Verification

1. List the locations where drinking water is available to members.

Standard #15

The number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercises. Participant numbers may also be defined by building code restrictions and/or fire code regulations.

Method of Verification

1. How do you ensure unrestricted and safe movement in exercise classes?

Standard #16

All fitness testing equipment shall be checked, cleaned and calibrated as required.

Method of Verification

1. If applicable, list who, when and how the fitness testing equipment is checked, cleaned and calibrated
- ☐ Applicable ☐ Not applicable

Standard #17

Floors in wet areas shall have a non slip surface with adequate drainage to prevent pooling of water.

Method of Verification

1. Indicate if the floors in wet areas have a non slip surface
- ☐ Yes ☐ No, explain ☐ N/A, explain
2. Is there adequate drainage to prevent pooling of water?
- ☐ Yes ☐ No, explain ☐ N/A, explain

Standard #18

Whirlpools, spas and tubs shall comply with the Recommended Standards for the Operation of Public Spas (Ministry of Health & Long Term Care Act, June 2001). (The provincial act may be obtained from your provincial Ministry of Health).

Method of Verification

- ☐ Yes, we comply with the provincial legislation as it applies to Whirlpools, spas and tubs.
- ☐ Not applicable, as we do not offer these services.

Standard #19

Electrical panels shall be covered. Receptacles located in wet areas of a building and associated with the pool, such as a locker and change room, require ground fault circuit interrupters of the Class A type.

Method of Verification

1. Electrical panels are covered.
- ☐ Yes ☐ No, explain ☐ N/A, explain

2. All receptacles in wet areas have ground fault circuit interrupters of the Class A type.
- ☐ Yes ☐ No, explain ☐ N/A, explain

Standard #20

A fire alarm system shall be installed in a building as determined by building code requirements. (Ontario Building Code 3.2.4.1)

Portable fire extinguishers shall be installed in all buildings. (OBC 3.2.5.17) — (or existing provincial/territorial code or regulations as applicable).

Method of Verification

1. Date of last inspection of fire alarm system and/or fire extinguishers.
(dd/mm/yy) _____
2. The documentation of the inspections is kept on file and is available.
- ☐ Yes ☐ No, explain ☐ N/A, explain

CONGRATULATIONS!

You have now completed the Fitness Facility Safety Register Application Form.

Listed below are the attachments that you must send with this document, and mail or fax to the OASES office.

Additional Requirements

A signed copy of the Memorandum of Agreement sent to office:

☐ fax ☐ mail

Payment Method:

Payment must be included with the application, based on fee schedule. Please indicate which method you have chosen.

Option #1: Credit card

- ☐ VISA ☐ MasterCard

card number expiry date

name on card

- ☐ Option #2: Cheque to be sent in mail payable to OASES
- ☐ Option #3: Purchase order

p.o. # _____

(only accepted for municipalities, educational institutions, or hospitals)

Amount Paid

- ☐ \$99 (1 – 5 staff) ☐ \$149 (6 – 20 staff)
- ☐ \$199 (21+ staff)

Please make a copy of the application document to provide you with a reference for next year's renewal.

Canadian Fitness Safety Standards ©

Facility Compliance Recognition

Safety Matters!

Memorandum of Agreement

(name of facility/organization applying – please print)

agrees to abide by all terms of this **Safety Matters! Memorandum of Agreement** during the current annual term which expires one year from notification of successful application and to any subsequent renewals in which

(name of facility/organization applying – please print) is recognized for

its compliance with the Canadian Fitness Safety Standards® by the Ontario Association of Sport and Exercise Sciences and **CanadianFitnessMatters.ca**, a program of the Ontario Association of Sport and Exercise Sciences, Inc.

As duly authorized officers or representatives of:

(name of facility/organization applying – please print) we hereby confirm that:

- 1) The authorized officers or representatives who sign below have the full authority to submit the Canadian Fitness Safety Standards® **Safety Matters!** Application on behalf of the facility/organization named above, as well as to bind the applying facility/organization to the terms of this Memorandum of Agreement;
- 2) The facility/organization named above is warranting the truthfulness of all statements submitted in this application and especially its current compliance with all applicable Canadian Fitness Safety Standards® that it is claiming;
- 3) The authorized officers or representatives signing this Memorandum of Agreement and the facility/organization submitting the application understand that the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca** relies on the truthfulness of the submitted statements. It is understood however, that the Ontario Association of Sport and Exercise Sciences and **CanadianFitnessMatters.ca** may require additional information from the applicant when the Ontario Association of Sport and Exercise Sciences and **CanadianFitnessMatters.ca** deems it necessary;
- 4) In consideration of the acceptance of this application, the facility/organization agrees to indemnify and hold harmless the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca** together with each of their officers, directors, agents, servants and employees from and against all losses, claims, actions, suits or proceedings in connection with loss of life, personal injury and/or damage to or loss of property arising out of any occurrence in or about the applicant's premises which are attributable to the failure of the applicant to comply with the Canadian Fitness Safety Standards®.
- 5) The facility/applicant named above agrees to defend the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca**, together with each of their officers, directors, agents, servants and employees in any action, suit or proceeding which may be brought against either the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca**, and/or their officers, directors, agents, servants and employees arising out of any alleged negligence or breach of compliance concerning the Canadian Fitness Safety Standards® that occurs in or about the applicant's premises.
- 6) The applicant expressly waives and releases the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca**, OASES Inc., and/or their officers, directors, agents, servants and employees from and against any and all claims of any nature whatsoever, including without limitation those that may arise from the Canadian Fitness Safety Standards® as currently published by the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and **CanadianFitnessMatters.ca**.

Monitoring Compliance

- 7) The applicant will permit random on-site visitation(s) of its facility/organization by an Ontario Association of Sport and Exercise Science representative to audit any matters pertaining to its practice of all applicable Canadian Fitness Safety Standards®, following a 24-hour notification;
- 8) The applicant will immediately inform the Ontario Association of Sport and Exercise Sciences office should its facility or organization implement any policy or business practice changes that would result in being unable to maintain compliance with one or more of the applicable Canadian Fitness Safety Standards® as stated in this application.

9) The applicant acknowledges that according to the Business Practices Act, Chapter 55, Section A, Item 2, it would be illegal to display decals and certificates should your centre no longer comply or fail to renew its recognition status. In such cases we agree to remove the safety standards compliance recognition door decals and return the related compliance recognition certificate to the Ontario Association of Sport and Exercise Sciences office.

10) The applicant agrees to pay an annual renewal fee for recognition of ongoing compliance with the Canadian Fitness Safety Standards[®]. It also agrees to provide supporting information that may be requested by the Ontario Association of Sport and Exercise Sciences, its Fitness Safety Advisory Council and CanadianFitnessMatters.ca to document the current fitness safety practices of the above named facility or organization.

I/We understand that failure to comply with any one or more terms of this [Safety Matters!](http://CanadianFitnessMatters.ca) Memorandum of Agreement is adequate reason for the Ontario Association of Sport and Exercise Sciences to revoke the existing Canadian Fitness Safety Standards[®] [Safety Matters!](http://CanadianFitnessMatters.ca) compliance recognition and immediately remove the above named facility/organization from any materials published by the Ontario Association of Sport and Exercise Sciences and/or CanadianFitnessMatters.ca in which previous [Safety Matters!](http://CanadianFitnessMatters.ca) compliance by the above named facility was recognized or identified. In such an instance, the annual fee or any unused pro-rated portion will not be refunded.

_____	_____
Date	Date
_____	_____
Name of Applicant (please print)	Name of Authorized Witness (please print) <i>must be in a management position</i>
_____	_____
Signature of Applicant	Signature of Authorized Witness

Please return this form to:

OASES, P.O. Box 1166 Shelburne ON L0N 1S0

Fax: 519-925-9853

CanadianFitnessMatters.ca gratefully acknowledges the legal counsel of Rasmussen Star Ruddy LLP, Ottawa, Ontario.

Canadian Fitness Safety Standards® Facility Audit

Standards: The delineation of fitness-related qualifications and/or conduct which are deemed **essential** to ensure participant safety in fitness-orientated physical activities. A Standard is related to a “legal duty of care”, it is the accepted approach in law, and acts as the standard of care in that instant.

Recommended Guidelines: The delineation of fitness-related qualifications and/or conduct which are deemed **highly advisable** and are **strongly recommended** to ensure participant safety in fitness-orientated physical activities. It is a strong recommendation to take the action described even though it may not always be feasible to implement as a common standard of business practice or legal duty of care.

Facility Name: _____ Facility Contact Person: _____

Audit Conducted by: _____ Date: _____

Scale: SM=Standard Met; WT= Working Towards Standard; NP= No plans to Practice Standard; NA= Standard Not Applicable

Standards & Recommended Guidelines	SM	WT	NP	NA	Comments
1. Fitness Related Personnel					
Standard #1 All fitness facility personnel and other fitness service providers are qualified in first aid and CPR. (Note: Fitness personnel are individuals who are responsible for supervising, administering or implementing fitness-related activities.) <i>Job descriptions reviewed and/or date of CPR & First Aid certifications verified.</i>					
Standard #2 Fitness personnel are certified in the area which they are providing program services (e.g. fitness appraisal, personal training, aerobic classes, aqua fitness classes etc.) <i>Certifications verified.</i>					
Recommended Guideline #1 Where certification is not available, fitness personnel working with special exercising populations have participated in training programs specific to that population (pregnant women, seniors, people with disabilities).					
Recommended Guideline #2 Training programs for fitness personnel include information on participant screening, participant education and the risk of injury during physical activity.					
Recommended Guideline #3 Training programs for fitness personnel emphasize the important safety role of fitness personnel, in instruction, supervision and monitoring of high risk activities or areas.					
2. Pre-Screening & Informed Consent					
Standard #3 A pre-activity screening procedure is provided or required (e.g. PAR-Q or appropriate signs). <i>Validated procedures - e.g. signs visible, PAR-Q forms filed (Note: Forms should be kept for a minimum of one year).</i>					
Standard #4 Participants are informed of the risks inherent in physical activity participation and fitness facility use. <i>Validated procedures through signs or informed consent forms.</i>					
Recommended Guideline #4 Individuals planning to engage in physical activity are, at minimum, screened by the PAR-Q (physical activity readiness questionnaire) and/or the PAR Med-X (physical activity readiness medical exam).					
Recommended Guideline #5 Fitness service providers encourage new or renewing members/clients to complete an Informed Consent Agreement before engaging in the programs and services offered.					

Scale: SM=Standard Met; WT= Working Towards Standard; NP= No plans to Practice Standard; NA= Standard Not Applicable					
2. Pre-Screening & Informed Consent (cont'd)	SM	WT	NP	NA	Comments
Recommended Guideline #6 When an individual is screened out by the PAR-Q from taking part in physical activity, medical clearance using the PAR Med-X is obtained before he/she takes part in physical activity.					
Recommended Guideline #7 Appropriate signs are posted which encourage participants to exercise caution if they are unfamiliar with either the activity to be undertaken, or their current level of fitness.					
3. Special Exercising Populations					
Standard #5 Fitness service providers recommend to pregnant women that they obtain medical advice regarding their participation in physical activity. <i>Validated procedures.</i>					
Standard #6 Fitness service providers recommend to individuals 70 years of age and over that they receive medical advice before initiating a physical activity program or increasing physical activity. <i>Validated procedures.</i>					
Standard #7 Maximal testing of individuals who: a) are not accustomed to regular strenuous exercise, or b) are males over 40 years of age, or c) are females over 50 years of age are conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS (Advanced Cardiac Life Support). <i>Reviewed Operating Policy and Procedures Manual. Qualifications of staff confirmed.</i>					
Recommended Guideline #8 For all other individuals (not identified in Standard #7), unsupervised maximal tests may be conducted, provided participants have, at a minimum, been screened for medical risks by the PAR-Q or a physician.					
Recommended Guideline #9 The PAR-Med X for Pregnancy questionnaire is utilized in pre-exercise medical consultations with pregnant women.					
4. Emergency Procedures					
Standard #8 Facility has an Emergency Action Plan which is practiced twice per year and reviewed with all NEW staff at the commencement of their employment. <i>Emergency Action Plan reviewed, validation of previous 2 dates the EAP was practiced. Reviewed practice for orienting new staff to the EAP.</i>					
Standard #9 All injuries, accidents and emergencies are documented in writing and retained. <i>Reviewed accident form and retention practices. Forms must be kept for a minimum of one year.</i>					
Standard #10 A designated complement of First Aid equipment is readily available. <i>Inspected location and content of first aid kits and equipment.</i> (Note: a designated list of first aid equipment may be found in the Appendix of the C.F.S.S. 3rd ed.)					
Standard #11 Immediate access to in-house first aid services is available from qualified personnel. Contact information for external medical services are posted and phones are readily accessible in all high risk/injury area (e.g. pools, fitness testing rooms, free weight areas). <i>Validated coverage of facility by qualified staff (CPR & first aid training) during all hours of operation. Inspected access to phones in high risk areas and validated that emergency contact information is posted.</i>					

Scale: SM=Standard Met; WT= Working Towards Standard; NP= No plans to Practice Standard; NA= Standard Not Applicable					
4. Emergency Procedures (cont'd)	SM	WT	NP	NA	Comments
Recommended Guideline #10 In combination with the PAR-Q, the participants have the option of completing a pre-exercise Medical Information Form to 1) recognize potential risks or limitations 2) advise EMS or hospital personnel when providing treatment.					
Recommended Guideline #11 Safety signs indicating emergency procedures are posted in all activity areas.					
5. Communicable Diseases					
Standard #12 All fitness personnel have received training pertaining to the awareness, prevention and control of communicable diseases. (Note: Fitness personnel are individuals who are responsible for supervising, administering or implementing fitness-related activities). <i>Validated that employee training is inclusive of the awareness, prevention and control of communicable diseases. Reviewed cleaning practices.</i>					
6. Fitness Environment					
Standard #13 All fitness related environments and equipment are cleaned, well maintained, and free from hazards. <i>Reviewed equipment maintenance procedures and cleaning log. Reviewed facility and equipment cleaning procedures.</i>					
Standard #14 Access to clean drinking water near all physical activity areas is available. <i>Inspected locations.</i>					
Standard #15 The maximum number of participants in an exercise class is appropriate for unrestricted and safe movement in various types of exercises. <i>ACSM recommends 12-18 sq.m/participant (40-60 sq ft) for an aerobic class. Abides by Fire Code.</i>					
Standard #16 All fitness testing equipment is checked, cleaned and calibrated as required. <i>Validated procedures.</i>					
Standard #17 Floors in wet areas have a non slip surface with adequate drainage to prevent the pooling of water. <i>Inspected floors.</i>					
Standard #18 Whirlpools, spas and tubs comply with the Recommended Standards for the Operation of Public Spas. <i>Inspected areas to ensure compliance with provincial Standards.</i>					
Standard #19 Electrical panels are covered. Receptacles located in wet areas of a building and associated with the pool, such as a locker and change room, have ground fault circuit interrupters. <i>Inspected electrical panels.</i>					
Standard #20 Appropriate fire alarm is installed. Portable fire extinguishers are installed, based on provincial/territorial code or regulations. <i>Verified alarm system and fire extinguishers.</i>					
Recommended Guideline #12 Staff are required to carry out ongoing inspection, reporting, and/or maintenance of all areas and equipment, as part of their day-to-day activities.					
Recommended Guideline #13 The surface for all recreational areas are appropriate for the intended use(s). Areas are free from obstructions to participants. If outdoors, there is proper grading for adequate drainage.					

Scale: SM=Standard Met; WT= Working Towards Standard; NP= No plans to Practice Standard; NA= Standard Not Applicable					
6. Fitness Environment (cont'd)	SM	WT	NP	NA	Comments
Recommended Guideline #14 Sport or recreational playing areas are separated from roadways by a fence, wall or buffer zone, and are accessible by emergency vehicles. Spectator areas are a safe distance from playing surfaces.					
Recommended Guideline #15 Adequate lighting, including emergency lighting, is throughout indoor and outdoor areas of the facilities.					
Recommended Guideline #16 All sports court areas (e.g. floor surfaces, doors, playing fixtures, markings) comply with national sport governing body regulations and/or manufacturers safety regulations.					
Recommended Guideline #17 Air temperature, water temperature, humidity, and air circulation in all indoor areas is monitored and properly controlled.					
Recommended Guideline #18 All squash, racquetball, and badminton participants are encouraged to wear appropriate eye guards approved by the Canadian Standards Association.					
Recommended Guideline #19 Group exercise floor areas are constructed with materials (e.g. sprung wood, ballistic rubber overlay) that reduce the potential of repetitive impact injury.					
Recommended Guideline #20 All equipment (e.g. cardio, resistance machines, free weights) is placed in a logical sequence to maximize efficient traffic flow and allow safe and effective use of the equipment.					
Recommended Guideline #21 Direct supervision in high risk/injury areas is provided at all times by qualified personnel (e.g. certified in First Aid, CPR, strength conditioning).					
Recommended Guideline #22 Participants (particularly beginners) are provided with one or more instructional sessions by qualified staff in order to ensure they can use the exercise equipment safely.					
Recommended Guideline #23 Signs are posted in weight lifting areas, with detailed instruction, pictures and safety precautions to guide participants in proper use of the equipment.					
Recommended Guideline #24 Participants are instructed to wear appropriate footwear and apparel.					
Recommended Guideline #25 Shower (wet) areas are not directly connected to exercise areas (pools excluded).					
Recommended Guideline #26 Activity areas that are typically unsupervised (e.g. squash courts) are monitored hourly and/or have signs informing participants of appropriate precautions (e.g. protective eye equipment, proper footwear and clothing).					
Total number of responses for Standards (maximum of 20)					
Total number of responses for Recommended Guidelines (maximum of 26)					
Total number of responses combined (maximum total of 46)					

The Canadian Fitness Safety Standards® Facility Audit tool was developed for OASES by Julie Mitchell and Joanne McCourt.



Choosing a Quality Fitness Centre

The Facility

The facility is recognized for their compliance with

the Canadian Fitness Safety Standards*

The Centre is nearby and convenient.

The facilities are clean and well maintained.

Drinking water is accessible.

Emergency phones are readily available.

Line ups for equipment during times you plan to attend are minimal.

Group fitness classes are not too crowded.

You will be comfortable using the facilities.

The Centre has been open for more than one year.

facility name

Yes No Don't know

facility name

Yes No Don't know

☐ ☐ ☐

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The Fitness Program Staff

The exercise area is always supervised.

☐ ☐ ☐

☐ ☐ ☐

All fitness staff are trained in first aid and CPR training.

☐ ☐ ☐

☐ ☐ ☐

All fitness staff are certified in the areas.

☐ ☐ ☐

☐ ☐ ☐

with which they are providing services to the members.

(e.g. aerobic, aqua fitness, personal training, fitness assessment etc.)

Ask to see their certifications.

Program Safety and Other Qualities

Pre-screening procedures are required, to determine if there may be any health-related risks to you exercising.

☐ ☐ ☐

☐ ☐ ☐

A full fitness appraisal from a certified staff member is available prior to beginning an exercise program.

☐ ☐ ☐

☐ ☐ ☐

Ongoing active lifestyle education is emphasized.

☐ ☐ ☐

☐ ☐ ☐

A balanced approach to conditioning is emphasized.

☐ ☐ ☐

☐ ☐ ☐

Fee Structure Policy

The membership fees reflect good value.

☐ ☐ ☐

☐ ☐ ☐

The Centre provides a published fee schedule.

☐ ☐ ☐

☐ ☐ ☐

You may pay your yearly dues on a monthly basis as per the Prepaid Services Act. Ask for details.

☐ ☐ ☐

☐ ☐ ☐

Other Criteria Important to You

•

☐ ☐ ☐

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*The designation recognizes fitness facilities that comply with and practice the Canadian Fitness Safety Standards as they apply to the following areas: Fitness Staff Qualifications; Emergency Procedures; Communicable Disease Prevention; Safe Club Environment; and Protecting Members with Higher Health Risks or Special Needs.

Choisir un bon centre de conditionnement physique

	Nom du centre			Nom du centre		
Le centre de conditionnement	Oui	Non	Je ne sais pas	Oui	Non	Je ne sais pas
Le centre est reconnu pour être conforme aux Directives canadiennes pour le conditionnement physique*.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le centre est à proximité et bien situé	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Les installations sont propres et bien entretenues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Les membres ont accès à une source d'eau potable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Les téléphones d'urgence sont facilement accessibles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Il y a peu de temps d'attente pour utiliser les appareils, pendant les périodes où on prévoit attendre.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Il n'y a pas trop de monde dans les cours de conditionnement en groupe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vous vous sentirez à l'aise d'utiliser les installations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le centre est ouvert depuis plus d'un an.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le personnel responsable du conditionnement physique						
Il y a toujours quelqu'un qui supervise la salle d'entraînement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tous les membres du personnel responsables du conditionnement physique ont reçu une formation en premiers soins et en réanimation cardio-respiratoire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tous les membres du personnel responsables du conditionnement physique sont diplômés dans le domaine où ils travaillent (par ex. en aérobic, en aquaforme, en évaluation de la forme physique ou comme entraîneur personnel).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demandez à voir leurs diplômes.						
Sécurité et autres qualités des programmes						
Une présélection est exigée afin de déterminer si un programme de conditionnement peut avoir des risques pour votre santé.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Un employé qualifié du centre de conditionnement peut procéder à une évaluation complète de votre forme physique avant que vous ne commenciez un programme de conditionnement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le centre met l'accent sur la sensibilisation des gens à l'importance d'un mode de vie actif.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le centre privilégie une approche équilibrée en matière de conditionnement physique.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Politique relative à la tarification						
Les droits d'adhésion constituent un bon rapport qualité-prix.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le centre fournit une grille tarifaire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vous pouvez payer vos droits d'adhésion pour l'année sur une base mensuelle, comme le mentionne la Loi sur les services prépayés. N'hésitez pas à demander de plus amples renseignements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Autres critères importants à vos yeux						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* C'est-à-dire qu'il respecte ou met en pratique les Directives canadiennes pour le conditionnement physique, qui s'appliquent aux domaines suivants : compétences du personnel responsable du conditionnement physique, procédures d'urgence, prévention des maladies contagieuses, environnement sécuritaire et protection des membres dont les risques pour la santé sont plus élevés ou qui ont des besoins particuliers.

PAR-Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	1. Has your doctor ever said that you have a heart condition <u>and</u> that you should only do physical activity recommended by a doctor?
<input type="checkbox"/>	<input type="checkbox"/>	2. Do you feel pain in your chest when you do physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	3. In the past month, have you had chest pain when you were not doing physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	4. Do you lose your balance because of dizziness or do you ever lose consciousness?
<input type="checkbox"/>	<input type="checkbox"/>	5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
<input type="checkbox"/>	<input type="checkbox"/>	7. Do you know of <u>any other reason</u> why you should not do physical activity?

If
you
answered

YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want — as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- Find out which community programs are safe and helpful for you.

NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- start becoming much more physically active — begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal — this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

DELAY BECOMING MUCH MORE ACTIVE:

- if you are not feeling well because of a temporary illness such as a cold or a fever — wait until you feel better; or
- if you are or may be pregnant — talk to your doctor before you start becoming more active.

PLEASE NOTE: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

Informed Use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

No changes permitted. You are encouraged to photocopy the PAR-Q but only if you use the entire form.

NOTE: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

"I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction."

NAME _____

SIGNATURE _____

DATE _____

SIGNATURE OF PARENT
or GUARDIAN (for participants under the age of majority) _____

WITNESS _____

Note: This physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if your condition changes so that you would answer YES to any of the seven questions.



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...continued from other side

PAR-Q & YOU

Physical Activity Readiness
Questionnaire - PAR-Q
(revised 2002)

CANADA'S
Physical Activity Guide
to Healthy Active Living

Physical activity improves health.

Every little bit counts, but more is even better – everyone can do it!

Get active your way – build physical activity into your daily life...

- at home
- at school
- at work
- at play
- on the way

...that's active living!

Endurance
4-7 days a week
Continuous activities for your heart, lungs and circulatory system.

Flexibility
4-7 days a week
Gentle reaching, bending and stretching activities to keep your muscles relaxed and joints mobile.

Strength
2-4 days a week
Activities against resistance to strengthen muscles and bones and improve posture.

Starting slowly is very safe for most people. Not sure? Consult your health professional.

For a copy of the *Guide Handbook* and more information:
1-888-334-9769, or
www.paguide.com

Eating well is also important. Follow *Canada's Food Guide to Healthy Eating* to make wise food choices.

Get Active Your Way, Every Day – For Life!

Scientists say accumulate 60 minutes of physical activity every day to stay healthy or improve your health. As you progress to moderate activities you can cut down to 30 minutes, 4 days a week. Add-up your activities in periods of at least 10 minutes each. Start slowly... and build up.

Time needed depends on effort				
Very Light Effort	Light Effort	Moderate Effort	Vigorous Effort	Maximum Effort
60 minutes	30-60 minutes	20-30 minutes		
• Strolling • Dusting	• Light walking • Volleyball • Easy gardening • Stretching	• Brisk walking • Biking • Raking leaves • Swimming • Dancing • Water aerobics	• Aerobics • Jogging • Hockey • Basketball • Fast swimming • Fast dancing	• Sprinting • Racing
Range needed to stay healthy				

You Can Do It – Getting started is easier than you think

Physical activity doesn't have to be very hard. Build physical activities into your daily routine.

- Walk whenever you can – get off the bus early, use the stairs instead of the elevator.
- Reduce inactivity for long periods, like watching TV.
- Get up from the couch and stretch and bend for a few minutes every hour.
- Play actively with your kids.
- Choose to walk, wheel or cycle for short trips.
- Start with a 10 minute walk – gradually increase the time.
- Find out about walking and cycling paths nearby and use them.
- Observe a physical activity class to see if you want to try it.
- Try one class to start – you don't have to make a long-term commitment.
- Do the activities you are doing now, more often.

Benefits of regular activity:

- better health
- improved fitness
- better posture and balance
- better self-esteem
- weight control
- stronger muscles and bones
- feeling more energetic
- relaxation and reduced stress
- continued independent living in later life

Health risks of inactivity:

- premature death
- heart disease
- obesity
- high blood pressure
- adult-onset diabetes
- osteoporosis
- stroke
- depression
- colon cancer

Health Canada Santé Canada

Canadian Society for Exercise Physiology

ACTIVELY LIVING

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Physical Activity Guide to Healthy Active Living

Source: Canada's Physical Activity Guide to Healthy Active Living, Health Canada, 1998 <http://www.hc-sc.gc.ca/hppb/paguide/pdf/guideEng.pdf>

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FITNESS AND HEALTH PROFESSIONALS MAY BE INTERESTED IN THE INFORMATION BELOW:

The following companion forms are available for doctors' use by contacting the Canadian Society for Exercise Physiology (address below):

The **Physical Activity Readiness Medical Examination (PARmed-X)** – to be used by doctors with people who answer YES to one or more questions on the PAR-Q.

The **Physical Activity Readiness Medical Examination for Pregnancy (PARmed-X for Pregnancy)** – to be used by doctors with pregnant patients who wish to become more active.

References:

Arraix, G.A., Wigle, D.T., Mao, Y. (1992). Risk Assessment of Physical Activity and Physical Fitness in the Canada Health Survey Follow-Up Study. **J. Clin. Epidemiol.** 45:4 419-428.

Mottola, M., Wolfe, L.A. (1994). Active Living and Pregnancy. In: A. Quinney, L. Gauvin, T. Wall (eds.), **Toward Active Living: Proceedings of the International Conference on Physical Activity, Fitness and Health**. Champaign, IL: Human Kinetics.

PAR-Q Validation Report, British Columbia Ministry of Health, 1978.

Thomas, S., Reading, J., Shephard, R.J. (1992). Revision of the Physical Activity Readiness Questionnaire (PAR-Q). **Can. J. Sport Sci.** 17:4 338-345.

For more information, please contact the:

Canadian Society for Exercise Physiology
202-185 Somerset Street West
Ottawa, ON K2P 0J2
Tel. 1-877-651-3755 • FAX (613) 234-3565
Online: www.csep.ca

The original PAR-Q was developed by the British Columbia Ministry of Health. It has been revised by an Expert Advisory Committee of the Canadian Society for Exercise Physiology chaired by Dr. N. Gledhill (2002).

Disponible en français sous le titre «Questionnaire sur l'aptitude à l'activité physique - Q-AAP (révisé 2002)».

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Supported by:  Health Canada Santé Canada

Q-AAP et VOUS

(Un questionnaire pour les gens de 15 à 69 ans)

L'exercice physique pratiqué d'une façon régulière constitue une occupation de loisir saine et agréable. D'ailleurs, de plus en plus de gens pratiquent une activité physique de façon régulière. Règle générale, augmenter la pratique sportive n'entraîne pas de risques de santé majeurs. Dans certains cas, il est cependant conseillé de passer un examen médical avant d'entreprendre un programme régulier d'activités physiques. Le Q-AAP (questionnaire sur l'aptitude à l'activité physique) vise à mieux cerner les personnes pour qui un examen médical est recommandé.

Si vous prévoyez modifier vos habitudes de vie pour devenir un peu plus actif(ve), commencez par répondre aux 7 questions qui suivent. Si vous êtes âgé(e) de 15 à 69 ans, le Q-AAP vous indiquera si vous devez ou non consulter un médecin avant d'entreprendre votre nouveau programme d'activités. Si vous avez plus de 69 ans et ne participez pas d'une façon régulière à des activités physiques exigeantes, vous devriez consulter votre médecin avant d'entreprendre ces activités.

Lisez attentivement et répondez honnêtement à chacune des questions suivantes. Le simple bon sens sera votre meilleur guide pour répondre correctement à ces questions. Cochez OUI ou NON.

OUI	NON	
<input type="checkbox"/>	<input type="checkbox"/>	1. Votre médecin vous a-t-il déjà dit que vous souffriez d'un problème cardiaque et que vous ne deviez pas participer qu'aux activités physiques prescrites et approuvées par un médecin?
<input type="checkbox"/>	<input type="checkbox"/>	2. Ressentez-vous une douleur à la poitrine lorsque vous faites de l'activité physique?
<input type="checkbox"/>	<input type="checkbox"/>	3. Au cours du dernier mois, avez-vous ressenti des douleurs à la poitrine lors de périodes autres que celles où vous participiez à une activité physique?
<input type="checkbox"/>	<input type="checkbox"/>	4. Éprouvez-vous des problèmes d'équilibre reliés à un étourdissement ou vous arrive-t-il de perdre connaissance?
<input type="checkbox"/>	<input type="checkbox"/>	5. Avez-vous des problèmes osseux ou articulaires (par exemple, au dos, au genou ou à la hanche) qui pourraient s'aggraver par une modification de votre niveau de participation à une activité physique?
<input type="checkbox"/>	<input type="checkbox"/>	6. Des médicaments vous sont-ils actuellement prescrits pour contrôler votre tension artérielle ou un problème cardiaque (par exemple, des diurétiques)?
<input type="checkbox"/>	<input type="checkbox"/>	7. Connaissez-vous une autre raison pour laquelle vous ne devriez pas faire de l'activité physique?

Si vous

avez

répondu

OUI à une ou plusieurs questions

Consultez votre médecin AVANT d'augmenter votre niveau de participation à une activité physique et AVANT de faire évaluer votre condition physique. Dites à votre médecin que vous avez complété le questionnaire sur l'aptitude à l'activité physique et expliquez-lui précisément à quelles questions vous avez répondu «OUI».

- Il se peut que vous n'ayez aucune contre-indication à l'activité physique dans la mesure où vous y allez lentement et progressivement. Par ailleurs, il est possible que vous ne puissiez faire que certains types d'efforts adaptés à votre état de santé. Indiquez à votre médecin le type d'activité physique que vous comptez faire et suivez ses recommandations.
- Informez-vous quant aux programmes d'activités spécialisés les mieux adaptés à vos besoins, offerts dans votre localité.

NON à toutes ces questions

Si, en toute honnêteté, vous avez répondu «NON» à toutes les questions du Q-AAP, vous êtes dans une certaine mesure, assuré(e) que :

- vous pouvez augmenter votre pratique régulière d'activités physiques en commençant lentement et en augmentant progressivement l'intensité des activités pratiquées. C'est le moyen le plus simple et le plus sécuritaire d'y arriver.
- vous pouvez faire évaluer votre condition physique. C'est le meilleur moyen de connaître votre niveau de condition physique de base afin de mieux planifier votre participation à un programme d'activités physiques.

REMETTRE À PLUS TARD L'AUGMENTATION DE VOTRE PARTICIPATION ACTIVE :

- si vous souffrez présentement de fièvre, d'une grippe ou d'une autre affection passagère, attendez d'être remis(e); ou
- si vous êtes enceinte ou croyez l'être, consultez votre médecin avant de modifier votre niveau de pratique sportive régulière.

Veillez noter que si votre état de santé se trouve modifié de sorte que vous deviez répondre «OUI» à l'une ou l'autre des questions précédentes, consultez un professionnel de la santé ou de la condition physique, afin de déterminer s'il vous faut modifier votre programme d'activités.

Formule de consentement du Q-AAP: La Société canadienne de physiologie de l'exercice, Santé Canada et ses représentants n'assument aucune responsabilité vis-à-vis des accidents qui pourraient survenir lors de l'activité physique. Si, après avoir complété le questionnaire ci-dessus, un doute persiste quant à votre aptitude à faire une activité physique, consultez votre médecin avant de vous y engager.

Toute modification est interdite. Nous vous encourageons à copier le Q-AAP dans sa totalité.

Dans la mesure où le Q-AAP est administré avant que la personne ne s'engage dans un programme d'activités ou qu'elle fasse évaluer sa condition physique, la section suivante constitue un document ayant une valeur légale et administrative.

«Je sous-signé(e) affirme avoir lu, compris et complété le questionnaire et avoir reçu une réponse satisfaisante à chacune de mes questions.»

NOM _____

SIGNATURE _____

DATE _____

SIGNATURE D'UN PARENT
ou TUTEUR (pour les mineurs) _____

TÉMOIN _____

N.B.— Cette autorisation de faire de l'activité physique est valide pour une période maximale de 12 mois à compter du moment où le questionnaire est rempli. Elle n'est plus valide si votre état de santé change de telle sorte que vous répondiez «OUI» à l'une des sept questions.



© Société canadienne de physiologie de l'exercice

Avec l'appui de :



Santé
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Health
Canada

suite au verso...

...suite

Q-AAP et VOUS

Questionnaire sur l'aptitude
à l'activité physique - Q-AAP
(version révisée en 2002)

Guide d'activité physique
pour une vie active saine

L'activité physique améliore la santé.

Chaque activité compte, mais plus on en fait, mieux on se porte! L'activité physique, c'est pour tout le monde.

Soyez actif à votre façon. Mettez l'activité physique au programme de votre vie de tous les jours

- à la maison
- à l'école
- au travail
- au jeu
- dans vos déplacements...

Menez une vie physiquement active!

Faites plus d'activités d'endurance

Faites plus d'activités d'assouplissement

Faites plus d'activités de développement de la force

Évitez de rester assis longtemps

Choisissez quelques activités qui vous plaisent dans chacun de ces trois groupes.

Endurance

4 à 7 jours par semaine
Activités soutenues, pour faire travailler le cœur et les poumons.

Assouplissement

4 à 7 jours par semaine
Étirements, flexions et extensions en douceur, pour détendre les muscles et demeurer souple.

Force

2 à 4 jours par semaine
Activités à l'aide de poids ou de résistances, pour renforcer les muscles et les os, et améliorer la posture.

Avec une progression lente au début, il n'y a aucun risque, pour la plupart des gens. Dans le doute, consultez un professionnel de la santé.

Pour vous procurer un exemplaire du Guide d'accompagnement ou obtenir d'autres renseignements : 1-888-334-9769 ou www.guideap.com

Il est également important de bien s'alimenter. Consultez le Guide alimentaire canadien pour manger sainement et faites des choix sains.

La durée recommandée varie selon l'effort.

Intensité très légère	Intensité légère	Intensité moyenne	Intensité élevée	Intensité très élevée
60 minutes	30 - 60 minutes	20 - 30 minutes		
• Marcher d'un pas lentement	• Marcher d'un bon pas	• Faire de la bicyclette	• Faire de la course à pied	• Faire des sports
• Epousseter	• Ramasser des feuilles	• Faire du jogging	• Jouer au basket-ball	• Participer à une compétition de course à pied
	• Jouer au volley-ball	• Jouer au hockey		
	• Effectuer de légers travaux de jardinage	• Danser	• Jouer au basket-ball	
	• Faire des exercices d'équilibre	• Faire une course d'endurance	• Jouer au tennis	

Les niveaux d'activité pour rester en santé

Allez-y. Vous aussi, vous en êtes capable.

L'activité physique n'a pas besoin d'être très difficile. Ajoutez des activités physiques à vos occupations habituelles.

- Marchez chaque fois que vous en avez l'occasion, descendez de l'autobus un peu plus tôt et utilisez l'escalier plutôt que l'ascenseur.
- Évitez de demeurer inactif pendant de longues périodes, comme lorsqu'on regarde la télé.
- Levez-vous de votre siège, étirez-vous, faites des exercices d'assouplissement pendant quelques minutes toutes les heures.
- Activez-vous en jouant avec vos enfants.
- Pour les courtes distances, choisissez la bicyclette, la marche ou, si il y a lieu, le fauteuil roulant.

Les bénéfices de l'activité régulière : Les risques liés à l'inactivité :

<ul style="list-style-type: none">• meilleure santé• meilleure condition physique• amélioration de la posture et de l'équilibre• meilleure estime de soi• contrôle du poids• renforcement des muscles et des os• regain d'énergie• détente et contrôle du stress• plus grande autonomie au troisième âge	<ul style="list-style-type: none">• décès prématuré• maladies du cœur• obésité• hypertension artérielle• diabète de maturité• ostéoporose• accidents cardiovasculaires• dépression• cancer du côlon
--	---

Source: Guide d'activité physique canadien pour une vie saine, Santé Canada, 1998 <http://www.hc-sc.gc.ca/hppb/guideap/pdf/guidefre.pdf>

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AUX PROFESSIONNELS DE LA CONDITION PHYSIQUE ET DE LA SANTÉ :

Les formulaires complémentaires suivants sont aussi disponibles. Veuillez consulter notre site web à l'adresse : <http://www.csep.ca/formulaires.asp>.

L'Évaluation médicale de l'aptitude à l'activité physique (PARmed-X). Formulaire conçu pour le médecin traitant de la personne ayant répondu "OUI" à au moins une des questions du Q-AAP.

L'Évaluation médicale de l'aptitude à l'activité physique pour la grossesse (PARmed-X pour femmes enceintes). Formulaire conçu pour le médecin dont les patientes enceintes veulent faire de l'activité physique.

Références :

Arraiz, G.A., Wigle, D.T., Mao, Y. (1992). Risk Assessment of Physical Activity and Physical Fitness in the Canada Health Survey Follow-Up Study. *J. Clin. Epidemiol.* 45:4 419-428.

Mottola, M., Wolfe, L.A. (1994). Active Living and Pregnancy. In: A. Quinney, L. Gauvin, T. Wall (eds.), **Toward Active Living: Proceedings of the International Conference on Physical Activity, Fitness and Health.** Champaign, IL: Human Kinetics.

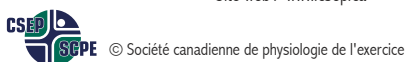
PAR-Q Validation Report, British Columbia Ministry of Health, 1978.

Thomas, S., Reading, J., Shephard, R.J. (1992). Revision of the Physical Activity Readiness Questionnaire (PAR-Q). *Can. J. Sport Sci.* 17:4 338-345.

Pour télécharger les copies additionnelles, veuillez consulter notre site web:

<http://www.csep.ca/formulaires.asp>. Pour plus d'informations veuillez contacter la :

Société canadienne de physiologie de l'exercice
202-185 rue Somerset Ouest
Ottawa (Ontario) CANADA K2P 0J2
Tél. (sans frais) 1-877-651-3755 • Téléc. (613) 234-3565
Site web : www.csep.ca



Avec l'appui de :



Le Q-AAP original a été conçu par le ministère de la Santé de la Colombie-Britannique. Il a été révisé par les membres d'un Comité consultatif d'experts de la Société canadienne de physiologie de l'exercice sous la direction du Dr N. Gledhill (2002).

Available in English under the title: "Physical Activity Readiness Questionnaire - PAR-Q and YOU (revised 2002)"

PARmed-X

PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

The PARmed-X is a physical activity-specific checklist to be used by a physician with patients who have had positive responses to the Physical Activity Readiness Questionnaire (PAR-Q). In addition, the Conveyance/Referral Form in the PARmed-X can be used to convey clearance for physical activity participation, or to make a referral to a medically-supervised exercise program.

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. The PAR-Q by itself provides adequate screening for the majority of people. However, some individuals may require a medical evaluation and specific advice (exercise prescription) due to one or more positive responses to the PAR-Q.

Following the participant's evaluation by a physician, a physical activity plan should be devised in consultation with a physical activity professional (CSEP-Professional Fitness & Lifestyle Consultant or CSEP-Exercise Therapist™). To assist in this, the following instructions are provided:

PAGE 1: • Sections A, B, C, and D should be completed by the participant BEFORE the examination by the physician. The bottom section is to be completed by the examining physician.

PAGES 2 & 3: • A checklist of medical conditions requiring special consideration and management.

PAGE 4: • Physical Activity & Lifestyle Advice for people who do not require specific instructions or prescribed exercise.

• Physical Activity Readiness Conveyance/Referral Form - an optional tear-off tab for the physician to convey clearance for physical activity participation, or to make a referral to a medically-supervised exercise program.

This section to be completed by the participant											
<div style="font-size: 2em; font-weight: bold; color: red; margin-bottom: 5px;">A</div> PERSONAL INFORMATION: NAME _____ ADDRESS _____ TELEPHONE _____ BIRTHDATE _____ GENDER _____ MEDICAL No. _____	<div style="font-size: 2em; font-weight: bold; color: red; margin-bottom: 5px;">B</div> PAR-Q: Please indicate the PAR-Q questions to which you answered YES <input type="checkbox"/> Q 1 Heart condition <input type="checkbox"/> Q 2 Chest pain during activity <input type="checkbox"/> Q 3 Chest pain at rest <input type="checkbox"/> Q 4 Loss of balance, dizziness <input type="checkbox"/> Q 5 Bone or joint problem <input type="checkbox"/> Q 6 Blood pressure or heart drugs <input type="checkbox"/> Q 7 Other reason: _____										
<div style="font-size: 2em; font-weight: bold; color: red; margin-bottom: 5px;">C</div> RISK FACTORS FOR CARDIOVASCULAR DISEASE: <i>Check all that apply</i> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Less than 30 minutes of moderate physical activity most days of the week. <input type="checkbox"/> Currently smoker (tobacco smoking 1 or more times per week). <input type="checkbox"/> High blood pressure reported by physician after repeated measurements. <input type="checkbox"/> High cholesterol level reported by physician. </div> <div style="width: 45%;"> <input type="checkbox"/> Excessive accumulation of fat around waist. <input type="checkbox"/> Family history of heart disease. </div> </div> <div style="border: 1px solid red; padding: 5px; margin-top: 5px; font-size: 0.8em;"> Please note: Many of these risk factors are modifiable. Please refer to page 4 and discuss with your physician. </div>	<div style="font-size: 2em; font-weight: bold; color: red; margin-bottom: 5px;">D</div> PHYSICAL ACTIVITY INTENTIONS: What physical activity do you intend to do? _____ _____ _____										
This section to be completed by the examining physician											
Physical Exam: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Ht</td> <td style="width: 20%;">Wt</td> <td style="width: 20%;">BP i)</td> <td style="width: 40%;">/</td> </tr> <tr> <td></td> <td></td> <td>BP ii)</td> <td>/</td> </tr> </table> Conditions limiting physical activity: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Cardiovascular <input type="checkbox"/> Musculoskeletal </div> <div> <input type="checkbox"/> Respiratory <input type="checkbox"/> Abdominal </div> <div> <input type="checkbox"/> Other </div> </div> Tests required: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> ECG <input type="checkbox"/> Blood </div> <div> <input type="checkbox"/> Exercise Test <input type="checkbox"/> Urinalysis </div> <div> <input type="checkbox"/> X-Ray <input type="checkbox"/> Other </div> </div>		Ht	Wt	BP i)	/			BP ii)	/	Physical Activity Readiness Conveyance/Referral: Based upon a current review of health status, I recommend: <input type="checkbox"/> No physical activity <input type="checkbox"/> Only a medically-supervised exercise program until further medical clearance <input type="checkbox"/> Progressive physical activity: <div style="margin-left: 20px;"> <input type="checkbox"/> with avoidance of: _____ <input type="checkbox"/> with inclusion of: _____ <input type="checkbox"/> under the supervision of a CSEP-Professional Fitness & Lifestyle Consultant or CSEP-Exercise Therapist™ <input type="checkbox"/> Unrestricted physical activity—start slowly and build up gradually </div>	
Ht	Wt	BP i)	/								
		BP ii)	/								

PARmed-X

PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

Following is a checklist of medical conditions for which a degree of precaution and/or special advice should be considered for those who answered "YES" to one or more questions on the PAR-Q, and people over the age of 69. Conditions are grouped by system. Three categories of precautions are provided. Comments under Advice are general, since details and alternatives require clinical judgement in each individual instance.

	Absolute Contraindications	Relative Contraindications	Special Prescriptive Conditions	ADVICE
	Permanent restriction or temporary restriction until condition is treated, stable, and/or past acute phase.	Highly variable. Value of exercise testing and/or program may exceed risk. Activity may be restricted. Desirable to maximize control of condition. Direct or indirect medical supervision of exercise program may be desirable.	Individualized prescriptive advice generally appropriate: • limitations imposed; and/or • special exercises prescribed. May require medical monitoring and/or initial supervision in exercise program.	
Cardiovascular	<input type="checkbox"/> aortic aneurysm (dissecting) <input type="checkbox"/> aortic stenosis (severe) <input type="checkbox"/> congestive heart failure <input type="checkbox"/> crescendo angina <input type="checkbox"/> myocardial infarction (acute) <input type="checkbox"/> myocarditis (active or recent) <input type="checkbox"/> pulmonary or systemic embolism—acute <input type="checkbox"/> thrombophlebitis <input type="checkbox"/> ventricular tachycardia and other dangerous dysrhythmias (e.g., multi-focal ventricular activity)	<input type="checkbox"/> aortic stenosis (moderate) <input type="checkbox"/> subaortic stenosis (severe) <input type="checkbox"/> marked cardiac enlargement <input type="checkbox"/> supraventricular dysrhythmias (uncontrolled or high rate) <input type="checkbox"/> ventricular ectopic activity (repetitive or frequent) <input type="checkbox"/> ventricular aneurysm <input type="checkbox"/> hypertension—untreated or uncontrolled severe (systemic or pulmonary) <input type="checkbox"/> hypertrophic cardiomyopathy <input type="checkbox"/> compensated congestive heart failure	<input type="checkbox"/> aortic (or pulmonary) stenosis—mild angina pectoris and other manifestations of coronary insufficiency (e.g., post-acute infarct) <input type="checkbox"/> cyanotic heart disease <input type="checkbox"/> shunts (intermittent or fixed) <input type="checkbox"/> conduction disturbances <ul style="list-style-type: none"> • complete AV block • left BBB • Wolff-Parkinson-White syndrome <input type="checkbox"/> dysrhythmias—controlled <input type="checkbox"/> fixed rate pacemakers	<ul style="list-style-type: none"> • clinical exercise test may be warranted in selected cases, for specific determination of functional capacity and limitations and precautions (if any). • slow progression of exercise to levels based on test performance and individual tolerance. • consider individual need for initial conditioning program under medical supervision (indirect or direct).
			<input type="checkbox"/> intermittent claudication <input type="checkbox"/> hypertension: systolic 160-180; diastolic 105+	progressive exercise to tolerance progressive exercise; care with medications (serum electrolytes; post-exercise syncope; etc.)
Infections	<input type="checkbox"/> acute infectious disease (regardless of etiology)	<input type="checkbox"/> subacute/chronic/recurrent infectious diseases (e.g., malaria, others)	<input type="checkbox"/> chronic infections <input type="checkbox"/> HIV	variable as to condition
Metabolic		<input type="checkbox"/> uncontrolled metabolic disorders (diabetes mellitus, thyrotoxicosis, myxedema)	<input type="checkbox"/> renal, hepatic & other metabolic insufficiency <input type="checkbox"/> obesity <input type="checkbox"/> single kidney	variable as to status dietary moderation, and initial light exercises with slow progression (walking, swimming, cycling)
Pregnancy		<input type="checkbox"/> complicated pregnancy (e.g., toxemia, hemorrhage, incompetent cervix, etc.)	<input type="checkbox"/> advanced pregnancy (late 3rd trimester)	refer to the "PARmed-X for PREGNANCY"

References:

- Arraix, G.A., Wigle, D.T., Mao, Y. (1992). Risk Assessment of Physical Activity and Physical Fitness in the Canada Health Survey Follow-Up Study. *J. Clin. Epidemiol.* 45:4 419-428.
- Mottola, M., Wolfe, L.A. (1994). Active Living and Pregnancy. In: A. Quinney, L. Gauvin, T. Wall (eds.), **Toward Active Living: Proceedings of the International Conference on Physical Activity, Fitness and Health**. Champaign, IL: Human Kinetics.
- PAR-Q Validation Report, British Columbia Ministry of Health, 1978.
- Thomas, S., Reading, J., Shephard, R.J. (1992). Revision of the Physical Activity Readiness Questionnaire (PAR-Q). *Can. J. Spt. Sci.* 17: 4 338-345.

The PAR-Q and PARmed-X were developed by the British Columbia Ministry of Health. They have been revised by an Expert Advisory Committee of the Canadian Society for Exercise Physiology chaired by Dr. N. Gledhill (2002).

No changes permitted. You are encouraged to photocopy the PARmed-X, but only if you use the entire form.

Disponible en français sous le titre
«Évaluation médicale de l'aptitude à l'activité physique (X-AAP)»

Continued on page 3...

	Special Prescriptive Conditions	ADVICE
Lung	<input type="checkbox"/> chronic pulmonary disorders	special relaxation and breathing exercises
	<input type="checkbox"/> obstructive lung disease <input type="checkbox"/> asthma	breath control during endurance exercises to tolerance; avoid polluted air
	<input type="checkbox"/> exercise-induced bronchospasm	avoid hyperventilation during exercise; avoid extremely cold conditions; warm up adequately; utilize appropriate medication.
Musculoskeletal	<input type="checkbox"/> low back conditions (pathological, functional)	avoid or minimize exercise that precipitates or exasperates e.g., forced extreme flexion, extension, and violent twisting; correct posture, proper back exercises
	<input type="checkbox"/> arthritis—acute (infective, rheumatoid; gout)	treatment, plus judicious blend of rest, splinting and gentle movement
	<input type="checkbox"/> arthritis—subacute	progressive increase of active exercise therapy
	<input type="checkbox"/> arthritis—chronic (osteoarthritis and above conditions)	maintenance of mobility and strength; non-weightbearing exercises to minimize joint trauma (e.g., cycling, aquatic activity, etc.)
	<input type="checkbox"/> orthopaedic	highly variable and individualized
	<input type="checkbox"/> hernia	minimize straining and isometrics; strengthen abdominal muscles
	<input type="checkbox"/> osteoporosis or low bone density	avoid exercise with high risk for fracture such as push-ups, curl-ups, vertical jump and trunk forward flexion; engage in low-impact weight-bearing activities and resistance training
CNS	<input type="checkbox"/> convulsive disorder not completely controlled by medication	minimize or avoid exercise in hazardous environments and/or exercising alone (e.g., swimming, mountainclimbing, etc.)
	<input type="checkbox"/> recent concussion	thorough examination if history of two concussions; review for discontinuation of contact sport if three concussions, depending on duration of unconsciousness, retrograde amnesia, persistent headaches, and other objective evidence of cerebral damage
Blood	<input type="checkbox"/> anemia—severe (< 10 Gm/dl)	control preferred; exercise as tolerated
	<input type="checkbox"/> electrolyte disturbances	
Medications	<input type="checkbox"/> antianginal <input type="checkbox"/> antiarrhythmic <input type="checkbox"/> antihypertensive <input type="checkbox"/> anticonvulsant <input type="checkbox"/> beta-blockers <input type="checkbox"/> digitalis preparations <input type="checkbox"/> diuretics <input type="checkbox"/> ganglionic blockers <input type="checkbox"/> others	NOTE: consider underlying condition. Potential for: exertional syncope, electrolyte imbalance, bradycardia, dysrhythmias, impaired coordination and reaction time, heat intolerance. May alter resting and exercise ECG's and exercise test performance.
Other	<input type="checkbox"/> post-exercise syncope	moderate program
	<input type="checkbox"/> heat intolerance	prolong cool-down with light activities; avoid exercise in extreme heat
	<input type="checkbox"/> temporary minor illness	postpone until recovered
	<input type="checkbox"/> cancer	if potential metastases, test by cycle ergometry, consider non-weight bearing exercises; exercise at lower end of prescriptive range (40-65% of heart rate reserve), depending on condition and recent treatment (radiation, chemotherapy); monitor hemoglobin and lymphocyte counts; add dynamic lifting exercise to strengthen muscles, using machines rather than weights.

*Refer to special publications for elaboration as required

The following companion forms are available online: <http://www.csep.ca/forms.asp>

The **Physical Activity Readiness Questionnaire (PAR-Q)** - a questionnaire for people aged 15-69 to complete before becoming much more physically active.

The **Physical Activity Readiness Medical Examination for Pregnancy (PARmed-X for PREGNANCY)** - to be used by physicians with pregnant patients who wish to become more physically active.

For more information, please contact the:

Canadian Society for Exercise Physiology
202 - 185 Somerset St. West
Ottawa, ON K2P 0J2
Tel. 1-877-651-3755 • FAX (613) 234-3565 • Online: www.csep.ca

Note to physical activity professionals...

It is a prudent practice to retain the completed Physical Activity Readiness Conveyance/Referral Form in the participant's file.



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Continued on page 4...

PARmed-X PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

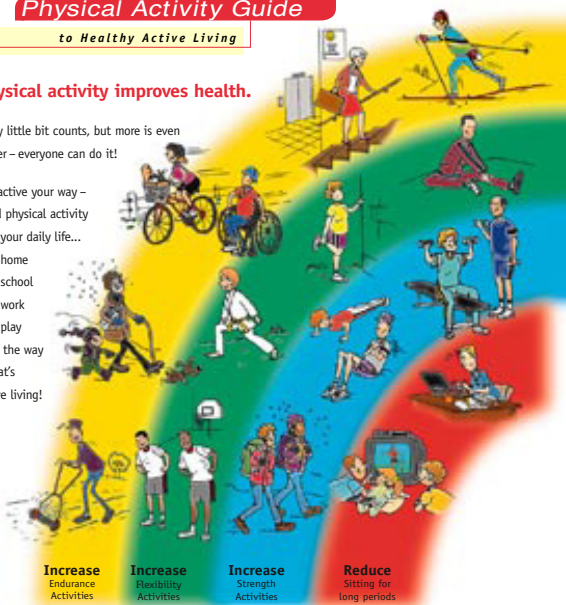


Physical activity improves health.

Every little bit counts, but more is even better – everyone can do it!

Get active your way – build physical activity into your daily life...

- at home
 - at school
 - at work
 - at play
 - on the way
- ...that's active living!



Increase
Endurance
Activities

Increase
Flexibility
Activities

Increase
Strength
Activities

Reduce
Sitting for
long periods

Choose a variety of activities from these three groups:

Endurance

4-7 days a week
Continuous activities for your heart, lungs and circulatory system.

Flexibility

4-7 days a week
Gentle reaching, bending and stretching activities to keep your muscles relaxed and joints mobile.

Strength

2-4 days a week
Activities against resistance to strengthen muscles and bones and improve posture.

Starting slowly is very safe for most people. Not sure? Consult your health professional.

For a copy of the Guide Handbook and more information: 1-888-334-9769, or www.paguide.com

Eating well is also important. Follow Canada's Food Guide to Healthy Eating to make wise food choices.

Get Active Your Way, Every Day – For Life!

Scientists say accumulate 60 minutes of physical activity every day to stay healthy or improve your health. As you progress to moderate activities you can cut down to 30 minutes, 4 days a week. Add-up your activities in periods of at least 10 minutes each. Start slowly... and build up.

Time needed depends on effort				
Very Light Effort	Light Effort	Moderate Effort	Vigorous Effort	Maximum Effort
60 minutes	30-60 minutes	20-30 minutes		
• Strolling	• Light walking	• Brisk walking	• Aerobics	• Sprinting
• Dusting	• Volleyball	• Biking	• Jogging	• Racing
	• Easy gardening	• Raking leaves	• Hockey	
	• Stretching	• Swimming	• Basketball	
		• Dancing	• Fast swimming	
		• Water aerobics	• Fast dancing	
Range needed to stay healthy				

You Can Do It – Getting started is easier than you think

Physical activity doesn't have to be very hard. Build physical activities into your daily routine.

- Walk whenever you can – get off the bus early, use the stairs instead of the elevator.
- Reduce inactivity for long periods, like watching TV.
- Get up from the couch and stretch and bend for a few minutes every hour.
- Play actively with your kids.
- Choose to walk, wheel or cycle for short trips.
- Start with a 10 minute walk – gradually increase the time.
- Find out about walking and cycling paths nearby and use them.
- Observe a physical activity class to see if you want to try it.
- Try one class to start – you don't have to make a long-term commitment.
- Do the activities you are doing now, more often.

Benefits of regular activity:	Health risks of inactivity:
<ul style="list-style-type: none"> • better health • improved fitness • better posture and balance • better self-esteem • weight control • stronger muscles and bones • feeling more energetic • relaxation and reduced stress • continued independent living in later life 	<ul style="list-style-type: none"> • premature death • heart disease • obesity • high blood pressure • adult-onset diabetes • osteoporosis • stroke • depression • colon cancer



Source: Canada's Physical Activity Guide to Healthy Active Living, Health Canada, 1998 <http://www.hc-sc.gc.ca/hppb/paguide/pdf/guideEng.pdf>

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PARmed-X Physical Activity Readiness Conveyance/Referral Form

Based upon a current review of the health status of _____, I recommend:

- ☐ No physical activity
- ☐ Only a medically-supervised exercise program until further medical clearance
- ☐ Progressive physical activity
 - ☐ with avoidance of: _____
 - ☐ with inclusion of: _____
 - ☐ under the supervision of a CSEP-Professional Fitness & Lifestyle Consultant or CSEP-Exercise Therapist™
- ☐ Unrestricted physical activity — start slowly and build up gradually

Further Information:

- ☐ Attached
- ☐ To be forwarded
- ☐ Available on request

Physician/clinic stamp:

NOTE: This physical activity clearance is valid for a maximum of six months from the date it is completed and becomes invalid if your medical condition becomes worse.

X-AAP ÉVALUATION MÉDICALE DE L'APTITUDE À L'ACTIVITÉ PHYSIQUE

Le X-AAP est un questionnaire spécifique à l'activité physique utilisé par le médecin dont le patient a répondu "OUI" à au moins une des questions du Q-AAP. De plus, la Fiche de Recommandation d'Activité Physique intégrée au X-AAP peut être utilisée par le médecin traitant pour autoriser la pratique d'activités physiques ou pour diriger le patient vers un programme d'activité sous surveillance médicale.

L'activité physique pratiquée d'une façon régulière constitue une occupation de loisir saine et agréable. Le Questionnaire sur l'Aptitude à l'Activité Physique (Q-AAP) permet d'identifier la majorité de personnes à risque. Les personnes ayant répondu «OUI» à une ou plusieurs questions, devront cependant subir un examen médical pour vérifier la présence de risques associées à la pratique d'activités physiques ou pour mieux orienter la prescriptions de l'activité physique.

Suite à l'évaluation de l'état de santé du participant par un médecin, un programme d'activité physique sera élaboré en collaboration avec des professionnels(elles) de l'activité physique (Conseiller en condition physique et habitudes de vie-Niveau 2 ou des kinésithérapeutes de la SCPE). Pour y arriver, veuillez suivre les instructions suivantes.

PAGE 1: • Les sections A,B,C, et D devraient être remplies par le participant AVANT de se soumettre à l'examen médical. La partie en-dessous est réservée à l'usage du médecin traitant.

PAGE 2 & 3: • Cette page contient une liste de conditions médicales requérant certaines précautions ou conseils spéciaux.

PAGE 4: • Conseils sur l'activité physique et la vie active pour ceux qui ne nécessitent pas de conseil ou d'attention particulière.
• Fiche de Recommandation d'Activité Physique: cette portion détachable peut être utilisée par le médecin traitant pour autoriser la pratique d'activité physique ou pour diriger le patient vers un programme d'activité sous surveillance médicale.

Cette section doit être complétée par le participant

A INFORMATION PERSONNELLE: NOM _____ ADRESSE _____ TÉLÉPHONE _____ DATE DE NAISSANCE _____ SEXE _____ No.ASS.MALADIE _____	B Q-AAP: Prière d'indiquer les questions auxquelles vous avez répondu positivement «OUI» <input type="checkbox"/> Q 1 Trouble cardiaque <input type="checkbox"/> Q 2 Douleur à la poitrine à l'effort <input type="checkbox"/> Q 3 Douleur à la poitrine au repos <input type="checkbox"/> Q 4 Perte d'équilibre, étourdissement <input type="checkbox"/> Q 5 Troubles osseux ou articulaires <input type="checkbox"/> Q 6 Tension artérielle ou médication cardiaque <input type="checkbox"/> Q 7 Autres raisons : _____
C FACTEURS DE RISQUE DE LA MALADIE CORONARIENNE: Cochez les situations qui s'appliquent à votre état <input type="checkbox"/> Moins de 30 minutes d'activité physique la plupart des jours de la semaine. <input type="checkbox"/> Fumeur (Fume la cigarette au moins 1 fois par jour). <input type="checkbox"/> Hypertension artérielle rapportée par votre médecin après mesures répétées. <input type="checkbox"/> Hyperlipidémie rapportée par votre médecin. <input type="checkbox"/> Accumulation de masse adipeuse autour de la taille. <input type="checkbox"/> Antécédents familiaux de maladies coronariennes. <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <i>Veuillez noter que plusieurs de ces facteurs de risques sont évolutifs. S'il vous plaît, référer à la page 4 et en discuter avec votre médecin.</i> </div>	D INTÉRÊTS FACE À L'ACTIVITÉ PHYSIQUE: Dans quel type d'activités physiques désirez-vous vous engager? _____ _____ _____

Cette section doit être complétée par le médecin traitant

Examen physique: <table border="1" style="width: 100%;"> <tr> <td style="width: 33%;">Taille</td> <td style="width: 33%;">Kg</td> <td style="width: 33%;">Tension artérielle</td> </tr> <tr> <td></td> <td></td> <td>i) /</td> </tr> <tr> <td></td> <td></td> <td>ii) /</td> </tr> </table> Conditions pouvant limiter la pratique d'activité physique: <input type="checkbox"/> Cardio-vasculaire <input type="checkbox"/> Respiratoire <input type="checkbox"/> Autre <input type="checkbox"/> Musculo-squelettique <input type="checkbox"/> Abdominale Examen(s) indiqué(s): <input type="checkbox"/> ECG <input type="checkbox"/> Épreuve d'effort <input type="checkbox"/> Rayons-X <input type="checkbox"/> Analyses sanguines <input type="checkbox"/> Analyse d'urine <input type="checkbox"/> Autre	Taille	Kg	Tension artérielle			i) /			ii) /	Fiche de Recommandation d'Activité Physique: D'après l'examen médical, je recommande: <input type="checkbox"/> Aucune activité physique <input type="checkbox"/> Seul un programme d'activité physique avec l'obtention d'une autorisation définitive <input type="checkbox"/> Activité physique progressive <input type="checkbox"/> en évitant: _____ <input type="checkbox"/> incluant: _____ <input type="checkbox"/> sous la supervision d'un Conseiller en condition physique et habitudes de vie-Niveau 2 ou des kinésithérapeutes de la SCPE <input type="checkbox"/> Sans aucune restriction — début léger avec augmentation progressive <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Plus amples informations: <input type="checkbox"/> ci-jointes <input type="checkbox"/> à venir <input type="checkbox"/> disponibles sur demande </div>
Taille	Kg	Tension artérielle								
		i) /								
		ii) /								

X-AAP

ÉVALUATION MÉDICALE DE L'APTITUDE À L'ACTIVITÉ PHYSIQUE

Ci dessous apparaît une liste de conditions médicales requérant certaines précautions ou conseils. Celles-ci s'appliquent à ceux qui ont répondu positivement à une des 7 questions du Q-AAP et pour les gens de 69 ans et plus. Les conditions sont groupées par système. Il y a trois catégories de recommandations. Les observations figurant sous Conseils sont d'ordre général puisque les détails et les choix requièrent un jugement clinique individualisé.

	Contre-indications absolues	Contre-indications relatives	Conditions spéciales de recommandation	CONSEILS
	Restriction permanente ou temporaire jusqu'à ce que l'état soit traité, stabilisé ou ait passé la phase aiguë.	Très variable. La valeur de l'épreuve d'effort ou du programme d'exercices pourrait excéder le risque. L'exercice peut être contre-indiqué. Contrôle maximal de l'état est souhaitable. Il est bon que le médecin supervise directement ou indirectement le programme	Des conseils de nature personnalisée sont généralement appropriés: • restrictions imposées; et/ou • exercices spéciaux prescrits. Un contrôle médical ou une supervision médicale initiale, ou les deux, au cours du programme d'exercices, peuvent être nécessaires.	
Cardio-vasculaire	<input type="checkbox"/> anévrisme aortique (disséquant) <input type="checkbox"/> sténose aortique (grave) <input type="checkbox"/> défaillance cardiaque <input type="checkbox"/> angine accélérée <input type="checkbox"/> infarctus du myocarde (aigü) <input type="checkbox"/> myocardite (active ou récente) <input type="checkbox"/> embolie pulmonaire ou généralisée - aigüe <input type="checkbox"/> thrombophlébite <input type="checkbox"/> tachycardie ventriculaire et autres dysrythmies dangereuses (par ex.: activité ventriculaire multifocale)	<input type="checkbox"/> sténose aortique (modérée) <input type="checkbox"/> sténose sousaortique (grave) <input type="checkbox"/> hypertrophie cardiaque marquée <input type="checkbox"/> dysrythmies supraventriculaires (non contrôlées ou très rapides) <input type="checkbox"/> activité ectopique ventriculaire (répétitive ou fréquente) <input type="checkbox"/> anévrisme ventriculaire <input type="checkbox"/> hypertension grave non-traitée ou non-contrôlée (généralisée ou pulmonaire) <input type="checkbox"/> cardiomyopathie hypertrophique <input type="checkbox"/> insuffisance cardiaque	<input type="checkbox"/> sténose aortique (ou pulmonaire) —ou angine de poitrine et autres manifestations d'insuffisance coronaire (par ex.: Infarctus en voie de guérison) <input type="checkbox"/> cardiopathie cyanogène <input type="checkbox"/> communication intracardiaque (intermittentes ou fixes) <input type="checkbox"/> troubles de la conduction • bloc A-V complet • bloc de branche gauche • syndrome de Wolff-Parkinson-White <input type="checkbox"/> dysrythmies contrôlées <input type="checkbox"/> stimulateurs cardiaques à rythme fixe <input type="checkbox"/> claudication intermittente <input type="checkbox"/> hypertension: systolique 160-180; diastolique 105+	<ul style="list-style-type: none"> • une épreuve d'effort peut être justifiée dans certains cas, pour la détermination particulière de la capacité fonctionnelle, de certaines restrictions et précautions (s'il y a lieu). • progression lente des exercices à des niveaux basés sur l'épreuve initiale et sur la tolérance individuelle. • tenir compte du besoin particulier de chaque individu pour un programme de conditionnement initial, sous supervision médicale (indirecte ou directe).
Infections	<input type="checkbox"/> maladie infectieuse aigüe (indépendamment de l'étiologie)	<input type="checkbox"/> maladie infectieuses subaigüe/ chronique / périodique (par ex: malaria, ou autres)	<input type="checkbox"/> Infections chroniques <input type="checkbox"/> VIH	variable selon l'état
Métabolisme		<input type="checkbox"/> troubles métaboliques non-contrôlés (diabète, hypothyroïdie, myoedème)	<input type="checkbox"/> insuffisance rénale, hépatique ou autre insuffisance chronique <input type="checkbox"/> obésité <input type="checkbox"/> rein unique	variable selon l'état
Grossesse		<input type="checkbox"/> grossesse compliquée (par ex: toxémie, hémorragie, malformation du col de l'utérus, etc.)	<input type="checkbox"/> grossesse avancée (fin du troisième trimestre)	vous référer au «X-AAP pour femmes enceintes»

Références:

- Arraix, G.A., Wigle, D.T., Mao, Y. (1992). Risk Assessment of Physical Activity and Physical Fitness in the Canada Health Survey Follow-Up Study. *J. Clin. Epidemiol.* 45:4 419-428.
- Mottola, M., Wolfe, L.A. (1994). Active Living and Pregnancy. In: A. Quinney, L. Gauvin, T. Wall (eds.). *Toward Active Living: Proceedings of the International Conference on Physical Activity, Fitness and Health*. Champaign, IL: Human Kinetics.
- PAR-Q Validation Report, British Columbia Ministry of Health, 1978.
- Thomas, S., Reading, J., Shephard, R.J. (1992). Revision of the Physical Activity Readiness Questionnaire (PAR-Q). *Can. J. Spt. Sci.* 17:4 338-345.

Q-AAP et X-AAP ont été développés par le ministère de la santé de la Colombie-Britannique. Ils ont été révisés par les membres d'un Comité consultatif d'experts de la Société canadienne de physiologie de l'exercice sous la direction du Dr N. Gledhill (2002).

Toute modification est interdite. Nous vous encourageons à copier le X-AAP dans sa totalité

Available in English under the title: "Physical Activity Readiness Medical Examination (PARmed-X)"

Continuer à la page 3...

	Conditions spéciales de recommandations	CONSEILS
Poumons	<input type="checkbox"/> troubles pulmonaires chroniques	exercices spéciaux de détente et de respiration
	<input type="checkbox"/> affection pulmonaire obstructive <input type="checkbox"/> asthme	contrôle de la respiration pendant les exercices d'endurance jusqu'au niveau voulu; éviter l'air polluée
	<input type="checkbox"/> bronchospasmes provoqués par l'exercice	éviter l'hyperventilation durant les exercices; éviter les températures très froides; s'échauffer adéquatement; utilisation de médicaments appropriés
Musculo-squelettique	<input type="checkbox"/> affections lombaires (pathologiques, fonctionnelles)	éviter ou minimiser les exercices pouvant accentuer le problème (par ex.: flexion et extension forcées extrêmes, torsion violente, etc.); corriger la posture; faire des exercices convenables pour le dos
	<input type="checkbox"/> arthrite - aiguë (infectieuse, rhumatoïde; goutte)	traitements en plus d'une combinaison judicieuse de repos, de port d'orthèses et de mouvements modérés
	<input type="checkbox"/> arthrite - subaiguë	augmentation graduelle de thérapie par l'exercice actif
	<input type="checkbox"/> arthrite - chronique (ostéoarthrite et conditions susmentionnées)	maintien de la mobilité et de la force; exercices d'endurances pour minimiser le traumatisme articulaire (par ex.: cyclisme et natation, etc.)
	<input type="checkbox"/> orthopédique	très variable et spécifique à chaque individu
	<input type="checkbox"/> hernie	minimiser les faux mouvements et les exercices isométriques; renforcer les muscles abdominaux
	<input type="checkbox"/> ostéoporose ou faible densité osseuse	éviter les exercices avec un risque élevé de fracture comme les extensions de bras, les redressements assis, le saut vertical et la flexion du tronc
SNC (Système nerveux central)	<input type="checkbox"/> trouble convulsif non-totalement contrôlé par des médicaments	minimiser les exercices dans des environnements dangereux ou en solitaire (par ex.: la natation, l'alpinisme, etc.)
	<input type="checkbox"/> commotion cérébrale récente	examen complet après une deuxième commotion; suggérer l'abandon des sports de contact après une troisième commotion, dépendamment de la durée de l'inconscience, de l'amnésie rétrograde, de maux de tête persistents et autres évidences objectives de dommage cérébral
Sang	<input type="checkbox"/> anémie - grave (< 10 g/100 mL Hémoglobine)	contrôle préférable; exercices selon la tolérance
	<input type="checkbox"/> perturbation des électrolytes	
Médicaments	<input type="checkbox"/> antiangineux	NOTE: tenir compte de tous les états sous-jacents. Possibilité de: syncope due à l'effort, désordre électrolytique, bradycardie, dysrythmie, coordination et délai de réaction altérés, intolérance à la chaleur. Ils peuvent modifier l'ECG au repos et celui de l'épreuve d'effort ainsi que le rendement durant ces épreuves.
	<input type="checkbox"/> antihypertenseurs	
	<input type="checkbox"/> bêta-bloqueurs	
	<input type="checkbox"/> diurétiques	
	<input type="checkbox"/> autres	
	<input type="checkbox"/> antiarythmiques <input type="checkbox"/> anticonvulsivants <input type="checkbox"/> préparations de digitale <input type="checkbox"/> ganglioplogiques	
Autres	<input type="checkbox"/> syncope après exercice	programme modéré
	<input type="checkbox"/> intolérance à la chaleur	prolonger la phase de récupération par des activités légères; éviter les exercices dans un environnement de chaleur extrême
	<input type="checkbox"/> maladie bénigne, temporaire	repousser le programme jusqu'à la guérison
	<input type="checkbox"/> cancer	s'il y a existence possible de métastases osseuses, suggérer des exercices sans support de la masse corporelle; exercices à des intensités minimales (40%-65% de la fréquence cardiaque, selon l'état actuel et des plus récents traitements (radiothérapie, chimiothérapie); vérifier l'hémoglobine et le compte de lymphocytes; ajouter des séances de lever de charge afin de renforcer les muscles en utilisant des appareils plutôt que des haltères

*Se référer à des publications spécialisées pour plus de détails

Les formulaires complémentaires suivants sont disponibles sur l'internet à l'adresse : <http://www.csep.ca/formulaires.asp>.

Questionnaire sur l'aptitude à l'activité physique (Q-AAP), un questionnaire pour les gens de 15 à 69 ans à compléter par ceux qui veulent faire plus d'activité physique.

L'Évaluation médicale de l'aptitude à l'activité physique pour la grossesse (X-AAP pour femmes enceintes). Formulaire conçu pour le médecin dont les patientes enceintes veulent faire de l'activité physique.

Pour plus d'informations, veuillez contacter la:

Société canadienne de physiologie de l'exercice
185 rue Somerset Ouest, bureau 202
Ottawa (Ontario) K2P 0J2 CANADA
Tél.: 1-877-651-3755 Téléc.: (613) 234-3565
Courriel: info@csep.ca Site web: www.csep.ca

Note aux professionnels de l'activité physique...

Par prudence, il est conseillé de conserver une copie de la «Fiche de Recommandation d'Activité Physique» dans le dossier du participant.



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Avec l'appui de:



Santé
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Health
Canada

Continuer à la page 4...

X-AAP ÉVALUATION MÉDICALE DE L'APTITUDE À L'ACTIVITÉ PHYSIQUE

pour une vie active saine

L'activité physique améliore la santé.

Chaque activité compte, mais plus on en fait, mieux on se porte!
L'activité physique, c'est pour tout le monde.

Soyez actif à votre façon!
Mettez l'activité physique au programme de votre vie de tous les jours:

- à la maison
- à l'école
- au travail
- au jeu
- dans vos déplacements...

Menez une vie physiquement active!

Choisissez quelques activités qui vous plaisent dans chacun de ces trois groupes.

Endurance

Assouplissement

Force

La durée recommandée varie selon l'effort.

Intensité	Intensité légère	Intensité moyenne	Intensité élevée	Intensité très élevée
60 minutes	30 - 60 minutes	20 - 30 minutes		
• Marcher d'un pas modéré	• Marcher d'un bon pas	• Faire de la bicyclette	• Faire de la bicyclette	• Faire des sprints
• Pousser	• Ramasser des feuilles	• Faire du jogging	• Faire de la bicyclette	• Participer à une compétition de course à pied
• Jouer au volley-ball	• Jouer au hockey	• Jouer au basketball	• Jouer au basketball	
• Effectuer des tâches ménagères	• Faire une classe d'aérobic aquatique	• Faire une classe d'aérobic aquatique	• Faire une classe d'aérobic aquatique	
• Faire des exercices d'étirement				

Les niveaux d'activité pour rester en santé

Allez-y. Vous aussi, vous en êtes capable.

Les bienfaits de l'activité régulière : Les risques liés à l'inactivité :

Source: Guide d'activité physique canadien pour une vie saine, Santé Canada, 1998 <http://www.hc-sc.gc.ca/hppb/guideap/pdf/guidefre.pdf>

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Fiche de Recommandation d'Activité Physique

D'après l'examen médical de _____, je recommande:

- ☐ Aucune activité physique
- ☐ Seul un programme d'activité physique avec l'obtention d'une autorisation définitive
- ☐ Activité physique progressive
- ☐ en évitant: _____
- ☐ incluant: _____
- ☐ sous la supervision d'un Conseiller en condition physique et habitudes de vie-Niveau 2 ou des kinésithérapeutes de la SCPE
- ☐ Sans aucune restriction — début léger avec augmentation progressive

Plus amples informations:

- ☐ ci-jointes
- ☐ à venir
- ☐ disponibles sur demande

Médecin/clinique:

N.B. – Cette autorisation de faire de l'activité physique est valide pour une période maximale de six mois à compter du moment où le questionnaire est rempli. Elle n'est plus valide si votre état de santé se détériore.

_____ M.D.

_____ 20_____
(date)

Sample

Informed Consent Agreement

Thank you for choosing to use the facilities, services or programs of _____. We request your understanding and cooperation in maintaining both your and our safety and health by reading and signing the following Informed Consent Agreement.

I, _____, declare that I intend to use some or all of the activities, facilities, programs and services offered by _____ and I understand that each person, (myself included) has a different capacity for participating in such activities, facilities, programs and services. I am aware that all activities, services and programs offered are either educational, recreational, or self-directed in nature. I assume full responsibility during and after my participation, for my choices to use or apply, at my own risk, any portion of the information or instruction I receive.

I understand that part of the risk involved in undertaking any activity or program is relative to my own state of fitness or health (physical, mental or emotional) and that the awareness, care and skill with which I conduct myself in that activity or program. I acknowledge that my choice to participate in any activity, service and program of _____ brings with it the assumption by me of those risks or results stemming from this / these choice(s) and the fitness, health, awareness, care and skill that I possess and use.

I further understand that the activities, programs and services offered by _____ are sometimes conducted by personnel who may not be licensed, certified, or registered instructors or professionals. Although as a standard practice, program personnel shall be certified in the area with which they are providing program services, I accept the fact that the skills and competencies of some employees and /or volunteers will vary according to their training and experience and that no claim is made to offer assessment or treatment of any mental or physical disease or condition by those who are not duly licensed, certified or registered and herein employed to provide such professional services.

I recognize that by participating in the activities, facilities, programs and services offered by _____ that I may experience potential health risks such as transient light-headedness, fainting, abnormal blood pressure, chest discomfort, leg cramps, and nausea and that I assume wilfully those risks. I acknowledge my obligation to immediately inform the nearest supervising employee of any pain, discomfort, fatigue, or any other symptoms that I may suffer during and immediately after my participation. I understand that I may stop or delay my participation in any activity or procedure if I so desire and that I may also be requested to stop and rest by a supervising employee who observes any symptoms of distress or abnormal response.

I understand that I may ask any questions or request further explanation or information about the activities, facilities, programs and services offered by _____ at anytime before, during or after my participation.

I declare that I have read, understood and agree to the contents of this Informed Consent Agreement in its entirety.

Signature _____

Date of Signing _____

Witness _____

Guests Log Sign In

Please read the following Informed Consent statement.

Your signature below, confirms that you have read and understood the risks that could arise from participation in the programs being offered in the facility.

As a guest or casual user of this facility, I acknowledge and accept the risk of injury or medical problem that could arise from my participation in the programs and services provided or from any other use of the facilities. I also acknowledge that I have had the opportunity to undergo more detailed screening (the PAR-Q for example) for potential risks that I may knowingly or unknowingly have. I freely choose not to participate in such screening and hereby register with my full assumption of any such risks.

Date	Print Name	Signature

PARmed-X for PREGNANCY PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

**PARmed-X for PREGNANCY is a guideline for health screening
prior to participation in a prenatal fitness class or other exercise.**

Healthy women with uncomplicated pregnancies can integrate physical activity into their daily living and can participate without significant risks either to themselves or to their unborn child. Postulated benefits of such programs include improved aerobic and muscular fitness, promotion of appropriate weight gain, and facilitation of labour. Regular exercise may also help to prevent gestational glucose intolerance and pregnancy-induced hypertension.

The safety of prenatal exercise programs depends on an adequate level of maternal-fetal physiological reserve. PARmed-X for PREGNANCY is a convenient checklist and prescription for use by health care providers to evaluate pregnant patients who want to enter a prenatal fitness program and for ongoing medical surveillance of exercising pregnant patients.

Instructions for use of the 4-page PARmed-X for PREGNANCY are the following:

1. The patient should fill out the section on PATIENT INFORMATION and the PRE-EXERCISE HEALTH CHECKLIST (PART 1, 2, 3, and 4 on p. 1) and give the form to the health care provider monitoring her pregnancy.
2. The health care provider should check the information provided by the patient for accuracy and fill out SECTION C on CONTRAINDICATIONS (p. 2) based on current medical information.
3. If no exercise contraindications exist, the HEALTH EVALUATION FORM (p. 3) should be completed, signed by the health care provider, and given by the patient to her prenatal fitness professional.

In addition to prudent medical care, participation in appropriate types, intensities and amounts of exercise is recommended to increase the likelihood of a beneficial pregnancy outcome. PARmed-X for PREGNANCY provides recommendations for individualized exercise prescription (p. 3) and program safety (p. 4).

NOTE: Sections A and B should be completed by the patient before the appointment with the health care provider.

A PATIENT INFORMATION	
NAME _____	
ADDRESS _____	
TELEPHONE _____	BIRTHDATE _____ HEALTH INSURANCE No. _____
NAME OF PRENATAL FITNESS PROFESSIONAL _____	PRENATAL FITNESS PROFESSIONAL'S PHONE NUMBER _____

B PRE-EXERCISE HEALTH CHECKLIST	
PART 1: GENERAL HEALTH STATUS	
In the past, have you experienced (check YES or NO):	
	YES NO
1. Miscarriage in an earlier pregnancy?	<input type="checkbox"/> <input type="checkbox"/>
2. Other pregnancy complications?	<input type="checkbox"/> <input type="checkbox"/>
3. I have completed a PAR-Q within the last 30 days.	<input type="checkbox"/> <input type="checkbox"/>
If you answered YES to question 1 or 2, please explain: _____	
Number of previous pregnancies? _____	
PART 2: STATUS OF CURRENT PREGNANCY	
Due Date: _____	
During this pregnancy, have you experienced:	
	YES NO
1. Marked fatigue?	<input type="checkbox"/> <input type="checkbox"/>
2. Bleeding from the vagina ("spotting")?	<input type="checkbox"/> <input type="checkbox"/>
3. Unexplained faintness or dizziness?	<input type="checkbox"/> <input type="checkbox"/>
4. Unexplained abdominal pain?	<input type="checkbox"/> <input type="checkbox"/>
5. Sudden swelling of ankles, hands or face?	<input type="checkbox"/> <input type="checkbox"/>
6. Persistent headaches or problems with headaches?	<input type="checkbox"/> <input type="checkbox"/>
7. Swelling, pain or redness in the calf of one leg?	<input type="checkbox"/> <input type="checkbox"/>
8. Absence of fetal movement after 6 th month?	<input type="checkbox"/> <input type="checkbox"/>
9. Failure to gain weight after 5 th month?	<input type="checkbox"/> <input type="checkbox"/>
If you answered YES to any of the above questions, please explain: _____	

PART 3: ACTIVITY HABITS DURING THE PAST MONTH	
1. List only regular fitness/recreational activities: _____	
INTENSITY	FREQUENCY (times/week)
	1-2 2-4 4+
Heavy	_____
Medium	_____
Light	_____
	TIME (minutes/day)
	<20 20-40 40+

2. Does your regular occupation (job/home) activity involve:	
	YES NO
Heavy Lifting?	<input type="checkbox"/> <input type="checkbox"/>
Frequent walking/stair climbing?	<input type="checkbox"/> <input type="checkbox"/>
Occasional walking (>once/hr)?	<input type="checkbox"/> <input type="checkbox"/>
Prolonged standing?	<input type="checkbox"/> <input type="checkbox"/>
Mainly sitting?	<input type="checkbox"/> <input type="checkbox"/>
Normal daily activity?	<input type="checkbox"/> <input type="checkbox"/>
3. Do you currently smoke tobacco?*	<input type="checkbox"/> <input type="checkbox"/>
4. Do you consume alcohol?*	<input type="checkbox"/> <input type="checkbox"/>
PART 4: PHYSICAL ACTIVITY INTENTIONS	
What physical activity do you intend to do? _____	
Is this a change from what you currently do? <input type="checkbox"/> YES <input type="checkbox"/> NO	
*NOTE: PREGNANT WOMEN ARE STRONGLY ADVISED NOT TO SMOKE OR CONSUME ALCOHOL DURING PREGNANCY AND DURING LACTATION.	



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Société canadienne de physiologie de l'exercice

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PARmed-X for PREGNANCY PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

C CONTRAINDICATIONS TO EXERCISE: to be completed by your health care provider

Absolute Contraindications			Relative Contraindications		
<i>Does the patient have:</i>			<i>Does the patient have:</i>		
	YES	NO		YES	NO
1. Ruptured membranes, premature labour?	<input type="checkbox"/>	<input type="checkbox"/>	1. History of spontaneous abortion or premature labour in previous pregnancies?	<input type="checkbox"/>	<input type="checkbox"/>
2. Persistent second or third trimester bleeding/placenta previa?	<input type="checkbox"/>	<input type="checkbox"/>	2. Mild/moderate cardiovascular or respiratory disease (e.g., chronic hypertension, asthma)?	<input type="checkbox"/>	<input type="checkbox"/>
3. Pregnancy-induced hypertension or pre-eclampsia?	<input type="checkbox"/>	<input type="checkbox"/>	3. Anemia or iron deficiency? (Hb < 100 g/L)?	<input type="checkbox"/>	<input type="checkbox"/>
4. Incompetent cervix?	<input type="checkbox"/>	<input type="checkbox"/>	4. Malnutrition or eating disorder (anorexia, bulimia)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Evidence of intrauterine growth restriction?	<input type="checkbox"/>	<input type="checkbox"/>	5. Twin pregnancy after 28th week?	<input type="checkbox"/>	<input type="checkbox"/>
6. High-order pregnancy (e.g., triplets)?	<input type="checkbox"/>	<input type="checkbox"/>	6. Other significant medical condition?	<input type="checkbox"/>	<input type="checkbox"/>
7. Uncontrolled Type I diabetes, hypertension or thyroid disease, other serious cardiovascular, respiratory or systemic disorder?	<input type="checkbox"/>	<input type="checkbox"/>	Please specify: _____		
NOTE: Risk may exceed benefits of regular physical activity. The decision to be physically active or not should be made with qualified medical advice.					
PHYSICAL ACTIVITY RECOMMENDATION: <input type="checkbox"/> Recommended/Approved <input type="checkbox"/> Contraindicated					

Prescription for Aerobic Activity

RATE OF PROGRESSION: The best time to progress is during the second trimester since risks and discomforts of pregnancy are lowest at that time. Aerobic exercise should be increased gradually during the second trimester from a minimum of 15 minutes per session, 3 times per week (at the appropriate target heart rate or RPE) to a maximum of approximately 30 minutes per session, 4 times per week (at the appropriate target heart rate or RPE).

WARM-UP/COOL-DOWN: Aerobic activity should be preceded by a brief (10-15 min.) warm-up and followed by a short (10-15 min.) cool-down. Low intensity calisthenics, stretching and relaxation exercises should be included in the warm-up/cool-down.

PRESCRIPTION/MONITORING OF INTENSITY: The best way to prescribe and monitor exercise is by combining the heart rate and rating of perceived exertion (RPE) methods.

F	I	T	T
FREQUENCY	INTENSITY	TIME	TYPE
Begin at 3 times per week and progress to four times per week	Exercise within an appropriate RPE range and/or target heart rate zone	Attempt 15 minutes, even if it means reducing the intensity. Rest intervals may be helpful	Non weight-bearing or low-impact endurance exercise using large muscle groups (e.g., walking, stationary cycling, swimming, aquatic exercises, low impact aerobics)

TARGET HEART RATE ZONES

The heart rate zones shown below are appropriate for most pregnant women. Work during the lower end of the HR range at the start of a new exercise program and in late pregnancy.

Age	Heart Rate Range
< 20	140-155
20-29	135-150
30-39	130-145

RATING OF PERCEIVED EXERTION (RPE)

Check the accuracy of your heart rate target zone by comparing it to the scale below. A range of about 12-14 (somewhat hard) is appropriate for most pregnant women.

6	
7	Very, very light
8	
9	Somewhat light
10	
11	Fairly light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Very, very hard
20	

"TALK TEST" - A final check to avoid overexertion is to use the "talk test". The exercise intensity is excessive if you cannot carry on a verbal conversation while exercising.

The original PARmed-X for PREGNANCY was developed by L.A. Wolfe, Ph.D., Queen's University. The muscular conditioning component was developed by M.F. Mottola, Ph.D., University of Western Ontario. The document has been revised based on advice from an Expert Advisory Committee of the Canadian Society for Exercise Physiology chaired by Dr. N. Gledhill, with additional input from Drs. Wolfe and Mottola, and Gregory A.L. Davies, M.D., FRCS(C) Department of Obstetrics and Gynaecology, Queen's University, 2002.

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Disponible en français sous le titre «Examen médical sur l'aptitude à l'activité physique pour les femmes enceintes (X-AAP pour les femmes enceintes)»

Additional copies of the PARmed-X for PREGNANCY, the PARmed-X and/or the PAR-Q can be downloaded from: <http://www.csep.ca/forms.asp>. For more information contact the:

Canadian Society for Exercise Physiology
185 Somerset St. West, Suite 202, Ottawa, Ontario CANADA K2P 0J2
tel.: 1-877-651-3755 FAX (613) 234-3565 www.csep.ca

PARmed-X for PREGNANCY PHYSICAL ACTIVITY READINESS MEDICAL EXAMINATION

Prescription for Muscular Conditioning

It is important to condition all major muscle groups during both prenatal and postnatal periods.

WARM-UPS & COOL DOWN:
Range of Motion: neck, shoulder girdle, back, arms, hips, knees, ankles, etc.

Static Stretching: all major muscle groups

(DO NOT OVER STRETCH!)

EXAMPLES OF MUSCULAR STRENGTHENING EXERCISES		
CATEGORY	PURPOSE	EXAMPLE
Upper back	Promotion of good posture	Shoulder shrugs, shoulder blade pinch
Lower back	Promotion of good posture	Modified standing opposite leg & arm lifts
Abdomen	Promotion of good posture, prevent low-back pain, prevent diastasis recti, strengthen muscles of labour	Abdominal tightening, abdominal curl-ups, head raises lying on side or standing position
Pelvic floor ("Kegels")	Promotion of good bladder control, prevention of urinary incontinence	"Wave", "elevator"
Upper body	Improve muscular support for breasts	Shoulder rotations, modified push-ups against a wall
Buttocks, lower limbs	Facilitation of weight-bearing, prevention of varicose veins	Buttocks squeeze, standing leg lifts, heel raises

PRECAUTIONS FOR MUSCULAR CONDITIONING DURING PREGNANCY		
VARIABLE	EFFECTS OF PREGNANCY	EXERCISE MODIFICATIONS
Body Position	<ul style="list-style-type: none"> in the supine position (lying on the back), the enlarged uterus may either decrease the flow of blood returning from the lower half of the body as it presses on a major vein (inferior vena cava) or it may decrease flow to a major artery (abdominal aorta) 	<ul style="list-style-type: none"> past 4 months of gestation, exercises normally done in the supine position should be altered such exercises should be done side lying or standing
Joint Laxity	<ul style="list-style-type: none"> ligaments become relaxed due to increasing hormone levels joints may be prone to injury 	<ul style="list-style-type: none"> avoid rapid changes in direction and bouncing during exercises stretching should be performed with controlled movements
Abdominal Muscles	<ul style="list-style-type: none"> presence of a rippling (bulging) of connective tissue along the midline of the pregnant abdomen (diastasis recti) may be seen during abdominal exercise 	<ul style="list-style-type: none"> abdominal exercises are not recommended if diastasis recti develops
Posture	<ul style="list-style-type: none"> increasing weight of enlarged breasts and uterus may cause a forward shift in the centre of gravity and may increase the arch in the lower back this may also cause shoulders to slump forward 	<ul style="list-style-type: none"> emphasis on correct posture and neutral pelvic alignment. Neutral pelvic alignment is found by bending the knees, feet shoulder width apart, and aligning the pelvis between accentuated lordosis and the posterior pelvic tilt position.
Precautions for Resistance Exercise	<ul style="list-style-type: none"> emphasis must be placed on continuous breathing throughout exercise exhale on exertion, inhale on relaxation using high repetitions and low weights Valsalva Manoeuvre (holding breath while working against a resistance) causes a change in blood pressure and therefore should be avoided avoid exercise in supine position past 4 months gestation 	



PARmed-X for Pregnancy - Health Evaluation Form

(to be completed by patient and given to the prenatal fitness professional after obtaining medical clearance to exercise)

I, _____ PLEASE PRINT (patient's name), have discussed my plans to participate in physical activity during my current pregnancy with my health care provider and I have obtained his/her approval to begin participation.

Signed: _____
(patient's signature)

Date: _____

HEALTH CARE PROVIDER'S COMMENTS:

Name of health care provider: _____

Address: _____

Telephone: _____

(health care provider's signature)

Advice for Active Living During Pregnancy

Pregnancy is a time when women can make beneficial changes in their health habits to protect and promote the healthy development of their unborn babies. These changes include adopting improved eating habits, abstinence from smoking and alcohol intake, and participating in regular moderate physical activity. Since all of these changes can be carried over into the postnatal period and beyond, pregnancy is a very good time to adopt healthy lifestyle habits that are permanent by integrating physical activity with enjoyable healthy eating and a positive self and body image.

Active Living:

- see your doctor before increasing your activity level during pregnancy
- exercise regularly but don't overexert
- exercise with a pregnant friend or join a prenatal exercise program
- follow FITT principles modified for pregnant women
- know safety considerations for exercise in pregnancy

Healthy Eating:

- the need for calories is higher (about 300 more per day) than before pregnancy
- follow Canada's Food Guide to Healthy Eating and choose healthy foods from the following groups: whole grain or enriched bread or cereal, fruits and vegetables, milk and milk products, meat, fish, poultry and alternatives
- drink 6-8 glasses of fluid, including water, each day
- salt intake should not be restricted
- limit caffeine intake i.e., coffee, tea, chocolate, and cola drinks
- dieting to lose weight is not recommended during pregnancy

Positive Self and Body Image:

- remember that it is normal to gain weight during pregnancy
- accept that your body shape will change during pregnancy
- enjoy your pregnancy as a unique and meaningful experience

For more detailed information and advice about pre- and postnatal exercise, you may wish to obtain a copy of a booklet entitled *Active Living During Pregnancy: Physical Activity Guidelines for Mother and Baby* © 1999. Available from the Canadian Society for Exercise Physiology, 185 Somerset St. West, Suite 202, Ottawa, Ontario Canada K2P 0J2 Tel. 1-877-651-3755 Fax: (613) 234-3565 Email: info@csep.ca (online: www.csep.ca). Cost: \$11.95

For more detailed information about the safety of exercise in pregnancy you may wish to obtain a copy of the Clinical Practice Guidelines of the Society of Obstetricians and Gynaecologists of Canada and Canadian Society for Exercise Physiology entitled *Exercise in Pregnancy and Postpartum* © 2003. Available from the Society of Obstetricians and Gynaecologists of Canada online at www.sogc.org

For more detailed information about pregnancy and childbirth you may wish to obtain a copy of *Healthy Beginnings: Your Handbook for Pregnancy and Birth* © 1998. Available from the Society of Obstetricians and Gynaecologists of Canada at 1-877-519-7999 (also available online at www.sogc.org) Cost \$12.95.

For more detailed information on healthy eating during pregnancy, you may wish to obtain a copy of *Nutrition for a Healthy Pregnancy: National Guidelines for the Childbearing Years* © 1999. Available from Health Canada, Minister of Public Works and Government Services, Ottawa, Ontario Canada (also available online at www.hc-sc.gc.ca).

SAFETY CONSIDERATIONS

- ◆ Avoid exercise in warm/humid environments, especially during the 1st trimester
- ◆ Avoid isometric exercise or straining while holding your breath
- ◆ Maintain adequate nutrition and hydration — drink liquids before and after exercise
- ◆ Avoid exercise while lying on your back past the 4th month of pregnancy
- ◆ Avoid activities which involve physical contact or danger of falling
- ◆ Know your limits — pregnancy is not a good time to train for athletic competition
- ◆ Know the reasons to stop exercise and consult a qualified health care provider immediately if they occur

REASONS TO STOP EXERCISE AND CONSULT YOUR HEALTH CARE PROVIDER

- ◆ Excessive shortness of breath
- ◆ Chest pain
- ◆ Painful uterine contractions (more than 6-8 per hour)
- ◆ Vaginal bleeding
- ◆ Any "gush" of fluid from vagina (suggesting premature rupture of the membranes)
- ◆ Dizziness or faintness

X-AAP pour femmes enceintes

Le X-AAP pour femmes enceintes est un guide de sélection des participantes inscrites à un cours prénatal de conditionnement physique ou pour tout autre exercice.

Les femmes en bonne santé qui ont des grossesses sans complication peuvent intégrer l'activité physique dans leur vie quotidienne et peuvent y participer sans risque significatif pour elle-même ou pour leur enfant à naître. Les effets bénéfiques escomptés de tels programmes sont l'amélioration de la condition physique aérobie et musculaire, un gain de poids approprié à la femme enceinte et un accouchement plus aisé. La pratique régulière d'une activité physique peut aussi aider à prévenir l'intolérance au glucose et l'hypertension reliées à la grossesse.

La sécurité des programmes d'exercices prénatals dépend du niveau de réserve physiologique mère-fœtus. Le X-AAP pour femmes enceintes est une liste de vérifications et de prescription adéquates utilisée par les professionnels de la santé pour évaluer les femmes enceintes qui désirent entreprendre un programme prénatal de conditionnement physique et pour la supervision médicale des femmes enceintes qui font de l'exercice.

Voici la marche à suivre pour l'utilisation du X-AAP pour femmes enceintes (4 pages):

1. La patiente doit compléter la section «Fiche de renseignements de la patiente» et la liste de vérifications pré-exercices (Parties 1, 2, 3 et 4 de la page 1) et la remettre au professionnel de la santé qui assure le suivi de la grossesse.
2. Le professionnel de la santé doit s'assurer que les renseignements fournis par la patiente sont exacts et, suite à ces informations, compléter la section «C» sur les CONTRE-INDICATIONS (page 2).
3. S'il n'y a aucune contre-indication à l'exercice, le formulaire «Fiche d'Évaluation de l'état de santé» (page 3) doit être complété et signé par le professionnel de la santé. La patiente doit ensuite le remettre au (à la) professionnel(le) du conditionnement physique prénatal.

En plus d'un suivi médicale, la participation à des exercices spécifiques d'intensité et de durée appropriées est recommandée pour accroître les chances d'un accouchement réussi. Le X-AAP pour femmes enceintes donne les recommandations nécessaires pour une prescription d'exercices personnalisée (p.3) et pour un programme d'exercices sécuritaire (p.4).

NOTE: Les sections A et B devraient être complétées par la patiente avant la rencontre avec le professionnel de la santé.

A FICHE DE RENSEIGNEMENTS DE LA PATIENTE

Nom _____

Adresse _____

Téléphone _____ Date de naissance _____ No. d'assurance maladie _____

Nom du (de la) professionnel(le) _____ Numéro de téléphone du (de la) professionnel(le) _____
du conditionnement physique prénatal _____ du conditionnement physique prénatal _____

B LISTE DE VÉRIFICATIONS PRÉ-EXERCICE

PARTIE 1: RENSEIGNEMENTS GÉNÉRAUX SUR L'ÉTAT DE SANTÉ

Antérieurement, avez-vous: OUI NON

1. Vécu une fausse couche? ☐ ☐
2. Eu des complications lors d'une autre grossesse? ☐ ☐
3. Complété un Q-AAP dans les 30 derniers jours? ☐ ☐

Si vous avez répondu «OUI» à la question 1 ou 2, expliquez: _____

Nombre de grossesses avant celle-ci? _____

PARTIE 2: ÉTAT DE LA GROSSESSE ACTUELLE

Date prévue de l'accouchement: _____

Au cours de la grossesse actuelle, avez-vous eu ou ressenti une ou des: OUI NON

1. Fatigue excessive? ☐ ☐
2. Pertes sanguines vaginales? ☐ ☐
3. Pertes de conscience ou étourdissements inexpliqués? ☐ ☐
4. Douleurs abdominales inexpliquées? ☐ ☐
5. Enflure soudaine des chevilles, des mains ou du visage? ☐ ☐
6. Maux de têtes persistants ou problèmes reliés aux maux de tête? ☐ ☐
7. Enflure, douleur ou rougeur à un mollet? ☐ ☐
8. Absence de mouvement du fœtus après le 6^e mois? ☐ ☐
9. Absence de gain de poids après le 5^e mois? ☐ ☐

Si vous avez répondu «OUI» à une ou plus des questions, s.v.p. expliquez: _____

PARTIE 3: ACTIVITÉS PHYSIQUES PRATIQUÉES DEPUIS 1 MOIS

1. Listez seulement les activités de conditionnement physique ou de loisir pratiquées régulièrement: _____

INTENSITÉ	FRÉQUENCE (fois/semaines)			DURÉE (minutes/jour)	
	1-2	2-4	4+	<20	20-40 40+
Élevée	—	—	—	—	—
Modérée	—	—	—	—	—
Faible	—	—	—	—	—

2. Est-ce que votre occupation quotidienne (travail/maison) inclut: OUI NON

- Levée d'objets lourds? ☐ ☐
- Marche fréquente/montée d'escaliers? ☐ ☐
- Marche occasionnelle (> 1 fois/h)? ☐ ☐
- Position debout prolongée? ☐ ☐
- Position assise régulière? ☐ ☐
- Activité quotidienne normale? ☐ ☐
3. Fumez-vous la cigarette régulièrement?* ☐ ☐
 4. Consommez-vous de l'alcool?* ☐ ☐

PARTIE 4: INTENTIONS D'ACTIVITÉS PHYSIQUES

Quelle activité physique avez-vous l'intention de pratiquer? _____

Est-ce une modification à ce que vous faites présentement? ☐ ☐

***NOTE: ON SUGGÈRE FORTEMENT AUX FEMMES ENCEINTES D'ÉVITER LA CONSOMMATION DE TABAC OU D'ALCOOL DURANT LA GROSSESSE ET LA PÉRIODE D'ALLAITEMENT.**

**QUESTIONNAIRE MÉDICALE SUR
L'APTITUDE À L'ACTIVITÉ PHYSIQUE
POUR FEMMES ENCEINTES**

X-AAP pour femmes enceintes

C CONTRE-INDICATIONS À L'EXERCICE: à compléter par le professionnel de la santé

Contre-indications Absolues			Contre-indications Relatives		
<i>La patiente a-t-elle :</i>			<i>La patiente a-t-elle :</i>		
1. Membranes rompues, grossesse prématurée ?	OUI	NON	1. Histoire d'avortement spontané ou de contractions prématurées lors de grossesses antérieures ?	OUI	NON
2. Saignements persistants au deuxième ou troisième trimestre (Placenta Previa) ?	<input type="checkbox"/>	<input type="checkbox"/>	2. Maladie cardiaque ou respiratoire faible ou modérée (e.g., hypertension chronique, asthme) ?	<input type="checkbox"/>	<input type="checkbox"/>
3. Hypertension du à la grossesse ou prééclampsie ?	<input type="checkbox"/>	<input type="checkbox"/>	3. Anémie ou manque de fer (Hb < 100 g/L) ?	<input type="checkbox"/>	<input type="checkbox"/>
4. Col utérin problématique ?	<input type="checkbox"/>	<input type="checkbox"/>	4. Malnutrition, troubles alimentaires (anorexie, bulimie) ?	<input type="checkbox"/>	<input type="checkbox"/>
5. Évidence de retard de la croissance intra-utérine ?	<input type="checkbox"/>	<input type="checkbox"/>	5. Grossesse avec jumeaux après la 28 ^e semaine ?	<input type="checkbox"/>	<input type="checkbox"/>
6. Grossesse multiple (e.g., triplets) ?	<input type="checkbox"/>	<input type="checkbox"/>	6. Autre condition médicale significative ?	<input type="checkbox"/>	<input type="checkbox"/>
7. Diabète Type 1 incontrôlé, hypertension ou problème thyroïdien, autres maladies du système cardiovasculaire, respiratoire ou systémique ?	<input type="checkbox"/>	<input type="checkbox"/>	S.V.P. Spécifiez : _____		
			NOTE: Le risque d'incidents peut être plus élevé que les effets bénéfiques reliés à la pratique régulière de l'activité physique. La décision d'être active ou non active relève d'un médecin qualifié		
RECOMMANDATION D'ACTIVITÉ PHYSIQUE :			<input type="checkbox"/> Recommandé/approuvé <input type="checkbox"/> Contre-indiqué		

Prescription d'exercices aérobies

MARCHE À SUIVRE : Le deuxième trimestre est le meilleur moment pour bénéficier des effets de l'entraînement. En effet, les risques et les malaises associés à la grossesse sont moindres à cette période. Il est important de pratiquer les exercices aérobies de façon graduelle : depuis un minimum de 15 minutes par séance, 3 fois par semaine (en fonction de la fréquence cardiaque cible ou de l'échelle de perception de l'intensité de l'effort) jusqu'à un maximum d'environ 30 minutes par séance, 4 fois par semaine (en fonction de la fréquence cardiaque cible ou de l'échelle de perception de l'intensité de l'effort).

ÉCHAUFFEMENT/RÉCUPÉRATION : L'activité aérobie doit être précédée d'une brève période d'échauffement (10-15 min) et suivie d'une courte période de récupération. Des exercices à mains libres de faible intensité, des étirements, et des exercices de relaxation doivent être inclus dans le processus d'échauffement et de récupération.

F	I	D	T
FRÉQUENCE	INTENSITÉ	DURÉE	TYPE
Débutez à 3 fois par semaine et augmentez jusqu'à quatre fois par semaine	Faites les exercices à l'intérieur de la zone de perception de l'effort et/ou de la zone cible de fréquence cardiaque	Essayez 15 min, même si vous devez réduire l'intensité. Sinon, des périodes de repos en alternance avec des périodes de travail peuvent vous aider	Exercices qui ne supportent pas le poids corporel ou exercices en endurance, en évitant les chocs répétés et en utilisant les grandes masses musculaires (ex. marche, bicyclette stationnaire, natation, exercices en piscine, exercices aérobies ayant peu d'impacts répétés au sol)

PRESCRIPTION/CONTRÔLE DE L'INTENSITÉ : La meilleure façon de prescrire et de mesurer l'intensité est la suivante: l'utilisation de la fréquence cardiaque combinée avec le niveau de perception de l'effort.

Zone Cible de la Fréquence cardiaque		Niveau de perception de l'effort	
Les zones-cibles de fréquence cardiaque illustrées ci-dessous sont appropriées pour la majorité des femmes enceintes. Au début d'un nouveau programme d'exercices et à la fin de la grossesse, maintenez-vous dans la partie inférieure de la zone cible de fréquence cardiaque.		Vérifiez la précision de votre fréquence cardiaque cible en la comparant aux valeurs inscrites dans l'échelle ci-dessous: un niveau de perception de l'effort se situant entre 12 et 14 (quelque peu difficile) est approprié pour la majorité des femmes enceintes.	
Âge	Zone cible de Fc	6	
< 20	140-155	7	Très, très facile
20-29	135-150	8	
30-39	130-145	9	Très facile
≥ 40	125-140	10	
		11	Assez facile
		12	
		13	Quelque peu difficile
		14	
		15	Difficile
		16	
		17	Très difficile
		18	
		19	Très très difficile
		20	

TEST DE LA PAROLE : Une bonne façon de ne pas travailler trop intensément est d'employer le test de la parole. L'intensité de l'exercice est trop élevée si vous ne pouvez tenir une conversation pendant l'exercice.

Le X-AAP pour les femmes enceintes a été développé par LA Wolfe, PhD, Queen's University, Kingston, Ontario. La composante du conditionnement musculaire a été développée par MF Mottola PhD, University of Western Ontario, London, Ontario. Le document a été révisé en tenant compte des recommandations des membres d'un Comité consultatif d'experts de la Société canadienne de physiologie de l'exercice sous la direction du Dr N Gledhill. Soulignons également l'apport, lors de la révision, du Dr Wolfe, du Dr Mottola ainsi que du Dr Gregory AL Davies, MD FRCS(C), du Département d'obstétrique et de gynécologie, Université Queen's (2002).

Aucune modification n'est permise. Nous vous encourageons à copier le X-AAP dans sa totalité.

Available in English under the title: Physical Activity Readiness Medical Examination for Pregnancy (PARmed-X for Pregnancy).

Copies additionnels et des formulaire complémentaires (Q-AAP, X-AAP) sont disponibles sur l'internet à l'adresse: <http://www.csep.ca/formulaires.asp>.

Pour plus d'informations, veuillez contacter la:

Société canadienne de physiologie de l'exercice
185 rue Somerset Ouest, Bureau 202, Ottawa (Ontario) CANADA K2P 0J2
Tél.: 1-877-651-3755 Téléc.: (613) 234-3565 Courriel: info@csep.ca Site web: www.csep.ca

X-AAP pour femmes enceintes

QUESTIONNAIRE MÉDICALE SUR L'APTITUDE À L'ACTIVITÉ PHYSIQUE POUR FEMMES ENCEINTES

Prescription pour l'entraînement musculaire

Il est important de stimuler les grandes masses musculaires durant les périodes prénatale et postnatale.

ÉCHAUFFEMENT-RÉCUPÉRATION:
Région du mouvement visée : cou, ceinture scapulaire, dos, bras, hanches, genoux, chevilles, etc.

Étirement isométrique : toutes les grandes masses musculaire

(ATTENTION À NE PAS
TROP ÉTIRER!)

EXEMPLES D'EXERCICES DE RENFORCEMENT MUSCULAIRE

CATÉGORIE	OBJECTIF	EXEMPLE
Haut du dos	Promouvoir un bon maintien	Haussement d'épaules, roulement d'épaules, extension (arrière des épaules)
Bas du dos	Promouvoir un bon maintien	Flexion extension simultanée d'un bras et de la jambe du côté opposé, en alternant le côté
Abdomen	Promouvoir un bon maintien - prévient les douleurs au bas du dos, la diastase du droit de l'abdomen renforce les muscles qui seront actifs lors de l'accouchement	Contraction des abdominaux. Redressements assis (élévation tête, épaules, omoplates). Redressements de la tête en décubitus latéral ou en position debout
La région pelvienne (Kegels)	Promouvoir un bon contrôle de la vessie, prévient l'incontinence urinaire	Mouvement de la « vague », « l'ascenseur »
Partie supérieure du corps	Améliorer les muscles qui supportent les seins	Rotation des épaules, extensions des bras debout en appui sur un mur
Fesses et membres inférieurs	Renforcement de la musculature de soutien, prévention des varices	Contraction des fessier, élévation de la jambe tendue vers l'avant ou vers le côté, élévation sur la pointe des pieds

PRÉCAUTIONS À PRENDRE PENDANT L'ENTRAÎNEMENT MUSCULAIRE DURANT LA GROSSESSE

VARIABLE	EFFETS DE LA GROSSESSE	MODIFICATIONS À APPORTER AUX EXERCICES
Position corporelle	<ul style="list-style-type: none"> en position couchée (étendue sur le dos), l'utérus dilaté peut diminuer l'apport sanguin revenant de la partie inférieure du corps car il exerce une pression sur la veine cave inférieure ou il peut diminuer l'apport sanguin dans une artère majeure (aorte abdominale) 	<ul style="list-style-type: none"> après 4 mois de gestation, les exercices effectués habituellement en position couchée devraient être modifiés de testl exercices devraient être effectués en décubitus latéral ou debout
Souplesse des articulations	<ul style="list-style-type: none"> l'augmentation des niveaux d'hormones favorise une plus grande élasticité des ligaments, ce qui rend les articulations plus vulnérables aux blessures 	<ul style="list-style-type: none"> évitiez les exercices qui comportent des changements de direction rapides ou des sauts les étirements doivent être bien contrôlés
Muscles abdominaux	<ul style="list-style-type: none"> on peut reconstruire, lors des exercices abdominaux, la présence d'un ballonnement des tissus conjonctifs longeant l'axe central de l'abdomen renfermant le fœtus (la diastase du droit de l'abdomen) 	<ul style="list-style-type: none"> les exercices abdominaux ne sont pas recommandés si la diastase du droit de l'abdomen se développe
Maintien	<ul style="list-style-type: none"> l'augmentation du poids des seins et de l'utérus peut causer une projection vers l'avant du centre de gravité et augmenter la courbure au bas du dos (lordose) ceci peut aussi provoquer un affaissement des épaules vers l'avant (dos rond) 	<ul style="list-style-type: none"> mettre l'accent sur un bon maintien et sur le positionnement neutre du pelvis. Cette position neutre est obtenue en fléchissant les genoux, les pieds écartés à la largeur des épaules, et en plaçant le pelvis à mi-chemin entre une lordose accentuée et une bascule postérieure du pelvis
Précautions à prendre lors des exercices de résistance	<ul style="list-style-type: none"> mettre l'accent sur une respiration continue tout au long de l'exercice expirez à l'effort, inspirez à la relaxation la manœuvre de Valsalva (retenir la respiration tout en travaillant contre une résistance) provoque une modification de la tension artérielle et doit donc être évitée évitiez les exercices en position couchée après 4 mois de gestation 	



X-AAP pour femmes enceintes Fiche d'évaluation de l'état de santé

(À compléter par la patiente et à remettre au (à la) professionnel(le) du conditionnement physique prénatal après avoir reçu l'autorisation du professionnel de la santé pour pratiquer une ou plusieurs activités physiques)

Je _____ (nom de la patiente en caractères d'imprimerie s.v.p.), déclare avoir discuté de mon désir de faire de l'activité physique durant ma grossesse avec mon médecin et avoir reçu son approbation pour commencer cette participation.

Signé : _____
(patient's signature)

Date : _____
COMMENTAIRES DU PROFESSIONNEL DE LA SANTÉ :

Nom du professionnel de la santé : _____

Adresse : _____

Téléphone : _____

(signature du professionnel de la santé)

Conseils pour vivre activement durant la grossesse

La grossesse est une période qui convient bien pour prendre de saines habitudes de vie afin de protéger et de favoriser le développement sain de l'enfant à naître. Ces changements comportent de meilleures habitudes alimentaires, l'abstinence de tabac et d'alcool et la pratique régulière d'activités physiques d'intensité modérée. Comme tous ces changements peuvent être poursuivis durant la période postnatale et même après, la grossesse est une très bonne période pour rendre ces habitudes permanentes en combinant l'activité physique et un comportement alimentaire sain et agréable ainsi qu'une image corporelle favorable et une image de soi positive.

Vivre activement :

- voyez votre professionnel de la santé avant d'augmenter votre niveau d'activité durant la grossesse
- faites de l'exercice régulièrement mais évitez le surentraînement
- faites vos exercices avec une amie enceinte ou joignez-vous à un programme d'exercices prénatals
- suivez la formule FIDT modifiée pour les femmes enceintes
- suivez les recommandations associées à votre état

Manger sainement :

- le besoin calorique est plus élevé qu'avant la grossesse (environ 300 de plus par jour)
- suivez les recommandations du «Guide alimentaire canadien pour manger sainement» et choisissez des aliments sains parmi ceux qui suivent : céréales à grains entiers ou pain enrichi ou céréales, fruits et légumes, lait et produits laitiers, viandes, poissons, poulet et autres viandes blanches
- buvez 6-8 verres de liquide incluant l'eau, quotidiennement
- l'apport du sel ne doit pas être interdit
- limitez la caféine ex. café, thé, chocolat et les colas
- suivre une diète en vue de perdre du poids n'est pas indiqué durant la grossesse

Image de soi et image corporelle positives :

- souvenez-vous qu'il est normal de prendre du poids pendant la grossesse
- acceptez le fait que votre corps change durant la grossesse
- vivez votre grossesse comme une expérience unique et significative

Pour plus d'information et des conseils au sujet des exercices pré- et postnataux, procurez-vous le livre intitulé «Vie active et grossesse: Guide d'activité pour la mère et son bébé» © (1999). Disponible auprès de la Société canadienne de physiologie de l'exercice, 185 rue Somerset Ouest, bureau 202, Ottawa, Ontario Canada K2P 0J2, Tél. : 1 877 651-3755, Télécopieur : (613) 234-3565, Courriel: info@csep.ca (ou en ligne : www.csep.ca)
Coût : 11,95 \$

Pour plus d'information au sujet des exercices sécuritaires faire durant la grossesse, procurez-vous le Guide de pratique clinique intitulé *L'Exercice physique pendant la grossesse et le postpartum* © (2003) conçu par la Société des obstétriciens et gynécologues du Canada et la Société canadienne de physiologie de l'exercice. Disponible en ligne auprès de la Société des obstétriciens et gynécologues du Canada www.sogc.org

Pour plus d'information au sujet de la grossesse et de l'accouchement, procurez-vous le livre intitulé «Partir du bon pied». Disponible auprès de la Société des obstétriciens et gynécologues du Canada au 1-877-519-7999 et en ligne à www.sogc.org. Coût: 12.95 \$

Pour plus d'information au sujet d'une saine alimentation durant la grossesse, procurez-vous le livre intitulé «Nutrition pour une grossesse en santé – Lignes directrices à l'intention des femmes en âge de procréer». Disponible auprès de Santé Canada, ministère des Travaux publics et Services gouvernementaux, Ottawa, Ontario, Canada (aussi disponible en ligne à : www.hc-sc.gc.ca).

CONSEILS DE SÉCURITÉ

- ◆ Ne faites pas d'activité physique par temps chaud et humide surtout durant le premier trimestre
- ◆ Évitez l'exercice isométrique ou qui demande un effort exigeant lorsque vous retenez votre respiration
- ◆ Ayez une alimentation et une hydratation adéquate, buvez du liquide avant et après l'entraînement
- ◆ Évitez les exercices en position couchée sur le dos après le 4^e mois de la grossesse
- ◆ Évitez les activités qui demandent un contact physique avec un partenaire ou ceux où il y a un risque de chute
- ◆ Connaissiez vos limites – il n'est pas recommandé de s'entraîner à des fins compétitives durant la grossesse
- ◆ Identifiez les raisons que commandent un arrêt de l'entraînement et consultez immédiatement un professionnel de la santé qualifié si la situation se présente

MOTIFS POUR ARRÊTER LES EFFORTS PHYSIQUES ET POUR CONSULTER UN PROFESSIONNEL DE LA SANTÉ

- ◆ Essoufflement marqué
- ◆ Douleur à la poitrine
- ◆ Contractions douloureuses de l'utérus (plus de 6-8 par heure)
- ◆ Saignement vaginal
- ◆ Toute perte vaginale (peut être une indication d'une rupture prématurée des membranes)
- ◆ Étourdissement ou évanouissement

Information Required for a Medical Form

Name
Address
Telephone # (day) (evening)
In Emergency Notify: Telephone # (day) (evening)
Family Doctor (name) (telephone #)
Medications
Allergies
Date of Birth

Conditions which may affect participation in fitness activities:
Cardiovascular (heart problems, blood pressure, circulation problems, etc.)
Respiratory (asthma, emphysema, etc.)
Musculo Skeletal (arthritis, bone, muscle or joint problems, etc.)
Other (anything not covered above)

Note: Medical information is CONFIDENTIAL. This information should NOT be available to other than authorized individuals.

Information Required for an Incident/Accident Report Form

Program
Program Supervisor
Time of Incident Date of Incident
Place of Incident
Identification of participant(s) involved in incident
Name Address

Note: Report only facts, not opinions
Description of incident
Causes and contributing factors
Description of injury(ies) and /or property damage
Immediate action taken by supervisor on duty and/or others (please be as specific as possible)

Medical unit called? If yes, give arrival time
Diagnosis of Medical Unit
Immediate Treatment Given by Medical Unit
Injured person(s) taken to hospital? If Yes, by whom?
Medical Clearance Required? If yes, date given

Witness (name)
Phone number Address

Signature of Reporter Date
Name (print) Phone #

Reference:
Safety and Legal Responsibility – CIRA Safety and Legal Responsibility Committee.

C – Articles & Research Papers

Appendix C- Articles and Research Papers

- 1 – Summary of Fitness Injury Survey (1988)*
- 2 – Historical Development of the Fitness Safety Standards (1987)*
- 3 – Industry Compliance Survey Results (2002)*
- 4 – On-line Survey Sample Questionnaire (2004)*
- 5 – Canadian Certification Organizations*
- 6 – Article — Safe Exercise*
- 7 – Article — Fitness Related Personnel*
- 8 – Article — Pre-Screening and Informed Consent*
- 9 – Article — Training Special Populations*
- 10 – Article — Emergency Procedures*
- 11 – Article — Communicable Diseases – The New Normal*
- 12 – Article — Fitness Environment*
- 13 – ACSM & AHA Joint Position Statement —
Automated External Defibrillators in Health/Fitness Facilities*
- 14 – VO₂peak Prediction & Exercise Prescription for Pregnant Women*

Summary of Fitness Injury Survey (1988)

Introduction

Purpose of Study

The purpose of this study was “to better define and quantify the incidence, severity and predisposing factors of fitness related injuries in Ontario.”

The identification and examination of these factors are intended to provide the Fitness Safety Standards Committee (FSSC) with information that will assist in the development of guidelines and standards for preventing injuries. The FSSC will use this information and other resources to recommend fitness safety standards which should be met by public and private fitness facilities.

Study Objectives

The study objectives were:

- To design and conduct a combined prospective, retrospective and fitness facility study of the nature, incidence and severity of injuries experienced by Ontarians who participate in a variety of fitness activities;
- To identify, count and compare personal, environmental and activity specific factors associated with fitness injuries; and
- To propose guidelines that are likely to reduce the incidence and/or severity of fitness injuries.

Methodology

The original study Terms of Reference called for a prospective methodology. As the project developed, two additional study methodologies were added. These were:

- A Facility Survey designed to provide a “picture” of the fitness industry and an over-all fitness injury rate;
- A Retrospective Study in which participants recorded injuries sustained over the previous nine months.

The Facility Survey made available fitness industry and injury information not included in the study Terms of Reference and not previously available in an accessible form.

The Retrospective Study was designed and implemented when it became clear that the Prospective Study would not gather a large enough number of injury records in the short period of time allowed. The difficulties encountered with the Prospective Study were reviewed with the FSSC at two Committee meetings. The retrospective methodology was selected to allow for a larger sample to be surveyed. The three methodologies were reviewed and approved by the FSSC before each study was implemented.

Facility Survey

The facility questionnaire was sent to 463 facilities; 25 questionnaires were undeliverable; 124 were completed and returned (28% return rate)

Table 1. Responses by Type - Facility Survey

Facility Type	Number	%
Fitness Health (private)	14	12
Racquet Fitness (private)	13	11
YM/ YWCA	17	15
Municipal/ Community	37	33
University/ College	17	15
Weight Training (private)	4	4
Dance/ Aerobics (private)	3	3
Employee Fitness	8	7

The original facility types included in the sample were re-grouped according to facility use to allow an examination of injuries by facility use (e.g., YMCA and Municipal/ Community are both multiple-use).

Table 2. Responses by Use - Facility Survey

Facility Type	Number	%
Fitness Health	21	19
Racquet Fitness	15	13
Multiple-use	62	55
Weight Training	6	5
Dance (Aerobics)	3	3
Other (single use)	5	5

Prospective Study

The network of facilities was made up of 23 fitness facilities (97 sites) with a participant membership of 140,000. Twenty-three trackers were recruited to monitor injuries at these facilities.

By the mid-point in the study period, it was evident that the number of reported injuries was not going to meet the study requirement (900 injury records). At this point in the study, an attempt was made to increase the number of reported injuries.

Trackers were requested to make a greater effort; additional support materials were provided and the definition of injury was modified.

An injury was defined as occurring when:

- the participant required examination and/or treatment by a medical or paramedical practitioner, dentist or first aid specialist; OR
- the participant missed one or more sessions because of injury; OR
- the participant missed one or more days from work as a result of the injury.

The following definition of injury was revised as approved by the FSSC:

An injury has occurred when one of the following has taken place:

- The participant is unable to complete the activity session; OR
- One or more activity sessions are missed; OR
- One or more days from work are missed; OR
- examination or treatment by a medical or paramedical practitioner is required; OR
- An over-use injury is sustained.

Seventy complete Fitness Injury Questionnaires were returned during the prospective component of the study. Ten of the twenty-three participating facilities reported no injuries during the period of the study, as verified by monthly reports and by an end-of-study confirmation. Due to the relatively low return rate, calculation of an injury rate was deemed uninterpretable. For reasons previously described, the Prospective Study represents an attempt to report on a portion of what should have been an epidemiological study of much longer duration.

Retrospective Study:

Ten multi-use facilities participated in this study and were requested to distribute 4000 questionnaires:

- Mississauga Recreation and Parks Department
- Sault Ste Marie YW/YMCA
- Northfield Racquet Clubs
- Skyline Club
- Variety Village
- University of Toronto
- Thornhill Community Centre
- Mayfair Tennis Club
- Sports Clubs of Canada
- Etobicoke Olympium

The facilities returned 802 complete retrospective questionnaires, a 20% return rate. Of the 802 completed questionnaires, 211 respondents reported injuries. This represents a 26% injury rate among respondents.

This is simply a prevalence injury rate that specifies the total number of injuries (new or old) that exist at a specific point in time relative to their non-injured peers. This is in contrast to an incidence rate which specifies the number of new injuries occurring during a specified time period. These definitions are consistent with rate definitions used by epidemiologists and defined by Dr. William Powell, Chief of Behavioral Epidemiology at the Atlanta Centre for Disease Control.

The prevalence injury rate of 26% reported here does not consider all possible facility members as respondents because a number of these people never participate; inclusion of these people causes the bias mentioned earlier. The rate reported only indicates prevalence among those people who volunteered to participate in this study. While this statistic has limitations to inferences beyond the sample, it does not suffer from extrapolations that might provide a rate that underestimates injury prevalence.

This injury rate, while limited in generalization, is not confounded by the use of over all participation rates. To illustrate, a study that samples six fitness classes of fifty participants each and asks only for response from participants who have suffered injury may result in fifty self-reported injuries. If one calculates the injuries as a proportion of the over all sample (i.e., 50/300) then the injury rate is 16%. This is not necessarily accurate because it considers the fifty reporting injured volunteers as a proportion of the whole sample. In fact, there could be another thirty or more injured respondents who chose not to report. Thus the real injury rate is greater than the rate calculated for the study sample.

In the Retrospective Study we still have the problem of self-reporting. However, the injury rate is at least based upon a common sample of injured plus uninjured volunteer respondents.

It can be argued that there are also possible biases in this rate. For example, one could argue that the questionnaire response rate of the injured participants is higher than that of uninjured participants because having an injury encourages the former person to complete a questionnaire more than it encourages the response of a non-injured individual. This argument is speculative for several reasons. First, only the previous nine months (i.e., term of reference of the original study) was the time frame for reporting injuries. However, people injured earlier than this (but not injured when responding to the questionnaire) could also have been drawn to complete the questionnaire, thus increasing the non-injured response rate. Second, the encouragement of a high level of response in facilities was done by advertising the study. The study was advertised as a fitness safety study. Thus both injured and non-injured people interested in safety would be drawn to respond for safety reasons. Also, the advertising encouraged both injured and uninjured respondents to partake, thus removing the possibility that people would think only the injured were allowed to respond.

A more legitimate response bias that is unavoidable in most studies using most methodologies is that of volunteer respondents. These data are from a more compliant population of individuals who, for the most part, use their facility on a regular basis. They are compliant in the sense that they wish to volunteer information of interest. Thus the sample is less likely to contain people who are not interested in fitness, fitness safety or fitness injury. These people cannot be forced to respond.

It should be noted that all these selective response possibilities could normally be present in a volunteer sample. However, there is not strong reason for us to believe such biases were distributed in the sample in other than random fashion across several facilities in different municipalities.

Results

Facility Survey: Significant Observations

There were 124 completed survey questionnaires returned (28% return rate) from facilities representing a variety of facility types and uses. The most significant observations from this survey are summarized here.

a) Staff

The facilities were asked to indicate the number of staff employed at their facilities as well as the qualifications of their full-time and part-time staff. The significant observations were:

- 32% of the facilities reported no medical or paramedical personnel on the facility staff;
- 54% of the facilities reported no program staff with the CFC qualification; and
- 28% of the facilities reported no staff with a First Aid qualification.

The associations between facility injury rate and selected staff qualifications were examined in multi-use facilities, using categories of high injury rate (greater than or equal to 0.8) and low injury rate (less than or equal to 0.57).

Significant relationships were found for the following:

- full-time PFLC (Chi-Square (2) equals 9.64, $p < .008$)
- part-time PFLC (Chi-Square (2) equals 7.18, $p < .02$)
- full-time CFC (Chi-Square (2) equals 10.93, $p < .004$)
- part-time CFC (Chi-Square (2) equals 10.62, $p < .005$)

These relationships, however, are to be expected, given the reported distribution of full-time and part-time staff. There are few instances of facilities reporting more than 1 qualified staff member.

b) Emergency Equipment

The facility operators were asked to report the emergency equipment available at their facility, using a 5-item emergency equipment index. The most significant observation was that 17% of the facilities had two or fewer of the emergency equipment items.

c) Screening

The facility operators were asked to identify the procedures used to screen and monitor the health status of their fitness participants. The most significant observation was that 59% of the facilities reported using two or fewer of the screening procedures included on the 5-item screening index and 31% reported using one procedure or none at all.

Concerning screening, (an a priori practice with respect to injury) there is no marked association between injury rate and degree of screening.

d) Safety Signs

The facility operators were asked to report the presence of safety signs in their activity areas. It was observed that the range in safety sign use was great. High risk activity areas reported a use of safety signs less than 100%. For example, in multiple-use facilities, 53% reported gyms displaying safety signs, 41% reported signs in dance/aerobic areas and 82% in squash courts.

e) Injury Rates

An injury rate for the responding facility operators was calculated, based on hours of operation. The calculated injury rate was .349 injuries per 100 hours of operation. Of particular note was the rate for multiple-use facilities, .570 injuries per 100 hours of operation.

Prospective Study: Significant Observations

In the Prospective Study, there were 70 injuries reported from 23 facilities (97 sites) with a total participant membership of 140,000. The small number of injuries reported increases the difficulty in making definitive observations. However there are indications of trends which can be used to support both the Facility Survey and the Retrospective Study.

a) Type and Location of Injury

The injured participants were asked to report the type and location of their injuries.

- 36% of the injuries reported were strains or sprains.

- 25% of the injuries reported were to the ankle.

b) Room/Area at Time of Injury

The injured participants were asked to report the room or area where their injury occurred. The areas/rooms of highest injury frequency were gymnasias - 37% and court areas - 16%.

c) Activity During Injury

In reporting the activity in which they were participating at the time of their injury, 25% of the participants reported squash and 22% aerobics.

d) Supervision

When questioned about the level of staff supervision, 52% of the participants reported that there was no supervision at the time of their injury.

e) When Injury Occurred

69% of the injured participants reported that their injury occurred during their participation in the activity (i.e., in the middle third of activity time).

f) Experience in Activity

When asked to indicate their experience in the activity in which they were injured, 30% reported 1-3 years experience and 45% reported 4 or more years experience.

g) Treatment

The injured participants were asked to indicate where they received treatment, who administered the treatment, what the treatment was and the time of treatment.

- 58% of the injured participants were treated at the site of their injury.
- 56% of the injured participants were treated by a physician and 46% by facility staff. In some cases, this represents multiple treatment administration.
- Treatment administered included: ICE (ice, compression, elevation) - 71%; reduced activity - 38%; first aid - 27%; rest - 24%.
- 67% of the participants reported receiving treatment within one hour of their injury.

Retrospective Study: Significant Observations

As a result of the Retrospective Study, 802 completed questionnaires were returned, with 211 participant injuries being reported. The results of this study, when compared with the results of the Facility Survey and the Prospective Study, provide a sound basis for the over-all study project recommendations. The most significant observations are listed below:

a) Respondent Profile

From the mean respondent profile it is seen that, for females, there is a significant relationship between hours of activity and frequency of injury. [$t(175.6)=2.10$, $p<.038$] The relationship for males is marginally significant. [$t(350)=1.70$, $p<.09$]

The information on the injured participants was examined to determine possible relationships between the type and location of injury and the number of hours of activity per week, for both males and females. There were no significant relationships. (For full data, see Other Study Results -Retrospective Study, Injury Type and Location by Hours of Activity per week).

b) Type of Injury and Location on the Body

In reviewing the type and location of injuries reported by participants, the following observations can be made:

- The primary injury types were sprains-56% and overuse-33%
- The combined foot, ankle, knee (lower leg) locations account for 41% of the injuries.

When examining the relationship between injury type/location on the body and hours of activity per week, it was observed that there was a marginally significant relationship for females between activity levels less than 10 hours/week and overuse and sprain injuries. [chi-Square (15)=22.43, $p<.10$] Back and knee injuries occurred most frequently in both males and females.

c) Room / Area at Time of Injury

The injured participants were asked to indicate the room or the area where the injury occurred. High risk areas appear to be the gymnasium, where 25% of the injuries reported occurred, squash courts (19%) and weight rooms (14%). While only 9% of the injuries reported were in designated aerobic areas, it should be noted that there is likely significant aerobic activity in the gymnasium areas.

d) Activity during Injury

Participants reported the activity in which they were engaged when their injury occurred. The highest injury levels were 19% in aerobics (plus 9% in low impact and other aerobic activity), 18% in squash and 14% in weight training.

The predominant injuries occurring during aerobics, squash and weightlifting are overuse and sprain injuries. These relationships showed a marginal significance. [Chi-Square (5) =9.42, $p<0.10$]

e) Supervision

When asked about staff supervision, 34% of the injured participants reported that the area or class was unsupervised at the time of their injury.

f) When Injury Occurred

In reporting the activity period in which their injury occurred, 70% of the participants indicated they were injured during the activity.

g) Lost Time

When asked if they had lost time from their fitness activity or work/school due to their injury, 41% reported losing 0 - 3 days from fitness activity and 79% reported losing no work/school time. There would appear to be little economic impact due to the injuries reported.

h) Experience and Fitness Level

When asked to indicate their experience and fitness level, 53% of the participants reported they had 4 or more years experience in the activity in which they were injured while 86% reported their fitness level in the good to excellent range. Those with a self-reported good to excellent fitness level reported mainly sprain and overuse injuries.

i) Limited Activity

When questioned about the degree to which their activity was limited by their injury, 33% reported that, although hampered by their injury, they continued with that activity session.

j) Treatment

The injured participants were asked to indicate where they received treatment, who administered the treatment, what the treatment was and the time of treatment:

- 29% of the participants reported treatment was administered at home and 25% at a physician's office. 11% reported treatment at the injury site 26% reported receiving no treatment for their injury
- 42% of the injured participants reported self-treatment and 54% of treatment was administered by a physician
- The most frequently administered treatments were ICE - 53% and reduced activity - 49%
- 50% of injured participants reported waiting more than 13 hours before receiving treatment.

Reference

Powell, K.E. (1988) Habitual exercise and public health: an epidemiological view. In R.K. Dishman (Ed.) Exercise Adherence: It's Impact on Public Health. 15-40. Champaign, IL: HumanKinetics.

Historical Overview

1987

The FSSC was established to advise the Government of Ontario on matters pertaining to the development of safety standards for the fitness industry. The Ministry of Tourism and Recreation directed the Committee to specifically:

- have representation from a cross-section of the fitness service delivery community including both for-profit and not-for-profit agencies. In addition, there was to be two members from the Ministry, including one representative from the Fitness Section and one from the Community and Safety Initiatives Section of the Sports and Fitness Branch.
- coordinate the development of safety standards for the fitness industry including standards relating to equipment, training and experience required by professional staff working in the fitness industry, and operating standards that will ensure the safety of participants.
- investigate the nature and incidence of injuries in the fitness industry including the collection of research on the frequency, type and cause of injuries.
- recommend a means by which those individuals participating in fitness activities can be assured that reasonable care has been taken to ensure their safety and an indication of the acceptability of such recommendations by the fitness industry.

The FSSC attests that the above conditions were attended to properly.

Previous Documentation Concerning Fitness Safety:

A number of investigators have previously detailed the incidence of injuries incurred during a variety of fitness related activities. Although their findings have served to underline the problem, they were based, for the most part, on retrospective surveys and did not provide details on contributing factors which could serve as a basis for safety standards.

In addition, there had been several Coroner's Inquests in the province of Ontario which examined deaths in fitness related activities. The recommendations from these inquests were considered by the FSSC in its development of safety standards.

The 1986 Ontario Fitness Injury Survey, which is detailed in the Report of the Ontario Sports Medicine Safety Advisory Board, identified a number of concerns pertaining to safety in the fitness industry. Some of these concerns dealt with:

- the qualifications of fitness appraisers
- the lack of standardization in the preparation of fitness leaders
- the absence of certification for fitness leaders
- the lack of cardiopulmonary resuscitation training and First Aid training for fitness appraisers and fitness leaders
- the lack of client screening for contraindications to exercise
- the absence of guidelines or standards for facility construction and equipment maintenance

The most common injuries suffered during fitness appraisals, fitness classes and exercise programs were related to:

- overuse and impact shock
- improper warm up and progression
- type of flooring and improperly selected footwear
- incorrect performance of exercises as a result of inadequate instruction and supervision
- improper screening to identify those individuals with conditions for which certain fitness regimens are contraindicated
- exercise levels set beyond the capability of the participants

The authors of the above report, J. Griffin of George Brown College and N. Gledhill of York University, and the Ontario Sports Medicine Safety Advisory Board called for the establishment of professional standards and guidelines in several areas, including qualifications of personnel, client screening and supervision, facility operation, and exercise program design.

Representation on the FSSC:

The membership of the FSSC was established by requesting the major interest groups in the fitness community (representing both for-profit and not-for-profit sectors) to name a representative. Members were also solicited from other related groups which had expressed a desire to improve safety in the fitness industry, such as health care professionals, the disabled community, educators, and professional associations.

The FSSC contacted many non-governmental organizations which were interested in improving and promoting safety in the fitness industry and resolving the problems associated with fitness injuries. Many of these groups wished to become full members of the Committee, however it was decided that corresponding Membership status would be offered to the groups/associations which could not be offered full membership on the FSSC. The following accepted the invitation:

Squash Ontario
Canadian Manufacturers Association (Ontario Branch)
Canadian Standards Association
St. John's Ambulance of Metropolitan Toronto
The JF Group
Ontario Public Health Association

A special effort was made to involve the disabled community in developing the standards. Offers of voting membership were made to several prominent associations for the mentally and physically disabled. Interest and appreciation was expressed by these groups, but they were unable to name a representative to the FSSC. Approximately half way through the mandate, the Committee requested that Dr. Bert Taylor, a university professor who acts in an advisory role to several disabled groups, become a member of the Committee and solicit feedback from the disabled community. Dr. Taylor distributed the minutes and proposals of the FSSC extensively throughout the disabled community, but only modest feedback was received. Therefore, the FSSC regretfully advised the MTR that the disabled community may not be adequately considered in the proposed Standards, Guidelines and Recommendations, and it may be necessary to direct additional attention to this concern.

Overview of the Deliberations of the Committee:

The FSSC received its mandate in August of 1987. The issues outlined below, were taken into consideration and the final report was submitted to the Ministry of Tourism and Recreation on February 28, 1990.

A) Establishing the Basis for Standards

Because of the social and economic impact of fitness injuries and the necessity of finding proper and lasting solutions to many of the dilemmas faced by the fitness community, it was decided that wherever possible, recommendations for safety standards should be based upon strong epidemiological evidence. However the Committee recognized that at times it was necessary to recommend safety standards based on face validity. In the latter instances, it was deemed essential that such standards be reviewed and approved by as broad a representation of the fitness community as possible.

B) Approach: Voluntary Compliance

The FSSC had been advised through their legal council that;

- whereas the constituencies which are represented on the FSSC were identified by the MCCR as being representative of the fitness community, and
- whereas the members of the FSSC who represent the various constituencies were named by those constituencies and involved their constituency fully in establishing the safety standards, and

- whereas many other major fitness related groups were invited to become corresponding members and were sent periodic updates informing them of the work of the FSSC and requested to provide feedback on FSSC proposals,
- then it can be anticipated that the standards developed by the FSSC will be recognized as the acceptable standards of safety in matters concerning fitness related safety issues.

The recommended approach to be taken in implementing Fitness Safety Standards is one of voluntary compliance. Prudent managers will comply with the standards to avoid safety problems. Since the fitness community was fully involved in establishing the safety standards, it is anticipated that the implementation of these standards will be acceptable to all members of the fitness community, and hence, voluntary compliance should be successful. However, it is recommended that the success of this approach be evaluated in not less than three or more than five years after the implementation of the standards.

C) Defining the Problem

Public participation in physical activity (sport and fitness) has increased considerably over the past two decades. There have been both social and economic benefits to Ontario from this participation. However, accompanying this trend toward greater participation in sport and fitness is the concern that there may be an increase in the number and severity of injuries.

A number of concerns have arisen out of these observations, namely

- the personal suffering and hardship on the individual and his/her family
- the cost to the Ontario health care system
- the negative impact on participation.

Committee members identified a number of specific concerns with regard to fitness safety standards, some of which include:

- developing a profile of the fitness industry
- establishing a sense of what fitness services are available
- determining how the education system can be used to promote fitness safety
- the health care benefits of safety
- the desirability of voluntary compliance to enforce safety standards
- the problems of implementing and safeguarding standards across all regions of the province and
- what the effects might be on the profit and not-for-profit sectors of the fitness industry.

Committee members also recognized that the final recommendations must take various forms. For example, the most appropriate manner of presenting safety standards related to the construction of fitness facilities might be as Recommended Guidelines, whereas the safety procedures for the operation of facilities and qualifications of personnel might best be stated as Standards.

At the outset of its mission, the FSSC sought to define the terminology to be used during its deliberations and in the report. To this end, the Committee produced a lexicon of working definitions (see Glossary of Definitions). An important clarification was the term Minimal (as a minimal standard). Minimal is to be interpreted as the appropriate level which the FSSC agrees must be met, leaving open the ability to exceed the minimal standard with even higher standards.

D) FSSC Objectives

1. To establish safety standards pertaining to the provision of fitness related services, including but not limited to:


Fitness Facilities:

A) Public, Private/Commercial centres such as:

Private fitness clubs

Resorts and spas

Public fitness clubs



Golf and country clubs
Hotels and motels
Dance studios
Condominiums, apartments, and rental dwellings
Not-for-profit agencies
Corporate fitness centres
Sport specific studios (karate, tae kwon do, etc.)

B) Educational Institutions such as:

Pre-Schools
Elementary Schools
Secondary Schools
Private Schools
Colleges and Universities

C) Community Facilities such as:

Community Centre Halls
Church Halls
Rental Facilities
Senior Citizen Homes/centres
Youth Clubs
Fitness Services
Personal Fitness Consulting
Master's Athletic Programs
Clinical Exercise Programs
Employee Fitness Programs
Holistic Health Offerings
Wellness Programs
Pre-Natal and Post-Natal Classes

2. To establish safety standards pertaining to the qualifications, conduct and continuing professional development of fitness related personnel including, but not limited to the following, and solely in relation to the provision/ counseling of fitness activities and services:

- Fitness appraisers
- Fitness leaders and physical activity instructors
- Personal fitness consultants and counselors
- Facility operators/ administrators/ supervisors

3. To establish safety standards pertaining to fitness-related environments including, but not limited to:

- Indoor and outdoor facility design, maintenance and operation
- Equipment design, maintenance and operation
- Signs
- Participant responsibility

4. To establish safety standards for the use of approved emergency equipment and procedures pertaining to fitness related activities and facilities.

5. To establish safety standards pertaining to the screening of participants planning to engage in fitness related activities.

6. In establishing safety standards, to consider and to include the fitness related activities of special populations including, but not limited to the following:

- the physically and intellectually disabled and developmentally handicapped
- symptomatic individuals
- special age groups

7. In establishing safety standards, to consider and to include the fitness related activities of those with infectious diseases.

8. To make recommendations concerning the promotion, communication and implementation of the fitness safety standards developed by the FSSC along with a plan for evaluating the effectiveness of the implementation.

9. To identify and address concerns pertaining to the impact of the print and broadcast media as it presents information, programs and advertising on fitness that could adversely affect safe participation in physical activity by citizens of Ontario.

E) Criteria to be Applied When Considering Potential Standards

The Committee developed the following list of criteria which were applied when considering the establishment of potential safety standards.

Does it lead to safety?

Is it a standard?

Is it practical / usable?

Is it realistic?

Is it attainable?

Is it justifiable? (i.e. based on a concern which needs to be addressed)?

Is it focused (both specific and succinct)?

Is it measurable (able to be monitored)?

Is it equitable (applicable to all; no favoritism; e.g. regional considerations)?

Is it accessible / available?

Is the potential economic impact reasonable?

Is the time frame for implementation realistic?

Is it generally acceptable to the fitness community?

Is it valid?

F) Literature Review on Fitness Injuries

Reports and articles on fitness injuries were researched and reviewed. Issues and problems related to fitness injuries were identified and considered. The major problems identified in past studies related to two main themes: physical injuries and related predisposing factors. The physical problems were identified as injuries to the musculoskeletal system, specifically the lower extremities (foot, ankle, shin, knee, and lower back). Injuries occurred due to overuse, improper body mechanics in the performance of an exercise and exercising at a level to which the body had not yet become accustomed. These injuries could be overcome by lessening the frequency of exercise, insisting that the participant begin the exercise regimen at a lower intensity and ensuring that the exercise progression is appropriate.

The predisposing factors identified in the literature indicated a number of basic trends, especially; poor instructor training/ qualifications, poor facility design/ maintenance, and poor program design. These problems might be overcome by having properly trained and qualified personnel, better facility design, and enhanced program planning. Another organizational concern is the education of the fitness consumer in such areas as; choosing a facility, proper footwear and clothing, and appropriate programming. On the question of the facility/ injury relationship, there is conflicting evidence as to the role floor surfaces and footwear play in the incidence of fitness injuries. It appears that improper technique in performing exercises and inappropriate progression are the more likely causes of injury.

G) Research Commissioned by the FSSC

An extensive literature review and consultations with both interest groups and epidemiologists convinced the FSSC that the material needed by the Committee, upon which to base the need and subsequent evaluation of safety standards, did not exist. It was evident that a more realistic and comprehensive understanding of the fitness injury problem was needed before appropriate standards could be formulated.

A major problem with the existing literature was the lack of an adequate statistical base from which recommendations could be developed. Therefore, the FSSC commissioned a research project to be conducted by Fraser Shaw Consultants. The purpose of the project was to better define and quantify the incidence, severity and predisposing factors to fitness related injuries in Ontario.

The objectives of the fitness injuries study were as follows:

1. To design and conduct a combined prospective and retrospective study to determine the nature, incidence and severity of injuries experienced by participants in fitness activities in Ontario's fitness facilities.
2. To identify, quantify and compare personal, environmental and activity-specific factors associated with fitness injuries and their correlation to existing safety standards or the lack thereof.
3. To propose guidelines or standards which are likely to reduce the incidence and/ or severity of fitness injuries.

The FSSC stipulated that the study must be epidemiologically designed.

A summary of the Fitness Injury Survey may be found in the Articles and Research Papers, Appendix-C.

H) Organization of the First Document

The Fitness Safety Standards Report outlined Standards, Guidelines and Recommendations for each of the major operating components within the Ontario fitness industry, namely:

- Qualifications of personnel who provide fitness related services
- Training and recognition of fitness consultants
- Training and recognition of fitness leaders
- Screening and informing participants planning to engage in fitness activities
- Special exercising populations and concerns
- Management of communicable diseases in fitness facilities
- Construction, operation and maintenance of fitness-related environments

Industry Compliance Survey Results Summary

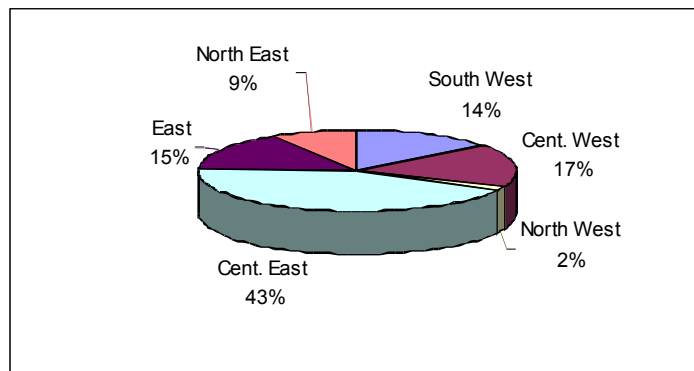
Prepared for the: Fitness Safety Advisory Council April 18, 2002

SURVEY METHODOLOGY

- Cross-sector/region contact list
- Telephone survey - April 1 - 12, 2002
- 340 successful surveys
- Data tabulation and analysis
- Results summary

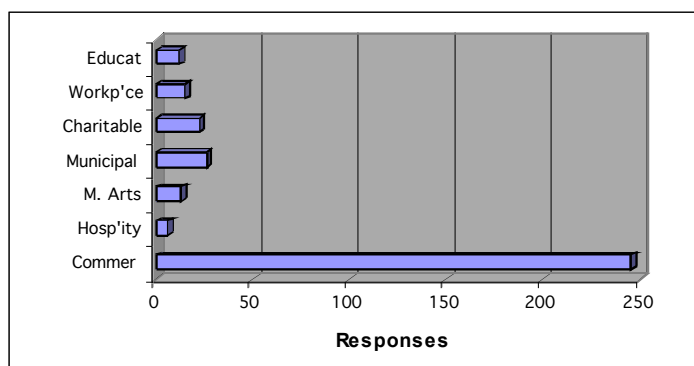
RESPONSES BY REGION

About 50% of facilities in all regions are less than 10,000 sq. ft.



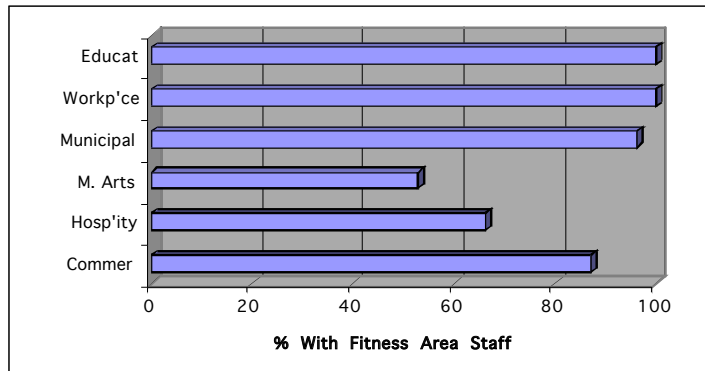
RESPONSES BY SECTOR

- Commercial represents 72% of total responses
- Municipal/charitable/education facilities tend to be bigger
- Commercial clubs tend to be smaller



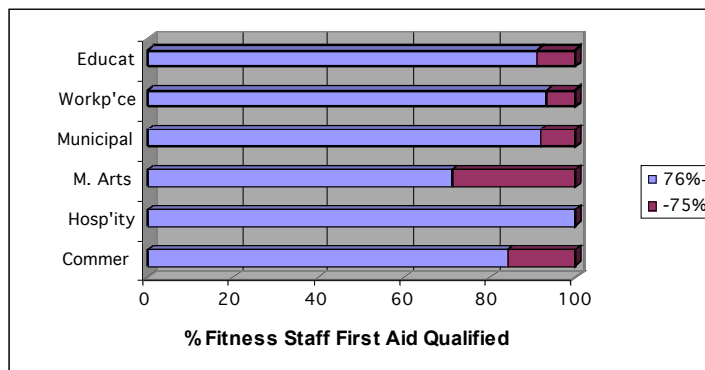
STAFFING - FITNESS AREA PERSONNEL

- 88% of respondents staff fitness areas
- NE only region below the average compliance (76%)



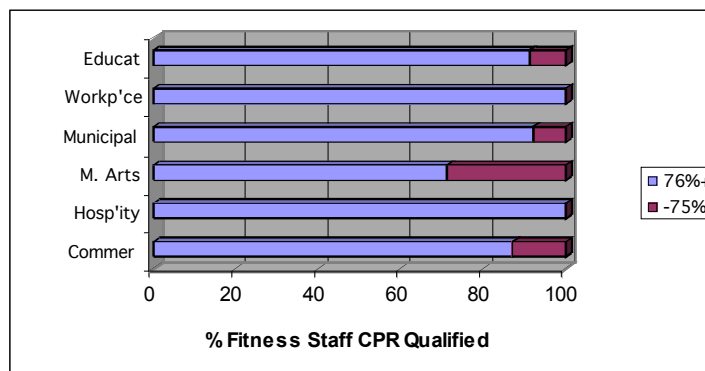
FIRST AID QUALIFICATIONS

- 84% of respondents qualify 75% or more of their fitness staff with first-aid
- No regional deviation



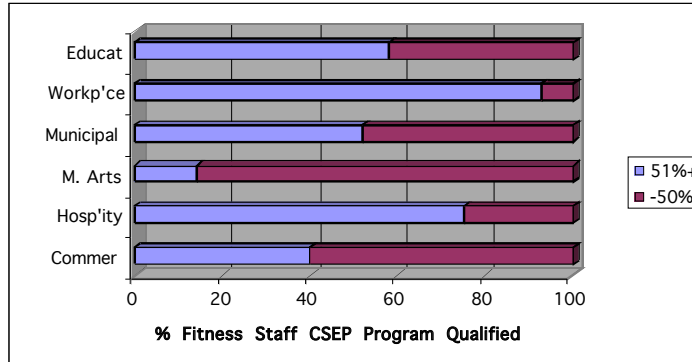
CPR QUALIFICATIONS

- 89% of respondents qualify 75% or more of their fitness staff with CPR
- No regional deviation



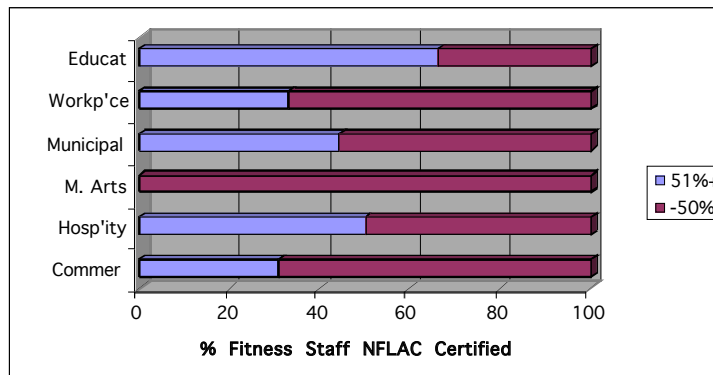
CSEP PROGRAM QUALIFICATIONS

- Less than half of all respondents qualify 50% or more of their fitness staff through the CSEP Program
- No regional deviation



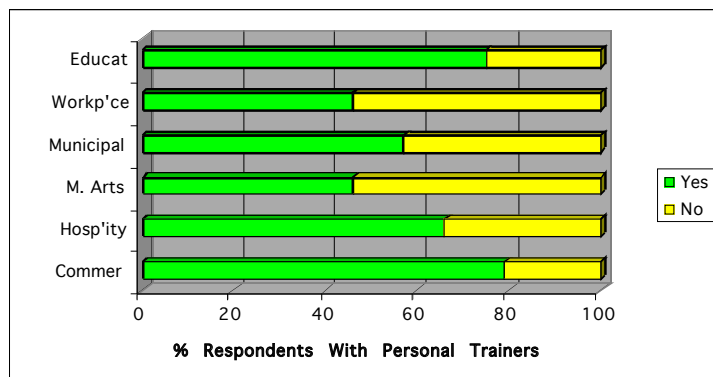
NFLAC PERFORMANCE STANDARDS

- 67% of respondents use certifications other than NFLAC
- Can-Fit-Pro, YM & YWCA most popular alternatives



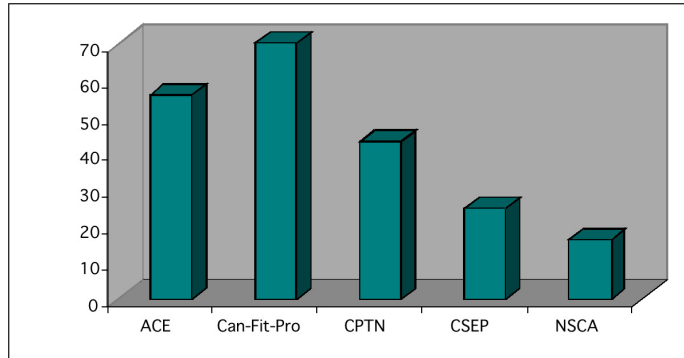
PERSONAL TRAINERS OFFERED

- On average 75% of facilities offer Personal Training
- No regional deviation



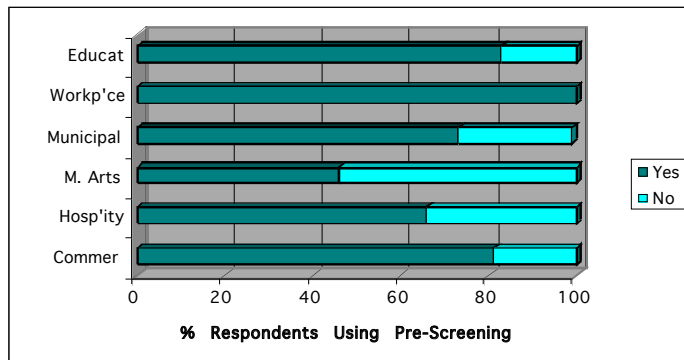
PERSONAL TRAINER CERTIFICATIONS

- Can-Fit-Pro most popular in all sectors except workplace (CPTN)
- Can-Fit-Pro most popular in all regions



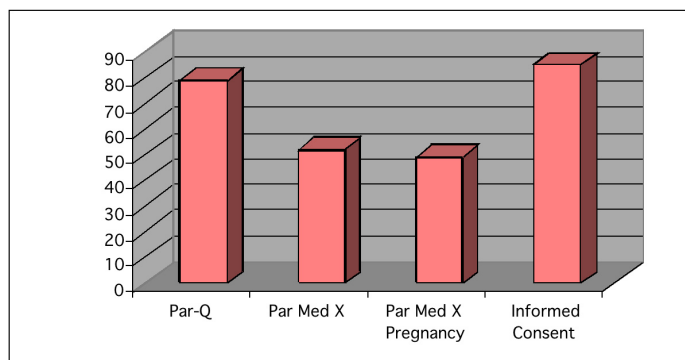
PRE-SCREENING - COMPLIANCE

- 80% of all respondents use pre-screening methods
- No deviation by region



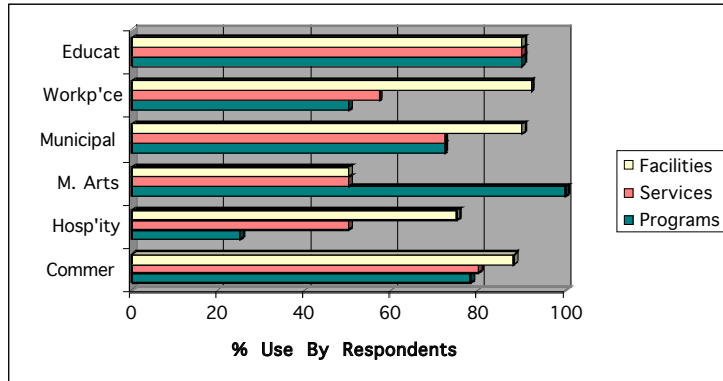
METHODS

- Par Med X and Par Med X for pregnancy used least often
- NW and SW use Par Q and Par Med X about half as frequently as the other regions



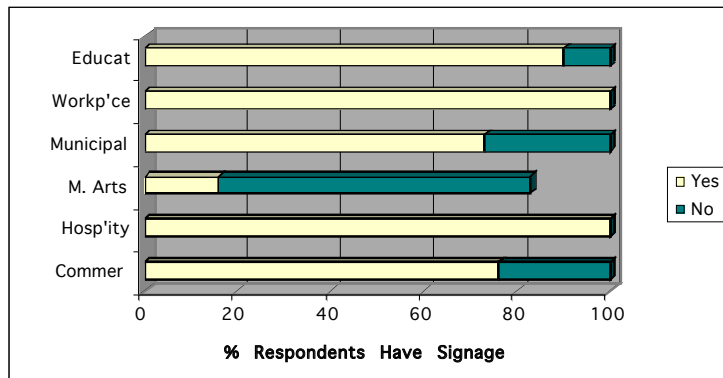
USE OF INFORMED CONSENT

- Informed consent used most often for facilities
- Martial Arts uses for programs most often
- NW uses less often than other regions



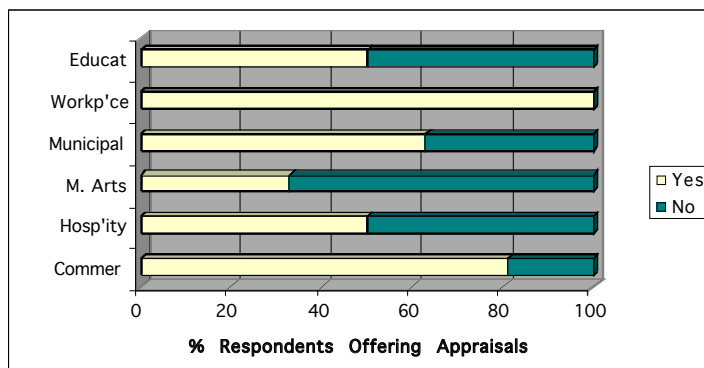
SIGNAGE - VISIBLE IN HIGH RISK AREAS

- 78% general compliance
- Martial Arts facilities comply least often



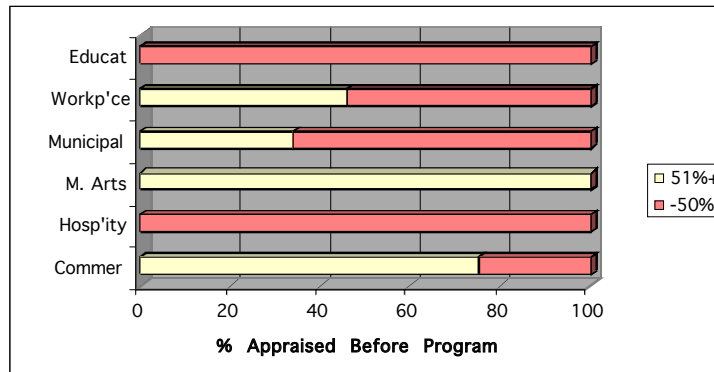
FITNESS APPRAISAL OFFERED

- 77% offer appraisals
- No regional deviation



APPRAISAL BEFORE PROGRAM

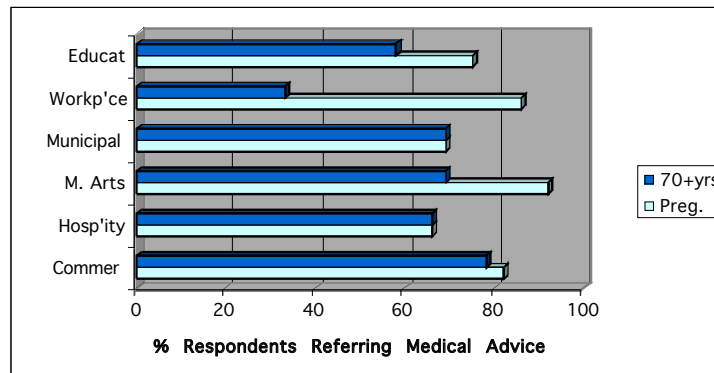
- On average, 75% of members are appraised before a program in 50% of facilities
- No regional deviation



SPECIAL POPULATIONS

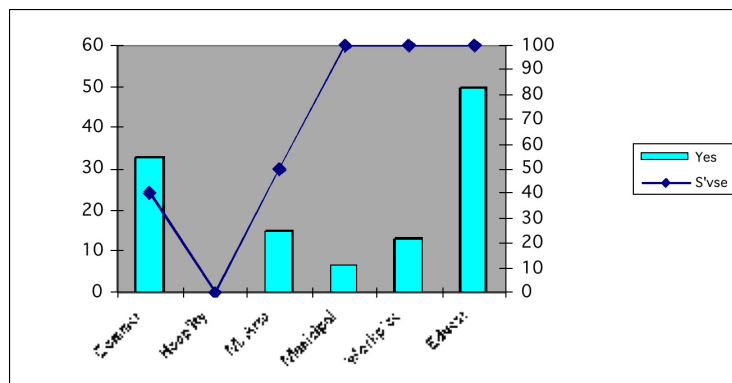
MEDICAL ADVICE

- 82% (pregnancy) and 72% (70+ yrs.) general compliance
- No regional deviation



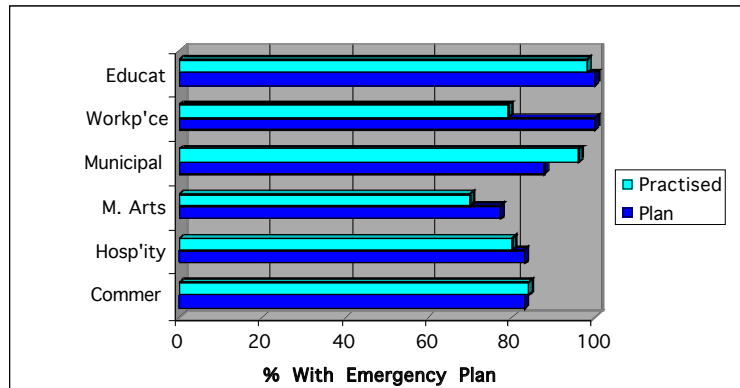
MAX TESTING

- Less than 30% of facilities offer max testing
- About 40% of tests are supervised



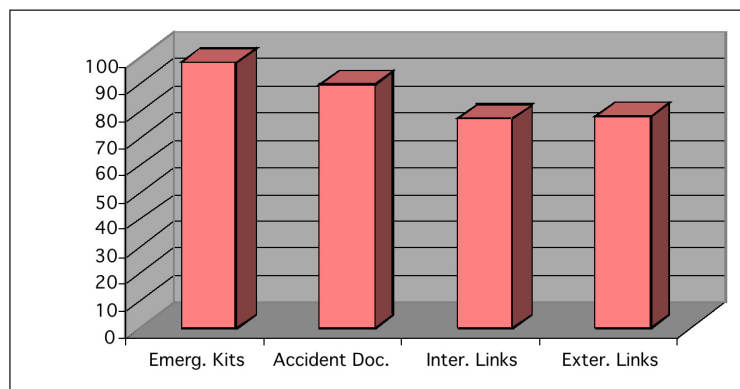
EMERGENCY PROCEDURES - PLANS

- 86% average compliance
- Generally practised once or twice per year



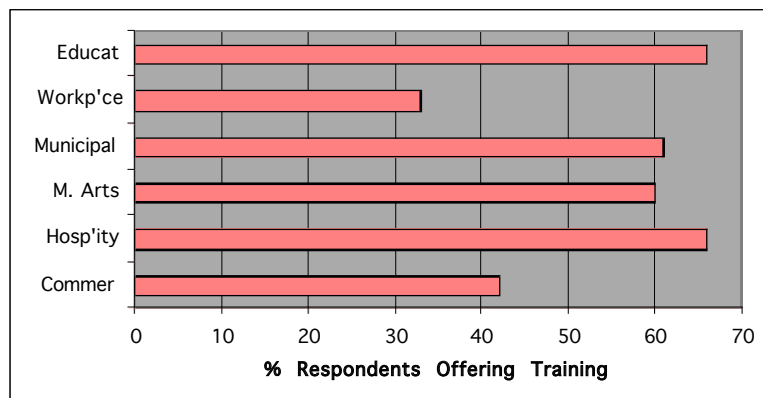
EMERGENCY KITS, ETC.

- Very little sectoral deviation
- No regional deviation



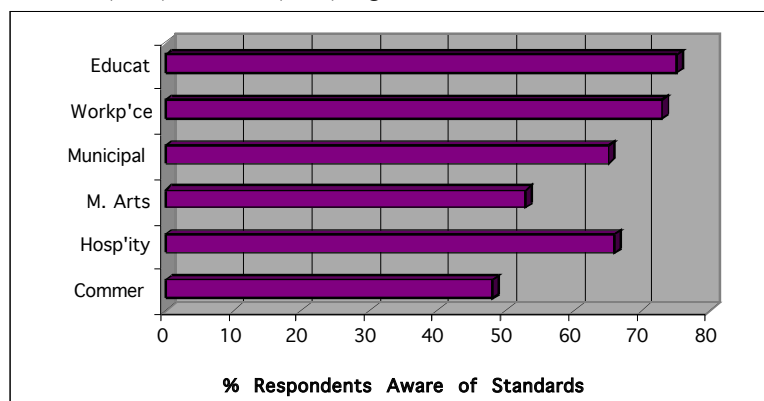
COMMUNICABLE DISEASES

- Overall 48% compliance
- No regional deviation



AWARENESS

- 52% of respondents aware of standards
- E (40%) and CW (44%) regions least aware



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Exercising Populations

Communicable Diseases

Emergency Procedures

Fitness Environment
Management

Standard#1 - CPR & First Aid

All fitness facility personnel and other fitness service providers should be qualified in first aid and CPR. (S)

[Surveys](#)

[View Survey Questions](#)

1. How IMPORTANT/RELEVANT is Standard # 1 as a fitness industry safety practice?

Very Important: highly relevant; highest priority	50	84.7%
Important: higher relevance; 2nd level priority	7	11.9%
Slightly Important: lower relevance; 3rd level priority	1	1.7%
Unimportant: no priority or relevance	0	0
No Judgement: I am not that certain about any of the above choices.		
I need more Forum discussion on this.	0	0

2. How FEASIBLE/WORKABLE is Standard # 1 as a fitness industry safety practice?

Definitely Feasible: easy to implement; no R&D required; fitness industry very likely to comply	51	86.4%
Possibly Feasible: seems workable; some R&D required; problems with voluntary compliance	7	11.9%
Possibly Unfeasible: may be unworkable; difficult to implement or practice	1	1.7%
No Judgement - I am not that certain about any of the above choices.		
I need more Forum discussion on this.	0	0
Definitely Unfeasible: very unworkable; cannot be implemented	0	0

3. NOW WHAT? Should Standard # 1 be:

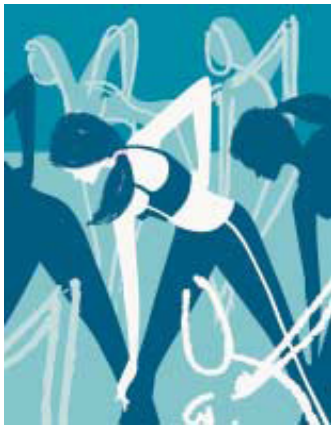
Retained as is?	44	74.6%
Retained with changes? (see next question for options)	13	22.0%
No Judgement: More Forum discussion needed	2	3.4%
Removed completely?	0	0

4. SUGGESTED CHANGES: What change(s) would you suggest for Standard # 1?

Change the wording to: (use comments box)	10	16.7%
Change Standard # 1 to a Recommended Guideline	6	10.0%

5. NEW PROPOSAL: If Standard # 1 has prompted you to suggest a new, but closely related Standard or Recommended Guideline in this topic area, it would be to create:

A new Recommended Guideline (enter proposed wording in Comments box)	6	10.2%
I want to explore my idea as a post-survey Forum Topic (briefly describe your idea in the Comments box)	4	6.8%
A new Standard (enter proposed wording in Comments box)	4	6.8%



CERTIFICATION AND TRAINING IN CANADA

Canadians who have enlisted the services of health and fitness providers expect to be treated with competence. From simple exercises to long term life-style changes, the relationship between the public and the profession is based on quality standards of practice, personal and business ethics and the expectation that advertised benefits will be delivered.

Certifying agencies exist to set standards, provide training and education, establish codes of ethics, recognize levels of experience and qualify professionals. Certifying agencies serving Canadian fitness providers are profiled alphabetically on the following pages.

Your questions, comments, complaints, suggestions

or proposals on Certification and Training in Canada are welcome.

Email us at: fbc@fitnet.ca

Fax to: 905-873-8611

Mailing address: Fitness Business Canada,
30 Mill Pond Dr., Georgetown, ON L7G 4S6

Aerobics and Fitness Association of America (AFAA)

15250 Ventura Blvd., Suite 200,
Sherman Oaks, California 91403
Tel: (800) 446-2322,
(818) 990-0040
Fax: (818)990-5468
Web: www.afaa.com



As the world's largest fitness and TeleFitness educator, The Aerobics and Fitness Association of America (AFAA) has certified more than 200,000 fitness professionals worldwide with written and practical examinations. AFAA's certifications are accredited by Vital Research, an organization AFAA has worked with for over 20 years. In addition AFAA has become an affiliate of the National Board of Fitness Examiners (NBFE). In the U.S., NBFE's Standardized Testing—known as the "National Boards"—began in October 2005 for personal trainers. For more information, visit www.afaa.com.

Each year more than 2,500 workshops are hosted by health clubs, studios, military bases, colleges and universities across the nation. Since 1983 fitness leaders and facilities have relied on AFAA for standards and guidelines, certifications, specialty workshops, books, manuals and continuing education.

AFAA's education has been extended through an online learning center, www.e-afaa.com, that includes AFAA's TeleFitness Internet Software Certification, learning tutorials and continuing education articles which can be all completed online. Other web friendly applications, such as locator services are designed to help professionals find instructors and courses in their area that are taught by approved continuing education providers. Professionals can also locate and register for AFAA workshops and certifications online. These services also offer the opportunity for professionals to have their own portfolio, featuring themselves and/or their business,

exposing them to anyone who visits AFAA's website. In addition to the opportunity to earn continuing education credits online and the willingness of AFAA to host workshops at your facility, AFAA helps individuals get certified and stay certified.

Primary Group Exercise Certification

A hands-on approach to reviewing AFAA's Basic Exercise Standards and Guidelines, exercise science and exam criteria. Learn how to analyze exercises, teach with safety in mind, and format a class from warm-up to cool-down. Prerequisites: early registration, pre-study, group exercise teaching experience or instructor training workshop. 5 CEUs.

Personal Fitness Trainer Certification

A three-day certification workshop including lectures, practical demonstration and written and practical exams. The curriculum includes: anatomy and kinesiology, fitness assessment testing procedures (3-minute step test, sit and reach, push-up/abdominal crunch, body composition screening with skinfold caliper measurement), nutrition fundamentals and weight management, special populations & medical considerations, listening, leadership and motivational skills, exercise programming and screening guidelines. Prerequisites: early registration and pre-study before workshop. Weightroom/weight training experience is strongly recommended. 15 CEUs.

Kickboxing Certification

This workshop brings standards and guidelines to one of today's hottest workouts. Learn the safe and effective way to lead dynamic KickBoxing classes. Prerequisites: early registration, pre-study, group exercise teaching experience or instructor training workshop. 5 CEUs.

Step Certification

A drills and practice-oriented review of the theoretical knowledge and practical skills necessary to instruct a safe and effective step class. This work-

shop presents current research in physiology, biomechanics and injury prevention, and reviews components of written and practical examinations. Prerequisites: early registration, workshop self study, step teaching experience or Step Teaching Skills workshop. Proof of current CPR certification required before certificate is issued. 5 CEUs.

The Wave Workout Certification

The Wave Workout, sponsored by LifeWaves, is an innovative natural workout approach that bases its training principles on the dual concepts of both exercise and recovery. Learn how to manipulate heart rate range, variability and circadian rhythms with this unique cycle-based program. Similar to interval training but so much more! Successful completion of The Wave Workout Certification is worth 7 AFAA CEUs. Prerequisite: current AFAA Certification. Includes: online portion prior to workshop (allow 1 week for completion of online course), study guide, 3-hour workshop, and written and practical exams. 7 CEUs

AFAA also provides one-day continuing education specialty workshops including the following courses:

Practical Skills and Choreography, Kickboxing Skills and Choreography, Step Skills and Choreography, Resistance Training the Class Format, Mat Science I, Mat Science II, The Metabolic Connection to Obesity, Midlife Fitness for Women, Injury Prevention/Exercise Progressions. These courses are priced at \$129.00 each.

Both CPR and exams are only required for our certifications. Our certifications are Aerobic, Personal Training, Step and KickBoxing.

Additional Information Regarding AFAA:

Independent contractor instructors administer the tests. Consultants are all AFAA-certified and current, and have had special training and/or degree.

AFAA's certifications include: Primary Group Exercise Certification, KickBoxing Certification, Step Certification, Personal Fitness Trainer Certification, and

CERTIFICATION

AFAA Fitness Practitioner (AFP) Certification.

AFAA also offers the following specialty workshops:

- National Board Review Course for PFTs
- Practical Pilates™
- Practical Yoga Instructor Training
- Practical Skills & Choreography
- Step Skills & Choreography
- Mat Science I
- Mat Science II
- Midlife Fitness for Women
- Aqua Fitness
- The Metabolic Connection to Obesity
- Prenatal Fitness
- Injury Prevention and Exercise Progressions
- Resistance Training-The Class Format
- Senior Fitness
- Indoor Cycling

Titles Earned: Primary Group Exercise/Personal Trainer/Fitness Counsellor/KickBoxing/Step/Yoga/Advanced Personal Trainer/WAVE Workout Certificate/Fitness Practitioner Certificate/Emergency Response Certificate

North American Academy of Health, Fitness and Rehab Professionals (AAHFRP)

Michael K. Jones, PhD, PT
3323 Watt Avenue #158
Sacramento, CA 95821
Tel: (801) 457-7844
Fax: (877) 744-6924
Email: drmike@postrehab.com
Web: www.postrehab.com



AAHFRP is dedicated to "Bridging the Gap Between Health Care and Fitness" by providing advanced training in post rehab services to those fitness professionals who wish to work with clients with medical conditions. Our courses are taught by licensed medical professionals with clinical experience working with clients with orthopedic, sportsmed, industrial, cardiovascular and neurologic disorders. Our courses offer "functional learning" that can be immediately applied to post rehab training. We are the oldest and most widely recognized post rehab association in the world with more than 10000 certified members on five continents.

We offer three levels of certification; the Medical Exercise Specialist is the most widely recognized; the Post Rehab Conditioning Specialist is an entry level post rehab certification and the Medical Exercise Program Director is for those professionals who wish to develop and administer post rehab programs in health clubs, corporations and physiotherapy and chiropractic facilities.

Titles Earned: Medical Exercise Specialist, Post Rehab Conditioning Specialist and Medical Exercise Program Director.

American College of Sports Medicine (ACSM)

401 W. Michigan St.,
Indianapolis, IN 46202
Tel: (800) 486-5643 Fax: (317) 634-7817
Email: certification@acsm.org
Web: www.acsm.org



ACSM, founded in 1954, is a 501(c)(3) professional member association widely recognized as the largest sports medicine and exercise science

organization in the world. Our members and certified professionals are dedicated to advancing and integrating scientific research to provide educational and practical applications of exercise science and sports medicine.

ACSM certifications are recognized as the most rigorous and well-respected credentials in the health and fitness industry. The ACSM Committee on Certification and Registry Boards (CCRB) offers four progressive certification program across two core tracks. The first track, Health & Fitness Certifications, is designed primarily for individuals who work in preventive health programs aimed at apparently healthy, low-risk individuals or clients with controlled diseases in commercial, corporate, hospital-based, and community settings. The two certifications in the Health & Fitness track include the ACSM certified Personal TrainerSM and the ACSM Healthy/Fitness Instructor®.

The second track, Clinical Certifications, is designed primarily for individuals who work with low to moderate-risk individuals or patients with acute or controlled diseases in hospital-based or medically supervised settings. The two certifications in the Clinical track include the ACSM Exercise Specialist® and the ACSM Registered Clinical Exercise Physiologist®. All ACSM certifications are progressive. As eligibility requirements increase from one credential to the next, so does the accompanying scope of practice for each certification. For additional information, please call (800) 486-5643, or visit www.acsm.org and follow the links to certification.

ACSM is more than the world's leader in the scientific and medical aspects of sports and exercise; it is an association of people and professions exploring the use of medicine and exercise to make life healthier for all people. ACSM is internationally known as the leading source of state-of-the-art research and information on sports medicine and exercise science. Through ACSM, health and fitness professionals representing a variety of disciplines work to improve the quality of life for people around the world through health and fitness research, education and advocacy.

Titles Earned: ACSM Certified Personal Trainer, ACSM Healthy/Fitness Instructor, ACSM Exercise Specialist, ACSM Registered Clinical Exercise Physiologist

Aquatic Exercise Association (AEA)

Angie Proctor
Box 1609, Nokomis
FL 34274-1609
Tel: (941) 486-8600
Fax: (941) 486-8820
Email: info@aeawave.com
Web: www.aeawave.com



The Aquatic Exercise Association is a not-for-profit organization dedicated to the growth and development of the aquatic fitness industry and the safety of the public served. Originating in 1983 as clearinghouse and network for aquatic fitness professionals, AEA is now represented in over 50 countries with Certification, Education and Membership opportunities.

Key events for 2006 include the International Aquatic Fitness Conference (IAFC) scheduled for April 25-30 in Orlando, FL, the Fall Regional Conference in Bellevue, WA (Sept. 15-17) and eight Extended Education Weekends in the fall. A full calendar or events is available on-line at www.aeawave.com.

The 5th edition of the AEA Aquatic Fitness profes-

sional Manual is now available for purchase. Get the most up-to-date information.

Titles Earned: Aquatic Fitness Professional

American Council On Exercise (ACE)

5820 Oberlin Dr., PO Box 910449,
San Diego, CA 92191-0449
Tel: (800) 825-3636 or
(858) 535-8227
Fax: (858) 535-1778
Email: acemail@acefitness.org
Web: www.acefitness.org



The American Council on Exercise® (ACE®) is a nonprofit organization committed to promoting active, healthy lifestyles and their positive effects on the mind, body and spirit. ACE pledges to enable all segments of society to enjoy the benefits of physical activity and protect the public against unsafe and ineffective fitness products and trends. ACE accomplishes this mission by setting certification and education standards for fitness instructors and through ongoing public education about the importance of exercise.

ACE initiated standards for fitness professionals in 1985 in the United States. The certification program has grown to become international in scope. ACE offers its domestic versions for exam sites in Canada and the United States. For all other countries, ACE offers its international versions of the exams, which follow the same specifications as the domestic version; however, content specific to U.S. laws is removed.

As part of its mission to bring fitness to all segments of society, ACE accomplishes this through ongoing public education about the importance of exercise. Through its research and independent comparative studies, ACE enables the public to make informed decisions about the safety and effectiveness of fitness products.

ACE offers certification for Personal Trainer, Group Fitness Instructor, Lifestyle & Weight Management Consultant and Clinical Exercise Specialist. ACE also offers advanced training programs and multiple certification paths to enable fitness professionals to expand their scope of practice, client base and professional opportunities.

ACE certification exams are legally defensible in a court of law and follow accepted certification practices to ensure validity, reliability and lack of bias and are administered by an independent testing agency.

The American Council on Exercise (ACE) continues to lead efforts to protect the public from unqualified fitness professionals and is accredited by the National Commission for Certifying Agencies (NCCA). NCCA is the accreditation body of the National Organization for Competency Assurance (NOCA). The NCCA accreditation serves as a benchmark on how organizations should conduct certification. Certification programs may apply and be accredited by the NCCA if they demonstrate compliance with each accreditation standard. The NCCA has accredited all ACE professional fitness certifications programs and exams.

Candidates for the ACE Personal Trainer, Group Fitness Instructor and Lifestyle & Weight Management Consultant Certifications must be 18 years of age and possess current CPR certification. You must have current ACE Group Fitness Instructor or ACE Personal Trainer certification or equivalent and CPR certification in order to take the Lifestyle and Weight Management Consultant exam. Candidates for the ACE Clinical Exercise Specialist Certification must

meet the following additional eligibility requirements:
(1) Degree in Exercise Science or Equivalent OR ACE Personal Trainer Certification or Equivalent, and (2) 300 hours of documented experience designing and implementing exercise programs.

Candidates may prepare for the ACE exams through formal university courses, exam preparation courses, practical training, self-study and correspondence courses. For Canadian residents, the fee for the Personal Trainer, Group Fitness Instructor and Lifestyle & Weight Management Consultant Certification exams is \$150 USD. The fee for the Clinical Exercise Specialist Certification exam is \$225 USD. Candidates may spend anywhere from three to 12 months to prepare for the exam based on education and experience. ACE strongly recommends that all candidates obtain quality hands-on experience before pursuing certification. An Examination Committee that consists of five to six fitness professionals who have a minimum of a master's degree along with extensive first hand experience in the respective field oversees all ACE certification exams.

Alberta Fitness Leadership Certification Association (AFLCA)

Katherine MacKeigan
Provincial Fitness Unit, Faculty of
Physical Education & Recreation,
Edmonton, Alberta T6G 2H9
Tel: (780) 492-4435
Fax: (780) 455-2264
Email: katherine.mackeigan@ualberta.ca
Web: provincialfitnessunit.ca



The Alberta Fitness Leadership Certification Association (AFLCA) is an agency based, not-for-profit, provincial association, which has facilitated training and certification of fitness leaders and trainers in Alberta since 1984. Through the assistance of more than 250 agencies, fitness leadership programs are delivered under the guidelines and support of the AFLCA. These programs include Fitness Theory, Group Exercise, Aquatic Exercise, Resistance Training, and Fitness for the Older Adult. Leaders also benefit from national recognition through AFLCA membership within the National Fitness Leadership Alliance (NFLA). This allows leaders transferability to other provinces and increases credibility and recognition of certification. It has become "The Official Fitness Leadership Certification" in the province providing professionalism, standardization and consistency in fitness leadership.

Vision Statement

AFLCA Professionals inspire Albertans to practice healthy active lifestyles.

Mission Statement

AFLCA leads in the advancement of fitness leadership excellence through accreditation and education.

AFLCA Programs/Services

Certification courses:

Fitness Theory
Distance Education Fitness Theory
Group Exercise
Aquatic Exercise
Resistance Training
Fitness for the Older Adult
Recertification

Joint Works/Water Works Arthritis course Ever Active Adults program Ever Active Kids program
Train the Trainer Course

Trainers Biennial Conference
Assistant Trainer Course
Fit Rendezvous Conferences

Titles Earned: Specialty Leader, Certified Fitness Consultant, Certified Personal Trainer, Professional Fitness and Lifestyle Consultant, Exercise Therapist

Upcoming Fit Rendezvous Conference is May 26 - 28, 2006 in Edmonton, AB at the University of Alberta. May 2007 in Calgary, AB. Don't miss it.

American Fitness Professionals & Associates (AFPA)

Mark J. Occhipinti, President,
PO Box 214, Ship Bottom,
New Jersey 08008
Tel: (609) 978-7583
Fax: (609) 978-7582
Email: afpa@afpafitness.com
Web: www.afpafitness.com



AFPA Mission Statement

"To provide Excellence in Education that is both practical and scientifically up to date for today's Health and Fitness Professionals, and Enthusiasts. AFPA's certification training programs & correspondence courses are based on the most current principals in Exercise Science, Sports Medicine, and Applied Human Nutrition."

Our primary goal is to provide an affordable educational experience that is both practical and functional for the fitness professional and the general public. The foundation of AFPA is over 35 years of combined experience in the fitness and sports medicine field. With over 65 faculty members and representatives throughout the United States, and internationally.

Fitness and Personal Trainer Education Conferences

- Hilton Head Fitness Extravaganza XI, March 10-12, 2006
- Beach Jam XII, Ocean City, MD April 21-23, 2006

Titles Earned: Personal Trainer, Pilates Fitness Instructor, Yoga Fitness Instructor, Nutrition Consultant, Pre-Post Natal Exercise Consultant, Children's Fitness Specialist, Senior Fitness Specialist, Aquatics Instructor, Aerobic {Fitness} Instructor, Cardio-Kickbox Instructor, Strength Consultant, Trainer of Special Populations, Advanced Personal Trainer, Post Rehabilitative Exercise Specialist, Sports Conditioning Specialist, Stability Ball Trainer, Functional Training Specialist Certification

American Senior Fitness Association (ASFA)

Grant Clark
P.O. Box 2575,
New Smyrna Beach,
Florida 32170
Tel: (800) 243-1478 or
(386) 423-6634
Fax: (386) 427-0613
Email: sfa@seniorfitness.net
Web: www.seniorfitness.net



SFA provides education, certification and resources for fitness professionals that serve older adults. Their mission is to provide fitness instructors serving seniors with the cutting-edge information and re-

sources that they need to confidently initiate effective exercise programs designed to encourage participation and to help seniors maintain or regain physical activity, function and independence. SFA's primary goal is to help provide older adults with fitness programming that will extend their productive years while maximizing quality of life.

SFA was founded in 1992. The early years were devoted to developing and validating comprehensive program materials as well as assembling and utilizing an advisory board of respected senior health and fitness professionals including researchers, gerontologists, medical doctors, gerontological nurses, physical therapists, educators, and nationally published senior fitness experts. Since 1994, SFA has offered senior-specific fitness training programs and professional certification. All SFA programs are revised and updated annually. They have recently released the new 2006 editions of all their programs.

SFA offers three distinct senior specific professional certifications and fitness training programs and all are available world wide.

Senior Fitness Instructor: designed for those who serve a broad spectrum of older adults in a group setting utilizing programs including seated and low impact aerobics, water programs, walking programs, and group stretching and strength programs.

Senior Personal Trainer: designed for working one-on-one or leading small groups focusing on strength training, individual aerobic programs and emphasizing motivation and goal setting.

Long Term Care Fitness Leader: designed for fitness leaders serving frail participants in a restricted setting such as nursing homes and adult daycare facilities.

Each of SFA's certification programs thoroughly address the practical application issues of their specific curriculum as well as vital fitness issues including: Physiology of aging; senior specific assessment and health screening; exercise program design; modifications for common medications; adaptations for age-related medical conditions; injury prevention and emergency procedures; teaching and leadership methods; psycho-social aspects of aging; fundamental exercise science and anatomy; ethics and professional standards.

Content of all SFA programs is based on the National Curriculum Standards for preparing senior fitness professionals (published in the Journal of Aging and Physical Activity, Vol. 6, No. 3) and on additional peer review by medical, academic, research and practical application specialists. Testing consists of a written examination addressing both theoretical and practical fitness issues.

SFA full certification programs includes: a complete set recommended study materials, testing process, continuing education materials accepted by most major fitness and health associations (including ACE and ACSM), and a one year membership to the American Senior Fitness Association. The cost is between \$300.00 and \$350.00 (U.S.). Most participants will need to allot from 40 to 80 study hours depending upon their educational background and study habits.

Certification by SFA will allow leaders to help make a positive difference in the lives of the more than five million Canadians who are already 60 years of age or more.

All SFA programs are revised at least annually.

Titles Earned: Senior Fitness Instructor, Senior Personal Trainer and/or Long Term Care Fitness Leader

CERTIFICATION

Balanced Body University / Pilates on Tour

Nora St. John / Al Harrison
1840 San Miguel Drive #100,
Walnut Creek CA 94596
Tel: (925) 200-6471
Fax: (925) 952-9332
Email: al@turningpointstudios.com
Web: www.pilatesontour.com



Pilates on Tour is a series of in-depth Pilates continuing education conferences held in top cities throughout the U.S. and Canada. Events feature master teachers from all perspectives, presenting in-depth, hands-on courses. Class sizes are limited to allow you to practice and apply what you learn.

Pilates on Tour is a unique opportunity to expand your repertoire, network with other Pilates professionals, and learn from the best.

Our 2006 calendar is still being finalized as this goes to press. In addition to Pilates on Tour in Newport Beach, Denver, Seattle and Dallas, we are excited to be returning to Toronto in June 2006.

CEUs from ACE and PMA will be offered. More details for 2006 are will be available soon, at www.pilatesontour.com.

BC Recreation and Parks Association (BCRPA)

Fitness Program Coordinator
#101-4664 Lougheed Hwy, Burnaby,
BC V5C 5T5 Tel: (604) 629-0965
Fax: (604) 629-2651



Email: bcrpa@bcrpa.bc.ca
Web: www.bcrpa.bc.ca

The BCRPA is a provincial, not-for-profit professional association that has been providing educational opportunities, information and advocacy for over 40 years. Their primary purpose is to enhance the capacity of their members to deliver recreation opportunities that improve the quality of life of all British Columbians. Membership (of more than 3300) is drawn from recreation and parks practitioners from public and corporate agencies, commissioners, board members, fitness instructors, students and volunteers. The BCRPA has a vast network of volunteers who contribute to curriculum development, programming, policy development, communications, advocacy and service delivery.

Today's exercise enthusiasts have many diverse needs and require the expertise and knowledge of qualified fitness professionals. The BCRPA provides this quality of assurance through their fitness leadership registration program. The program has a current registration of nearly 3,000 leaders and has gained recognition as the standard against which the qualifications of a fitness leader may be measured. Since its creation in 1984, the BCRPA Fitness Registration Program has been accepted as an unbiased means of gauging expertise, qualifications and abilities for those individuals instructing group, aquatic, weight training, personal training, older adults and adapted fitness in BC. The BCRPA is dedicated to collaboratively developing, recognizing and promoting national standards through its partnership with the National Fitness Leadership Alliance.

Titles Earned: Registered BCRPA Fitness Leader

Body Harmonics Pilates

Margot McKinnon
672 Dupont Street,
Suite 406,
Toronto, ON M6G 1Z6
Tel: (416) 537-0714
Fax: (416) 537-5195
Email: bodyharmonics@bltogo.com
Web: www.bodyharmonics.com



Body Harmonics Pilates mission is to make Pilates accessible to everyone. Teachers-in-training learn to embrace the unique capabilities of all clients regardless of shape, size, age or ability. Quality of movement rather than quantity of movement is emphasized, and teachers-in-training learn to identify the difference between straining to make an exercise look right and executing it with accuracy. The Pilates repertoire is reviewed in-depth with attention to the original nine principles of the Pilates Method. In addition, each course is updated regularly to reflect current research in biomechanics, somatics, and movement retraining. Our goal is to produce teachers who clearly understand how to develop a curriculum that is safe, effective, and fun for a diverse clientele.

Titles Earned: Internationally Recognized Certification

ISSA

Second Wind PILATES PLUS®
Strength & grace through movement

155 Lakeshore Road E
Mississauga, ON
905.891.9642
danielle@secondwind.net
www.secondwind.net

PILATES CERTIFICATION & EDUCATION

CERTIFICATION RECOGNIZED BY

CanFitPro, College of Massage Therapists of Ontario, College of Massage Therapists of Ontario

SECOND WIND PILATES IS A PROUD MEMBER OF

PMA Pilates Method Alliance, PILATES Canadian Pilates Association

Second Wind Pilates is approved as a continuing education provider for Professional Development Specialty Workshops by

CERTIFICATION

CALA

**Charlene Kopansk, President
or Shelagh Noonan**
125 Lillian Drive, Toronto,
ON M1R 3W6
Tel: (888) 751-9823
Fax: (416) 755-1832
Email: cala@interlog.com
Web: www.calainc.org



Regional CALA Conferences being planned throughout Canada. For more details visit www.calainc.org

CALA Foundation Course coming to Guelph in February 2006

- University of Guelph
Part I - Feb 10-12th and Part II - March 3-5th
CALA Conference - Central Ontario - Kitchener
- Forest Heights Pool- March 25 & 26th 2006
For registration contact cala@interlog.com
- 2nd annual CALA West Fitness & Spa Retreat
The Hills Health Ranch, 108 Mile, BC - April 2006
For registration package contact cala@interlog.com

CALA Conference Maritime and Ottawa Regions - Details coming soon

- CALA Events: International Focus
- Cape Town, South Africa - February and March 2006
- Surrey UK- Early 2006
- Guanahato City, Mexico - June 2006
- Germany - June 2006

The CALA Advantage

CALA is an international, educational organization with a mandate to provide high quality training, certification and access to current information for its members and others living in the active living community. Courses are research based and provide a strong network for aquafitness leaders, aquatic post rehabilitation specialists, personal trainers and coaches. CALA promotes professionalism and excellence through thoughtful integration of the mind, body and spirit. CALA Leaders are in high demand!

- CALA is the gold standard in Aquatic Training and Certification.
- CALA Events are eligible for CECs with a variety of organizations

Courses/Workshops on offer:

- Intro to Aquafitness Student Clinic (8 hrs)
- CALA Foundation Course (16 - 40hrs)
- Water Running Specialty Course (8 hrs)
- Aqua Natal Specialty Course (8 hrs)
- Aqua Older Adults Specialty Course (8 hrs)
- Aqua Kick Box Specialty Course (8 hrs)
- CALA Healing Waters -Post Aquatic Rehabilitation Course (8-20hrs)

Modules: Intro to Aquatic Therapy, Aqua Arthritis
Coming Soon: Healing Waters for-Back Care, MS, Cardiac Rehab, Motor Vehicle Accident, Joint Replacement

CALA Workshops: Over 100 topics including: "Aqua Muscle," "Aqua Deep Choreography," "Aqua Cycle," "Beyond Abs" and more.

CALA Resources: Educational Manuals, CALA "Wavelink" Newsletter, Individual and Corporate Memberships, Books and Participant Handouts, Instructor Non-Slip Safety Mats, Aqua Flotation Belts, "Tidal Wave" Aquafitness CD, Ryka Aqua Shoes, Instructor Vests, Shirts, Jackets, Backpacks, Water Bottles and more. New DVDs and CDs coming soon.

To Host a Cala Course or Master Class at your Facility:

Convenient, easy to organize! Facilities have the opportunity to earn revenue and subsidize staff registrations by hosting a CALA Event. To receive a full information package contact cala@interlog.com or call 1-888-751-9823

CALA Healing Waters: Aquatic Post Rehab and Aqua Arthritis Module - additional dates being added in 2006.

With increasing frequency, health professionals are recommending community-based aquatic exercise classes and personal training programs to patients/clients following clinical rehabilitation, and as a means to assuage chronic pain. It is also of paramount importance for the fitness professional to be able to respond to the special needs of an aging population.

Recognition of the healing power of movement in water within the health care industry has created the need for the healing waters training and certification program. This comprehensive program will ensure participants are assisted in their quest for health and well being. In general, the Intro to Healing Waters (HW) Course is the entry portal to all other HW specialties. This AQUATIC POST Rehab course will prepare the CALA certified aquafitness leader, as well as others with an interest in the field to work with special populations in the water. Building on the principles taught in the CALA Foundation course, this in depth series of training and certification courses qualifies the leader to design and deliver aquatic exercise classes and exercise programs for specialty populations (usually in warm pools...89-94f temp). The healing waters program provides aquafitness leaders, personal trainers and others who work with special populations the tools to provide safe, effective aquatic exercise classes that meet the unique needs of the population studied.

The Canadian Centre for Activity and Aging (CCAA)

Jeff Boris, Community Education Coordinator
1490 Richmond Street, London,
Ontario N6G 2M3
Tel: (519) 646-6000 ext. 68608 Fax: (519) 661-1612
Email: jboris@uwo.ca Web: www.uwo.ca/actage

The Canadian Centre for Activity and Aging (CCAA) is Canada's leader in current research and program development for improved physical ability and healthy aging for older adults. Being affiliated with University of Western Ontario, St. Joseph's Health Care London (SJHC) and the Lawson Health Research Institute (LHRI) the CCAA's mission has the following aims:

Investigate the interrelationship between physical activity and aging through basic and applied research, including research to help prevent loss of function

Seek opportunities to share research outcomes at local, provincial, national and international conferences and workshops

Communicate research and evidence-based practices for healthy lifestyles for community-based, home-based and long-term care environments

Develop, implement, promote and evaluate programs using current research evidence, community needs and available resources

Educate and train program leaders/health care providers for all regions of Canada in the most current strength, exercise and physical training components of an effective physical activity program though

on-site training, publications, manuals and videos

Seniors' Fitness Instructor Course: This 36-hour course is designed for those who want to learn how to develop and instruct appropriate group fitness classes for older adults.

Home Support Exercise Program: This 4-hour workshop is designed for health and fitness professionals or volunteers who want to teach and monitor a home-based exercise program. The Home Support Exercise Program consists of ten simple, yet progressive exercises designed to maintain or improve the functional mobility and independence of frail, homebound older adults.

Functional Fitness: This 16-hour workshop prepares participants to develop and instruct individual, small group and large group exercise programs for frail older adults in day program or long-term care settings.

Restorative Care Education and Training: This 36-hour training program is designed for individuals working in long-term care who want to assist residents to achieve the best quality of life possible by maximizing their current abilities. Participants learn how to enhance resident's level of functioning through: individualized ADL programs, feeding/eating programs, functional exercise programs and optimal communication/social interaction between staff and residents.

Community Consultation/Workshops: Community groups and service providers that are interested in developing and implementing exercise programs for older adults in their communities are encouraged to contact the Centre. In-services and workshops can be customized to meet the needs of the community. Consultations can also be arranged in order to evaluate current programs, review progress and provide future direction for exercise programming for older adults.

Titles Earned: Seniors Fitness Instructor

Canadian Fitness Education Services Ltd. (CFES)

Morrie Zaitlin, Margaret Hewitt-Zaitlin
PO Box 138, Summerland,
B.C. V0H 1Z0
Tel: (877) 494-5355
Toll free North America
Fax: (250) 494-9355
Email: cfes@telus.net
Web: www.canadianfitness.net



Canadian Fitness Education Services Ltd. (CFES) is a program publishing house and fitness education/leadership training company. CFES' mission is "to enhance activity effectiveness for all ages and stages through quality programs, products and services."

Since 1980 more than 40,000 students have appreciated CFES' fun, challenging and rewarding classroom and home study programs. CFES has student and educator resources for Fitness Knowledge, Weight Training Level 1, Advanced Weight Training and Group Exercise Instructor and Weight Training for Young Adults courses.

CFES programs exceed NFPA program guidelines and are recognized by: the BCRPA; SPRA; OFC; CPTN; CALA; CanFitPro; the BC Massage Therapy Association and the BC Ministry of Education.

Titles Earned: Weight Training Instructor, Advanced Weight Training Instructor, Group Exercise Instructor

Canadian Pilates Association

Nina Bowkett
PO Box 5119, Victoria, BC
V8R 6N3

Email: gm@canadianpilatesassociation.ca
Web: www.canadianpilatesassociation.ca



The mission of the Canadian Pilates Association is to promote the Pilates method and its benefits to other professionals and Canadians at large. The association provides continuing education opportunities to its members and others in the community by offering various workshops with acknowledged master teachers in the field of Pilates as well as other skilled teachers in related disciplines. The association has recently also been participating in a community focus group initiated by the BC Recreation and Parks Association which is working on developing minimum standards for Mat teachers, thereby encouraging Pilates instructors to adopt the highest professional and ethical standards.

Canadian Society for Exercise Physiology (CSEP)

Denise Mercier
202-185 Somerset
Street W,
Ottawa, ON K2P 0J2
Tel: (877) 651-3755 x 24
Fax: (613) 234-3565
Email: info@csep.ca Web: www.csep.ca



The Canadian Society for Exercise Physiology is dedicated to promote the generation, synthesis, transfer and application of knowledge and research related to exercise physiology (encompassing physical activity, fitness, health and human performance). Founded in 1967 at the Pan American Games in Winnipeg, Manitoba — the result of four years of cooperative efforts by the Canadian Medical Association and the Canadian Association for Health, Physical Education, Recreation and Dance.

CSEP-Certified Fitness Consultant (CFC): CFC's are sanctioned to administer The Canadian Physical Activity, Fitness & Lifestyle Approach (CPAFLA) to 'apparently healthy' persons and provide general information on various aspects of physical activity, health, fitness and lifestyle. A candidate preparing to become a CFC must demonstrate university/college preparation in fitness and conditioning, anatomy and physiology, counselling and communications.

Candidates typically have a minimum of two years of university or college diploma coursework, be 18 years of age, have a valid CPR certificate. It is recommended that candidates attend a 36-40 hour workshop, must pass a written and practical exam in which candidates must demonstrate proficiency in the administration and interpretation of the CPAFLA.

CSEP-Certified Personal Trainer (CPT): Subsequent to meeting the requirements for CFC certification, the CPT must have a minimum two years of college or University education with specific coursework that meets the core competencies. They must have annual CPR and have completed a standard first-aid course. They must be able to provide 25 hours documented experience in personal training and pass both a written and practical exam concerning exercise prescription, exercise leadership and personal training. The CPT was designed to provide a level of competency that establishes the standard for personal fitness training in Canada. The CPT is qualified to prescribe individual exercise programs based on the results of the CPAFLA protocol and to

act as a personal trainer to 'apparently healthy' persons of all ages.

CSEP-Professional Fitness & Lifestyle Consultant (PFLC): The PFLC is designed to recognize the qualifications of fitness and lifestyle consultants with formal university training in exercise sciences, assessment, counselling, prescription and supervision. PFLCs are sanctioned to administer appropriate fitness and lifestyle evaluation protocols to apparently healthy persons, athletes, physically demanding applicants and to develop a specific program of exercise for individuals and act as a personal trainer. A PFLC candidate must have a university degree in exercise sciences or allied health sciences, including the successful completion of the required core competencies, hold a current CPR certificate, and have a

knowledge base of the CPAFLA. The PFLC program is most often delivered through a university program. Candidates must pass a written theory exam and pass an Objective Standardized Practical Evaluation (OSPE). The Inclusion Committee for Person's With




Disability has developed a supplementary training module for current CFCs, CPTs, and PFLCs to increase the availability of programs and services for apparently healthy persons with a disability. The Enhancing Inclusive Fitness & Lifestyle Services module was designed in parallel with the CPAFLA, utilizing these protocols for the development of guidelines for providing inclusive fitness and lifestyle services to Canadians of all abilities.


CSEP-Exercise Therapist™ (CSEP-ET): Exercise

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CERTIFICATION

Therapy involves the evaluation and treatment of both asymptomatic and symptomatic populations with medical conditions, functional limitations and disabilities, through the application of exercise and physical activity, for the purpose of improving health and function. The CSEP Exercise Therapist performs evaluations, prescribes conditioning exercises, and provides exercise supervision, health education and outcome evaluation. The majority of clients for whom services are appropriate include, but are not limited to, those with musculoskeletal, cardiorespiratory, neuromuscular disorders and metabolic conditions. The CSEP-Exercise Therapist also works with apparently healthy asymptomatic populations such as older adults, children and youth, obstetric populations, and to society as a whole, in health enhancement and prevention of impairment and disability.

A CSEP-ET candidate must have a degree, be a PFLC, and have experience working with both symptomatic and asymptomatic populations. Candidates will have to pass both a written and Objective Standardized Practical Evaluation.

CSEP-Certified Fitness Professionals receive a certificate of recognition endorsed by a national, non-profit scientific organization, professional and commercial liability insurance coverage, national and provincial newsletters, and opportunities to participate in regional and national conferences/symposia. Resource materials are available for each certification level. While course content, policy and procedures are set at the national level, each province has a provincial advisory board which delivers the CSEP-H&FP program in its province and offers their own regional conferences. See provincial H&FP contacts for local information.

CSEP/SCAPPS Annual Conference – “Building Bridges”, November 1-4th, 2006, Halifax, Nova Scotia
 Web: <http://ace.acadiau.ca/srmk/buildingbridges>
 Email: buildingbridges@acadiau.ca

Titles Earned: CSEP-CFC/CSEP-CPT/CSEP-PFLC/CSEP-ET

Canadian Therapeutic College

Susan C. Boileau
 Burlington Square,
 760 Brant Street
 Burlington, ON L7R 4B7
 Tel: (877) 278-8888 Fax: (905) 632-2895
 Email: info@canadiantherapeuticcollege.com
 Web: www.canadiantherapeuticcollege.com

Canadian Therapeutic College, in dedication to the pursuit of excellence in private post-secondary education for health care professionals, creates a dynamic supportive learning environment and opportunities for personal, intellectual and professional growth.

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Titles Earned: Sports Injury Therapist/Registered Massage Therapist

Canadian Fitness Professionals Inc. (Can-Fit-Pro)

2851 John St., Box 42011,
 Markham, ON L3R 5R7
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 Fax: (905) 305-8449
 Email: info@canfitpro.com
 Web: www.canfitpro.com

Can-Fit-Pro was founded in 1993 to serve Canadian fitness professionals, and has continued to evolve with ever-changing fitness industry needs. Can-Fit-Pro currently offers three major benefits to fitness professionals:

- Opportunity to become certified by Canada's largest internationally recognized certification program.
- Membership in Canada's largest internationally recognized organization for fitness professionals
- Coast to coast conference and trade show events.

Can-Fit-Pro recognizes that certification is the starting point in a fitness professional's career. Can-Fit-Pro's focus is to make the certification experience enjoyable by providing programming and resources that are affordable, accessible, and attainable.

Can-Fit-Pro Certification courses and exams are delivered across Canada by professional trainers (PRO Trainers). PRO Trainers are hand-picked for specific geographic regions and their area of expertise. Their qualifications may include university degrees, college diplomas, industry certification, extensive experience, or other credentials in the fitness industry.

Can-Fit-Pro offers the following certifications:
Fitness Instructor Specialist (FIS): A demonstration of the leadership, motivation and practical training required for group exercise instructors

Personal Trainer Specialist (PTS): Training created for candidates who work with clients on an individual or small group basis designing exercise programs for improved fitness and health.

Nutrition & Wellness Specialist (NWS): A program for professionals wanting more in depth information on nutrition, weight management, and lifestyle consulting for both active and inactive people.

Older Adult Fitness Specialist (OAS): An educational and experiential program designed for currently certified professionals who are interested in specializing with older adults.

Pre & Post Natal Fitness Specialist (PFS): A theoretical and practical program for the currently certified fitness or health care professional to provide education and fitness programming for women in the childbearing year.

Mind Body Fitness Specialist (MBS): In partnership with Fusion Fitness Training, this program is designed to teach fitness professionals how to integrate mind/body activities into their fitness programs.

Resist-A-Ball® (RAB): RAB training includes C.O.R.E. certification Level One and Level Two training, Pilates with Resist-A-Ball®, Yoga with Resist-A-Ball®.

Advanced Fitness Instructor Specialist (ADV-FIS) and Advanced Personal Trainer Specialist (ADV-PTS): Combined by a theory component available through Human Kinetics, the practical techniques portion of these programs are delivered in one day hands on skills courses in major centers across Canada by a Can-Fit-Pro PRO Trainer.

Sport Conditioning Specialist Certification (SCS): In conjunction with Twist Conditioning, Sport Condi-

tioning Specialist certification includes courses and exams to certify candidates to provide exercise design using Sport Movement, Sport Strength and Sport Balance training principles. Each program provides a practical progression to develop a competent conditioning coach who can deliver sports focused training to clients and athletes that are looking for enhanced athleticism and performance.

The full certification cost for these programs range from \$290 - \$330. This fee includes the course, manual, study guide, theory and practical exam fees, and Can-Fit-Pro membership. Prerequisites for the certification are: individuals must be 18 years of age and they must hold a current CPR certification. The OAS, PFS and MBS certifications require the candidate be certified as a fitness instructor or personal trainer before pursuing these specialty areas.

Once certified, Can-Fit-Pro certified professionals must keep their certifications up to date by attaining a minimum of 4 CECs (continuing education credits) for each designation through workshops, conferences and other educational events. To facilitate the need for CECs, Can-Fit-Pro holds Canada's only international fitness and club business conference and tradeshow annually in Toronto. This event brings together over 6000 fitness professionals from across Canada and internationally. Can-Fit-Pro also offers numerous 1-3 day regional events allowing fitness professionals from across Canada to experience high quality education in their own backyard.

In addition to our certification and conference opportunities, Can-Fit-Pro offers a comprehensive website and annual membership that includes discounts to Can-Fit-Pro events, a full-colour magazine and other benefits. Visit www.canfitpro.com or call 1-800-667-5622 today for certification information, course and exam dates, conference announcements, and information on everything we offer!

Titles Earned: Dependant on Discipline

Certified Professional Trainers Network (CPTN)

Yee Chau, Membership Services
 122 D'Arcy Street,
 Toronto, Ontario
 M5T 1K3 Tel: (416) 979-1654
 Fax: (416) 979-1466
 Email: info@cptn.com Web: www.cptn.com



The Certified Professional Trainers Network (CPTN) began in 1993 with an open forum to generate interest for a network for personal trainers. Over the past 12 years, CPTN has developed workshops to expand the careers of all fitness professionals. The vision of CPTN is "To inspire fitness, health and quality of life for all" with the core values of education, certification, leadership and advocacy embraced in all courses and events offered through the organization.

CPTN develops and offers courses and certifications to meet the needs of professionals and consumers. CPTN offers the following designations and certifications:

CPTN-Certified Personal Trainer

The CPTN Personal Trainer Certification is Canada's first national certification that was launched in Sept. 1994. The successful candidate is trained to design individual and small group exercise programs for improved health and fitness. The course entitled "The Art and Science of Personal Training" covers anatomy, exercise physiology, biomechanics, health

conditions, interpersonal and consulting skills, legal liability, disability, musculoskeletal injuries, nutrition and resistance training.

CPTN-Post-Rehabilitation Conditioning Specialist

The successful candidate will design exercise programs to facilitate a healthy recovery from musculoskeletal injuries back to functional fitness levels for sport, work and/or leisure. Course participants will review skeletal models and practise techniques within an athletic therapy clinic.

CPTN-Pilates Mat & Ballwork Specialist

The successful candidate is trained to teach a preparatory repertoire, the Classical Pilates Mat exercises and a Pilates-based ball series to beginners and advanced participants. The courses are: Pilates Preludes™ and Mat Exercises – Level 1, Pilates Mat Applications – Level 2 and Pilates on the Ball™.

CPTN/TBI Certified Strength and Conditioning Expert (SCE)

The Strength and Conditioning Expert (SCE) is the most comprehensive and practical program in the area of strength training for sports. Whether you are a personal trainer desiring involvement in the strength and conditioning field or a coach involved in a specific sport or a variety of sports, this course will diversify and improve your training and conditioning skills. Memorization takes a step back to integration as you are challenged to apply scientific principles in a practical and methodological manner. The knowledge you attain will change your perspective of strength, power, and speed and endurance program design.

CPTN/TBI Certified Junior Athlete Specialist (JATS)

Many training errors, with grave consequences for the career of future athletes, occur during the early years of training young athletes. Coaches and trainers must realize the impact they have on the athletic future of potential professional athletes and strive to improve their training knowledge. This specific and original certification program will introduce you to all the elements needed to maximize your expertise in training the future generations of athletes.

CPTN/TBI Certified Periodized-Planning Specialist (P-PS) education program is intended to enhance the knowledge of coaches, trainers and athletes who are actively involved in the world of fitness and sport. Great emphasis will be placed on how to apply scientific principles to meet your client's needs.

Centre Pilates de Montreal

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Email: formation@centrepilatesdemontreal.com
Web: www.centrepilatesdemontreal.com



Mission:

- To gently help our clients regain their bodies
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- To improve our clients' dynamic posture
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Please check out our website for scheduled exam dates and locations in your area as well as, prerequisites, and certification requirements.

www.provincialfitnessunit.ca

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CERTIFICATION

the awareness of the body's limits and capabilities
To contribute to a better balance between the body and the soul

Founded in 1992, the Centre Pilates de Montreal was the first to offer Pilates. Our excellent Pilates post-rehabilitation and conditioning services are offered by dynamic staff of university graduates. We offer private, semi-privates and group classes for people with different conditions, from elderly to athletes. Our comprehensive Pilates charts enable clients to come and work on their own time and enjoy the benefits of Pilates while saving money.

Offering Pilates teacher training programs on the Mat and Reformer to the Quebec population. Our nutrition and massage therapy programs continue to blossom. We have enjoyed numerous appearances in the printed and televised media over 2004 which has brought more recognition to the Pilates method to the public.

Titles Earned: Certified Pilates Instructor

C.H.E.K. Institute

2105 Industrial Court, Vista,
CA 92081
Tel: (800) 552-8789
Fax: (760) 477-2620
Email: info@chekinstitute.com
Web: www.chekinstitute.com



Advanced level training programs offered throughout the USA, Canada and internationally on a regular basis. Please visit the C.H.E.K. Institute website for an up-to-date schedule and full information on all the courses. The C.H.E.K. Institute is the foremost organization committed to excellence in education and innovation in the fields of corrective exercise and high-performance conditioning. We achieve this through revolutionary philosophies and methods in professional development, research and holistic conditioning.

The Cooper Institute

Program Coordinator
12330 Preston Road,
Dallas TX 75230
Tel: (972) 341-3200
Fax: (972) 341-3227
Email: courses@cooperinst.org
Web: www.cooperinst.org



The Cooper Institute, founded on June 22, 1970 by Kenneth H. Cooper, M.D., M.P.H., is widely acclaimed as the leader in preventive medicine research and education. By developing effective, research-based strategies for helping people lead healthier lives, The Cooper Institute furthers the principle that a person's physical fitness level correlates positively with highly desirable outcomes such as emotional well-being, reduced incidence of disease, reduced medical care usage and increased productivity. Cooper Institute educational programs help health, fitness and medical professionals apply research findings to practical everyday life.

The Cooper Institute is a leader in the industry of providing health and fitness certifications and offers several varied professional certifications, workshops and seminars. Some examples of the educational opportunities available for basic certification include:

- Personal Trainer (PTR) Exam Preparation Educational Opportunities and
- Cooper Institute Personal Trainer (CI-PTR) Certification Examination

- Master Fitness Specialist Certification
- Group Exercise Leadership (aerobics instructor) Certification
- Health Promotion Director Certification

In addition, we offer specialty certifications which will further the student's fitness and wellness knowledge and marketability. These specialty certifications include:

- Coaching Healthy Behaviors Specialty Certification
- Promoting Healthy Behaviors in Children
- Biomechanics of Resistance Training (strength training) Certification
- Optimal Performance Training Certification
- Providing Dietary Guidance (nutrition) Certification
- Pre/Postnatal Fitness Instructor Certification
- Fitness Specialist for Older Adults Certification
- Aquatics Certification
- Indoor Cycling Certification

The Cooper Institute looks forward to providing you with quality educational opportunities in fitness and wellness, as well as the tools to help you put your programs into action! Our latest course catalog is available for download at our web site at www.cooperinst.org or contact us via e-mail at courses@cooperinst.org for a catalog or more information.

Core Dynamics Pilates

Michele Larsson
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Fax: (505) 988-5076
Email: inquiry@coredynamicspilates.com
Web: www.coredynamicspilates.com



Welcome to the Core Dynamics Pilates Teacher Training. The program, designed by Michele Larsson, teaches the classical Pilates Method using the same approach as once taught by Eve Gentry. This program has been formulated to provide the knowledge necessary to competently teach a fitness-oriented, client specific Pilates lesson including postural correction, bio-mechanical principles and exercise adaptations.

The Core Dynamics Teacher Training program is comprised of 450 hours: four 3-day weekend workshops, plus independent study at a studio in your area. A student must pass a written and practical exam in order to graduate. The goal is to give teachers classical Pilates with sound bio-mechanical movement principles. As Eve Gentry said, there is "no bad movement, just movement badly done." This frees up your thinking about exercise, expanding your ability to creatively adapt movement to individual clients and situations.

We have five affiliated training locations in the United States: Santa Fe, New Mexico, Chicago, IL, Tempe, AZ, Miami, FL and Pittsburgh, PA. You can see our current schedule of teacher training and advanced workshops by visiting our web site at www.coredynamicspilates.com. You may also send your questions and requests for additional information to inquiry@coredynamicspilates.com.

Titles Earned: Pilates Teacher

Desert Southwest Fitness, Inc.



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Tucson AZ 85705

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Dianne Miller Pilates Center of Vancouver Ltd.

Mairin Wilde
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Fax: (604) 879-2970
Email: wilde4pilates@hotmail.com
Web: www.diannemillerpilates.com



The Dianne Miller Pilates Center is Canada's original Pilates facility, and is renowned as a center of excellence for the Pilates Method. A commitment to teaching whole body health through Pilates generates a full range of programs in Pilates and rehabilitative exercise.

The Dianne Miller Pilates Teacher Education Program was developed by Dianne Miller beginning in 1986 to provide a structured approach to Pilates teacher education. The curriculum concentrates on the Pilates Method in relation to functional movement, balancing stabilization with mobility.

A series of 10 – 17 hour Theory Modules provide analysis of the theory behind the exercises, and emphasize teaching the individual, not simply the form of the exercise. Current biomechanical theory is applied to original Pilates repertoire for the most up-to-date approach to Pilates teacher training. Application is open to all Pilates teachers and advanced students who meet the prerequisites. Entrance requirements include basic anatomy and knowledge of the prerequisite Pilates repertoire.

All Theory Modules must be taken in sequence, and may be audited a second time at no additional charge. Modules may be applied towards requirements for a Dianne Miller Pilates diploma program, or, may be taken independently. Letters of attendance are available upon request.

Diploma programs are offered in comprehensive teacher training or as continuing education for Pilates teachers. Level One provides theory training for Pilates Mat Work and Reformer repertoire. Level Two provides theory training for Pilates Mat Work and all Pilates apparatus, and meets the curriculum requirements to prepare for the Pilates Method Alliance Pilates Certification Exam.

Comprehensive Teacher Training Diplomas require:

Level One: completion of Theory Modules 1 – 6, plus 500 hours of additional internship and training, and final examination.

Level Two: completion of Theory Modules 1 – 10, plus 620 hours of additional internship and training, and final examination.

Studio internships are awarded following an application and review process, and continuation in the program is subject to ongoing review.

CERTIFICATION

Continuing Education Diplomas require:

Level One: completion of Theory Modules 1 – 6, 20 hours seminars, and final examination.

Level Two: completion of Theory Modules 1 – 10, 20 hours seminars, and final examination.

All diploma programs require final examinations and consist of: demonstration and teaching of required exercises, written examination and oral interview.

Tuition fees range from \$700 per theory module up to \$10,000, depending on the programs completed.

Titles Earned: Comprehensive teacher training - Certificate of Qualification (Level One and Two)

Continuing Education - Certificate of Continuing Education (Level One and Two)

East to West Yoga

Susie Dias

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M6P 3L5 Tel: (416) 588-3568

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Email: susie@easttowestyoga.com

Web: www.easttowestyoga.com



East to West Yoga and Pilates offers three certification programs. The Yoga Exercise Specialist Certification (YES), the Pilates Mat Instructor Certification (PMI) and the 350-hour Yoga Teacher Certification that is registered with the Yoga Alliance (EWTY). YES and PMI are both two-part Certification programs and include two 12-hour courses each done over a weekend. The prerequisite for both of these courses is a minimum of 25 hours of previous anatomy training. The EWTY Certification program includes YES Certification and an additional eight 20-hour weekend courses. Each of these weekend courses cost \$250 plus GST = \$267.50 CAN.

The YES program has been offered since 1994 and almost 1,000 fitness and health professionals have participated in this program. East to West Yoga Inc. offers a group insurance policy to all Certified graduates at a cost of \$110/instructor and \$260/studio plus tax for Yoga and/or Pilates instruction with up to two million in liability. The Pilates Mat Certification, strictly based on Joseph Pilates original matwork or contrology was launched in 2004 and already over 150 fitness and health professionals have participated in this program. Both the YES and PMI are recognized by Can-Fit-Pro, BCRPA, OFC, MFC and AFLCA for CEC's and meet the criteria for CEC petitions for all fitness certification organizations.

The part I courses of YES and PMI cover the fundamentals of teaching Yoga Exercise or Classical Pilates Mat classes, but do not include an exam. The part II courses include an advanced workshop, practical and written exams based on the part I manual. The EWTY weekend courses all include 20 hours of independent study that is outlined and based on the manuals for each EWTY weekend.

The prerequisite for the part II YES and PMI courses is: 25 hours of practice teaching and 30 hours personal practice. These hours are logged independently and based on the honour system. Graduates of the EWTY program are automatically eligible to become registered with the Yoga Alliance, an international registry for qualified Yoga Teachers and Schools.

It is the mandate of East to West Yoga Inc. to offer programs that are comprehensive, practical and fulfilling. Each course comes with a spiral bound user friendly manual and certificate of course completion or Certification certificate where applicable. These courses are designed to prepare the gradu-

ate to teach a wide variety of students with varying degrees of physical abilities in a safe and effective way. East to West integrates ancient wisdom and modern science into all programming. Our aim is the integration of the body, mind and spirit through movement.

Winter/Spring 2006 upcoming courses include:

PART I: Yoga Exercise Certificate Course Part II: Yoga Exercise Specialist Certification (YES) PART I: Pilates Mat Certificate Course PART II: Pilates Mat Instructor Certification offered in:

Toronto, Brampton, Ottawa Region, London, Belleville (YES only), Windsor Region, Winnipeg, Montreal, Moncton, St. John's NFLD and NB, Nanaimo (YES only), Vancouver (YES only) and Edmonton.

The 350-hour EWTY, Yoga Alliance registered program is offered in Toronto, Brampton, Nanaimo, Montreal and coming soon to other regions.

A detailed list of course descriptions, upcoming courses, registration form etc, is on our website, www.easttowestyoga.com. Come visit the East to West Yoga and Pilates Studio in Toronto's west end for a variety of ongoing classes and workshops. Mention this listing and receive your first class free.

To book a course at your facility or city call Susie Dias at 416-588-3568 or email susie@easttowestyoga.com for more details.

Titles Earned: Yoga Exercise Specialist (YES)

Pilates Mat Instructor (PMI)

East to West Yoga Teacher (EWTY)

Evolution Studios

Wendy Borsuk

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Email: evolutionstudios@telus.net

Web: www.evolution-studios.ca



Evolution Studios offers many different forms of Pilates Certification for the Fitness Professional. This means that we recognize your professional skills and experience and offer Pilates to you in a way that you as a professional will understand. This year we have extensive certification offerings for Pilates Mat Basic (in its new BCRPA-standardized format that we helped develop!), Pilates Mat Advanced, Pilates on the BOSU, Chair Pilates for Seniors, Pilates Mat with Props, and Pilates Reformer. The latest class dates are always available on our website: www.evolution-studios.ca, which also offers a rich history about Evolution Studios as a business and how we have strived to bring the highest quality of classes and instruction into the studio to garner the best results!

We are offering over 25 certification courses this year. For more information go to www.evolution-studios.ca

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Titles Earned: Certified Personal Trainer

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Since 1992, over 65,000 satisfied Fitness Professionals have attended FiTOUTR® Certifications and CEC Workshops.

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Titles Earned: Certified Fitness Professional

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FasTrackKids is an early enrichment education program for children ages 3 to 6 years. Academies are located in retail centers, private schools, and fitness centers around the world. A revolution in learning, FasTrackKids, utilizes an interactive whiteboard combined with educational zig-zagging to accomplish the educational goals of our program. Some of our goals are to teach children how to apply and transfer knowledge, encourage creativity and brain development, develop speaking skills, and to encourage leadership and personality development.

FreeMotion Fitness

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Email: info@freemotionfitness.com

Web: www.freemotionfitness.com



FreeMotion Fitness was founded in 1999 based on a simple, yet bold observation: *One-dimensional training doesn't carry over to a three dimensional world, a place where twisting, turning, and moving in all planes is a natural occurrence.* This observation resulted in the fitness breakthrough FreeMotion™.

The philosophy of FreeMotion training is based on simulating basic human movement patterns. FreeMotion focuses on building flexibility, strength, stability, and balance through replicating natural movements such as pushing, pulling, twisting, lunging

and squatting. FreeMotion is a safe, simple and fun way to train the body. FreeMotion challenges the body the way it was designed to function and trains the body to perform more effectively and efficiently to help clients reach their goals.

FreeMotion Group and Personal Training brings the FreeMotion philosophy of functional integrated training into your facility with the focus on individual or group training. Combining the versatility of the Cable Column with unequalled education, FreeMotion Group and Personal Training provides you the tools to increase revenues while your members will enjoy the variety in sessions.

FreeMotion Group has a 'classic' group exercise application and accommodates any class size, while FreeMotion Personal Training is a specialty group-training program that focuses on a smaller number of participants. As a licensed facility, we provide your staff with onsite training of comprehensive programs, techniques to accommodate a diverse membership and implementation so you can immediately offer a new experience in group and personal training.

With a FreeMotion Coach Training Session, trainees will receive:

- An extensive training session by a certified FreeMotion Master Trainer held at your facility.
- Education on 44 basic movement patterns.
- Nine comprehensive programs and a custom Program Planner.
- Updates to the FreeMotion Group and Personal Training programs.
- NASM and A.C.E continuing education units and credits.

Benefits of the Coach Training & Specialization Program:

The FreeMotion Group and Personal Training Specialization program consists of theory and practical information on:

- History and Philosophy of FreeMotion Fitness and FreeMotion concepts.
- FreeMotion Applied Exercise Science.
- Movement Patterns and Progressions.
- Sample Sessions.
- Coaching Philosophy and Training Techniques.
- Practical Application of FreeMotion.
- Coach Responsibilities.
- Program Implementation Strategies.

Human Kinetics Publishers (Can)

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Human Kinetics (HK) is the premier knowledge integrator in the physical activity field. We synthesize vast amounts of information into a constantly evolving array of products that utilize current technology to meet the needs of our varied audiences. HK has served the physical activity field since 1974, when it published its first book. Today, HK produces textbooks and their ancillaries, consumer books, software, videos, audiocassettes, journals, and distance education courses. Our products will continue to take a variety of forms.

A privately held company, HK's mission has been to meet the needs of teachers, coaches, professionals, researchers, sport participants, and fitness enthusiasts. Our objective is to make a positive difference in the quality of life of every human being by

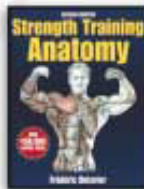


Earn Continuing Education Credits with HK Online courses!

Human Kinetics offers a variety of online education courses in health and fitness, ranging from *Exercise Anatomy* and *Weight*

Management to our soon-to-be-released *Starting a Fitness Business*. Interactive learning at its finest!

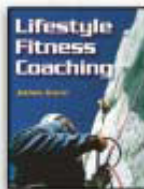
Most major fitness associations across Canada now accept HK Online courses as a means of maintaining accreditation. Getting started is easy, just visit the website for a complete list of courses and organizations at: www.hkeducationcenter.com, or call 1-800-465-7301.



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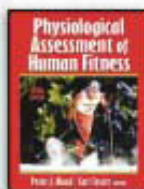
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Physiological Assessment of Human Fitness, Second Edition
Peter J. Maud, PhD, and Carl Foster, PhD, Editors
©2006 • Hardcover • Approx 328 pp
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promoting physical activity through information. We do so by seeking out experts to create our products; by hiring educated, professionally qualified staff to develop those products; and by working closely and cooperatively with leading scholarly and professional associations.

This commitment, combined with innovation and the vision to anticipate information needs for an exploding field, enables HK to annually publish more than 120 books and 20 journals, to produce numerous videos and software products, and to explore new information forms using today's and tomorrow's technology.

"Education is no longer confined to a traditional classroom. Distance education presents us with new, innovative ways to bring information to more people." Rainer Martens, PhD, President, Human Kinetics. Human Kinetics develops and delivers quality educational courses for professional associations and academic curriculums around the world.

HK has teamed up with the National Athletic Trainers' Association (NATA) to create PASS, the Professional Achievement Self-Study Program, a series of top-notch self-study courses for athletic trainers and kinesiologists. A second focus of HK Distance Education are general fitness courses designed for fitness professionals, community colleges, universities, and other organizations around the world.

New: The Human Kinetics Online Education Center is now live! The HK Online Education Center brings you quality courses for a wide range of professions within the physical activity field, all delivered over the Internet. You can select courses to prepare for professional certification, post-certification continuing education, or college and university academic credit. 39 courses are already listed. Go to: www.humankinetics.com, and follow the Distance Education link to find PASS and Fitness courses, and the new HK Online Education Center.

Topics addressed in HK Distance Ed: Group Fitness, Strength Training, Nutrition and Health, Injury Prevention and Rehab, Weight Management, Sedentary and Older Adults, Flexibility, Massage and Myofascial Release, Pharmacology in Athletics, Psychology, Disordered Eating, Physiology and Biomechanics, Measurement and Assessment, Sudden Death in Sport, and much more.

Many of our courses are already accepted for continuing education credit with a number of organizations across Canada including: AFLCA, BCRPA, Can-Fit-Pro, CATA, CPTN, NBCFAL, OASES, and more. Check the HK Online Education Center (www.humankinetics.com) for a listing of organizations supporting each course, and the number of credits offered.

IFPA

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Email: smahtani@ifpa-fitness.com
Website: www.ifpa-fitness.com



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International Association of Resistance Trainers (I.A.R.T.)

Brian D. Johnston
5 Abigail Court, Sudbury,
ON, P3A 6C1
Tel: (705) 566-7276
Fax: (514) 372-0595
Email: info@ExerciseCertification.com
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International Sports Conditioning Association (ISCA)

Thomas The Promise
PO Box 450916, Miami,
FL 33245
Tel: (800) 555-2333 Fax: (888) 977-6472
Email: thomasthepromise@aol.com
Web: www.ISCAfit.com



Boxaerobics, the industry's first introduction to boxing in the group exercise arena, was developed in 1986 by Thomas "The Promise." Thomas, who had just recently retired from a successful professional boxing and professional kick boxing career, wanted to inspire the general population to train like athletes. The program was such a huge success that the demand for more instructors grew. To assist in properly training the new instructors Thomas contacted Dr. Joseph Signorile, Associate Professor in Exercise Physiology at the University of Miami. In 1992, Dr. Signorile evaluated the biomechanical breakdown of each movement as well as the physiological changes that take place during this sport specific training program. Together they developed the textbooks and teaching format for the BoxAerobic and Kick Boxing Certifications. Today there are over 150 master trainers for the International Sports Conditioning Association (ISCA), teaching and developing new specialty programs to keep you, the fitness professional, ahead in the industry. The popularity of Kick Boxing is still growing and demands a type of training that takes the instructors beyond the basics while emphasizing safety, sport authenticity, creativity and effectiveness.

Mission Statement:

The mission of the International Sports Conditioning Association (ISCA) is to promote and improve health and fitness through safe and effective sports specific programs.

Enterprises:

To support the accomplishment of the International Sports Conditioning Association's mission to promote and improve health and fitness, the ISCA engages in three primary enterprises: Sports-Exercise Science and Research, Sports-Exercise Quality Assurance, and Sports-Exercise Promotion.

Sports-Exercise Science: To develop and/or support research and science initiatives; to maintain the scientific credibility of the ISCA; to develop and disseminate current scientific information to fitness professionals and educators through scientific statements, publications, and conferences.

Sports-Exercise Quality Assurance: To improve the quality and safety of sport specific programs by monitoring, auditing and professional education.

Sports-Exercise Promotion: To generate interest and participation in Sports specific programs through

community education, campaigns, and demonstrations and direct professional education efforts towards safe and effective exercise.

Role of the ISCA

To establish and revise standards for sport specific programs, improve professional resources for training and act as a catalyst in the fitness community to develop safe and effective training programs. Direct professional education efforts to ensure safety for the consumer.

The ISCA educational programs are presented international and we actively take part in about 25 tradeshows in the USA.

Titles Earned: Certified Trainer and/or Instructor

International Sports Sciences Association (ISSA)

Rochelle Yoshida
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Tel: (805) 745-8111 Fax: (805) 884-8119
Email: ryoshida@issaonline.com
Web: www.ISSAonline.com



Since 1988 the International Sports Sciences Association (ISSA) has provided certification and continuing education to nearly 75,000 fitness professionals. ISSA certifications are recognized worldwide. From Sports Conditioning to Youth Fitness, ISSA offers 10 certification programs and dozens of continuing education courses. For more information on the ISSA, please visit: www.issaonline.com.

Specialized Certifications Include: Specialist in Performance Nutrition, Sports Conditioning, Fitness Therapist, Youth Fitness Trainer, Fitness for Older Adults, Adaptive Fitness, Martial Arts Conditioning, Endurance Fitness Trainer and Water Fitness Trainer.

Titles Earned: Certified Personal Trainer or Specialist in the particular area of specialization.

International Society of Yoga Education

Carol Mitchell
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Tel: (519) 352-8298
Fax: (519) 354-9862
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Web: www.internationalyogasociety.com



The International Society of Yoga Education was formed to bridge the gap between ancient traditional yoga and modern yoga-based mind/body fitness programming.

International Society of Yoga Education is dedicated to:

- teaching and training instructors and the general population in the art and science of yoga
- providing opportunities and training for self-development and leadership in the field of yoga through workshops
- uniting members of the yoga profession and protecting the character and status of the profession, promoting ethical practice, settling questions of professional usage and courtesy among members of the profession
- maintaining and improving the qualifications and standards of yoga and the profession
- updating yoga postures to reflect current exercise so as to decrease rate of injury caused by traditional yoga.

ISYE honours ancient yoga science (i.e. ayurvedic medicine, chant, meditation, etc.) and disseminates

CERTIFICATION

information about these tools as well as the latest research in the area of mind body fitness.

The instructor certification program tests students in yoga fitness theory ONLY. However the extensive 400 page program manual offers a wide variety of traditional yoga based tools that students can use to customize yoga programming to fit the needs of the group they are working with.

The ISYE yoga instructor program is unique in that it meshes traditional yogic theory with modern exercise science in order to set safety standards in this new arena of yoga fitness programming.

Additionally, continuing education credit/units may be granted by petition.

The ISYE provides training and education to yoga, fitness and health professionals, hospitals, schools, corporations and health clubs worldwide.

ISYE is approved for CECs through yoga schools, as well as fitness and health organizations. ISYE developed a new clinical yoga specialist program along with a 200 hour program. The 200 hour program qualifies participants for independent registration as an AYT or RYT. ISYE is also recognized as a school by the International Teachers Federation which is considered to be the world governing body of yoga. Sanctioning has also been given by the Canadian Yoga Council, Global Yoga Wellness Advisory, Canadian Advisory on Exercise and Wellness and the Global Advisory on Exercise and Wellness. Programs are offered retreat style on weekends or in pastoral residential settings or upscale resorts in exotic places worldwide. ISYE offers its certified instructors and members opportunities for travel and mission work places such as Africa and India. An outreach program designed for incarcerated individuals and the underprivileged is also available.

Titles Earned: Fitness Yoga Specialist

Jazzercise

Tami Smith
9765 LaSalle Boulevard, LaSalle,
Quebec H8R 2N9
Tel: (514) 365-1915
Fax: (514) 365-9280
Email: jazzercise@sympatico.ca
Web: www.jazzercise.com



Our Mission is to develop and market fun and effective fitness programs and products that enhance the wellbeing of people of all ages.

Jazzercise, created by Judi Sheppard Missett, is the world's leading dance-fitness program. Each 60-minute class offers a blend of jazz dance and exercise science choreographed to today's hottest music. Since 1969, millions of people of all ages and fitness levels have reaped the benefits of the comprehensive program, designed to enhance cardiovascular endurance, strength, and flexibility using easy-to-follow movements, Jazzercise. When you love your workout, results come easy.

Check our website www.jazzercise.com for information on the upcoming 2006 fitness events.

Titles Earned: Certified Franchisee

Keiser Corporation

Julie Mcnemy
2470 S. Cherry Avenue, Fresno, CA 93706
Tel: (800) 888-7009
Fax: (559) 256-8100
Email: biketraining@keiser.com
Web: www.keiser.com



Keiser Indoor Cycling continues to be one of the hottest trends in the fitness industry. Enlivened by athletic racing, interval training, and visualization, Keiser Indoor Cycling programming is the fu-

ture of fitness. Studies demonstrate that the key to exercise adherence is variety. Your Keiser Indoor Cycling program is constantly evolving from beginner to expert. This diversity in your workout develops ultimate fitness without overtraining.

Create a fitness program tailored to your student's needs with Keiser Performance Cycling's step-by-step explanation on how to modify intensity and vary your student's workouts. The variety of routines can easily be transferred to outdoor cycling as well. This adaptability is what makes Keiser Performance Cycling fun, and sets it apart from other fitness trends, which often fail to keep the body and mind inspired. Keiser Indoor Cycling can get your students into the best shape of their life. It's a terrific cardiovascular workout, and it is great for muscular endurance. Your students can burn between 400 - 500 calories in a single workout! Performance Cycling Certification equals ½ credit for ACE, 4.5 credits for AFAA.

Benefits of Keiser Indoor Cycling:

Biomechanically correct body positions and drills prevent injury, mentally refreshing, promotes strength, endurance, and unity of mind and body. A safe, individualized teaching approach to group indoor cycling. New cycling workouts add variety to your program. Speedplay to maximize your indoor cycling workout time. New, special dynamic stretching exercises improve flexibility.

Keiser wants you and your facility to achieve ultimate success with your cycling programs so your facility's enrollment in the Performance Cycling Workshop also includes a separate meeting with your Keiser Master Trainer to discuss (among other strategies) marketing, class scheduling, front desk operations, forms and pre-registration systems.

Manitoba Fitness Council

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Email: mfc@ms.umanitoba.ca
Web: www.manitobafitnesscouncil.ca



Active, Healthy People

The Manitoba Fitness Council Inc. (MFC) is a non-profit organization that is dedicated to promoting quality in fitness leadership in order to provide Manitobans with safe, effective and enjoyable exercise programs. It represents the province in a nation-wide network of provincial, not-for-profit fitness leadership associations known as the National Fitness Leadership Alliance. The MFC is guided by a volunteer Board of Directors who represent the fitness and active living field. In response to a need for standardized training and recognized accreditation within the growing fitness industry, the MFC was incorporated in 1990. Since that time, the organization has broadened its mandate to include public education and advocacy for active living. The MFC's vision is one of a vibrant province where the people are active and healthy.

Mission Statement

The MFC establishes scope and standards of practice, and direction of fitness leadership and appraisal through training, education, consulting and networking. The MFC promotes active living for Manitobans through the activities of its members.

The MFC has over 550 members from across the province. Today, leaders can be trained in three different specialty areas: Group Fitness, Aquatic Fitness and Resistance Training. The MFC also recognizes a number of special knowledge enhancement courses such as the Active Older Adult and specialty accreditations such as the Individual Fitness Leader.

The MFC actively participates in strategic partnerships to promote fitness and active living to a broad spectrum of Manitobans. Examples of these collaborations include the Manitoba Physical Activity Coalition, the Arthritis Society of Manitoba, the VON SMART Program, the Canadian Diabetes Association (MB Branch) and the Active Living Coalition for Older Adults in Manitoba.

Maureen Rae's Yoga Studio

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Fax: (416) 207-9474
Email: info@mraesyogastudio.com
Web: www.mraesyogastudio.com



Maureen Rae has gained recognition across Canada for her unique, centered approach to fitness and yoga, having been passionately involved for the past 21 years. Yoga has become a way of life for Maureen, spilling over into every aspect of being. She has been teaching Yoga for 11 years, and has studied extensively with Erich Schiffmann in Santa Barbara, California. A highly regarded Can-Fit-Pro presenter, she uses asana, vinyasa (asana connected by breath), pranayama (yogic breathing techniques), deep relaxation, and discussion to lead her students into stillness. Becoming still enables one to more intuitively be "guided from within."

Maureen Rae's Yoga Studio is committed to making the safe and effective teaching of yoga accessible to the entire wellness industry. We are proud to have graduated over 800 instructors to date, all of whom are committed to teaching yoga with a high degree of integrity, purpose and with a deep understanding of the principles of yoga.

Teacher Training sessions are rooted in age-old teaching guidelines, and validated by current exercise science. These trainings are NOT fitness-based activity, but true yoga... integrating breath work (the essence of yoga... THERE IS NO YOGA without breath!), and beginning meditation techniques.

We presented our Level 3 Fast Track Yoga Teacher Certification in 2005. Please visit our website at www.mraesyogastudio.com for more information.

Titles Earned: Level 3 Fast Track Yoga Teacher Certification

Mount Royal College

Tina Roche
4825 Mount Royal
Gate S.W.,
Calgary, Alberta T3E 6K6
Tel: (403) 440-5077 Fax: (403) 440-6670
Email: pft@mtroyal.ca
Web: www.mtroyal.ca/conted/pft



IDEA magazine claims that personal training is the fastest-growing segment of the fitness industry. Consumers are increasingly more willing to spend their discretionary income on personalized, one-on-one instruction that helps them meet their individual health and fitness goals. Train for a career in this growing field!

The Personal Fitness Trainer Extension Certificate is a comprehensive program of 14 courses (700 hours), including a practicum that prepares you to work one-on-one with clients to provide safe and effective exercise programs. Graduates receive a Personal Fitness Trainer Extension Certificate from Mount Royal College and are eligible to obtain the Certified Fitness Consultant (CFC) certification from

the Canadian Society for Exercise Physiology.

Mount Royal College's innovative Personal Fitness Trainer Extension Certificate is designed to respond to the competitive demands for well-trained and knowledgeable personal fitness trainers. Established in 1997, this 700-hour program guides the student through a combination of academic and technical courses as well as practical skill development. The curriculum was developed with the cooperation of an advisory committee of fitness professionals and educators and is current and practical in design. Graduates are prepared for entry into professional practice possessing the ability to conduct physical fitness assessments and to design, implement, and manage a variety of fitness programs. The program can be completed either through full-time studies in ten months or part-time distance studies (print-based curriculum) over a minimum of two years and a maximum of six years.

Mount Royal College is committed to providing a high quality Personal Fitness Trainer Extension Certificate Program that presents exciting and rewarding career opportunities for graduates. Personal Fitness Trainer graduates enjoy a multitude of career paths. The majority establish themselves as entrepreneurs while others find employment opportunities in fitness centres, with amateur and professional sport teams as well as parks and recreation facilities.

The Personal Fitness Trainer Extension Certificate is offered at the Mount Royal College Lincoln Park Campus featuring world class fitness facilities. This facility features a new triple gymnasium, a state of the art fitness centre, an indoor running track, an indoor climbing centre, a 25m salt water pool with jacuzzi, six international squash courts, six outdoor tennis courts, two outdoor beach volleyball courts, and new locker room facilities complete with steam rooms.

Titles Earned: Personal Fitness Trainer Certificate

National Federation of Professional Trainers (NFPT)

Angie Wickstrom
PO Box 4579
Lafayette, IN 47903
Tel: (800) 729-6378
or (765) 471-4514
Fax: (765) 447-3648
Email: awickstrom@nfpt.com
Web: www.nfpt.com



With over 18 years of experience in Personal Trainer Certification and Education, the NFPT is an internationally recognized certification program with a reputation of being one of this industry's leading certification organizations. NFPT's unique testing procedures allow you to study at your own pace and get certified at your convenience at one of over 300 testing sites! The NFPT exam has been validated and is legally defensible using strict industry accreditation standards which assures the integrity of NFPT's Certified Personal Fitness Trainer (CPFT) assessment. It is our organizational mission through vision and insight to lead the personal training industry, through quality education and credentialing, into a future of public and government respect, trust, and confidence.

The NFPT offers an NCCA accredited Personal Trainer Certification program, making the NFPT credential one of the very few elite in this industry! NCCA accreditation ensures NFPT's accountability to the trainer and industry alike. The NFPT credential offers the integrity and credibility that you've been looking for!

Titles Earned: Personal Fitness Trainer

National Fitness Leadership Alliance The (NFLA)

See Provincial Certification Organizations

The National Fitness Leadership Alliance (NFLA) is a Canadian partnership of provincial not-for-profit organizations dedicated to developing, promoting and implementing national standards for training and certification for fitness leaders in Canada. Recognized through their respective provincial governments, the NFLA sets the standards for fitness leadership and certification in Canada. Canadians will continue to become and access qualified fitness leaders in their communities. Join our National Team – over 10000 fitness leaders Strong! and Growing!

NSCA Certification Commission



3333 Landmark Circle,
Lincoln, Nebraska 68504
Tel: (402) 476-6669 Fax: (402) 476-7141
Email: commission@nsca-cc.org
Web: www.nsca-cc.org

The NSCA Certification Commission, which is the certifying body for the National Strength and Conditioning Association, was established in 1985 and offers two certifications for fitness professionals - the Certified Strength and Conditioning Specialist® (CSCS®) credential that is for professionals who design and implement strength training and conditioning programs for athletes and the NSCA-Certified Personal Trainer® (NSCA-CPT®) credential that is for those who train active and sedentary clients in one-on-one situations.

Both certifications are international in scope. Each year the NSCA Certification Commission offers both examinations at more than 60 sites throughout the United States, Puerto Rico, Canada and other countries including Japan, England and Hong Kong.

The CSCS and NSCA-CPT have earned accreditation from the National Commission for Certifying Agencies (NCCA), based in Washington, D.C. To earn the recognition of the NCCA, a credentialing body must demonstrate an ability to develop and administer psychometrically sound examinations. The NSCA Certification Commission certifications were the first fitness-related certifications to earn national accreditation through the NCCA.

CSCS:

CSCS certified individuals have a diverse academic and professional background, including strength coaches, athletic trainers, physical therapists, personal trainers, physicians, chiropractors, researchers and educators. To earn the CSCS credential, candidates must pass an exam comprised of two sections, one of which is one and a half hours in length and another that is two and a half hours in length. The Scientific Foundations section consists of 80 multiple-choice questions and is designed to assess a candidate's knowledge in the areas of exercise sciences and nutrition. The Practical/Applied section consists of 110 multiple-choice questions. Forty of these are in conjunction with a video, which assesses competencies in exercise techniques, functional anatomy and testing procedures. The remaining 70 questions pertain to program design, organization/administration and testing/evaluation.

To be eligible to sit for the CSCS examination, the candidate must hold bachelor's degree from an accredited institution, be a currently-enrolled college senior or hold a degree in chiropractic medi-

cine. The candidate must provide documentation of at least a BA/BS degree defined by the United States educational system. In addition, the individual must be currently certified in at least adult CPR.

The CSCS examination fee is \$250 US for early registration for NSCA members and \$355 US for early registration for non-members. Late registration is \$285 and \$390.

NSCA-CPT:

To obtain the NSCA-CPT credential, candidates are required to pass an examination that focuses on client consultation/assessment, program planning, exercise techniques, safety/emergency procedures and legal issues. The three-hour exam consists of 140 multiple-choice questions, 35 of which correspond with video segments assessing knowledge primarily in the areas of exercise technique and client assessment areas.

The remaining questions pertain to the exercise sciences, client assessment, program planning and safety-emergency issues.

To be eligible to sit for the NSCA-CPT examination, the candidate must be currently certified in CPR. Although no formal post-secondary course work is required, candidates are expected to have a good knowledge of biomechanical concepts, training adaptations, anatomy, exercise physiology, program design guidelines and the content of current position papers pertaining to special populations.

The examination fee is \$225 US for early NSCA registrants and \$330 US for early non-member registrants. Late registration fees are \$260 and \$365.

Both the CSCS and NSCA-CPT exams will be held in Canada on the following dates:

April 1, 2006, Montreal, Quebec
June 3, 2006, Vancouver, British Columbia
October 7, 2006, Vancouver, British Columbia
Please visit www.nsca-cc.org for registration deadlines and more information.

Titles Earned: Certified Strength & Conditioning Specialist (CSCS) or NSCA-Certified Personal Trainer (NSCA-CPT)

Nordic Walking by FITTREK

Deborah Nikole Kall
535 W 29th St.,
Miami Beach,
FL 33140
Tel: (800) 345-1004
Fax: (305) 672-2860
Email: service@fittrek.com
Web: www.fittrek.com



Nordic walking continues to be one of the "hot test" outdoor fitness activities in Europe and the Scandinavian countries. In 2000, Dan Barrett, Fittrek president, was instrumental in bringing the concept to the United States. Fittrek's innovative product designs and focus on the fitness club industry through formal instructor training and club programming has established the company as an industry leader in the U.S. market. To meet the growing demands in both North America and Canada, Fittrek recently began manufacturing poles and accessories under its own brand name and has increased the education division of the company.

In 2006 Fittrek will continue offering their Nordic Walking Instructor's Course, (the first of its kind and the only course recognized by both ACE -0.8/CECs and AFSA-7.5/CEUs), which will include special applications of Nordic walking. These new courses will include: pre/post natal, rehabilitation and post rehab. Fittrek's course offerings are being expanded and

CERTIFICATION

updated on an ongoing basis.

The full certification cost for these programs range from \$99.95/Online - \$199.95/Pre-Con. These fees include: the course, study outline, manual, a pair of the EXPLORER poles and the theory and practical exam. Prerequisites for the certification are: individuals must be 18 years of age and it is recommended they have a current CPR certification.

Those fitness professionals interested in becoming a Nordic Walking Instructor should visit the company's web site, www.fittrek.com, or call 1-800-345-1004 today for the most current course schedule as well as the Online Certification details.

Titles Earned: Nordic Walking Instructor

New Brunswick Council for Fitness and Active Living (NBCFAL)

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Mission Statement

The New Brunswick Council for Fitness and Active Living (NBCFAL) is a non-profit association that develops, supports and promotes training, certification and leadership in fitness for New Brunswickers. The NBCFAL is an advocate for active living in the province.

Our organization was incorporated in 1988 beginning with an aerobics certification. We now offer the following programs: Group Fitness Leadership, Resistance Training Leadership, Aquafitness Leadership, Older Adult Fitness Leadership, Personal Fitness Trainer, CSEP-Certified Fitness Consultant and CSEP-Professional Fitness and Lifestyle Consultant.

Our organization offers programs in both French and English throughout New Brunswick. We also host the largest fitness conference in the Maritimes each year in November.

Our programs are transferable across Canada to any other National Fitness Leadership Alliance (NFLA) partner. The NFLA partners include all other provincial/territorial fitness certification agency.

Titles Earned: Pilates Certification Courses

Nova Scotia Fitness Association (NSFA)

Diane Bellefontaine, Executive Director
5516 Spring Garden Rd., Suite 309,
Halifax, Nova Scotia B3J 1G6
Tel: (902) 425-1128, Ext. #224
Fax: (902) 422-8201
Email: diane@nsfa.info Web: www.nsfa.info

The NSFA trains, certifies and supports fitness leaders and promotes fitness, active living and wellness throughout the province.

The association was formed in 1989 to provide standardized fitness leadership training in the Province of Nova Scotia. The mission of NSFA is to represent Fitness and Lifestyle Practitioners in Nova Scotia and its objectives of providing advocacy, membership, education and training. The Association is a member of national fitness alliances working together to provide transferability of certification from province to province. Although the certification is conducted in the province of Nova Scotia, it is transferable across Canada.

ferable across Canada.

NSFA currently offers certification courses for group fitness, resistance training, older adult, aqua, and train for trainer courses for each. We also offer Personal Training Fitness and Youth Fitness Leader certification.

The prerequisites to participate in their certification program are as follows:

- 1) be 18 years of age or older
- 2) in good health with an adequate level of fitness to participate in the program (one year in fitness and/or recreation)
- 3) grade 12 education
- 4) completion of 30-40 hour course
- 5) receive 80% on written NFLAC exam and pass practical exam
- 6) completion of Task Sheet/ Case Study
- 7) current CPR/First Aid

Membership and certification courses vary between \$275. and \$300. Re-certification and membership renewal is every two years. The member must have ten professional credits to re-certify and a current CPR.

The Board of Directors is comprised of Certified Fitness Leaders, Fitness Directors, Personal Trainers and other health professionals.

Ontario Fitness Council

Gilda Ciavarella
80 Carlauren Rd.,
Unit 8, Woodbridge
ON L4L 7Z5
Tel: (905) 856 9633 Fax: (905) 856 5032
Email: admin@ofc-fpao.com
Web: www.ofc-fpao.com

Established in 1984 by a volunteer group of health and fitness professionals, the Ontario Fitness Council is a non profit organization that services the needs of individuals and organizations who have an interest in the fitness and the well being of Canadians. Governed by a volunteer Board of Directors, the OFC promotes, supports and facilitates quality fitness practices among its members and in collaboration with many other provincial and community organizations.

Become a professional Fitness Leader in the health and fitness field by attaining your professional certification designation through the Ontario Fitness Council.

Certification Programs: OFC Certified Fitness Leader, OFC/CFFS Fitness Leader and Weight Trainer Level 1, Mat Pilates Beginner Level 1 and Group Exercise Level 1.

Titles Earned: Certified Fitness Leader

Peak Pilates

Nikki Boudreaux
4865 Riverbend Road,
Suite 200, Boulder, CO
80301
Tel: (303) 998-1531
Fax: (303) 473-9142
Email: education@peakpilates.com
Web: www.peakpilates.com

At Peak Pilates, we are committed to providing you with the highest quality Pilates education experience available. Our Mission is to deliver Classical Pilates education that preserves the integrity of the Pilates method while making it accessible, affordable, and progressive and user friendly. We believe that everything begins with a strong foundation, from the quality and integrity of our equipment, to our instructor education programs and the team of professionals who deliver them. Our certification programs provide this solid foundation, while delivering the tools necessary to progress individual clients and group classes safely and effectively in a health club or studio setting. We offer certification programs for both Mat and Equipment. Visit our website, www.peakpilates.com, to learn more about our programs and to view a current schedule of training dates around the globe.

Titles Earned: Pilates Certification Courses

PhysicalMind Institute

Cathy Hannan
84 Wooster #502--Corporate Office
New York NY 10012
Tel: (212) 343-2150
Fax: (212) 343-1521
Email: info@themethodpilates.com
Web: www.themethodpilates.com

Pilates PhysicalMind Institute offers Pilates teacher training certification, books, videos and now the Pilates Chair. For over 14 years, we have been certifying instructors. We have over 50 certifying studios all over the world. Our courses include Pilates matwork, Standing Pilates and Equipment Certification. The newly designed Pilates Chair has many rehab and physical therapy applications.

2006 Courses:

Initiation101
Vancouver 1/27-1/29/06
Vancouver 4/21-4/23/06
Toronto 3/17-3/19/06
Toronto 10/20-10/22/06
Initiation 201
Vancouver 2/3-2/5/06
Waterloo 2/24-2/26/06
Toronto 2/24-2/26/06
Toronto 5/26-5/28/06
Toronto 12/1-12/3/06
Concentration 101
Vancouver 5/27-7/2/06
Toronto 3/23-5/25/06
Toronto 6/29-8/3/06
Toronto 10/6-12/8/06

Titles Earned: Certified Pilates Instructor

Pilates Works®

Christine or Tibor Markus
214 Randall St., Oakville,
ON L6S 1P7
Tel: (905) 845-5914
Fax: (905) 844-1181
Web: www.PilatesWorks.com

Pilates Works is a bright welcoming studio situated in downtown Oakville, Ontario, dedicated to the Pilates method. For several years now directors, Christine and Tibor Markus, have focused on making this regime accessible and enjoyable for their clientele.

Our focus is on breath, concentration, control of the centre, fluidity of movement and increasing

lengthening and flexibility, which is achieved by this neuromuscular technique, and is synergized together for optimal physical and mental well-being. Posture and muscle tone is improved by the strengthening of abdominal muscles along with the spine, to result in looking good and feeling great in every stream of life or profession. The Pilates method is validated by many professional dancers. Christine Markus incorporated Pilates into her daily routine while dancing and it has been a part of her life ever since, and this, she is convinced, has aided her in remaining injury free during her dancing and teaching career.

Pilates Works® announces the recent launch of their own custom made line of equipment. Pilates Equipment Pilates Works® equipment meets the versatility of any fitness institution, clinic, or home. The equipment features the warmth of beautiful solid red oak combined with the sturdy anodized aluminium and a comfortable upholstery. All safety features comply with and surpass other competitive equipment in Canada and the U.S. A unique space saving versatility allows for upright storage that can be stored away by a single person.

Comprehensive Training at Pilates Works®

This is a complete system synergizing of breath, control, centreness, strength and tone; achieved by this neuromuscular technique - emphasizing spine achieved by "core" abdominals and stabilization through the pelvic sphere. The Comprehensive Training Pilates Works®, practical and theoretical courses will prepare you to teach the complete Mat and tension-resistant equipment effectively and give you the confidence to succeed as a teacher of the Pilates Works® method. The Pilates Works® Certification program is recognized by the College of Massage Therapists of Ontario, for Continuing Education Units (CEUs).

Titles Earned: Pilates Works Instructor

Pilates Unlimited Fitness and Rehabilitation Studio Inc.

Monique Haziza
4-302 West 2nd Ave.,
Vancouver, BC
V5Y 1C8
Tel: (604) 875-0404
Fax: (604) 875-0432
Email: information@pilates.ca
Web: www.pilates.ca

Pilates Unlimited offers Instructor Training programs in Mat Level I and Mat Level II and Comprehensive Apparatus Training. Pilates Unlimited has been offering instructor training and continuing education courses for instructors for over 10 years. Monique Haziza (owner) has trained instructors and helped set up new businesses all over Canada and the U.S.A. Training classes are kept small. The graduates from Pilates Unlimited are in high demand for full time teaching positions. Monique Haziza is a founding member of the Canadian Pilates Association. She is currently working with BCRPA to develop minimum standards for certification for Pilates Mat Instructors. Next courses start in Vancouver January 2006. If you would like us to come to you, please inquire about on-site training programs. For more information, go to www.pilates.ca

Titles Earned: Certified Pilates Instructor

Prolates™

Monique Zoutendijk
535 Legget Dr., Suite 206,
Kanata/Ottawa,
ON K2K 3B8 Tel: (613) 271-8880
Email: flex@prolates.com
Web: www.prolates.com or
www.lingalongahoops.com



PROLATES™ is a fully equipped Pilates studio specializing in Solo, Duet and Trio Sessions utilizing Pilates apparatus. Mat, Ball and Yoga sessions are offered as a complement to these sessions. PROLATES™ is also recognized by the Pilates Method Alliance® as a Pilates Teacher Training facility.

Monique Zoutendijk, Ideokinesologist, CSCS and the owner and Program Director, is PMA Gold Certified and is a recipient of the Ottawa Business Journals 40 under 40 award. The PROLATES studio store, LINGA LONGA (www.lingalonga.biz) carries a selection of Pilates active wear, CROCS, Toe Sox, and Hoops.

PROLATES Calendar of Events:

Jan 06: Cadillac, Chair Barrel Certification, March 06: Reformer Certification, May 06: Mat Certification

Titles Earned: Qualified Pilates Instructor

Reebok University Resolution Day

Fitness Presenters
10 Arap Place, Toronto,
ON M3C 2N1
Tel: (416) 449-6030
Fax: (416) 449-8053
Email: calabrina@fitnesspresenters.com
Web: www.fitnesspresenters.com



Reebok University Resolution Days (RURD) in Canada were established in 1999 under the care of Fitness Presenters. Each conference consists of a wide variety of Reebok Programming and more. Workshops and masterclasses are presented by the Reebok Master trainers who are highly educated and trained by Reebok University. Continuing education credits are available.

Reebok University's Mission:

"It is our mission to continue to be a leader in the development of innovative programming that is backed by scientific research and presented by the most qualified trainers"

The Canadian team consists of Pierre Blouin, Farhan Dhalla, Libby Norris, Alexandre Pare and Ruth Vesterback.

Reebok University Programming over the years have evolved to include leading edge programming such as: Rep Reebok, Reebok Deck, Reebok Core Training, Reebok Core Pilates, Reebok Stability Ball, Reebok Core Training for Personal Trainers, Reebok Final Cuts Reebok Flexible Strength, Cycle Reebok Certification, Reebok Martial Arts, Reebok 5 Point Movement Screen, Reebok One-To-One Flexibility Training.

Reebok Master Trainers offer complete workshop certification that can also be held at your own facilities. Contact for bookings.

About Reebok University

Since 1989, Reebok University, the fitness and sports programming arm of Reebok, has developed

some of the world's most innovative and popular fitness and training programs, including Step Reebok. All Reebok University programs are developed by experts at Reebok University and are backed by industry knowledge and research to help people reach their goals for health, fitness and performance. With 200 Master Trainers worldwide, over 1,000,000 fitness professionals in 80 countries have been trained to teach Reebok University programs. Recently, Reebok International and National Academy of Sports Medicine (NASM) and have partnered up to produce further educational curriculum and features revolutionary fitness concepts and science from NASM and Reebok fitness philosophies.

NASM has received world-class recognition and acclaim for its certification programming. NASM is also proud to be a member of the National Organization for Competency Assurance (NOCA), an organization that maintains industry standards in certification.

Check our website for the next RURD or workshop in your area. www.fitnesspresenters.com

Reebok University Resolutions Days for 2006- Toronto April, Montreal in the fall.

Titles Earned: Certified Trainer

Saskatchewan Parks and Recreation Association (S.P.R.A.)

Chantelle Ernst
or **Ryan Monks**
#210-3303 Hillsdale St.,
Regina, SK, S4S 6W9
Tel: (306) 780-9470 or (306) 780-9241
Email: cernst@spra.sk.ca
Web: www.spra.sk.ca



As an integral part of Saskatchewan Parks and Recreation Association (S.P.R.A.), the Fitness Division is operated with the assistance of an advisory committee that provides direction in the areas of program, policy, leadership and marketing to the Fitness Division Recreation Consultant.

The vision of the Fitness Division of Saskatchewan Parks and Recreation is to encourage all residents of Saskatchewan to lead a healthy active lifestyle through fitness classes led by S.P.R.A. certified fitness leaders. The Fitness Division also promotes increased participation in fitness leadership and training, leading to personal fitness and physical, social, and emotional wellness. S.P.R.A. is recognized as the provincial certifying organization for fitness leaders in Saskatchewan and presents a full program of Fitness Leadership Certification courses throughout the year.

To this end, the Fitness Division Committee continuously responds to innovative and emerging trends in the fitness field. Committee members provide direction concerning the content and implementation policies and procedures for the Fitness Leadership Certification Program and work toward meeting the objectives of the Fitness Division Program Plan. Chief among its goals is to provide fitness leadership certification programs of the highest standard of excellence. In addition to a Basic Theory course, certification is awarded in specialty module areas according to need. On a national level, The Fitness Division is also represented on the National Fitness Leadership Alliance (NFLA), a collective collaborative partnership dedicated to developing, promoting and recognizing the use of national guidelines and standards for fitness leadership and certification, leading to improved quality and safety.

For more information on S.P.R.A.'s Fitness Lead-

CERTIFICATION

ership Certification Program, including scheduled courses, or to inquire about hosting a S.P.R.A. Fitness Leadership Certification course in your community, please contact the Fitness Division office.

Titles Earned: Certified Fitness Leader

Second Wind Pilates Plus®

Danielle Belec
155 Lakeshore Road East,
Mississauga, ON
L5G 4T9
Tel: (905) 891-9642
Fax: (905) 271-9530
Email: danielle@secondwind.net
Web: www.secondwind.net



Second Wind Pilates Plus® Studio specializes in The Pilates Method and Integrated Movement Therapies (IMT)®. The Pilates Method is an approach to body conditioning that develops deep core strength, balanced flexibility, endurance, and movement coordination for optimal fitness. IMT is a synthesis of complementary approaches to movement education, rehabilitation, pain-management, and body-mind fitness that includes essential principles found in Laban Movement Analysis®, the Bartenieff Fundamentals®, Yoga, Dance, Tai Chi, and studies in biomechanics among others. Through Pilates and IMT, our instructors work a diverse range of clients in the areas of strength, range of motion, flexibility, muscular and fasciae strain, postural alignment, injury rehabilitation, and neuromuscular re-patterning. The goal of Second Wind Pilates Plus® Studio is to facilitate efficiency and freedom of movement with the aim of creating well-aligned, pain-free, and physically active individuals.

Second Wind's Teacher-Training Certification Program combines The Pilates Method with IMT® to form a unique somatic approach to physical fitness. Bridging fitness, rehabilitation, movement education, and stress management, the program offers practitioners a model of integration that combines holistic and Western approaches to wellness. Second Wind's instruction in The Pilates Method integrates the medically advanced knowledge of our time while simultaneously preserving the essence of the original work. Our goal is to help individuals achieve their physical and personal potential through conscious movement.

The learning goals of our program are: 1) To offer an educational framework for the study of the body-in-motion. 2) To deepen teachers' knowledge and movement experiences of their bodies by learning new ways to understand and access their own movement profiles. 3) To use this information to help teachers develop the ability to "see" and assess the postural profiles of their clients in order to work with them with accuracy and sensitivity. 4) To acquire movement and teaching skills that help teachers to bridge the gap between floor/equipment exercises and movement patterns that travel through space. 5) To enhance inter-communication, networking, and sharing of ideas between medical and complementary health care practitioners in order to maximize the success of our combined approaches to physical health.

Three certification programs are offered: 1) Pilates Mat/Integrated Movement Therapies (IMT)® (Level I), 2) The Pilates Reformer, and 3) IMT® (level II). The Pilates Mat/IMT® course is 70 hours of studio and theory costing \$1700 with additional weekend courses in Functional Anatomy and/or Postural Assessment. Students are required to complete two case studies, 50 hours of observation and internship

teaching, and final exams in both Pilates and IMT®. Both exams are practical and written. The Pilates Reformer Certification is 40 hours in length costing \$1500. The IMT® (Level II) certification is offered in the form of a series of intensive weekend workshops.

All certification courses include a Second Wind® manual along with a series of readings. Each certification course holds between four to seven students; up to three teaching assistants will also be present to assist in the training. The requirements of the program are two years teaching experience in the movement, fitness, or healthcare fields, and a basic background in anatomy. Students with less than this background are supported and required to complete more training.

Second Wind's certification advisory group includes a Certified Fitness and Program Director, Personal Trainer, Pilates Director, Certified Movement Analyst, Osteopath, and Chiropractor. Second Wind® is recognized for continuing education units (CEU) by the American Council in Exercise (ACE), Ontario Fitness Council (OFC), the Ontario College of Massage Therapists (OCMT), Canadian Personal Trainers Network (CPTN), and Canadian Fitness Professionals (Can-Fit-Pro).

Titles Earned: Certified Second Wind Pilates Plus Instructor and Certified Second Wind Integrated Movement Therapies (IMT) Instructor.

STOTT PILATES™

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Toronto, Ontario
M5T 3A2
Tel: (416) 482-4050
Fax: (416) 482-2742
Email: info@stottpilates.com
Web: www.stottpilates.com



STOTT PILATES, a subsidiary of Merrithew Corporation, is the only full-service organization of its kind worldwide, providing high-caliber pilates equipment, training and certification and award-winning instructional videos.

Recognized as an international leader in pilates education, STOTT PILATES offers both Comprehensive and Intensive programs and a special Rehab certification program for qualified health professionals. Programs are delivered in modules with certification available in Matwork™, Reformer, and Cadillac, Chair and Barrels. Introductory workshops and group programming are also available.

STOTT PILATES offers a contemporary approach to Joseph Pilates' original exercise method, with a curriculum that is continually updated to ensure it complies with modern exercise science and meets the needs of today's fitness professionals, facility operators and clients. The repertoire includes 500 mind-body exercises performed on a mat or specialized equipment.

Sometimes referred to as the "Ivy League university of pilates," STOTT PILATES' rigorous programs blend lectures with observation hours and practical experience, empowering instructors to motivate, challenge and retain clients long-term. Our educational programs are supported by a complete set of resources in the form of detailed manuals and instructional videos. Once certified, instructors are required to keep their knowledge current by completing CECs on an annual basis. Our commitment to maintaining the high standards of our courses is one of the reasons STOTT PILATES graduates are in such high demand worldwide.

General course objectives include:

How to apply STOTT PILATES' biomechanical prin-

ciples of core stability, peripheral mobility, breathing and alignment to relevant exercises; Breakdown of individual exercises to address the focus of each exercise, muscular initiation and movement sequencing; Variations to increase or decrease exercise intensity; Programming techniques for both individual clients and groups; Modifications for specific body types, postural issues, injuries and conditions; Effective communication, visual skills, verbal cueing and imagery for performance enhancement and motivation.

Students can train at our International Certification Center in Toronto, at Licensed Certification Centers throughout Canada, the USA and internationally and programs can also be delivered onsite through our Hosting and Club systems.

STOTT PILATES is an ACE-recognized continuing education provider. For more information or to see our upcoming courses and workshops, please visit www.stotpilates.com

Sport Performance Institute

Lloyd Armstrong
79 Bren Maur Rd., Nepean,
ON K2J 3Z7
Tel: (613) 796-1740
Email: armstrong@sportperformance.org
Web: sportperformance.org



SPI has been providing the most scientifically sound courses available on the market for the past nine years. Our instructors have worked with numerous olympic, national and professional athletes. All courses are based on the latest scientific information available.

Titles Earned: Personal Trainer

Twist Conditioning Inc.

Andrew Clark
12-1225 East Keith Rd.,
North Vancouver,
BC V7J 1J3 Tel: (888) 214-4244 ext 114
Fax: (604) 904-6558
Email: certs@sportconditioning.ca
Web: www.sportconditioning.ca



Twist Sport Conditioning Certification Mission Statement:

At Twist Conditioning, everyone is an athlete. Our role as coaches is to determine the level of conditioning desired and find the best ways to achieve that objective. This is the focus of every TCI program whether it is for a professional athlete or someone trying to climb the squash ladder at their local health club. TCI's primary goal is to arm coaches, fitness professionals, and physical educators with unparalleled expertise by inspiring them to increase their sport conditioning knowledge and practical exercise toolbox to the benefit of their careers and the success of their athletes. We will always strive to research, develop and create the most innovative training techniques available in order to ensure that we are always light years ahead of the competition. TCI is consistently reshaping the world of sport conditioning in order to ensure that our athletes and coaches will always be at the top of their game.

SPORT MOVEMENT CERTIFICATION

Optimal performance is dependent on effective and efficient movement. Techniques to improve speed, agility, and quickness (SAQ) will be covered in this comprehensive 2 level certification. Topics

CERTIFICATION

covered include functional readiness assessments, dynamic warm up, balance and equilibrium, nervous system activation, multidirectional movement mechanics, deceleration as well as speed, agility, and quickness in a scientific and practical format suitable for athlete training, teams, PE curriculum, functional training and post injury return to action. Guaranteed to increase an athlete's performance.

Designation: Sport Movement Specialist (SMS)
Level 1 (SM1) – 8 hours Level 2 (SM2) – 8 hours

SPORT STRENGTH CERTIFICATION

During this three level certification you will learn effective methods for improving an athlete's ability to transfer force from the legs through the core to the upper body. This Linked System™ sport strength module includes content to increase an athlete's muscle hypertrophy, strength, rotary power and core plyometrics through innovative multiplanar exercises. Learn a cutting edge approach to developing a functional body that better expresses and integrates strength for life and sport, and enhances reactivity for muscle and joint durability. Each of the 2 levels will be an 8 hour program. An energizing training method for elite athletes and fitness clientele using gym and portable training tools.

Designation: Sport Strength Specialist (SSS)
Level 1 (SS1) – 8 hours
Level 2 (SS2) – 8 hours

SPORT BALANCE CERTIFICATION

Game breaking plays are the result of power initiated from the perfect moment of transitional balance. Techniques designed to improve proprioception, stability, and muscular coordination will reduce the incidence of injury as well as improve joint stability required for improved power initiation. Static, dynamic, and "act and react" balance challenge concepts will be taught during these two 8 hour certification for legs, core and upper body, for fitness and rehabilitation.

Designation: Sport Balance Specialist (SBS)
Level 1 (SB1) – 8 hours
Level 2 (SB2) – 8 hours

BOSU: Integrated Balance Training

Balance and body equilibrium are the keys to effective movement and sports performance. The BOSU Balance Trainer program is a modular training system that helps improve proprioception and balance within every component of fitness. In this workshop you'll learn exercises and movement patterns that will challenge your balance during cardiovascular, strength and flexibility training. This tool is in demand by clients and sets trainers and clubs apart. The cert is designed to ensure instructor competency and teaching method on the Bosu, a must for all fitness professionals.

Recommended to trainers and fitness instructors who wish to use the Bosu with in the Club setting.

Designation: Bosu Integrated Balance Certificate

WaterART™ Fitness Inc.

Julie Twynham
83 Galaxy Blvd,
Unit 19,
Toronto, ON M9W 5X6
Tel: (416) 621-0821 Fax: (416) 621-0951
Email: info@waterart.org
Web: www.waterart.org

WaterART Fitness is the integration of exercise science with the properties of water in a user-friendly way. It is a proven formula for success, helping the professional effectively coach clients to achieve optimal results with individualized programs featuring exercise progressions. Each program focuses on "why" we do the exercise and "how" to

make the exercise safe, effective and enjoyable, creating "Exercise with Purpose."

We are rapidly developing our resources for the aquatic fitness professionals through research and ongoing education. It is a time of great opportunity and challenge. More participants are coming to the water and demanding specialized and individualized programming. Certification is becoming standardized around the world and ground floor opportunities are available for the aquatic fitness professional.

We have customized WaterART Programs into four (4) Comprehensive Certification Programs as well as three (3) Specialty Certification Programs so that you may further develop and specialize your skills and services based on researched information. For the experienced instructor wanting to become WaterART™ Certified, there is also the 8 hour WaterART™ System Instructor Certification.

Core Water Fitness Certifications (16 hour programs)

1. WaterART Instructor Certification
 2. WaterART Seniors & Special Populations Instructor Certification
 3. WaterART Personal Training Specialist Certification
 4. WaterART Rehabilitation Specialist Certification
 5. WaterART Weight Management Consultant Certification
 6. WaterART Arthritis Instructor Certification
 7. WaterART Arthritis Land Instructor Certification
 8. WaterART Common Movement Disorders Instructor Certification
 9. WaterART Common Movement Disorders Land Instructor Certification
 10. WaterART Kidz Fitness Instructor Certification
 11. WaterART Pre Natal Instructor Certification
 12. WaterART Mind Body Instructor Certification
 13. WaterART Land Instructor Certification
 14. WaterART Master Trainer Certification
 15. WaterART Grand Master Certification
- WaterART™ is an acronym for understanding that "The Application of Science is an ART." Our certification programs take you through a system that helps you to understand the differences between
- 1) land fitness and WaterART™ Fitness,
 - 2) swimming and WaterART™ Fitness,
 - 3) traditional aquasize and WaterART™ Fitness

Continuing Education Workshops

Various workshops available. Designed to provide the certified instructor updated techniques to keep their certification valid. Certifications expire every two years and take 16 hours of continuing education credits to renew. When you receive another level of certification, this will automatically renew your existing levels – so encourage you to go to the next level!

Educational Clinics

Designed for the participant of the class or interested individuals. Various workshops available including: Arthritis, Kids, Learn to Run, Weight Management, Back Problems, Awesome Abdominals, What is WaterART, Sports Conditioning, Optimizing your Workout, Equipment Overload, Deep H2O Training, Fit Bands, Speedo Swim Gym program.

Correspondence Certification Option

All programs may be done via correspondence. This typically takes 25-40 hours / course. The individual must read the manual, answer the study guide questions, practice with the pool laminated cards, watch the DVDs and videos. They must record a video of their practical exam for the assessor to mark. Click on the certification for information, and then view Educational Resources.

Annual conference June 16-18, 2006 Toronto. We have over 48 DVDs and 14 correspondence certifications.

YMCAs in Canada

Gisele Tennant
101 3rd Street SW,
Calgary, Alta T2P 4G6
Tel: (403)269-6701
Fax: (403) 508-2629
Email: gtennant@calgary.ymca.ca
Web: www.ymca.ca



The YMCA in Canada is dedicated to the growth of persons in spirit, mind and body and in a sense of responsibility to each other and the global community.

The YMCA has been active in health and fitness in Canada since 1866. YMCAs in Canada have been training leaders in physical health and education for over 100 years. The national fitness leadership certification program was launched in 1974.

YMCAs in Canada offer opportunities for involvement in health and fitness, community development, camping, leadership development, child care, education and employment training, volunteerism and philanthropy, and international work.

Certification of YMCA fitness leaders provides access to standards for YMCA fitness volunteers and staff so they may deliver safe, quality and YMCA values-based experiences.

YMCA Canada is an active partner in the voluntary sector and participates in the Active Living Coalition, NFLAC, CSEP-FACA, forums on child and youth health and other organizations that promote health for all ages.

Fitness Leadership Certification

The YMCA offers national certification for Fitness Leaders in three disciplines; group fitness, aquatic fitness and individual conditioning. All programs are values based and consistent with NFLAC standards. The programs are designed to ensure opportunity for participants to learn technical information, as well as have ample time to practise skills in a safe environment.

The certification pathway is a five stage process for YMCA Fitness Leaders.

Stage 1-Basic Theory Course

100% attendance in minimum 24 hour course, minimum age 16, minimum 80% exam pass mark

Stage 2-Applied Theory

100% attendance in 16 hour course in group, individual or aquatic fitness course, minimum 80% exam pass mark

Stage 3-Apprenticeship

Minimum 12 hour practical training in chosen Applied Theory stream

Stage 4-Evaluation

Minimum 8 hours practical teaching in a formal setting, proof of current Heartsaver CPR required

Stage 5-Certification

Successful completion of stages 1-4, successful completion of a practical observation by a current YMCA Fitness Trainer

Certification valid for two years

Recertification

Annual practical observation and evaluation by a current YMCA Fitness Trainer, maintain current Heart Saver CPR, attend a minimum of 16 hours of recognized training every two years, proof of 50 hours of instruction per two year period.

The YMCA is a Federation, dedicated to meeting the needs of each local community served. Each YMCA may decide how to package the YMCA Fitness Leadership course and what price to charge, depending on the needs of the local community.

Titles Earned: YMCA Fitness Leader



ASSOCIATION▶ (nfp = Not-For-Profit)		<div>Canadian Fitness Services Ltd. (CFES) Canadian Centre For Activity and Aging (CCA) nfp Canadian Association of Fitness Professionals (CanFitPro) Canadian Aquafitness Leaders Alliance (CALA) Body Harmonics Pilates B.C. Recreation & Parks Association (BCRPA) nfp Balanced Body University/Pilates on Tour American Senior Fitness Association (ASFA) American Fitness Professionals & Associates (AFPA) American Exercise nfp Association (AEA) American Council On Exercise (ACE) American College of Sports Medicine (ACSM) American Academy of Health, Sports & Fitness (AAHSF) nfp American & Rehab Professionals (AAHRFP) nfp Alberta Fitness Leadership Association (AFLCA) nfp Aerobics and Fitness Association of America (AFAA)</div>															
GEOGRAPHIC LIMITS: (International, National, Provincial)		Int'l	Int'l/ Nt'l/Pr	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Nt'l	Int'l	Int'l	Nt'l	Nt'l	Int'l	
MEMBERSHIP REQUIRED			✓								✓		✓	✓			
ANNUAL MEMBERSHIP FEES		\$68	\$105- 135				\$60-75				\$65	\$30	\$49	\$49			
NUMBER OF YEARS ACTIVE		24	21	14	30+	21	22	12	14	3	22	8	13	11	16	25	
CERTIFICATION	LENGTH OF INITIAL CERTIFICATION COURSE	varies	2x16 hrs	4 days/ 32 hrs		Self Study	1 day	3 mths	1 day 40/80 hrs	varies	varies	15 hrs	16-40 hrs	16-25 hrs	36 hrs	24 - 48 hr. modules	
	EDUCATION PRE-REQ				varies	Univ./or eqv exper.	Basic water rescue	varies									
	CPR	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	
	FIRST AID									✓	✓					✓	
	OTHER PRE-REQUISITES	Self Study	16 yrs age req.	PT Cert/ 1yr rehab	varies	yes			varies			Basic Anatomy	Basic Fitness Training	Basic FIS or PTS		Fitness Knowl. Courses	
	EXAM: THEORY AND/OR PRACTICAL	t/p	t/p	t/p	t/p	t	t	t/p	t/p			t/p	t/p	t/p	t/p	t/p	t/p
	COST	\$229- 849 US	\$75 Cdn	\$595 US	varies	\$150- 225 US	\$150+ US	\$315 - 355 US	\$300 - 350 US			varies	\$420 & up Cdn	\$383- 488 Cdn	\$290- 330 Cdn	\$175- 250 Cdn	\$195+ per module
SPECIALTIES OFFERED <div>included (incl) extra (extr)</div>	AEROBIC GROUP	✓extr	✓incl			✓incl		✓incl	✓incl		✓incl			✓incl		✓incl	
	AQUA	✓extr	✓incl				✓incl	✓incl			✓incl		✓incl				
	ATHLETIC TRAINER		✓incl														
	CHILDREN	✓extr						✓incl									
	CLUB MANAGEMENT				✓incl									✓incl			
	DISABILITY		✓extr														
	FITNESS CONSULTANT	✓extr	✓incl		✓incl			✓incl									
	KICK BOXING GROUP	✓extr	✓incl					✓incl					✓extr			✓incl	
	MARTIAL ARTS							✓incl								✓incl	
	NUTRITION/WEIGHT MGT.	✓extr			✓incl	✓incl		✓incl						✓incl		✓incl	
	PERSONAL TRAINER	✓extr	✓incl		✓incl	✓incl		✓incl	✓incl		✓incl			✓incl		✓incl	
	PILATES	✓extr						✓incl		✓incl		✓incl					
	POST REHAB/EXRC SPEC	✓extr	✓incl	✓incl	✓incl	✓incl		✓incl	✓incl			✓incl	✓incl			✓incl	
	PRE/POST NATAL	✓extr						✓incl				✓extr	✓extr	✓incl		✓incl	
	PROGRAM DIRECTOR													✓incl			
	SENIORS	✓extr	✓incl			✓incl		✓incl	✓incl		✓incl	✓extr	✓extr	✓incl	✓incl	✓incl	
	SPECIAL POPULATIONS	✓extr		✓incl	✓incl	✓incl		✓incl				✓extr	✓extr			✓incl	
	STEP GROUP EXERCISE	✓incl	✓incl									✓incl				✓incl	
	STRENGTH TRAINING	✓extr	✓incl		✓incl	✓incl		✓incl	✓incl							✓incl	
	STUDIO CYCLE	✓extr	✓incl			✓incl		✓incl								✓incl	
	SPORT SPECIFIC														✓incl		
	YOGA	✓extr						✓incl				✓incl					
	OTHER (PLEASE CONTACT ORG.)						Deep Water Module	See detailed description							yes		
POST-CERTIFICATION: EDUCATIONAL PROGRAMS OFFERED (CECs/CEUs)		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	

ASSOCIATION▶ (nfp = Not-For-Profit)																
		Canadian Pilates Association nfp	Canadian Society for Exercise Physiology (CSEP) nfp	Canadian Therapeutic College	Centre Pilates de Montréal	Certified Professional Trainers Network (CPTN)	C.H.E.K. Institute	Cooper Institute for Aerobic Research nfp	Core Dynamics Pilates Fitness	Desert Southwest Centre	DiAnne Miller Pilates	East to West Yoga	Evolution Studios	Fast Track Kids International, Ltd.	Fit To Deliver	FITOUR
GEOGRAPHIC LIMITS: (International, National, Provincial)		Nt'l	Nt'l/Pr	Nt'l	Nt'l/ Int'l/Pr	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l
MEMBERSHIP REQUIRED		✓	✓			✓										
ANNUAL MEMBERSHIP FEES			varies			\$55										
NUMBER OF YEARS ACTIVE			39	12	14	13	9	35	10	25	19	11	5	7	5	15
CERTIFICATION	LENGTH OF INITIAL CERTIFICATION COURSE		varies	3 yrs.	3 mths	32 hrs.	5 - 8 days	varies	450 hrs		17 hrs per theory modules	2 x 12 hrs	varies		2 days	12 hrs.
	EDUCATION PRE-REQ		College/ Univ.	High School/ grd. 12			Degree or PT Cert. Pref.				Basic Anatomy				Undergrad Health Sciences	
	CPR		✓			✓		✓				✓				
	FIRST AID		✓	✓		✓										
	OTHER PRE-REQUISITES		Sp. core comp		Basic Pilates/ Anatomy	Anatomy Rec.	varies	18 yrs age	Inter. skill on Mat		Knowl. Pilates Method	25hrs anatomy	Fitness Theory or equivl		CPT	
	EXAM: THEORY AND/OR PRACTICAL		t/p	t/p	t/p	t/p	t/p	t/p	t/p		t/p	t/p	t/p		t/p	t/p
	COST	\$60-120 Cdn	varies	\$8,000 Cdn	\$1,725 Cdn	\$199 Cdn	Starts \$595 US	\$200 US	\$3,275 US		\$700-10,000 Cdn	\$267.50 ea. Cdn	TBA Cdn		\$350 Cdn	\$100 US
SPECIALTIES OFFERED <div>included (incl) extra (extr)</div>	AEROBIC GROUP							✓extr								✓extr
	AQUA							✓extr								✓extr
	ATHLETIC TRAINER															
	CHILDREN		✓incl					✓extr				✓incl				✓extr
	CLUB MANAGEMENT															
	DISABILITY		✓incl									✓incl				
	FITNESS CONSULTANT		✓incl													
	KICK BOXING GROUP							✓extr								✓extr
	MARTIAL ARTS							✓extr								
	NUTRITION/WEIGHT MGT.		✓incl					✓extr				✓incl	✓incl			
	PERSONAL TRAINER		✓incl			✓extr		✓extr					✓incl			✓extr
	PILATES				✓incl	✓extr			✓incl		✓incl	✓incl	✓incl			✓extr
	POST REHAB/EXRC SPEC		✓incl	✓incl		✓extr						✓incl	✓incl			
	PRE/POST NATAL		✓incl					✓extr				✓incl	✓incl		✓incl	
	PROGRAM DIRECTOR							✓extr					✓incl			
	SENIORS		✓incl					✓extr				✓incl	✓incl			
	SPECIAL POPULATIONS		✓incl		✓incl			✓extr				✓incl	✓incl			✓extr
	STEP GROUP EXERCISE															
	STRENGTH TRAINING		✓incl	✓incl				✓extr					✓incl			✓extr
	STUDIO CYCLE							✓extr								✓extr
	SPORT SPECIFIC						✓extr									
	YOGA						✓extr						✓incl	✓incl		✓extr
	OTHER (PLEASE CONTACT ORG.)		Fitness Appraiser	Acupuncture			yes						yes			
POST-CERTIFICATION: EDUCATIONAL PROGRAMS OFFERED (CECs/CEUs)		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

ASSOCIATION ▶ (nfp = Not-For-Profit)																
FreeMotion Fitness	Human Kinetics Publishers - Canada	International Association of Resistance Trainers (I.A.R.T.) nfp	International Association of Professional Trainers (IAPT)	International Fitness Association (ISCA)	International Sports Sciences Association (ISSA)	International Yoga Education Society (IYES) nfp	Jazzercise	Keiser Corporation	Manitoba Fitness Council (MFC) nfp	Maureen Rae's Yoga Studio	Mount Royal College nfp	National Federation of Professional Trainers (NFPT)	National Strength and Conditioning Association (NSCA) nfp	New Brunswick Council for Fitness and Active Living (NBCFAL) nfp	Nordic Walking by FITREX	
GEOGRAPHIC LIMITS: (International, National, Provincial)	Int'l	Nt'l/Int'l	Int'l	Int'l	Int'l	Nt'l/Int'l	Nt'l/Int'l/Pr	Int'l	Int'l	Nt'l/Int'l	Nt'l	Int'l	Int'l	Int'l	Nt'l	Int'l
MEMBERSHIP REQUIRED										✓			✓	✓	✓	
ANNUAL MEMBERSHIP FEES			\$90							\$62			\$75	\$110	\$50	
NUMBER OF YEARS ACTIVE	4	31	10	11	21	17	3	36	27	18	22	8	18	21	18	7
CERTIFICATION	LENGTH OF INITIAL CERTIFICATION COURSE	1 day/8 hrs.	6-12 mths	4 - 6 wks	1-2 days	8-16 wks	16 hrs	3 Days	4-8 hrs.	18-28 hrs.	7 hrs.	700 hrs	40-50 hrs	Self Study	24-32 hrs.	Pre-Con 8 hrs & Online Self Study
	EDUCATION PRE-REQ	Certified group exc.					High School					High School/Biology		HS/Col/Univ		
	CPR	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓
	FIRST AID	✓			✓		✓			✓		✓			✓	
	OTHER PRE-REQUISITES	18 yrs old				18 yrs. old	Basic Fitness				Lv 1&2 Yoga Teach.					
	EXAM: THEORY AND/OR PRACTICAL	t/p	t/p	t	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p
	COST	\$149 US	\$592.50 Cdn	\$399 US	\$275-350 US	\$595 US	\$335 Cdn	\$500 US	\$995 US	\$150-250 Cdn	\$175 Cdn	\$5,065 Cdn	\$425 US	\$225-390 US		\$17995/99.95 U.S.
SPECIALTIES OFFERED	Included (incl) Extra (extr)															
	AEROBIC GROUP	✓incl	✓extr		✓incl/extr	✓incl	✓incl		✓incl	✓extr			✓extr		✓incl	
	AQUA				✓incl	✓extr	✓extr			✓extr					✓incl	
	ATHLETIC TRAINER	✓incl	✓extr		✓incl/extr	✓incl	✓incl/extr					✓incl	✓incl			
	CHILDREN	✓incl	✓extr		✓incl/extr		✓incl/extr	✓incl								
	CLUB MANAGEMENT		✓extr		✓incl/extr			✓incl								
	DISABILITY					✓incl/extr										
	FITNESS CONSULTANT		✓extr		✓incl/extr	✓incl				✓extr		✓incl	✓incl		✓incl	
	KICK BOXING GROUP		✓extr		✓incl											
	MARTIAL ARTS				✓incl/extr	✓incl	✓incl/extr									
	NUTRITION/WEIGHT MGT.		✓extr		✓incl/extr		✓incl/extr						✓extr			✓incl
	PERSONAL TRAINER	✓incl	✓extr		✓incl/extr	✓incl	✓incl		✓incl			✓incl	✓incl	✓incl	✓incl	
	PILATES	✓incl			✓incl											
	POST REHAB/EXRC SPEC		✓extr		✓incl/extr		✓incl/extr									✓incl
	PRE/POST NATAL		✓extr		✓incl/extr											✓incl
	PROGRAM DIRECTOR				✓incl/extr											
	SENIORS	✓incl	✓extr		✓incl/extr	✓incl	✓incl/extr	✓extr	✓incl	✓extr					✓incl	✓incl
	SPECIAL POPULATIONS	✓incl	✓extr		✓incl/extr	✓incl	✓incl									✓incl
	STEP GROUP EXERCISE		✓extr					✓incl		✓extr					✓incl	
	STRENGTH TRAINING	✓incl	✓extr		✓incl/extr	✓incl	✓incl	✓incl	✓incl	✓extr			✓extr	✓incl	✓incl	✓incl
	STUDIO CYCLE	✓incl	✓extr						✓incl							
	SPORT SPECIFIC	✓incl														
	YOGA					✓incl	✓extr			✓extr	✓incl					
	OTHER (PLEASE CONTACT ORG.)	Fusion		Fit Clinician												
POST-CERTIFICATION EDUCATIONAL PROGRAMS OFFERED (CECs/CEUs)		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

ASSOCIATION▶ (nfp = Not-For-Profit)																		
		Nova Scotia Fitness Association (NSFA) nfp	Ontario Fitness Council (OFC) nfp	Peak Pilates	Pilates Physical Mind Institute	Pilates Unlimited and Studio Inc.	Pilates Works®	Prokates	Reebok University Resolution Day	Saskatchewan Parks and Recreation Associa- tion (S.P.R.A.) nfp	Second Wind Pilates Plus®	Sport Performance Institute (SPI)	STOTT PILATES™	Twist Conditioning Inc.	WaterART Fitness Training & Certification	YMCA's in Canada nfp		
GEOGRAPHIC LIMITS: (International, National, Provincial)		Nt'l	Nt'l	Int'l	Int'l	Int'l	Int'l	Int'l	Int'l	Nt'l/ Int'l	Nt'l/ Pr	Int'l/ Nt'l/ Pr	Int'l	Int'l	Nt'l	Int'l	Nt'l	
MEMBERSHIP REQUIRED		✓			✓						✓				✓	✓		
ANNUAL MEMBERSHIP FEES		\$17.50			\$55						\$55				\$50	\$55		
NUMBER OF YEARS ACTIVE		16	21	3	14	17	9	5	6	28	9	8	17	4	12	139		
CERTIFICATION	LENGTH OF INITIAL CERTIFICATION COURSE	30 hrs.	42 hrs.	varies	varies		8 mths.	3 series/ 400 hrs	1Day	32 hrs	70 hrs	Weekend	varies	3x8 hrs.	16 hrs.	60 hrs		
	EDUCATION PRE-REQ	High School		varies			High School + Exp.	Anatomy/ Biomec		16 yrs of age	Some anatomy/ pilates/ dance			Univ/ Equiv./ Anatomy	yes			
	CPR	✓	✓				✓	✓	✓	✓	✓			✓	✓	✓		
	FIRST AID		✓						✓	✓	✓				✓			
	OTHER PRE-REQUISITES	NFLA Exam					2 Mths Pilates Intro/ Works	60 Pilates Sess.	FIS/PT					rec. cert	16 yrs age			
	EXAM: THEORY AND/OR PRACTICAL	t/p	t/p	t/p	t/p	t/p	t/p	t/p	p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	t/p	
	COST	\$275 - 300 Cdn	\$565 Cdn	varies	varies		A-\$3,638 B-\$6,099 Cdn		\$60- 150 Cdn	\$75 Cdn	\$1,700 Cdn	\$299 Cdn	From \$1,225 Cdn	\$249 Cdn				
SPECIALTIES OFFERED	INCLUDED (incl) EXTRA (extr)																	
	AEROBIC GROUP	✓incl	✓incl						✓incl	✓incl					✓incl	✓extr		
	AQUA	✓incl								✓incl					✓incl	✓extr		
	ATHLETIC TRAINER														✓incl			
	CHILDREN											✓extr			✓incl			
	CLUB MANAGEMENT																	
	DISABILITY																	
	FITNESS CONSULTANT		✓incl												✓incl			
	KICK BOXING GROUP								✓incl						✓incl			
	MARTIAL ARTS								✓incl									
	NUTRITION/WEIGHT MGT.				✓extr							✓extr			✓incl			
	PERSONAL TRAINER	✓incl	✓extr					✓incl	✓incl			✓extr	✓incl		✓incl			
	PILATES		✓extr	✓incl	✓extr	✓incl	✓incl	✓incl	✓incl		✓incl		✓incl		✓incl	✓extr		
	POST REHAB/EXERC SPEC							✓incl			✓incl		✓incl		✓incl			
	PRE/POST NATAL							✓incl						✓incl		✓incl		
	PROGRAM DIRECTOR															✓incl		
	SENIORS	✓incl						✓incl								✓incl		
	SPECIAL POPULATIONS													✓incl		✓incl		
	STEP GROUP EXERCISE	✓incl	✓incl						✓incl							✓incl		
	STRENGTH TRAINING	✓incl						✓incl	✓incl		✓extr				✓incl	✓extr		
	STUDIO CYCLE								✓incl									
	SPORT SPECIFIC																	
	YOGA							✓incl	✓incl							✓incl		
	OTHER (PLEASE CONTACT ORG.)	Youth fitness													yes			
POST-CERTIFICATION: EDUCATIONAL PROGRAMS OFFERED (CECs/CEUs)		yes	yes	yes	yes	yes	yes		yes	yes	yes	yes	yes	yes	yes	yes		

Standards

SAFE EXERCISE

by Patty Clark

Injuries and possibly death are always a potential risk whenever people engage in exercise. In most instances, such injuries and fatalities can be averted with that proverbial “ounce of prevention.” For fitness facility owners and staff, that means being responsible for ensuring a full range of safety practices are in place as soon as members set foot on the property. Other than spas and pool areas, there is no legislation that enforces safe practices. The law however does dictate that facility operators must provide due diligence with respect to offering a safe environment for their members.

Deaths do occur which are not preventable; however, in the past years, there have been Coroner's Inquests on seven deaths that occurred in a fitness facility and in some of the instances, these individual deaths could have been prevented.

- **Rita Lalond**, age 36, died as a direct result of an unsupervised weight room; the free weight bar fell on her throat applying pressure on the carotid artery causing cardiac arrest by vaso-vagal reflex.

- **Gregory Racette**, age 11, drowned in a whirlpool, due to negligence of the staff for poor maintenance; the grate at the bottom of the whirlpool was not secured and the boy was pulled under water when his foot got caught in the drain spout.

- **Charles Sheppard**, age 65, drowned in a swimming pool; no pre-screening was conducted to determine his serious medical conditions, no supervision was provided in the exercise area; the pool was under maintenance but was not properly locked.

- **Glenn Duffin**, age 31, died from cardiac arrhythmia; there were no staff on site who were qualified in CPR.

- **James Conley**, age 30, died in a sauna from heat prostration: there were no signs posted to warn people with health concerns, there were no visual indications to inform him how long he had been in sauna, there was no light indicating the sauna was in use, and the sauna door could have been locked from both sides.

- **Karin Koslowski**, age 41, died in sauna, from excessive heat for an extended period of time; there were no signs posted, no pre-screening to determine her health concerns.

- **Craig Baldwin**, age 17, died in a hot tub; there was no outside phone line available to call 911; it was a key club where members have keys to enter and staff are not always on duty.

A fitness injury survey taken in 1987 also indicated that many injuries might have been

prevented if appropriate care was taken to provide a safe environment for members.

So what can you do to protect your members, clients and yourself?

National fitness safety standards have recently been reviewed, revised, approved and released by the Ontario Association of Sport and Exercise Sciences (OASES). In 1990, Ontario initially developed provincial fitness safety standards, which were revised in 1997. They have now undergone national review by over 300 fitness practitioners across the country, in all sectors of the industry, via an on-line forum conducted between April and June of this year.

The Standards and Recommended





Guidelines were then revised based on the forum comments, approved by both the Fitness Safety Advisory Council, (a standing committee of OASES) and the Ontario Association of Sport and Exercise Sciences Board of Directors in August 2004.

Significant changes were made to the existing Standards document, to ensure that they were relevant and feasible with the current fitness industry trends. There are now 17 Standards and 29 Recommended Guidelines. The earlier 100-page Standards document is currently being rewritten to reflect the changes and should be available in 2005. However the new Standards are listed. A complete listing of the new Standards and Recommended Guidelines may be found on

the OASES web site at <http://www.oases.on.ca/safety/safety.htm>.

It is the aim of OASES to increase awareness and voluntary compliance with the Standards across Canada; therefore a national marketing strategy is currently being developed. If you have any questions or comments on the Standards, please contact Patricia Clark at the OASES office at patty@oases.on.ca.

Patricia Clark is the Executive Director for the Ontario Association of Sport and Exercise Sciences, since 1984. She has worked in the field for thirty years, and is a CSEP- certified Professional Fitness & Lifestyle Consultant and a Course Conductor for the CSEP-CFC program.

Canadian Fitness Safety Standards

FITNESS RELATED PERSONNEL

Standard #1

All fitness facility personnel and other fitness service providers shall be qualified in first aid and CPR.

Standard #2

Fitness personnel shall be certified in the area with which they are providing program services. (e.g. fitness appraisal, personal training, aerobic classes, aqua fitness classes etc.)

EMERGENCY PROCEDURES

Standard #1

Facilities and other environments in which fitness-related activities are offered shall have in place an Emergency Action Plan which shall be practiced twice per year and reviewed with all NEW staff at the commencement of their employment.

Standard #2

All injuries, accidents or emergencies in fitness facilities and other fitness related environments shall be documented in writing and retained.

Standard #3

A designated complement of First Aid equipment shall be readily available in fitness facilities and other fitness-related environments.

Standard #4

Immediate access must be available to in-house first aid services from qualified personnel. Contact information for external medical services (e.g. ambulance/hospital emergency phone numbers) must also be posted and phones readily accessible in all high risk/injury area. (e.g. pools and fitness testing areas)

COMMUNICABLE DISEASES

Standard#1

Fitness service providers shall provide employee training pertaining to the awareness, prevention and control of communicable diseases.

Standards

FITNESS ENVIRONMENT

Standard #1

All fitness related environments and equipment shall be clean, well maintained, and free from hazards.

Standard #2

Access to a clean drinking water supply is required at or near all physical activity areas.

Standard #3

The number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercises. Participant numbers may also be defined by building code restrictions and/or fire code regulations.

Standard #4

All fitness testing equipment shall be checked, cleaned and calibrated as required.

Standard #5

Floors in wet areas shall have a non

slip surface with adequate drainage to prevent pooling of water.

Standard #6

Whirlpools, spas and tubs shall comply with the Recommended Standards for the Operation of Public Spas (Ministry of Health & Long term Care Act , June 2001).

PRE-SCREENING & INFORMED CONSENT

Standard #1

Fitness service providers shall provide or require a pre-activity screening procedure (eg. PAR-Q or appropriate signage)

Standard # 2

Facility operators and other fitness service providers shall inform participants of the risks inherent in physical activity participation and fitness facility usage.

SPECIAL EXERCISING POPULATIONS

Standard #1

Fitness service providers shall recommend that pregnant women obtain medical

advice regarding their participation in physical activity.

Standard #2

Fitness service providers shall recommend individuals 70 years of age and over receive medical advice before initiating a physical activity program or becoming much more physically active.

Standard #3

Maximal testing of individuals who:

- a) are not accustomed to regular strenuous exercise, or
- b) are males over 40 years of age, or
- c) are females over 50 years of age shall be conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS. (Advanced Cardiac Life Support) **FBC**

Approved by:
Fitness Safety Advisory Council
OASES Board of Directors
August 2004

FITNESS SAFETY

This is the first in a series of articles discussing the rationale and importance of the newly revised Canadian Fitness Safety Standards by DIANE DODDS, PFLC

Over the past three decades, there has been a phenomenal increase in both the variety of fitness services available to the public and the personnel who offer these services. In the 1970s, a fitness appraisal was a rare and sought after commodity, available primarily in the university setting. A typical class often consisted of simple warm-up exercises, a group run, and a cool down. Music was an add-on luxury. The fitness class was usually led by a casual, part-time instructor who may, or may not, have met qualification standards.

Today's fitness programs are far more extensive in nature and scope. It's a 'big business.' Private clubs with piped in music, rows of satellite-dish television sets, a seemingly endless array of highly specialized exercise and cardiovascular equipment, compete aggressively for customers. Most facilities provide personal trainers and offer fitness appraisals and monitoring in a variety of forms.

Fitness classes now come in as many varieties as Canadian apples. Spinning, fitness ball, deep-water running, step, BOSU



To obtain a copy of the entire Canadian Fitness Safety Standards document, please visit the OASES web site at: <http://www.oases.on.ca/safety/safetyStdsCurrent.htm>

ball, and Theraband are just a sampling of fitness methods emerging from the last three decades. It's hard enough to keep up with the terminology, let alone acknowledge or recommend a standardized certification for everyone who wishes to instruct or provide individualized services in such diverse settings, disciplines and circumstances.

The skills and knowledge that fitness

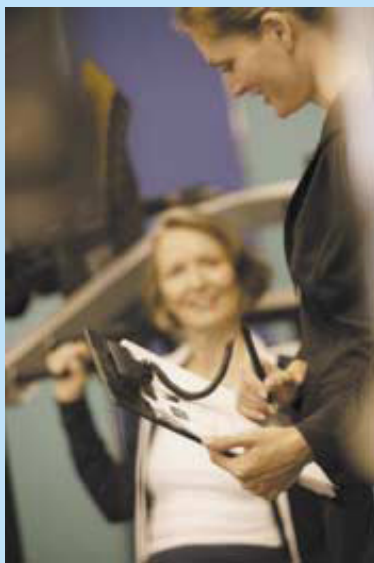
leaders are expected to master have also grown exponentially. Fitness directors must train or hire specialized personnel in each of the vast array of fitness specialties, or risk losing fitness-savvy clients. Consumers demand variety and expertise, and good fitness centres are constantly in the process of expanding and upgrading their offerings to meet these demands.

Today's vast array of fitness opportunities, underscores the need to ensure that fitness staff are certified in the area with which they are offering program services. In Canada alone, there are now at least 60 presumably bona fide certifying agencies for fitness practitioners to access. In the past, it was relatively easy to pick one or two such agencies as a single "certification standard." Now many credible standards exist depending on the leadership expertise required. A "one size fits all" approach to hiring fitness staff is no longer relevant. Ensuring that all fitness personnel are both knowledgeable and skilful is a daunting task in itself. Unfortunately, certification criteria vary within the fitness leadership training industry. There is still a strong need for the fitness industry itself to set a minimal knowledge and skill threshold that is sufficiently rigorous. Until then, the certification standards (noted in the sidebar) is, at best, a minimal standard that all who hire fitness personnel are encouraged to meet or exceed.

The Fitness Safety Standards and Recommended Guidelines, which were developed by the Ontario Association of Sport and Exercise Sciences, (OASES) have provided excellent recommendations and guidelines for protecting fitness consumers, professionals, and facilities. But like the industry itself, they must be subject to periodic scrutiny and improvement if they are to remain relevant. Therefore, this new 2005 edition of the Standards is the result of an intense and creative effort to bring fitness standards into the twenty-first century, and to position them for the inevitable changes that lie ahead.

The Canadian Fitness Safety Standards have been launched by OASES with a new program and website. Please view our ad on the opposite page for more information on the new consumer online fitness facility directory and website: www.canadianfitness-matters.ca. FBC

Diane Dodds, PFLC
Carleton University
Moderator for the Canadian Fitness Safety Standards Review



Fitness Related Personnel

Standard #1

All fitness facility personnel and other fitness service providers shall be qualified in first aid and CPR.

Standard #2

Fitness personnel shall be certified in the area with which they are providing program services. (e.g. fitness appraisals, personal training, aerobic classes, aqua fitness classes etc.)

PRE-SCREENING AND INFORMED CONSENT

The new 3rd edition of the **Canadian Fitness Safety Standards®** for fitness facilities is a more compact and practical document that can better help facility managers in the day-to-day management of safety issue.

By Paul Compton, PFLC
City of Vaughan, Area Recreation Manager-West

It's only a question of time before a fitness centre will have to deal with some type of accident or emergency situation. Proper pre-screening and informed consent can help prevent accidents in the first place and mitigate the circumstances surrounding serious situations when they occur.

This is the fourth in a series of articles that highlight sections of the recently released 3rd edition of the Canadian Fitness Safety Standards. Prescreening and informed consent are issues where this practical guide can help facility managers ensure that they are doing all they can to promote safety.

Many incidents are predictable and preventable by prescreening and obtain-

ing an informed consent, simply because both the individual and the facility have the health and risk information they need. Prescreening also provides essential medical information that could help direct a more appropriate response by staff and EMS in case of an emergency situation.

In the event of a death in a fitness centre, the first questions that should be asked are:

- "Did this individual receive appropriate pre-screening for possible health risks?"
- "Did we do all we could and should to communicate safe exercising guidelines that may have prevented this death?"

Deaths have occurred in facilities

where no pre-screening or informed consent was in place. Afterwards, when it's too late to change what has already happened, facility personnel face the traumatic and near impossible task of rationalizing why no steps were taken to ensure the safety of their patrons.

We will not always be able to prevent sudden catastrophic incidents in exercising environments, but when appropriate precautions have been taken it eases a difficult situation. Such an event happened earlier this year when an individual died while exercising on cardiovascular equipment. He was pre-screened by his physician, had completed an informed consent, and was appropriately advised of exercise principles by his fitness trainer. The fitness centre had done everything it could reasonably do in terms of providing pre-screening, informed consent, signage, and qualified staff.

The Canadian Fitness Safety Standards® and Recommended Guidelines, which were developed by the Ontario Association of Sport and Exercise Sciences (OASES), outlines two standards and four recommended guidelines in the area of *Pre-Screening and Informed Consent*.

Please take a moment to review them and see if your facility is doing everything it should. Someone's life could depend on it. FBC

The entire Canadian Fitness Safety Standards® can be viewed at

www.CanadianFitnessMatters.ca.

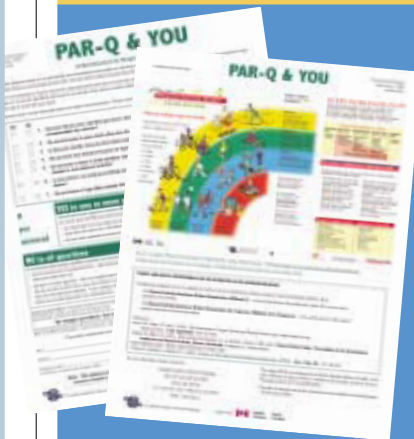
The Canadian Fitness Safety Standards® have been launched by OASES, (Ontario Association of Sport and Exercise Sciences) with a new program and website.

To register your facility for free on the new consumer on-line fitness facility directory website please visit

www.CanadianFitnessMatters.ca.

You may also apply to be recognized for your compliance with the Canadian Fitness Safety Standards®.

Standards for Pre-Screening and Informed Consent



Standard #1

Fitness service providers shall provide or require a pre-activity screening procedure (eg. PAR-Q or appropriate signage)

Standard #2

Facility operators and other fitness service providers shall inform participants of the risks inherent in physical activity participation and fitness facility usage.

TRAINING SPECIAL POPULATIONS

Some exercisers are at higher risk for injury than others and require more intensive screening and guidance to stay injury-free. Be sure you're current on guidelines and recommendations when working with pregnant women, non-exercisers over 70 and max-test participants.

By PAUL COMPTON

PREGNANT WOMEN

As the 20th week of pregnancy approaches, pregnant women should reduce the intensity and duration of exercise. A continued reduction in intensity should follow and lead to the eventual elimination of abdominal exercises altogether until after the baby is born.

Fluid intake is especially important. Pregnant women should also be advised to guard against overheating the body throughout the pregnancy.

Most pregnant women who exercise regularly seek their doctors' approval to ensure they are not facing any unusual risks. Nevertheless, they should be screened to ensure they have taken this action.

Women pregnant with twins are considered high risk and must be very careful while exercising during pregnancy.

NON-EXERCISERS OVER 70

Older individuals can face unique challenges: decreased mobility, cardiovascular disease, high blood pressure, diabetes, arthritis and mental deterioration. Since all of these increase in likelihood with age and have exercise-related risks, these individuals clearly require medical advice before beginning an exercise program.

MAXTEST PARTICIPANTS

People participating in maximal tests are also considered a special exercising population because of the tremendous strain the tests put on the body. Here the age threshold for close monitoring by a qualified individual is lowered based on gender and frequency of regular strenu-

ous exercise. Qualified supervision is not required for other individuals (e.g., high school students) providing they have been properly screened. (See "Standard #3" in sidebar for details on qualifications of supervisors.)

The Canadian Fitness Safety Stand-

ards have been launched by OASES, (Ontario Association of Sport and Exercise Sciences) with a new program and website, www.canadianfitnessmatters.ca. The full Canadian Fitness Safety Standards document can be viewed at www.canadianfitnessmatters.ca.FBC



The Canadian Fitness Safety Standards®, developed by the Ontario Association of Sport and Exercise Sciences (OASES), provide three standards and two Recommended Guidelines in the area of Special Exercising Populations.

Standards and Recommended Guidelines for Special Exercising Populations

Standard #1

Fitness service providers shall recommend that pregnant women obtain medical advice regarding their participation in physical activity.

Standard #2

Fitness service providers shall recommend individuals 70 years of age and over receive medical advice before initiating a physical activity program or becoming much more physically active.

Standard #3

Maximal testing of individuals who:

- a) are not accustomed to regular strenuous exercise, or
 - b) are males over 40 years of age, or
 - c) are females over 50 years of age
- shall be conducted under the supervision of either a physician or personnel with current appraisal certification and ACLS (Advanced Cardiac Life Support).

Recommended Guideline #1

For all other individuals (not identified in Standard #3), unsupervised maximal tests may be conducted, providing participants have, at minimum, been screened for medical risks by the PAR-Q or a physician.

Recommended Guideline #2

The "PAR-Med X for Pregnancy" questionnaire should be utilized in pre-exercise medical consultations with pregnant women.

Register Now!

Register your facility at no charge on the new consumer fitness directory website www.canadianfitnessmatters.ca. Apply now to be recognized for your compliance with the Canadian Fitness Safety Standards!

EMERGENCY PROCEDURES

This is the third in a series of articles discussing the rationale and importance of the newly-revised Canadian Fitness Safety Standards®.

By Dr. Blake Ferris, Chairman, Ontario Association of Sport and Exercise Sciences Fitness Safety Advisory Council



It is a question of *when* not *if* the aggravation of an acute injury, a chronic health problem or a life-threatening event will occur at your club! Your members and staff could require emergency health-related care for anything from a simple sprain or strain to a full blown medical emergency.

IS YOUR FACILITY TRULY READY FOR ANYTHING?

Emergencies are more than random events. They require a level of readiness and skill that must be put into action at a moment's notice. Legally, a fitness club has a duty to provide a "reasonable standard of care" when an individual needs first aid or emergency attention.

The Emergency Procedures Practices, published in the newly-revised Canadian Fitness Safety Standards®, had to meet several important reasonable standard of care criteria. They had to be both *relevant* to the industry and *feasible* to implement. They also had to have the unqualified support of more than two-thirds of the participants who participated in a four month, industry-wide review forum.

The resulting four Safety Standards provide a practical framework for the following:

- preventing avoidable injuries
- creating and practicing an emergency action plan
- documenting injury or incident management
- educating staff and members
- ensuring appropriate first-aid equipment and qualified help are always available
- providing quick access to external medical help when needed

WHAT ABOUT AUTOMATED EXTERNAL DEFIBRILLATORS (AEDS)?

The use of AEDs, while highly desirable, was considered "not feasible" for all clubs due to the cost and training required. Thus, ensuring staff are trained in CPR and in-house emergency procedures is deemed the minimum standard of care that fully meets both the relevance and feasibility criteria.

Expect nothing. Be ready for anything!

A number of excellent resources for emergency care and first aid are available to help create or assess an existing emergency care plan at your business. The Heart and Stroke Foundation, St. John Ambulance and the Canadian Red Cross Society are three useful agencies to consult in this regard. The revised Safety Standards Guide Book will be available for purchase in winter 2006 at: www.canadianfitnessmatters.ca and will offer additional information and sample forms for documenting emergency management.

Knowing and practicing the Emergency Procedures Standards will help create a quiet and caring confidence among your staff as well as build respect and rapport from your members. After all, current and potential members want to know that when it comes to their safety, your club proudly puts it first.

If your club complies with these and other Canadian Fitness Safety Stand-

Canadian Fitness Safety Standards®

STANDARD #1

Facilities and other environments in which fitness-related activities are offered shall have in place an Emergency Action Plan which shall be practiced twice per year and reviewed with all new staff at the commencement of their employment.

STANDARD #2

All injuries, accidents or emergencies in fitness facilities and other fitness-related environments shall be documented in writing and retained.

STANDARD #3

A designated complement of first aid equipment shall be readily available in fitness facilities and other fitness-related environments.

STANDARD #4

Immediate access must be available to in-house first aid services from qualified personnel. Contact information for external medical services (e.g. ambulance/hospital emergency phone numbers) must also be posted and phones readily accessible in all high risk/injury areas (e.g. pools and fitness testing areas).

ards®, be sure to apply to be recognized by Canadian Fitness Matters at www.canadianfitnessmatters.ca or e-mail: info@canadianfitnessmatters.ca.

Fitness facilities complying with all applicable Safety Standards are formally recognized by Canadian Fitness Matters – a program of the Ontario Association of Sport and Exercise Sciences (OASES). See adjacent page for details.



CANADA FITNESS SAFETY STANDARDS & RECOMMENDED GUIDELINES

COMMUNICABLE DISEASES 2005—THE NEW NORMAL

Dr. Bob Grisdale, MSc, DC
Andrew Popadopoulos, MBA, CPHI(C)

The Canada Fitness Safety Standards & Recommended Guidelines were revised in 2004. The review process was open and transparent and carried out in consultation with the fitness community in Ontario in a unique manner appropriate to the Internet age — via an online forum. The resultant standards and recommended guidelines are a refinement and clarification of those previously published in the Fitness Safety Standards Guide Book, 2000. The six categories (Fitness Related Personnel, Emergency Procedures, Communicable Diseases, Fitness Environment, Pre-Screening and In-

formed Consent, and Special Exercising Populations) were also considered in terms of their current relevance with respect to changes that have occurred since the 2000 Guide Book.

One category in particular, Communicable Diseases has undergone a remarkable 'awakening' in terms of its emergence into the public consciousness. The terms Walkerton, West Nile virus, SARS and now Bird Flu have particular meaning in Ontario as they represent, in part, the challenges present in the delivery and consumption of services, both public and private. Specifically, they have exposed the notions of

duty and obligation on the part of service providers, as well as the pervasive repercussions of failure in that regard. Those repercussions have legal and monetary features of accountability as well as a potentially devastating impact on public and individual health.

The phrase "the new normal," quite possibly with us for generations, seems to have emerged, in part, from the ashes of World Trade Center devastation and was expressed during the time that followed as a feeling that, although lives were returning to normal, 'normal' was now different. We have become aware of our vulnerability to the intended and even unintended actions of others.

The economic collapses characterized now by the terms "dot com," "Enron" and others served to reinforce the notion of our vulnerability but they added another idea for affected individuals to consider. They brought before us the notion of liability. As jail terms began to redefine the margins of accountability for corporate executives, the terms compliance, accuracy and transparency began to characterize the temperament of business interactions. People operating businesses, at every level, became more aware (or should have) of

the repercussions of doing harm to others, even if inadvertently.

Finally, to a public that is now more aware of their vulnerability and demanding accountability in the case of a mishap, another 'new normal' has been introduced – the rapid emergence of infectious diseases in humans and animals. Changing factors in our world such as international travel and commerce, microbial adaptation and change and a fiscally challenged public health system have made possible the scenario in which a person, living oceans away, could sneeze and then a few weeks later your neighbour falls very ill. Or it could be the person one treadmill to the left.

Given these changes it is not difficult to see how a sneeze at the gym can now be viewed in a very different context, by us all. It is also not unreasonable for fitness service providers to wonder about their role in the management of communicable diseases in their fitness facilities, as if for the first time. This is because, by definition, a new normal changes the context of standards, guidelines and operating procedures.

Compared to the Guide Book 2000, the new Fitness Safety Standards & Recommended Guidelines have pared what were previously one standard and three recommended guidelines into one single standard, in one sentence. The trimming is an act of clarity, not simplicity. Because clearly the impact of communicable diseases and the role of those charged with their management have become, and certainly will continue to be, a matter of focus and scrutiny. At the same time the repercussions of mismanagement have implications in a much broader context and to a degree possibly even beyond the new normal

Ask Andy

Andrew Popadopoulos, MBA, CPHI(C)
Director, School of Occupation and Public Health
Ryerson University, Toronto

Questions and Answers: "Just the Facts, Ma'am".

Barb Gormley - What is the hierarchy of responsibility with regard to public health and communicable diseases in the province of Ontario?

AP - Communicable disease is a major focus of boards of health as they have the legislated responsibility to investigate any health hazard and mitigate its impact. They have the duty to inspect public places for the purpose of eliminating health hazards. They do so by ensuring that owners and operators of premises where the public is invited (such as fitness facilities) maintain their premises in a manner that is free from disease.

BG - What legislation speaks specifically to the operation and management of fitness facilities, in the context of public health issues?

AP - Fitness facilities are caught by various pieces of public health legislation. The Health Protection and Promotion Act (HPPA http://192.75.156.68/DBLaws/Statutes/English/90h07_e.htm) provides local boards of health with their

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FITNESS SAFETY

duties and responsibilities. This includes the duty to inspect, the responsibility to be informed of hazards within their community and the mandatory investigation of communicable diseases.

Under this Act, regulations such as the Public Pools Regulation, the Whirlpool and Spa Regulation and the Mandatory Health Programs and Services Guidelines are most relevant to Fitness facilities.

Public Pools

<http://www.e-laws.gov.on.ca:81/ISYSquery/IRLF0FD.tmp/4/doc>

Local boards of health are now enforcing the new Public Spa Regulation. In the past, public health inspectors were using guidelines and protocol to ensure whirlpools and spas were operating in a condition free from disease. They will continue to inspect public spas to ensure their safety and will now begin enforcing legislation specific to safety equipment and water chemistry and replacement among other specific requirements. The new regulation can be found at the link below:

Public Spas

<http://www.e-laws.gov.on.ca:81/ISYSquery/IRLF0E2.tmp/3/doc>

BG – Should fitness facility operational concerns (from a public health /communicable disease context) include only the saunas and pools?

AP - Current fitness facility operational concerns from a public health context mostly focus on communicable disease transmission. Pathogens can be transmitted in swimming pools, whirlpools, saunas, shower facilities, change rooms and through water coolers and floor mats and other fitness equipment.

BG – What are main areas of potential liability?

AP - The greatest of potential liability for fitness facility operators can arise if they are found not be compliant with any regulations as it relates to the "Recommended Standards for the Operation of Public Spas" (Ontario Ministry of Health & Long Term Care Act, June 2001). Liability may also arise if the owner or operator of a fitness facility is

found negligent in the maintenance of their facility, to the degree that their actions (or lack) may be the cause of a communicable disease outbreak.

It is critical for the owner or operator of a fitness facility to ensure that the swimming pool and whirlpool are operating in accordance with the regulations. This includes regular testing of the free available chlorine and pH, and very importantly, ensuring the 150 mm black disc is visible from any point on the deck 9 m away. It is the responsibility of the pool operator to close the pool to public access if it is not compliant with the Public Pool regulation.

BG – Final Words?

AP - Communicable disease can be transmitted in many ways. New diseases are being discovered and their pattern of transmission may be unknown. It is therefore critical to use Universal Precautions at all times when dealing with body fluids or other material that may contain pathogens. FBC

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5	Atlantis Fitness Equipment	877-454-2285	info@atlantis-fit.com	www.atlantis-fit.com
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33	Fitness By ET	416-598-2223		www.commercial11cd.com
33	Fitness Depot Commercial Inc.	888-245-7871		www.fitnessdepot.ca
6	Fitness Jobs			www.fitnessjobs.com
63	FITOUR	281-494-0380	Support@FITOUR.com	www.FITOUR.com
29	Fitter First	800-fitter-1		www.fitter1.com
OBC	Keiser Corp	800-888-7009	info@keiser.com	www.keiser.com
27	Keystone-Everything Sports Medical Inc.	866-294-4075		www.keystonesports.ca
23	Kinetic Solutions	888-280-0019	info@kineticsolution.com	www.kineticsolution.com
IFC	Life Fitness	800-499-3303	Paul.Weinberg@lifefitness.com	www.lifefitness.com
51	National Fitness Products of Canada	877-348-4111	sales@nationalfitnessproducts.com	www.nationalfitnessproducts.com
31	Novae Threads	647-438-1182		www.novaeonline.com
39	NSCA	402-476-6669	commission@nsca-cc.org	www.nsca-cc.org
36	Petra Hygienic Systems	800-463-2516	info@petrasoap.com	www.petrasoap.com
19	Powerfit Boxing Training Systems Inc.	416-444-2667		www.powerfitboxing.com
42	Second Wind	905-891-9642	danielle@secondwind.net	www.secondwind.net
23	Spirit of Computing	403-399-3871		www.spiritofcomputing.com
36	Sports & Fitness Insurance Canada	888-346-6602	trothen@sympatico.ca	
55	SportsArt	250-480-0222 BC; 902-450-1900 NS; 415-213-0111 ON		
		418-933-9556 QC; 306-651-7172 SK		www.sportsartamerica.com
11	Star Trac	800-228-6635	phillier@startrac.com	www.startrac.com
IBC	Truestar	888-448-8783	profits@truestarhealth.com	www.truestarnutrition.com
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SAFETY ENVIRONMENT PART OF NEW AND IMPROVED STANDARDS

The new 3rd edition of Canadian Fitness Safety Standards® for fitness facilities is a more compact and practical document that can better help facility managers in the day-to-day management of safety issues. The revised fitness environment section is a great example of this functional evolution.

By BEAU KENT B.A.P.H.E., B.Ed., Professor, Fitness and Lifestyle Program, George Brown College, Toronto.

In the previous Fitness Safety Standards Guide Book, 2000 there were 43 different proposals in the environment section. Many of the proposals addressed each area of the facility separately, such as the squash court or locker room, and some proposals overlapped and were redundant.

The new Standards reflect valuable learning gained from recent surveys sent out to industry stakeholders. With their on-the-job experience to draw on, they helped sort out which ideas were most relevant and feasible to implement and which ones could be collapsed into one broad guideline or standard. For example, the first standard, “*All fitness related environments and equipment shall be clean, well maintained, and free from hazards*” includes six initial proposals from the 2000 document.

As a result of the changes, the new document has been pared down to 8 Standards and 15 Recommended Guidelines in the Fitness Environment section. It exemplifies the value of ongoing dialogue and reflection on initiatives to improve fitness facility safety.

The efforts are surely needed. Despite a growing awareness of the importance of

personal health and safety, there is always room for improvement in the fitness environment. One of the most common accidents in facilities today is from members slipping on wet floors. This point illustrates how the term “fitness facility” is synonymous with the fitness environment. It includes buildings, structures, playing fields, and physical plants that are used for fitness-related activities. The changing nature of building and fire codes is also worth noting. All facilities should conform to current federal, provincial and municipal building and fire codes as deemed by their classification. Many facilities are in buildings constructed prior to many of today’s regulations. These fitness facilities should upgrade as required to meet presently existing standards.

The Fitness Environment Standards are available on-line as part of the complete 3rd edition of Canadian Fitness Safety Standards® at:

www.CanadianFitnessMatters.ca

The Canadian Fitness Safety Standards® have been launched by **OASES**, (Ontario Association of Sport and Exercise Sciences) with a new program and website. To register your facility on the new consumer on-line fitness facility directory website please visit: www.CanadianFitnessMatters.ca



There are also 15 Recommended Guidelines that may be viewed at www.CanadianFitnessMatters.ca

1) All fitness related environments and equipment shall be clean, well maintained, and free from hazards.

2) Access to a clean drinking water supply is required at or near all physical activity areas.

3) The number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercises. Participant numbers may also be defined by building code restrictions and/or fire code regulations.

4) All fitness testing equipment shall be checked, cleaned and calibrated as required.

5) Floors in wet areas shall have a non-slip surface with adequate drainage to prevent pooling of water.

6) Whirlpools, spas and tubs shall comply with the Recommended Standards for the Operation of Public Spas (according to provincial standards).

7) Electrical panels shall be covered. Receptacles located in wet areas of a building and associated with the pool, such as a locker and change room, require ground fault circuit interrupters of the Class A Type.

8) A fire alarm system shall be installed in a building as determined by building code requirements. Portable fire extinguishers shall be installed in all buildings.

Automated external defibrillators in health/fitness facilities

In 1998, the AHA/ACSM published recommendations (5,6) for health/fitness facilities regarding the screening of clients for the presence of cardiovascular disease, appropriate staffing, emergency policies, equipment, and procedures relative to the client base of a given facility. Accordingly, health/fitness facilities are defined as organizations that offer exercise-based health and fitness programs as their primary or secondary service or that promote moderate- to vigorous-intensity recreational physical activity. These range from level 1 (unsupervised exercise room) to level 5 (medically supervised exercise program), and their specific characteristics are outlined in Table 1. Details regarding emergency readiness are provided in the AHA/ACSM recommendations (5,6) and emphasize that all health/fitness facilities must have written emergency policies and procedures that are reviewed and practiced regularly, and that in all supervised facilities, exercise leaders must be trained in basic cardiopulmonary resuscitation (CPR). Because of the publication of the 1998 AHA/ACSM recommendations, 47 states have since passed Good Samaritan legislation, and the federal government has passed the Cardiac Arrest Survival Act and the Rural Access to Emergency Devices Act as components of the federal Public Health Improvement Act of 2000 (7). These state and federal laws now serve to expand Good Samaritan legal protections to users of automated external defibrillators (AEDs) throughout the nation. Therefore, the purpose of this statement is to supplement the 1998 AHA/ACSM recommendations (5,6) regarding the purchase and use of AEDs in health/fitness facilities. Similar to the parent document (5,6), these recommendations are based on a review of the literature and consensus of the writing group after having undergone extensive peer review and final approval by

AHA and ACSM. The recommendations are not mandatory or all encompassing, nor do they limit provision of individualized care by health/fitness facilities exercising independent judgment.

ROLE OF AEDS IN THE CHAIN OF SURVIVAL

An AED is a device that incorporates a rhythm-analysis system and a shock-advisory system for victims of cardiac arrest (1). The AED advises a shock, and the operator must take the final action to deliver the shock. The International Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (2) conclude that early CPR is the best treatment for cardiac arrest until the arrival of an AED and advanced cardiac life support care. The chain of survival includes a series of actions designed to reduce mortality associated with cardiac arrest. Early CPR plays an important role in the chain of survival that includes the following links: 1) early recognition of cardiopulmonary arrest, 2) early CPR, 3) early defibrillation when indicated, and 4) early advanced cardiac life support care (3). Early CPR can prevent ventricular fibrillation from deteriorating to asystole, may increase the chance of successful defibrillation, contributes to the preservation of heart and brain function, and significantly improves survival (4). Importantly, for victims of sudden, shockable cardiac arrest (ventricular fibrillation or pulseless ventricular tachycardia), the single greatest determinant of survival is the time from collapse to defibrillation. A recent review (17) summarizes the data comparing the time-to-shock between first responders (i.e., firefighters, police, and emergency medical system (EMS) basic life support personnel) versus paramedics and demonstrates significantly shorter times among first responders in three of five studies. A survival rate, among victims of witnessed ventricular fibrillation cardiac arrest, as high as 90% has been reported when defibrillation is achieved within the first minute of collapse (8,11,14,15,21). Survival rates decline 7–10% with every minute that defibrillation is delayed, such that a cardiac arrest victim without defibrillation beyond 12 minutes has only a 2–5% chance of survival (1). The highest survival rates for out of hospital cardiac arrest have been reported in cardiac

This joint position paper was authored by the American College of Sports Medicine and the American Heart Association, and the content appears in AHA style. This paper is being published concurrently in *Medicine & Science in Sports & Exercise* and in *Circulation*. Individual name recognition is reflected in the acknowledgements at the end of the statement.

0195-9131/02/3403-0561/0

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TABLE 1. Health/fitness facilities—emergency plans and equipment.^a

	Level 1	Level 2	Level 3	Level 4	Level 5
Type of facility	Unsupervised exercise room (e.g., those in hotels, commercial buildings, and apartment complexes)	Single exercise leader	Fitness center for general membership	Fitness center offering special programs for clinical populations	Medically supervised clinical exercise program (e.g., cardiac rehabilitation)
Personnel ^b	None	Exercise leader Recommended: medical liaison	General manager Health/fitness instructor Exercise leader Recommended: medical liaison	General manager Exercise specialist Health/fitness instructor Medical liaison	General manager Exercise specialist Health/fitness instructor Medical liaison
Emergency plan	Present	Present	Present	Present	Present
Emergency equipment	Telephone in room Signs Encouraged: PAD plan with AED as part of the composite PAD plan in the host facility (e.g., hotel, commercial building, apartment complex)	Telephone Signs Encouraged: blood pressure kit, stethoscope, PAD plan with AED	Telephone Signs Encouraged: blood pressure kit, stethoscope, PAD plan with AED (the latter are strongly encouraged in facilities with membership >2500 and those in which EMS response time is expected to be >5 minutes from recognition of arrest)	Telephone Signs Blood pressure kit Stethoscope Strongly encouraged: PAD plan with AED	Telephone Signs Blood pressure kit Stethoscope Oxygen Crash cart Defibrillator ^c

AED, automatic external defibrillator; PAD, public access to defibrillation.

^a This table should replace the bottom half of Table 5 of the AHA/ACSM Recommendations (5,6).^b Detailed definitions and competencies for personnel positions are outlined in the ACSM Guidelines (10).^c Standard equipment in level 5 facilities includes a defibrillator (5,6,22).

rehabilitation programs equipped with defibrillators (i.e., Table 1: level-5 facilities), where survival approaches 90% (8,11,14,15,21). The International Guidelines (2) conclude that public access to defibrillation (PAD) accomplished by the placement of AEDs in selected locations for immediate use by trained laypersons may be the key intervention to significantly increase survival from an out-of-hospital cardiac arrest. Two recent observational studies report impressive results regarding the effectiveness of PAD in persons with witnessed cardiac arrest, who are in ventricular fibrillation, with AED placement in casinos (20) and on airplanes (19). The cardiac arrest survival rates to discharge from the hospital were 53% and 40%, respectively.

CARDIOVASCULAR RISKS OF EXERCISE

The AHA/ACSM Recommendations (5,6) provide details regarding the cardiovascular risks of exercise. It is clear that the risk of adverse cardiovascular events including death is greater among those individuals with cardiovascular disease than among presumably healthy individuals (5,6,9). As the demographics of the more than 30 million individuals who exercise at health/fitness facilities demonstrate a steady increase in the number of members older than 35 yr (approximately 55% of current membership) (16), it is reasonable to presume that the number of members with cardiovascular disease (and other comorbidities) is rising as well. Although there are no data regarding the incidence of cardiac arrest at health/fitness facilities, two recent surveys provide some important insight. A large database consisting of more than 2.9 million members of a large commercial health/fitness facility chain demonstrates 71 deaths (mean age 52 ± 13 yr; 61 men, 10 women) occurring over a 2-year period, yielding

a rate of 1 death/100,000 members/year. The death rate was highest among those members who exercised less frequently, such that nearly half of exercise-related deaths were in those who exercised less than once/week (12). The cardiac arrest rate was not reported but was presumably higher than the death rate. A recent survey of 65 randomly chosen health/fitness facilities in Ohio (18) reports the occurrence of sudden cardiac arrest or heart attack in 17% of facilities during a 5-year period. Notably, only 3% of facilities had an AED on site. Thus, it is prudent to conclude that health/fitness facilities should be considered among the sites in which PAD programs should be established.

RECOMMENDATIONS

It is essential to acknowledge that emergency equipment alone does not save lives. The ACSM/AHA Recommendations (5,6) emphasize the importance of written emergency policies and procedures that are reviewed and practiced regularly. Well-trained health/fitness facility staff members are essential to maintain strong links in the chain of survival for their clients. Effective placement and use of AEDs at all health/fitness facilities (Table 1: levels 1–5) is encouraged, as permitted by law, to achieve the goal of minimizing the time between recognition of cardiac arrest and successful defibrillation. Until further definitive data are available, AED placement is strongly encouraged in those health/fitness facilities with a large number of members (i.e., membership > 2500; (> median size health/fitness facility (16))); those that offer special programs to clinical populations (i.e., programs for the elderly or those with medical conditions (level 4)) (note that in level-5 facilities, current equipment standards require defibrillators (5,6,22)); and

those health/fitness facilities in which the time from the recognition of cardiac arrest until the first shock is delivered by the EMS is anticipated to be > 5 minutes. In unsupervised exercise rooms (level-1 facilities), such as those that might be located in hotels, apartment complexes, or office buildings, the AED should be part of the overall PAD plan for the host facility. At the least, an unsupervised exercise room should have a telephone available in the room with clearly posted numbers to call in case of emergency. In supervised settings, it is essential that designated health/fitness facility staff members who are trained in CPR be present during all hours of operation. CPR should be initiated as soon as a cardiac arrest is recognized and should be continued until the AED is placed on the victim and is activated. In cases of cardiac arrest not due to ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT), AEDs are of no value, and CPR must be maintained. Also, after successful termination of VF/pulseless VT, the rescuer must be able to open the airway and support ventilation and circulation with chest compressions as needed until the arrival of EMS personnel.

Therefore, the establishment of a PAD at all health/fitness facilities is encouraged. This plan should include the following:

- Have written emergency policies and procedures that are practiced regularly (i.e., at least once every 3 months).
- Designate staff members who are trained in CPR and function as first responders in the health/fitness facility setting during all hours of operation.
- Train staff to recognize cardiac arrest.
- Activate EMS—assign staff to meet the emergency response team at the entrance of the facility so that they can be promptly guided to the victim.
- Provide CPR.
- Attach/operate AED (detailed instructions are provided by the specific equipment manufacturer and general recommendations are outlined in the Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (1)).
- The use of AEDs in infants and children < 8 yr of age is not recommended (1).

Health/fitness facilities should coordinate their PAD program with the local EMS, because many dispatch systems use local phone-directed protocols to assist rescuers in the use of AED and may notify local EMS en route that an AED is being used at the scene. Moreover, the local EMS may assist with program planning and quality improvement, including medical direction, AED deployment and protocols, training, monitoring, and review of AED events (1). Emergency drills should be practiced at least once every 3 months or more often when staff changes occur (5,6). When new staff are hired, new team arrangements may be necessary. The simulated use of AEDs in drills offers the best opportunity for skills maintenance. Maintaining the AED device in proper working condition according to the manufacturer's

recommendations is essential. PAD programs must comply with local or regional regulation and legislation.

COSTS

Details regarding the technical aspects of AEDs are available elsewhere (1,17). At present, the cost of an AED is approximately \$3000–\$4500 per unit. It is expected that the price of AEDs will likely decrease as their use becomes more widespread. The National Heart Lung and Blood Institute (NHLBI), in partnership with the AHA and industry, is conducting a multisite, controlled, prospective study to determine the efficacy and cost-effectiveness of placing AEDs in a variety of public settings. A recent independent study (13) has demonstrated that a program of placing AEDs on large (>200 passenger) and medium (>100 passenger) capacity aircraft attain generally accepted levels of cost-effectiveness. However, the cost-effectiveness of AED deployment on smaller aircraft is, at this time, less certain. Similarly, as the cost-effectiveness of AED placement in health/fitness facilities is unknown, it is expected that these recommendations will be reviewed and updated when such data become available. At this time, individual health/fitness facilities are encouraged to maintain data on the utility of their PAD programs and perhaps engage in a collaborative effort with other health/fitness facilities to assess the success of their programs.

SUMMARY OF KEY POINTS

- The Cardiac Arrest Survival Act and the Rural Access to Emergency Devices Act, as components of the federal Public Health Improvement Act of 2000, as well as Good Samaritan laws passed in 47 states, expands Good Samaritan legal protections to users of AEDs throughout the nation.
- The placement of AEDs in selected locations for immediate use by trained laypersons may be the key intervention to significantly increase survival from an out-of-hospital cardiac arrest.
- The chain of survival includes a series of actions designed to reduce mortality associated with cardiac arrest and includes the following links: 1) early recognition of cardiopulmonary arrest, 2) early CPR, 3) early defibrillation when indicated, and 4) early advanced cardiac life support care.
- Well-trained health/fitness facility staff members are essential to maintain strong links in the chain of survival for their clients.
- Effective placement and use of AEDs at all health/fitness facilities (Table 1: levels 1–5) is encouraged, as permitted by law, to achieve the goal of minimizing the time between recognition of cardiac arrest and successful defibrillation. Until further definitive data are available, AED placement is strongly encouraged in those health/fitness facilities with a large number of members

(i.e., membership > 2500); those that offer special programs to clinical populations (i.e., programs for the elderly or those with medical conditions (level 4)); and those health/fitness facilities in which the time from the recognition of cardiac arrest until the first shock is delivered by the EMS is anticipated to be > 5 minutes. In unsupervised exercise rooms (level-1 facilities), such as those that might be located in hotels, apartment complexes, or office buildings, the AED should be part of the overall PAD plan for the host facility.

- Health/fitness facilities should coordinate their PAD program with the local EMS.
- Emergency drills should be practiced at least once every 3 months or more often when staff changes occur.
- PAD programs must comply with local or regional regulation and legislation.

This work is a supplement to the AHA/ACSM Recommendations for Cardiovascular Screening, Staffing, and Emergency Policies at Health/Fitness Facilities (5,6).

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$\dot{V}O_{2peak}$ Prediction and Exercise Prescription for Pregnant Women

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ABSTRACT

MOTTOLA, M. F., M. H. DAVENPORT, C. R. BRUN, S. D. INGLIS, S. CHARLESWORTH, and M. M. SOPPER. $\dot{V}O_{2peak}$ Prediction and Exercise Prescription for Pregnant Women. *Med. Sci. Sports Exerc.*, Vol. 38, No. 8, pp. 1389–1395, 2006. **Purpose:** The present study was designed to develop and validate a prediction equation for peak oxygen consumption ($\dot{V}O_{2peak}$) using a progressive treadmill test and to refine the current target HR exercise guidelines for pregnancy (PARmed-X for Pregnancy). **Methods:** One hundred fifty-six women between 16 and 22 wk of gestation performed the test to volitional fatigue (peak exercise test). Data from every fourth subject were used to form the cross-validation group. The women were separated into two age groups; 20–29 ($N = 60$) and 30–39 ($N = 96$) yr of age and then further separated into fit ($\dot{V}O_{2peak}$ at the top 25th percentile), unfit ($\dot{V}O_{2peak}$ at the bottom 25th percentile), and active (between these two ranges). HR and $\dot{V}O_{2peak}$ values were used in the regression equation to predict target HR ranges at 60 and 80% $\dot{V}O_{2peak}$. **Results:** The prediction equation ($R^2 = 0.72$, $R^2_{adjusted} = 0.71$ and $SEE = 2.7$) was compared with cross validation ($N = 39$; $P = 0.78$). Fit women had a $\dot{V}O_{2peak} \geq 27.2 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ and $\geq 26.1 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ for ages 20–29 and 30–39 yr, respectively, representing the top 25th percentile. Unfit women had a $\dot{V}O_{2peak}$ of $\leq 21.0 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ and $\leq 19.6 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, respectively, representing the bottom 25th percentile. HR/ $\dot{V}O_{2peak}$ regression lines for each fitness level were used to generate the target HR zones in each age group. **Conclusion:** This is the first study to provide a validated prediction equation of $\dot{V}O_{2peak}$ for pregnant women using a progressive treadmill exercise test. The defined target HR zones based on age and the appropriate fitness levels can be used for exercise prescription in healthy pregnant women. **Key Words:** EXERCISE, PREGNANCY, GUIDELINES, TARGET HR

The latest medical advice from the American College of Obstetricians and Gynecologists (ACOG) states that a woman with a low-risk pregnancy can participate in moderate exercise for $\geq 30 \text{ min}\cdot\text{d}^{-1}$ on most, if not all, days of the week (1). Although this advice promotes exercise during pregnancy in the United States, it does not give women concrete target HR guidelines for exercise.

In Canada, target HR zones and guidelines for exercise during pregnancy are found in the PARmed-X for Pregnancy document (21). This document was recently endorsed by the Society of Obstetricians and Gynecologists of Canada (SOGC) (9) and the Canadian Society for Exercise Physiology (CSEP) (10) in a SOGC/CSEP joint position paper, which is available on the CSEP Web site (www.csep.ca). The American College of Sports Medicine (ACSM) recently endorsed the SOGC/CSEP joint position

statement (9,10) in which the PARmed-X for Pregnancy document is highlighted (3).

The validated target HR zones for exercise prescription (20) found in the PARmed-X for Pregnancy document (21) were modified from target HR zones suggested for non-pregnant individuals (2) for two reasons: 1) maximum HR during pregnancy is attenuated during maximal exercise testing, resulting in a significant decrease in maximum HR reserve (19); and 2) resting HR increases during the first trimester, followed by further increases as pregnancy advances to about 15–20 bpm over nonpregnant values (18). These pregnancy alterations are the result of sympathoadrenal modulation and a reduced parasympathetic/vagal response (4), respectively. Although the target HR zones found in the PARmed-X for Pregnancy represent approximately 60–80% of aerobic capacity based on age for the average pregnant woman (18), we have found that women who are on either end of the exercise continuum—either overweight, with a body mass index (BMI) $\geq 25 \text{ kg}\cdot\text{m}^{-2}$, or very fit—the current target HR zones may not be appropriate (Mottola et al., unpublished observations, 2005).

The present study was designed to 1) use a progressive treadmill test to develop a prediction equation for peak oxygen consumption ($\dot{V}O_{2peak}$), 2) validate the prediction equation, and 3) prescribe and refine the current target HR exercise guidelines for pregnancy (PARmed-X for Pregnancy (21)) that are based on age alone by also including fitness levels.

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Submitted for publication November 2005.

Accepted for publication March 2006.

0195-9131/06/3808-1389/0

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DOI: 10.1249/01.mss.0000228940.09411.9c

METHODS

One hundred fifty-six women between 16 and 22 wk of gestation with medical clearance from their healthcare provider (PARmed-X for Pregnancy (21)) performed a progressive treadmill test modified from the Balke protocol (5) to volitional fatigue (peak exercise test). We used a modified Balke protocol because of the 2-min stages that allow pregnant women time to adjust to each new work rate. Sixteen to 22 wk of gestation were chosen to represent the most appropriate gestational age for testing. By this time, the symptoms of pregnancy (nausea, vomiting, fatigue, etc.) are usually minimal, and women have had medical approval to exercise. All women had low-risk pregnancies with no contraindications to exercise. Written informed consent was obtained from each participant. The human research ethics board for health sciences at the University of Western Ontario approved the protocol.

To ensure adequate maternal blood glucose for the duration of the test, 1 h prior to the start of the exercise session, each participant ingested a standard meal (one pouch (38-g serving) of Carnation Instant Breakfast™ mixed with 250 mL of milk; 248 kcal, 14.2 g of protein, 3.8 g of fat, and 39.3 g of carbohydrate). Height and weight were measured and recorded to the nearest centimeter and kilogram, respectively. Room temperature was maintained at $20 \pm 3^\circ\text{C}$ with 55% humidity.

Prior to each exercise test, the SensorMedics (Yorba Linda, CA) $\dot{V}\text{O}_{\text{max}} 29\text{c}$ breath-by-breath gas-analysis unit was calibrated according to company instructions, using two tanks of calibration gases (tank 1 = 4% carbon dioxide and 16% oxygen; tank 2 = 26% oxygen, 0% carbon dioxide; nitrogen balanced; SensorMedics), with an accuracy of 0.100 for the oxygen and carbon dioxide analyzer. The flow sensor meter was calibrated to a 3-L calibrator syringe (SensorMedics). The acceptable range for calibration was within $\pm 2\%$ variability.

Preexercise respiratory gases were collected for 5 min while the subject stood quietly on the treadmill with continuous monitoring of oxygen consumption. HR was recorded via four ECG leads (SensorMedics, $\dot{V}\text{O}_{\text{max}} 29\text{c}$). The test began with a 5-min warm-up at 3 mph ($4.8 \text{ km}\cdot\text{h}^{-1}$), 0% grade. This is generally considered a normal walking pace (11). During the test, the treadmill speed was held constant at this pace (3 mph), with the incline increased every 2 min by 2% until volitional fatigue. If fatigue was not reached by 12%, then the speed was increased slightly (by 0.2 mph ($0.3 \text{ km}\cdot\text{h}^{-1}$) at each stage) until volitional fatigue was reached. At the start of each stage (within 30 s), the subject rated her perceived exertion using the Borg scale (7). Once volitional fatigue was reached (Borg rating = 9 or 10; maximal on a 10-point scale; or 19–20 on the 20-point scale) (7), a 5-min cool-down at 3 mph and 0% grade was immediately initiated. Following the cool-down, the subject stood on the treadmill while recovery respiratory gases were collected for five additional minutes. During the test, subjects were instructed to lightly grip the hand rail at all times (6). Peak $\dot{V}\text{O}_2$ was

determined from the average of the last 30 s of the breath-by-breath analyses recorded by the computer software, once volitional fatigue was reached (14).

The 156 women were separated into two groups: one to develop the equation ($N = 117$) and a second to cross-validate the equation ($N = 39$). Every fourth subject was removed from the subject pool to form a cross-validation group (16).

The 156 women were separated into two age groups: 20–29 ($N = 60$) and 30–39 ($N = 96$) yr of age. Each age group was further separated into fit, active, and unfit. Fit women were defined as having a $\dot{V}\text{O}_{2\text{peak}} \geq 75\text{th}$ percentile for their age group (13). Unfit women were defined as having a $\dot{V}\text{O}_{2\text{peak}} \leq 25\text{th}$ percentile for their age group, and active women were between these two ranges. A linear regression was performed between peak HR and $\dot{V}\text{O}_{2\text{peak}}$ (15) for each of the six groups. Because the Canadian guidelines (21) suggest that pregnant women should exercise between 60 and 80% of their aerobic capacity, these $\dot{V}\text{O}_2$ values were determined for the two age groups (20–29 yr and 30–39 yr) within each of the three fitness levels (fit, active, unfit) and used in the regression equation to predict target HR ranges at 60 and 80% $\dot{V}\text{O}_{2\text{peak}}$.

Statistical analysis. Statistical analysis included subject characteristics (mean \pm SD) and Pearson product-moment correlations to measure the relationship between variables. Correlations (R^2) were adjusted for the degrees of freedom in the model. A nonparametric Mann–Whitney *U*-test and an independent samples *t*-test were used to determine significant differences between predicted and measured $\dot{V}\text{O}_{2\text{peak}}$. A multivariate linear regression was used to develop the $\dot{V}\text{O}_{2\text{peak}}$ prediction equation and the HR equations. Significance was accepted at $P \leq 0.05$. All analyses were performed using SPSS software (version 13).

Correlations between peak $\dot{V}\text{O}_2$ and weight, height, BMI (at time of test), age, gestational age, distance at peak, time to peak, speed at peak, peak incline, and HR were assessed for the equation group ($N = 117$). Correlations were also performed between weight, height, BMI, age, gestational age, distance at peak (distance covered during test to volitional fatigue), time to peak, speed at peak, peak incline, and HR to determine whether any of the variables were linearly related. Multivariate linear regression was performed using variables that were significantly correlated with peak $\dot{V}\text{O}_2$ only. The derived equation was used in the validation group to estimate peak $\dot{V}\text{O}_2$.

RESULTS

Subject characteristics of the equation-generated and the cross-validation groups are summarized in Table 1. No significant differences were found in the variables measured. The exercise parameters (distance at peak, time to peak, speed at peak, peak incline, HR, and $\dot{V}\text{O}_{2\text{peak}}$) were all positively correlated ($P < 0.01$; Table 2). BMI and body weight were positively correlated with each other ($P < 0.01$) and negatively correlated with the exercise

TABLE 1. Comparison of subject characteristics in the equation and cross-validation groups.

Characteristic	Equation Group (N = 117)	Cross-Validation Group (N = 39)	Significance
Weight (kg)	76.6 ± 15.5	78.9 ± 15.9	0.43
Height (m)	1.66 ± 0.07	1.67 ± 0.07	0.39
BMI (kg·m ⁻²)	27.8 ± 5.6	28.2 ± 5.4	0.69
Age (yr)	31.0 ± 3.9	30.7 ± 3.5	0.63
Peak HR (bpm)	168.9 ± 12.3	167.1 ± 12.2	0.42
VO _{2peak} (mL·kg ⁻¹)	23.7 ± 5.0	23.5 ± 5.9	0.87

parameters measured (Table 2). Based on these results, multivariate linear regression was found to have the best results in predicting $\dot{V}O_{2peak}$ with BMI, speed at peak, peak incline, and HR. Thus, the following equation was developed to predict $\dot{V}O_{2peak}$: $\dot{V}O_{2peak}$ (predicted) = $(0.055 \times \text{peak HR}) + (0.381 \times \text{incline}) + (5.541 \times \text{speed (mph)}) + (-0.090 \times \text{BMI}) - 6.846$, where peak HR is in bpm, incline is the percent, and BMI (kg·m⁻²) is calculated at the time of the test. Analysis of this equation found that $R^2 = 0.72$, $R^2_{\text{adjusted}} = 0.71$, and $SEE = 2.7$. When this equation was used to predict $\dot{V}O_{2peak}$ in the cross-validation group ($N = 39$), the P value was 0.78, actual value was 23.54 ± 5.9 , and predicted value was 23.38 ± 4.03 mL·kg⁻¹·min⁻¹. Women were considered fit if they had a $\dot{V}O_{2peak} \geq 27.2$ mL·kg⁻¹·min⁻¹ and ≥ 26.1 mL·kg⁻¹·min⁻¹ for ages 20–29 and 30–39 yr, respectively, representing the 75th percentile. Unfit women had a $\dot{V}O_{2peak}$ of ≤ 21.0 mL·kg⁻¹·min⁻¹ and ≤ 19.6 mL·kg⁻¹·min⁻¹, respectively, representing the bottom 25th percentile. Table 3 compares the characteristics of women aged 20–29 yr who were fit, active, and unfit. Unfit women in this age range had a higher BMI (29.8 ± 1.2 kg·m⁻²) than fit women (22.9 ± 0.7 kg·m⁻²) but not different than the active women (26.3 ± 1.1 kg·m⁻²). The BMI of the fit women was not different from that of the active women. The unfit women in this age group had lower average peak HR (159.7 ± 3.9 bpm) and $\dot{V}O_2$ (18.3 ± 0.6 mL·kg⁻¹·min⁻¹) values than both the active (171.9 ± 1.9 bpm; 23.8 ± 0.3 mL·kg⁻¹·min⁻¹) and fit women (176.3 ± 2.1 bpm; 31.3 ± 1.0 mL·kg⁻¹·min⁻¹; $P < 0.05$). Although the peak HR in the active women was not different from that of the fit women, peak $\dot{V}O_2$ in the fit women was higher ($P < 0.05$). Figure 1 shows the regression lines and target HR zones for the fit and unfit women in this age group (20–29 yr). Table 4 compares the characteristics of women aged 30–39 yr. In this age range, the unfit (BMI =

31.6 ± 1.0 kg·m⁻²) and active (BMI = 29.2 ± 0.8 kg·m⁻²) women had higher BMI values than the fit women (BMI = 24.8 ± 0.7 kg·m⁻²; $P < 0.05$), with no difference between the unfit and active women ($P > 0.05$). Average peak $\dot{V}O_2$ values for the fit (30.7 ± 0.9 mL·kg⁻¹·min⁻¹) and active (22.4 ± 0.3 mL·kg⁻¹·min⁻¹) women were higher than those for the unfit women (18.1 ± 0.2 mL·kg⁻¹·min⁻¹; $P < 0.05$). In addition, the fit women had higher peak $\dot{V}O_2$ values than the active women ($P < 0.05$), although peak HR differed only between the unfit (160.3 ± 2.3 bpm) and the fit women (175.1 ± 1.6 bpm; $P < 0.05$). Figure 2 shows the regression lines and target HR zones for the fit and unfit women in this age group. No differences were found between age groups within fitness levels (unfit, active, and fit) for BMI, peak HR, and $\dot{V}O_2$ ($P > 0.05$). These similarities between age groups are reflected in the target HR zones for the unfit women; however, in the active and fit women, the target HR zones are more distinct between age groups.

DISCUSSION

This is the first study to provide a validated prediction equation of $\dot{V}O_{2peak}$ for pregnant women between 16 and 22 wk of gestation. Fitness professionals who do not have access to a metabolic cart can use this prediction equation to estimate peak aerobic capacity in this population of healthy pregnant women who have been medically prescreened (21), including BMI values at 16–22 wk of pregnancy. The defined target HR zones based on age and fitness levels can be used for exercise prescription as we have further refined the target HR zones from the PARmed-X for Pregnancy document (21).

The fit women in our cohort have aerobic capacities similar to those described by Lotgering et al. (14), who reported an average value of 36 mL·kg⁻¹·min⁻¹ $\dot{V}O_{2max}$

TABLE 2. Correlations between variables measured for 156 pregnant women.

	Weight	BMI	Age	Distance	Time to Peak	Speed	Incline	Peak Heart Rate	$\dot{V}O_{2peak}$
Weight (kg)	1.0	0.905*	0.025	-0.524*	-0.560*	-0.511*	-0.431*	-0.108	-0.491*
BMI (kg·m ⁻²)		1.0	0.103	-0.485*	-0.514*	-0.494*	-0.349*	-0.131	-0.498*
Age (yr)			1.0	-0.101	-0.107	-0.112	-0.043	-0.084	-0.073
Distance				1.0	0.939*	0.952*	0.424*	0.326*	0.813*
Time to peak					1.0	0.940*	0.530*	0.413*	0.786*
Speed						1.0	0.315*	0.393*	0.818*
Incline							1.0	0.354*	0.428*
Peak HR								1.0	0.460*
VO _{2peak}									1.0

* Significant at the 0.01 level (two tailed).

Distance, total distance covered from start of test to volitional fatigue.

Time to peak, total time from start of test to $\dot{V}O_{2peak}$ (mL·kg⁻¹·min⁻¹); speed, speed of treadmill at $\dot{V}O_{2peak}$ (mph); incline, incline of treadmill at $\dot{V}O_{2peak}$ (%); peak HR, HR at $\dot{V}O_{2peak}$ (bpm); $\dot{V}O_{2peak}$, peak oxygen consumption (mL·kg⁻¹·min⁻¹).

TABLE 3. Characteristics of fit, active, and unfit women aged 20–29 yr ($N = 60$; mean \pm SEM)

	Fit ($N = 15$)	Active ($N = 30$)	Unfit ($N = 15$)
BMI ($\text{kg}\cdot\text{m}^{-2}$)	22.9 ± 0.7	26.3 ± 1.1	29.8 ± 1.2^a
HR at peak (bpm)	176.3 ± 2.1	171.9 ± 1.9	$159.7 \pm 3.9^{a,b}$
$\dot{V}\text{O}_{2\text{peak}}$ ($\text{mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$)	31.3 ± 1.0	23.8 ± 0.3^a	$18.3 \pm 0.6^{a,b}$
Speed at $\dot{V}\text{O}_{2\text{peak}}$ (mph)	4.2 ± 0.7^b	3.5 ± 0.4^a	$3.1 \pm 0.2^{a,b}$
Incline at $\dot{V}\text{O}_{2\text{peak}}$ (%)	12.0 ± 0.0^b	11.9 ± 0.7^a	$10.0 \pm 3.0^{a,b}$
R^2	0.59	0.80	0.44
R^2_{adjusted}	0.57	0.80	0.42
SEE	13.56	10.32	14.56
Mann–Whitney statistic (P value)	0.27	0.40	0.40

^a Different from fit women ($P < 0.05$).^b Different from active women ($P < 0.05$). R^2 , coefficient of correlation between actual and predicted $\dot{V}\text{O}_{2\text{peak}}$; SEE, see between actual and predicted $\dot{V}\text{O}_{2\text{peak}}$.

(calculated) at 16 wk of gestation and an average maximum HR of 180 ± 2 bpm using a treadmill test. These authors defined maximum aerobic power as the presence of two of the three following criteria: 1) oxygen consumption increase $< 5\%$ in response to an exercise intensity increase, 2) HR increase $< 5\%$ in response to an exercise intensity increase, and 3) $\text{RER} > 1$ (14). The slightly lower values for our women may be due to our peak versus their maximal testing protocol and the larger range in gestational age for our women (16–22 wk). When fitness levels, previous activity of the subjects, or gestational ages are not controlled, $\dot{V}\text{O}_{2\text{max}}$ values can range from 20.2 to $39.1 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, and maximum HR can range from 167 to 197 bpm during cycle ergometry, between 20 and 34 wk of gestation (16). Maximal oxygen consumption in the cycle ergometer study was defined as the highest $\dot{V}\text{O}_2$ reached at volitional fatigue (16), which we have defined as peak oxygen consumption in our study.

Top-level athletes of national and international caliber at 15–19 wk of gestation had a $\dot{V}\text{O}_{2\text{max}}$ range of 27.4 – $48.8 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ in a medium-volume exercise group (12) and 38.5 – $52.6 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ in a high-volume exercise

group tested on a cycle ergometer (12). The maximum HR ranged from 179 ± 9 to 181 ± 9 bpm, respectively (12). The fit women in the present study were in the top 25th percentile of our cohort, but none were elite athletes. The women above our cutoff points of $\geq 27.2 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ and $\geq 26.1 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ for our younger and older age groups, respectively, are within the ranges reported for fit women (12,14,16), although the mode of assessing aerobic capacity differed between studies.

The target HR range based on age from the PARmed-X for Pregnancy document (21) suggests that between the ages of 20 and 29 yr, low-risk, medically prescreened women can safely exercise at 135–150 bpm, reflecting 60–80% of aerobic capacity (18). Data from our cohort of active pregnant women (132–152 bpm) agree with the Canadian guidelines for this age group. For fit pregnant women, these target HR guidelines may not reflect 60–80% of maximum aerobic capacity. This is apparent from the target HR zones from our women in the top 25th percentile, who present a target HR zone of 145–160 bpm, which represents 60–80% of peak aerobic capacity for this cohort. To confirm appropriate intensity, these exercise

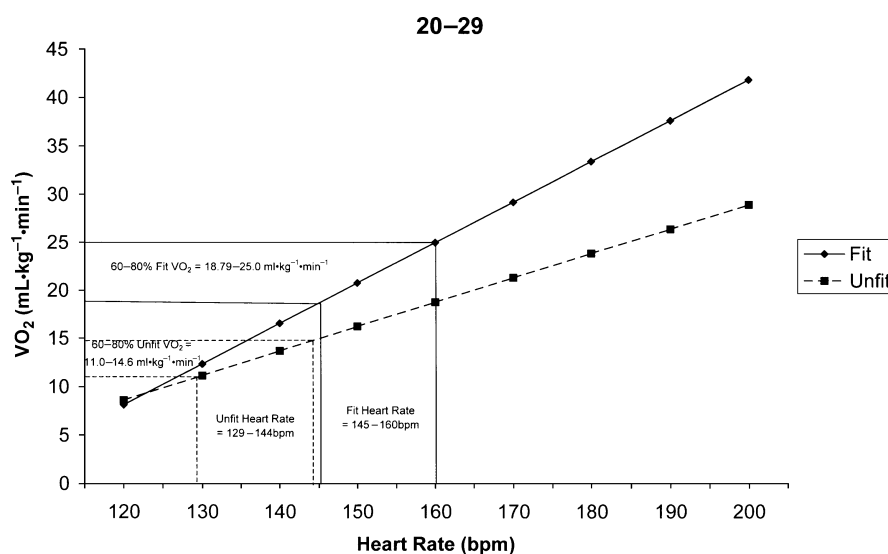


FIGURE 1—Linear regression lines of HR and $\dot{V}\text{O}_{2\text{peak}}$ for fit and unfit pregnant women aged 20–29 yr with target HR zones between 60 and 80% $\dot{V}\text{O}_{2\text{peak}}$. For fit women, $\text{HR} = 2.372 \times \dot{V}\text{O}_2 + 100.169$ (HR range = 145–160 bpm). For active women, $\text{HR} = 4.146 \times \dot{V}\text{O}_2 + 73.152$ (HR range = 132–152 bpm, not shown on graph). For unfit women, $\text{HR} = 3.933 \times \dot{V}\text{O}_2 + 86.088$ (HR range = 129–144 bpm).

TABLE 4. Characteristics of fit, active, and unfit women aged 30–39 ($N = 96$; mean \pm SEM).

	Fit ($N = 23$)	Active ($N = 48$)	Unfit ($N = 25$)
BMI ($\text{kg}\cdot\text{m}^{-2}$)	24.8 ± 0.7	29.3 ± 0.8^a	31.6 ± 1.0^a
HR at peak (bpm)	175.1 ± 1.6	167.7 ± 1.7	160.3 ± 2.3^a
$\dot{V}\text{O}_{2\text{peak}}$ ($\text{mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$)	30.7 ± 0.9	22.5 ± 0.3^a	$18.1 \pm 0.3^{a,b}$
Speed at $\dot{V}\text{O}_{2\text{peak}}$ (mph)	4.3 ± 0.6^b	3.2 ± 0.3^a	$3.1 \pm 0.2^{a,b}$
Incline at $\dot{V}\text{O}_{2\text{peak}}$ (%)	12.0 ± 0.0^b	11.7 ± 1.0^a	$10.0 \pm 2.5^{a,b}$
R^2	0.71	0.61	0.52
R^2_{adjusted}	0.70	0.61	0.51
SEE	12.37	14.10	12.76
Mann–Whitney statistic (P value)	0.07	0.25	0.74

^a Different from fit women ($P < 0.05$).^b Different from active women ($P < 0.05$). R^2 , coefficient of correlation between actual and predicted $\dot{V}\text{O}_{2\text{peak}}$; SEE, see between actual and predicted $\dot{V}\text{O}_{2\text{peak}}$.

prescription HR should be coupled with the “talk test” (enabling a pregnant women to carry on a conversation without being out of breath) and the RPE scale suggested in the PARmed-X for Pregnancy document for monitoring intensity, “somewhat hard” (12–14 on the 20-point scale, or 3–4 on the 10-point scale) (21).

On the other end of the continuum, which includes those women who are in the bottom 25th percentile of our cohort, the target HR zones suggested from the Canadian guidelines (PARmed-X for Pregnancy) (21) may be inappropriate. These women also have higher BMI values and a lower aerobic capacity for exercise. The target HR zone for the unfit women in our cohort at 20–29 yr of age (129–144 bpm) started below the zone suggested in the PARmed-X for Pregnancy document (135–150 bpm) (21). If the suggested target HR zone from the present study was used in conjunction with the “talk test” and the RPE (12–14, somewhat hard on the 20-point Borg scale, or 3–4 on the 10-point scale) as further guides for intensity, the target HR zone (129–144 bpm) generated from the present study may be better suited for this group of unfit women. Again, by using these tools, the intensity of exercise is individualized to meet the needs of this special group of women.

Santos et al. (17) examined aerobic exercise and submaximal functional capacity in overweight pregnant women. They determined that oxygen uptake at the anaerobic threshold (AT) for women aged 27 yr with a BMI of approximately $28 \text{ kg}\cdot\text{m}^{-2}$ at 18 wk of gestation was, on average, $16 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, with a HR at AT of 144 bpm. These data are similar to those for our unfit women in the 20- to 29-yr cohort who are in the bottom 25th percentile (AT data not shown).

Similarly, in our older group of women, division by fitness levels may give more appropriate target HR zones for the women who have a lower aerobic capacity (the unfit women) with a higher BMI. On the other end of the continuum, the women with the higher aerobic capacity who are more fit may also benefit from the adjusted target HR. The target HR zone suggested for women aged 30–39 yr is 130–145 bpm (PARmed-X for Pregnancy) (21). Our cohort of active women from this age group produced a HR target zone of 129–148 bpm, which again is similar to the Canadian guidelines (21). The target HR zone for the unfit women in our cohort was 128–144 bpm, representing HR at 60–80% of aerobic capacity, which also fits within the Canadian guidelines. This may be because

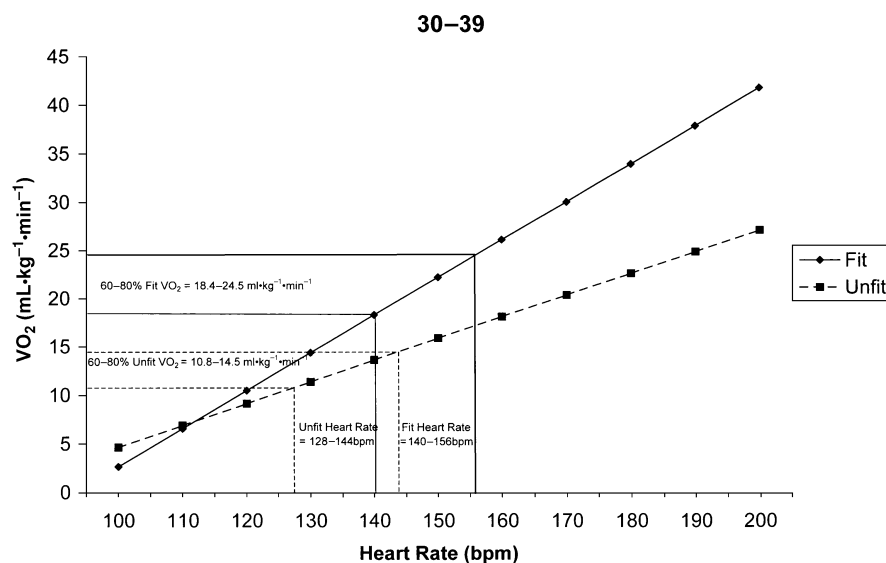


FIGURE 2—Linear regression lines of HR and $\dot{V}\text{O}_{2\text{peak}}$ for fit and unfit pregnant women aged 30–39 yr with target HR zones between 60 and 80% $\dot{V}\text{O}_{2\text{peak}}$. For fit women, $\text{HR} = 2.557 \times \dot{V}\text{O}_2 + 93.194$ (HR range = 140–156 bpm). For active women, $\text{HR} = 4.078 \times \dot{V}\text{O}_2 + 74.428$ (HR range = 129–148 bpm, not shown on graph), and for unfit women, $\text{HR} = 4.452 \times \dot{V}\text{O}_2 + 79.310$ (HR range = 128–144 bpm).

the BMI in the unfit group was not different from the BMI of the active women in this age group. Conversely, data from the fit women in this age group produced a target HR zone of 140–156 bpm, which places the range above the Canadian guidelines and may be more appropriate for women with higher aerobic capacities. Again, the “talk test” and RPE scale should be used as additional guides for intensity prescription for all the women in this age group in order to individualize exercise prescription and confirm intensity.

In the PARmed-X for Pregnancy document, guidelines for aerobic activity include advice on frequency, intensity (already discussed), time, and type of activity (21). It is suggested that the new target HR zones reported in the present study for fit and unfit pregnant women in the 20- to 29-yr and 30- to 39-yr age groups be used in conjunction with the other guidelines suggested by the PARmed-X for Pregnancy (21). This would include using the “talk test” with the RPE scale to individualize the exercise prescription and confirm the exercise intensity.

Regarding structured exercise frequency, Campbell and Mottola (8) suggested that women who engaged in structured exercise $\geq 5 \times \text{wk}^{-1}$ in the third trimester were 4.6 times more likely to give birth to a low-birth weight baby. In addition, they found that those women who engaged in structured exercise $\leq 2 \times \text{wk}^{-1}$ in late pregnancy were 2.7 times more likely to give birth to a low-birth weight baby (8). In this case-control design study of 529 women, frequency of structured exercise during late pregnancy was found to be more important as a determinant of birth weight than intensity, and thus women are cautioned about engaging consistently in structured exercise ≥ 5 or $\leq 2 \times \text{wk}^{-1}$ during the third trimester (8). Although the ACOG (1) suggest that pregnant women

should exercise on all if not most days of the week, we recommend that those women who are more likely to engage in structured exercise $\geq 5 \times \text{wk}^{-1}$ decrease the frequency of activity to $3\text{--}4 \times \text{wk}^{-1}$, especially in the last trimester. In addition, it is important for all medically prescreened pregnant women to consistently exercise at least $3 \times \text{wk}^{-1}$ for the greatest health benefits.

In conclusion, this is the first study to provide a validated prediction equation of $\dot{V}\text{O}_{2\text{peak}}$ for pregnant women between 16 and 22 wk of gestation using a progressive treadmill exercise test. The defined target HR zones based on age and fitness level can be used for exercise prescription in healthy pregnant women who have been medically prescreened. We suggest that fit pregnant women between the ages of 20 and 29 yr who wish to exercise at 60–80% of aerobic capacity should work at a target HR of 145–160 bpm, and in the 30–39 yr age group, target HR should be between 140 and 156 bpm. We also suggest that healthy women with lower fitness levels who are medically prescreened can exercise at target HR of 129–144 bpm if they are between the ages of 20 and 29 yr, and 128–144 bpm if they are 30–39 yr old. Target HR zones for healthy active pregnant women are confirmed in the PARmed-X for Pregnancy document (21). It is also recommended that the PARmed-X for Pregnancy be used for medical prescreening in conjunction with the new target HR zones suggested in the present study for aerobic exercise guidelines of frequency, intensity, time, and type of activity.

The authors thank the following funding sources: Molly Towell Perinatal Research Foundation, Canadian Forces Personnel Support Agency, and the Canadian Institute of Health Research-Institute of Aboriginal People's Health.

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D – Legislation

Health Protection and Promotion Act Loi sur la protection et la promotion de la santé

ONTARIO REGULATION 428/05

No Amendments

PUBLIC SPAS

Notice of Currency:* This document is up to date.

*This notice is usually current to within two business days of accessing this document. For more current amendment information, see the Table of Regulations – Legislative History Overview

This Regulation is made in English only.

Definitions

1. In this Regulation,

“automatic sensing device” means a device that,

- (a) determines and continuously displays,
 - (i) sanitizer residual in a public spa’s water, and
 - (ii) pH value of a public spa’s water, and
- (b) regulates the operation of chemical feeders to maintain sanitizer and pH levels in accordance with this Regulation;

“circulation system” means a system that,

- (a) maintains circulation of water through a public spa by pumps,

(b) draws water from a public spa for treatment and returns it to the spa as clean water, and

(c) provides continuous treatment that includes filtration and chlorination or bromination and other processes that may be necessary for the treatment of the water;

“clean water” means water added to a public spa after treatment in the circulation system;

“daily use period” means the period of time during which a public spa is open for use in an operating day;

“deck” means the area immediately surrounding a public spa;

“hotel” means a hotel, inn, motel, resort or other building or premises operated to provide sleeping accommodation for the public;

“make-up water” means water added to a public spa from an external source;

“operating day” means a day on which the public spa is in operation and open for use;

“operator” means a person designated by the owner of a public spa as being responsible for the operation of the spa;

“owner” means a person who is the owner of a public spa;

“public spa” means a hydro-massage pool containing an artificial body of water that is intended primarily for therapeutic or recreational use, that is not drained, cleaned or refilled before use by each individual and that utilizes hydrojet circulation, air induction bubbles, current flow or a combination of them over the majority of the pool area. O. Reg. 428/05, s. 1.

Application

2. (1) In this section,

“Class A pool” has the same meaning as in Regulation 565 of the Revised Regulations of Ontario, 1990 (Public Pools) made under the Act;

“Class B pool” has the same meaning as in Regulation 565 of the Revised Regulations of Ontario, 1990. O. Reg. 428/05, s. 2 (1).

(2) This Regulation applies to the following public spas, whether or not they are operated in conjunction with a Class A pool or a Class B pool, and to all buildings, appurtenances and equipment used in their operation:

1. A public spa operated on the premises of an apartment building that contains more than five dwelling units or suites, a mobile home park or a nurses' residence, for the use of the occupants and their visitors.

2. A public spa operated as a facility to serve a community of more than five single-family private residences, for the use of the residents and their visitors.

3. A public spa operated on the premises of a hotel for the use of the hotel's guests and their visitors, subject to subsection (3).

4. A public spa operated on the premises of a campground, for the use of the campground's tenants and their visitors.

5. A public spa operated in conjunction with,

i. a club, for the use of its members and their visitors, or

ii. a condominium, co-operative or commune property that contains more than five dwelling units or suites, for the use of the owners or members and their visitors.

6. A public spa operated in conjunction with a day nursery, a day camp or an establishment or institution for the care or treatment of persons who are ill, infirm or aged or for persons in custodial care, for the use of such persons and their visitors. O. Reg. 428/05, s. 2 (2).

(3) A public spa operated on the premises of a hotel that contains five or fewer units or suites, for the use of its guests and their visitors, is exempt from this Regulation, if the following notice is displayed in a conspicuous place within the public spa enclosure, printed in letters at least 25 millimetres high with a minimum five millimetre stroke:

CAUTION
USE SPA AT YOUR OWN RISK
THIS SPA IS NOT SUBJECT TO THE REQUIREMENTS OF ONTARIO
REGULATION 428/05 (PUBLIC SPAS)

O. Reg. 428/05, s. 2 (3).

Operator, designation and training

3. (1) Every owner shall designate an operator. O. Reg. 428/05, s. 3 (1).

(2) Every operator shall be trained in public spa operation and maintenance, filtration systems, water chemistry and all relevant safety and emergency procedures. O. Reg. 428/05, s. 3 (2).

Use after construction, alteration or closure

4. (1) In this section,

“alteration” does not include routine maintenance or repair or replacement of existing equipment. O. Reg. 428/05, s. 4 (1).

(2) Before a public spa is put into use after construction or alteration, the owner or the owner's agent shall give to the medical officer of health in the health unit where the spa is located written notice of,

- (a) the building permit number issued for the construction or alteration of the spa;
- (b) whether or not all the preparations necessary to operate the spa in accordance with this Regulation have been completed;
- (c) the date that the spa is intended to be opened or reopened for use; and
- (d) the operator's name and address. O. Reg. 428/05, s. 4 (2).

(3) An owner who proposes to open or reopen a spa for use as a public spa after construction or alteration shall not open or reopen the spa without first obtaining permission in writing from the medical officer of health in the health unit where the spa is located. O. Reg. 428/05, s. 4 (3).

(4) Every owner who intends to reopen a public spa after any closure of more than four weeks duration shall first give to the medical officer of health in the health unit where the spa is located written notice of,

- (a) the date that the spa is intended to be reopened; and
- (b) the operator's name and address. O. Reg. 428/05, s. 4 (4).

Operation, general requirements

5. (1) Every owner and operator shall,

- (a) maintain the public spa and its equipment in a safe and sanitary condition;
- (b) ensure that all components of the public spa and its equipment are maintained in proper working order;

- (c) ensure that all emergency equipment required by this Regulation is maintained in proper working order;
- (d) ensure that all surfaces of the public spa deck and walls are maintained in a sanitary condition and free from potential hazards;
- (e) ensure that carpeting or other water-retentive material is not installed or used in any area that becomes or may become wet during the daily use period;
- (f) if they are provided, ensure that dressing rooms, water closets and shower facilities are,
 - (i) available for use of the bathers before entering the deck, and
 - (ii) maintained in a sanitary condition and free from potential hazards;
- (g) ensure that no person brings a glass container onto the deck or into the public spa; and
- (h) ensure that no food or beverage except water is supplied or consumed in the public spa or on the deck. O. Reg. 428/05, s. 5 (1).

(2) Every owner and operator shall ensure that, except during the daily use period, the public spa is inaccessible to persons who are not involved with its operation, inspection or maintenance. O. Reg. 428/05, s. 5 (2).

Water treatment

6. (1) Every owner and operator shall ensure that the public spa water is treated with chlorine, a chlorine compound or a bromine compound by means of a chemical feeder, and is maintained so that in every part of the spa, and at all times during the daily use period,

- (a) the total alkalinity is not less than 80 milligrams per litre;
- (b) the pH value is within the range of 7.2 to 7.8;
- (c) there is a residual of free available chlorine or total bromine of at least five but not more than 10 milligrams per litre;
- (d) if the public spa is equipped with an automatic sensing device, the Oxidation Reduction Potential value is not less than 700 mV; and
- (e) where cyanurate stabilization is maintained, there is a cyanuric acid concentration of not greater than 150 milligrams per litre. O. Reg. 428/05, s. 6 (1).

(2) Every operator shall ensure that cyanurate stabilizer is not added to a public spa if the spa and its deck are totally or partially covered by a roof. O. Reg. 428/05, s. 6 (2).

(3) Every owner and operator shall ensure that the public spa water is of a clarity to permit the owner or operator to see the lowest water outlet drain when the spa water is in a non-turbulent state. O. Reg. 428/05, s. 6 (3).

(4) Every operator shall ensure that the filtration system and the chemical feeders are in continuous operation without regard to the daily use period except during,

- (a) maintenance or repairs that require the filtration system or chemical feeders to be stopped;
- (b) draining of the public spa;
- (c) backwashing of filters; and
- (d) a closure of the public spa, if it is closed for a period of seven or more consecutive days. O. Reg. 428/05, s. 6 (4).

Water replacement

7. (1) Every operator of a public spa with a volume that exceeds 4,000 litres shall add make-up water to the spa during each operating day in an amount that is not less than 30 litres per bather use, to a maximum of 20 per cent of the total spa volume. O. Reg. 428/05, s. 7 (1).

(2) Every owner of a public spa to which subsection (1) applies shall ensure that the public spa has a meter capable of measuring the volume of make-up water added to the public spa. O. Reg. 428/05, s. 7 (2).

(3) Every operator of a public spa with a volume that is 4,000 litres or less shall drain to waste and refill the total volume of water in the public spa in accordance with the following formula:

where,

WRI = the maximum number of operating days that may elapse
between drainings, rounded up to a whole number,

V = the total volume of the spa in litres, and

U = the total estimated number of bather uses per operating
day.

O. Reg. 428/05, s. 7 (3).

(4) An operator who drains a public spa in accordance with subsection (3) shall, before refilling the spa, inspect all parts of the spa including, but not limited to, drain covers, suction fittings and all emergency equipment within the spa, and ensure that they are properly secured and operational. O. Reg. 428/05, s. 7 (4).

Water temperature

8. Every owner shall ensure that the public spa water heater is equipped with a tamper-proof upper limit cut-off switch that,

- (a) limits the maximum temperature of the spa water to 40°C; and
- (b) is independent of the spa's water temperature thermostat. O. Reg. 428/05, s. 8.

Timing device

9. (1) Every owner and operator of a public spa containing hydro-massage jet fittings shall ensure that the spa is equipped with a timing device that,

- (a) controls the period of operation of the jet pump;
 - (b) can be set to a maximum of 15 minutes; and
 - (c) is placed in a location that requires a bather to exit the spa to reset it.
- O. Reg. 428/05, s. 9 (1).

(2) Every owner and operator shall ensure that a notice, in letters at least 25 millimetres high with a minimum five millimetre stroke, is posted at the timing device that identifies it as a timing device. O. Reg. 428/05, s. 9 (2).

Suction system

10. Every owner shall ensure that the suction system that serves the public spa is equipped with a vacuum relief mechanism that includes,

- (a) a vacuum release system;
 - (b) a vacuum limit system; or
 - (c) another engineered system designed, constructed and installed to conform to good engineering practice appropriate to the circumstances.
- O. Reg. 428/05, s. 10.

Clock

11. Every owner shall ensure that a clock is installed in a conspicuous location that can be viewed from anywhere in the public spa. O. Reg. 428/05, s. 11.

Steps

12. Every owner shall ensure that, if a set of steps is provided for entry into and exit from the spa water, the set of steps,

- (a) are equipped with a handrail;
- (b) have a non-slip surface on their treads; and
- (c) have a band of contrasting colour applied along the entire juncture of the side and top of the edges of each step. O. Reg. 428/05, s. 12.

Emergency telephone

13. (1) Every owner shall ensure that there is a land line emergency telephone located within 30 metres of the public spa that connects directly to an emergency service or the local telephone utility. O. Reg. 428/05, s. 13 (1).

(2) Every owner shall ensure that a notice indicating the location of the emergency telephone, in letters not less than 25 millimetres high with a minimum five millimetre stroke, is posted in a conspicuous location near the entrance to the public spa. O. Reg. 428/05, s. 13 (2).

(3) Every owner shall ensure that a notice is posted at the emergency telephone that,

- (a) identifies the telephone as an emergency telephone in letters not less than 25 millimetres high with a minimum five millimetre stroke;

(b) lists the names, telephone numbers and addresses of persons who are available for resuscitation, medical aid and fire services; and

(c) lists the full name and address of the public spa facility location and all of the facility's emergency telephone numbers. O. Reg. 428/05, s. 13 (3).

Emergency stop button

14. (1) Every owner shall ensure that all pumps used in the operation of the public spa are capable of being deactivated by an emergency stop button that,

(a) is separate from the spa's timing device;

(b) is located within the immediate vicinity of the spa; and

(c) activates an audible and visual signal when used. O. Reg. 428/05, s. 14 (1).

(2) Every owner shall ensure that the following notice, in letters at least 25 millimetres high with a minimum five millimetre stroke, is posted above the emergency stop button:

IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY STOP BUTTON
AND USE EMERGENCY PHONE. AN AUDIBLE AND VISUAL SIGNAL WILL
ACTIVATE.

O. Reg. 428/05, s. 14 (2).

Other emergency equipment

15. (1) This section applies to an owner of a public spa that has an inner horizontal dimension greater than three metres. O. Reg. 428/05, s. 15 (1).

(2) Subject to subsection (3), every owner shall ensure that there are provided, in places conveniently located for emergency use,

- (a) an electrically insulated or non-conducting reaching pole that is at least 3.65 metres in length;
- (b) a buoyant throwing aid to which is securely attached a six millimetre diameter rope of a length not less than one-half the width of the pool plus three metres; and
- (c) a spine board or other device designed for transporting a person who has incurred a spinal injury. O. Reg. 428/05, s. 15 (2).

(3) Where an item described in clause (2) (a), (b) or (c) is provided under subsection 20 (1) of Regulation 565 of the Revised Regulations of Ontario, 1990 (Public Pools) made under the Act to a public pool that operates in the immediate vicinity of the public spa, an owner is not required to provide a duplicate item as long as the item is conveniently located for emergency use to the spa. O. Reg. 428/05, s. 15 (3).

(4) Every owner shall ensure that markings in figures not less than 100 millimetres high that set out the water depths indicating the deep points, the breaks between gentle and steep bottom slopes and the shallow points, and the words DEEP AREA and SHALLOW AREA are displayed at the appropriate locations on the deck. O. Reg. 428/05, s. 15 (4).

First-aid box

16. Every owner and operator shall ensure that there is provided in a place conveniently located for emergency use a first-aid box containing, at a minimum,

- (a) a current copy of a standard First Aid Manual;
- (b) 12 safety pins;
- (c) 24 adhesive dressings, individually wrapped;
- (d) 12 sterile gauze pads, each 75 millimetres square;

- (e) four rolls of 50 millimetre gauze bandage;
- (f) four rolls of 100 millimetre gauze bandage;
- (g) four sterile surgical pads suitable for pressure dressings, individually wrapped;
- (h) six triangular bandages;
- (i) two rolls of splint padding;
- (j) one roll-up splint;
- (k) one pair of scissors;
- (l) two pairs of non-permeable gloves; and
- (m) one resuscitation pocket mask. O. Reg. 428/05, s. 16.

Maximum capacity

17. Every operator shall ensure that the maximum number of persons permitted to use a public spa at any one time is the lesser of,

- (a) one person per square metre of surface water area; and
- (b) the maximum bather load identified by the manufacturer of the spa.

O. Reg. 428/05, s. 17.

Caution notice

18. (1) Every owner and operator shall ensure that the following notice is posted in a conspicuous place at each entrance to the public spa with the word CAUTION in letters not less than 50 millimetres high, all other lettering not less than 10 millimetres high, and with a minimum five millimetre stroke in either case:

CAUTION

Children under the age of 12 are not allowed in the spa unless supervised by a person who is 16 years of age or older.

Pregnant women and persons with known health or medical conditions should consult with a physician before using a spa.

Do not use the spa if you have an open sore or rash, or are experiencing nausea, vomiting or diarrhea.

Overexposure may cause fainting. 10 to 15 minutes may be excessive for some individuals. Cool down periodically and leave the spa if nausea or dizziness occurs.

Enter and exit the spa slowly, to prevent slipping.

Do not play or swim near drains or suction devices. Your body, body parts, hair, jewelry and other objects may become trapped and cause injury or drowning. People with long hair should be especially careful.

Do not enter or remain in a spa if a drain cover or suction fitting is loose, broken or missing. Immediately notify the spa operator.

No food or beverage except water is permitted within the deck or spa. No glass containers of any kind are permitted within the deck or spa.

O. Reg. 428/05, s. 18 (1).

(2) The notice described in subsection (1) shall include the maximum bather capacity of the public spa determined under section 17. O. Reg. 428/05, s. 18 (2).

Bathers shall shower

19. (1) Every bather shall take a cleansing shower using soap and warm water before entering the deck. O. Reg. 428/05, s. 19 (1).

(2) Every operator shall post a sign in a conspicuous location near every entrance to the deck that indicates, in letters not less than 25 millimetres high with a minimum five millimetre stroke, the bather's duty to shower under subsection (1). O. Reg. 428/05, s. 19 (2).

Daily inspection

20. (1) Every operator shall, by means of manual test methods, determine at the times set out in subsection (2) the following regarding the public spa water:

1. Total alkalinity.
2. pH value.
3. Free available chlorine or total bromine residual.
4. Water clarity.
5. Water temperature. O. Reg. 428/05, s. 20 (1).

(2) Measurements made under subsection (1) shall be made one-half hour before the public spa is opened for use on an operating day, and thereafter,

(a) at time intervals not exceeding one hour until the daily use period has ended; or

(b) at least once more during the daily use period, if the public spa is equipped with an automatic sensing device. O. Reg. 428/05, s. 20 (2).

(3) If the public spa is equipped with an automatic sensing device, every operator shall determine the spa water's Oxidation Reduction Potential one-half hour before the spa is opened for use on an operating day, and thereafter, at least once more during the daily use period. O. Reg. 428/05, s. 20 (3).

(4) Every operator shall ensure that the emergency telephone is tested before the public spa is opened for use on an operating day. O. Reg. 428/05, s. 20 (4).

(5) Every operator of a public spa with a ground fault circuit interrupter shall ensure that the test-button associated with it is activated before the spa is opened for use on an operating day. O. Reg. 428/05, s. 20 (5).

(6) Every operator of a public spa with a make-up water meter shall ensure that the meter is read at the end of an operating day. O. Reg. 428/05, s. 20 (6).

Daily records

21. (1) Every operator shall keep and sign a daily record that sets out, in relation to an operating day,

- (a) the results of the tests required under subsections 20 (1) and (3), and the times they were performed;
- (b) the time of day that the emergency phone test and ground fault circuit interpreter test were performed;
- (c) the reading of the make-up water meter, if applicable;
- (d) the type and amount of any chemicals added manually to the public spa;
- (e) the estimated number of bather uses during the daily use period;
- (f) whether the public spa was drained, inspected and refilled in accordance with subsections 7 (3) and (4), if those subsections apply; and
- (g) any emergencies, rescues or breakdowns of equipment that have occurred. O. Reg. 428/05, s. 21 (1).

(2) The daily record shall be retained for a period of one year from the date of making the record and shall be available for viewing by a medical officer of health or a public health inspector at any time. O. Reg. 428/05, s. 21 (2).

Other inspections

22. (1) Every operator shall ensure that,

(a) where a public spa has gravity and suction outlet covers, the outlet covers are inspected at least once within each period of 30 operating days;

(b) the emergency stop button and vacuum release mechanisms, if any, are tested and inspected at least once within each period of 30 operating days; and

(c) where cyanurate stabilization is maintained, the concentration of cyanuric acid is determined not less than once per week. O. Reg. 428/05, s. 22 (1).

(2) Every operator shall ensure that,

(a) a written record of the inspections required by subsection (1) is made and signed by the person who performed the inspections; and

(b) the written record of the inspections is retained by the operator for at least one year from the date the record is made and is available for viewing by a medical officer of health or a public health inspector at any time. O. Reg. 428/05, s. 22 (2).

23. Omitted (provides for coming into force of provisions of this Regulation).
O. Reg. 428/05, s. 23.

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