Over the past several decades, the physical activity and fitness of Canadians has decreased. Participating in regular physical activity can prevent a variety of health risks across all age, gender, ethnic and socioeconomic subgroups. However, only 7% of children and youth are active enough to meet current Canadian Physical Activity Guidelines and are spending an average of 6-8 hours per day, or 62% of their waking hours being sedentary. Public health agencies have focused on meeting physical activity guidelines and have paid little attention to the mounting evidence to support sedentary behaviour as a distinct health issue.

Therefore, CSEP decided that there was an urgent need to gain a better understanding of the relationship between sedentary behaviour and health risk. This work was then used to inform the first ever evidence-based sedentary behaviour guidelines. This report provides the background information on the steps that were taken to develop the Canadian Sedentary Behaviour Guidelines for Children (5-11 years) and Youth (12-17 years). These guidelines are presented through a partnership between CSEP and ParticipACTION, with support from the Public Health Agency of Canada and made available to all Canadians.

The target population
The following guidelines apply to school-aged children (5-11 years) and youth (12-17 years).

The target users
The intended audience for the following guidelines is children and youth. In the case where the child or youth is unable to use the guidelines by themselves (i.e. too young), the target users of the guidelines become parents, teachers, caregivers and health care providers as a means of facilitating the use of the guidelines.

Development of Guideline Recommendations
The Canadian Sedentary Behaviour Guidelines for Children (5-11 years) and Youth (12-17 years) are informed by a rigorous scientific process. A detailed report outlining this process can be found on the CSEP website (http://www.csep.ca/english/view.asp?x=881). The complete timeline for the process can be found below.
1. KEY EVIDENCE
The evidence to inform these guidelines came from a scientific review of current knowledge on the relationship between sedentary behaviour and health in children and youth (5-17 years). This review has been submitted for peer reviewed publication.

2. DRAFT GUIDELINES
In November 2010, a consensus meeting was convened to discuss the scientific evidence and draft the wording for the Canadian Sedentary Behaviour Guidelines.

3. STAKEHOLDER REVIEW
In November-December 2010, draft guidelines were sent out to a wide range of stakeholders for consultation via an online survey. The survey was sent to national and international content experts, health professionals, governmental and non-governmental organizations, teachers, and caregivers provided responses. Overall, the majority of respondents “completely agreed” with the proposed preamble and guidelines and felt that guidelines for sedentary behaviour were not only important for children and youth, but for all age groups.
4. FINALIZATION OF GUIDELINES

In December 2010, the CSEP re-convened to address the concerns and comments brought up through the stakeholder consultations and to adjust the guidelines accordingly. Final guidelines are presented below.

Canadian Sedentary Behaviour Guidelines
CHILDREN (aged 5-11 years) and YOUTH (aged 12-17 years)

Preamble
These guidelines are relevant to all apparently healthy children (aged 5-11 years) and youth (aged 12-17 years), irrespective of gender, race, ethnicity or socio-economic status of the family. Children and youth are encouraged to limit sedentary behaviours and to participate in physical activities that support their natural development and are enjoyable and safe.

Children and youth should limit recreational screen time (television, computer, video games, etc.), motorized transportation, indoor time and extended sitting in the context of family, school and community (e.g. volunteer, employment) activities.

Following these guidelines can improve body composition, cardiorespiratory and musculoskeletal fitness, academic achievement, self-esteem and social behaviours. The benefits of reduced sedentary time exceed potential risks.

These guidelines may be appropriate for children and youth with a disability or medical condition; however, they should consult a health professional to understand the types and amounts of activities appropriate for them.

For those with screen time levels in excess of 2 hours per day it is appropriate to start to progressively reduce screen time as a stepping-stone to meeting the guidelines.

For guidance on increasing physical activity please refer to the Canadian Physical Activity Guidelines for Children and Youth.
Guidelines
For health benefits, children (aged 5-11 years) and youth (aged 12-17 years) should minimize the time they spend being sedentary each day. This may be achieved by
- Limiting recreational screen time to no more than 2 hours per day; lower levels are associated with additional health benefits.
- Limiting sedentary (motorized) transport, extended sitting and time spent indoors throughout the day.

What is Sedentary Behaviour?

Sedentary: A distinct class of behaviours characterized by little physical movement and low energy expenditure (e.g. sitting, watching television, playing video games).

Sedentarism: Extended engagement in sedentary behaviours characterized by minimal movement, low energy expenditure, and rest.

Physically active: Meeting established physical activity guidelines (see the Canadian Physical Activity Guidelines www.csep.ca/guidelines).

Physically inactive: The absence of physical activity, usually reflected as the proportion of time not engaged in physical activity of a pre-determined intensity (such as those not meeting Canadian Physical Activity Guidelines).

Active video gaming: Video games that are designed to promote movement and interaction from the participant(s). Some examples include the Nintendo Wii™, Microsoft Kinect™, Sony’s Playstation Move™, and arcade type video games.

Recreational screen time: Television watching, video game playing, using the computer or use of other screens during discretionary time (ie. non-school- or work- based use) that are practiced while being sedentary.
Dissemination and Implementation

Partner organizations (e.g., CSEP, ParticipACTION, PHAC, Active Healthy Kids Canada) are working to disseminate and implement these guidelines within the general public. This information will be made available on the CSEP website (www.csep.ca/guidelines). The primary resource will be information sheets (i.e. what the guidelines are, health benefits of achieving guidelines and examples of ways to meet the guidelines). Additional resources will be made available as soon as possible and will reflect preliminary feedback from stakeholders.

MOST RECENT LITERATURE SEARCH: February 2010
GUIDELINE RELEASE DATE: February 15th, 2011

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Care has been taken in the preparation of information contained in this document. Nonetheless, any person seeking to apply or consult these guidelines is expected to use independent judgment, or if they are not qualified to do so, to seek the advice of a qualified medical professional. The Canadian Society for Exercise Physiology makes no warranties of any kind with respect to these guidelines and takes no responsibility for their application in any way. The Canadian Society for Exercise Physiology and the Public Health Agency of Canada funded these guidelines. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.
What does this look like on a daily basis?

An average day:

- Sedentary
- Light
- Moderate
- Vigorous

An ideal day:

- Sedentary
- Light
- Moderate
- Vigorous

Up until now, research and guidelines have focused on physical activity and recommended that children and youth participate in at least 60 minutes moderate- to vigorous-intensity physical activity daily. But don’t the other 23 hours (or 1380 minutes) of the day matter?

Very few children and youth are meeting the current Canadian Physical Activity Guidelines. And of those who are meeting the Guidelines, it is clear that they are spending the majority of their remaining leisure time being sedentary. Currently, children and youth are spending about 62% of their waking hours engaging in sedentary behaviours and only 2 minutes engaging in vigorous activities. Light intensity activities account for about a third of waking hours.

To maximize health, it is important to take a ‘whole day’ approach to healthy, active living. An ideal, active day would have children and youth replace the majority of their sedentary time with light-intensity activity. This can include play-time, helping with chores, or walking around the house. The diagram illustrates this substitution of light-intensity activity for sedentary time.

An ideal day would also include engaging in both moderate- and vigorous-intensity activities to meet or exceed current recommendations from the Canadian Physical Activity Guidelines. The majority of the day would be spent engaging in light intensity activities and involve active play and lots of moving around. Time spent at sedentary activities like watching television or playing video games would be limited. This includes limiting sedentary time while at school, work, and at home, wherever possible.