

Canadian Society for Exercise Physiology

M-206, Level of Fitness and Physical Activity of Youth in Canada

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About the Canadian Society for Exercise Physiology

Established in 1967, the Canadian Society for Exercise Physiology (CSEP) is the resource for translating advances in exercise science research into the promotion of fitness, performance, and health outcomes for Canadians. CSEP sets the highest standards for qualified exercise professionals through evidence-based practice and certification.

The Society's 6000 members represent the GOLD STANDARD of health and fitness professionals dedicated to getting Canadians safely active by providing the highest quality customized physical activity and fitness programs, guidance, and advice based on extensive training and evidence-based research.

CSEP's members include leading academic researchers and graduate students working in college and university laboratories and kinesiology departments and the highest qualified exercise professionals in Canada working in fitness facilities, rehabilitation, work physiology, and high-performance sport. CSEP Certified Personal Trainers® and CSEP Certified Exercise Physiologists® bring science to practice through implementing their knowledge and skills to provide clients with exercise programming that will support meaningful lasting lifestyle changes.

CSEP's Canadian 24-Hour Movement Guidelines: An Integration of Physical Activity, Sedentary Behaviour and Sleep for Children and Youth (ages 5-17), and Canadian 24-Hour Movement Guidelines: An Integration of Physical Activity, Sedentary Behaviour and Sleep for the Early Years (ages 0-4 years) were developed with key partners and have been widely adopted both in Canada and internationally, most recently by the World Health Organization.

Work is currently underway, with the support of the Public Health Agency of Canada, to update the CSEP *Canadian Physical Activity Guidelines for Adults (ages 18-64)* and the CSEP *Canadian Physical Activity Guidelines for Older Adults (ages 65 years and older)* to the 24-Hour Movement Guideline format. These updated Guidelines will be released in late 2020.

Issue

Indisputably, physical activity and fitness is a cornerstone of a healthy lifestyle. Yet increasingly we are seeing that Canadians of all ages are choosing sedentary activities over active ones. This can lead to greater risk of chronic diseases, decline in overall health and more.

Inactivity and obesity have become epidemics, and a new approach is needed to improve the overall health of Canadians.

CSEP, together with stakeholders including CHEO, ParticipACTION, Public Health Agency of Canada and more, launched the world's first **24-Hour Movement Guidelines for Children and Youth** (aged 5-17 years). Released in 2016, these evidence-based guidelines were the first to address the whole day, breaking the day down into 4 integrated movement behaviours: Sweat, Step, Sleep and Sit.

A healthy 24 hours includes:

- 60 minutes per day of moderate to vigorous physical activity
- Several hours of a variety of structured and unstructured light physical activities
- Uninterrupted sleep
 - 9-11 hours for those aged 5-13 years
 - 8-10 hours for those aged 14-17 years
- No more than 2 hours per day of recreational screen time.

A copy of the *24-Hour Movement Guidelines for Children and Youth* can be found in Appendix A.

Health Implications of Childhood Inactivity

Many chronic diseases of adulthood have their beginnings in childhood. Failure to build strong bones in childhood through regular physical activity, for example, can translate into higher risk of osteoporosis with increasing age.

Children can also experience the same kind of metabolic disorders as adults. Obesity rates among children and youth in Canada have nearly tripled in the last 30 years. Approximately one third (31.4%) of 6- to 17-year-olds are overweight (18.3%) or obese (13.1%)¹. Physical inactivity and obesity in childhood increases one's risk for diabetes, high blood pressure, high cholesterol, asthma, arthritis, and poor health status.

Childhood is a particularly important time to establish regular physical activity patterns, as habits formed early can last a lifetime. Regular physical activity helps young people to develop healthy musculoskeletal tissues (i.e., bones, muscles and joints), a healthy cardiorespiratory system (i.e., heart and lungs), and neuromuscular patterns (i.e., coordination and movement control), as well as helping to maintain a healthy body weight. It can also assist in the social development of young people by providing opportunities for self-expression, building self-confidence, social interaction and integration; and is associated with psychological benefits by improving control over symptoms of anxiety and depression.

¹ Rao DP, Kropac E, Do MT, Roberts KC, Jayaraman GC. Childhood overweight and obesity trends in Canada. *Health Promot Chronic Dis Prev Can* 2016; 36: 194–198.

Physically active young people may also more readily adopt other healthy behaviours (e.g., avoidance of tobacco, alcohol and drug use), and demonstrate higher academic performance at school².

The federal government has shown leadership in working with the provinces and territories to develop a national policy document about promoting physical activity and reducing sedentary living in Canada. Known as the *Common Vision* Report, it draws attention to the issue and outlines a number of “strategic imperatives.” CSEP applauds this work and believes that now is the time to develop clearer implementation plans for these measures.

² Iannotti RJ, Kogan, MD, Janssen I, Boyce WF. Patterns of Adolescent Physical Activity, Screen-Based Media Use and Positive and Negative Health Indicators in the U. S. and Canada. *J Adolesc Health*. 2009 May; 44(5): 493–499.

Recommendations

In order to begin changing behaviours and increasing levels of fitness and physical activity for all Canadians, CSEP believes that concrete, long-term implementation plans are needed to achieve the policy goals in the *Common Vision* Report.

- **Commitment to sustained funding for the wider adoption and promotion of *Canadian 24-Hour Movement Guidelines* and the *Common Vision* Report**

In order for these policies and guidelines to have impact, and for people's behaviour to change in a positive way, it is crucial that sustainable and ongoing support be given to share this information as widely as possible.

This builds upon Strategic Imperative 3.6 from the *Common Vision* Report and is a key strategy to increase the level of fitness and physical activity for all Canadians; in particular, children and youth.

The federal government has a role to play in bringing stakeholders together to promote the use of healthy living guidelines in their respective regions.

This is particularly important considering that there are considerable additional benefits to increased fitness and physical activity than those that are obvious, including those related to economic, cultural and mental health. This builds upon Strategic Imperatives 4.1, 4.2 and 4.3.

- **Continued support for the development of evidence-based guidelines and population health measurements (such as the *Canadian Health Measures Survey* and other surveillance measures).**

Science and evidence-based guidelines are a vital component to tackling Canadians' health and physical activity levels.

Recognizing that some of this work has already been developed (or is currently being developed) by various stakeholders, including CSEP, it is important to remember that ongoing support is needed to ensure that guidelines continue to be relevant.

It is also equally important to measure the impact of these guidelines on Canada's population. Support for resources such as the *Canadian Health Measures Survey*, *Canadian Community Health Survey*, and other statistics and surveillance measures will ensure that researchers have the information they need to keep these guidelines relevant.

- **Take steps to normalize healthy physical activity in the daily lives of all Canadians.**

Increasingly, we are seeing what used to be everyday, natural fitness opportunities fade away. Children are driven to school, new subdivisions have limited yards and often no sidewalks, screens are more and more readily available.

The *Common Vision* Report echoes this notion, noting that:

“...physical activity has largely been designed out of our lives. What’s more, many people think they have to go out of their way to be physically active – that it’s something done only during leisure time, at a gym or on a sports field. It’s important to acknowledge that the societal shift away from physical activity has taken decades; it will take time to reverse this trend and return to a more active society.”

As healthy children build healthy adults and older adults, we believe that the federal government has a responsibility to demonstrate leadership to normalize physical activity in the lives of all Canadians.

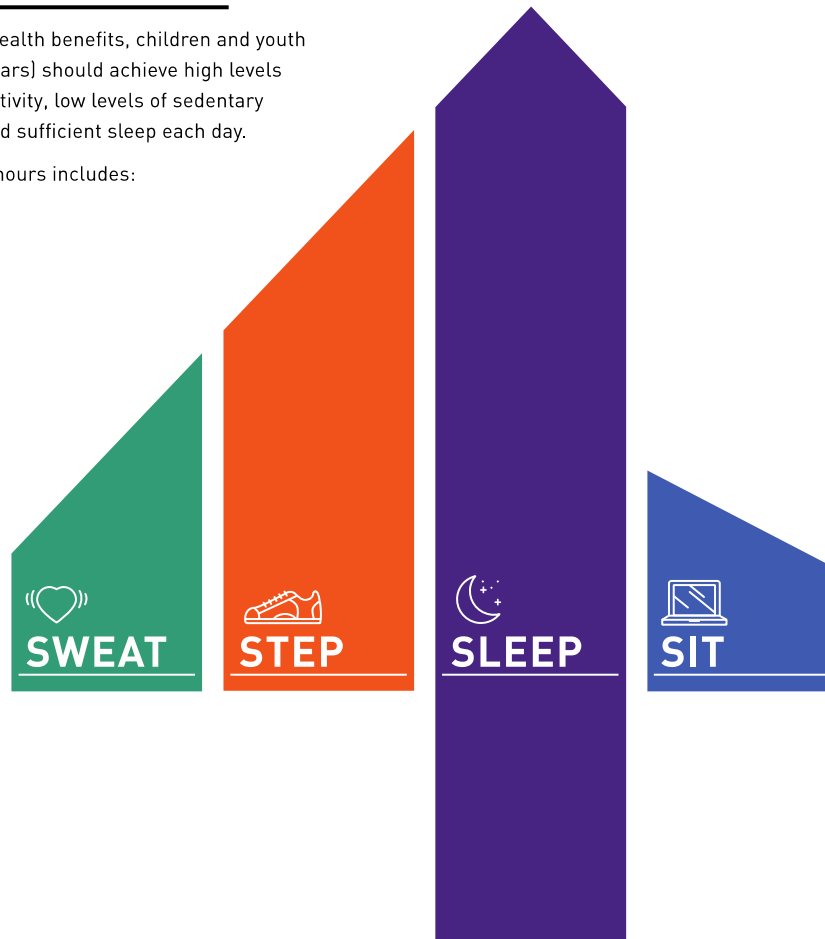
By engaging traditional and non-traditional sectors, a collective action can create a fundamental societal change for generations to come.

Appendix A

GUIDELINES

For optimal health benefits, children and youth (aged 5–17 years) should achieve high levels of physical activity, low levels of sedentary behaviour, and sufficient sleep each day.

A healthy 24 hours includes:



SWEAT

MODERATE TO VIGOROUS PHYSICAL ACTIVITY

An accumulation of at least 60 minutes per day of moderate to vigorous physical activity involving a variety of aerobic activities. Vigorous physical activities, and muscle and bone strengthening activities should each be incorporated at least 3 days per week;

STEP

LIGHT PHYSICAL ACTIVITY

Several hours of a variety of structured and unstructured light physical activities;

SLEEP

SLEEP

Uninterrupted 9 to 11 hours of sleep per night for those aged 5–13 years and 8 to 10 hours per night for those aged 14–17 years, with consistent bed and wake-up times;

SIT

SEDENTARY BEHAVIOUR

No more than 2 hours per day of recreational screen time; Limited sitting for extended periods.

Preserving sufficient sleep, trading indoor time for outdoor time, and replacing sedentary behaviours and light physical activity with additional moderate to vigorous physical activity can provide greater health benefits.

CANADIAN 24-HOUR MOVEMENT GUIDELINES FOR CHILDREN AND YOUTH:

An Integration of Physical Activity, Sedentary Behaviour, and Sleep

available at www.csep.ca/guidelines.

