



# ARE CANADIAN KIDS TOO TIRED TO MOVE?

**2016**

The ParticipACTION Report Card on  
Physical Activity for Children and Youth



# IT'S TIME FOR A WAKE-UP CALL

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Canadian kids are inactive and they may be losing sleep over it.

If you think kids can get a little physical activity and then play video games into the wee hours, yet remain healthy, you're in for a rude awakening. Emerging research, which spurred Canada to develop the world's first **24-Hour Movement Guidelines**, shows that physical activity, sedentary behaviour – and sleep – are closely interrelated.

Kids who are tired out from running around sleep better, and those who have slept well have more energy to run around.<sup>27,26</sup> And society is starting to pay attention to the fact that the reverse is also true and troubling: kids aren't moving enough to be tired, and they may also be too tired to move. A groundswell of interest in the connection between these behaviours is highlighting the fact that sleep deprivation is a problem in Canadian kids:

- **Only 9% of Canadian kids** aged 5 to 17 get the 60 minutes of heart-pumping activity they need each day.<sup>2012-13 CHMS</sup>
- **Only 24% of 5- to 17-year-olds** meet the Canadian Sedentary Behaviour Guidelines recommendation of no more than 2 hours of recreational screen time per day.<sup>2012-13 CHMS</sup>
- **In recent decades**, children's nightly sleep duration has decreased by about 30 to 60 minutes.<sup>14,15</sup>
- **Every hour kids spend** in sedentary activities delays their bedtime by 3 minutes.<sup>16</sup> And the average 5- to 17-year-old Canadian spends 8.5 hours being sedentary each day.<sup>2012-13 CHMS</sup>
- **33% of Canadian children aged 5 to 13**, and 45% of youth aged 14 to 17, have trouble falling asleep or staying asleep at least some of the time.<sup>2012-13 CHMS</sup>
- **36% of 14- to 17-year-olds** find it difficult to stay awake during the day.<sup>2012-13 CHMS</sup>
- **31% of school-aged kids** and 26% of adolescents in Canada are sleep-deprived.<sup>17</sup>

Even kids who are meeting the minimum requirements for sleep duration are not necessarily getting good sleep. Increased screen time and packed schedules mean that kids are getting poor or inconsistent sleep – for instance, staying up late to do homework during the week, or watching TV in their bedrooms until midnight and then playing catch-up on the weekends.

- **43% of 16- to 17-year-old** Canadians are not getting enough sleep on weekdays.<sup>17</sup>

The perils of a sleep-deprived generation are not limited to kids being tired and cranky; they show their fatigue in different ways.<sup>18</sup> Some effects of sleep deprivation in kids are obvious and some are not so obvious:

- **Too little sleep** can cause hyperactivity, impulsiveness and a short attention span.<sup>19,20</sup>
- **Children with reduced sleep** are more likely to struggle with verbal creativity and problem solving, and generally score lower on IQ tests.<sup>20,21</sup>
- **A short sleep duration** produces adverse hormonal changes like those associated with increased risks of obesity, diabetes and hypertension.<sup>20</sup>
- **Chronic sleep loss** is linked to higher rates of depression and suicidal thoughts.<sup>22,23</sup>

And it's a vicious cycle: a study of Toronto kids aged 10 to 12 years showed that those who slept the least on school nights were significantly less active and more sedentary than those who slept the most.<sup>24</sup>

The good news is that regular, heart-pumping physical activity might just be the best sleep aid there is:

- **Grade 5 students** with higher physical activity levels are less likely to be sleepy during the daytime.<sup>25</sup>
- **Active transportation** (e.g., walking or biking) and outdoor play increase exposure to sunlight, which helps regulate sleep patterns.<sup>18</sup>
- **Physical activity** helps kids fall asleep faster.<sup>26</sup>
- **High school students** who get at least 60 minutes of physical activity each day are 41% more likely to get sufficient sleep than those who don't.<sup>27</sup>

Our tendency may be to cram more into each day to wear kids out, but more activities don't necessarily equal more physical activity. Plus, overscheduling can impact sleep by getting kids excited and pushing back dinnertime, homework time and bedtime.<sup>28</sup> As stated in the new **Canadian 24-Hour Movement Guidelines for Children and Youth**, a healthy childhood requires a balance of physical activity, sedentary behaviour and sleep. The health benefits that come with heart-pumping physical activity are reduced if children have poor sleep habits or engage in excessive sedentary behaviour. And well-rested children are not healthy if they are not getting enough activity.<sup>13</sup>

To stem the creeping "sleepidemic," kids need to get off the couch, get outdoors and get their hearts pumping regularly. It's time for a wake-up call. **If Canadian kids sit less and move more, we will all sleep better.**

#### ABOUT THE REPORT CARD

**The ParticipACTION Report Card on Physical Activity for Children and Youth** is the most comprehensive assessment of child and youth physical activity in Canada. The Report Card synthesizes data from multiple sources, including the best available peer-reviewed research, to assign evidence-informed grades across 12 indicators. Over the years, the Report Card has been replicated in numerous cities, provinces and countries, where it has served as a blueprint for collecting and sharing knowledge about the physical activity of young people around the world.

This Report Card includes new **Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep** – the first of their kind in the world – and, for the first time, assigns a Sleep grade.

**This is the Highlight Report;** to download the full 76-page report, please visit [www.participACTION.com/reportcard](http://www.participACTION.com/reportcard)

# CANADIAN 24-HOUR MOVEMENT GUIDELINES FOR CHILDREN AND YOUTH:

An Integration of Physical Activity, Sedentary Behaviour, and Sleep

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## PREAMBLE

These guidelines are relevant to apparently healthy children and youth (aged 5–17 years) irrespective of gender, race, ethnicity, or the socio-economic status of the family. Children and youth are encouraged to live an active lifestyle with a daily balance of sleep, sedentary behaviours, and physical activities that supports their healthy development.

Children and youth should practice healthy sleep hygiene (habits and practices that are conducive to sleeping well), limit sedentary behaviours (especially screen time), and participate in a range of physical activities in a variety of environments (e.g., home/school/community; indoors/outdoors; land/water; summer/winter) and contexts (e.g., play, recreation, sport, active transportation, hobbies, and chores).

For those not currently meeting these 24-hour movement guidelines, a progressive adjustment toward them is recommended. Following these guidelines is associated with better body composition, cardiorespiratory and musculoskeletal fitness, academic achievement and cognition, emotional regulation, pro-social behaviours, cardiovascular and metabolic health, and overall quality of life. The benefits of following these guidelines far exceed potential risks.

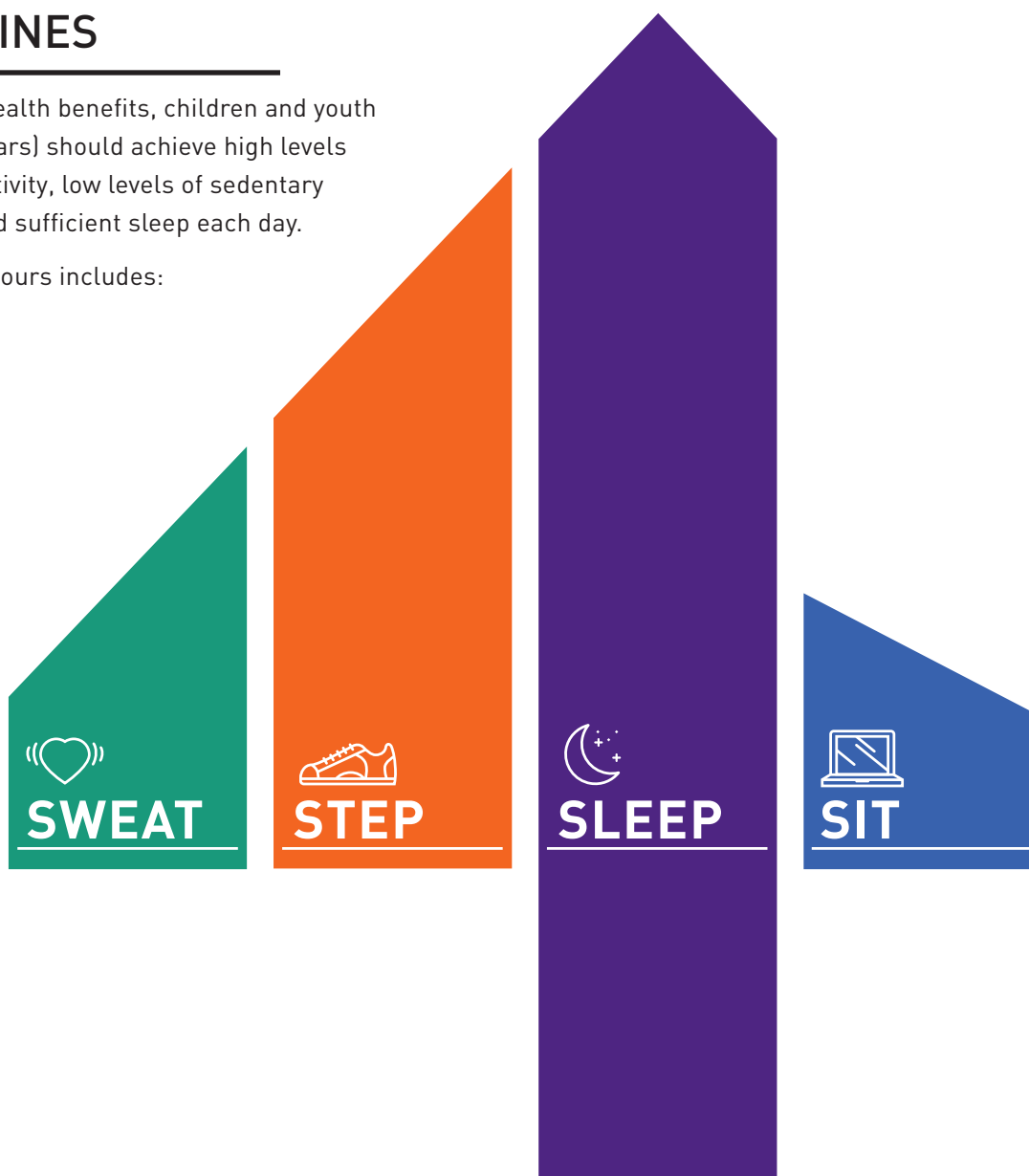
These guidelines may be appropriate for children and youth with a disability or medical condition; however, a health professional should be consulted for additional guidance.

The specific guidelines and more details on the background research informing them, their interpretation, guidance on how to achieve them, and recommendations for research and surveillance are available at [www.csep.ca/guidelines](http://www.csep.ca/guidelines).

# 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.



# Overall Physical Activity

**70% of children aged 3 to 4** meet the recommendation of 180 minutes of daily activity at any intensity. However, as the guidelines change to 60 minutes of moderate- to vigorous-intensity physical activity per day for those aged **5 to 17**, **only 9%** are meeting the guidelines.<sup>2012-13 CHMS</sup>

DAILY BEHAVIOURS	SETTINGS & SOURCES OF INFLUENCE	STRATEGIES & INVESTMENTS
<p><b>B Organized Sport &amp; Physical Activity Participation</b></p> <ul style="list-style-type: none"> <li>According to parents, 77% of 5- to 19-year-olds participate in organized physical activities or sport.<sup>2014-15 CANPLAY</sup></li> <li>Less than 30% of 3- to 21-year-olds with severe developmental disabilities play team sports.<sup>51</sup></li> </ul> <p><b>D+ Active Play</b></p> <ul style="list-style-type: none"> <li>37% of 11- to 15-year-olds play outdoors for more than 2 hours each day.<sup>2013-14 HBSC</sup></li> <li>According to parents, 75% of 5- to 19-year-olds participate in unorganized physical activities or sports after school.<sup>2014-15 CANPLAY</sup></li> </ul> <p><b>D Active Transportation</b></p> <ul style="list-style-type: none"> <li>Only 25% of Canadian parents say their kids, aged 5 to 17, typically walk or wheel to and from school, while 58% say their kids are typically driven.<sup>Subsample of the 2014-15 PAM</sup></li> <li>Of kids aged 11 to 15, 24% walk to school and 2% bike.<sup>2013-14 HBSC</sup></li> </ul>	<p><b>D+ Physical Literacy</b></p> <ul style="list-style-type: none"> <li>44% of 8- to 12-year-olds meet the minimum recommended level of physical literacy.<sup>2011-16 CAPL</sup></li> <li>At least one study shows kids who have good motor skills at age 6 are more active during their leisure time at age 26.<sup>2015 ParticipACTION Report Card</sup></li> </ul> <p><b>B Sleep</b></p> <ul style="list-style-type: none"> <li>79% of 5- to 13-year-olds get the recommended 9 to 11 hours of sleep per night, and 68% of 14- to 17-year-olds get the recommended 8 to 10 hours per night.<sup>2012-13 CHMS</sup></li> <li>33% of Canadian children aged 5 to 13 and 45% of youth aged 14 to 17 have trouble falling asleep or staying asleep at least some of the time.<sup>2012-13 CHMS</sup></li> <li>43% of 16- to 17-year-olds are not getting enough sleep on weekdays.<sup>17</sup></li> <li>31% of school-aged kids and 26% of adolescents in Canada are sleep-deprived.<sup>17</sup></li> </ul> <p><b>F Sedentary Behaviours</b></p> <ul style="list-style-type: none"> <li>15% of children aged 3 to 4 meet the guideline of less than 1 hour of screen time per day; 24% of those aged 5 to 11 and 24% of those aged 12 to 17 meet the guideline of no more than 2 hours of screen time per day.<sup>2012-13 CHMS</sup></li> <li>High school students in Canada spend an average of 8.2 hours in screen-based sedentary behaviour each day.<sup>2012-2013 COMPASS</sup></li> </ul>	<p><b>C+ Family &amp; Peers</b></p> <ul style="list-style-type: none"> <li>79% of parents financially support their kids' physical activity.<sup>2010-11 PAM</sup></li> <li>36% of parents with 5- to 17-year-olds report playing active games with their kids.<sup>Subsample of the 2014-15 PAM</sup></li> </ul> <p><b>B School</b></p> <ul style="list-style-type: none"> <li>Three quarters of schools in Canada report using a physical education (PE) specialist to teach PE in their school.<sup>2015 OPASS</sup></li> <li>Schools report many facilities on-site including gymnasiums (94%), playing fields (88%), areas with playground equipment (71%) and bicycle racks (80%).<sup>2015 OPASS</sup></li> </ul> <p><b>A- Community &amp; Environment</b></p> <ul style="list-style-type: none"> <li>Among municipalities with more than 1,000 residents, 35% have a physical activity and sport strategy, 56% consider physical activity a high priority and 81% have a shared use agreement with school boards for facilities.<sup>2015 Physical Activity Opportunities in Canadian Communities survey</sup></li> <li>Less than 20% of parents report that crime, safety or poorly maintained sidewalks are an issue in their neighbourhood.<sup>Subsample of the 2014-15 PAM</sup></li> </ul> <p><b>B- Government</b></p> <ul style="list-style-type: none"> <li>The majority of provinces and territories reported increased or maintained funding to sport and physical activity for children and youth.</li> <li>2015 federal government Ministerial Mandate letters call out priorities related to sport, recreation and physical activity for Ministers of Sport and Persons with a Disability, Infrastructure and Communities, and Environment and Climate Change.<sup>191-194</sup></li> <li>Since 2013, the Public Health Agency of Canada has leveraged over \$34 million in non-governmental funding through its Multi-sectoral Partnerships Approach to increase the impact of federal programs aimed at increasing physical activity and healthy behaviours.</li> <li>In 2015-16, Sport Canada invested \$16 million in sport participation for children and youth.</li> </ul> <p><b>A- Non-Government</b></p> <ul style="list-style-type: none"> <li>The majority of NGOs and corporations report their level of investment to increase physical activity among children and youth has increased, or stayed the same.</li> <li>The Lawson Foundation's new Outdoor Play Strategy aims to increase children's opportunities for self-directed play outdoors and includes \$2.7 million in funding.</li> </ul>



The new **Canadian 24-Hour Movement Guidelines** recommend that kids aged 5–17 years should achieve high levels of physical activity, low levels of sedentary behaviour, and sufficient sleep each day.



Too little sleep can cause hyperactivity, impulsiveness and a short attention span.<sup>19,20</sup>



Only 9% of Canadian kids get the 60 minutes of heart-pumping physical activity they need each day.<sup>2012-13 CHMS</sup>



5-13 year olds need 9-11 hours of sleep per night and 14-17 year olds need 8-10 hours of sleep per night.<sup>134</sup> Consistent bed and wake-times are important for all age groups.

**The health benefits** that come with heart-pumping physical activity are reduced if children have poor sleep habits or engage in excessive sedentary behaviour. And well-rested children are not healthy if they are not getting enough activity.<sup>13</sup>

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**Active transportation** (e.g., walking or biking) and outdoor play increase exposure to sunlight, which helps regulate sleep patterns.<sup>18</sup>





# **Physical Activity, Sedentary Behaviour, and Sleep**

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**Our interdisciplinary research team** identifies and assesses Report Card indicators to determine grade assignments based on the best available data, research and key issue areas from the past year, all of which is included in the Full Report. Consideration is also given to trends over time and disparities related to age, sex, household income, etc.

The Full Report, available online only, includes background on our methodology and process, in-depth analyses, summaries of all key research, charts, figures and complete references.

Visit [www.participACTION.com/reportcard](http://www.participACTION.com/reportcard) to download the Full Report and other tools and resources.



ParticipACTION relies on its strategic partner to research, develop and communicate the Report Card:



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