



# Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health



## COVID-19 and Physical Activity and Sport Participation for School-Aged Children and Youth

February 4, 2021

**This guidance is intended for general pediatricians, primary care providers and other health-care professionals working with children and youth. It is based on known evidence as of January 18, 2021.**

### Impact of COVID-19 on Physical Activity

Regular physical activity is important for healthy growth and development, including mental health, bone health and cardiorespiratory fitness. Lack of physical activity in children and youth has been an increasing concern, and has been exacerbated due to the COVID-19 pandemic. A Canadian study<sup>1</sup> from April 2020 indicated that less than 5% of children and youth met the recommended guidelines for physical activity during the first month of the pandemic. This is a sharp decline from the already low 35-39% of children and youth who met the guidelines in previous years.<sup>2</sup>

#### Reviewing the Canadian 24-Hour Movement Guidelines

The Province of B.C. and the Public Health Agency of Canada recommend using the [Canadian 24-Hour Movement Guidelines for Children and Youth](#) (ages 5-17 years) as a reference, developed by the Canadian Society for Exercise Physiology.<sup>3</sup> It provides suggestions on physical activity, sleep, reducing sedentary behaviours and screen time for children and youth in a 24-hour period. Specifically with respect to physical activity, it recommends that children and youth spend:

- 60 minutes per day doing moderate-vigorous physical activity AND;
- incorporating vigorous physical activities and activities that promote muscle and bone strength three days per week.

**If you have fever, a new cough, or are having difficulty breathing, call 8-1-1.**



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Increased movement of any type is beneficial and progress towards these recommendations should be encouraged and celebrated.

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Examples of moderate-vigorous physical activity include active recreation (e.g., hiking, skateboarding), active transportation (e.g. cycling, brisk walking), and throwing/catching sports (e.g., baseball, football). Examples of vigorous physical activity include running, basketball and soccer. Muscle strengthening activities include lifting weights (or body-weight exercises), climbing stairs and/or riding a bike. Bone strengthening is accomplished with activities such as running, walking and jumping rope.

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## Resources to Promote Physical Activity

There are several online resources that families can refer to for safe and effective strategies to meet their children's need for physical activity. There are many opportunities to be physically active, both indoors and outdoors while staying safe during the COVID-19 pandemic.

- HealthLinkBC's [Physical Activity During COVID-19](#) webpage has several resources and links to help kids be active. These include links to sites that provide information aimed at improving gross motor skills such as throwing, jumping, kicking, etc. (i.e. physical literacy skills) that help children and youth continue to develop if they are unable to do other typical activities due to the risk of COVID-19 transmission. With appropriate precautions and physical distancing, some outdoor activities can continue during the pandemic; visit the B.C. [province-wide COVID-19 restrictions](#) webpage for more information on current restrictions on sports and extracurricular activities.
- Special Olympics British Columbia's [at-home resources for children with intellectual disabilities](#), the [Canadian Disability Participation Project](#) and [CHILD-BRIGHT Network COVID-19 Resources for Canadian Youth with Disabilities](#) has resources to help children and youth with disabilities stay active during the pandemic.

Primary care providers and pediatricians should have regular conversations with families about the importance of physical activity for all children and youth. It is important to recognize that families may experience unique challenges integrating physical activity into daily life. They may require creative and adaptive approaches to support them in achieving or working towards recommended physical activity guidelines.

## Sport Participation

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Organized youth sports continue to be an important activity for many children and youth across British Columbia. [viaSport](#) has developed provincial [Return to Sport](#) guidelines based on the provincial health officer's guidance and orders. Each provincial sport organization has developed a sport-specific approach and safety plan based on these guidelines. These include safety precautions, restriction of spectators and modified competition schedules. Generally, child and youth sports have been allowed to continue, albeit with various restrictions and modifications in place to



reduce the risk of transmission. Access to an overview of current restrictions for child and youth sport, as well as individual sport guidance and B.C. COVID-19 safety plans can be found on [viaSport's website](#) and [Active & Safe Central](#).

### Important Reminders to be Safe While Being Active

As with any social interaction during the pandemic, it is important to remind children, youth and families of the things they should do to reduce their risk of getting sick. For example, remind families that if a child or family member is feeling sick or unwell, they should stay at home and, do not attend organized sport or participate in activities with other children or families. Provide families with instructions for accessing and following public health's recommendations on [COVID-19 testing](#) and/or [self-isolation](#).

General recommendations include:

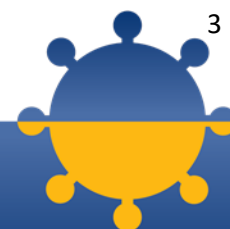
- Follow the advice of public health officials (e.g. medical health officers), current [provincial restrictions](#) and orders by the provincial health officer.
- Clean hands before and after participating in activities.
- Come to activities prepared:
  - Bring enough water in individual bottles. Bottles should not be shared with others.
  - Arrive in workout clothes
- Do not linger or socialize before or after activities.
- Wear a face covering indoors at all times when not exercising.
- Wear a face covering outdoors when unable to maintain physical distancing of three metres.<sup>i</sup>
- In B.C. there is no mandatory requirement for face covering while exercising, but face covering is recommended when physical distancing cannot be maintained (e.g., dressing rooms, hallways, staging areas).
- Practice safe respiratory etiquette such as coughing or sneezing into sleeve.
- Do not carpool with individuals who are not part of the same household.

### Exercising while infected with COVID-19

As with any viral illness, exercise should be approached with caution while sick or unwell. In general, with viral illness, moderate or vigorous exercise should be delayed if someone is systemically unwell (e.g., having fever, myalgias, or difficulty breathing). If someone feels significantly worse while exercising, they should stop.

COVID-19 can affect multiple organ systems including cardiac, respiratory, musculoskeletal and hematologic.<sup>4</sup> For adults, in the context of exercise, there is a particular concern of the possibility of sub-clinical myocarditis.<sup>5</sup> This has not been explored specifically in children.

<sup>i</sup> [viaSport Guidelines](#), based on [The Order of the Public Health Officer on Gatherings and Events](#) (January 8, 2021), recommends three (3) metres physical distancing during sport for children and youth.



There is no specific Canadian guideline for youth exercising during a COVID-19 infection. There are Canadian recommendations for adults who play sports ([Community & Athletic Cardiovascular Health Network<sup>5</sup>](#), [Canadian Olympic and Paralympic Sport Institute Network<sup>6</sup>](#)) and U.S. recommendations for children ([American Academy of Pediatrics<sup>7</sup>](#), [American College of Cardiology<sup>8</sup>](#)). Based mostly on consensus, expert opinion and emerging exploratory evidence, these recommendations state that, with an asymptomatic or mild infection of COVID-19, moderate or vigorous exercise should be avoided until the child/youth has been asymptomatic for seven to 14 days.

## Return to Activity Following COVID-19 Infection

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Return to activity/exercise following COVID-19 infection depends on severity and symptoms.

First, remind patients that they must continue to follow public health requirements regarding self-isolation.

The following considerations can be assessed when discussing a plan to return to activities/exercise:

- Severity and duration of illness experienced.
- Symptoms experienced: the impact of COVID-19 infections varies for different individuals.
- Underlying health conditions including respiratory and cardiac history.
- Level and intensity of play.
- Age of child. In general, children under 12 years of age have milder disease and participate in less intense levels of activity/exercise.
- A gradual return to activity typically involves gradual increases in intensity and duration of exercise over a period of about seven days (starting at about 60-70% effort). See example [infographic: Graduated return to play guidance following COVID-19 infection<sup>9</sup>](#).

Once the above have been taken into account, the following recommendations can be considered:

### If COVID-19 positive with no or mild symptoms

Instruct patients to follow the [guidance to self-isolate](#) as advised by public health. Generally, this means 10 days from onset of symptoms or 10 days from when they tested positive.

The following relates to exercise in any setting (home or group) and does not alter requirements for self-isolation.

- Recommendations, based on consensus and expert opinion<sup>9</sup>, indicate that there should be a minimum of a seven-day asymptomatic period before resuming moderate-vigorous exercise, even at home.
- Subsequently, a gradual return to exercise can be planned. Cough and other non-systemic symptoms can sometimes persist for longer periods of time. If these prolonged symptoms are mild and non-cardiac (e.g. absence of palpitations, chest pain, shortness of breath, unexplained tachycardia, or syncope), exercise can be gradually increased as tolerated.



- If mild physical activities are still a challenge 10 days after the start of symptoms, recommend to the child/youth or their family to schedule an appointment before increasing the level of activities. Particular attention may focus on history or signs of cardiac, respiratory, or musculoskeletal involvement. If medically appropriate, consider ordering an EKG.

If COVID-19 positive with severe COVID-19 infections (including hospitalizations and/or multi-system inflammatory syndrome in children (MIS-C))

With severe COVID-19 infections in children, there are greater concerns for the possibility of myocarditis and other cardiac effects. Patients may have specific instructions from the pediatric cardiology team. In general, patients with a history of myocarditis will need to avoid exercise for up to three to six months. If the cardiology team has not been involved, after the child is well, it is important to assess them prior to return to exercise. Particular attention may focus on history or signs of cardiac, respiratory, or musculoskeletal involvement. If medically appropriate, consider ordering an EKG and if ongoing concerns, consult a pediatric cardiologist. For more information on MIS-C, visit the BC Centre for Disease Control's [website](#).

## References

1. Moore SA, Faulkner G, Rhodes RE *et al*. Impact of the COVID-19 virus outbreak on movement and play behaviours of Canadian children and youth: a national survey. *International Journal of Behavioral Nutrition and Physical Activity* 17, 85 (2020).
2. [ParticipACTION Report Card on Physical Activity for Children and Youth \(2020\)](#) (Released June 2020).
3. Canadian Society for Exercise Physiology. [Canadian 24-Hour Movement Guidelines for Children and Youth](#).
4. MetzI, JD, McElheny K, Robinson JN *et al*. Considerations for Return to Exercise Following Mild-to-Moderate COVID-19 in the Recreational Athlete. *HSS Journal* 16, 102–107 (2020).
5. McKinney, J, Connelly KA, Dorian P, *et al*. COVID-19-Myocarditis and Return-to-play: Reflections and Recommendations from a Canadian Working Group. *Canadian Journal of Cardiology* 2020.
6. Canadian Olympic and Paralympic Sport Institute Network. [Return to Health and Performance following COVID-19 Infection](#). 2020.
7. [AAP: COVID-19 Interim Guidance: Return to Sports](#). (Last Updated 17/12/2020).
8. [American College of Cardiology \(ACC\): Dean, P. \*et al\*. Returning To Play After Coronavirus Infection: Pediatric Cardiologists' Perspective](#). (Last Updated 14/07/2020).
9. Elliott N, Martin R, Heron N, *et al*. Infographic. Graduated return to play guidance following COVID-19 infection. *British Journal of Sports Medicine* 2020; 54:1174-1175.

