

COVID-19 vaccine information for children (ages five to 11)

Reviewed by SickKids Staff | Last updated: July 27th 2022

Learn about the status of the COVID-19 vaccine for children five to 11 years of age and the benefits of getting the vaccine for children.

Looking for general information on COVID-19 vaccines. Visit the page on [COVID-19 vaccines general information](#).

Looking for information specific to children under five years of age? Visit the page on [COVID-19 vaccination for ages under five](#).

Looking for information specific to youth age 12+? Visit the page on [COVID-19 vaccine information for youth \(ages 12+\)](#).

Key points

- Vaccines against COVID-19 have been shown to be safe and effective.
- The Pfizer vaccine was approved for use in children five to 11 years of age in November 2021 and the Moderna vaccine was approved for children six to 11 years of age in March 2021.
- Canada's National Advisory Committee on Immunization (NACI) advises that the Pfizer vaccine is preferred for this age group and that the Moderna vaccine may be offered as an alternative.
- Children get a smaller dose of the vaccine. They will still need to get two doses.
- Side effects in younger children are similar to those seen in adults and older children.

What is the status of COVID-19 vaccines for children in Canada?

In November 2021, Health Canada approved the use of the Pfizer vaccine for children five to 11 years of age.

In March 2022, Health Canada approved the use of the Moderna vaccine in children six to 11 years of age.

In July 2022, Health Canada approved the use of the Moderna vaccine in children under age five.



What evidence is there that the vaccine is safe and effective for children?

Over 3,000 children aged five to 11 received the vaccine through the Pfizer clinical trial and no serious side effects have been detected in the ongoing study after many months of follow-up. The vaccine was shown to be 91 per cent effective against symptomatic COVID-19 with mild side effects like those seen in adults and older children. These side effects include arm tenderness, fatigue, headache, muscle pain, joint pain, chills and fever, which can also be seen with other vaccines recommended for children. Rare side-effects that have been seen in older teens and young adults are expected to be extremely rare in children. Read about the [clinical trial results in the New England Journal of Medicine](#).

In the Moderna trial in children aged six to 11, over 3,000 children received the vaccine and preliminary data did not report any safety concerns. Side-effects included injection site pain, headaches, tiredness, fever and muscle pain. The study showed that children had similar immune responses to adults aged 18 to 25 years old after receiving the vaccine, and an estimated efficacy against symptomatic COVID-19 of 88 per cent 14 days after the first dose. Read about the [clinical trial results in the New England Journal of Medicine](#).

Why should children get vaccinated if they do not get sick from COVID-19?

Although severe illness due to acute COVID-19 infection is less frequent in children compared to adults, children can still be hospitalized and even require ICU-level care due to COVID-19. Getting the vaccine can protect children from severe illness and hospitalization.

A proportion of children who contract COVID-19 may go on to develop multisystem inflammatory syndrome (MIS-C). While treatable and rare, approximately one in three children hospitalized with MIS-C will require ICU care. A study in the U.S. conducted in 2021 showed that the vaccine was highly effective in preventing the development of this serious condition in vaccinated youth (aged 12 to 18). The study showed that among the youth who were hospitalized with MIS-C, the vast majority were unvaccinated. This data bodes well for the

prevention of MIS-C in vaccinated children aged five to 11 for which confirmatory studies are underway.

While long COVID rates are expected to be lower in children compared with adults, the full spectrum of manifestations of long COVID in children is still being determined.

How can anyone be sure a vaccine developed so quickly is also safe?

Work on coronavirus vaccines has been ongoing for more than 10 years, due in part to the SARS-CoV-1 outbreak in 2003. It was important to develop the COVID-19 vaccine quickly because of how many people were dying and getting sick, and because of the disruptions to everyday life as a result of the pandemic. Even though the vaccines were developed quickly, all the usual steps for the approval of vaccines occurred, including clinical trials with the appropriate number of participants. Because of the worldwide collaboration and large amount of resources that were made available to develop a COVID-19 vaccine, as well as the large number of COVID-19 cases the clinical trials were able to happen quickly. This made it easier to tell quickly whether or not the vaccines worked to prevent cases of COVID-19. The vaccine was rapidly shown to be effective in protecting against COVID-19.

Are recent cases of hepatitis in children related to the COVID-19 vaccine?

Beginning in early April 2022, the World Health Organization has reported an increase of new hepatitis cases of unknown origin in children not caused by known hepatitis viruses, such as hepatitis A, B, C and E. Side-effects from the COVID-19 vaccines are not suspected, as the vast majority of affected children were too young and did not receive COVID-19 vaccination.

Do children under 12 years of age need one vaccination or two? Is a different vaccine dose used in younger children?

Children aged five to 11 years receive a two-dose schedule of a smaller Pfizer vaccine dose than the one used in people 12 and older (10 µg instead of 30µg). The National Advisory Committee on Immunization recommends that the second dose should be given at least eight weeks after the first dose. Children who turn 12 years before their second dose may receive an adult dose.

Children aged six to 11 receive a smaller Moderna vaccine dose (50µg instead of 100µg), four to eight weeks apart.

My child is turning 12 years old in 2022. Now that a vaccine is approved for children under 12 years of age, should I wait to vaccinate my child when they are 12 years old and eligible for the adult dose?

The first COVID-19 vaccine that is available for your child will be the best vaccine to get, as it will provide protection against COVID-19 to your child as soon as possible. Vaccine doses are based on age and the maturity of the immune system. The clinical trials (and real-world data since) showed the paediatric dose given to children aged five to 11 (a third of the dose given to people aged 12 and up), was effective and also resulted in fewer side-effects.

What if my child's weight is above average in their age group?

Vaccine doses are based on age and the maturity of the immune system, not weight. The clinical trials (and real-world data since) showed the paediatric dose given to children aged five to 11 (a third of the dose given to people aged 12 and up), was effective and also resulted in fewer side-effects.

How are COVID-19 cases trending among children?

The virus causing COVID-19 continues to circulate and can lead to hospitalization in all age groups, especially in people who are not vaccinated. Vaccination helps protect children from developing severe illness and hospitalization from COVID-19 and its complications. Further, children who develop COVID-19 can pass the virus on to other people, including vulnerable adults such as grandparents or immunocompromised individuals.

Can vaccination improve the physical and mental health of children?

[SickKids-led research](#) has shown a serious, sustained negative impact on the mental health of Ontario children, youth and their families due to the COVID-19 pandemic. Before the pandemic, a study showed that about 60 per cent of participants engaged in school sports and/or other extracurricular activities. During the pandemic, only 27 per cent participated in sports and 16 per cent in extracurriculars. These activities are known to boost physical and mental health. Vaccination will help return children to their regular activities and thus help improve the mental health and psychosocial well-being of children.

My child is afraid of needles. What can I do to help?

Some children have a very strong reaction to needles. If your child is worried about getting a needle, you can ask for special ways to support their vaccination, such as a longer appointment time or a private space for the injection. The CARD system (Comfort, Ask, Relax, Distract) may also help. It provides groups of strategies to reduce the pain, stress and worries associated with vaccinations to make the experience a more positive one. More information can be found at [AboutKidsHealth.ca/card](https://www.aboutkidshealth.ca/card). For children worried about pain, there are numbing creams and patches available at many pharmacies to help minimize needle discomfort.

What can I do for my child who is sensory-sensitive?

Sensory-sensitive vaccination clinics use some of the CARD strategies listed above to offer a calmer environment for each child, giving them as much time as they need and their own room to get the vaccine. Some clinics also offer sensory-sensitive appointments, offering dimmed lights, less noise and a slower pace, as well as privacy.

Can the COVID-19 vaccine affect puberty or fertility in children?

There is no evidence and no scientific reason to believe that the COVID-19 vaccine can affect puberty and fertility in children. Clinical trials of those who have been vaccinated in the general population have shown that the vaccine is very safe.

What are the vaccine's side-effects in children under 12?

Clinical trial data (and real-world data since) show that the Pfizer vaccine is well-tolerated in children aged five to 11 years old, with side-effects generally comparable to side-effects your child may have experienced after other childhood vaccinations. These may include feeling tired, chills, muscle aches and pains, and a sore or red arm. The majority of children had very mild side-effects or none at all. Typically these side-effects will go away after a few days and there are no long-term side-effects reported.

What about reports of vaccine side-effects like myocarditis and pericarditis in younger people?

Myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the heart's outer lining) are rare and mostly seen in older adolescents and young adults. Both are extremely rare in relation to the COVID-19 vaccine. There were no reports of myocarditis or pericarditis in the Pfizer clinical trial for children five to 11 years old. More than 10 million children in Canada

and the U.S. have received the vaccine with very few reports of these conditions, which are generally mild and benign. Myocarditis and pericarditis actually occur far more often after COVID-19 infection than after being vaccinated against COVID-19. Myocarditis and pericarditis occurring after COVID-19 vaccination is a generally mild and benign condition. There are multiple surveillance mechanisms in place in order to monitor any potential post-vaccination risk of these conditions over time.

The National Advisory Committee on Immunization (NACI) recommends that the Pfizer vaccine should be preferred over the Moderna vaccine for children aged five to 11. Although the risk of myocarditis or pericarditis with the Moderna in children 6 to 11 years of age is currently unknown, the risk was found to be higher in older individuals than with the Pfizer vaccine.

Additional information about [myocarditis and pericarditis after COVID-19 vaccination](#) is available in this article from the University of Waterloo.

Is vaccination safe for children with food allergies?

Yes. There is no reason a child with a food allergy of any kind should not be vaccinated. Children with a history of allergy to foods, oral drugs, insect venom or environmental allergies can receive COVID-19 vaccines without any special precautions. If you are concerned about the possibility of an allergic reaction to any of the [vaccine ingredients](#), please consult your child's primary health-care provider.

Does the vaccine work against the Omicron variant?

The Omicron variant is known to be much more transmissible than previous strains of COVID-19, but vaccination still protects against serious illness and hospitalization. The more people who are vaccinated against COVID-19, the more we can protect ourselves and prevent new variants from emerging and spreading in the community.

Is the Omicron variant of COVID-19 causing more severe illness than previous strains?

Most children and youth who have COVID-19 experience mild illness and do not require hospitalization. Those who are hospitalized typically require support for fever, dehydration and breathing difficulties. The increase in hospitalizations of COVID-positive patients is likely the result of widespread community transmission of COVID-19 due to the Omicron variant. While rare, some children and youth can get seriously ill after contracting COVID-19 and this is something we are monitoring closely.

How effective is one dose of the vaccine against COVID-19?

The COVID-19 vaccine is currently a two-dose series for children aged five to 11. While one dose provides partial protection in young individuals, it takes both doses to be considered fully vaccinated and optimize the protection provided by vaccination.

Does the rapid spread of the Omicron variant mean children should receive their two vaccine doses at an interval shorter than the eight weeks recommended when it was approved in Canada?

The National Advisory Committee on Immunization (NACI) currently recommends an eight-week interval, but parents may choose to vaccinate their children at a shorter interval (minimum 21 days) if they provide informed consent. If you are considering vaccinating your child at a shorter interval because of an underlying health condition or other reason, please discuss the matter with your child's primary health-care provider. See [NACI's updated recommendations on the use of COVID-19 vaccines in children 5 to 11 years of age](#).

Is there advice you would give to families with children who are immunocompromised or have disabilities and medical complexity?

Vaccination remains the best layer of protection against COVID-19 for everyone. It is important your child receives the vaccinations for which they are eligible. In Ontario, certain immunocompromised populations, including children aged five to 11, are eligible for a primary series of three doses. Read more about [Ontario's third-dose recommendations](#). You can also talk to your child's doctor or book an appointment with the [SickKids COVID-19 Vaccine Consult Service](#).

What is the current evidence for vaccination for COVID-19 in children with disabilities and medical complexity?

Current evidence suggests that children with disabilities and medical complexity may be at an increased risk for severe illness or complications from COVID-19 based on their underlying condition making vaccination and prevention of COVID-19 especially important. The Pfizer COVID-19 vaccine is safe and effective for children with a wide variety of different medical conditions and complexities. Unexpected or severe side-effects to the vaccine are very rare. If you have specific questions about your child's medical condition and the COVID-19 vaccine,

talk with your child's doctor or book an appointment with the [SickKids COVID-19 Vaccine Consult Service](#).

What special considerations are there when vaccinating children with disabilities and medical complexity? Where can family caregivers find additional resources?

Families should consider different strategies that have worked well with previous immunizations and create a plan to set their child up for success. Some questions to consider when scheduling your child's vaccination appointment include:

- Does my child require a calmer environment? (i.e., privacy, quiet)
- If applicable, is the vaccination clinic wheelchair accessible?
- Which distraction techniques are typically most effective for my child (i.e., deep breathing, counting, watching a favourite video, stress balls)
- What position will be most comfortable for my child during their vaccination (i.e., comfort holding, sitting with a caregiver, lying down)

If family caregivers have questions related to vaccinating children with disabilities and medical complexity, you should first reach out to your child's primary care physician. For additional questions after speaking with your child's physician, you can book an appointment with the [SickKids COVID-19 Vaccine Consult Service](#).

Why do immunocompromised children benefit from additional vaccine doses?

Similar to adults and with any other vaccine, the immune response to COVID-19 vaccines in children who are immunocompromised is not as strong as in people who are not immunocompromised. Therefore, they require additional vaccine doses to achieve appropriate protection. As immunocompromised people are at higher risk of complications and severe outcomes when infected with COVID-19, they are eligible for a higher number of doses and are strongly recommended to receive them all to maximize protection from COVID-19.

Due to an underlying health condition, my child is at increased risk from side effects following any treatment or vaccination. What options are available to address this specific concern for my child?

If you have specific concerns of this nature, it's always best to speak with your primary health-care provider. Another option is to make an appointment with the [SickKids COVID-19 Vaccine Consult Service](#) to speak with a SickKids nurse. Additionally, if your child requires additional support or specialized care when receiving the COVID-19 vaccine, please email vaccine.consults@sickkids.ca and include the following information in your message:

- Name
- Date of birth
- Telephone number
- Describe the considerations or accommodations that need to be in place for the patient

Should I be concerned that if my child takes an mRNA vaccine it could impact their eligibility for future specialized treatments for their condition?

No. The vaccine will have no impact on future specialized treatments.

I cannot decide if vaccinating my child is the right thing to do. Who can I talk to?

Contact your child's primary care provider or the SickKids COVID-19 Vaccine Consult Service, a by-appointment phone service for Ontario residents that provides a safe, judgment-free space to have an open conversation about the COVID-19 vaccine with a paediatric registered nurse. Book an appointment online at sickkids.ca/vaccineconsult or by calling 1-888-304-6558.

For general information on COVID-19, please visit the [COVID-19 learning hub](#).

Information on how to prepare and support your child with their COVID-19 vaccine

CARD System Learning Hub

<https://www.aboutkidshealth.ca/card>

Needle pokes: Reducing pain in children aged 18 months or over

<https://www.aboutkidshealth.ca/Article?contentid=990&language=English>

Needle pokes: Reducing pain with comfort positions and distraction

<https://www.aboutkidshealth.ca/Article?contentid=3629&language=English>

Needle pokes: Reducing pain with numbing cream

<https://www.aboutkidshealth.ca/Article?contentid=3627&language=English>

Pain relief: Comfort kit

<https://www.aboutkidshealth.ca/Article?contentid=1258&language=English>

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Please visit [AboutKidsHealth.ca](https://www.aboutkidshealth.ca) for more child health information.

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