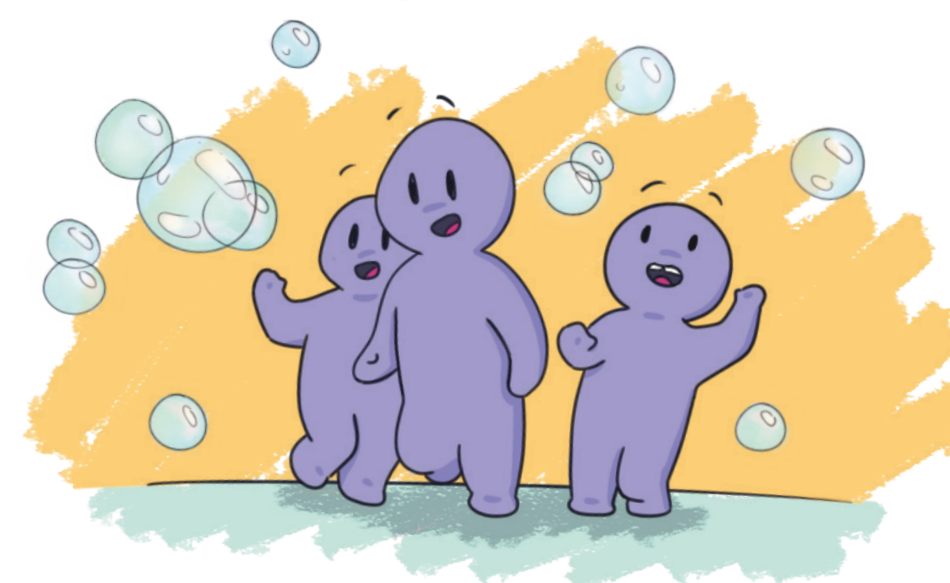


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## FREQUENTLY ASKED QUESTIONS

# Covid-19 mRNA Vaccines for Children



### + What vaccine will children aged 5 to 11 years get?

The Pfizer-BioNTech (Comirnaty®) Covid-19 mRNA vaccine is approved for children aged 5 to 11.<sup>1</sup> Health Canada is reviewing the Moderna (Spikevax®) vaccine for approval for children aged 6 to 11.<sup>2</sup>

### + What are the recommendations for children aged 5 to 11?

The National Advisory Committee on Immunization (NACI) recommends 2 doses of a Pfizer vaccine for children. NACI recommends 8 weeks between doses, which may give better long-term protection.<sup>3</sup> Children who have had Covid-19 infections can be vaccinated.<sup>3</sup> Children who have had Multisystem Inflammatory Syndrome (MIS-C) should wait to be vaccinated for at least 90 days after diagnosis.<sup>3</sup>

Find the NACI 🇨🇦 guidance here:

<https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/pfizer-biontech-10-mcg-children-5-11-years-age/pfizer-biontech-10-mcg-children-5-11-years-age.pdf>

### + Will children aged 5 to 11 get the same dose as teens and adults?

No. The Pfizer vaccine for children uses a lower dose.<sup>1</sup> The vaccine used for teens and adults has 30 micrograms of mRNA.<sup>3</sup> The vaccine for children has 10 micrograms.<sup>1</sup> Smaller vaccine doses are often used for children.<sup>4</sup> They work well because children have stronger immune responses than adults.<sup>4</sup>

### + Should children who weigh more, or who are nearly 12, get bigger doses?

No. Children who weigh more or are nearly 12 do not need bigger doses. Vaccine doses are not based on weight.<sup>4</sup> Children turning 12 between doses can get a 10 mcg or 30 mcg dose for dose 2.<sup>3</sup>

### + What is in the Pfizer Covid-19 vaccine?

The Pfizer vaccine contains mRNA. mRNA instructs your cells to make the Covid-19 spike protein.<sup>5</sup> A lipid (fat) envelope protects the mRNA while it is getting into cells.<sup>5</sup> The Pfizer vaccine for children has slightly different sugars and salts, so it can be stored in the fridge longer.<sup>1</sup> The vaccine does not contain any Covid-19 virus.<sup>6</sup> It cannot cause a Covid-19 infection.<sup>6</sup>

### + Is mRNA technology safe?

Yes. Scientists have been studying mRNA since the 1960s.<sup>5</sup> Scientists around the world worked together to develop Covid-19 mRNA vaccines.<sup>5,6</sup> Covid-19 mRNA vaccines were tested in clinical trials.<sup>5,6</sup> Trial results were reviewed by regulatory bodies before the vaccines could be used.<sup>6</sup> Strong vaccine safety systems monitor for rare vaccine side effects.<sup>5,6</sup> As of October 2021, more than 1.4 billion doses of Pfizer Covid-19 vaccines have been safely delivered around the world.<sup>1</sup>

### + Do Covid-19 vaccines work for children aged 5 to 11?

Yes. In Pfizer trials, children had a strong immune system response to the vaccine.<sup>1</sup> Children who got 2 doses of the Pfizer Covid-19 vaccine had a 91% lower chance of getting sick with Covid-19.\*<sup>1</sup>

\* Vaccine efficacy is the reduction in risk of disease in people who are vaccinated compared with people who are not vaccinated. The Pfizer vaccine trial included ~2500 children. The rate of symptomatic Covid-19 infection in children who got vaccinated was ~2 per 1,000. The rate of Covid-19 infection in children who got a placebo (salt water) was ~25 per 1,000. Vaccine efficacy is 91%.

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✦ **What are the common side effects of Covid-19 mRNA vaccines in children?**

Common side effects are a sore or red arm, tiredness, and chills.<sup>1,2</sup> These side effects go away after a few days.<sup>1,2</sup> In the Pfizer trials, many children had mild side effects after getting the vaccine.<sup>1</sup>

✦ **What are the serious side effects of Covid-19 mRNA vaccines in children?**

No new serious side effects were seen in the Pfizer vaccine trials for children. Serious side effects, like anaphylaxis (a severe allergy), after Covid-19 vaccines are rare.<sup>6,7</sup> For every 1 million Pfizer doses given to people aged 12 and older, there are 2-8 cases of anaphylaxis (0.0002 - 0.0008%).<sup>2</sup> Children with allergies to foods, drugs, insect stings, or other vaccines can safely get Covid-19 mRNA vaccines.<sup>2</sup>

Inflammation of the heart (myocarditis) and of the sac around the heart (pericarditis) can happen rarely after Covid-19 vaccines.<sup>2,8</sup> These conditions are more likely for young males after dose 2.<sup>8</sup> They are usually mild and are treated with rest and anti-inflammatory medicines.<sup>8</sup> These conditions happen **far more often after a Covid-19 infection.**<sup>9</sup> For more, visit: [https://uwaterloo.ca/pharmacy/sites/ca.pharmacy/files/uploads/files/myocarditis\\_and\\_pericarditis\\_after\\_covid-19\\_vaccines.pdf](https://uwaterloo.ca/pharmacy/sites/ca.pharmacy/files/uploads/files/myocarditis_and_pericarditis_after_covid-19_vaccines.pdf)

✦ **What are the long-term side effects of Covid-19 mRNA vaccines in children?**

Long-term side effects are not expected from Covid-19 mRNA vaccines.<sup>10</sup> Vaccine side effects tend to happen in the first 6 weeks. mRNA vaccines have been studied in humans since 2013 with no known long-term effects.<sup>5,10</sup> The mRNA in the Covid-19 vaccine is broken down by the body in 2 to 3 days.<sup>6</sup> The spike protein may stay in the body for up to 2 to 3 weeks.<sup>6</sup> There have been reports of short-term menstrual cycle changes,<sup>11</sup> but vaccines **do not** impact fertility, genes (DNA), or hormone levels.<sup>6,12</sup>

✦ **How can I support a child who is anxious about vaccines?**

Numbing skin patches or creams from a pharmacy can help children worried about pain. The CARD (Comfort, Ask, Relax, and Distract) system may also help: <https://www.aboutkidshealth.ca/card>. Guardians can talk with their healthcare team to make a plan for children with complex needs. For more tools, visit: [https://caringforkids.cps.ca/uploads/handout\\_images/painreduction\\_kidsandteens\\_e.pdf](https://caringforkids.cps.ca/uploads/handout_images/painreduction_kidsandteens_e.pdf) and <https://www.yummymummyclub.ca/health/it-doesnt-have-to-hurt-bc>.

✦ **How can I support a child with a disability or specific needs?**

Some children need support to access Covid-19 vaccines.<sup>13</sup> Guardians and children can speak with their healthcare team to make a plan (e.g., a longer appointment or a quiet space<sup>13</sup>), as needed.



**What are the risks of Covid-19 infection in children?**

Covid-19 infection can cause serious illness and death in **any** child.<sup>1,13</sup> Covid-19 can cause myocarditis/pericarditis.<sup>1,9</sup> Multisystem Inflammatory Syndrome (MIS-C) is most common in children aged 5 to 11.<sup>13</sup>

We are still learning about Long Covid.<sup>1,14</sup> In early studies, 1 to 4 out of every 100 children with a Covid-19 infection had lasting symptoms (1% to 4%).<sup>15</sup> Symptoms include tiredness, headache, sore throat, and loss of smell.<sup>15</sup> Children can get Long Covid even after a mild illness.<sup>1,14,15</sup>



**What are the benefits of Covid-19 vaccination for children?**

Most people are expected to be exposed to Covid-19 within a year. Unvaccinated people are much more likely to get Covid-19. Vaccines will protect children from getting sick with Covid-19. In teens and adults, vaccines lower the risk of hospitalization, death, Long Covid, and spreading Covid-19 to others.<sup>1,2,16,17</sup>

<sup>1</sup> Pfizer. (2021). US FDA VRBPAC Briefing Document.

<sup>2</sup> BusinessWire. (2021). Moderna Files for Authorization of childrens vaccine.

<sup>3</sup> NACI. (2021). Covid-19 Vaccine Recommendations For Children.

<sup>4</sup> ImmunizeBC. (2021). Vaccine FAQs: Vaccine dose adult vs baby.

<sup>5</sup> Dolgin E. (2021). *Nature*, 597:318-24. The tangled history of mRNA vaccines.

<sup>6</sup> CDC. (2021). Understanding mRNA Covid-19 vaccines.

<sup>7</sup> Government of Canada. (2021). Covid-19 vaccine side effects.

<sup>8</sup> Sick Kids. (2021). Myocarditis and pericarditis after Covid-19 vaccines v3.3.

<sup>9</sup> Boehmer TK et al. (2021). *MMWR*, 70(35):1228. Association between Covid-19 and Myocarditis.

<sup>10</sup> ImmunizeBC. (2021). Covid-19 vaccine long-term side effects.

<sup>11</sup> Male V. (2021). *BMJ*, 374:n2211. Menstrual changes after Covid-19 vaccines.

<sup>12</sup> CFAS. (2021). Guiding Principles for COVID-19 Vaccination in the Fertility Patient.

<sup>13</sup> Tinker SC et al. (2021). *Pediatrics*, 148(4):e2021053190. Important Considerations for Covid-19 Vaccination of Children with Developmental Disabilities.

<sup>14</sup> Havers F. (2021). VRBPAC Meeting October 26, Epidemiology of COVID19 in Ch.

<sup>15</sup> Razak F et al on behalf of the Ontario Science Table. (2021). Long Covid Brief.

<sup>16</sup> Antonelli M et al. (2021). *Lancet Infect Dis*, DOI 10.1016/S1473-3099(21)00460-6.

Risk factors and disease profile of post-vaccination.

<sup>17</sup> CDC. (2021). Science Brief: Covid-19 Vaccines and Vaccination.

