

# COVID-19 vaccine: Myths vs Facts

## MYTH

## FACT

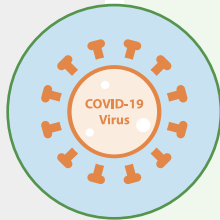
**The COVID-19 vaccine is not safe because it was rapidly developed and tested.**



The Pfizer/BioNTech and Moderna COVID-19 vaccines have proven to be safe.<sup>1,2</sup> They are authorized for use by Health Canada and many other organizations around the world and were tested for safety and effectiveness on thousands of people.<sup>3,4,5</sup>

The vaccines were approved quickly because Health Canada prioritized the administrative and organizational process of vaccine authorization. The safety requirements in clinical trials for the COVID-19 vaccine were just as strict as the regular process for any other vaccine. [Learn more](#) about Health Canada's vaccine approval process.<sup>6,7</sup>

**I don't need the vaccine because I already had COVID-19.**



Even if you have had COVID-19, it is important that you receive the vaccine. There are severe health risks associated with COVID-19 and re-infection with COVID-19 may be possible.<sup>8</sup>

At this time, experts do not know how long someone is protected from getting sick again after recovering from COVID-19.<sup>8</sup> The immunity developed after having an infection, called natural immunity, is different from person to person. It is unclear how long immunity from a COVID-19 infection will last.<sup>9</sup>

**The COVID-19 vaccine has severe side effects.**



Some mild symptoms are common after you get the COVID-19 vaccine, such as pain at the injection site, muscle soreness or headache. These are normal signs that your body is building protection.<sup>1</sup> Severe side effects are very rare.<sup>1</sup> To date, no major safety concerns have been identified by Health Canada.<sup>1</sup>

Visit Health Canada's webpages for [Pfizer-BioNTech](#) or [Moderna](#) vaccines to find more information on the side effects of each vaccine.

**I won't need to wear a mask or distance myself from others after I get the COVID-19 vaccine.**



Even after receiving the vaccine, it is important that you continue to follow public health measures until most of the population is vaccinated.<sup>10</sup>

While the vaccine will help protect you from becoming severely sick with COVID-19 symptoms, it is possible that you can still spread the virus even after being fully vaccinated. Researchers are still studying what protection the COVID-19 vaccines provide, including whether you can have an asymptomatic infection (no symptoms) and spread the virus to others even though you have been vaccinated. While you may have received the vaccine, there are many others in our community waiting to be vaccinated who are still susceptible to the virus. Continuing to follow public health measures after vaccination will help to protect other members of our community.<sup>8,10,11</sup>

Also, after vaccination it takes time for your body to build immunity. You can expect very good protection a few weeks after the first dose of vaccine, and the most optimal protection a few weeks after the second dose.<sup>11</sup>

## MYTH

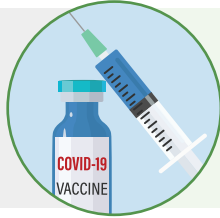
## FACT

**The COVID-19 vaccine will alter my DNA.**



Injecting mRNA into your body will not interact or change your DNA.<sup>12, 13</sup> The mRNA from a COVID-19 vaccine does not enter the nucleus of your cells, which is where our DNA is kept. After your body reads the instructions that mRNA provides, your body breaks down and expels the mRNA quickly.<sup>12, 13, 14</sup>

**COVID-19 vaccines were developed using fetal tissue.**



The Pfizer and Moderna vaccines were not developed using fetal tissue.<sup>1</sup>

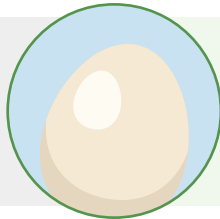
Visit Health Canada's webpages for [Pfizer-BioNTech](#) or [Moderna](#) vaccines for a list of vaccine ingredients.

**COVID-19 vaccines cause infertility or miscarriage.**



The Pfizer/BioNTech and Moderna vaccines have not been linked to infertility or miscarriage. There is no evidence suggesting that fertility problems are a side effect of any vaccine.<sup>1</sup>

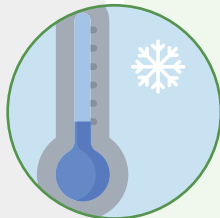
**I am allergic to eggs so I shouldn't get the COVID-19 vaccine.**



The Pfizer/BioNTech and Moderna vaccines do not contain eggs. Eggs were not used in the development or production of either vaccine.<sup>15</sup>

If you have a severe allergy, consult with your family doctor before getting the vaccine.

**COVID-19 vaccines must be stored at low temperatures because of preservatives.**



The Pfizer/BioNTech and Moderna vaccines do not contain preservatives.<sup>15</sup> mRNA in the vaccines is fragile and the cold temperature keeps them stable and safe.<sup>16</sup>

Visit Health Canada's webpages for [Pfizer-BioNTech](#) or [Moderna](#) vaccines for a list of vaccine ingredients.

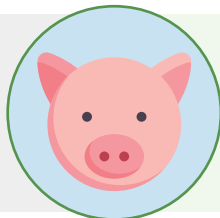
**After getting a COVID-19 vaccine, will I test positive for COVID-19 on a viral test?**



The Pfizer/BioNTech and Moderna vaccines will not cause you to test positive on viral tests, which are used to see if you have a current infection. You may test positive on some antibody tests.<sup>12</sup>

The COVID-19 vaccine does not contain a live virus.<sup>12</sup>

**COVID-19 vaccines contain pork products.**



The Pfizer/BioNTech and Moderna vaccines do not contain pork products.<sup>15</sup>

# References

1. "Pfizer-BioNTech COVID-19 vaccine: What you should know" Health Canada, The Government of Canada, January 8, 2021. <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/pfizer-biontech.html>.
2. "Safety of COVID-18 Vaccines", COVID-19, Centers for Disease Control and Prevention, February 18, 2021, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>.
3. "COVID-19 vaccines", World Health Organization, February 22, 2021, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines>.
4. Thorlund, Kristian et al. "A real-time dashboard of clinical trials for COVID-19." *The Lancet*. Digital health vol. 2,6 (2020): e286-e287. doi:10.1016/S2589-7500(20)30086-8 (<https://www.covid-trials.org/>).
5. "The COVID-19 candidate vaccine landscape and tracker", Draft landscape and tracker of COVID-19 candidate vaccines, World Health Organization, February 22, 2021, <https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>.
6. "Vaccine development and approval in Canada" Government of Canada, December 8, 2020, <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/development-approval-infographic.html>.
7. Ministry of Health, *COVID-19 Vaccine Approval Process and Safety*, (Ontario, 2020).
8. "Frequently Asked Questions about Vaccination", COVID-19, Centers for Disease Control and Prevention, February 19, 2021, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>.
9. Dan, Jennifer M et al. "Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection." *Science (New York, N.Y.)* vol. 371,6529 (2021): eabf4063. doi:10.1126/science.abf4063).
10. "What you need to know about the COVID-19 vaccine for Canada" Health Canada, The Government of Canada, November 25, 2020. <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/awareness-resources/know-vaccine.html>.
11. "Recommendations on the use of COVID-19 vaccines", Government of Canada, January 12, 2021, <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html>.
12. "Myths and Facts about COVID-19 Vaccines." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, February 3, 2021. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>.
13. "Understanding mRNA Vaccines", COVID-19, Centers for Disease Control and Prevention, December 18, 2020, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html>.
14. "COVID-19 mRNA vaccines", Government of Canada, December 11, 2020 (<https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/type-mrna.html>).
15. "Pfizer-BioNTech- General Information" COVID-19, Centers for Disease Control and Prevention, January 25, 2020, (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Pfizer-BioNTech.html>).
16. Ministry of Health, *COVID-19: Vaccine Storage and Handling Guidance – Pfizer-BioNTech and Moderna COVID-19 Vaccines*, (Ontario, 2021).