

mRNA COVID-19 Vaccines: Some Facts

There are two **messenger RNA (mRNA)** vaccines that have been approved by Health Canada to fight COVID-19: **Pfizer-BioNTech** and **Moderna**. You need two shots to have 95% immunity. Eventually these will be offered to all Canadians. There will be different types of vaccines in the future.

This handout is to provide **accurate medical information** to help you make an **informed decision**. It has been reviewed by doctors. This is the most up to date information as of March 2021, and it will be updated as needed.

How do messenger RNA (mRNA) vaccines work?

Like most vaccines, COVID-19 vaccines help us make antibodies to help fight an infection. COVID-19 vaccines use **messenger RNA (mRNA)**. mRNA are molecules that carry messages to the part of our cells that make proteins. In this case, mRNA make proteins found on COVID-19. Once this COVID-19 protein is made, your body learns to kill it by making antibodies to it. In the future, if your body ever sees the proteins from COVID-19, the antibodies will attack these and kill the virus quickly. This is how the vaccine protects you.



It is important to remember: Our bodies get rid of mRNA after it is used and it does not stay in our body for long. Also, **the mRNA cannot change our DNA**.



To learn more visit:

<https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/type-mrna.html>

What are the vaccines made of?

There are medical and non-medical ingredients in the vaccines. Some of the non-medical ingredients are water and sugars. **The vaccines do not have any mercury, fetal cells, formaldehyde, blood products, pork, animal products, or aluminum.**



To learn more visit:

1. <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/pfizer-biontech.html>
2. <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/moderna.html>

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What are the side effects?

The common side effects of these COVID-19 vaccines are similar to those of other vaccinations (like the flu shot). A lot of people get pain at the injection site, tiredness, headache, muscle/joint pain, fever, or chills. Some people may get an allergic reaction. This is why you will have to wait 15-20 minutes in the waiting area after getting your shot. If you get an allergic reaction or other rare side effects, speak to a medical professional.



To learn more visit:

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_about_vaccines.pdf

Who should not get these vaccines?

It is recommended the following groups do not get the vaccines:

- If you have an allergy to any ingredient of the vaccine
- Anyone who is sick
- If you got another vaccine in the past 14 days
- Children under the age of 16 for Pfizer-BioNTech and children under the age of 18 for Moderna vaccine. They were not included in the studies, but we will have more information soon.



To learn more visit:

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_information_sheet_pfizer-biontech.pdf

You may still be able to get the vaccine and should speak to your healthcare provider if you are:

- Pregnant
- Breast-feeding
- Immunocompromised
- Have a bad allergy to another vaccine, food, or drug
- Think you have an allergy to the COVID-19 vaccine ingredients



To learn more visit:

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_vaccination_recommendations_special_populations.pdf