

# COVID-19 mRNA VACCINES

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## Pfizer and Moderna

**COVID-19** - Is a viral infection that mainly affects the lungs. Some people may have a mild illness while others may get very sick. The virus can also hurt the lungs, heart, brain and other organs, increasing the risk of long-term health effects. Some people are more likely to get COVID-19 because of where they live or work.

### mRNA COVID-19 Vaccines

- **Pfizer's** vaccine can be given to children who are 5 years of age and older
- **Moderna's** vaccine can be given to people 6 years of age and older
- The Pfizer mRNA vaccine is recommended for ages 5 to 29 due to a possible elevated risk of myocarditis/pericarditis in younger ages when receiving the Moderna vaccine

**All mRNA vaccines require two doses for full immunization.** The mRNA vaccines provide strong protection against COVID-19 two weeks after receiving your first dose.

The same mRNA COVID-19 vaccine should be offered for the second dose and booster/third dose. However, if it is not available in the clinic, a different mRNA vaccine is considered safe and effective and may be offered. Children 5 to 11 are recommended to receive paediatric Pfizer vaccine. Ages 12 to 29 are recommended to receive Pfizer vaccine. Individuals ages 6 to 29 are able to receive Moderna vaccine with informed consent.

Health Canada has approved the Pfizer and Moderna mRNA vaccines, which were tested in large clinical trials to make sure that they are safe and effective. Billions of people around the world have been vaccinated against COVID-19.

The vaccines are safe for seniors, children five and up, pregnant individuals and people with stable health conditions such as diabetes and high blood pressure. People with stable hepatitis B, C or HIV may receive COVID-19 vaccines.

People with food, insect bite, medication or environmental allergies can get the vaccine if they do not have an allergy to any of the vaccine ingredients. If you have allergy concerns, we recommend reviewing the list of non-medical ingredients in the vaccine in advance or speaking with your family healthcare provider.

No vaccine is perfect, and you may still get COVID-19 after vaccination. Vaccination is very effective in reducing the risk of severe illness, hospitalization and death from COVID-19. Currently, there is limited information on how long the vaccine's protection will last. Booster doses of mRNA vaccines are recommended for everyone 12 years of age and older.

### How the mRNA Vaccines Work

The coronavirus that causes COVID-19 disease has a "spike protein" that is only found on the virus surface. The vaccines give instructions to cells to make the spike protein so that the body can learn to recognize the virus. These instructions are called messenger RNA (mRNA). The body then makes antibodies against the spike protein to protect us from getting sick if we are exposed to the actual virus.

### Side effects and risks

Some people may have side effects from the vaccines. Common side effects include:

- redness, soreness or swelling on the arm where you got the shot
- muscle and joint pain
- tiredness
- chills
- headache
- mild fever

**The vaccines cannot cause COVID-19.** The vaccines do not contain the SARS-CoV-2 virus responsible for the disease. Side effects usually last one to three days and can be more common after the second dose. The side effects can be a sign that the vaccine is working and your body is

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developing an immune response. Rarely, serious allergic reactions (anaphylaxis) can occur. Allergic reactions can be treated and are usually temporary. Serious side effects are rare.

Call your doctor or nurse practitioner or go to the nearest emergency department if you develop any of the following adverse reactions within three days of receiving the vaccine:

- hives
- swelling of your face or mouth
- trouble breathing, very pale colour and serious drowsiness
- high fever (over 40°C or 104°F)
- convulsions or seizures
- other serious symptoms (e.g., “pins and needles” or numbness)

**IMPORTANT:** Seek medical attention if you develop chest pain, shortness of breath or palpitations following immunization (symptoms of myocarditis or pericarditis).

Delay vaccination if you have a fever or COVID-19 symptoms. At this time, it is recommended that children receive the paediatric COVID-19 vaccine at least 14 days before or after another vaccine.

There have been rare reports of myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the tissue surrounding the heart) following vaccination with an mRNA vaccine:

- Cases were more commonly reported after the second dose
- Symptom onset was typically within several days after vaccination
- Cases were mainly adolescents and young adults, and more often males compared to females
- Many cases experienced mild or temporary illness, responded well to rest and conservative treatment and symptoms improved quickly

## **Speak with a health care provider first, if ...**

Healthcare provider consultation is strongly encouraged before COVID-19 vaccination if you have an autoimmune condition or are immunocompromised due to disease or treatment.

## **Do not get this vaccine, if you:**

- have known severe allergies/reactions to any vaccine ingredients, including polyethylene glycol or tromethamine (in Moderna/paediatric Pfizer vaccine only)
- had a severe allergic reaction to a COVID-19 vaccine until consulting with an allergist
- developed myocarditis after receiving a COVID-19 vaccine – speak with your primary health care provider before receiving your next dose.

## **After vaccination**

### **What should I expect in the next few days?**

Consult the “**Side effects and risks**” section above for information about when to seek medical attention if you experience a serious side effect of the vaccine. If you have a reaction to the vaccine, speak with your health care provider to report the symptoms directly to York Region Public Health or your local public health unit. Public health and Health Canada track reported side effects to ensure vaccine safety.

### **Do I still have to follow COVID-19 public health measures?**

The vaccine is an additional way to protect yourself against COVID-19. After your COVID-19 vaccine, you should continue to follow COVID-19 public health measures, such as wearing a mask, practicing physical distancing, washing your hands and staying home when you are sick.

### **When should I return for my next dose?**

You need two doses of vaccine to be fully immunized, and booster doses are strongly recommended for everyone 12 years of age and older. The Ministry of Health recommends an interval of 8 weeks between first and second doses. Longer intervals between the first and second doses of COVID-19 vaccines can result in better immune response and may reduce instances of myocarditis and pericarditis. If this is your first dose of the COVID-19 vaccine, be sure to get your second dose. Individuals that are considered moderately to severely immunocompromised are eligible for additional doses and follow a different interval schedule.

**For more information, visit [york.ca/COVID19Vaccine](https://york.ca/COVID19Vaccine)**