COVID-19 mRNA Vaccine Information for Adolescents and Adults

Pfizer and Moderna

Public Health Factsheet
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Manitoba

Immunization is one of the most important accomplishments in public health. Over the past 50 years, immunization has led to the elimination, containment and control of diseases that were once very common in Canada.[1] Vaccines help our immune system recognize and fight bacteria and viruses that cause diseases.

The COVID-19 mRNA vaccine is given by injection (needle) with two doses given at two different points in time. These first two doses are referred to as the primary series. Information in this factsheet is about the COVID-19 mRNA vaccine primary series and is for individuals aged 12 years and older.

COVID-19 vaccine recommendations are different for people who are moderately to severely immunocompromised. If you are moderately to severely immunocompromised due to disease (e.g., organ transplant, leukemia, lymphoma) or treatment (e.g., chemotherapy, high-dose steroids), or have an autoimmune condition (e.g., Rheumatoid Arthritis, Multiple Sclerosis (MS)), refer to the factsheet titled, "COVID-19 Vaccine: Information for Individuals who have an autoimmune condition and/or are immunocompromised" available at: manitoba.ca/covid19/vaccine/resources.html.

What is COVID-19?

Coronaviruses (CoV) are a large family of viruses that cause illnesses ranging from the common cold to more severe diseases. COVID-19 is an infectious disease caused by the SARS-CoV-2 virus, a virus in the coronavirus family. The virus that causes COVID-19 can spread from person to person through respiratory droplets and aerosols from someone infected with the virus. Respiratory droplets and aerosols are made when we do every day things like talk, cough, breathe, sneeze or sing. COVID-19 may also spread by touching something that has the virus on it, then touching your mouth, nose or eyes with unwashed hands. Most people infected with the virus will experience mild to moderate respiratory illness, but the virus can affect different people in different ways. Some will become seriously ill and require medical attention.

Up-to-date data on COVID-19 in Manitoba is available at: www.manitoba.ca/health/publichealth/surveillance/covid-19/index.html.

Why should I get the COVID-19 vaccine?

Vaccines play an important role in minimizing the impact of COVID-19 in the population, including significantly lowering the risk of being hospitalized, and evolving evidence indicates that two-doses of the COVID-19 vaccine remains effective at preventing severe illness and hospitalization for most people. Vaccines are the best defense against the virus and individuals are encouraged to get vaccinated as soon as they are eligible, and receive the recommended number of doses for the best protection.

There are multiple COVID-19 vaccines approved and available in Canada. The COVID-19 mRNA vaccines (Pfizer and Moderna) are the preferentially recommended COVID-19 vaccines. For information about how the COVID-19 mRNA vaccines work, go to: www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/type-mrna.html.

Novavax, is available, is a different type of COVID-19 vaccine that may be offered to individuals who are unable or unwilling to receive the preferentially recommended COVID-19 mRNA vaccine. Information about Novavax is available at: manitoba.ca/covid19/vaccine/resources.html.

Talk to your health care provider if you are unable or unwilling to receive one of the mRNA vaccines.

[1] The Public Health Agency of Canada

What COVID-19 mRNA vaccine should I get?

Adolescents and young adults between the ages of 12 and 29 are recommended to receive the Pfizer vaccine for all doses, due to a lower risk of myocarditis/pericarditis (inflammation of the heart muscle/lining around the heart) with Pfizer compared to Moderna in this age group.

Adults 30 years and older can get either mRNA vaccine (Pfizer or Moderna). It is recommended to get the same mRNA vaccine for dose 1 and dose 2, if available. However, getting a combination of mRNA vaccines is both safe and effective, and either (Pfizer or Moderna) can be offered if:

- the same mRNA vaccine is not available
- your previous dose was with a non-mRNA vaccine (e.g., AstraZeneca, Janssen)
- the last dose is unknown

You can get the COVID-19 vaccine at the same time as other (live or inactivated) vaccines.

When should I get the COVID-19 vaccine?

A complete primary series of COVID-19 vaccine requires two doses. Individuals without contraindications after dose 1 of any type of COVID-19 vaccine, are recommended to receive the second dose eight weeks after the first dose of COVID-19 vaccine. Individuals who wish to receive their second dose sooner than the recommended eight week interval may receive dose 2 as early as 28 days after dose 1. However, they should discuss the risks and benefits with their immunizer or health care provider before vaccination, to ensure they understand the risks of an earlier second dose. A longer time period between doses provides a stronger immune response.

Information on booster doses of COVID-19 vaccine is available at: manitoba.ca/covid19/vaccine/resources.html and should be reviewed as part of the informed consent process for first and second booster doses.

Possible common side-effects of the COVID-19 mRNA vaccine

In general, the side effects observed during the Pfizer and Moderna clinical trials were similar to other vaccines. The side effects were generally mild or moderate, and went away a few days after vaccination. They included things like:

- pain, redness and swelling at the site of injection
- body chills
- feeling tired and feverish
- headache
- muscle and joint pain
- nausea and vomiting

These are common side effects of the vaccine and are not a risk to your health. Over-the-counter medicines like acetaminophen (e.g., Tylenol®) or ibuprofen (e.g., Advil®) may be considered to help manage these adverse events (like pain or fever, respectively), if they occur **after vaccination**.

For a full list of possible side effects, please review the vaccine manufacturer's product monograph at: manitoba.ca/covid19/vaccine/resources.html or speak with your health care provider.

Possible rare side-effects of the COVID-19 mRNA vaccine

After approving and making a vaccine available in Canada, Health Canada continues to monitor post-marketing studies to detect and identify possible safety concerns. Since the COVID-19 mRNA vaccines started to be used in Canada and other countries, post-marketing studies have found the following rare reactions following vaccination, which are estimated to occur in less than 0.1 per cent of vaccinated people:

1. Myocarditis/pericarditis (inflammation of the heart muscle/lining around the heart) has been rarely reported following immunization with the mRNA vaccines. It has occurred mostly in males less than 30 years of age, more often after the second dose of vaccine, usually within a week following vaccination and less commonly with Pfizer compared to Moderna. Vaccine related myocarditis/pericarditis is a much milder condition than infection related myocarditis/pericarditis. The majority of cases have responded well to treatment and recovered quickly.

   The signs and symptoms of myocarditis/pericarditis can include shortness of breath, chest pain, or the feeling of a rapid or abnormal heart rhythm. If you experience any of these symptoms, go to the nearest emergency department or health centre.

2. Bell's palsy (weakness or paralysis on one side of the face) has been very rarely reported following immunization with the mRNA vaccines. In the majority of cases, it is temporary however; in rare cases, there can be long-term complications.

   The signs and symptoms of Bell's palsy tend to appear suddenly, and can include mild weakness to total paralysis on one side of the face affecting facial muscle movement, headache, loss of feeling in the face, hypersensitivity to sound in the affected ear or loss of sense of taste on the tongue. If you experience any of these symptoms, contact your health care provider.

Serious allergic reactions are also possible following vaccination. In the unlikely event of a severe allergic reaction, it is important to stay in the immunization clinic for 15 minutes after getting any vaccine. Symptoms of allergic reactions can include hives, difficulty breathing, or swelling of the throat, tongue or lips. This can happen up to an hour after you get vaccinated. If this happens after you leave the immunization clinic, call 911 or go to the nearest emergency department or health centre for immediate attention.

Report any serious or unexpected adverse reactions to a health care provider, or call Health Links – Info Santé at 204-788-8200 or 1-888-315-9257 (toll free in Manitoba).

Who should NOT get the COVID-19 mRNA vaccine?

As a precautionary measure, individuals who experienced myocarditis/pericarditis following vaccination with any dose of an mRNA COVID-19 vaccine, should defer further COVID-19 vaccination until more information is available. People who would prefer not to defer vaccination should talk to their immunizer or health care provider about the risks and benefits of proceeding with vaccination. People who have a history of myocarditis unrelated to mRNA COVID-19 vaccination should consult their clinical team prior to vaccination.

An allergy referral is required before vaccination if you are allergic to an active substance or any ingredients of Pfizer or Moderna, or if you have had a severe allergic reaction after the first dose of mRNA COVID-19 vaccine. An allergic reaction can be life-threatening. For information about any of the COVID-19 vaccine ingredients, please review the vaccine manufacturer's product monograph at www.manitoba.ca/covid19/vaccine/resources.html or speak with your immunizer or health care provider. There are two ingredients that are potential allergens known to cause possible allergic reactions, including serious reactions:

1. Polyethylene glycol (PEG) is an ingredient in both Pfizer or Moderna and may be found in a multitude of products including bowel preparation products for colonoscopies, laxatives, cough syrup, cosmetics, contact lens care solutions, skin care products, certain medications and as an additive in some food and drinks. People with PEG allergies may also be allergic to polysorbate 80. **If you are allergic to PEG or polysorbate 80, regardless of the severity of reaction, speak with your health care provider before immunization.**

2. Tromethamine (trometamol or Tris) may be found in certain medications and some contrast material (CT dye). If you had an allergic reaction after receiving CT dye or are allergic specifically to tromethamine, regardless of the severity of reaction, speak with your health care provider before immunization.

Allergic reactions generally happen shortly after the vaccine is administered. **This is why you must be observed for a minimum of 15 minutes after immunization.**

You can be immunized if you have allergies not related to the vaccine, such as allergies to foods, insect stings or seasonal/environmental allergies. Talk to your immunizer or health care provider about all of your allergies before vaccination.

If you were infected with COVID-19 (e.g., confirmed by a positive PCR test or rapid antigen test (RAT)), you're recommended to wait six months after your infection before getting your next dose of vaccine. But at minimum, you need to wait until your symptoms are gone and the recommended period of isolation is over.

If you were previously infected with COVID-19 and received a monoclonal antibody treatment (e.g., Sotrovimab, Casirivimab, Imdevimab), wait 90 days before getting the COVID-19 vaccine.

Your record of protection

All immunizations, including the COVID-19 vaccine, are recorded on your immunization record in Manitoba's immunization registry. This registry:

- allows health care providers to find out which immunizations you (or the people you care for) have received or need to have
- may be used to produce immunization records or notify you or your health care provider if a particular immunization has been missed
- allows Manitoba Health and public health officials to monitor how well vaccines work in preventing disease

The Personal Health Information Act protects your information and the information for any people you provide care for. You can choose to have this personal health information hidden from health care providers. For additional information, please contact your local public health office or speak with a health care provider.

For information and to obtain your Manitoba Immunization Card, Manitoba immunization record or Pan-Canadian Proof of Vaccination Credential (PVC), go to manitoba.ca/covid19/vaccine/immunizationrecord/residents.html.

For more information on the COVID-19 vaccine:

For more information about COVID-19 or the COVID-19 vaccines, talk to your health care provider.

You can also call Health Links – Info Santé in Winnipeg at **204-788-8200** or **1-888-315-9257** (toll free in Manitoba).

Or visit:

Province of Manitoba: manitoba.ca/covid19/index.html

Government of Canada: canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19.html