

COVID-19 mRNA Vaccines

Immunization has saved more lives in Canada in the last 50 years than any other health measure.

What are COVID-19 mRNA vaccines?

The COVID-19 mRNA vaccines (Moderna and Pfizer-BioNTech) protect against infection from the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that causes COVID-19. The vaccines cause your body to produce antibodies that will help protect you from getting sick if exposed to the virus. The vaccines are approved by Health Canada.

Who should get the vaccines?

COVID-19 vaccination is recommended for those 5 years of age and older. More information, including how to register for the vaccine, can be found on the BCCDC website: www.bccdc.ca/health-info/diseases-conditions/covid-19/covid-19-vaccine/vaccine-registration-eligibility.

If you had, or may have had, COVID-19 you should still get the vaccine. This is because you may not be immune to the virus that causes COVID-19 and could get infected and sick again.

How are the vaccines given?

The vaccines are given by injection as 2 doses. An additional dose of vaccine is recommended for some people who have a weakened immune system as they may not develop a strong immune response to the vaccine. Details of who should get an additional dose of vaccine can be found on the Government of British Columbia's website: www2.gov.bc.ca/gov/content/covid-19/vaccine/register.

A booster dose of COVID-19 vaccine is being provided to eligible people who have completed their vaccine series to strengthen and provide longer protection against COVID-19 disease. For more information on eligibility see: www2.gov.bc.ca/gov/content/covid-19/vaccine/booster.

Getting all of the recommended doses of vaccine is your best protection against COVID-19.

It is important to keep a record of all immunizations received. Be sure to bring your immunization record with you when returning for your next dose of vaccine.

What should I do after I get the vaccine?

After you get the vaccine, continue to follow public health recommendations, such as: washing your hands or using hand sanitizer, physical distancing and wearing a mask.

What are the benefits of the vaccines?

The vaccines are the best way to protect you against COVID-19, which is a serious and sometimes fatal disease. In clinical trials, those who received a vaccine were more than 90 percent less likely to become sick with COVID-19 and were almost completely protected against severe illness (hospitalization and death). The COVID-19 mRNA vaccines provide better protection against infection than the COVID-19 viral vector vaccines (AstraZeneca and Janssen). When you get immunized, you help protect others as well, including those who are unable to get the vaccine.

What are the possible reactions after the vaccines?

Vaccines are very safe. It is much safer to get the vaccine than to get COVID-19. The vaccines are not live virus vaccines and cannot give you COVID-19. Common reactions to the vaccines may include soreness, redness, swelling and itchiness where the vaccine was given. For some people, these reactions may show up 8 or more days after getting the vaccine. Other reactions may include tiredness, headache, fever, chills, muscle or joint soreness, swollen lymph nodes under the armpit, nausea and vomiting. These reactions are mild and generally last 1 to 2 days. If you have concerns about any symptoms you develop after receiving the vaccine, speak with your health-care provider or call **8-1-1** for advice.

Rare cases of inflammation of the heart (myocarditis and pericarditis) have been reported after getting the COVID-19 mRNA vaccines. In Canada, this has occurred at a rate of about 3 cases per 100,000 doses of Moderna vaccine and 1.9 cases per 100,000 doses of Pfizer-BioNTech vaccine. Cases are seen more often after the second dose

and in males 12-29 years of age. The rate of cases in males 18-29 years of age after the second dose are about 6 times higher with the Moderna vaccine compared to the Pfizer-BioNTech vaccine.

Acetaminophen (e.g. Tylenol®) or ibuprofen (e.g. Advil®) can be taken for fever or soreness. ASA (e.g. Aspirin®) should not be given to anyone under 18 years of age due to the risk of Reye Syndrome.

For information on Reye Syndrome, see [HealthLinkBC File #84 Reye Syndrome](#).

It is important to stay in the clinic for 15 minutes after getting any vaccine because about 1 in a million people can have a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. Should this reaction occur, your health-care provider is prepared to treat it. Emergency treatment includes administration of epinephrine (adrenaline) and transfer by ambulance to the nearest emergency department. If symptoms develop after you leave the clinic, call **9-1-1** or your local emergency number.

Always report serious or unexpected reactions to your health-care provider.

Who should not get the vaccine?

You should not get the vaccine if you have a serious allergy (anaphylaxis) to polyethylene glycol (PEG) which is in both of the COVID-19 mRNA vaccines. PEG can be found in some cosmetics, skin care products, laxatives, cough syrups, and bowel preparation products for colonoscopy. PEG can be an additive in some processed foods and drinks, but no cases of anaphylaxis to PEG in foods and drinks have been reported

Speak with your health care provider if you had anaphylaxis after a previous dose of a COVID-19 vaccine or if you have had anaphylaxis with an unknown cause.

Are there additional considerations to getting the vaccine?

Speak with your health-care provider if you:

- Have received a monoclonal antibody or convalescent plasma for treatment or prevention of COVID-19

- Were diagnosed with inflammation of the heart (myocarditis or pericarditis) by a physician after a previous dose of COVID-19 mRNA vaccine without another cause being identified
- Have a history of multisystem inflammatory syndrome following COVID-19
- Have symptoms of COVID-19

If you have a new illness preventing you from your regular activities, you should wait until you have recovered. This will help to distinguish side effects of the vaccine from worsening of your illness.

What is COVID-19?

COVID-19 is an infection of the airways and lungs caused by the SARS-CoV-2 coronavirus. Symptoms of COVID-19 can include cough, shortness of breath, fever, chills, tiredness and loss of smell or taste. While some people with COVID-19 may have no symptoms or only mild symptoms, others can require hospitalization and may die. Serious illness is more common in those who are older and those with certain chronic health conditions such as diabetes, heart disease or lung disease. For some people, symptoms of COVID-19 can last for weeks or longer. The long-term effects of COVID-19 on a person's health are unknown.

How is COVID-19 spread?

The virus that causes COVID-19 is spread from person to person by coughing, sneezing, talking and singing. It can also be spread by touching an object or surface with the virus on it and then touching your eyes, nose or mouth.

For more information on COVID-19 vaccines, visit BCCDC's COVID-19 vaccine page www.bccdc.ca/health-info/diseases-conditions/covid-19/covid-19-vaccine.

