

Ministry of Health

# About COVID-19 Vaccines

Version 3.0 – March 11, 2021

## Highlights of changes

- Updated to include AstraZeneca and COVISHIELD COVID-19 vaccine
- Removed FAQs section and added references to additional resources

This guidance provides basic information only. It is not intended to take the place of medical advice, diagnosis or treatment, legal advice or legal requirements.

- Please check the Ministry of Health (MOH) [COVID-19 website](#) regularly for updates to this document, list of symptoms, other guidance documents, Directives and other information.

## COVID-19 Vaccines: Overview

Representing a turning point in our fight against COVID-19, Health Canada has authorized the Pfizer-BioNTech, Moderna, AstraZeneca and COVISHIELD COVID-19 vaccines. More vaccines will likely be authorized in the near future.

### What you should know:

- Health Canada only approves a vaccine if it is supported by very robust scientific data and evidence.
- After approval, Health Canada and the Public Health Agency of Canada continue to monitor the ongoing safety and effectiveness of all approved vaccines in Canada.
- Canadians will have easy access to detailed information on the vaccine and the evidence behind the vaccine approval process through the [Government of Canada's website](#).

- The benefits of vaccination greatly outweigh the risks, and many more illnesses and deaths would occur without vaccines. Vaccines prevent illness and disease, and save lives and livelihoods. Mass vaccination will protect people's lives and help Canada recover from the COVID-19 pandemic.

## How does vaccination work?

<b>mRNA vaccines (Pfizer-BioNTech and Moderna COVID-19 vaccines)</b>	Uses genetic instructions in molecules called mRNA delivered to our cells to produce coronavirus protein that initiates an immune response in the body. mRNA vaccines are not live vaccines, cannot cause infection in the host and cannot alter a person's DNA.
<b>Viral vector vaccines (AstraZeneca and COVISHIELD COVID-19 vaccines)</b>	Uses a genetically modified virus that cannot cause disease, to deliver genetic instructions (DNA) to our cells to produce coronavirus protein that initiates an immune response in the body. Viral vector vaccines cannot cause infection in the host (i.e. they are non-replicating) and cannot alter a person's DNA.
<b>Protein-based vaccines</b>	Uses harmless fragments of proteins or protein shells that mimic coronavirus to generate an immune response in the body.
<b>Inactivated or weakened virus vaccines</b>	Uses an inactivated or weakened form of the virus that does not cause disease but still generates an immune response in the body.

## COVID-19 vaccines

The Pfizer-BioNTech, Moderna, AstraZeneca and COVISHIELD COVID-19 vaccines are efficacious in the short-term against laboratory-confirmed symptomatic COVID-19 disease; medium and long-term trials are ongoing. These vaccines are indicated for active immunization to prevent COVID-19 caused by SARS-CoV-2. Clinical trial details are available in the [Pfizer-BioNTech COVID-19 vaccine product monograph](#), the [Moderna COVID-19 vaccine product monograph](#), the [AstraZeneca COVID-19 vaccine product monograph](#), and the [COVISHIELD vaccine product monograph](#). Additional information on the use of COVID-19 vaccines is available in [Recommendations on the use of COVID-19 vaccines](#) by the National Advisory Committee on Immunization (NACI).

### Side effects

Similar to medications and other vaccines, the COVID-19 vaccines can cause side effects. During the clinical trials, common side effects similar to other vaccines were reported (e.g., redness and pain at the injection site). These side effects do not pose a health risk.

- In clinical trials, most of these side effects were mild to moderate and on average did not last longer than three days after vaccination.
- Additional details and a complete list of reported side effects are available in the respective product monographs.
- No major safety concerns were reported in the data submitted to Health Canada.

Vaccine	Very common side effects (may affect more than 1 in 10 people)	Common side effects (may affect 1-10 in 100 people)	Uncommon side effects (may affect up to 1 in 100 people)
Pfizer-BioNTech	Pain at injection site Fatigue Headache Muscle pain Chills	Localized redness or swelling Joint pain (very common after second dose) Fever (very common after second dose) Diarrhea	Nausea/ vomiting (common after second dose) Enlarged lymph nodes

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Moderna	Pain at injection site Lymphadenopathy/ Axillary swelling and tenderness Fatigue Headache Muscle pain Joint pain Fever (second dose)	Localised redness Localized swelling (very common after second dose) Chills (very common after second dose) Nausea/ Vomiting (very common after second dose)	Fever (very common after second dose)
AstraZeneca and COVISHIELD	Pain, tenderness, warmth at injection site Fatigue Chills (common after second dose) Headache Muscle pain Nausea and/or Vomiting (common after second dose) Joint pain Fever (uncommon after second dose), Feverish	Localized redness, swelling, and pruritis Induration (uncommon after second dose) Nausea and/or vomiting	Enlarged lymph nodes

Source: NACI's [Recommendations on the use of COVID-19 vaccines](#), Appendix D

More information on [COVID vaccines for Ontario](#), including FAQs are available on the [What you should know about the COVID-19 vaccines](#) fact sheet and the Center for Effective Practice's [COVID-19 Vaccines](#) resources page.