

COVID-19 Vaccine Authorized for use in Canada

Health Canada has recently authorized the use of a COVID-19 vaccine produced by Pfizer-BioNTech. Toronto Public Health is working with the University Health Network to ensure a smooth trial run of the logistical operation and administration of the vaccine. This vaccine is fragile with unique storage requirements making it challenging for city-wide distribution. More vaccines will be available for wider distribution later this month, and in 2021. Currently, no information is available regarding when physicians can begin to order COVID-19 vaccines for their patients. Visit the [Ontario COVID-19 Vaccine Rollout](#) for more information.

Vaccine effectiveness against transmission of COVID-19

Two-doses of the vaccine can provide 95% efficacy against symptomatic illness. Even after receiving two-doses of the vaccine, it will be important to continue to follow public health measures to prevent the spread of COVID-19. There is currently limited evidence on the efficacy to prevent asymptomatic infection, to reduce viral shedding, to prevent transmission, to use as post-exposure prophylaxis, or to interrupt transmission during outbreaks.

Reporting adverse events following immunization

Toronto health care providers are required to report [adverse events following Immunization](#) (AEFI) to Toronto Public Health. An AEFI is any event or reaction that occurs after receiving a vaccine. Of particular interest are unusual or unexpected events, or serious reactions requiring urgent care. Use the *new* [AEFI Reporting Form](#) and fax the completed form to 416-696-3492.

Differentiating a vaccine reaction to symptoms of COVID-19

Clients should be told about potential side effects of the vaccine, which may include:

- pain, redness & swelling at the injection site;
- feeling generally unwell, tired or achy (muscle ache or joint pain); or
- headache, fever, and chills.

The above symptoms are common, expected reactions, and will usually resolve on their own within a few days. They will likely begin within one to two days of vaccination. Suggest use of over-the-counter medications to relieve symptoms, if required. Any fever after vaccination should be monitored.

The most commonly reported COVID-19 symptoms are: fever, a new, continuous cough, or a loss/change to sense of smell or taste. People with these symptoms should self-isolate and get tested.

Vaccine Information

Vaccine platform	messenger RNA (mRNA)
Packaging	1 pack ("tray") contains 195 vials (1 vial contains 5 doses)
Vaccine storage	-80°C to -60°C
Usage	use within 6 hours after dilution, at 2°C to 25°C, <i>avoid exposure to light</i>
Dosage	0.3mL after dilution = 30 mcg of mRNA
Schedule	2 doses given 21 days apart (alternative 19 to 28 day interval)
Route	IM injection into the deltoid muscle
Indications for use	16 years and older
Effectiveness	95% efficacy against symptomatic laboratory-confirmed COVID-19 disease, with 2 doses, across diverse subgroups.
Precautions	<ul style="list-style-type: none"> ○ persons with bleeding disorders, or receiving anticoagulant therapy
Contraindications	<ul style="list-style-type: none"> ○ hypersensitivity to any vaccine ingredients ○ previous severe reaction to this COVID-19 vaccine
Not recommended routinely, may be considered with informed consent on benefits & risks	<ul style="list-style-type: none"> ○ immunocompromised individuals ○ pregnant or breastfeeding, <i>avoid pregnancy for 2 months after second dose</i> ○ children aged 12 to 15
Delay vaccination	with acute febrile illness, COVID-19 symptoms or have received a vaccine in the past 14 days
Concomitant administration	Not recommended to provide with another vaccine.

Pan-Canadian Vaccine Injury Support Program

Vaccines are one of the safest and most effective ways to prevent against serious illnesses such as polio and tetanus. Similar to any medication, vaccines can have side effects, and in rare cases, serious adverse events. The Government of Canada just announced a no-fault vaccine injury program for all vaccines approved by Health Canada. More information is pending.

Resources

1. Pfizer-BioNTech COVID-19 Vaccine [product monograph](#), December 9, 2020.
2. NACI Recommendations on COVID-19 Vaccine. December 12, 2020.
3. Public Health Ontario. [COVID-19 Vaccines](#). December 11, 2020.
4. Wellington-Dufferin-Guelph [COVID-19 Vaccine Bulletin#1](#). December 3, 2020
5. Public Health Ontario. [AEFI Reporting for Health Care Providers](#). November 2018
6. Toronto Public Health [vaccine fact sheet](#) and [consent form](#).