

COVID-19 Vaccine: Building Trust and Confidence

Presented by: Dr. Vinita Dubey
Associate Medical Officer of Health

Moderators: Nicole Welch and Domenico Calla

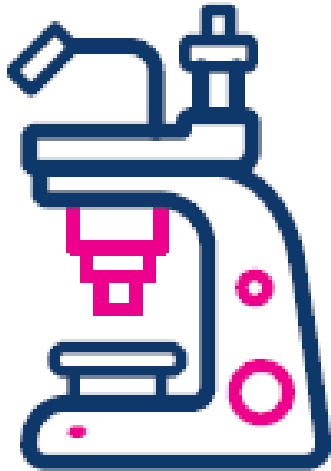
May 18, 2021

COVID-19

- A COVID-19 infection can cause damage to the lungs, heart or brain.
- Some people who have had a COVID-19 infection will have symptoms and experience long term effects months after the infection is gone.
- Long term effects may include persistent fatigue, shortness of breath, cough, joint pain, pounding heartbeat, trouble concentrating, skin rash or hair loss.

Vaccines Make A Difference

**Vaccines used in
Canada are safe
and they work.**



**Vaccines help to
protect us from
serious illness**



1.48 Billion Doses Given Worldwide

As of May 17, 2021:

- 1.48 billion doses of COVID-19 vaccines have been given in 174 countries around the world.
- 18.8 million doses have been given in Canada.
- **1.7 million** doses have been given in **Toronto**, which is approximately 54% of all eligible adults in the City.

<https://www.toronto.ca/home/covid-19/>

<https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution>

Vaccine development and approval in Canada

Vaccine development



Scientists develop a potential vaccine



Scientists conduct lab and animal studies before testing on humans




10s of volunteers 

Phase I

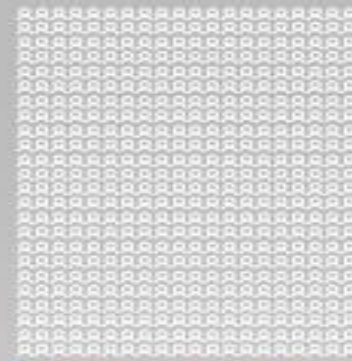
- Is the vaccine safe?
- What is a safe dose?
- Are there any side effects?




100s of volunteers 

Phase II

- How well does the vaccine work?
- Is it safe on a larger number of people?
- Safest and most effective dose?



1000s of volunteers 

Phase III

- Does the vaccine prevent disease?
- What are the side effects?



Manufacturer submits application to Health Canada for review

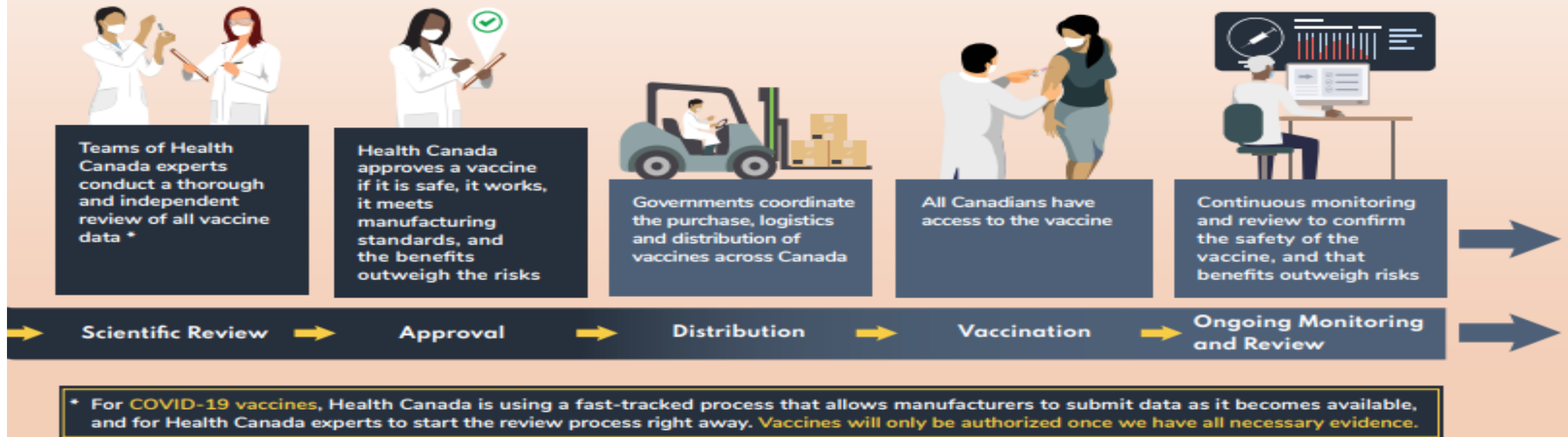
Exploratory →

Preclinical →

..... Clinical Trials

..... → Application →

Review and approval of vaccines



ARE THE COVID-19 VACCINES SAFE?



All vaccines approved by Health Canada have met safety & quality standards



They have been tested in large trials to show they are safe & they work



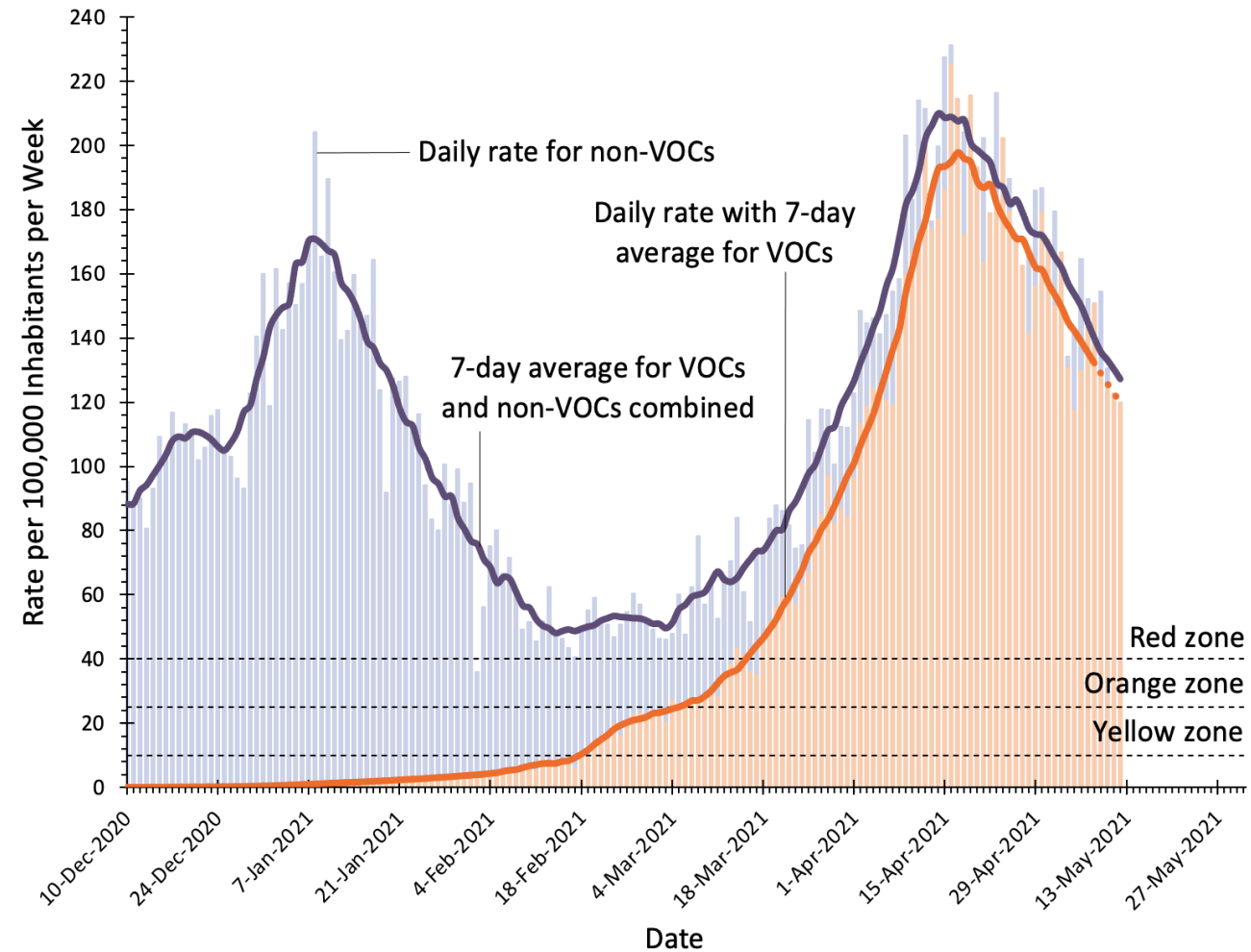
Millions of doses of the vaccines have already been given around the world with good results



Most side effects are mild and go away after a few days

Variants of Concern (VOC)

- Different variants are now in Ontario and Toronto.
- They spread infection more easily and cause more serious disease, making people sicker
- Public health measures and vaccines work against variants



Vaccines and the Variants

VACCINES OFFER PROTECTION AGAINST NEW VARIANTS



Vaccines have been used successfully in countries with variants



Vaccines can provide protection even when viruses change



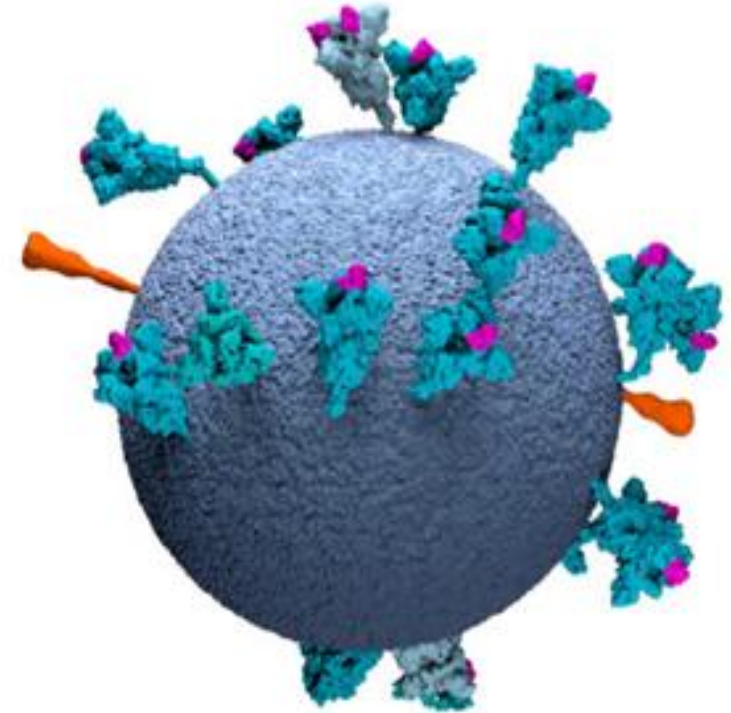
Protection offered by vaccines is important as variants can spread more easily



Booster doses may be used in the future for specific variants

How the COVID-19 Vaccines Work

- COVID-19 vaccines work by teaching your immune system to recognize the spike proteins on the surface of the coronavirus.
- After vaccination, your immune system will be able to recognize the real virus and make antibodies to fight the infection.
- It takes at least two weeks after each vaccine dose to build protection.



What Is In The Vaccines?

WHAT IS IN THE COVID-19 VACCINES?



The vaccines contain instructions to have your body make antibodies



The vaccines contain lipids, salts, sugars and buffers



They do not contain eggs, gelatin, preservatives, latex or antibiotics



There is no COVID-19 virus in the vaccine that can give you COVID-19

Will The Vaccine Make Me Sick?

WILL THE VACCINE MAKE ME SICK?



There is no COVID-19 virus in the vaccine that can make us sick



Most side-effects are mild & will go away after a few days



Severe allergic reactions are rare and are treated right away



Talk to your doctor if your symptoms don't go away after 3 days

What If I Have Allergies?

Pfizer-BioNTech & Moderna

Polyethylene glycol (PEG), also found in:

- laxatives or products for colonoscopy, cough syrup, ultrasound gel
- Cosmetics, skin creams, shampoos, toothpastes, hair products, contact lenses & solutions
- Some fast foods and baked goods

Moderna

Tromethamine, also found in:

- Contrast media used in CT scans/MRIs, some medications, skin creams

I Already Had COVID-19...

Do I need the vaccine, if I already had COVID-19?

A: Yes. Based on the latest scientific evidence, natural immunity from COVID-19 may not last long. It is possible to get re-infected after a previous COVID-19 infection.

Learn more:
toronto.ca/COVID19



- Health Canada approved the Pfizer-BioNTech vaccine for children 12+ on May 5, 2021.
- 3 million doses given to 12 to 17 years old in USA
- Vaccination of children aged 12+ and 16+, in some Toronto neighbourhoods, has started this week!
- COVID-19 vaccination is not mandatory
- The best way to protect children is:
 - to keep following public health guidelines
 - for adults to be vaccinated as soon as they are eligible

Provincial Vaccine Rollout Plan – Phase 2

Eligibility group	Week of April 26	Week of May 3	Week of May 10	Week of May 17	Week of May 24	Week of May 31
Provincial age band	April 30: 55 and older	50 and older	40 and older	30 and older	18 and older	12 to 17
Hotspot age band	April 27: 45 and older	18 and older	-	-	-	-
Health conditions	Highest-risk health conditions continues	High-risk health conditions	At-risk health conditions	-	-	-
Cannot work from home	April 29: licensed childcare workers	Group 1	Group 2	-	-	-

- Elementary and secondary school education workers are eligible to receive a COVID-19 vaccine, regardless of where they live or work.
- Education workers may include teachers, administrative staff, caretakers and bus drivers.
- Can book on-line through the provincial booking site.

Pfizer & Moderna Vaccine in Highest Supply for May & June in Ontario

- Ontario is expecting an average of 800,000 Pfizer doses per week for the month of May.
- Very similar vaccines – not much difference between them.
- Both work well, even with variants.
- 147 million doses of Pfizer; 117 million doses of Moderna administered in the USA so far. No safety signals.
- These vaccines being offered at the City of Toronto's immunization clinics and most other clinics.

Second Dose Extended But Still Necessary

WHY IS THE 2ND VACCINE DOSE EXTENDED TO 4 MONTHS?



Data shows the first dose provides strong protection



Extending the 2nd dose allows us to vaccinate more people



Vaccinating more people will reduce the spread of COVID-19



Vaccines can provide protection against COVID-19 variants

toronto.ca/COVID19

 TORONTO Public Health

Protection is 80% after 1 dose of mRNA vaccine and 90% after the 2nd dose.

Ref – CDC: https://www.cdc.gov/mmwr/volumes/70/wr/mm7013e3.htm?s_cid=mm7013e3

Community Immunity

WHAT IS HERD IMMUNITY?



Herd immunity protects our community from infection when many people are vaccinated.



It is another way to protect others by reducing COVID-19 spread.



It also protects people who can't get vaccinated like newborn babies.



Until we have herd immunity, we need to wear our mask & keep a distance from people we don't live with.

Goal of 40% of Toronto Residents 18+ Reached Ahead of Schedule

Goal to vaccinate 40% of adult residents was achieved on May 1st

Vaccination Uptake (filters do not apply to this)

Share of Toronto residents who have initiated vaccination*

50.2%

(3.0% have completed vaccination)

Share of Toronto adults (18+) who have initiated vaccination*

60.1%

(3.6% have completed vaccination)

At the current rates of vaccination, we are on track to
exceed the 65% goal by end of May

Ways To Get Vaccinated

Red & white or no health card?
Register using telephone #

City clinics <https://covid-19.ontario.ca/book-vaccine/>
Or call: 1-888-999-6488
(TTY 1-866-797-0007)

Hospital clinics www.vaccineto.ca
Or call: 1-888-385-1910

Visit <https://covid-19.ontario.ca/book-vaccine/> to find a **pharmacy**
Or call your local pharmacy / website

Mobile & pop-up clinics
Host organizations will promote clinics directly to the target community



Mass Immunization Clinics



Hospitals / Ontario Health Team Immunization Clinics



Pharmacies and Primary Care Providers



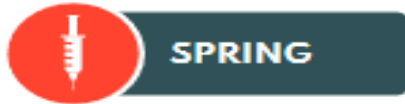
Mobile Teams & Pop-up Clinics

Interactive map available online:
toronto.ca/covid19vaccinemap

Vaccinated? What Next ...

Vaccinated Against COVID-19? Here's what happens next

More people getting vaccinated means fewer people getting sick. When you get your shot, you make it safer in your community so that certain measures can be lifted and we can gather safely.



Cases are high and vaccine coverage is low.

Continue following local public health advice and maintain individual protective measures whether or not you have been vaccinated to keep yourself, your family, and your community safe.

More people need to be vaccinated before restrictions can be lifted.

Reach out to help friends, family or neighbours who might need help booking or getting to a vaccination appointment.

stay home • stay safe • get vaccinated



Cases are low and vaccine coverage is high for one dose and increasing for second.

IE 75% of those eligible for vaccines have one dose and 20% have a second dose.

THEN restrictions start to lift based on conditions in your area, but you still need to follow local public health advice and keep up with individual measures like physical distancing and wearing a mask.

You can look forward to small, outdoor gatherings with family and friends.

You should still avoid crowds.

camping • hiking • picnics • patios



Cases are low and two dose vaccine coverage is high.

IE 75% of those eligible for vaccines have received a full COVID-19 vaccination series.

THEN local public health will be able to lift more measures and you should be able to do more activities indoors with people outside your household.

However, COVID-19 will not be eliminated so you will still need to follow some public health measures.

colleges • indoor sports • family gatherings

For more information visit: canada.ca/covid-vaccine













Screening

STOP COVID-19 K - 12 STUDENT SCREENING TOOL

Please complete before entering the school.

Name: _____ Date: _____ Time: _____

1. Does the student have any of the following new or worsening symptoms?*

Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
			
Fever > 37.8°C	Cough	Difficulty breathing	Loss of taste or smell
Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
			
Feeling unwell, muscle aches or tired	Stuffy or runny nose	Headache	Sore throat or pain swallowing
Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
			
Nausea, vomiting or diarrhea			

If "YES" to any symptom:  Stay home & self-isolate +  Get tested Or  Contact a health care provider

2. Does anyone in your household have one or more of the above symptoms? Yes No

3. Has anyone in your household travelled outside of Canada in the past 14 days? Yes No

4. Has anyone in your household been notified as a close contact of someone with COVID-19 or been told to stay home and self-isolate? Yes No

If "YES" to Questions 2,3, or 4:  Stay home +  Follow Toronto Public Health advice

*Children who have an existing health condition identified by a health care provider that gives them the symptoms should not answer YES, unless the symptom is new, different or getting worse. Look for changes from your child's normal symptoms.









Updated February 2021

STOP COVID-19

Staff & Visitors complete before entering the school each day.

Name: _____ Date: _____ Time: _____

1.) Do you have any of the following new or worsening symptoms or signs?*

Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
			
Fever or chills	Cough	Difficulty breathing or shortness of breath	Sore throat or trouble swallowing
Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
			
Runny or stuffy nose	Decrease or loss of taste or smell	Nausea, vomiting or diarrhea	Not feeling well, extreme tiredness or sore muscles

If "YES" to any symptom:  Stay home & self-isolate +  Get tested Or  Contact a health care provider

2.) Does anyone in your household have one or more of the above symptoms? Yes No

3.) Has anyone in your household travelled outside of Canada in the past 14 days? Yes No

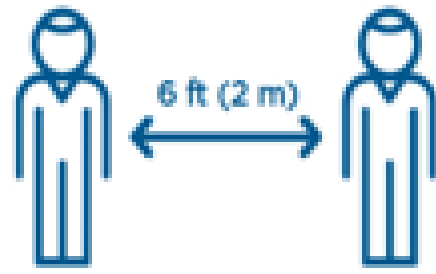
4.) Have you been notified as a close contact of someone with COVID-19 or been told to stay home and self-isolate? Yes No

*If you have an existing health condition that gives you the symptoms you should not answer YES, unless the symptom is new, different or getting worse. Look for changes from your normal symptoms.

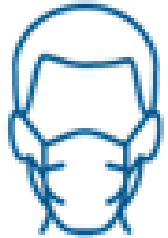
If "YES" to Questions 2,3, or 4:  Stay home +  Follow Toronto Public Health advice

Updated February 2021

Physical Distancing



Stay 2 m (6 ft) apart or wear a mask.



Student Cohorts

Frequent cleaning and disinfection of surfaces

Healthy Habits



Wash hands with soap and water.

Don't Spread Misinformation

DON'T PLAY

THE TELEPHONE GAME

STOP THE SPREAD OF COVID-19 MISINFORMATION



More Than A Disease



You Are Not Alone

You are not alone. Support is available.

Call 211 if you are having a hard time. Through 211 anyone be connected to free mental health supports, including including kids, seniors, racialized, Indigenous, Black and LGBTQ2S communities.

Language interpretation is available if you don't speak English.



These are stressful times.
Reach out for help to find
mental health support.
**Call 211, 24 hours a day,
7 days a week.**

Be Part Of Something Greater

Be part of something greater.
Your shot protects others too!



Protected together.

Toronto Public Health COVID-19 Hotline

Have questions?

Call Toronto Public Health

416-338-7600

8:30 am to 8:00 pm

Interpreter service is available in many languages.

TTY 416-392-0658

More information about COVID-19 & vaccines:

toronto.ca/covid19

Questions?



Mental Health Support during COVID-19

It's okay not to feel okay. Many people may feel sad, worried, scared, confused or angry during COVID-19. These are normal and common responses to unexpected or stressful situations.



Stay connected. Play a virtual game, check in on a neighbour, have a video conference.



Be active & take care of yourself. Exercise, eat well, get enough sleep.



Take time to engage virtually or by phone with friends, family or loved ones.



Learn something new. Try a new hobby or take an online course.



Help someone else. Doing good can feel good.



Reach out for help. Talk to someone you trust or seek professional support.

RESIDENTS WITHOUT OHIP CARDS



Residents without an OHIP card may use other forms of identification to book a COVID-19 vaccination appointment through agency partners.

Booking Vaccination Without OHIP

FCJ Refugee Centre

416-469-9754 ext. 230 or 232; WhatsApp: 437-217-3786

Access Alliance

Telephone: 416-760-8677

Toronto Public Health Hotline

Telephone: 416-338-7600; TTY: 416-392-0658

Phone interpretation services available

Mass Immunization Clinic Locations



- North Toronto Memorial Community Centre (200 Eglinton Avenue West)
- Mitchell Field Community Centre (89 Church Avenue)
- The Hangar (75 Carl Hall Road)
- Metro Toronto Convention Centre (255 Front Street West)
- Scarborough Town Centre (300 Borough Drive)
- Carmine Stefano Community Centre (3100 Weston Road)
- Toronto Congress Centre (650 Dixon Road)
- Malvern Community Recreation Centre (30 Sewells Road)
- Cloverdale Mall (250 The East Mall)

Interactive map available online:
toronto.ca/covid19vaccinemap

- **For those with no other means to get to their vaccination appointment**

1. **Toronto Ride** - 416-481-5250; www.torontoride.ca
 2. **iRide** - 1-844-474-3301; www.circleofcare.com/vaccinerides;
 3. **Scarborough Ride** - 416 736-9372; www.schcontario.ca/schc-scarborough-ride--transportation--hemodialysis.html
 4. **Uber Canada**
 5. **TTC**
- Vouchers distributed through a network of partner community agencies

More information: <https://www.toronto.ca/home/covid-19/covid-19-protect-yourself-others/covid-19-vaccines/covid-19-how-to-get-vaccinated/?accordion=transportation-to-clinics>

4 Vaccines Approved In Canada



For 12-18 years
& older, including seniors

Real world effectiveness

2 dose schedule, except for
Janssen

Name	Technology	Available in Ontario	Dose schedule
Pfizer BioNTech	mRNA	12 years +	2 doses
Moderna	mRNA	18 years +	2 doses
AstraZeneca/ COVISHIELD	viral vector	<i>1st dose paused until further notice</i>	2 doses
Janssen	viral vector	30 years +	1 dose

Vaccine ingredients

Pfizer-BioNTech	Moderna	AstraZeneca / COVISHIELD	Janssen
<ul style="list-style-type: none"> ▪ active ingredient: mRNA 	<ul style="list-style-type: none"> ▪ active ingredient: mRNA 	<ul style="list-style-type: none"> ▪ active ingredient: ChAdOx1-S recombinant 	<ul style="list-style-type: none"> ▪ active ingredient: Ad26.COV2.S recombinant
<ul style="list-style-type: none"> ▪ lipids, cholesterol ▪ polyethylene glycol [PEG-2000] 	<ul style="list-style-type: none"> ▪ lipids, cholesterol ▪ polyethylene glycol [PEG-2000] 	<ul style="list-style-type: none"> ▪ amino acid: L-Histidine, L-Histidine hydrochloride monohydrate ▪ emulsifier: polysorbate 80 	<ul style="list-style-type: none"> ▪ emulsifier: 2-hydroxypropyl-β-cyclodextrin, polysorbate-80
<ul style="list-style-type: none"> ▪ salts: potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dehydrate ▪ sugars: sucrose 	<ul style="list-style-type: none"> ▪ salts: acetic acid, sodium acetate, ▪ sugars: sucrose ▪ buffers: tromethamin, tromethamin hydrochloride 	<ul style="list-style-type: none"> ▪ salts: sodium chloride, disodium edetate dihydrate (EDTA), magnesium chloride hexahydrate ▪ sugars: sucrose ▪ alcohol: ethanol 	<ul style="list-style-type: none"> ▪ buffers: citric acid monohydrate, hydrochloric acid, sodium hydroxide, trisodium citrate dehydrate ▪ salts: sodium chloride ▪ alcohol: ethanol

ABOUT THE AstraZeneca/COVISHIELD VACCINE



Available to 40+ in Ontario at pharmacies and some primary care settings



Serious blood clots are rare - occurs in about 1/250,000 doses



Benefits of vaccination to prevent serious illness can outweigh risks



Seek medical attention if symptoms develop 4-16 days after vaccination



Speak to your health care provider if you have questions

Blood Clots and Low Blood Platelet Count

- There have been reports of this rare event after receiving either the AstraZeneca (1/50,000) or Johnson & Johnson vaccine (1/500,000)
- **First dose vaccination has been paused as of May 11, 2021.**
- Blood clots can occur in the brain, arms/legs or abdomen
- With proper medical care, can be treated
- Watch for any side effects following vaccination on days 4 to 28. Call 911 if you have:
 - Trouble breathing, chest pain, leg or abdominal pain that does not go away
 - Sudden severe headache, blurred vision, skin bruising or spots