

# **COVID-19 Vaccine: Building Trust and Confidence**

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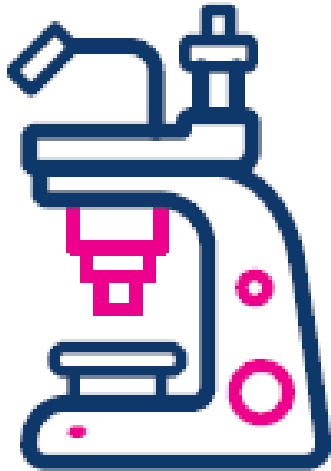
May 11, 2021

# 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 Can Help

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



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



# 1.3 Billion Doses Given Worldwide

## As of May 10, 2021:

- 1.3 billion doses of COVID-19 vaccines have been given in 174 countries around the world.
- 15.7 million COVID-19 doses have been given in Canada.
- 1,445,809 COVID-19 vaccine doses have been given in Toronto, which is approximately 50% of all eligible residents 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

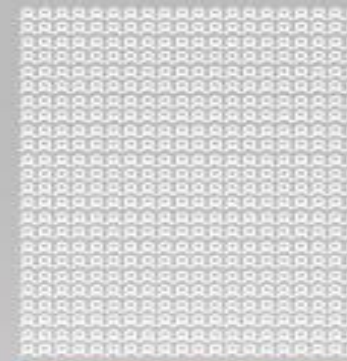
- Is the vaccine safe?
- What is a safe dose?
- Are there any side effects?




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

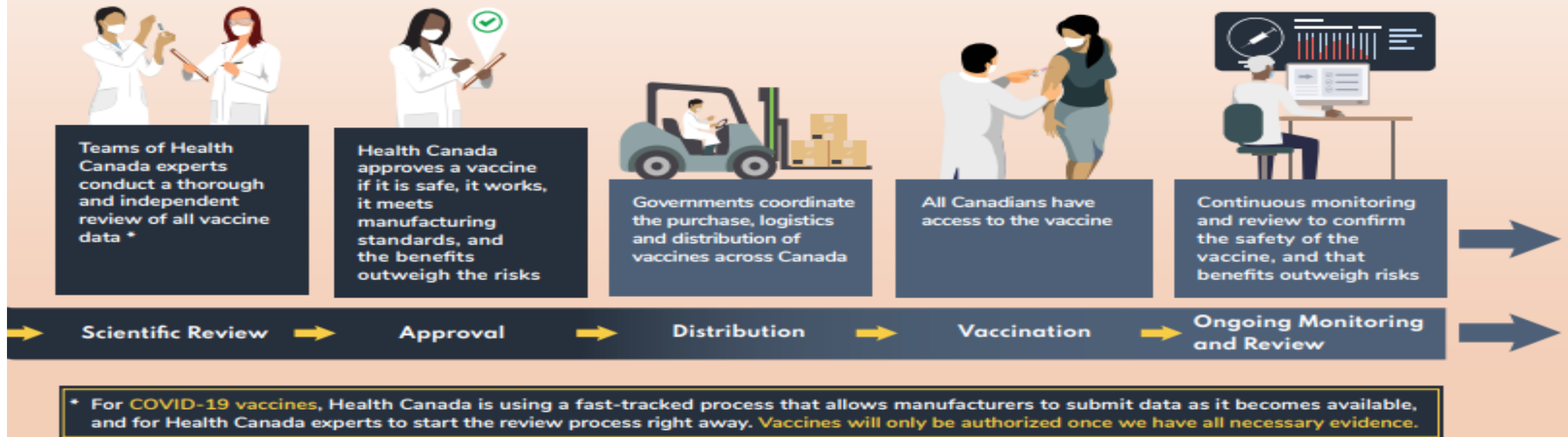
Exploratory →

Preclinical →

..... Clinical Trials

..... → Application →

# Review and approval of vaccines



# 4 Vaccines Available In Canada



For 16-18 years  
& older, including seniors

Real world effectiveness

2 dose schedule, except for  
Janssen

Name	Technology	Recommended in Ontario	Dose schedule
Pfizer BioNTech	mRNA	16 years +	2 doses
Moderna	mRNA	18 years +	2 doses
AstraZeneca/ COVISHIELD	viral vector	40 years +	2 doses
Janssen	viral vector	30 years +	1 dose



## 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



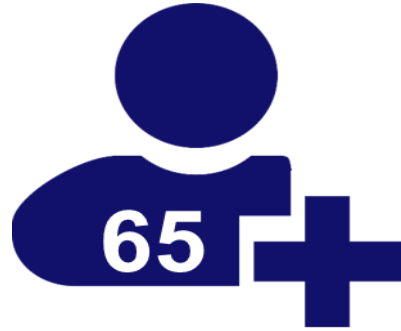
Millions of doses of the vaccines have already been given around the world with good results



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



# COVID-19 Vaccines Are Safe For ...



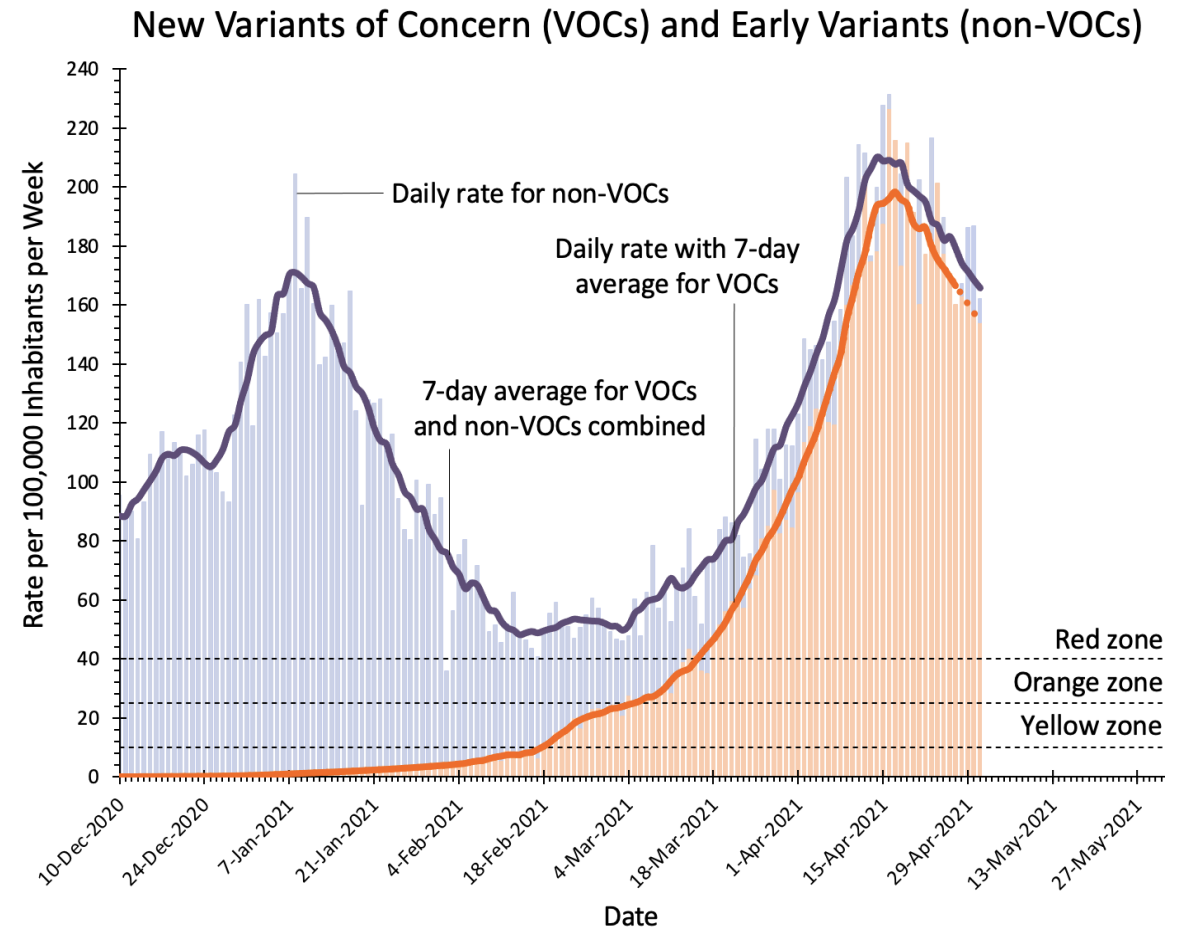
&



- People with health conditions such as heart disease, asthma, diabetes, high blood pressure, or on blood thinners, with hepatitis B, C or HIV.
- It is also safe for people with a weakened immune system, autoimmune disorder and anytime during pregnancy.

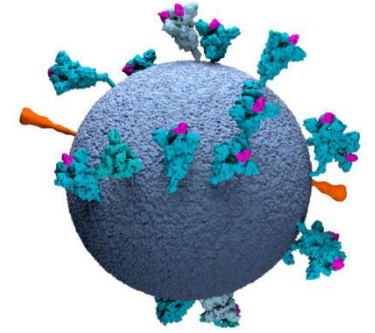
# Variants of Concern (VOC)

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



# How the COVID-19 vaccines work...

The COVID-19 vaccines works by telling our body to make “*spike proteins*”, a protein specifically found on the surface of the coronavirus. These proteins will stimulate our body to start making antibodies against COVID-19.



- **Pfizer BioNTech and Moderna** use mRNA technology.
  - mRNA research and technology has been around for over 10 years.
  - Breaks down and is removed from body in days
- **AstraZeneca/COVISHIELD and Janssen (Johnson & Johnson)** use a viral vector.
  - A cold virus that is inactivated (adenovirus), has instructions to make the spike protein in it.

# 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

# What If I Have Allergies?

**Pfizer-BioNTech & Moderna:** **Polyethylene glycol**, 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, baked goods

**Moderna vaccine:** **Tromethamine**, also found in:

- contrast media for CT scans / MRI, some medications, skin creams

**AstraZeneca/COVISHIELD & Janssen vaccines:** **Polysorbate 80**, also found in:

- processed food, pickles, ice cream, whipped cream, gelatin, shortening, chewing gum,
- cosmetic, soaps, creams, body butter, bath gels, shampoo, mouthwash,
- eye drops, vitamin supplements, heart medication, contraceptives

# 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

# 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)
- Blood clots can occur in the brain, arms/legs or abdomen
- With proper medical care, can be treated
- **Informed consent:** Benefits of vaccine can outweigh risk when COVID-19 rates are high.
- Watch for any side effects following vaccination on days 4 to 28. Go to the ER if you have:
  - Trouble breathing, chest pain, abdominal pain that does not go away
  - Sudden severe headache, blurred vision, skin bruising or spots



## GET THE COVID-19 VACCINE IF YOU ARE PREGNANT



In pregnancy, COVID-19 infection can be more serious



COVID-19 vaccines can protect you from serious illness



Antibodies can transfer to the baby, protecting them as well



COVID-19 vaccines are safe in pregnancy & are being used around the world



Talk to your health care provider if you have questions

- Pfizer vaccine approved for use in children 12+ in Canada.
- As of today, children are not yet included in the provincial vaccination plans - but more details to come!
- The best way to protect children is:
  - to keep following public health guidelines, and
  - for adults to be vaccinated as soon as they can

## 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](https://toronto.ca/COVID19)



# Phase 2 of Vaccine Rollout

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

- Elementary and secondary school education workers are eligible to receive a COVID-19 vaccine, regardless of where they live or work.
- Proof of employment is required (e.g. employer letter, paystub).
- Education workers may include teachers, administrative staff, caretakers and bus drivers.
- Can book on-line through the provincial booking site.

# Pfizer/BioNTech 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. Also some Moderna.
- 140,000,000 doses of Pfizer vaccine administered in the USA so far. No safety signals.
- Works well, even with variants.
- Current vaccine being offered at the City of Toronto's mass 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 2<sup>nd</sup> 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](https://toronto.ca/COVID19)

 TORONTO Public Health

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

Ref – CDC: [https://www.cdc.gov/mmwr/volumes/70/wr/mm7013e3.htm?s\\_cid=mm7013e3](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.



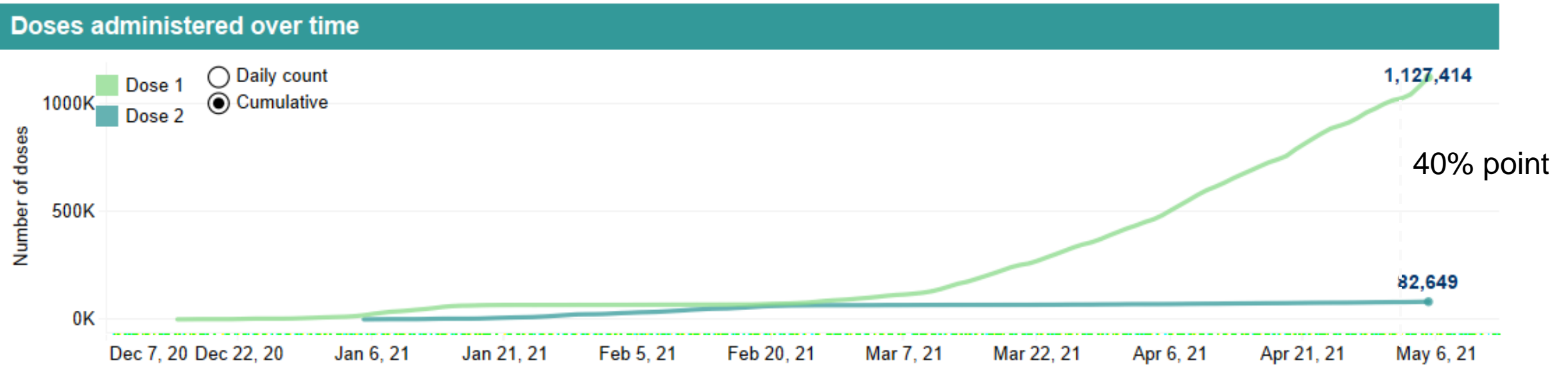
It also protects people who can't get vaccinated like newborn babies.



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 1<sup>st</sup>



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

# Ways To Get Vaccinated

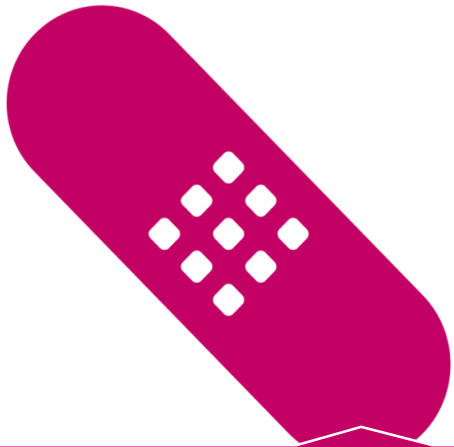
Red & white or no health card?  
Register using telephone #

**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](http://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](http://toronto.ca/covid19vaccinemap)

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

1. **Toronto Ride** - 416-481-5250; [www.torontoride.ca](http://www.torontoride.ca)
  2. **iRide** - 1-844-474-3301; [www.circleofcare.com/vaccinerides](http://www.circleofcare.com/vaccinerides);
  3. **Scarborough Ride** - 416 736-9372; [www.schcontario.ca/schc-scarborough-ride--transportation--hemodialysis.html](http://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>

# 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.

# Public Health Measures in Schools – Vaccines are an additional measure to prevent the spread of COVID-19

## Screening – staff, students, visitors

**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 you 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

TORONTO.CA/COVID19

**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

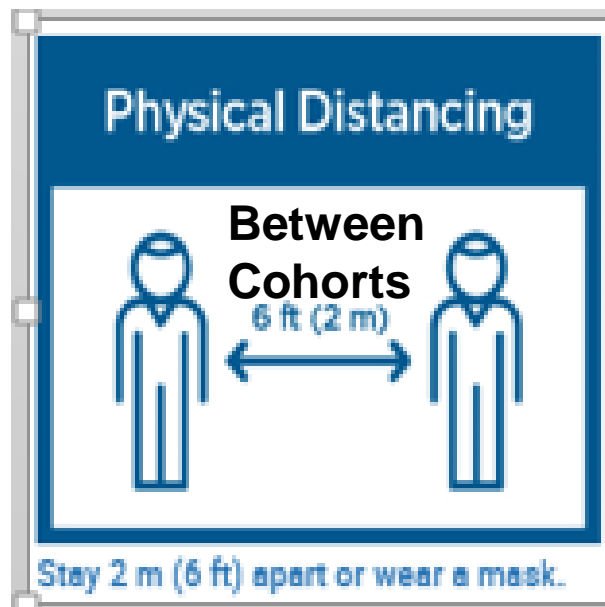
4.) Have you been notified as a close contact of someone with COVID-19 or been told to stay home and self-isolate?  Yes  No

\*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.

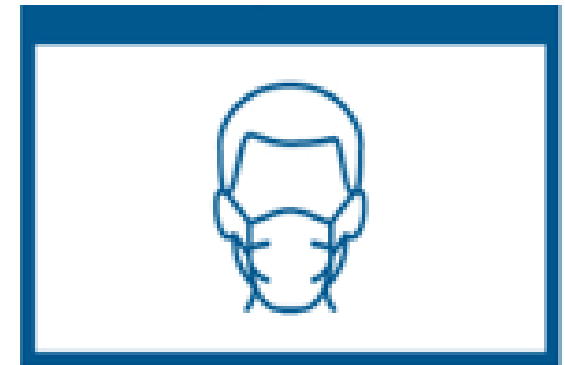
Updated February 2021

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## Keeping students in cohorts



## Student/Staff/Visitor Face Mask Use



## HAND HYGIENE



## Cleaning and Disinfection

Frequent cleaning of surfaces

## Ventilation in classrooms

**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.  
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](https://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.



# How vaccines were developed so fast?

- Scientists & researchers around the world sharing data
- Building on existing research & technology
- Large scale funding allowed for multiple testing and large clinical trials
- Over 280 vaccine products were tested
- All vaccines approved by Health Canada still had to meet all safety, efficacy and quality standards

# Vaccine ingredients

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

# 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](https://toronto.ca/covid19vaccinemap)

# TOGETHER, WE CAN GET OUT OF THE 3<sup>RD</sup> WAVE



**Take care of  
your physical  
& mental  
wellbeing.**



**Stay home  
except for  
essential reasons  
& exercise.**



**Gather only with  
members of  
your household.**



**Keep your  
distance, wear  
your mask, wash  
your hands.**



**Get the  
COVID-19  
vaccine when it is  
available to you.**

# What to expect after receiving your 1<sup>st</sup> dose of the COVID-19 vaccine



You may experience mild side effects that go away in 1-3 days



It takes 2 weeks after each dose for the vaccine to take effect



The clinic where you received your 1<sup>st</sup> dose will make your 2<sup>nd</sup> dose appointment



Keep your distance, wear a mask and wash your hands until more people are vaccinated





## Need help getting to a city-run clinic for your vaccination appointment?



If you cannot drive yourself or take transit, ask family or friends



If ride sharing, sit in the back seat with the windows open & wear a mask



If you cannot access or afford transportation you may be eligible for supports



Plan ahead - find more information, maps and pictures of city-run clinics at [toronto.ca/COVID19](https://toronto.ca/COVID19)

# 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