

COVID-19 Overview for MAG

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Disclosures

- The presenter has no conflicts of interest to disclose
- Public Health Ontario's Mandate is to provide scientific and technical advice and support to clients working in government, public health, health care and related sectors.

Overview

- To provide a brief overview of COVID-19
- To describe how the virus is transmitted
- To describe public health measures for reducing the risk of exposure to the virus
- Role of local public health units in case and contact management

COVID-19

- Infection caused by the virus SARS-CoV-2
- Novel coronavirus to humans
 - There is no prior immunity to this virus
- Currently, no vaccine – several candidates in development
 - There will be an ongoing need for other public health measures to control spread until vaccine is available
- Goal is to reduce morbidity and mortality until vaccine is developed – ongoing cases will occur until then

<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html#t>

Understanding Grows Every Day

- There is an unprecedented volume of studies and materials that improve our understanding of this virus
- Emerging evidence is reviewed and incorporated in real-time to ensure we are providing the best evidence possible to inform policies and decisions
- Guidance documents are updated frequently
 - The use of a Guidebook allows consistency and adaptation over time
- Communication and collaboration are key to ensuring consistency of advice and to help adapt to changes

Symptoms of COVID-19

Common symptoms

- Fever (temperature of 37.8°C or greater)
- New or worsening cough
- Shortness of breath

Other symptoms include

- Sore throat
- Difficulty swallowing
- Runny nose, or nasal congestion (in the absence of underlying reason)
- Loss of smell or taste
- Nausea/vomiting, diarrhea, abdominal pain
- Unexplained headaches/fatigue/malaise/ muscle aches

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_reference_doc_symptoms.pdf

Risk Factors for Severe Illness

- Severity increases with age
 - >1% case fatality in the 60-69 age group, 3.7% - 20.2% case fatality in those 80 years and older
- Underlying medical conditions
 - Cardiovascular disease, diabetes, chronic lung disease, weakened immune system
 - Increased association with hospitalization and death
- Increased risk for those in contact incorporated in risk assessment and guidance

<https://www.publichealthontario.ca/-/media/documents/ncov/covid-wwksf/what-we-know-clinical-severity.pdf?la=en>

<https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/2020/05/factsheet-covid-19-immunocompromised.pdf?la=en>

<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/risk-informed-decision-making-workplaces-businesses-covid-19-pandemic.html>

COVID-19 spreads mainly from person-to-person



**Close contact
(within 2 metres/6 feet)**

Close contact

- Respiratory droplets produced when an infected person coughs, sneezes, or talks
- Droplets land in the mouths or noses of people who are nearby or possibly inhaled into the lungs

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>

Other Ways COVID-19 is Spread

- “It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. This is not thought to be the main way the virus spreads, but we are still learning more about how this virus spreads.”
- Hand hygiene and environmental cleaning is the main way to address the risk of contaminated surfaces

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>

<https://www.publichealthontario.ca/-/media/documents/ncov/wwksf-routes-transmission-mar-06-2020.pdf?la=en>

COVID-19 Spread from Infected Persons

**Before
symptoms
start**

**Infectious 2 or more days
before symptoms start**

**During
symptoms**

**Infectious for at least 9 days
or longer after symptoms start**

**Without
symptoms**

**Infection can be asymptomatic,
and people with no symptoms
may spread illness to others**

Asymptomatic Cases

- Some individuals never develop symptoms
- In population based assessments, the median proportion of confirmed cases who are asymptomatic is 45% (range 23% to 89%)
- Limited data on degree to which cases who are asymptomatic spread to others
 - Evidence suggests slightly lower than for symptomatic cases
- Importance of measures to prevent spread from those who are unaware they are infected and infectious

Public Health Agency of Canada. Summary of the evidence on asymptomatic infections and transmission of SARS-CoV-2. June 5, 2020. Unpublished.

Settings with Known COVID-19 Transmission

- Long-term care homes
- Retirement homes
- Hospitals
- Shelters
- Cruise ships
- Navy ships
- Churches
- Group homes
- Shopping centers
- Restaurants
- Choirs
- Meat packing plants
- Day cares
- Migrant farm workers

Setting-specific factors that can increase the risk of COVID-19 introduction or spread

- Larger numbers of individuals together
 - Crowding of individuals
 - Opportunity to maintain physical distancing
- Layout of the space
 - Indoor vs outdoor (ventilation, confined spaces)
 - Shared break areas and other common spaces
- Individual factors
 - Infected individuals in the space
 - Activities of individuals while there

Infection Prevention and Control (IPAC) Principles



**Hand washing or use of alcohol-based hand rub (hand sanitizer)
is one key principle to prevent spread of infection**

Infection prevention and control (IPAC) principles

- Passive (signage) and active (questions) screening
 - Keeping sick and exposed people out of a setting
- Hand hygiene—hand washing or use of alcohol-based hand rub
- Respiratory etiquette— covering coughs and sneezes
- Respecting hierarchy of controls in place to maintain preventive measures

Screening at Entrances

- Important reminder to that those with symptoms or potential exposures should not be entering
- Temperature assessment is not part of current Ontario guidance for workplaces

STOP COVID-19

Please complete the following questions before beginning your work today.

Name: _____

Date: _____ Time: _____

Do you have any of the following:

Yes <input type="checkbox"/> No <input type="checkbox"/>	 Fever	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Cough	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Difficulty breathing	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Sore throat, trouble swallowing
Yes <input type="checkbox"/> No <input type="checkbox"/>	 Runny nose	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Loss of taste or smell	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Not feeling well	Yes <input type="checkbox"/> No <input type="checkbox"/>	 Nausea, vomiting, diarrhea

Yes No Have you been in close contact with someone who is sick or has confirmed COVID-19 in the past 14 days?

Yes No Have you returned from travel outside Canada in the past 14 days?

If you answered YES to any of these questions, go home & self-isolate right away. Call Telehealth or your health care provider, to find out if you need a test.

TORONTO.CA/COVID19 

<https://www.toronto.ca/wp-content/uploads/2020/05/95f0-Survey-Screening-poster-TPH.pdf>

Sample signage

How to handwash

Lather hands for 15 seconds

-  Wet hands with warm water.
-  Apply soap.
-  Lather soap and rub hands palm to palm.
-  Rub in between and around fingers.

Lather hands for 15 seconds

-  Rub back of each hand with palm of other hand.
-  Rub fingertips of each hand in opposite palm.
-  Rub each thumb clasped in opposite hand.
-  Rinse thoroughly under running water.

-  Pat hands dry with paper towel.
-  Turn off water using paper towel.
-  Your hands are now safe.

JUST CLEAN YOUR HANDS

For more information, please contact handhygiene@oahpp.ca or visit publichealthontario.ca/JCYH

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How to handrub

Rub hands for 15 seconds

-  Apply 1 to 2 pumps of product to palms of dry hands.
-  Rub hands together, palm to palm.
-  Rub in between and around fingers.
-  Rub back of each hand with palm of other hand.

Rub hands for 15 seconds

-  Rub fingertips of each hand in opposite palm.
-  Rub each thumb clasped in opposite hand.
-  Rub hands until product is dry. Do not use paper towels.
-  Once dry, your hands are safe.

JUST CLEAN YOUR HANDS

For more information, please contact handhygiene@oahpp.ca or visit publichealthontario.ca/JCYH

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<https://www.publichealthontario.ca/-/media/documents/J/2009/jcyh-handwash.pdf?la=en>²

<https://www.publichealthontario.ca/-/media/documents/J/2018/jcyh-handrub-card.pdf?la=en>³

Cover your coughs and sneezes (respiratory etiquette)



- Use a tissue and dispose of immediately, followed by hand hygiene
- If tissue not available, cough into sleeve or elbow
- Clean hands afterwards



Public Health Ontario | Santé publique Ontario

This is an excerpt from Infection Prevention and Control for Clinical Office Practice

COVER YOUR COUGH

Stop the spread of germs that can make you and others sick!

Cover your mouth and nose with a tissue when you cough or sneeze. Put your used tissue in the waste basket.

If you don't have a tissue, cough or sneeze into your upper sleeve or elbow, not your hands.

You may be asked to put on a facemask to protect others.

Wash hands often with soap and warm water for 15 seconds. If soap and water are not available, use an alcohol-based hand rub.

For more information please contact Public Health Ontario's Infection Prevention and Control Department at isac@ohpp.on.ca or visit www.publichealthontario.ca

Ontario
Agence de santé
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Agence de santé
publique et
protection de la santé

<https://www.publichealthontario.ca/-/media/documents/C/2013/clincial-office-cough-signage.pdf>⁴

Non-Medical Masks for “Source Control”

Coronavirus Disease 2019 (COVID-19)

Non-medical Masks and Face Coverings

Wearing non-medical masks or face coverings may be an added way to protect others around you, particularly where physical distancing may be challenging (e.g., on public transit, while shopping). Here are some tips on what masks and face coverings do, when you could consider using one, and how to wear it safely.

If you or a household member has symptoms of, or is suspected to have COVID-19, follow the [guidance for self-isolation](#).

Why use a non-medical mask or face covering

- COVID-19 can be spread from infected individuals who have a few or no symptoms and are unaware that they may be infected.
- A non-medical mask or face covering is intended to protect others from your infectious droplets.
- It may also prevent other people's droplets from landing in your mouth or nose.
- Consider wearing one in areas where community transmission of COVID-19 is occurring and where [physical distancing](#) may not be possible, e.g., public transit, smaller grocery stores or pharmacies.



What kind of non-medical mask or face covering should I use

- No specific design or material is known to be better than others.
- The [Public Health Agency of Canada](#) provides guidance on how to make cloth masks.
- Make sure each cloth mask is made of at least two layers and can be laundered multiple times without losing shape or deteriorating.
- Don't offer to children under the age of two, or individuals who are unable to wear it e.g., medical condition, or unable to wear/remove properly.



How to wear a non-medical mask or face covering

- Clean your hands with [soap and water or alcohol-based hand sanitizer](#) for at least 15 seconds.
- Make sure it fits **snugly (no gaps between mask and face)** to cover the nose and mouth, i.e., from below the eyes to around the chin.
- Secure it with ties or ear loops so that it is comfortable, and doesn't hinder breathing and vision.
- **Avoid touching the front of the mask or face covering while wearing it** – if you do, clean your hands immediately.
- Wear it as long as it is comfortable, and remove when it becomes soiled, damp, damaged or difficult to breathe through.
- Do not share your mask with others.



How to remove and care for non-medical masks or face coverings that can be cleaned

- Remove carefully by grasping the straps only and place directly in the laundry.
- If you have to use it again before washing, ensure that the front of the mask folds in on itself to avoid touching the front. Store it in its own bag, e.g., paper bag.
- Immediately clean your hands with soap and water or alcohol-based hand sanitizer for at least 15 seconds.
- Machine wash with hot water and with regular detergent, which should kill any viruses.
- The [Ministry of Health](#) has more information on the use and care of non-medical masks and face coverings.

Note

- Non-medical masks and face coverings may not provide complete protection against viral particles, especially if they fit loosely.
- As they are not tested to recognized standards, their effectiveness will vary.

The information in this document is current as of May 21, 2020

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Managing exposures to COVID-19



Ill Individual in the Workplace

- Should return home and self-isolate immediately
- If they cannot leave immediately, the individual should be isolated in a specific space away from others until they are able to leave
- If the individual is very ill, call 911
- All symptomatic individuals in Ontario can be tested
- Anyone who tests positive will be contacted by their local public health unit

Role of Local Public Health Unit

- Perform case management, including assessing when they were infectious, when they can come out of isolation, and where they may have acquired infection
- Perform contact tracing to identify those exposed
 - Advising on additional testing and self-isolation of those with close contacts to the case
 - Providing information on symptoms, testing and self-monitoring to non-close contacts
- Providing information to the location where exposure occurred regarding infection prevention and control measures

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_essential_workplaces_guidance.pdf

Outbreaks in Workplaces

- Where a public health unit determines that an outbreak exists in a workplace
 - Additional measures may be recommended, ordered
 - Recommend additional testing of those in the workplace
 - Review measures in place to prevent ongoing transmission

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_workplace_outbreak_guidance.pdf

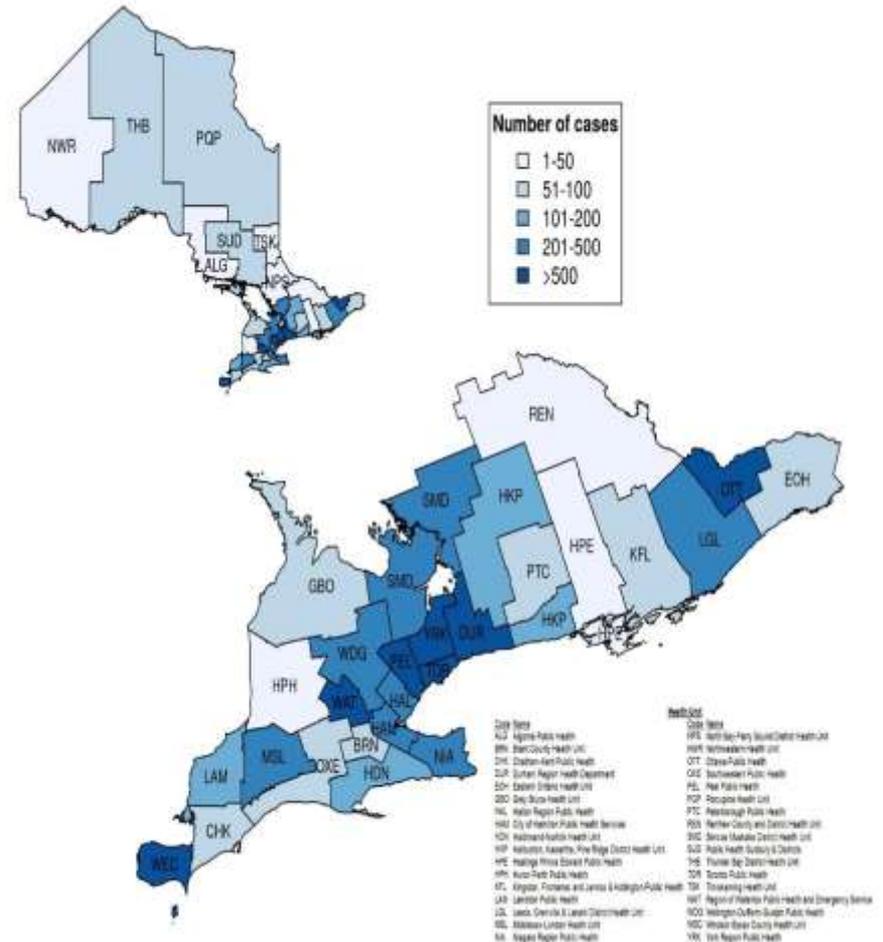
Contact your local public health unit

List of public health units

- <http://www.health.gov.on.ca/en/common/system/services/phu/localities.aspx>

By postal code

- <https://www.phdapps.health.gov.on.ca/phulocator/>



<https://files.ontario.ca/moh-covid-19-report-en-2020-04-29.pdf>

Resources



Infection Prevention and Control

How to clean your hands with soap and water or alcohol-based hand rub

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to wash your hands [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 May 05]. <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/factsheet-covid-19-hand-hygiene.pdf?la=en>

How to keep your distance

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Physical distancing [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 May 05]. <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/factsheet-covid-19-guide-physical-distancing.pdf?la=en>

Infection Prevention and Control

Infection Prevention and Control Fundamentals

- Links to key resources
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). At a glance: infection prevention and control fundamentals [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 May 05].
<https://www.publichealthontario.ca/-/media/documents/ncov/ipac/ipac-fundamentals.pdf?la=en>

Masking for Source Control

When and how to wear a mask

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). When and how to wear a mask: recommendations for the general public [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 May 05]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/factsheet-covid-19-how-to-wear-mask.pdf?la=en>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Non-medical masks and face coverings [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 June 16]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/2020/05/factsheet-covid-19-non-medical-masks.pdf?la=en>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Mask use for non-healthcare workers [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 June 16]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/2020/05/factsheet-covid-19-masks-not-healthcare.pdf?la=en>

Cleaning and disinfection

Cleaning and disinfection for public settings

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019: cleaning and disinfection for public settings [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2020 May 05]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet-covid-19-environmental-cleaning.pdf?la=en>

General resources

Public Health Ontario website

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus Disease 2019 (COVID-19) [Internet]. Toronto, ON: Queen's Printer for Ontario; c2020 [cited 2020 May 05]. Available from: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus>

General Resources

Ministry of Health guidance

- Ontario Ministry of Health. COVID-19 guidance for the health sector [Internet]. Toronto, ON: Queen's Printer for Ontario; c2020 [cited 2020 June 16]. Available from:
http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/2019_guidance.aspx
- [COVID-19 Guidance: Workplace Outbreaks](#)
- [Guidance for Essential Workplaces](#)
- Ontario Ministry of Health. Resources to prevent COVID-19 in the workplace [Internet]. Toronto, ON: Queen's Printer for Ontario; c2020 [last updated 2020 June 16; cited 2020 June 16]. Available from: <https://www.ontario.ca/page/resources-prevent-covid-19-workplace>