

Diseases, Disorders and Injuries

Coronavirus

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What is a coronavirus?

Coronaviruses (CoV) are a large family of viruses that are common and are typically associated with mild illnesses, similar to the common cold.

A novel coronavirus (nCoV) is a new strain that has not been previously identified in humans. The severe diseases have included:

- Middle East Respiratory Syndrome (MERS-CoV) (first reported in 2012, all cases have been linked to countries in or near the Arabian Peninsula)
- [Severe Acute Respiratory Syndrome](#) (SARS-CoV)

In late 2019, a coronavirus was identified in China (Wuhan City), and was initially known as 2019 Novel Coronavirus (2019-nCoV). An illness was reported on December 31st, 2019, and confirmation of the coronavirus identification occurred on January 7th, 2020. Formally, the disease is now known as coronavirus disease or COVID-19. The virus causing the disease is known as "severe acute respiratory syndrome coronavirus 2" (SARS-CoV-2).

Viruses can change over time. As the [Public Health Agency of Canada](#) states:

SARS-CoV-2, the virus that causes COVID-19, will naturally develop mutations, which are changes to the genetic material in the virus over time.

When there have been several significant mutations to the virus then it's called a variant. A variant is of concern when it affects:

- disease spread
- disease severity (for example, whether you have mild symptoms or require hospital care)
- tests used to detect the virus
- protection from previous infection, vaccines or treatments

What is the current status of the coronavirus (COVID-19) pandemic?

This document will discuss general precautions a workplace can take to help lower the spread of coronaviruses. For updates on the COVID-19 pandemic, please see:

- in Canada: Government of Canada (Public Health Agency of Canada) - [Coronavirus disease \(COVID 2019\): Outbreak update](#)
- the USA: Center for Disease Control and Prevention (CDC) - [Coronavirus disease 2019 \(COVID-19\)](#)
- for world reports: World Health Organization - [Coronavirus disease \(COVID-19\)](#)

What can workplace management do?

Do everything possible, under the circumstances, to protect the health and safety of workers and customers by providing adequate information, education, training, cleaning and disinfecting, and recommending measures such as mask wearing or personal protective equipment, as appropriate.

Workplaces should have a policy in place that outlines their requirements when people may be sick or absent to care for others. This policy should indicate how to notify the workplace, and if and when there is a requirement for a doctor's note. Organizations may wish to suspend the need for a doctor's or medical note for the absence to reduce the burden on the health care system.

During a pandemic, businesses may be asked to close or to operate using reduced staff (to promote physical distancing and reduce overcrowding) or to use low-contact methods. Allow workers to work remotely where possible. Assess each individual or job role to determine who or what tasks can be performed remotely.

Keep records of who was present at the workplace each day. If a worker or client is confirmed to have COVID-19, consult public health guidance for next steps.

Encourage physical distancing, hand hygiene and respiratory etiquette at all times.

Maintain or improve ventilation to reduce the build up of respiratory aerosols. Work with a professional to make sure your heating, ventilation, and air conditioning (HVAC) system is working properly. The HVAC system should have the appropriate filter, be suitable to the setting and activities, the number of occupants present, be suitable for how long the space is used, and be adjusted to exchange air as much as possible if needed.

Move activities outdoors where possible. If indoors, open windows or doors to introduce fresh air where possible (if weather permits, and where safe to do so).

Screening methods such as checklists and temperature checks may be used when workers report to workplace. Use a screening questionnaire from a public health agency, and remind workers to stay at home if they have symptoms of COVID-19, even if mild.

Pandemics often occur in waves, meaning periods of higher restrictive measures may tighten or loosen in response to local infection rates.

Monitor the situation by visiting the organizations listed above for more information.

Workplaces can help by having an infection control plan which includes details such as:

- Recommending that workers and visitors maximize the physical distance between themselves and others (maintaining at least 2 metres or 6 feet.. Methods include signs, posters, crowd control stanchions, room dividers, and floor markings.
- Using other technique. Do not create tripping hazards or “blind spot” areas when setting up barriers. Do not allow barriers to interfere with the air circulation (ventilation) for that space.
- Promoting the use of well constructed, well fitting, and comfortable masks (preferably a respirator or medical mask) or personal protective equipment as appropriate and acceptable to your workplace, workers, and customers. Consider any current recommendations from public health or other authorities when determining these measures. Use the best quality and best fitting mask or respirator that is available to you.
- Providing clean hand washing facilities, with soap, water, and disposable towels.
- Offering alcohol-based hand sanitizers (with at least 60% alcohol) when regular washing facilities are not available (or to people on the road).

- Cleaning and disinfecting frequently touched or shared surfaces, spaces, and objects often, including lunchrooms, washrooms, etc. Clean and disinfect touch points and surfaces such as doorknobs, handles, railings, kettles, etc. more often with household disinfectants or bleach solution (5 millilitres (mL) of (5%) bleach per 250 mL of water). Always pour the bleach into the water, never the other way around. Use a disinfectant with a drug identification number (DIN). This number means that it has been approved for use in Canada.
- Disinfecting all high-touch electronic devices (keyboards, tablets, smartboards, printers) with alcohol or disinfectant wipes, if the device can withstand liquids (check the owner's manual).
- Making sure that any person required to clean and disinfect has received the appropriate training and uses any required personal protective equipment. The area where the cleaner is used should also be adequately ventilated.
- Providing boxes of tissues and encourage their use.
- Providing equipment, tools, or communication devices for individual use. If items are shared, they must be cleaned and disinfected between users.
- Reminding workers to not share cups, glasses, dishes, and cutlery. Be sure all items are washed in soap and water after use.
- Removing magazines and papers from waiting areas or common rooms (such as tea rooms and kitchens).
- Making sure ventilation systems are working properly, have been maintained according to manufacturer's recommendation, use filters with the highest minimum efficiency reporting value (MERV) rating the system can handle, and have been adjusted to provide the maximum air exchanges per hour.
- Cleaning a person's workstation or other areas, especially if used by a person suspected or identified to be infected (e.g., use a disinfectant wipe).
- Offering services that used methods of low contact, such as online ordering, online or phone check-in, delivery, curbside pick up, or by using phone or video instead of meeting in person.
- Do not offer services that involve close person to person proximity (e.g., garment fittings), unless you are using rigorous methods to minimize the chance of transmission (e.g., dentist, massage therapist) or are an essential service (e.g., police, paramedic).
- Do not hold activities such as buffet style drinks or food, valet services, face-to-face meetings, large gatherings, or conferences.

How does a coronavirus spread?

Coronaviruses are zoonotic, meaning they usually have an animal origin. For example, investigations found that SARS-CoV was transmitted from civet cats to humans, and MERS-CoV was transmitted from dromedary camels to humans.

In some cases, the coronavirus can evolve further and spread from person-to-person. The route of transmission is not always known, but these viruses are generally thought to spread by airborne respiratory droplets and aerosols between people who are in close contact.

SARS-CoV-2 spreads by:

- respiratory droplets and aerosols generated when you cough, sneeze, breath, sing, or shout
- close, prolonged personal contact, such as touching or shaking hands
- touching something with the virus on it, then touching your mouth, nose or eyes with unwashed hands

Health Canada states that with SARS-CoV-2, person to person spread occurs when there is close contact. It is also possible for aerosols stay in the air for a period of time, especially in indoor spaces that are poorly ventilated. People can become infected with COVID-19 when a droplet or aerosol containing the coronavirus comes into contact with the mucous membranes of their nose, mouth, eyes, or lungs.

What is meant by “close contact”?

Generally speaking, examples of close contact include:

- Having cared for or lived with a person known to have the virus, including being within 2 metres (6 feet) or within the room or care area of a person with the virus
- Direct contact with droplets from coughing or sneezing by someone affected by the virus
- When a person touches a surface contaminated with infection and then touches their mouth, nose, or eyes

What are symptoms of infection with COVID-19?

Each coronavirus will vary in the severity of infection it causes. COVID-19 is known to cause a variety of symptoms with the result being a range that includes both a very mild illness, or it may be fatal to others. Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties.

COVID-19 presents with fever and symptoms of lower respiratory illness (e.g., cough or difficulty breathing). Common symptoms include:

- sore throat
- runny nose
- sneezing
- new or worsening cough
- shortness of breath or difficulty breathing
- temperature equal to or more than 38°C
- feeling feverish
- chills
- fatigue or weakness
- muscle or body aches
- new loss of smell or taste
- headache
- abdominal pain, diarrhea, vomiting
- feeling very unwell

There is also evidence indicates that the SARS-CoV-2 virus can be transmitted by someone who is infected but not showing symptoms, including people who

- have not yet developed symptoms (pre-symptomatic)
- never develop symptoms (asymptomatic)

Diagnosis of SARS-CoV-2 infection is determined by medical test as well as the person's exposure history.

Which occupations are at risk?

People caring for individuals with COVID-19 are at the greatest risk for contracting the disease such as health care workers in acute care hospitals, rehabilitation hospitals, mental health hospitals, long term care facilities, emergency departments, and others who work in close contact with their clients or patients. However, any occupation that has frequent, close, and prolonged interactions between people from different households have an increased risk of transmission.

Persons living with individuals with COVID-19 may also be at risk for contracting the disease. Individuals who are older (over 65), or who have underlying medical conditions or compromised immune systems are at higher risk of developing serious disease outcomes from COVID-19.

What are the recommendations to prevent transmission of the COVID-19 virus?

Recommendations from the Public Health Agency of Canada (PHAC) to the public to prevent the spread of infection include:

- Get the COVID-19 vaccine and any boosters when they are made available to you.
- Stay home and away from others (including those you live with) if you feel sick.
- Make sure the indoor space is well ventilated. Good ventilation exchanges indoor air for outdoor air, helping to reduce the buildup of potentially infectious respiratory particles in the air indoors. Open exterior windows or doors where possible. Refer to [Indoor Ventilation: Guidance During the COVID-19 Pandemic](#) for more details.
- Avoid or limit your time in closed spaces, crowded places, or close contact settings where there is:
 - singing
 - shouting
 - close-range conversations
 - heavy breathing (for example, during exercise)
- Avoid close contact with anyone who has COVID-19 symptoms
- Only travel when it is essential
- Wear a well constructed, well fitting and comfortable mask when you are in:
 - public
 - shared indoor spaces with people you do not live with
- Keep the number of people you have prolonged contact with as small as possible.
- Stick to a small and consistent social circle and avoid gathering in large groups.
- Talk to your employer about working at home if possible.
- Do not neglect your own personal care, take time to exercise (preferably outdoors), and monitor your mental health. Maintain a strong social support network and seek help when you need it.
- Maximize your physical distance (at least 2 metres) from people you do not live with, when recommended by public health authorities.
- Have good hand hygiene and respiratory etiquette
 - Frequently clean your hands by using soap and water for at least 20 seconds, or if soap and water is not available alcohol-based hand sanitizer (at least 60% alcohol)

- When coughing and sneezing cover mouth and nose with flexed elbow or tissue – throw the tissue away immediately and wash hands
- Avoid touching your eyes, nose, or mouth with unwashed hands

Clean and disinfect surfaces that are touched by others frequently. Clean surfaces before using disinfectants and always follow product label directions. If available, choose products that clean and disinfect all at once, such as wipes or commercial disinfectant solutions.

The general guidelines **for public and most workplaces** (non-healthcare) are outlined in the following documents:

- [Hand Washing: Reducing the Risk of Common Infections](#)
- [Good Hygiene Practices - Reducing the Spread of Infections and Viruses](#)

Know the appropriate procedures for general [sanitation and infection control](#), and how to work safely with [hazardous products](#), including [bleach](#).

If using [gloves](#) when cleaning, always wear the appropriate type of glove for the product you are using. The appropriate type of glove material will be listed on that product's safety data sheet (SDS). If this information is missing, contact the supplier or manufacturer of the product. Manufacturers of chemical protective gloves and clothing may also assist their customers in making appropriate choices.

What are measures that can be taken in workplaces that provide health care?

For **health care workplaces**, the following precautions should help prevent transmission. In addition, check with organizations such as Health Canada, the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) who will be monitoring any new situation, and will include specific infection control guidance for workers at risk as the information becomes available.

For example, guidance for health care workplaces is outlined in the document “[COVID-19: For health professionals](#)” from the Government of Canada. There are infection prevention and control measures for various health care settings including acute care, long-term care, homecare, and outpatient and ambulatory care.

Measures may include:

- Conducting risk assessments, including a point-of-care assessment
- Following routine practices, including hand hygiene
- Establishing triage and facility access points
- Conducting active screening

- Requiring all workers and visitors to wear a medical mask, as necessary
 - Providing information to workers, visitors, and patients
 - Providing education and training to all workers
 - Establishing procedures for personal protective equipment, including gloves, gowns, masks/respirators, and eye protection as necessary
 - Establishing procedures to manage exposures or when signs and symptoms are noted
 - Developing procedures to manage wastes, linens, cleaning, and other aspects of the work environment
 - Limiting visitors as appropriate
 - Monitoring and evaluating procedures and processes for continual improvement or in response to a disease outbreak
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Fact sheet last revised: 2022-07-19

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