CORONAVIRUS DISEASE 2019
(COVID-19)

Includes information on Multisystem Inflammatory Syndrome in Children (MIS-C) under section, "SIGNS AND SYMPTOMS".

REPORTING INFORMATION

- **Class A with special reporting requirements:** ***Confirmed*** *and* ***Probable*** *cases* of COVID-19 should be reported **within twenty-four hours** to the local health district in which the person resides. If patient residence is unknown, report to the local health department in which the reporting health care provider or laboratory is located.
- Reporting Form(s) and/or Mechanism:
  - Persons in charge of any laboratory that examines specimens of human origin for evidence of COVID-19 infection shall electronically report within twenty-four (24) hours the results of all such examination, including, but not limited to: positive, negative, invalid, and inconclusive results.
  - Laboratory results should be electronically reported according to the protocols outlined for COVID-19 reporting on the Ohio Department of Health (ODH) Electronic Laboratory Reporting website.
    - Electronically reported negative, invalid, and inconclusive viral test results, in addition to all antibody results, will be stored within the Innovate Ohio Platform Data Lake. These results will be submitted to the Centers for Disease Control and Prevention (CDC) in accordance with national reporting requirements and will be used for percent positivity calculations. These results will not generate records within the Ohio Disease Reporting System (ODRS) as public health investigation is not required.
  - The local health department should enter the case into ODRS within 24 hours after receiving a report.
    - The CDC Human Infection with 2019 Novel Coronavirus Case Report Form is available for use to assist in local disease investigation. Information collected from the form should be entered into ODRS. If requested, the form can be uploaded to the ODRS record.
- Key information for ODRS reporting includes: illness onset date; sensitive occupation (including location); race and ethnicity (critical to address disparities); clinical information; hospitalization status; lab results, collection date and test type; signs/symptoms/comorbidities; known contact or linkage to COVID-19 cases; travel history; membership in a risk cohort as defined below.

AGENT

SARS-CoV-2 is a novel species of the *Coronaviridae* virus family, Beta-CoV lineage B.d

Infectious Dose: Unknown

CASE DEFINITION

Clinical Criteria

To meet the clinical criteria, a patient must meet either criteria 1 and 3, or criteria 2 and 3 below.

1)

- Acute onset or worsening of at least two of the following symptoms or signs:
  - fever (measured or subjective),
  - chills,
  - rigors,
  - myalgia,
  - headache,
  - sore throat,
  - nausea or vomiting,
  - diarrhea,
  - fatigue,
  - congestion or runny nose

  OR

- Acute onset or worsening of at least one of the following symptoms or signs:
  - cough,
  - shortness of breath,
  - difficulty breathing,
  - olfactory disorder,
  - taste disorder,
  - confusion or change in mental status,
  - persistent pain or pressure in the chest,
  - pale, gray, or blue-colored skin, lips, or nail beds, depending on skin tone,
  - inability to wake or stay awake

OR

2) Severe respiratory illness with at least one of the following:

- Clinical or radiographic evidence of pneumonia, or
- Acute respiratory distress syndrome (ARDS)

AND

3) No alternative more likely diagnosis

Laboratory Criteria

Laboratory evidence using a method approved or authorized by the U.S. Food and Drug Administration (FDA) or designated authority*:

Confirmatory laboratory evidence:

- Detection of SARS-CoV-2 RNA in a post-mortem respiratory swab or clinical specimen using a molecular amplification detection test; OR
- Detection of SARS-CoV-2 by genomic sequencing

Presumptive laboratory evidence:

- Detection of SARS-CoV-2 specific antigen in a post-mortem respiratory swab or clinical specimen

Supportive laboratory evidence:
- Detection of specific antibody in serum, plasma, or whole blood; OR
- Detection of specific antigen by immunocytochemistry in an autopsy specimen

*Laboratory developed tests (LDTs) are not currently being reviewed by the U.S. Food and Drug Administration. If a LDT is used, the case will be classified according to routine procedures. If a test-based strategy is being used to inform discontinuation of isolation or quarantine precautions, it must be a test designated for such purposes.

Epidemiologic Linkage
One or more of the following exposures in the 14 days before onset of symptoms (or, for asymptomatic persons, the 14 days before a positive test for SARS-CoV-2 was collected):

- Close contact* with someone with confirmatory or presumptive laboratory evidence of SARS-CoV-2 infection

  OR

- Member of a risk cohort as defined by public health authorities during an outbreak.
    - In Ohio, the following are identified as risk cohorts:
        - Hospitalized patients
        - Healthcare workers
        - First responders (including law enforcement, fire services, emergency medical services, and emergency management officials)
        - Residents of long-term care facilities
        - Members of other congregate settings (e.g., group homes, schools, colleges or universities, correctional and detention facilities)

*Close contact is generally defined as being within 6 feet for a period of 15 minutes or more (cumulative/total time) depending upon the exposure level and setting. Please see section titled **Contacts** on page 6 for additional details. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact.

Vital Records Criteria
- A death certificate that lists COVID-19 disease or SARS-CoV-2 or an equivalent term as an underlying cause of death or a significant condition contributing to death.

CASE CLASSIFICATION

Suspected:
- Meet supportive laboratory evidence with no prior history of being a confirmed or probable case.

Probable:
- Meets presumptive laboratory evidence AND was reported on or after November 1, 2020; OR
    - For reports received prior to November 1, 2020: meets presumptive laboratory evidence **AND** either clinical criteria **OR** epidemiologic linkage; OR
- Meets clinical criteria **AND** epidemiologic linkage with no confirmatory or presumptive laboratory evidence for SARS-CoV-2; OR
- Meets vital records criteria with no confirmatory laboratory evidence for SARS-CoV-2.

Confirmed:

- Meets confirmatory laboratory evidence.
    - NOTES: Asymptomatic infections are reportable as confirmed cases. In some cases, a SARS-CoV-2 genomic sequencing result may be available without an associated positive PCR result. These records should be classified as a confirmed case; however, public health action may be limited as SARS-CoV-2 genomic sequencing assays are non-diagnostic tests and generally not CLIA-validated.

Not a Case:

- This status will not generally be used when reporting a case, but may be used to reclassify a report if investigation revealed that it was not a case.
- For discordant test results from different types of tests, results from laboratory-based nucleic acid amplification tests (NAATs) should be prioritized over point-of-care (POC) or self-administered tests. For surveillance purposes, records should be classified as "Not a Case" if SARS-CoV-2 RNA is not detected using a laboratory-based NAAT within 2 days following a POC NAAT for an asymptomatic person with no known exposure to SARS-CoV-2.
- For surveillance purposes, records should be classified as "Not a Case" if SARS-CoV-2 RNA is not detected using a confirmatory laboratory test within 2 days following a rapid antigen test for an asymptomatic person with no known exposure to SARS-CoV-2. If SARS-CoV-2 RNA is not detected using a confirmatory laboratory test in an initial clinical specimen for a symptomatic person (collected within 7 days of onset), records may be classified as "Not a Case" if the likelihood of true infection is deemed to be low (e.g., completion of COVID-19 vaccine series or identification of alternative etiology).
- For considerations related to public health management, please see section titled **Public Health Management** on page 6.

Criteria to Distinguish a New Case from an Existing Case

- The following should be enumerated as a new case for cases reported on or after September 1, 2021:
    - SARS-CoV-2 sequencing results from the new positive specimen and a positive specimen from the most recent previous case demonstrate a different lineage; OR
    - Person was most recently enumerated as a confirmed or probable case with onset date (if available) or first positive specimen collection date for that classification >90 days prior*; OR
    - Person was previously reported but not enumerated as a confirmed or probable case (i.e., suspect)**, but now meets criteria for a confirmed or probable case.

    *Note: Some individuals, e.g., severely immunocompromised persons, can shed SARS-CoV-2 detected by molecular amplification tests >90 days after infection. For severely immunocompromised individuals, clinical judgment should be used to determine if a repeat positive test is likely to result from long term shedding and therefore not be enumerated as a new case. CDC defines severe immunocompromise as certain conditions, such as being on chemotherapy for cancer, untreated HIV infection with CD4 T lymphocyte count <200, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for more than 14 days.
    **Note: Repeat suspect cases should not be enumerated as a new case. A case that meets vital records criteria more than 90 days after documented laboratory

evidence of SARS-CoV-2 infection (e.g., date of death greater than 90 days from the previous event date) should not be enumerated as a new case unless thorough review and clinical judgement determine this to be a reinfection event.

- Considerations for public health management of persons with persistent or recurrent positive tests are available in CDC's Clinical Questions about COVID-19: Questions and Answers. If a potential case of reinfection is suspected, guidance for public health management remains the same for reinfections as primary infection with SARS-CoV-2.

SIGNS AND SYMPTOMS

Symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. COVID-19 presents as a mild to moderate illness for approximately 80% of individuals evaluated with the disease; 15% of individuals experience severe illness requiring supplemental oxygen; and 5% experience critical illness requiring mechanical ventilation. People with COVID-19 generally develop signs and symptoms, including mild respiratory symptoms and fever ~5 days after infection (mean incubation period 4-5 days, range 1-14 days).

Multisystem Inflammatory Syndrome in Children (MIS-C)

MIS-C is a condition where different body parts can become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs. Children with MIS-C may present with persistent fever, abdominal pain, vomiting, diarrhea, skin rash, mucocutaneous lesions, and in severe cases, hypotension and shock. Patients usually have elevated markers of inflammation, and some patients may develop myocarditis, cardiac dysfunction, and acute kidney injury. Additional clinical considerations are available in CDC's Information for Healthcare Providers about MIS-C. We do not currently know what causes MIS-C. However, many children with MIS-C were recently infected with SARS-CoV-2 or had been around someone with COVID-19.

The case definition for MIS-C is available here. Per the ODH Director's Journal Entry dated May 15, 2020, MIS-C is a reportable condition. LHDs who are notified of confirmed or suspected cases of MIS-C should notify ODH via entry into ODRS within 24 hours of identification. A MIS-C case report form should be completed and attached to the ODRS record; a fillable MIS-C case report form is available here.

DIAGNOSIS

Patients who present with symptoms consistent with COVID-19 should also be evaluated for common causes of community-acquired pneumonia (e.g., influenza A and B viruses, respiratory syncytial virus, *Streptococcus pneumoniae*, and *Legionella pneumophila*). This evaluation should be based on clinical presentation and epidemiologic and surveillance information.

If infection with COVID-19 is suspected based on current clinical and epidemiological screening criteria recommended by public health authorities, healthcare providers should consider testing clinical specimens.

Testing for other respiratory pathogens should not delay shipping of specimens for COVID-19 testing for suspected cases. If a suspected case tests positive for another respiratory pathogen, after clinical evaluation and consultation with public health authorities, they may no longer be considered a suspect case. This may evolve as more information becomes available on possible COVID-19 co-infections.

If testing is to be performed at ODH Laboratory, use nasopharyngeal swabs in viral transport media and include the ODH Laboratory Microbiology Specimen Submission Form (HEA 2530) with the specimen.

For initial diagnostic testing for SARS-CoV-2 (COVID-19), CDC recommends collecting an upper respiratory specimen. The following are acceptable specimens:

- Nasopharyngeal (NP) specimen collected by a healthcare professional, or
- Oropharyngeal (OP) specimen collected by a healthcare professional, or
- Nasal mid-turbinate (NMT) swab collected by a healthcare professional or by a supervised onsite self-collection (using a flocked tapered swab), or
- Anterior nares (nasal swab; NS) specimen collected by a healthcare professional or by onsite or home self-collection (using a flocked or spun polyester swab), or
- Nasopharyngeal wash/aspirate or nasal wash/aspirate (NW) specimen collected by a healthcare professional

Specimens should be collected as soon as possible once a suspected case is identified, regardless of the time of symptom onset. Maintain proper infection control when collecting specimens. Further guidance for collection, handling, and testing of clinical specimens is available at Interim Guidelines for Collecting and Handling Clinical Specimens for COVID-19 Testing

Virus isolation in cell culture and initial characterization of viral agents recovered in cultures of COVID-19 specimens are NOT recommended at this time, except at a BSL3 facility.

See also:

- Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19)

Considerations for Interpreting Test Results and Public Health Management

Information on the performance of rapid antigen rests for SARS-CoV-2 and evaluation of results, including considerations for when confirmatory testing might be warranted, is available in CDC's Interim Guidance for Antigen Testing for SARS-CoV-2. Guidance specific to antigen testing in nursing homes is available in CDC's SARS-CoV-2 Antigen Testing in Long Term Care Facilities. General recommendations for testing are available in CDC's Overview of Testing for SARS-CoV-2.

The "gold standard" for clinical diagnostic detection of SARS-CoV-2 remains RT-PCR; these tests are highly sensitive and specific, but a false negative result is possible.

- When a confirmatory test is negative but epidemiologic linkage and clinical criteria are met, persons should follow isolation protocols for COVID-19 unless an alternative etiology is identified after evaluation by a healthcare provider. If an alternative etiology is identified, persons should follow quarantine protocols for COVID-19 due to epidemiologic linkage.
- For asymptomatic persons, when a confirmatory test is negative but epidemiologic linkage criteria are met, persons should follow quarantine protocols for COVID-19.
- For residents or healthcare personnel in nursing homes, please follow CDC's guidance for SARS-CoV-2 Antigen Testing in Long Term Care Facilities (testing algorithm available here).

EPIDEMIOLOGY

Chinese health officials identified COVID-19 in Wuhan City, Hubei Province, China in December 2019 based on testing of individuals with severe pneumonia. On January 21, 2020, the United States announced its first infection with COVID-19 detected in a

traveler returning from Wuhan. On March 9, 2020, Ohio reported its first COVID-19 cases. For an updated list of COVID-19 travel recommendations by country, please visit the CDC website here.

Source
Early on, many of the patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had some link to a large seafood and live animal market, suggesting animal-to-person spread. Later, a growing number of patients reportedly did not have exposure to animal markets, indicating person-to-person spread. Person-to-person spread was subsequently reported outside Hubei and in countries outside China, including in the United States. Most international destinations now have ongoing community spread with the virus that causes COVID-19, as does the United States.

Occurrence
COVID-19 is widespread through almost every country in the world. Variants of the SARS-CoV-2 virus have emerged and are circulating globally. At this time, strict adherence to existing precautions and containment measures is recommended to prevent the spread of SARS-CoV-2 variants. For more information, please see SARS-CoV-2 Variant Classifications and Definitions and COVID Data Tracker: Variant Proportions.

Mode of Transmission
COVID-19, like other coronaviruses, is thought to mainly spread from person-to-person between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs, sneezes, talks, or breathes. While evidence suggests that COVID-19 can sometimes be spread by airborne transmission, it most commonly spreads during close contact. COVID-19 may be spread by people who are not showing symptoms. The precise ways the virus spreads is an area of continued study.

Period of Communicability
Available data indicate that persons with mild to moderate COVID-19 remain infectious for no longer than 10 days after symptom onset. Persons with more severe to critical illness or severe immunocompromise likely remain infectious no longer than 20 days after symptom onset. Patients are believed to be contagious two days prior to symptom onset (or, for persons who tested positive for COVID-19 but have not had any symptoms, the two days before the date the first positive viral test was collected).

Incubation Period
The estimated incubation period is between 2 and 14 days with a median of 4-5 days from exposure to symptom onset. Not all infected individuals develop symptoms.

PUBLIC HEALTH MANAGEMENT

Case

Investigation

Given the increased coverage of vaccination, effectiveness of vaccines in preventing severe illness, emergence of more transmissible variants, and increased understanding of public health prevention measures, universal case investigation is no longer the most effective mitigation strategy. Investigation of cases in high-risk settings (e.g., long-term care and correctional facilities), cases associated with outbreaks, or cases associated with the emergence of variants with concerning mutations, or other situations of concern to local or state health authorities should be implemented to prevent transmission within populations at increased risk of severe morbidity or mortality.

Treatment

The National Institutes of Health (NIH) has published guidelines on testing and management of patients with COVID-19. For more information, please visit the NIH COVID-19 Treatment Guidelines. Current clinical management includes infection prevention and control measures and supportive care, including supplemental oxygen and mechanical ventilatory support when indicated. The U.S. Food and Drug Administration (FDA) has approved one drug, remdesivir (Veklury), for the treatment of COVID-19 in certain situations.

Early effective treatment of any disease can help avert progression to more serious illness, especially for patients at high risk of disease progression and severe illness, with the additional benefit of reducing the burden on healthcare systems. A number of novel therapeutics (e.g., monoclonal antibodies) are available under EUA for early outpatient treatment. Trials to assess the potential effectiveness of these therapeutics in outpatients at high risk of disease progression are ongoing. Clinicians and patients who wish to consider their use, or the use of any other available investigational therapies, should review the COVID-19 Treatment Guidelines as well as the FDA EUA for the therapy.

Isolation

Issuance of isolation orders or guidance is not generally needed. Local health departments should continue to provide education and messaging for the general public to reduce further transmission. Additional mitigation measures should be implemented for high-risk settings.

For guidance on recommendations of discontinuation of isolation and return to work criteria by population or setting, please see:

- Guidance for the general population: Quarantine and Isolation
- Guidance for high-risk congregate settings: Quarantine and Isolation (note: isolation recommendations for residents of high-risk settings differ from recommendations for the general public)
- Guidance for healthcare personnel: Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2
- Guidance for patients, residents, and visitors to healthcare settings:
  - Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the COVID-19 Pandemic
- Guidance for travelers: Travel

Fully Vaccinated People with COVID-19 Symptoms

Any fully vaccinated or boosted person who experiences symptoms consistent with COVID-19 should isolate themselves from others, be clinically evaluated for COVID-19, and tested for SARS-CoV-2 if indicated. Fully vaccinated persons should inform their healthcare provider of their vaccination status.

Vaccine Breakthrough Cases

Jurisdictions are asked to investigate SARS-CoV-2 infections among fully vaccinated persons to identify trends or clustering in patient characteristics, the administered vaccine, or the infecting virus.

Criteria for COVID-19 Vaccine Breakthrough Case Investigations

- COVID-19-related hospitalization or death
- U.S. Resident

- Completed full primary series of an FDA-authorized COVID-19 vaccine
- SARS-CoV-2 RNA or antigen detected on a respiratory specimen collected ≥14 days after completing the primary series of an FDA-authorized COVID-19 vaccine
- No known positive test for SARS-CoV-2 RNA or antigen detected on a respiratory specimen collected <45 days before the most recent positive test

If a vaccine breakthrough case is suspected or identified, local jurisdictions should contact the Vaccine-Preventable Disease (VPD) Epidemiology Program at (614) 995-5599, or email ORBIT@odh.ohio.gov, during normal business hours to approve and coordinate RNA specimen submissions to the Ohio Department of Health Laboratory (ODHL) for viral sequencing. Once the VPD Program has been notified and the criteria have been met, the PCR specimen can be sent with a completed SARS-CoV-2 Specimen Submission Form (found here). "Vaccine Breakthrough Whole Genome Sequencing (WGS)" should be written in the comments section of the form.

Healthcare providers should be instructed to additionally report cases of Multisystem Inflammatory Syndrome (MIS) in vaccinated persons and/or breakthrough cases of COVID-19 that result in hospitalization or death to the Vaccine Adverse Event Reporting System (VAERS): https://vaers.hhs.gov/faq.html.

In addition to the key information for ODRS reporting, LHDs should enter complete vaccine information in the vaccine module of ODRS for any vaccine breakthrough case investigation.

Contacts

Given the increased coverage of vaccination, effectiveness of vaccines in preventing severe illness, emergence of more transmissible variants, and increased understanding of public health prevention measures, universal contact tracing is no longer the most effective mitigation strategy. Identification and notification of close contacts should be implemented as necessary to reduce transmission within high-risk settings (e.g., long-term care and correctional facilities, outbreaks, or emergence of variants with concerning mutations).

Issuance of quarantine orders or guidance is not generally needed. Local health departments should continue to provide education and messaging for the general public to reduce further transmission. Additional mitigation measures should be implemented for high-risk settings.

Close contact is defined as: someone who was within 6 feet of an infected person for at least 15 minutes (total/cumulative time) starting from 2 days before illness onset (or, for asymptomatic clients, 2 days prior to positive specimen collection) until the time the patient is isolated. Additionally, a person would be considered a close contact if they provided care in the home to someone who is sick with COVID-19, had direct physical contact with them (e.g., hugged or kissed them), shared eating or drinking utensils, or had unprotected direct contact with infectious secretions or excretions of the infected person (e.g., was coughed/sneezed on, touched used tissues with a bare hand). Data are limited to precisely define prolonged exposure to determine "close contact", however 15 minutes of close exposure can be used as an operational definition for contact investigation. Factors to consider when defining close contact include proximity, the duration of exposure (e.g., longer exposure time likely increases exposure risk) and whether the individual has symptoms (e.g., coughing likely increases exposure risk).

In general, testing is recommended for close contacts of persons with SARS-CoV-2 infection because of the potential for asymptomatic and pre-symptomatic transmission. Persons are advised to be tested on day 5 after exposure or if symptoms develop.

For the general population*, persons **are not** required to quarantine if they meet the following criteria:

- Are up to date on COVID-19 vaccines OR
- Had COVID-19 within the last 3 months (infection verified with a viral diagnostic test) AND
- Have remained asymptomatic since the current COVID-19 exposure

Following exposure, persons meeting the above criteria are advised to test on day 5 (if no verified COVID-19 infection within the last 3 months) and wear a mask around others for 10 days. They should monitor for symptoms of COVID-19 for 14 days and follow recommended isolation protocols if they develop symptoms of COVID-19. In most situations, persons who have recovered from previous SARS-CoV-2 infection do not need to be tested after exposure if the exposure occurs within 3 months of the infection and they remain asymptomatic.

For the general population, persons **are advised** to quarantine if they:

- Are not vaccinated OR
- Are not up to date on COVID-19 vaccines

Following exposure, persons meeting the above criteria are advised to quarantine for 5 days, test on day 5, and wear a mask around others for 10 days. They should monitor for symptoms of COVID-19 for 14 days and follow recommended isolation protocols if they develop symptoms of COVID-19. Additional considerations for persons under quarantine:

- During the 10 days following exposure, if possible, limit contact with household members, people who are immunocompromised or at high risk for severe disease, and avoid nursing homes and other high-risk settings.
- Given the high-risk nature of household exposures, consider the entire 10-day period of exposure for household contacts. Considerations for the ability to isolate within the home are still applicable; when making this determination, use of shared spaces (kitchen, bathroom, etc.) should be considered carefully.
- If persons are unable to wear a mask (e.g., children under 2 years of age), they should continue to quarantine for 10 days.
- Recommendations for travelers are available on the CDC website here.

- *Exceptions: For healthcare settings:
    - Healthcare facilities should continue to follow all applicable state and federal requirements related to testing, isolation, and quarantine of healthcare personnel and patients. Detailed guidance on testing, isolation, and quarantine in healthcare settings, including considerations for boosted, vaccinated, and unvaccinated persons, is available on the CDC website: refer to Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2 and Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the COVID-19 Pandemic. Guidance from the Centers for

Medicare and Medicaid Services (CMS) can be found at QSO-20-38-NH REVISED (cms.gov).

- For daycare centers:
  - Please refer to COVID-19 Guidance for Operating Early Care and Education/Child Care Programs.
- For other high-risk congregate settings:
  - Residents are advised to quarantine for 10 days, regardless of vaccination or booster status. Reduced duration of quarantine in these settings may be considered based on consultation with the local health jurisdiction.

Special Considerations for K-12 Classroom Environments

To protect in-person learning, masking for students and staff (regardless of vaccination status) is currently recommended. Masking remains an important tool for preventing transmission and may be layered with other mitigation strategies to limit spread, particularly when levels of community transmission of SARS-CoV-2 are elevated or an outbreak within a school setting is identified. Asymptomatic individuals who are known to be exposed to someone with COVID-19 can continue to return to the K-12 setting following the Mask to Stay, Test to Play protocols.

Outbreaks

Please follow existing ODH guidance on outbreaks in Section 3 of the IDCM. For COVID-19, an outbreak is generally defined as two or more cases who are epidemiologically linked with a common exposure in a community, institutional, or healthcare setting*, do not share a household, and are not close contacts of each other in another setting.

*For long-term care facilities**, one case of facility-onset COVID-19 in a resident is generally considered an outbreak. Facility-onset COVID-19 is defined as a COVID-19 diagnosis 14 days or more after admission for a non-COVID condition, without an exposure during the previous 14 days to another setting where an outbreak was known or suspected to be occurring; it does not include residents who were known to have COVID-19 on admission or who were placed into transmission-based precautions upon admission and developed COVID-19 within 14 days after admission.

**Including long-term acute care hospitals, skilled nursing facilities, assisted living facilities, residential care facilities, intermediate care facilities for the intellectually disabled, wrap-around facilities, and any other facilities providing comparable services.

Outbreak resolution is defined as: No new symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (two incubation periods) have passed since the last case's onset date or specimen collection date (whichever is later). Facilities should follow appropriate local, state, or federal guidance on timing for outbreak testing activities.

In the context of substantial or high transmission of SARS-CoV-2, judgement may be necessary to determine if specific cases are associated with an outbreak or general transmission within the community.

Prevention and Control

The best way to prevent illness is to avoid being exposed to COVID-19. The virus that causes COVID-19 is thought to spread mainly from person-to-person through respiratory droplets produced when an infected person coughs, sneezes, talks, or breathes. These

droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely between people who are in close contact with one another (within about 6 feet). To prevent illness:

- Get vaccinated and stay up to date with your vaccines
- Avoid close contact with people who are sick, stay at home as much as possible, and put distance between yourself and other people.
- Cover your mouth and nose with a well-fitting face mask when around others.
- Clean and disinfect frequently touched surfaces daily.
- Wash hands often with soap and water for at least 20 seconds especially after you have been in a public place or after blowing your nose, coughing or sneezing.
- If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
- Avoid touching your eyes, nose and mouth with unwashed hands.

Additional Resources

CDC Coronavirus (COVID-19)

Evaluating and Testing Persons for Coronavirus Disease 2019 (COVID-19)

CDC Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)

CDC Information for Pediatric Healthcare Providers

CDC How to Protect Yourself & Others

Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 (COVID-19)

Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19)

Infectious Diseases Society of America Guidelines on the Treatment and Management of Patients with COVID-19

WHO Clinical management of severe acute respiratory infection when COVID-19 is suspected

What is COVID-19?
COVID-19 is a respiratory illness. It is caused by a virus called SARS-CoV-2. This virus was first identified in 2019 in Wuhan City, Hubei Province, China. It is different from any other coronaviruses that have been found in people before.

What are the symptoms and complications of COVID-19?
People with COVID-19 have had a wide range of symptoms reported, ranging from mild symptoms to severe illness. Symptoms may include:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle pain or body aches
- Headache
- Sore throat
- New loss of taste or smell
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Complications of COVID-19 may include respiratory failure, shock or multiorgan system dysfunction.

How does the virus spread?
The virus that causes COVID-19 spreads easily and sustainably between people, mainly through respiratory droplets produced when an infected person coughs, sneezes, talks, or breathes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. COVID-19 can sometimes be spread by airborne transmission (when small droplets are able to infect people who are further than 6 feet away from the infected person or after that person has left the space), however, spread is more likely between people who are in close contact with one another (within about 6 feet). COVID-19 may be spread by people who are not displaying symptoms. Less commonly, a person can get COVID-19 by touching a contaminated surface or object and then touching their own, mouth, nose, or possibly their eyes (this is not thought to be the main way the virus spreads).

Prevention and Control
The best way to prevent illness is to avoid being exposed to COVID-19. The virus that causes COVID-19 is thought to spread mainly from person-to-person through respiratory droplets produced when an infected person coughs, sneezes, talks, or breathes. These droplets can land in the mouths and noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely between people who are in close contact with one another (within about 6 feet). To prevent illness:

- Get vaccinated and stay up to date with your vaccines
- Avoid close contact with people who are sick, stay at home as much as possible, and put distance between yourself and other people.
- Cover your mouth and nose with a well-fitting face mask when around others.
- Clean and disinfect frequently touched surfaces daily.

- Wash hands often with soap and water for at least 20 seconds especially after you have been in a public place or after blowing your nose, coughing or sneezing.
- If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
- Avoid touching your eyes, nose and mouth with unwashed hands.

Is there a vaccine?
Currently, three vaccines are authorized and recommended to prevent COVID-19:
- Pfizer-BioNTech COVID-19 vaccine
- Moderna COVID-19 vaccine
- Johnson & Johnson's Janssen COVID-19 vaccine

What are the treatments?
Treatment is supportive. The U.S. Food and Drug Administration (FDA) has approved one drug, remdesivir (Veklury), for the treatment of COVID-19 in certain situations. Early effective management of any disease can help prevent progression to more serious illness, especially for patients at high risk of disease progression and severe illness. If you are sick with COVID-19 or suspect you have COVID-19, please call your healthcare provider.

What do I do if I am sick with COVID-19 and have pets?
If you are sick with COVID-19 (either suspected or confirmed by a test), you should restrict contact with your pets and other animals, just like you would with people.
- Have another member of your household care for your pets while you are sick, if possible.
- Avoid contact with your pet including petting, snuggling, being kissed or licked and sharing food or bedding.
- If you must care for your pet or be around other animals while you are sick, wear a face mask and wash your hands before and after you interact with them.

If you are sick with COVID-19 and your pet becomes sick, do not take your pet to the veterinary clinic yourself. Call your veterinarian and let them know you have been sick with COVID-19. Some veterinarians may offer telemedicine consultations or other plans for seeing sick pets. Your veterinarian can evaluate your pet and determine the next steps for your pet's treatment and care. Routine testing of animals is not recommended at this time.

What can I do to protect my pet and my family from COVID-19?
Until we learn more about how this virus affects animals, treat pets as you would other human family members to protect them from a possible infection.
- Do not let pets interact with people or other animals outside the household.
- Keep cats indoors when possible to prevent them from interacting with other animals or people.
- Walk dogs on a leash, maintaining at least 6 feet (2 meters) from other people and animals.
- Avoid dog parks or public places where a large number of people and dogs gather.

Can I get COVID-19 from my pets or other animals?
Based on the limited information available to date, the risk of animals spreading COVID-19 to people is considered to be low. See If You Have Pets for more information about pets and COVID-19. However, since animals can spread other diseases to people, it's always good to practice healthy habits around pets and other animals, such as washing your hands and maintaining good hygiene. For more information on the many benefits of pet ownership, as well as staying safe and healthy around animals including pets, livestock, and wildlife, visit CDC's Healthy Pets, Healthy People website.

Can animals carry the virus that causes COVID-19 on their skin or fur?
Although we know certain bacteria and fungi can be carried on fur and hair, there is no evidence that viruses, including the virus that causes COVID-19, can spread to people from the skin, fur, or hair of pets. However, because animals can sometimes carry other germs that can make people sick, it's always a good idea to practice healthy habits around pets and other animals, including washing hands before and after interacting with them.

Can I use hand sanitizer on pets?
Do not wipe or bathe your pet with chemical disinfectants, alcohol, hydrogen peroxide, or other products, such as hand sanitizer, counter-cleaning wipes, or other industrial or surface cleaners. If you have questions about appropriate products for bathing or cleaning your pet, talk to your veterinarian. If your pet gets hand sanitizer on their skin or fur, rinse or wipe down your pet with water immediately. If your pet ingests hand sanitizer (such as by chewing the bottle) or is showing signs of illness after use, contact your veterinarian or pet poison control immediately.

What is known about COVID-19 and mink?
- SARS-CoV-2 has been reported in mink on farms in the Netherlands, Denmark, Spain, Italy, Sweden, and the United States.
- Because some workers on these farms had COVID-19, it is likely that infected farm workers were the initial source of the mink infections.
- Currently, there is no evidence that animals play a significant role in the spread of SARS-CoV-2 to people.