Transmission

SARS-CoV-2, the virus that causes COVID-19, is thought to be transmitted:

- *Between people who are in close contact with one another (within about 6 feet).*
- *Through respiratory droplets produced when an infected person coughs, sneezes or talks.*
- *Sometimes by airborne transmission by exposure to virus in small droplets and particles that can linger in the air for minutes to hours. These viruses may be able to infect people who are further than 6 feet away.*
- *Less commonly through contact with contaminated surfaces*

Droplets containing the virus can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

In addition, there is evidence that under certain conditions, people with COVID-19 “seem to have infected others who were more than 6 feet away” (See *How COVID-19 Spreads*, References below). These transmissions occurred within enclosed spaces that had inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising. Under these circumstances, scientists believe that the amount of infectious smaller droplet and particles produced by the people with COVID-19 became concentrated enough to spread the virus to other people. This kind of spread is referred to as airborne transmission. Available data indicate that it is much more common for SARS-CoV-2 to spread through close contact than through airborne transmission.

Existing interventions to prevent the spread of SARS-CoV-2 appear sufficient to address transmission both through close contact and under the special circumstances favorable to potential airborne transmission. Among these interventions, which include: social distancing; use of masks in the community; hand hygiene; and surface cleaning and disinfection; ventilation and avoidance of crowded spaces, ventilation and avoidance of crowded spaces are especially relevant for enclosed spaces where circumstances can increase the concentration of suspended small droplets and particles carrying infectious virus. At this time, there is no indication of a general community need to use special engineering controls, such as those required to protect against airborne transmission of infections, like measles or tuberculosis, in the health care setting.
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 is transmitted.

Symptoms

People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. People with these symptoms may have COVID-19:

<table>
<thead>
<tr>
<th>COVID-19 Symptoms</th>
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<tbody>
<tr>
<td>Fever or chills</td>
</tr>
<tr>
<td>Cough</td>
</tr>
<tr>
<td>Shortness of breath or difficulty breathing</td>
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<tr>
<td>Fatigue</td>
</tr>
<tr>
<td>Muscle or body aches</td>
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<tr>
<td>Headache</td>
</tr>
<tr>
<td>New loss of taste or smell</td>
</tr>
<tr>
<td>Sore throat</td>
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<tr>
<td>Congestion/Runny Nose</td>
</tr>
<tr>
<td>Nausea or vomiting</td>
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<tr>
<td>Diarrhea</td>
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</tbody>
</table>

This list does not include all possible symptoms. CDC will continue to update this list as we learn more about COVID-19. Recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.

Key Concepts:

- **Reduce risk of exposure / transmission:**
  - When scheduling appointments, instruct patients and persons who accompany them:
    - Face coverings are to be worn upon entry to the facility
    - To call ahead or inform colleagues in the facility upon their arrival if they have symptoms of acute respiratory infection (e.g., fever, cough, difficulty breathing) or the most recent potential symptoms of COVID-19 listed in this document
    - Provide the patient a face covering to wear upon entry to contain cough and move as soon as possible to a private room, or if available and AGPs are anticipated, an airborne infection isolation room (AIIR).
  - If providing ground transportation to the ministry facility, e.g. Trinity Health Program of All-inclusive Care for the Elderly (TH PACE), and the patients has symptoms of acute respiratory infection, ask them to call ahead to alert the care team. Follow PACE transportation guidance.
  - Educate patients, visitors, and HCP about the importance of performing hand hygiene immediately before and after any contact with their face mask or cloth face covering
  - Use telehealth when possible
  - Limit points of entry and screen all people entering the facility for fever and/or symptoms of possible COVID-19
  - Follow all local, state and Trinity Health guidelines for documenting those who are in the facility to aid in contact tracing
  - Source control (cloth face covering or mask) for everyone entering the facility, regardless of symptoms
    - Patients, visitors and non-patient facing colleagues are to wear cloth face coverings or masks
    - Patient facing colleagues are to wear PPE indicated in the PPE Guidebook
  - Support respiratory hygiene and cough etiquette with notices at points of entry and products to facilitate their use, including facial tissues and alcohol-based hand-rub (ABHR)
  - Encourage use of alternative mechanisms for patient and visitor interactions such as video-call applications on cell phones or tablets.
• **Isolate symptomatic patients as soon as possible:**
  o Prompt triage/assessment of persons under investigation (PUI) or confirmed COVID-19 patients in private rooms with the door closed and with private bathrooms (as possible)
    ▪ See bed management guidelines for directions on use of airborne infection isolation rooms (AIIRs)

• **Protect healthcare personnel (HCP):**
  o Perform hand hygiene & use Personal Protective Equipment (PPE) appropriately
  o See the PPE Guidebook for additional details
  o Where possible, follow recommended engineering controls to limit contact with patients are triage, registration and other areas.
  ▪ Facilities guidelines
  ▪ Clinical Engineering guidelines
  o Observe and adhere to all guidelines for care of the COVID-19+ or PUI patient
  o Limit the numbers of personnel providing care to PUIs or those with COVID-19 to those needed for essential, direct care
  o Use dedicated or disposable noncritical patient-care equipment (e.g., stethoscope, blood pressure cuff)
  o If equipment will be used for more than one patient, clean and disinfect equipment before use on another patient according to manufacturer’s instructions and ministry policy

• **Environmental cleaning and disinfection, waste management,**
  o Environmental cleaning and disinfection: refer to the following Disinfection guidance on the Trinity Health Pulse site for details;
  o Follow routine procedures for management of used laundry, food service trays/utensils, regular and medical waste.
    ▪ Disposable food trays are not needed – hot water and soap used in Food Services to clean used dishware, utensils, drinking glasses, etc., kills the virus that causes COVID-19.
References:


