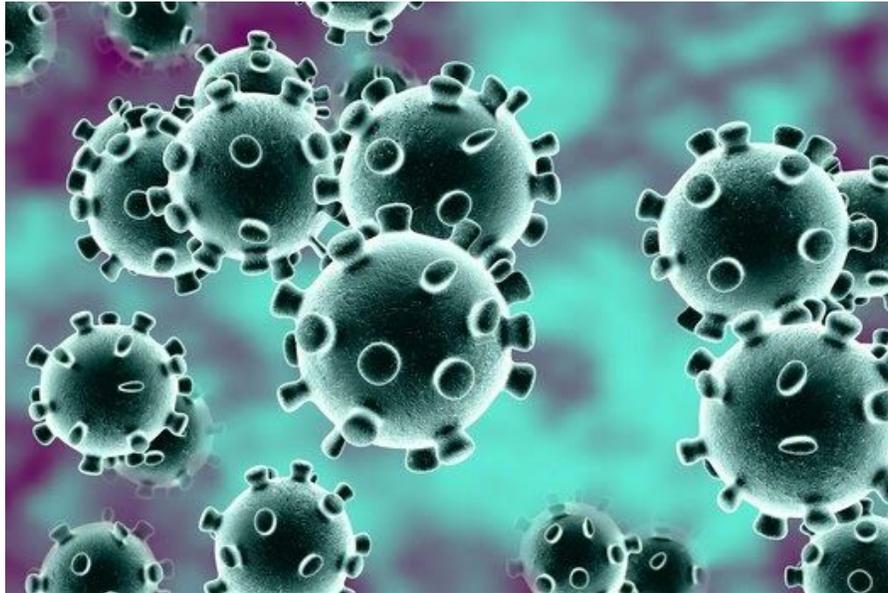


Coronavirus (COVID-19) Module



An independent study module for healthcare professionals, focusing on the most important aspects of this topic, how it affects patient care and individual health.

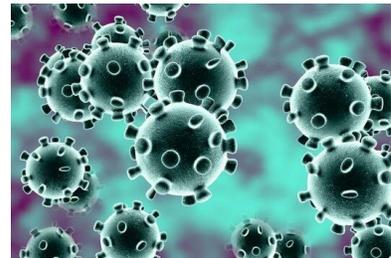
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What is COVID-19?

According to the CDC (2020), a novel coronavirus is a new coronavirus that has *not* been previously identified. The virus causing coronavirus disease 2019 (COVID-19), is *not* the same as the coronaviruses that commonly circulate among humans and cause mild illness, like the common cold.

On February 11, 2020 the World Health Organization announced an official name - coronavirus disease 2019, abbreviated as COVID-19.

- 'CO' = corona
- 'VI' = virus
- 'D' = disease



There are many [types](#) of human coronaviruses including some that commonly cause mild upper-respiratory tract illnesses. **COVID-19 is a new disease**, caused by a novel (or new) coronavirus that has not previously been seen in humans.

How does it spread to others?

COVID-19 is communicable and thought to spread similar to other coronaviruses. Since this is a new disease, there are some unknown factors that are continuously being researched, including how it spreads, the severity of illness it causes, and to what extent it may spread in the United States.

It is thought that COVID-19 is spread in two ways:

- 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 or sneezes. Droplets can land in the mouths or noses of people who are nearby or possibly inhaled into the lungs.
- Contact with infected surfaces or objects
 - Touching a surface or object that has the virus on it and then subsequently touching a person's own mouth, nose, or possibly their eyes.

People are thought to be most contagious when they are most symptomatic (the sickest). It is possible that communicability is present even before people show symptoms.

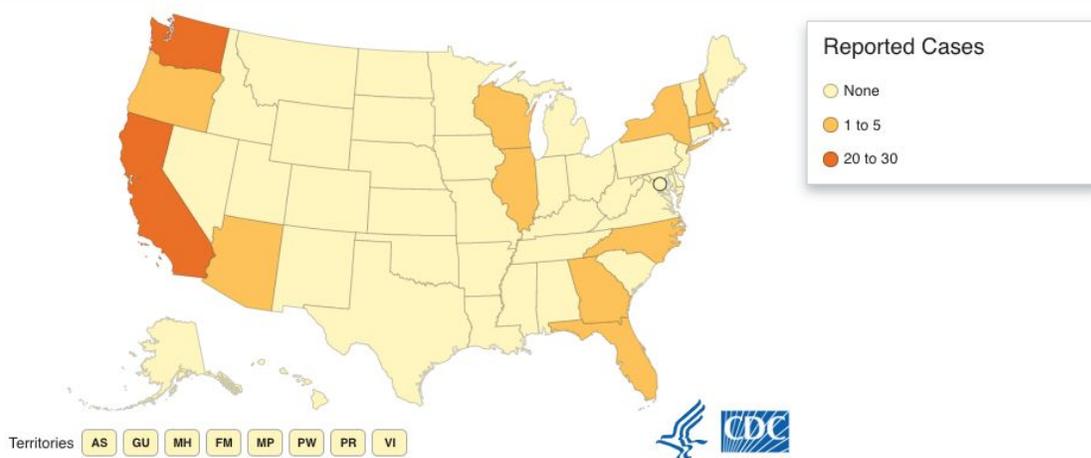
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The virus that causes COVID-19 seems to be spreading easily and sustainably in the community (“community spread”) in some affected geographic areas. Community spread means people have been infected with the virus in an area, including some who are not sure how or where they became infected (CDC, 2020).

Current Cases Across the U.S.

As of March 4, 2020, the following map demonstrates the number and locations of COVID-19 as reported to the CDC.

States Reporting Cases of COVID-19 to CDC*



For most recent, up to date information by state across the U.S., please check [here](#).
For the most recent global conditions, please check [here](#).

Risk Assessment

At this time, most people in the United States will have little immediate risk of exposure to this virus. This virus is NOT currently spreading widely in the United States. However, it is important to note that current global circumstances suggest it is likely that this virus will cause a pandemic. This is a rapidly evolving situation and the risk assessment will be updated as needed.

[Current risk assessment:](#)

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- For most of the American public, who are unlikely to be exposed to this virus at this time, the immediate health risk from COVID-19 is considered low.
- People in communities where ongoing community spread with the virus that causes COVID-19 has been reported are at elevated, though still relatively low risk of exposure.
- Healthcare workers caring for patients with COVID-19 are at elevated risk of exposure.
- Close contacts of persons with COVID-19 also are at elevated risk of exposure.
- Travelers returning from affected [international locations](#) where community spread is occurring also are at elevated risk of exposure (CDC, 2020).

What are the symptoms?

The clinical spectrum of COVID-19 ranges from mild disease with non-specific signs and symptoms of acute respiratory illness, to severe pneumonia with respiratory failure, septic shock, and even death. There have also been reports of asymptomatic infection with COVID-19.

For those with symptoms, they normally appear 2-14 days after exposure and include:

- Fever
- Cough
- Shortness of breath (CDC, 2020).
- Sore throat
- Malaise
- Diarrhea (WHO, 2020).

Who is at risk for developing severe illness?

While we are still learning about how COVID-2019 affects people, older persons and persons with pre-existing medical conditions (such as high blood pressure, heart disease, lung disease, cancer or diabetes) appear to develop serious illness more often than others (WHO, 2020).

What is the treatment?

Not all patients with COVID-19 will require medical supportive care. Clinical management for hospitalized patients with COVID-19 is focused on supportive care of complications, including advanced organ support for respiratory failure, septic shock, and multi-organ failure. Empiric testing and treatment for other viral or bacterial etiologies may be warranted.

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There are currently no antiviral drugs licensed by the U.S. Food and Drug Administration (FDA) to treat COVID-19 (CDC, 2020).

What are preventative measures?



Scientists and researchers are currently working to create a vaccine to COVID-19, however, there is not one currently available. The best way to prevent illness is to avoid being exposed to this virus. The CDC recommends common sense preventive actions to help prevent the spread of all respiratory diseases, including:

- Avoid close contact with people who are sick.
- Avoid touching your eyes, nose, and mouth.
- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
- Follow CDC's recommendations for using a face mask.
 - CDC does **not** recommend that people who are well wear a facemask to protect themselves from respiratory diseases, including COVID-19.
 - **Face masks should be used by people who show symptoms of COVID-19** to help prevent the spread of the disease to others. The use of facemasks is also crucial for health workers and people who are taking care of someone in close settings (at home or in a healthcare facility) (CDC, 2020).
- Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom, before eating, and after blowing your nose, coughing, or sneezing.
 - If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water if they are visibly dirty (CDC, 2020).

How should we take care of patients?

Healthcare personnel (HCP) are on the front lines when caring for patients with confirmed or possible infection with coronavirus disease 2019 (COVID-19) and therefore have an increased

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risk of exposure to this virus. By following CDC infection prevention and control guidelines, including the use of PPE, HCPs can minimize their risk of exposure when caring for confirmed or possible COVID-19 patients.

Based on what is currently known about COVID-19 and what is known about other coronaviruses, **spread is thought to occur mostly from person-to-person via respiratory droplets among close contacts.**

Close contact can occur while caring for a patient, including:

- being within approximately 6 feet (2 meters) of a patient with COVID-19 for a prolonged period of time.
- having direct contact with infectious secretions from a patient with COVID-19. Infectious secretions may include sputum, serum, blood, and respiratory droplets.

If close contact occurs while ***not*** wearing all recommended PPE, healthcare personnel may be at risk of infection.



How Can You Protect Yourself?

Healthcare personnel caring for patients with confirmed or possible COVID-19 should adhere to CDC recommendations for infection prevention and control (IPC):

1. Assess and triage these patients with acute respiratory symptoms and risk factors for COVID-19 to minimize chances of exposure, including placing a face mask on the patient and isolating them in an Airborne Infection Isolation Room (AIIR), if one is available.
2. **Use Standard Precautions, Contact Precautions, and Airborne Precautions and eye protection** when caring for patients with confirmed or possible COVID-19.
3. Perform hand hygiene with alcohol-based hand rub before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves. Use soap and water if your hands are visibly soiled.
4. Practice how to properly don, use, and doff PPE in a manner to prevent self-contamination.

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5. Perform aerosol-generating procedures, including collection of diagnostic respiratory specimens, in an AIIR, while following appropriate IPC practices, including use of appropriate PPE.

If you have an unprotected exposure (i.e., not wearing recommended PPE) to a confirmed or possible COVID-19 patient, contact your supervisor or occupational health immediately.

If you develop symptoms consistent with COVID-19 (fever, cough, or difficulty breathing), do not report to work. Contact your occupational health services (CDC, 2020).

Reminders about PPE

Use [Standard Precautions, Contact Precautions, and Airborne Precautions](#) and **eye protection** when caring for patients with confirmed or possible COVID-19.

Proper sequence for donning PPE can be found [here](#).

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Authors

This module was created in cooperation between Accountable Healthcare Staffing, Inc. and UNA Health, Inc. Clinical executives from both organizations contributed to the collection, aggregation, and reporting of information available through various public sources. The intent of the module is to educate those professionals serving in the front lines of direct care areas to improve the quality of care provided to patients across the healthcare spectrum. Contributing authors include:

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