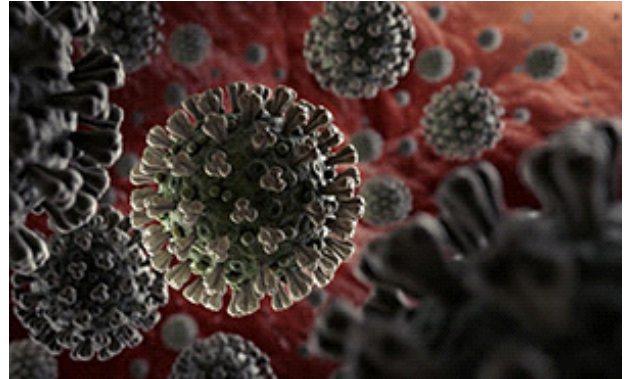


Coronavirus (COVID-19)

The coronavirus gets its name from what appears to be a crown or halo on the virus when it's viewed under the electron microscope. "Corona" means crown in Latin.

Most coronaviruses, such as the common cold, are not dangerous and mainly cause an infection in the nose, sinuses or upper throat. Coronaviruses also can cause pneumonia and bronchitis. People who have diabetes, heart and/or lung diseases, immune deficiency, or infants and older adults have a higher risk of being affected by a coronavirus. Other coronaviruses such as the Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) can cause severe disease and death. The 2019 coronavirus is NOT the same virus as MERS-CoV or SARS-CoV.



Coronaviruses can be transmitted between animals and people, though not all coronaviruses that affect animals have infected people. It is important to wash your hands after being around or handling animals and animal food products and to cook animal food products thoroughly.

A Virus with Many Names

There are many names for the 2019 Coronavirus that was first found in Wuhan, China. This virus has never been seen before. The medical term for "new" is "novel." The World Health Organization (WHO) named this virus the 2019-nCoV, (n for novel) but it is also referred to as SARS-CoV-2, 2019 Novel Coronavirus, the 2019 Coronavirus and the Wuhan Coronavirus.

COVID-19 is the infectious disease caused by COVID-19 virus.

Where did the coronavirus start?

The COVID-19 virus started in a group of people who had pneumonia and who had been associated with a seafood and live animal market in Wuhan, China. The disease spread to family members, health care staff and others in China and now has spread to other countries. It is not known exactly how this coronavirus started, but it is believed that the extremely large human population (Wuhan has about 11 million people), dense pig and duck farms and live animal markets are contributing factors.

It is likely that this virus is in bats, transmitted to an intermediate animal host, possibly the small animal known as a pangolin. The pangolin may have contact with bat excrement and become infected with the virus. If the infected pangolin is captured by a human, the human could have become infected with the virus and then passed it to other people.

When a virus is transmitted from animals to humans it is called cross-species transmission or spillover. Spillover is common. More than two-thirds of human viruses are zoonotic, meaning they are caused by bacteria, viruses or parasites that spread from animals to humans. Some examples of other diseases that spread in the same

manner are West Nile virus, Rocky Mountain spotted fever and the MERS and SARS coronaviruses. Most are treatable.

How does the coronavirus spread?

Droplets from coughs and sneezes spread the COVID-19 virus. You also can be exposed to the virus by touching a surface or object that has been contaminated from the virus.

What are the symptoms of coronavirus?

Symptoms of COVID-19 (the disease caused by the COVID-19 virus) are similar to those of a cold and the flu: Aches and pains, cough, diarrhea, fever, headache, nasal congestion, runny nose, shortness of breath, sore throat and tiredness. These symptoms can show within two to 14 days of being exposed to the virus. If you have a severe case, you may develop these symptoms after a few days: significant shortness of breath, low oxygen levels, abnormal blood tests, kidney failure, liver failure, pneumonia and hospitalization. If you have a fever and cough or shortness of breath within 14 days of traveling from a country with an outbreak or you've been in contact with someone who has traveled to an infected area, call your doctor to get tested for COVID-19.

How is COVID-19 diagnosed?

Testing for coronaviruses looks at secretions from the nose, throat, blood or body fluids. These samples will be sent to a CDC-approved lab and results will be sent to your doctor.

How is COVID-19 treated?

Currently, there is no medicine to treat people diagnosed with COVID-19 caused by the COVID-19 virus. Antibiotics only treat bacterial infections; they do not work against viruses including the COVID-19 virus or the infectious disease it causes, COVID-19. Taking an antibiotic will not prevent developing COVID-19. Research is ongoing in search of a vaccine or medication to prevent and treat COVID-19.

Current recommendations are to treat the symptoms with home care. Stay home from work and school if you have a fever and cough. Focus on sleeping and drinking extra fluids, and staying away from other people. If you do have to be around others, wear a mask. Cover coughs and sneezes with a tissue or your elbow. And most importantly, wash hands thoroughly and often with soap and water or an alcohol-based hand sanitizer.

The situation is rapidly evolving and recommendations are subject to change as additional information becomes available. We will continue to provide updates as important information is released. Here is the most current information from the Centers for Disease Control and Prevention.

How do you prevent getting COVID-19?

Currently, there is no vaccine for the COVID-19 virus or the COVID-19 infectious disease. The best way to prevent getting infected is the same as other viruses – wash hands thoroughly with soap and water before touching your face and eating, avoid contact with people who appear sick and disinfect surfaces such as faucets, door knobs, etc.

Coronavirus (COVID-19): Causes

The COVID-19 virus is spread through droplets from coughs and sneezes or from touching objects that have been contaminated with the virus.

The Centers for Disease Control and Prevention (CDC) suggest staying at least three feet away from anyone who appears to be sick. It takes about five days after being exposed to the coronavirus for symptoms to develop. The incubation period ranges from 1-14 days. The CDC updates this estimate as more data become

available.

It is not known exactly how long the virus that causes COVID-19 lives on surfaces. Other coronaviruses live on surfaces for a few hours up to several days depending on the surface, temperature or humidity of the environment. Early information about the COVID-19 virus indicates that it follows the same lifespan.

Packages that have been moved or sent from areas where the virus is active have a low risk of transmitting the virus that causes COVID-19. Those packages have been exposed to low temperatures and different conditions that do not help the virus live and thrive.

If you think a surface may be infected, clean it with simple disinfectant to kill the virus. Clean your hands with soap and water. Don't touch your eyes, mouth or nose with unwashed hands.

It is very rare for animals to transmit coronaviruses to people who then infect other people. The SARS-CoV was associated with civet cats and MERS-CoV is transmitted by dromedary camels. Possible animal sources of COVID-19 have not yet been confirmed. To be cautious, avoid direct contact with non-domesticated animals and surfaces related to animals. Handle raw meat, milk or animal organs carefully and cook thoroughly to avoid contamination and eating undercooked animal products. There has been no evidence that the COVID-19 virus is spread by pets.

Who's at risk for contracting coronavirus?

People at risk for COVID-19 from the COVID-19 virus include those who have close contact with animals, live animal market workers and those caring for people infected with the virus, including health care workers, caregivers and family members. People with chronic diseases and the elderly are at risk for developing very serious cases of COVID-19.

Coronavirus (COVID-19): Prevention

Coronavirus Prevention Tips

Currently, there is no vaccine for COVID19. Thorough personal hygiene is the best prevention.

- Wash your hands often with soap and water or alcohol-based hand sanitizer.
- Avoid touching your eyes, nose, and mouth, especially with unwashed hands.
- Wash hands after contact with animals and animal food products.
- Fully cook animal food products before eating.
- Avoid close contact with people who are showing symptoms of illness.
- Clean and disinfect frequently touched objects and surfaces.
- Cover your cough or sneezes with a tissue or cough into your elbow.
- Stay home when you are sick.

Call your doctor if:

- You develop a fever and cough or shortness of breath within 14 days after traveling from an area with outbreaks
- You have been in close contact with someone who has traveled from an infected area who has symptoms of the COVID-19

Coronavirus (COVID-19): Symptoms

Most coronaviruses, such as the common cold, are not dangerous.

Coronaviruses mainly cause an infection in the nose, sinuses or upper throat, but can lead to pneumonia and bronchitis. People who have diabetes, heart and/or lung diseases, immune deficiency, or infants and older adults have a higher risk of being affected by a coronavirus.

A new coronavirus that has never been seen before called COVID-19 virus, causes the disease called Coronavirus Disease 2019 (COVID-19). COVID-19 can be mild to severe, with symptoms taking from 2 to 14 days to appear after exposure. Some individuals infected with the virus may never develop symptoms at all but still be able to spread the virus to others. Older people and those with underlying medical problems such as high blood pressure, heart problems, diabetes, or immunosuppression (including from medications) are more likely to develop serious illness. Very few adults younger than 60 have died from the virus but they may still develop severe infection with possibly permanent injury to the lungs even following recovery. About 80 percent of people who acquire the virus recover with just home treatment to manage their symptoms.



As you are monitoring yourself and family members for symptoms, it's helpful to know what is a normal temperature for you. Take your temperature morning and night and keep measurements in a log. A fever can be a sign of other infections or non-infectious conditions, not just COVID-19.

For COVID-19, a fever is considered 100.0 degrees Fahrenheit or above for most people, and 99.6 degrees Fahrenheit and above for anyone 65 years and older or people who are immunosuppressed.

Watch for the COVID-19 virus symptoms listed below and contact your doctor if you have a fever, cough, shortness of breath, sore throat, persistent nausea, vomiting and diarrhea (a common COVID-19 symptom for kids).

Symptoms that Require Immediate Medical Attention

- Trouble breathing
- Persistent chest pain or pressure
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

Mild Symptoms

These symptoms begin gradually:

- Fever
- Cough
- Shortness of Breath
- Aches and pains
- Conjunctivitis (rare)
- Diarrhea
- Headache
- Nasal congestion
- Runny nose
- Sore throat
- Tiredness
- Chills
- Repeated shaking with chills
- New loss of taste or smell
- Nausea or vomiting

Severe Signs and Symptoms

These symptoms generally occur several days into the illness:

- Significant shortness of breath
- Low oxygen levels
- Abnormal blood tests
- Kidney failure
- Liver failure
- Pneumonia
- Hospitalization

If you have a chronic health condition such as diabetes, heart disease, COPD or other respiratory disease, seek medical care early, when mild symptoms first appear. If you have a fever, dry cough and difficulty breathing, seek medical attention immediately.

Coronavirus (COVID-19): Diagnosis

In the elderly and those with chronic health conditions, coronaviruses can lead to pneumonia and other complications.

COVID-19 is the illness caused by the COVID-19 virus. To diagnose COVID-19, a lab test will look at secretions from the nose, throat, blood or body fluids according to Centers for Disease Control (CDC) protocols.

Testing for COVID-19 (coronavirus)

Call your doctor if:

- You develop a fever and cough or shortness of breath within 14 days after traveling from an area with outbreaks
- You have been in close contact with someone who has traveled from an infected area who has symptoms of the COVID-19

If COVID-19 is suspected, your doctor will contact the CDC or your local health department for current instructions on testing. You may be told to go to a special lab for your test. Only certain labs have been allowed to collect samples and run tests for COVID-19.

Testing for COVID-19 can include collecting tissue samples by:

- Swabbing the back of your throat (over both tonsils)
- Swabbing a nostril
- Injecting a saline solution into your nose and collecting a sample of the solution
- Collecting sputum or phlegm (the thick, gooey mucous that comes up during coughing)
- Taking a small amount of blood
- Obtaining a tissue sample from your lungs with a bronchoscope

The specimens are sent to the CDC or a CDC-approved laboratory that will report results to your doctor.

While you are waiting for test results, stay home and away from other people. Use a mask if you have to go out in public.

Coronavirus (COVID-19): Treatment

The COVID-19 virus causes the infectious disease COVID-19. Currently, there are a variety of medications being used and studied to treat people diagnosed with COVID-19.

Antibiotics will not help. Antibiotics only treat bacterial infections; they do not work against viruses, including the COVID-19 virus or the infectious disease it causes, COVID-19. Taking an antibiotics will not prevent you from developing COVID-19.

Research is ongoing in search of a vaccine or medication to prevent and treat COVID-19. Learn about potential medications and treatments for coronavirus here and visit the [CDC](#) for the latest information.

For most of 2020, there was no specific treatment for coronavirus, however, there are a few that are in development. [Learn more about Patient Care at National Jewish Health](#)

Bamlanivimab

The U.S. Food and Drug Administration (FDA) issued an emergency use authorization Nov. 9, 2020 for the investigational monoclonal antibody therapy [bamlanivimab](#) to treat mild-to-moderate COVID-19 in adult and pediatric patients not in the hospital or on oxygen.

On March 22, 2021, The Colorado Department of Public Health & Environment (CDPHE) issued an alert (based on [FDA information](#) March 18, 2021) stating that bamlanivimab alone is no longer recommended as a treatment for COVID-19 in Colorado due to the COVID-19 variant that is estimated at more than 20 percent of all Colorado cases. The combination of bamlanivimab and etesevimab may continue to be prescribed for the B.1.351 and P.1 variants with close monitoring for resistance.

Bamlanivimab and Etesevimab Combination Treatment

The U.S. Food and Drug Administration (FDA) issued emergency use authorization (EUA) on Feb. 9, 2021, for the combination of bamlanivimab and etesevimab for treating mild to moderate COVID-19 in patients ages 12 and older weighing at least 88 pounds. This treatment is also approved for patients 65 and older who have certain chronic medical conditions including chronic kidney disease, diabetes, immunosuppressive disease, heart disease, high blood pressure, chronic obstructive pulmonary disease (COPD) or other respiratory diseases. Learn more from the [FDA Fact Sheet](#).

Remdesivir

Oct. 22, 2020, the FDA approved Veklury ([remdesivir](#)), an antiviral, to treat COVID-19 patients 12 years old and older as long as they weigh about 88 pounds. This drug slows the virus and reduces its ability to spread throughout the body.

Find more updates on investigational medications at the [National Institutes of Health](#) (NIH) website.

Treatment for most people diagnosed with COVID-19 is about relieving [symptoms](#). While you have symptoms:

- Wash your hands often with soap and water.
- Stay home from work, school and public places so you don't infect other people.
- Drink plenty of water and other fluids.
- Get extra rest and sleep in a separate bedroom, so you don't infect family members.
- Take over-the-counter medications for fever, headache, congestion, cough and sore throat.
- Gargle with saltwater to relieve a sore throat.
- Eat a bland diet such as bananas, rice, applesauce and toast, if diarrhea is a problem.
- Use a separate bathroom and disinfect surfaces you touch after each use.
- Wear gloves if you have to be around other people and animals.
- Cover your mouth with a tissue or your elbow during coughs and sneezes.
- Wear a mask if you have a cough and a fever (wash your hands before and after placing a mask on and taking it off).
- Follow your doctor's advice.
- If you have other health conditions, follow those treatment plans and ask questions if those treatments become challenging.

Visit our website for more information about support groups, clinical trials and lifestyle information.

© Copyright 2021

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 123 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.