

Patient education: Coronavirus disease 2019 (COVID-19) (The Basics)

[Written by the doctors and editors at UpToDate](#)

What is COVID-19?

Coronavirus disease 2019, or "COVID-19," is an infection caused by a specific virus called SARS-CoV-2. The virus first appeared in late 2019 in the city of Wuhan, China. But it has spread quickly since then, and there are now cases in many other places, including Europe and the United States.

People with COVID-19 can have fever, cough, and trouble breathing. Problems with breathing happen when the infection affects the lungs and causes pneumonia ([figure 1](#)).

Experts are studying this virus and will continue to learn more about it over time.

How is COVID-19 spread?

COVID-19 mainly spreads from person to person, similar to the flu. This usually happens when a sick person coughs or sneezes near other people. Doctors also think it might be possible to get sick if you touch a surface that has the virus on it and then touch your mouth, nose, or eyes.

From what experts know so far, COVID-19 seems to spread most easily when people are showing symptoms. It is possible to spread it without having symptoms, too, but experts don't know how often this happens.

What are the symptoms of COVID-19?

Symptoms usually start a few days after a person is infected with the virus. But in some people it can take even longer for symptoms to appear.

Symptoms can include:

- Fever
- Cough
- Feeling tired
- Trouble breathing

- Muscle aches

Most people have mild symptoms. Some people have no symptoms at all. But in other people, COVID-19 can lead to serious problems like pneumonia, not getting enough oxygen, or even death. This is more common in people who are older or have other health problems.

While children can get COVID-19, they seem less likely to have severe symptoms.

Should I see a doctor or nurse?

If you have a fever, cough, or trouble breathing and might have been exposed to COVID-19, call your doctor or nurse. You might have been exposed if any of the following happened within the last 14 days:

- **You had close contact with a person who has the virus** – This generally means being within about 6 feet of the person.
- **You lived in, or traveled to, an area where lots of people have the virus** – The United States Centers for Disease Control and Prevention (CDC) has information about which areas are affected. This can be found on their website: www.cdc.gov/coronavirus/2019-ncov/travelers/index.html.
- **You went to an event or location where there were known cases of COVID-19** – For example, if multiple people got sick after a specific gathering or in your workplace, you might have been exposed.

If your symptoms are not severe, it is best to call your doctor, nurse, or clinic **before** you go in. They can tell you what to do and whether you need to be seen in person. If you do need to go to the clinic or hospital, you will need to put on a face mask. The staff might also have you wait someplace away from other people.

If you are severely ill and need to go to the clinic or hospital right away, you should still call ahead. This way the staff can care for you while taking steps to protect others.

Your doctor or nurse will do an exam and ask about your symptoms. They will also ask questions about any recent travel and whether you have been around anyone who might be sick.

Will I need tests?

If your doctor or nurse suspects you have COVID-19, they will take a sample of fluid from inside your nose, and possibly your mouth, and send it to a lab for testing. If you are coughing up mucus, they might also test a sample of the mucus. These tests can show if you have COVID-19 or another infection.

Your doctor might also order a chest X-ray or computed tomography (CT) scan to check your lungs.

How is COVID-19 treated?

There is no specific treatment for COVID-19. Many people will be able to stay home while they get better, but people with serious symptoms or other health problems might need to go to the hospital:

- **Mild illness** – Most people with COVID-19 have only mild illness and can rest at home until they get better. People with mild symptoms seem to get better after about 2 weeks, but it's not the same for everyone.

If you are recovering from COVID-19, it's important to stay home until your doctor or nurse tells you it's safe to go back to your normal activities. This decision will depend on how long it has been since you had symptoms, and in some cases, whether you have had a negative test (showing that the virus is no longer in your body).

- **Severe illness** – If you have more severe illness, you might need to stay in the hospital, possibly in the intensive care unit (also called the "ICU"). While you are there, you will most likely be in a special "isolation" room. Only medical staff will be allowed in the room, and they will have to wear special gowns, gloves, masks, and eye protection.

The doctors and nurses can monitor and support your breathing and other body functions and make you as comfortable as possible. You might need extra oxygen to help you breathe easily. If you are having a very hard time breathing, you might need to be put on a ventilator. This is a machine to help you breathe.

Doctors are studying several different medicines to learn whether they might work to treat COVID-19. In certain cases, doctors might recommend these medicines.

Can COVID-19 be prevented?

There are things you can do to reduce your chances of getting COVID-19. These steps are a good idea for everyone, especially as the infection is spreading very quickly. But they are extra important for people age 65 years or older or who have other health problems. To help slow the spread of infection:

- **Wash your hands** with soap and water often. This is especially important after being in public and touching other people or surfaces. Make sure to rub your hands with soap for at least 20 seconds, cleaning your wrists, fingernails, and in between your fingers. Then rinse your hands and dry them with a paper towel you can throw away.

If you are not near a sink, you can use a hand gel to clean your hands. The gels with at least 60 percent alcohol work the best. But it is better to wash with soap and water if you can.

- **Avoid touching your face** with your hands, especially your mouth, nose, or eyes.
- Try to **stay away from people who have any symptoms** of the infection.
- **Avoid crowds**. If you live in an area where there have been cases of COVID-19, try to stay home as much as you can.

Even if you are healthy, limiting contact with other people can help slow the spread of disease. Experts call this "social distancing." In general, the recommendation is to cancel or postpone large gatherings such as sports events, concerts, festivals, parades, and weddings. But even smaller gatherings can be risky. If you do need to be around other people, be sure to wash your hands often and avoid contact when you can. For example, you can avoid handshakes and high fives, and encourage others to do the same.

- Some experts recommend **avoiding travel** to certain countries where there are a lot of cases of COVID-19. Travel recommendations are changing often.

Experts do **not** recommend wearing a face mask if you are not sick, unless you are caring for someone who has (or might have) COVID-19.

If someone in your home has COVID-19, there are additional things you can do to protect yourself and others:

- Keep the sick person away from others – The sick person should stay in a separate room and use a separate bathroom if possible. They should also eat in their own room.
- Use face masks – The sick person should wear a face mask when they are in the same room as other people. If you are caring for the sick person, you can also protect yourself by wearing a face mask when you are in the room. This is especially important if the sick person cannot wear a mask.
- Wash hands – Wash your hands with soap and water often (see above).
- Clean often – Here are some specific things that can help:
 - Wear disposable gloves when you clean. It's also a good idea to wear gloves when you have to touch the sick person's laundry, dishes, utensils, or trash.
 - Regularly clean things that are touched a lot. This includes counters, bedside tables, doorknobs, computers, phones, and bathroom surfaces.
 - Clean things in your home with soap and water, but also use disinfectants on appropriate surfaces. Some cleaning products work well to kill bacteria, but not viruses, so it's important to check labels. The United States Environmental Protection Agency (EPA) has a list of products here: www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2.

There is not yet a vaccine to prevent COVID-19.

What should I do if there is a COVID-19 outbreak in my area?

The best thing you can do to stay healthy is to wash your hands regularly, avoid close contact with people who are sick, and stay home if you are sick. In addition, to help slow the spread of disease, it's important to follow any official instructions in your area about limiting contact with other people. Even if there are no cases of COVID-19 where you live, that could change in the future.

If there is an outbreak in your area, schools or businesses will likely close temporarily, and many events will be canceled. If this happens, or if someone in your family gets sick with COVID-19, you will probably need to stay at home for some time. There are things you can do to prepare for this. For example, you might be able to ask your employer if you can work from home, or take time off, if it becomes necessary. You can also make sure you have a way to get in touch with relatives, neighbors, and others in your area. This way you will be able to receive and share information easily.

Rules and guidelines might be different in different areas. If officials do tell people in your area to stay home or avoid gathering with other people, it's important to take this seriously and follow instructions as best you can. Even if you are not at high risk of getting very sick from COVID-19, you could still pass it along to others. Keeping people away from each other is one of the best ways to control the spread of the virus.

If you or others in your family are anxious about COVID-19, keep in mind that most people do not get severely ill or die from it. While it helps to be prepared, and there are things you can do to lower your risk and help slow the spread of the virus, try not to panic.

Where can I go to learn more?

As we learn more about this virus, expert recommendations will continue to change. Check with your doctor or public health official to get the most updated information about how to protect yourself.

You can also find more information about COVID-19 at the following websites:

- United States Centers for Disease Control and Prevention (CDC): www.cdc.gov/COVID19
- World Health Organization (WHO): www.who.int/emergencies/diseases/novel-coronavirus-2019

More on this topic

[Patient education: Acute respiratory distress syndrome \(The Basics\)](#)

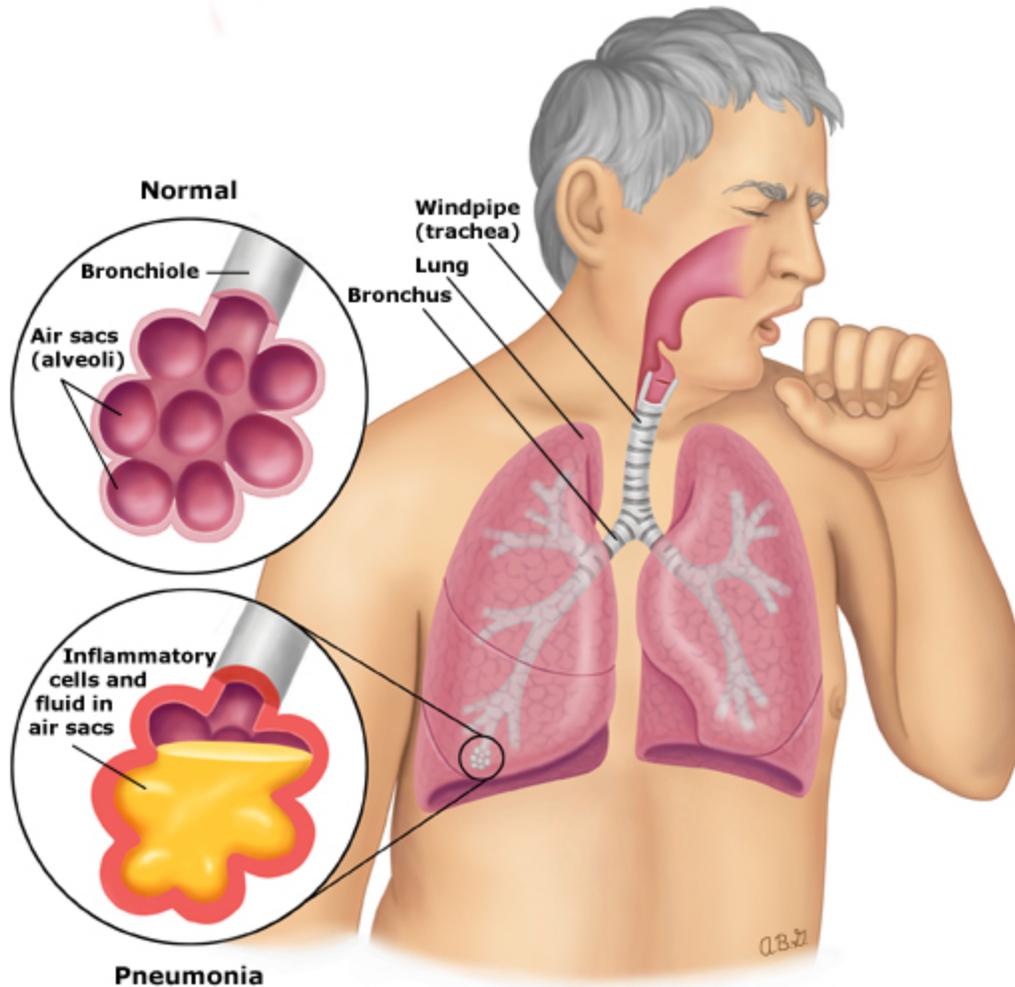
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Pneumonia



"Alveoli" are air sacs in your lungs that are surrounded by tiny blood vessels called capillaries. The air sacs have thin walls that allow the exchange of gases. When blood flows through the capillaries around the air sacs, it picks up oxygen that you have breathed in and dumps off carbon dioxide that you then breathe out. But if you have pneumonia, your alveoli swell and fill with inflammatory cells and fluid, containing white blood cells, red blood cells, macrophages, fibrin, cell debris, and microorganisms. This makes you cough and makes it hard to breathe.