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Wolters Kluwer

Patient education: COVID-19 overview (The Basics)

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What is COVID-19?

COVID-19 stands for "coronavirus disease 2019." It is caused by a virus called SARS-CoV-2. The virus first appeared in late 2019 and quickly spread around the world.

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

Are there different variants of the virus that causes COVID-19?

Yes. Viruses constantly change or "mutate." When this happens, a new strain or "variant" can form. Most of the time, new variants do not change the way a virus works. But when a variant has changes in important parts of the virus, it can act differently.

Experts have discovered several new variants of the virus that causes COVID-19. One of these was discovered in the United Kingdom and has since been found in other countries, including the United States. It seems to spread more easily than the original virus. It might also make people sicker.

Experts are studying the different variants. This will help them better understand how far they have spread, whether they affect people differently, and how well different vaccines will protect against them.

How is COVID-19 spread?

The virus that causes COVID-19 mainly spreads from person to person. This usually happens when an infected person coughs, sneezes, or talks near other people. The virus is passed through tiny particles from the infected person's lungs and airway. These particles can easily travel through the air to other people who are nearby. In some cases, like in indoor spaces where the same air keeps being blown around, virus in the particles might be able to spread to other people who are farther away.

The virus can be passed easily between people who live together. But it can also spread at gatherings where people are talking close together, shaking hands, hugging, sharing food, or even singing together. Eating at restaurants raises the risk of infection, since people tend to be close to each other and not covering their faces. Doctors also think it is possible to get infected if you touch a surface that has the virus on it and then touch your mouth, nose, or eyes.

It is also possible for the virus to spread from an infected person to an animal, like a pet. But this seems to be uncommon. There is no evidence that a person could get the virus **from** a pet.

A person can be infected, and spread the virus to others, even without having any symptoms. This is why keeping people apart is one of the best ways to slow the spread.

What are the symptoms of COVID-19?

Symptoms usually start 4 or 5 days after a person is infected with the virus. But in some people, it can take up to 2 weeks for symptoms to appear. Some people never show symptoms at all.

When symptoms do happen, they can include:

- Fever
- Cough
- Trouble breathing
- Feeling tired
- Shaking chills
- Muscle aches

- Headache
- Sore throat
- Problems with sense of smell or taste

Some people have digestive problems like nausea or diarrhea. There have also been some reports of rashes or other skin symptoms. For example, some people with COVID-19 get reddish-purple spots on their fingers or toes. But it's not clear why or how often this happens.

For most people, symptoms will get better within a few weeks. But a small number of people get very sick and stop being able to breathe on their own. In severe cases, their organs stop working, which can lead to death.

Some people with COVID-19 continue to have some symptoms for weeks or months. This seems to be more likely in people who are sick enough to need to stay in the hospital. But this can also happen in people who did not get very sick. Doctors are still learning about the long-term effects of COVID-19.

While children can get COVID-19, they are less likely than adults to have severe symptoms. More information about COVID-19 and children is available separately. (See "[Patient education: COVID-19 and children \(The Basics\)](#)".)

Am I at risk for getting seriously ill?

It depends on your age and health. In some people, COVID-19 leads to serious problems like pneumonia, not getting enough oxygen, heart problems, or even death. This risk gets higher as people get older. It is also higher in people who have other health problems like serious heart disease, chronic kidney disease, type 2 diabetes, chronic obstructive pulmonary disease (COPD), sickle cell disease, or obesity. People who have a weak immune system for other reasons (for example, HIV infection or certain medicines), asthma, cystic fibrosis, type 1 diabetes, or high blood pressure might also be at higher risk for serious problems.

Is there a test for the virus that causes COVID-19?

Yes. If your doctor or nurse suspects you have COVID-19, they might take a swab from inside your nose or mouth for testing. In some cases, they might take a sample of your saliva. These tests can help your doctor figure out if you have COVID-19 or another illness.

In some places you need to see a doctor or nurse to get tested. In other places, there are organizations that make testing available for anyone. Depending on the lab, it can take up to several days to get test results back.

The tests used to diagnose COVID-19 are either "nucleic acid tests" or "antigen tests." Nucleic acid tests look for the genetic material from the virus. Antigen tests look for proteins from the virus. Antigen tests can give results faster than most nucleic acid tests. But they are not as accurate as nucleic acid tests. They are more likely to give "false negative" results. This is when the test comes back negative even though the person actually is infected.

There is also a blood test that can show if a person has had COVID-19 **in the past**. This is called an "antibody" test. Antibody tests are generally not used on their own to diagnose COVID-19 or make decisions about care. But experts can use them to learn how many people in a certain area were infected without knowing it.

Can COVID-19 be prevented?

Experts are working on vaccines to prevent COVID-19. In the United States, the first vaccines became available in late 2020.

If enough people get the vaccine, the virus will stop spreading so quickly. More information about COVID-19 vaccines is available separately. (See ["Patient education: COVID-19 vaccines \(The Basics\)"](#).)

Experts believe that vaccines will be one of the most important ways to control the COVID-19 pandemic. But while we wait for vaccines to reach everyone, there are other things we can do to help slow the spread. Everyone should do these things, even people who have already gotten the vaccine.

To help protect yourself and others:

- **Practice "social distancing."** It's most important to avoid contact with people who are sick. But social distancing also means staying away from **all** people who do not live in your household. It is sometimes called "physical distancing."

Avoiding crowds is an important part of social distancing. But even small gatherings can be risky, so it's best to stay home as much as you can. When you do need to go out, try your best to stay at least 6 feet (about 2 meters) away from other people.

- **Wear a face mask** when you need to go out. Experts in many countries recommend doing this. It is mostly so that if you are infected, even if you don't have any symptoms, you are less likely to spread the infection to other people. It might also help protect you from others who could be infected. Make sure your mask covers your mouth **and** nose.

You can buy cloth masks and disposable (non-medical) masks in stores or online. Cloth masks work best if they have several layers of fabric. Your mask should fit snugly over your face with no gaps. You can improve the fit by using a mask with an adjustable nose wire, adjusting or knotting the ear loops to make it tighter, or wearing a cloth mask on top of a disposable mask.

When you take your mask off, make sure you do not touch your eyes, nose, or mouth. And wash your hands after you touch the mask. You can wash cloth masks with the rest of your laundry.

The United States Centers for Disease Control and Prevention (CDC) has more information about how to wear a face mask: www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html.

- **Wash your hands** with soap and water often. This is especially important after being out in public or touching surfaces that many other people also touch, like door handles or railings. The risk of getting infected by touching items like this is not well known, but is probably not very high. Still, it's a good idea to wash your hands often. This also helps protect you from other illnesses, like the flu or the common cold.

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 sanitizing 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**, especially your mouth, nose, and eyes.
- **Avoid or limit traveling** if you can. Some experts recommend not traveling to or from certain areas where there are a lot of cases of COVID-19. But any form of travel, especially if you spend time in crowded places like airports, increases your risk.

If you do need to travel, be sure to check whether there are any rules about COVID-19 in the area you are visiting. In the United States, some places require people to "self-quarantine" for some length of time if they are visiting (or returning) from another state.

This means not going out in public or being around other people. The United States also requires a negative COVID-19 test for anyone who enters, or returns to, the country. Many other countries have testing requirements for visiting, too. All of these rules are meant to help slow the spread of COVID-19.

Why is social distancing so important?

Keeping people away from each other is one of the best ways to control the spread of the virus that causes COVID-19. That's because the virus can spread easily through close contact, and it's not always possible to know who is infected.

In many places, schools, day cares, and businesses are closed, or have rules and restrictions in place. Many events have been canceled or postponed. But social distancing is not just about avoiding big crowds. The safest thing to do is to avoid **any** gatherings with people from outside your household, even in small groups. Many people find it helpful to stay in touch with friends and relatives in other ways, like over the phone or online. If you have outdoor space, or can take a walk without getting near other people, it can also help to get fresh air when you are able.

It's normal to be tired of social distancing, and to miss spending time around other people. But it's important to limit this as much as possible. If you do choose to gather with other people, keep in mind that:

- The virus can spread both indoors and outdoors. But being outdoors is probably less risky.
- The more people you come into contact with, and the more often you do this, the higher the risk of spreading the virus.
- Washing your hands often, staying 6 feet (2 meters) away from people, and wearing a mask will all help lower the risk to you and others.

Remember that even if you do not get very sick from COVID-19, you could still spread it to others who could get very sick. If people stop social distancing, the virus will continue to spread.

What should I do if I have symptoms?

If you have a fever, cough, trouble breathing, or other symptoms of COVID-19, **call** your doctor or nurse. They will ask about your symptoms. They might also ask about any recent travel and

whether you have been around anyone who might have been infected. Then they can tell you if you should come in or go somewhere else to be tested.

If your symptoms are not severe, it is best to call **before** you go in. The staff can tell you what to do and whether you need to be seen in person. Many people with only mild symptoms should stay home and avoid other people until they get better. If you do need to go to the clinic or hospital, be sure to wear a mask. This helps protect other people. 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 if possible. This way the staff can care for you while taking steps to protect others. If you think you are having a medical emergency, **call for an ambulance** (in the US and Canada, dial 9-1-1).

What if I feel fine but think I was exposed?

If you think you were in close contact with someone with COVID-19, what to do next depends on whether you have already had COVID-19 or gotten the vaccine:

- If you **have not** had COVID-19 or gotten the vaccine – You should get tested after a possible exposure, even if you don't have any symptoms. Call your doctor or nurse if you aren't sure where to get a test. Then self-quarantine at home and monitor yourself for symptoms. This means staying home as much as possible, and staying at least 6 feet (2 meters) away from other people in your home.

The safest thing to do after a possible exposure is to self-quarantine for 14 days. This can be challenging with work, school, or other responsibilities. Because of this, some public health departments might allow people to stop quarantining sooner, especially if they get a negative test. If you're not sure how long to quarantine for, contact your local public health office or ask your doctor or nurse.

- If you **have** had COVID-19 or gotten the vaccine – The guidelines depend on how recently this was. If you had COVID-19 or got all doses of the COVID-19 vaccine **within the last 3 months**, you do not need to self-quarantine. If it has been longer than 3 months, follow the steps above.

If you self-quarantine for less than 14 days, or if you do not need to self-quarantine, you should still monitor yourself for symptoms for the full 14 days. If you start to have any symptoms, call

your doctor or nurse right away. You should also be extra careful about wearing a mask and social distancing during this time.

How is COVID-19 treated?

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** – Mild illness means you might have symptoms like fever and cough, but you do not have trouble breathing. Most people with COVID-19 have mild illness and can rest at home until they get better. This usually takes about 2 weeks, but it's not the same for everyone.

If you are recovering from COVID-19, it's important to stay home and "self-isolate" until your doctor or nurse tells you it's safe to stop. Self-isolation means staying apart from other people, even the people you live with. When you can stop self-isolation 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 with trouble breathing, 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 a breathing tube. The tube goes down your throat and into your lungs. It is connected to a machine to help you breathe, called a "ventilator."

Doctors are studying several possible treatments for COVID-19. In certain cases, doctors might recommend medicines that seem to help some people who are severely ill or at risk of getting severely ill. They also might recommend being part of a clinical trial. A clinical trial is a scientific study that tests new medicines to see how well they work. Do **not** try any new medicines or treatments without talking to a doctor.

What should I do if someone in my home has 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 different bathroom if possible. They should also eat in their own room.

Experts also recommend that the person stay away from pets in the house until they are better.

- Have them wear a mask – The sick person should wear a mask when they are in the same room as other people. If they can't wear a mask, you can help protect yourself by covering your face when you are in the room with them.
- Wash hands – Wash your hands with soap and water often.
- 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. Wash your hands after removing your gloves.
 - 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.

What if I am pregnant?

More information about COVID-19 and pregnancy is available separately. (See "[Patient education: COVID-19 and pregnancy \(The Basics\)](#)".)

If you are pregnant and you have questions about COVID-19, talk to your doctor, nurse, or midwife. They can help.

What can I do to cope with stress and anxiety?

It's normal to feel anxious or worried about COVID-19. It's also normal to feel stressed, lonely, or tired of not being able to do your usual activities. You can take care of yourself by trying to:

- Take breaks from the news
- Get regular exercise and eat healthy foods
- Find activities that you enjoy and can do at home
- Stay in touch with your friends and family members

It might also help to remember that by doing things like staying home, wearing a mask, and avoiding gatherings, you are helping to protect other people in your community.

Keep in mind that most people do not get severely ill from COVID-19. It helps to be prepared, and it's important to do what you can to lower your risk and help slow the spread of the virus. But 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.

For information about COVID-19 in your area, you can call your local public health office. In the United States, this usually means your city or town's Board of Health. Many states also have a "hotline" phone number you can call.

You can 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

A list of other resources from expert groups around the world is also available. (See ["Society guideline links: COVID-19 - Resources for patients"](#).)

More on this topic

[Patient education: COVID-19 vaccines \(The Basics\)](#)

[Patient education: COVID-19 and children \(The Basics\)](#)

[Patient education: COVID-19 and pregnancy \(The Basics\)](#)

[Patient education: Recovery after COVID-19 \(The Basics\)](#)

[Patient education: Pneumonia in adults \(The Basics\)](#)

[Patient education: What are clinical trials? \(The Basics\)](#)

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

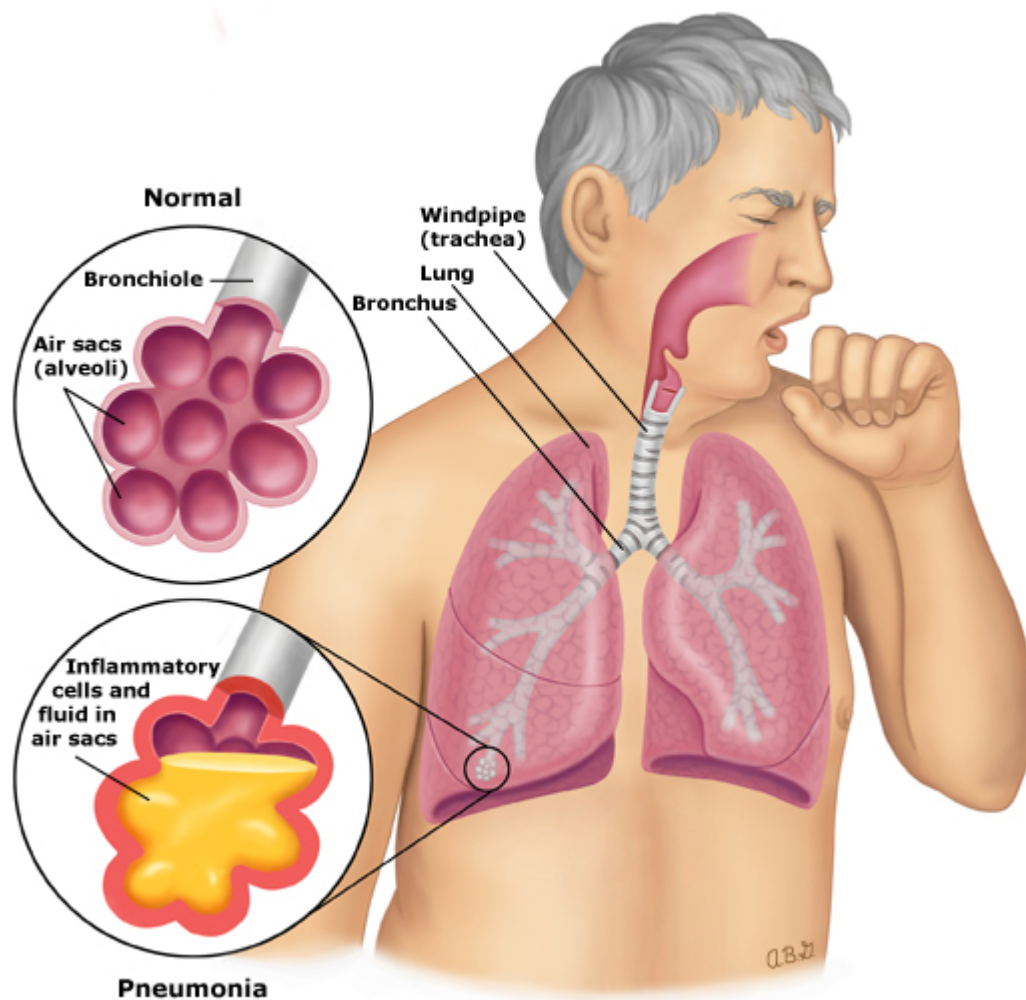
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GRAPHICS

Pneumonia



Pneumonia is an infection of the lungs. When you have pneumonia, the air sacs in your lungs become inflamed. They can fill with fluid and cells trying to fight the infection. This can make it hard to breathe.

Graphic 55943 Version 8.0

