

Citation: Daniel C. De Simone. Long-Term Effects of COVID-19 Coronavirus. African Journal of Medical Sciences, 2021, 6 (7) ajmsc.info

Review

Long-Term Effects of COVID-19 Coronavirus

Daniel C. De Simone

Mayo Clinic College of Medicine, USA

COVID-19 symptoms can sometimes persist for months. The virus can damage the lungs, heart and brain, which increases the risk of long-term health problems.

Most people who have coronavirus disease 2019 (COVID-19) recover completely within a few weeks. But some people - even those who had mild versions of the disease — continue to experience symptoms after their initial recovery.

These people sometimes describe themselves as "long haulers" and the conditions have been called post-COVID-19 syndrome or "long COVID-19." These health issues are sometimes called post-COVID-19 conditions. They're generally considered to be effects of COVID-19 that persist for more than four weeks after you've been diagnosed with the COVID-19 virus.

Older people and people with many serious medical conditions are the most likely to experience lingering COVID-19 symptoms, but even young, otherwise healthy people can feel unwell for weeks to months after infection. Common signs and symptoms that linger over time include: fatigue, shortness of breath or difficulty breathing, cough, joint pain, chest pain, memory, concentration or sleep problems, muscle pain or headache, fast or pounding heartbeat, loss of smell or taste, depression or anxiety, fever, dizziness when you stand, and worsened symptoms after physical or mental activities.

Organ damage caused by COVID-19:

Although COVID-19 is seen as a disease that primarily affects the lungs, it can damage many other organs as well. This organ damage may increase the risk of long-term health problems.

Organs that may be affected by COVID-19 include:

- 1. Heart.** Imaging tests taken months after recovery from COVID-19 have shown lasting damage to the heart muscle, even in people who experienced only mild COVID-19 symptoms. This may increase the risk of heart failure or other heart complications in the future.

- 2. Lungs.** The type of pneumonia often associated with COVID-19 can cause long-standing damage to the tiny air sacs (alveoli) in the lungs. The resulting scar tissue can lead to long-term breathing problems.

- 3. Brain.** Even in young people, COVID-19 can cause strokes, seizures and Guillain-Barre syndrome, a condition that causes temporary paralysis. COVID-19 may also increase the risk of developing Parkinson's disease and Alzheimer's disease.

Some adults and children experience multisystem inflammatory syndrome after they have had COVID-19. In this condition, some organs and tissues become severely inflamed.

Blood clots and blood vessel problems:

COVID-19 can make blood cells more likely to clump up and form clots. While large clots can

De Simone, 2021, 6 (7) ajmsc.info

cause heart attacks and strokes, much of the heart damage caused by COVID-19 is believed to stem from very small clots that block tiny blood vessels (capillaries) in the heart muscle. Other parts of the body affected by blood clots include the lungs, legs, liver and kidneys. COVID-19 can also weaken blood vessels and cause them to leak, which contributes to potentially long-lasting problems with the liver and kidneys.

Problems with mood and fatigue:

People who have severe symptoms of COVID-19 often have to be treated in a hospital's intensive care unit, with mechanical assistance such as ventilators to breathe. Simply surviving this experience can make a person more likely to later develop post-traumatic stress syndrome, depression and anxiety.

Because it's difficult to predict long-term outcomes from the new COVID-19 virus, scientists are looking at the long-term effects seen in related viruses, such as the virus that causes severe acute respiratory syndrome (SARS).

Many people who have recovered from SARS have gone on to develop chronic fatigue syndrome, a complex disorder characterized by extreme fatigue that worsens with physical or mental activity, but doesn't improve with rest. The same may be true for people who have had COVID-19.

Unknown long-term COVID-19 effects:

Much is still unknown about how COVID-19 will affect people over time, but research is ongoing. Researchers recommend that doctors closely monitor people who have had COVID-19 to see how their organs are functioning after recovery.

Many large medical centers are opening specialized clinics to provide care for people who have persistent symptoms or related illnesses after they recover from COVID-19. Support groups are available as well.

It's important to remember that most people who have COVID-19 recover quickly. But the potentially long-lasting problems from COVID-19 make it even more important to reduce the spread of COVID-19 by following precautions. Precautions include wearing masks, social distancing, avoiding crowds, getting a vaccine when available and keeping hands clean.

After getting a COVID-19 vaccine, is it safe to visit friends and family?

After getting a coronavirus disease vaccine, the Centers for Disease Control and Prevention (CDC) recommends that it's OK for fully vaccinated people to return to doing activities that they might not have been able to do because of the pandemic. This includes not wearing a mask or social distancing in any setting, except where required by a rule or law. As a result, after you are fully vaccinated you can safely visit in person with friends and family.

People are considered fully vaccinated two weeks after they get their second dose of an mRNA vaccine, or two weeks after a single dose of the vaccine.

The only exception concerns fully vaccinated people who have an underlying medical condition or are taking medications that weaken the immune system. If you fit this description, talk to your doctor about your activities. He or she might recommend that you continue to take extra steps to prevent getting COVID-19.

Also, continue to watch for signs and symptoms of COVID-19, especially if you've been around

De Simone, 2021, 6 (7) ajmsc.info

someone who is sick. If you have symptoms of COVID-19, get tested and stay away from others.

Am I susceptible to infection with COVID-19 after taking all precautions?

You're taking the right steps to keep yourself healthy if you haven't been fully vaccinated. The virus that causes coronavirus disease 2019 (COVID-19) spreads mainly from person to person in respiratory droplets released when someone with the virus coughs, sneezes or talks. Less commonly, airborne transmission can occur. This happens when very small virus particles linger in the air for minutes to hours, potentially infecting others who are in the same area, even if the infected person is far away or has left the space.

The virus can also spread from infected people to surfaces they touch, but this is less common than person-to-person transmission. Experts don't have all of the answers about COVID-19 yet, but here's what's known so far about the risk of getting the COVID-19 virus from common surfaces and situations if you're not vaccinated:

1. Food containers and packaging. There's no evidence of anyone contracting the virus that causes COVID-19 after touching food containers and food packaging. Many restaurants are now offering no-contact takeout and delivery to lessen the risk of transmission.

Still, if you're concerned, it's reasonable to follow general food safety guidelines. Wash your hands for at least 20 seconds with soap and water after handling takeout containers, and then transfer food to a clean dish using clean utensils. Wash your hands again before eating. After disposing of containers, clean and disinfect any surfaces that had takeout containers on them.

2. Grocery store produce. It's possible that the coronavirus might linger on fruits and vegetables that have been handled by a person with the virus. Whether this could make you sick with COVID-19 isn't known.

Best practice is to follow food safety guidelines and wash all fruits and vegetables thoroughly before eating them, by running them under water. Soap isn't needed. You can scrub produce that has a rind or thick skin with a clean produce brush. Also wash your hands well with soap and water as soon as you get home from the grocery store.

Clean and disinfect any reusable bags that you carried to and from the store. Most cloth bags can go through the washer and dryer; other bags can be cleaned using a disinfectant wipe or spray. If you're unvaccinated, wear a mask while grocery shopping when it can be difficult to maintain social distance from other shoppers. In some areas or at certain stores, wearing a mask may be required.

3. Household surfaces. Regularly clean and disinfect commonly touched household surfaces, such as tables, countertops, doorknobs, light switches, toilets, faucet handles and sinks. The virus may stay on surfaces from hours to days. However, studies suggest that the virus is unlikely to spread by touching most common surfaces three days after a person with COVID-19 has touched them.

4. Drinking water. The virus that causes COVID-19 hasn't been detected in drinking water. Water treatment facilities have processes to filter and disinfect water before it goes into your home.

5. Close contact with people. Especially to people who don't live in your household, don't get too close if you haven't had a COVID-19 vaccine. Keep the rule of social distance in mind: Try to stay 6 feet (2 meters) away from others.

De Simone, 2021, 6 (7) ajmsc.info

Respiratory droplets from the virus that causes COVID-19 can spread to a person 6 feet or closer after someone with the virus coughs, sneezes or talks, which can put you at risk if you're within that 6-foot circle and you're not vaccinated.

6. Dogs and cats. There have been reports of some pets, including dogs and cats, being infected with the virus that causes COVID-19 after close contact with people who had the virus. Often, the animals showed no signs of being sick.

The virus that causes COVID-19 mainly spreads from person to person. Experts don't consider animals to be a significant way that coronavirus spreads. But this is an area of ongoing investigation.

Treat your pets as if they were people, keeping them at least 6 feet (2 meters) away from other people and animals outside your household and staying at home when possible.

7. Mosquitoes and ticks. There's no evidence to suggest that the virus that causes COVID-19 spreads through mosquito or tick bites.

8. Swimming pools, hot tubs and water playgrounds There's no evidence that the virus that causes COVID-19 spreads through swimming pools, hot tubs and water playgrounds.

Still, it's a good idea to keep physical distance between you and people you don't live with, at least 6 feet (2 meters) if you can — when you're at a public pool or water park and you're unvaccinated. Set the face mask aside when you're in the water, as a wet mask makes breathing difficult. But wear a face mask when you're not in the water to help minimize the potential for virus spread. Stay home if you're feeling ill.

9. Stool, urine and other body fluids. Respiratory droplets are the main source of spread of the virus that causes COVID-19. The virus has also been detected in the stool of some people who are sick with COVID-19.

10. Experts don't know yet what the risk of transmission from stool might be, but the virus that causes COVID-19 may have the potential to spread through untreated sewage. Also unknown is whether the virus might spread through other body fluids, such as urine, vomit, breast milk or semen.

By following social distancing and your local public health guidelines, such as wearing a face mask when you go out, you help to lower your risk of infection if you're unvaccinated. Getting a COVID-19 vaccine can prevent you from getting the COVID-19 virus or becoming seriously ill if you get the COVID-19 virus. If you are fully vaccinated, you can return to many activities you may not have been able to do because of the pandemic — including not wearing a mask or social distancing - except where required by a rule or law.

De Simone, 2021, 6 (7) ajmsc.info