

PATIENT HEALTH | **INFORMATION SERIES**

COVID-19: How Do We Stay Safe?

COVID-19 is a disease resulting from infection with a coronavirus named SARS-CoV-2. This disease can cause many symptoms but most notably respiratory symptoms which can become severe and result in low oxygen levels causing one to feel short of breath. The virus has caused millions of cases of COVID-19 and hundreds of thousands of deaths worldwide. This document is designed to provide practice guidance on how to avoid catching the virus as well as how to prevent spread in your community.

The number of cases has been increasing quickly and is considered a pandemic by the World Health Organization (WHO). As of July 2, 2020, there are 10,514,028 confirmed cases and 512,311 deaths worldwide. This means that the virus is being spread simultaneously in more than three different geographical regions in the world. For up to date information on this outbreak, go to <https://www.cdc.gov/coronavirus/2019-ncov/about/index.html>.

Symptoms of COVID-19 include:

- Fever.
- Cough.
- Shortness of breath.
- Some people may have other symptoms such as fatigue, muscle aches, diarrhea, nasal 'cold' symptoms or even loss of smell or taste, stroke symptoms, or skin lesions.
- Many people have no symptoms but are carrying the virus, and are called asymptomatic carriers and therefore pose greatest risk for unknowingly transmitting the virus to another person.


Prevention and control of COVID-19 infection:**General principles**

- Illness can range from asymptomatic, to mild, to severe.
- Elderly people and others with pre-existing medical illnesses like diabetes, heart, lung disease, obesity, cancer, immunosuppression and smokers are at the highest risk of dying from infection. However, anyone from young to elderly, including pregnant women, and even children can get the virus and become ill from it.
- Right now, the best way to lessen the virus' impact is to slow its spread. One of the most crucial strategies you can do is to maintain social distancing and wear a mask covering both nose and mouth that snugly fits on the chin whenever you are in public. Masks provide a critical barrier, reducing the number of infectious viruses in exhaled breath.
- Everyone needs to do their best to avoid getting sick as well as spread the virus to other people.
- You do not have to be sick or have symptoms to transmit the virus. This could have been one of the reasons that so many people got infected in the first place.

Masks reduce airborne transmission

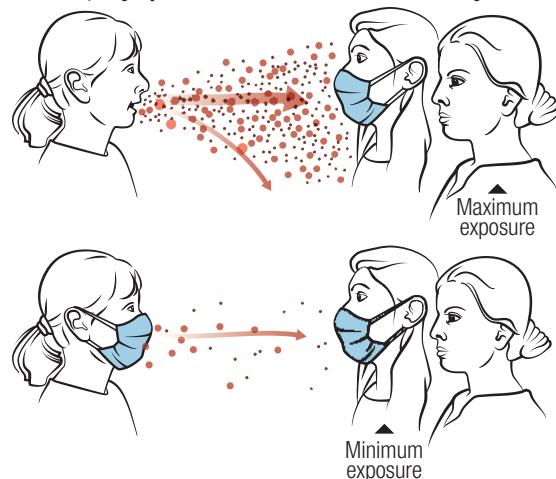
Infectious aerosol particles can be released during breathing and speaking by asymptomatic infected individuals. No masking maximizes exposure, whereas universal masking results in the least exposure.

Particle size (μm)



Infected, Asymptomatic

Healthy



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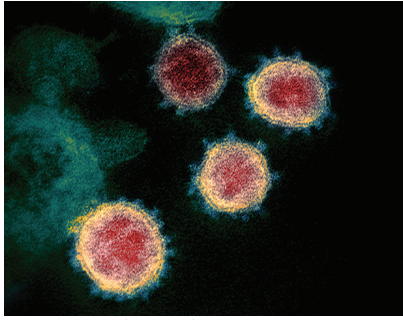
What you can do

As noted, it is very important for people to follow basic infection control measures to help prevent COVID-19 and/ or other viruses, like influenza.

This includes the following actions:

- Until the pandemic is over, maintain social distancing. Stay at least 6 feet away 'like a regular bicycle' from other people.
 - Avoid being in large gatherings. Gatherings are strongly discouraged. Most states in the US are encouraging everyone to stay at home except for essential, infrequent trips to purchase food and medicines, or to attend healthcare visits. You can exercise outdoors with social distancing.
 - Wear a facemask covering both nose and mouth and snugly fitted on the chin if you are sick. If you are not sick, it is also recommended that you wear a simple cloth (non-medical) mask when you leave your home, especially if you will be in contact with others. The aerosol filtering efficiency of different materials, thicknesses, and layers used in properly fitted homemade masks was recently found to be similar to that of the medical masks that were tested.
- For more information about how and when to use masks, go to the CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>.
- Wash your hands often and for at least 20 seconds with soap and water. (Sing "Happy Birthday" twice). If soap and water are not available, use an alcohol-based sanitizer that contains at least 60% alcohol.

- Clean and disinfect frequently touched items and surfaces with a regular household cleaning spray followed by an EPA-approved disinfectant such as diluted bleach (0.1%) or alcohol solution (62-71%) or hydrogen peroxide (0.5%).



SARS-CoV-2 is the virus that causes COVID-19 (NIAID)

- COVID-19 can survive on surfaces for as long as 5 days. For full list of disinfectants, see <https://www.americanchemistry.com/Novel-Coronavirus-Fighting-Products-List.pdf>.
- Keep a healthy lifestyle including healthy diet and sleep, physical activity/exercise, and no smoking/vaping. These behaviors are known to improve overall immunity against infections.
- Continue to follow all timely recommendations to prevent other respiratory infections such as flu vaccine and pneumococcal vaccine.
- Avoid close contact with people who are sick unless you are a healthcare provider.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Stay home when you are sick. If you are sick with COVID-19, you will need to stay home until:
 - ◆ you have no fever for 72 hours (without using fever reducing medicine).
 - ◆ at least 7 days have passed since symptoms first appeared.
 - ◆ your other symptoms have improved. For additional information, see the CDC website at: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash.
- No one should be traveling at this time unless it is for essential business. This is especially important for older persons and others at risk for severe illness. The CDC maintains a regularly updated travel advisory site.
- It may take up to 14 days to develop symptoms once exposed to this virus. If you have traveled to an area affected by this virus, or have been exposed to someone with COVID-19, you should stay home for at least 14 days. Harvard's Global Health Institute and Edmond J Safera Center for Ethics has launched a new interactive map that allows people to check the state or the county where they live and see a COVID-19 risk rating based on number of cases per 100,000 people. It visually displays dots on map as Green (on track for containment), Yellow (community spread), Orange (accelerated spread) or Red (tipping point). <https://globalepidemics.org/key-metrics-for-covid-suppression/>.
- If you receive a request from your local public health department or physician's office to help with contact tracing, please sign up.
- Stay informed and do not panic. There is hope.
- When a vaccine is available, be sure to take it if you are able.
- Rely ONLY on evidence-based sources such as the CDC, WHO, or local public health departments.

Treatment

- There is no specific treatment for COVID-19. However, there are experimental drugs and treatments being used in hospitalized patients with severe illness. You may be asked to take part in a research study to help understand whether they show benefit.
- Antibiotics that are given to treat bacterial infection have NO role in treatment unless you are also diagnosed with concomitant bacterial infection.
- People with this illness are treated based upon their symptoms and the severity of illness. The majority of people will have a mild illness and get better.
- Many people can recover at home, but those with more severe illness may need to receive care in the hospital. Some people are so sick that they will need care in the intensive care unit (ICU).

Seek medical help

- If you think you have been exposed to COVID-19 and you have symptoms (fever or cough or shortness of breath or any other symptoms described here), please call your doctor or healthcare professional first! They will assess you and determine if you need to be seen and tested. If so, you will be given instructions on what to do next. This will enable the office, clinic or acute care facility to get ready for your arrival and help you avoid spreading the virus to others.

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Resources

American Thoracic Society

- www.thoracic.org/patients

Centers for Disease Control & Prevention (CDC)

- <https://www.cdc.gov/coronavirus/2019-ncov/about/index.html>
- CDC General Hotline: 1-800-232-4636

World Health Organization (WHO)

- <https://www.who.int/health-topics/coronavirus>

Johns Hopkins University COVID-19 Dashboard

- <https://coronavirus.jhu.edu/map.html>

Harvard Global Health Institute-COVID-19 Suppression Framework

- <https://globalepidemics.org/key-metrics-for-covid-suppression/>

Healthdata.org

- <https://covid19.healthdata.org/united-states-of-america>
- Kimberly A. Prather, Chia C. Wang, Robert T. Schooley. Reducing transmission of SARS-CoV-2. *Science* 26 Jun 2020 : 1422-1424

This information is a public service of the American Thoracic Society. The content is for educational purposes only. It should not be used as a substitute for the medical advice of one's healthcare provider.

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 Reducing transmission of SARS-CoV-2
Science 26 Jun 2020:Vol. 368, Issue 6498, pp. 1422-1424

