

# COVID-19 Defining the Disease

he world is on high alert as it wrestles with COVID-19. In a few short months, Severe Acute **Respiratory Syndrome Coronavirus** 2 (SARS-CoV-2), which is causing the Coronavirus Disease 19 (COVID-19), has spread widely from its epicenter in Wuhan, China. Worldwide, hundreds of thousands have been infected with this new virus and thousands have died. Conditions are developing so rapidly; it is difficult to keep pace. Casualties are expected to skyrocket in the weeks and months to come. Undoubtedly, COVID-19 calls for thoughtful action and the courage to resist panic.

According to the World Health Organization, COVID-19 is an infectious disease caused by a newly discovered coronavirus.¹ Presently, there are no clinically tested and approved vaccines to halt this spreading virus. Some international borders have been closed. Schools have suspended classes. Some businesses are requiring employees to work from home. Restaurants are closed. Theaters, amusement parks, and other entertainment venues have also closed their doors. Sporting events and large conventions have been canceled. People have been told to avoid gatherings of more than ten. "Social distancing" is the new norm.

In some countries, medical systems have become overwhelmed. In the United States, the stock market has plunged, unemployment is rising, and the economy creeps toward meltdown. Reports of coronavirus dominate the news, stirring fear and even hysteria in thousands of people. It is too early to estimate the fallout from COVID-19, but there is little doubt that our lives have been dramatically changed.

Given these shocking developments, the following thoughts are a response to the most significant global health crisis of the twenty-



first century. Knowing the facts will keep your fears at bay and help you face the future with hope.

Naturally, the first step in our response to this crisis is to identify the enemy. What is the "novel coronavirus"? This virus is novel because our immune systems have never seen it before. The current virus comes from a large family of viruses called by the same name and is one of the causes of the common cold. Scientifically speaking, we have all had coronavirus. Under a microscope, this strain of viruses looks like a crown, hence the name corona. SARS-CoV-2 is the seventh type of coronavirus and is responsible for the new disease, COVID-19.

#### COVID-19 calls for thoughtful action and the courage to resist panic.

The Sars-CoV-2 virus, similar to influenza, is transmitted by droplet spread, which means that when an infected person sneezes or coughs, the droplets containing the virus can enter the eyes, nose, or mouth of another person. Once airborne, the droplets travel short distances, generally less than 3 feet, and drop rapidly to the ground. If any of the drops land on a nearbyuninfected individual and gain access to the eyes, nose, or mouth that person can become infected. Significantly, no contact with the

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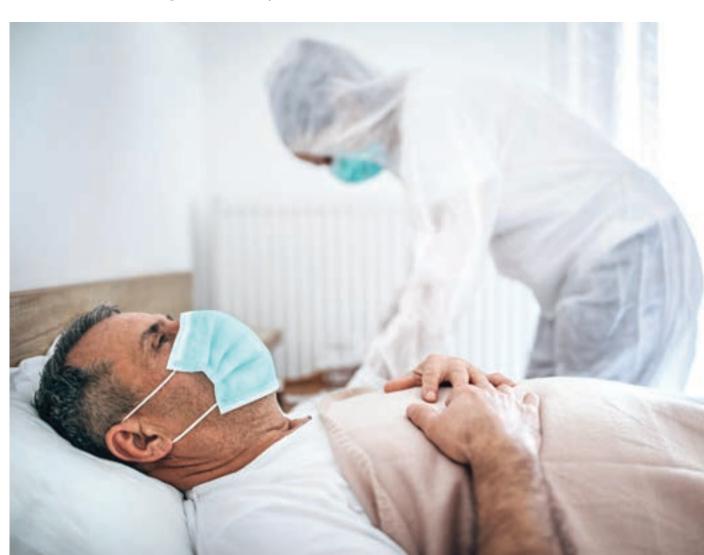
infected person is necessary. The infected person may have already left the area. The disease can also be contracted by touching a surface containing the germs and then touching the eyes, nose, or mouth. This means that an ordinary surgical mask is not a failsafe means of protection.

In terms of how contagious it is, let's compare SARS-CoV-2 to influenza. As we do this, remember that this is called a novel coronavirus because no one has developed an immunity to it.

One person with seasonal influenza may infect 1.3 people, while a person with SARS-CoV-2 can infect at least 2 to 2.5 people. If they are superspreaders, they can infect many more people. One of the primary challenges of this disease is that it can spread through asymptomatic people. In other words, you may have a family member, a work colleague, or a casual contact who exhibits none of the classic symptoms yet continues to move through life with the disease—unwittingly infecting others.

#### The symptoms

The symptoms of novel coronavirus are what you might expect from a disease of this nature.



The most common symptom is fever, occurring in about 90 percent of the cases. Other symptoms include a dry cough, fatigue, and shortness of breath. COVID-19 indications are similar to other viral illnesses, but it has an affinity for the lungs. In fact, more than 55 percent of affected persons have abnormal CT Scans when they present to the medical system.

A person's risk of contracting the disease depends on where they live and where they have traveled. In this regard, we have learned a lot from Italy and South Korea. These two countries experienced stark differences in their death rate. Among those tested in South Korea, the mortality rate was less than 1 percent, while the death rate in Italy was more than 6 percent. The primary risk factor seems to be related to the age of the infected population. In Italy, the average age was greater than 70 years old, while in South Korea, the average age was less than 60. In addition to age, people with heart disease had a death rate of 10.5 percent. The risk of death also significantly increased in those with diabetes, lung problems, and high blood pressure. Although, 85 percent of the cases are mild, about 10 percent require oxygen, and as much as 5 percent require a ventilator (breathing machine). Regardless of age, however, everyone should be careful because new reports indicate that younger people are not immune. Anyone with lungs is susceptible to the disease. Naturally, you are concerned with what you can do to avoid COVID-19, so let's address the issue from two perspectives—prevention and immunity.

#### **Contributors**

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### Symptoms of coronavirus disease (COVID-19)

- \* Fever
- \* Dry cough
- \* Fatigue
- \* Sputum production
- \* Shortness of breath
- \* Muscle or joint pain
- \* Sore throat
- \* Headache
- \* Chills
- \* Nausea or vomiting
- \* Nasel congestion
- \* Diarrhea

Many of the most common symptoms are shared with those of the flu or cold. So it is also good to know which symptoms of the flu or common cold are not symptoms of COVID-19. **COVID-19** infections seem to rarely cause a runny nose.



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