

### 1. What is a virus? What are coronaviruses?

A virus is an infectious agent that requires a host cell to replicate. When we are infected with a virus, the viral genetic material hijacks the cells within our bodies, forcing them to replicate and produce more viruses. The body will experience different symptoms depending on the type of host cell impacted by the virus.

As defined by the [World Health Organization](#), coronaviruses are a large family of viruses, which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes SARS-CoV-2, known widely as COVID-19.

Reference:

[Nature Education: Definition of a Virus](#)

[World Health Organization: Q&A on Coronaviruses \(COVID-19\)](#)

### 2. How is COVID-19 transmitted?

The Centers for Disease Control and Prevention (CDC) is still learning about how COVID-19 spreads. It is thought to be primarily transmitted person-to-person, through people in close contact with each other and respiratory droplets.

When a person with COVID-19 coughs or exhales, small droplets from the nose or mouth are expelled from the body and land on objects and surfaces. Other people can become infected with COVID-19 by touching these objects or surfaces then touching their eyes, nose or mouth. Some people with COVID-19 show no symptoms yet are still able to spread the virus.

Reference:

[World Health Organization: Q&A on Coronaviruses](#)

[Centers for Disease Control and Prevention: How COVID-19 Spreads](#)

### 3. How long does it stay contagious on a surface? What is the transmission period?

According to the World Health Organization (WHO), the COVID-19 virus can survive for up to 72 hours on plastic and stainless steel surfaces, less than 4 hours on copper, and less

than 24 hours on cardboard. It is important to note that coronavirus can be easily killed with common household disinfectants. This may vary under different conditions such as temperature or humidity of the environment.

Reference:

[World Health Organization: Q&A on Coronaviruses](#)

#### **4. Why do alcohol and soap kill coronavirus? How does washing your hands help? Sanitizer vs. soap: What's the difference?**

Washing your hands with soap and water physically removes the germs, but does not kill them. Soap dissolves the oils on your hands to which the germs stick, as well as other things that might be on your hands such as dirt and grease. It is important to rinse and dry hands after handwashing, since wet hands can transmit germs more easily than dry hands.

If soap and water are not readily available, you can use an alcohol-based sanitizer that works by reducing or destroying most—but not all—germs. Hand sanitizers do not remove the germs from your hands, nor should they be used if hands are visibly dirty or greasy. To be effective, the entire surface of the hands must be covered in alcohol. Hand sanitizers with at least 60% alcohol are most effective.

Coronaviruses are a type of virus that can be destroyed with the alcohol that's in hand sanitizers. The [Centers for Disease Control and Prevention](#) says handwashing with soap and water is the best way to clean your hands and decrease the spread of germs, but when that's not an option, the agency recommends using an alcohol-based hand sanitizer with at least 60% alcohol.

Reference:

[Harvard Health Publishing: The Handiwork of Good Health](#)

[Mayo Clinic: Hand Hygiene : A Frequently Missed Lifesaving Opportunity During Patient Care](#)

[Centers for Disease Control and Prevention: Handwashing and Hand Sanitizer Use](#)

#### **5. Who can get COVID-19? Are babies and young kids okay? Why is it worse for older people?**

Research indicates that people of all ages can become sick with COVID-19, and children and adolescents are just as likely to become infected as any other age group. Children are less

likely to display symptoms or have a severe case of COVID-19, but severe cases can still happen. The WHO recommends that children avoid contact with older people and others who are at risk of more severe disease.

Immune systems typically weaken with age, making it harder for people age 65 and older to fight infections. Older adults are more likely to have chronic diseases that can increase the risk of severe illness from COVID-19.

Additionally, people with pre-existing medical conditions (e.g., asthma, diabetes, heart disease), and people with disabilities (due to underlying medical conditions) appear to be more vulnerable to severe cases of the virus.

Reference:

[Centers for Disease Control and Prevention: COVID-19 Guidance for Older Adults](#)

[Centers for Disease Control and Prevention: At Risk for Severe Illness](#)

[Centers for Disease Control and PreventionDC: People with Disabilities](#)

[World Health Organization: Q&A on Coronaviruses \(COVID-19\)](#)

### **6. What can I do to protect myself and prevent the spread of disease?**

The World Health Organization recommends the following:

- Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.
- Maintain at least 3 feet distance between yourself and anyone who is coughing or sneezing.
- Avoid going to crowded places where you cannot maintain a physical distance of 3 feet from others who may have COVID-19.
- Avoid touching your eyes, nose and mouth, as the virus can enter your body after being transferred there by your hands.
- Cover your mouth and nose with your bent elbow or tissue when you cough or sneeze.
- Stay home if you feel unwell. If you have a fever, cough and difficulty breathing, seek medical attention and call in advance. People of all ages should self-isolate if there is a risk they have been exposed or are showing symptoms.
- Follow the advice and directions of your healthcare provider, as well as your national and local health authorities on how to protect yourself and others from COVID-19.

On April 3, the CDC recommended wearing cloth face coverings when in a public place (e.g., grocery stores, pharmacies, pet stores) where social distancing measures cannot be maintained. These face coverings or masks can slow the spread of COVID-19, and help people who are unaware they are infected from transmitting the disease to others.

Reference:

[World Health Organization: Coronavirus \(COVID-19\) Advice for the Public](#)

[Centers for Disease Control and Prevention: Cloth Face Covers](#)

[City of Portland: Face Coverings, Masks, and COVID-19: What You Should Know](#)

### 7. How does the human body fight viruses normally?

People have natural defenses against pathogens such as viruses. These defenses can be as simple as our skin acting as a barrier or blood clotting to block pathogens from entering our body.

The human body also has more intricate defenses that can present as symptoms. Common symptoms include developing a fever to “cook” some of the pathogens out of our body or sneezing to quickly expel microbes.

[This helpful TEDtalk](#) addresses our body’s defenses in animated form.

Reference:

[Harvard Medical School: How the Body Reacts to Viruses](#)

### 8. How do vaccines work?

Vaccination is one of the most effective ways to prevent diseases. Rather than treating a disease after it occurs, vaccines prevent us from getting sick in the first place.

A vaccine helps our body’s immune system recognize and fight pathogens like viruses or bacteria, keeping us safe from the diseases they cause. Our immune systems are designed to remember, so once exposed to one or more doses of a vaccine, we typically remain protected against that disease for years, decades, or even a lifetime.

Vaccines protect against more than 25 debilitating or life-threatening diseases, including measles, polio, tetanus, diphtheria, meningitis, influenza, typhoid, and cervical cancer.

Reference:

[World Health Organization: Vaccines](#)

[World Health Organization: Q&A on Vaccines](#)

**9. Do antibiotics work against viruses like COVID-19?**

No, antibiotics do not work against viruses, only bacterial infections. COVID-19 is a virus and, therefore, antibiotics should not be used as a means of prevention or treatment for coronavirus diseases.

Some individuals hospitalized for COVID-19 may develop a bacterial co-infection, such as pneumonia. In those cases, a healthcare provider may treat those infections with an antibiotic.

Reference:

[FDA: COVID-19 Frequently Asked Questions](#)

[World Health Organization: Coronavirus Advice for the Public](#)

**10. Will the regular flu vaccine protect me?**

The flu vaccine will protect you against certain strains of flu, but it is not effective against COVID-19. To date, there is no COVID-19 vaccine and no specific antiviral medicine to prevent or treat COVID-19.

Possible vaccines and some specific drug treatments are being tested through clinical trials. The World Health Organization is coordinating efforts to develop vaccines and medicines to prevent and treat COVID-19.

These flu and cold prevention measures are all thought to aid in preventing the spread of COVID-19:

- Regular and thorough handwashing
- Avoiding touching your face
- Sneezing and coughing into elbows or tissues
- Staying home if you feel sick

Reference:

[Harvard Health Publishing: COVID-19 Basics](#)

**11. What kind of scientists study COVID-19 and other infectious diseases?**

When disease outbreaks or other threats emerge, epidemiologists are on the scene to investigate. Sometimes called “disease detectives,” epidemiologists search for the cause of disease, collect data, and identify people who are at risk. They also research how to control, stop the spread, or prevent the disease from happening again.

Epidemiologists can be physicians, veterinarians, scientists, and other health professionals. They have strong backgrounds in topics such as medicine, biology, biostatistics, immunology, and health services.

Reference:

[Centers for Disease Control and Prevention: Epidemiologists](#)

[George Washington University: A Public Health Career in Epidemiology](#)

**12. Who should I contact for more information about COVID-19?**

Please reach out to your healthcare provider or local county health department:

- [Multnomah County Public Health](#): 503.988.3674
- [Washington County Public Health](#): 503.846.3594
- [Clackamas County Public Health](#): 503.742.5300
- [Marion County Public Health](#): 503.588.5342
- [Clark County Public Health](#): 564.397.2000
- [King County Public Health](#): 206.477.397