

# Coronavirus myths explored

As the coronavirus continues to make the news, a host of untruths has surrounded the topic. In this special feature, we address some of these myths and conspiracies.

A variety of myths have sprung up around the novel coronavirus.

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The novel coronavirus, **now known as SARS-CoV-2**, has spread from Wuhan, China, to every continent on Earth except Antarctica.

The World Health Organization (WHO) officially changed their classification of the situation from a public health emergency of international concern to a pandemic on March 11.

To date, the novel coronavirus — currently dubbed “severe acute respiratory syndrome coronavirus 2,” or SARS-CoV-2 for short — has been responsible for more than 245,000 infections globally, causing more than 10,000 deaths. In the U.S., the virus has affected 14,250 people and has so far caused 205 deaths.

As ever, when the word “pandemic” starts appearing in headlines, people become fearful, and with fear come misinformation and rumors.

Here, we will dissect some of the most common myths that are currently circulating on social media and beyond.

Stay informed with live updates on the current COVID-19 outbreak and visit our coronavirus hub for more advice on prevention and treatment.

## 1. Spraying chlorine or alcohol on skin kills viruses in the body

Applying alcohol or chlorine to the body can cause harm, especially if it enters the eyes or mouth. Although people can use these chemicals to disinfect surfaces, they should not use them on skin.

These products cannot kill viruses within the body.

## 2. Only older adults and young people are at risk

SARS-CoV-2, like other coronaviruses, can infect people of any age. However, older adults or individuals with preexisting health conditions, such as diabetes or asthma, are more likely to become severely ill.

## 3. Children cannot catch COVID-19

All age groups can become infected. Most cases, so far, have been in adults, but children are not immune. In fact, preliminary evidence shows that children are just as likely to become infected, but their symptoms tend to be less severe.

#### **4. COVID-19 is just like the flu**

SARS-CoV-2 causes illness that does, indeed, have flu-like symptoms, such as aches, fever, and cough. Similarly, both COVID-19 and flu can be mild, severe, or, in rare cases, fatal. Both can also lead to pneumonia.

However, the overall profile of COVID-19 is more serious. Estimates vary, but its mortality rate seems to be between about 1% and 3%.

Although scientists are working out the exact mortality rate, it is likely to be many times higher than that of seasonal flu.

#### **5. Everyone with COVID-19 dies**

This statement is untrue. As we have mentioned above, COVID-19 is only fatal for a small percentage of people.

In a recent report, the Chinese Center for Disease Control and Prevention concluded that 80.9% of COVID-19 cases were mild.

The WHO also report that around 80% of people will experience a relatively mild form of the disease, which will not require specialist treatment in a hospital.

Mild symptoms may include fever, cough, sore throat, tiredness, and shortness of breath.

#### **6. Cats and dogs spread coronavirus**

Currently, there is little evidence that SARS-CoV-2 can infect cats and dogs. However, in Hong Kong, a Pomeranian whose owner had COVID-19 became infected. The dog did not display any symptoms.

Scientists are debating the importance of this case to the epidemic. For instance, Prof. Jonathan Ball, Professor of Molecular Virology at the University of Nottingham in the United Kingdom, says:

“We have to differentiate between real infection and just detecting the presence of the virus. I still think it’s questionable how relevant it is to the human outbreak, as most of the global outbreak has been driven by human-to-human transmission.”

He continues: “We need to find out more, but we don’t need to panic — I doubt it could spread to another dog or a human because of the low levels of the virus. The real driver of the outbreak is humans.”

#### **7. Face masks protect against coronavirus**

Healthcare workers use professional face masks, which fit tightly around the face, to protect them against infection. However, disposable face masks are unlikely to provide such protection.

As these masks do not fit neatly against the face, droplets can still enter the mouth and nose. Also, tiny viral particles can penetrate directly through the material.

However, if someone has a respiratory illness, wearing a mask can help protect others from becoming infected.

“There is very little evidence that wearing such masks protects the wearer from infection,” Dr. Ben Killingley, Consultant in Acute Medicine and Infectious Diseases at University College London Hospital in the U.K., explains.

“Furthermore, wearing masks can give a false sense of reassurance and might lead to other infection control practices being ignored, e.g., hand hygiene.”

The WHO recommend that people who are caring for someone with suspected COVID-19 should wear a mask. In these cases, wearing a mask is only effective if the individual regularly washes their hands with alcohol-based hand rub or soap and water.

Also, when using a mask, it is important to use it and dispose of it properly.

#### **8. Hand dryers kill coronavirus**

Hand dryers do not kill coronavirus. The best way to protect yourself and others from the virus is to wash your hands with soap and water or an alcohol-based hand rub.

#### **9. SARS-CoV-2 is just a mutated form of the common cold**

Coronaviruses are a large family of viruses, all of which have spiky proteins on their surface. Some of these viruses use humans as their primary host and cause the common cold. Other coronaviruses, such as SARS-CoV-2, primarily infect animals.

Both Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) began in animals and passed into humans.

#### **10. You have to be with someone for 10 minutes to catch the virus**

The longer someone is with an infected person, the more likely they are to catch the virus, but it is still possible to catch it in less than 10 minutes.

#### **11. Rinsing the nose with saline protects against coronavirus**

There is no evidence that a saline nose rinse protects against respiratory infections. Some research suggests that this technique might reduce the symptoms of acute upper respiratory tract infections, but scientists have not found that it can reduce the risk of infection.

#### **12. You can protect yourself by gargling bleach**

There are no circumstances in which gargling bleach might benefit your health. Bleach is corrosive and can cause serious damage.

#### **13. Antibiotics kill coronavirus**

Antibiotics only kill bacteria; they do not kill viruses.

#### **14. Thermal scanners can diagnose coronavirus**

Thermal scanners can detect whether someone has a fever. However, other conditions, such as seasonal flu, can also produce fever.

In addition, symptoms of COVID-19 can appear 2–10 days after infection, which means that someone infected with the virus could have a normal temperature for a few days before a fever begins.

#### **15. Garlic protects against coronaviruses**

Some research suggests that garlic might slow the growth of some species of bacteria. However, COVID-19 is caused by a virus, and there is no evidence that garlic can protect people against COVID-19.

#### **16. Parcels from China can spread coronavirus**

From previous research into similar coronaviruses, including those that cause SARS and MERS and are similar to SARS-CoV-2, scientists believe that the virus cannot survive on letters or packages for an extended time.

The CDC explain that “because of poor survivability of these coronaviruses on surfaces, there is likely very low risk of spread from products or packaging that are shipped over a period of days or weeks at ambient temperatures.”

#### **17. Home remedies can cure and protect against COVID-19**

No home remedies can protect against COVID-19, including vitamin C, essential oils, silver colloid, sesame oil, garlic, and sipping water every 15 minutes.

The best approach is to adopt a good handwashing regimen and to avoid places where there may be unwell people.

#### **18. You can catch coronavirus from eating Chinese food in the U.S.**

No, you cannot.

#### **19. You can catch coronavirus from urine and feces**

It is unlikely that this is true, but the jury is currently out. According to Prof. John Edmunds from the London School of Hygiene & Tropical Medicine in the U.K.:

“It isn’t a very pleasant thought, but every time you swallow, you swallow mucus from your upper respiratory tract. In fact, this is an important defensive mechanism. This sweeps viruses and bacteria down into our gut where they are denatured in the acid conditions of our stomachs.”

“With modern, very highly sensitive detection mechanisms, we can detect these viruses in feces. Usually, viruses we can detect in this way are not infectious to others, as they have been destroyed by our guts.”

However, it is worth noting that some research concludes that viruses, which are similar to SARS-CoV-2, might persist in feces. A recent research letter in JAMA also concludes that SARS-CoV-2 is present in feces.

#### **20. The virus will die off when temperatures rise in the spring**

Some viruses, such as cold and flu viruses, do spread more easily in the colder months, but that does not mean that they stop entirely when conditions become milder. As it stands, scientists do not know how temperature changes will influence the behavior of SARS-CoV-2.

### **21. Coronavirus is the deadliest virus known to man**

Although SARS-CoV-2 does appear to be more serious than influenza, it is not the deadliest virus that people have faced. Others, such as Ebola, have higher mortality rates.

### **22. Flu and pneumonia vaccines protect against COVID-19**

As SARS-CoV-2 is different than other viruses, no existing vaccines protect against infection.

### **23. The virus originated in a laboratory in China**

Despite the swathes of internet rumors, there is no evidence that this is the case. Some researchers believe that SARS-CoV-2 may have jumped from pangolins to humans. Others think that it might have passed to us from bats, which was the case for SARS.

### **24. The outbreak began because people ate bat soup**

Although scientists are confident that the virus started in animals, there is no evidence that it came from soup of any kind.

## **What should we do?**

The Centers for Disease Control and Prevention (CDC) recommend these simple measures to reduce the spread of SARS-CoV-2:

- avoid close contact with people who seem sick
- try not to touch your eyes, nose, or mouth
- stay at home if you are sick
- sneeze into a tissue, then throw it in the trash
- if there are no tissues to hand, sneeze into the crook of your elbow
- use standard cleaning sprays and wipes to disinfect frequently touched objects and surfaces
- wash your hands with soap regularly for 20 seconds
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Unless you are a health worker or are caring for someone who is sick, the CDC do not recommend wearing face masks. The tips above might seem simplistic, but during an epidemic, these are the best ways to make a difference.

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