

# healthline

## UVC light and Coronavirus

### UVC light for disinfecting air

One study, published in the journal *Scientific Reports*, explored using far-UVC light to kill two types of human coronaviruses in the air. These two coronaviruses, 229E and OC43, can cause the common cold in humans.

Based off their results with these viruses, researchers estimated that, when applied to current regulatory standards, far-UVC light could kill 99.9 percent of airborne coronaviruses in about 25 minutes. They believe that these findings would extend to SARS-CoV-2 as well.

### Can UV Light Kill the New Coronavirus?

Ultraviolet (UV) light is a type of radiation. It has more energy than radio waves or visible light but less energy than X-rays or gamma rays.

You can be exposed to UV light via natural sunlight or through human-made sources like tanning beds.

UV light has been used as a means to kill germs like bacteria and viruses. You may have also heard of its use for killing SARS-CoV-2, the new coronavirus that causes COVID-19.

In this article, we'll explore how UV light is used to kill germs, how effective it is at eliminating the new coronavirus, and more.

### Can UV light kill germs?

There are several types of UV light. They're classified according to how much energy they have.

## **Types of UV light**

- UVA light has the lowest amount of energy. When you're out in the sun, you're mainly being exposed to UVA light. Exposure to UVA light has been linked to skin aging and damage.
- UVB light sits in the middle of the UV light spectrum. A small portion of sunlight contains UVB light. It's the main type of UV light that contributes to sunburns and causes most skin cancers.
- UVC light has the most energy. UVC light from the sun is mostly absorbed in the Earth's ozone, so you're not normally exposed to it on a daily basis. However, there are various human-made sources of UVC light.

UVC light is the type of UV light that's most effective at killing germs. It can be used to disinfect surfaces, air, and liquids.

UVC light kills germs like viruses and bacteria through damaging molecules like nucleic acids and proteins. This makes the germ incapable of performing the processes that it needs to survive.

## **What's known about UVC light and the new coronavirus?**

UVC light can be used to kill the new coronavirus, SARS-CoV-2. Let's look at what the research has discovered about UVC light and this coronavirus so far.

### **UVC light for disinfecting liquids**

A recent study in the American Journal of Infection Control (AJIC) investigated using UVC light to kill large amounts of the new coronavirus in liquid cultures.

The study found that UVC light exposure completely inactivated the virus in 9 minutes.

### **UVC light for disinfecting surfaces**

Another study, also published in the AJIC, looked at using a specific type of UVC light to kill SARS-CoV-2 on laboratory surfaces. The study found that the UVC light reduced the live coronavirus by 99.7 percent in 30 seconds.

## **Summary**

UVC light can effectively kill SARS-CoV-2 or other coronaviruses in liquids, on surfaces, or in the air.