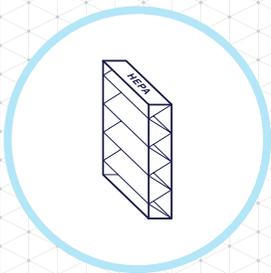


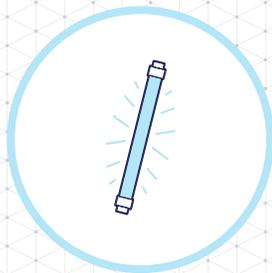
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Types of Air Purification Technology

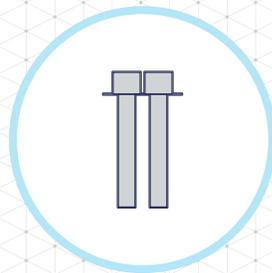
Learn more about what they are and how they work



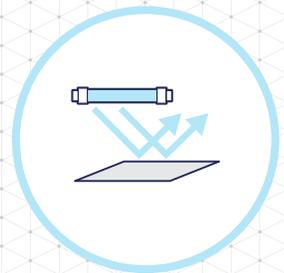
**HEPA
FILTERS**



**ULTRAVIOLET
C LIGHT**



**BIPOLAR
IONIZATION**



PHOTOCATALYSIS



Air purifiers in your home or business have always been effective in cleaning the air you breathe in. But the COVID-19 pandemic has dramatically increased interest in air purifiers and whether they can help protect us and reduce the spread of the virus.

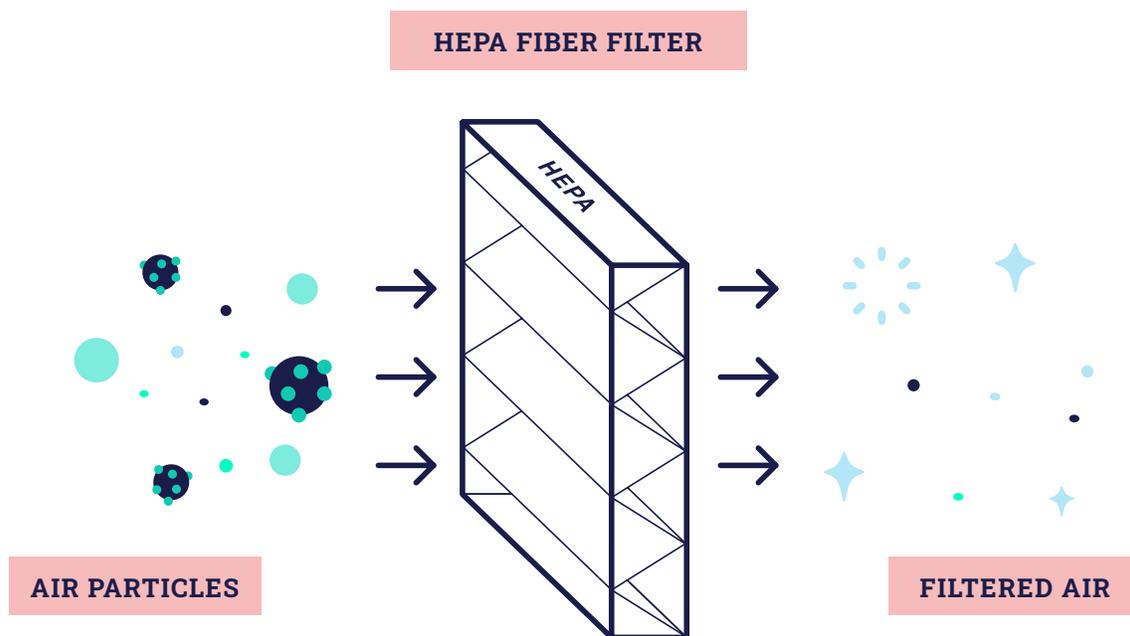
The EPA says when air purifiers can help reduce airborne contaminants like viruses. But with so many options and technologies, it's hard to know what's best and what's not.



HEPA Filters

What is a HEPA filter, and how are they used in air purifiers?

HEPA stands for High-Efficiency Particulate Air, and it's made with polypropylene or fiberglass fibers to filter the smallest particles out of the air. To be certified HEPA, the filter must remove 99.97 percent of particles that are 0.3 microns from the air.

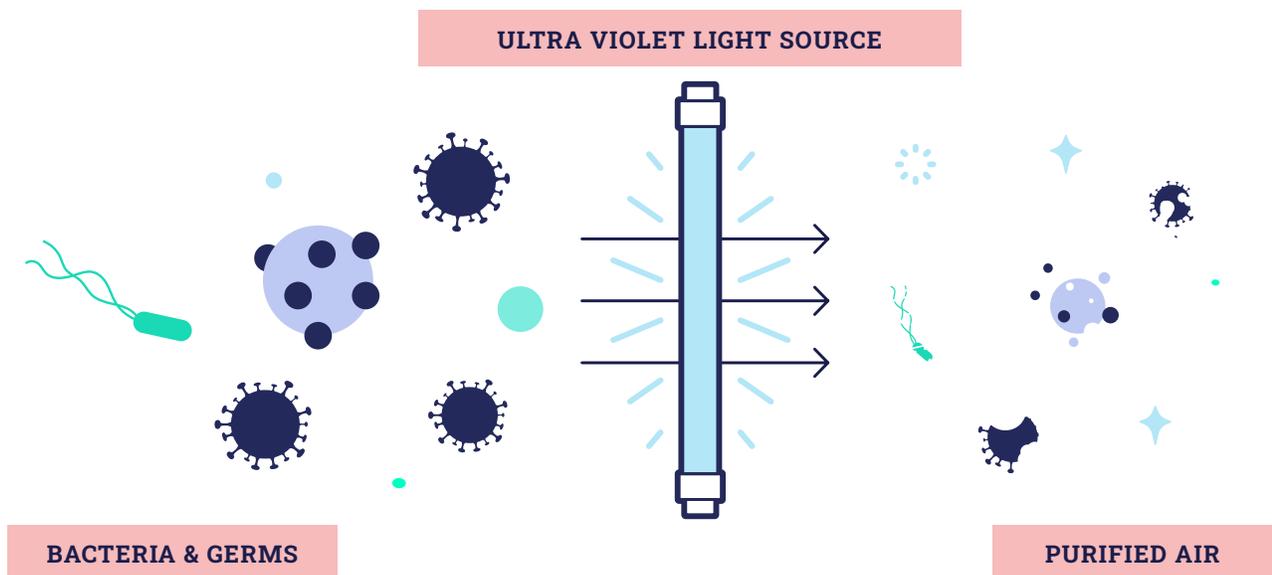


All this means a HEPA filter is trapping things all around you that you can't see but could be breathing in. HEPA filters used in air purifiers trap pieces of dust, pollen, mold, bacteria, viruses and then send purified air back out. When used correctly, an air purifier with a HEPA filter is highly effective in ensuring you're breathing much cleaner air. There is clinical evidence that HEPA filters reduce viral infections in hospitals, so they are certainly an excellent addition to your home or office.

Ultraviolet C (UVC) Light

What is Ultraviolet C (UVC) light, and how is it used in air purifiers?

UV-C air purifiers use short-wave ultraviolet light to keep things like mold, bacteria, and viruses from growing and spreading by destroying them at the cellular level. An air purifier with UV-C light technology pulls in air and passes it through a filter. The air then enters an internal area exposed to UV-C light, and particles like mold, bacteria, and viruses are destroyed before the clean air is pushed back out.



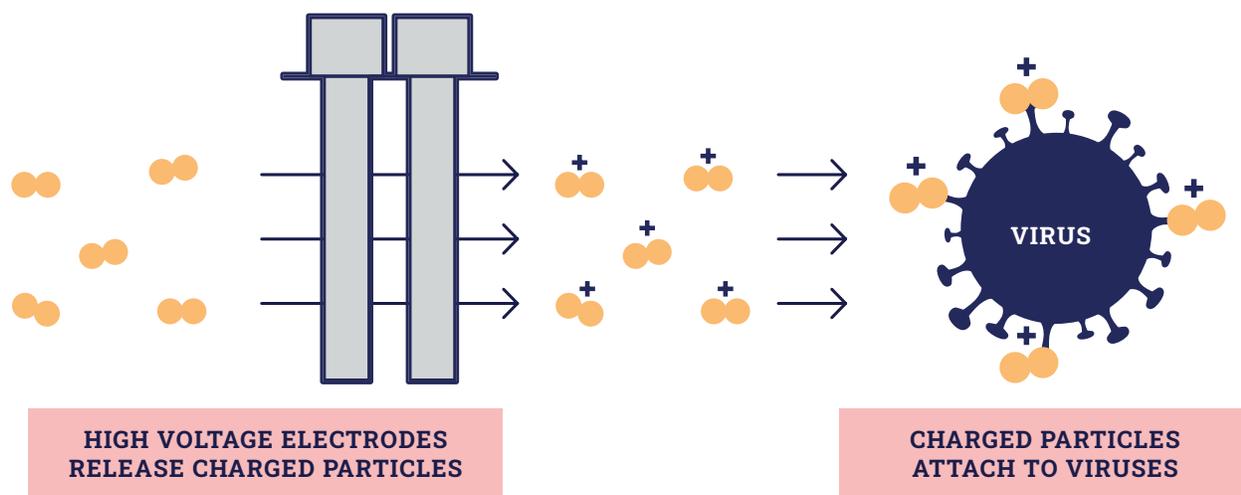
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Before you purchase an air purifier utilizing this technology, be certain that the brand has provided performance data based on the actual unit.

BIPOLAR IONIZATION

What is bipolar ionization, and how is it used in air purifiers?

Bipolar ionization is a technology that generates positive and negative charged particles, creating ions that remove irritants and odors from the air. The ions can also react with proteins on surfaces like walls and floors that contain viruses, attach themselves to those surfaces, and prevent the viruses from causing infection within a particular area.



The technology is relatively new, and there isn't much research outside of lab conditions that shows how effective or safe bipolar ionization is. One thing that is known is that bipolar ionization can generate and release ozone inside your home or office. Ozone can irritate your lungs and respiratory system, cause inflammation and potentially cause long-term health problems. It can also make asthma and other respiratory-related issues worse.



Before you purchase an air purifier utilizing this technology, be certain that the unit has a CARB (California Air Resource Board) certification, proving that the unit does not emit any harmful ozone.

PHOTOCATALYSIS

What is photocatalysis, and how is it used in air purifiers?

Photocatalysis works: in air purifiers, UV light supplies the energy for the catalyst (which is usually titanium dioxide) to work. When the UV light shines on the titanium dioxide, it creates a chemical reaction and releases electrons.

The electrons react with molecules in the air, damaging them. Photocatalysis won't eliminate pet dander, pollen, or dust, but it will destroy viruses and other volatile organic compounds in the air.

