

# Air Purifiers



## Clean Home Air

Air purifiers clean home air by removing harmful pollutants like allergens, odors, smoke, dust, pet dander, and other particulate matter.

## Benefits of Air Purifiers

- They remove harmful pollutants like allergens, odors, smoke, dust, pet dander, and other particulate matter. There are a variety of items that release harmful gases in a home including mattresses, treated wood furniture, gas stoves, fireplaces, space heaters, cleaning chemicals, and aerosol products; air purifiers can help remove these harmful gaseous chemicals from the air
- They can reduce indoor air pollutants that are airborne including viruses. When used along with best practices recommended by the CDC and others, filtration can be part of a plan to protect people indoors from the virus that causes COVID-19.
- Many have high efficiency particulate air (HEPA) filters, which trap particles that a vacuum would recirculate into home air
- For homes with individuals who specifically suffer from allergies, asthma, or second hand smoke, air purifiers can be beneficial.

INDOOR AIR  
POLLUTION IS  
**2 to 5**  
TIMES WORSE  
THAN OUTDOOR  
AIR POLLUTION

HOMEAIRGUIDES.COM



According to the Environmental Protection Agency (EPA), indoor air is often more polluted than outdoor air, and contains many harmful particles that cannot be seen with the naked eye. Air purifiers clean home air, and are most useful when polluting sources are controlled, and in a building with proper ventilation.

## Types of Purifiers

### ACTIVE PURIFIERS

Active air purifiers use ionization, which happens outside of the purifier. They emit a stream of negatively charged ions, which bind with the allergens and other particles present in the air, making them heavy enough to fall to the ground. The particles can then be vacuumed or swept up with a broom.

### PASSIVE PURIFIERS

Passive purifiers use filters located inside of the purifier, and permanently remove all dust and particulate matter. Passive purifiers can be cleaned regularly by hand, or else need to be replaced every few months or years.

## How They Work

- Common portable air purifiers come in a variety of speeds, shapes and sizes, and have different styles of timers and indicator lights. The size of an air purifier should be matched to the room size
- High Efficiency Particulate Air (HEPA) filters trap 99.97% of airborne particles larger than 0.3 microns. A micron is the unit used to measure the size of air particles; each micron is equivalent to 1/25,400 of an inch! A room air conditioning filter only traps particles that are 10.0 microns or larger
- A HEPA filter is a type of mechanical air filter, and is made of fine mesh glass fibers. As the unfiltered air flows through the filter, the particles get trapped in the fibers, and clean air comes out
- Some air purifiers have a medical grade UV light system that can kill viruses, bacteria and fungi. UV light also keeps the HEPA filter from becoming contaminated by bacteria and viruses
- To be most effective, air purifiers should be on all of the time; it is recommended to purchase an ENERGY STAR® certified air purifier for optimum energy efficiency



Active Purifier



Passive Purifier





# 87%

of American homeowners are not aware that air pollution may be worse inside of their homes than out (American Lung Association)

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