

# Clean air buyer's guide

A consumer's guide  
to understanding and  
buying air purifiers



Wondering if an air purifier is right for you? Finding answers is easy when you know the right questions to ask. This guide will help you get started on your path to understanding and selecting the perfect air purifier for your space. For example, the higher the CADR (clean air delivery rates) the faster your air purifier will filter indoor air pollutants from the air you breathe.

## Top 8 questions to ask when buying an air purifier:

Why do I need one?

Does it clean effectively?

What size do I need?

Will it help my health?

Is it quiet?

Is it eco-friendly?

Who can I trust?

Is a warranty important?

**Air indoors typically contains two to five times  
more contaminants than air outdoors  
– U.S. Environmental Protection Agency**



## Why do I need one?

What's really floating around in the indoor air you breathe? Think about it. It's important – especially when you consider that you spend about 90% of your time indoors.

Sure, there's dust. But there are also particles and gases from everyday household products, such as cleaning supplies, paint and varnish to floors, carpets and upholstery treated with stain protectors. The list can be endless.

Then add the outdoor pollution – pollen, vehicle exhaust and industrial contaminants that seep in – and take into account inadequate indoor ventilation. Suddenly, the quality of your indoor air is sub-par. And every breath puts you at risk for respiratory disease and allergies if you don't already suffer from indoor airborne contaminants.

# indoor air quality

**Clean Air Delivery Rate  
determines how effective  
an air purifier is at removing  
pollutants from a room**

**CADR**

## Does it clean effectively?

Don't be fooled by manufacturer claims. With the Clean Air Delivery Rate (CADR) standard, it's easy to tell which room air purifier works best. CADR measures the volume of filtered air in cubic feet per minute (CFM) that an air purifier, operating at its highest setting, delivers into a standard-sized room. There are three key numbers for the most common indoor air pollutants: tobacco smoke, dust and pollen.

Sound like techno-jargon? Here's a plain language interpretation. The higher the CADR number, the faster the rate at which the room air purifier removes indoor air pollutants. If two room air purifiers are doing the same job in a 200-square-foot room, and room air purifier #1 has a CADR dust rating of 180 and room air purifier #2 has a CADR dust rating of 220, room air purifier #2 does a better job at removing dust from indoor air.

CADR is independently tested and certified by the Association of Home Appliance Manufacturers. It is often the first step and one of the most important factors to consider when buying a new room air purifier. Many air purifiers have a CADR number, but may not be verified by AHAM. For best results, look for the AHAM Verifide symbol.



Independently tested. Consumer Trusted. Recognized by the U.S. Environmental Protection Agency and the American Lung Association for accuracy and impartiality. The Clean Air Delivery Rate is an industry standard that enables consumers to compare room air cleaner performance based on independent tests conducted by the Association of Home Appliance Manufacturers (AHAM). [www.cadr.org](http://www.cadr.org).



**Room air cleaner  
capacity must match  
your room size**

capacity

**How to determine room size**

Your room size can be easily determined by multiplying the length and width of the room and is expressed in square feet.

**length x width = square feet**

## What size do I need?

Indoor air quality is constantly affected by airborne contaminants that are always present, both inside and out. That is why it's important to select an air purifier with the capacity to handle the total air volume on a continuous basis.

To choose the right air purifier size, use some basic geometry. Just measure the length and width of the room, then multiply the two for the total area in square feet. Standard room sizes are based on an eight-foot ceiling height. The AHAM recommended room size of an air purifier is based on five air changes per hour, which means that the unit filters the total air volume in the room every 12 minutes. Then make sure that the recommended room size on the AHAM label on the unit's packaging matches the size of your room. But keep in mind that you can't go wrong by purchasing an air purifier that filters the air in the room more than five times per hour. What you get is cleaner, fresher air – more often!

**Suggested room sizes in square feet**



**Indoor air pollution is among the top five environmental health risk**

**Small**



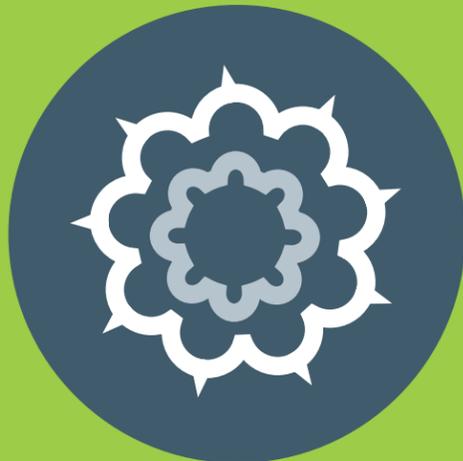
**Small airborne particles**  
(0.1 to 0.3 micron)  
Allergens, dust mite  
skin flakes and feces

**Medium**



**Mid-range airborne particles**  
(0.3 to 0.9 micron)  
Tobacco smoke, metallic fumes,  
airborne pathogens such as  
staphylococcus aureus

**Large**



**Large airborne particles**  
(1.0 micron or larger)  
Bacteria, dust, mold, pollen

Particle sizes grouped according to categories established by U.S. Environmental Protection Agency.

## Will it help my health?

The best way to reduce adverse health effects related to indoor air pollution is to control or remove contaminants at the source. A room air purifier can help mitigate your health issue. But as always, there are many different factors such as type of filter technology that contribute to just how effective a room air purifier can be.

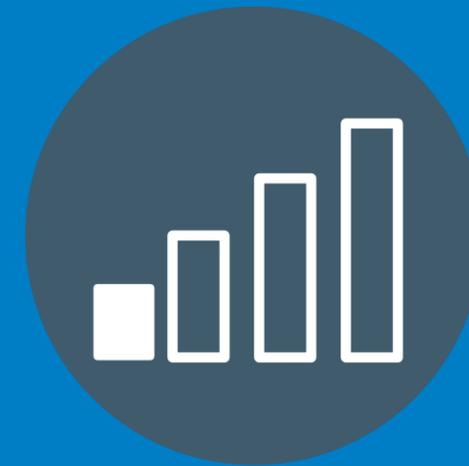
So be sure to identify which contaminants you want to eliminate from your indoor air and select your unit accordingly. By doing so, you are more likely to reduce allergy, asthma and other respiratory health risks and improve your overall well-being.

# health issues

# Is it quiet?

Noise levels, measured in decibels (dB), can vary widely depending on various factors, including the operating setting, energy efficiency, type of technology, filter, and sound insulation.

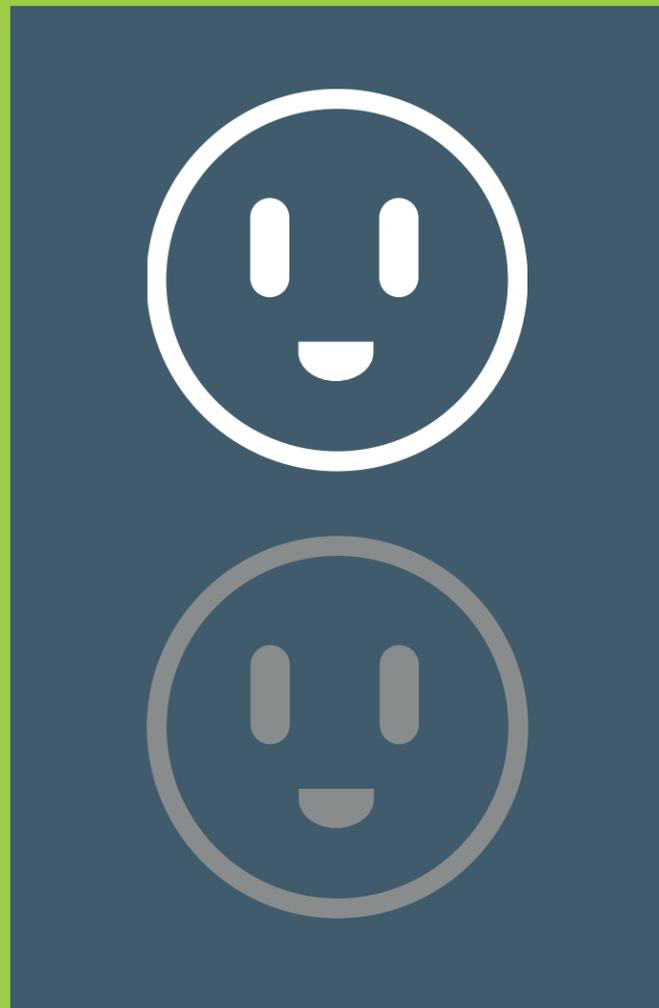
If quiet operation is a concern, consider the World Health Organization's guidelines for acceptable levels of continuous background noise levels indoors – below 45 dB during the day and 35 dB at night. Typical refrigerator noise measures in at 50 dB, while the sound of a whisper in a library is 30 dB. It may therefore be acceptable that an air purifier in a room for daytime use is somewhat louder than one used in a bedroom.



**Minimize indoor  
noise pollution**

noise levels

# energy efficient



## Is it eco-friendly?

To figure out how much electricity a room air purifier uses, check out the wattage. A watt measures the maximum amount of power required to run the unit. The higher the wattage, the more energy it consumes. An energy-efficient room air purifier can use as little as 20 watts of power running at its highest setting while another can draw up to 200 watts. That's not much considering that a typical personal computer when is use with a monitor requires about 270 watts.

To save money and the environment, look for the Energy Star label when choosing a room air cleaner. Energy Star is essentially synonymous with energy efficiency and energy savings.

No wattage listed? Do the math.  $\text{Watts} = \text{Volts} \times \text{Amps}$



Energy Star certified room air purifiers are 40% more energy-efficient than standard models, saving consumers about 230 kWh and \$25 per year on utility bills. This adds up to about \$200 in energy savings over the lifetime of the unit. Source: Energy Star, [www.energystar.gov](http://www.energystar.gov).

**Save money  
and the  
environment**

# Who can I trust?

The most reliable sources for unbiased information for performance and energy efficiency are:

**The Association of Home Appliance Manufacturers**, which publishes independent test results and CADR performance ratings and is accredited as a standards developing organization by the American National Standards Institute. [www.ahamverifide.org](http://www.ahamverifide.org)

**Energy Star**, a voluntary energy-efficiency program established by the U.S. Environmental Protection Agency and U.S. Department of Energy. [www.energystar.gov](http://www.energystar.gov)

Before you buy, be sure to verify the legitimacy of the company and its performance claims. Ask a lot of questions and get answers. Being a smart shopper always pays off in the long run.

Rely on independent,  
unbiased reviews and  
recommendations



real results

# Is a warranty important?

A warranty is an assurance made by a manufacturer to the buyer of product quality. It is a promise that the manufacturer will assume responsibility to repair defective parts and replace, or provide a refund for, a defective product within a certain time period. Most room air purifiers come with a limited warranty that covers only what's specified, which may not cover the fault-finding costs, labor and/or shipping in the event of product failure.

Smart consumers usually shop around before buying – not only for the best product but for the best, long-lasting warranty available. Warranties are usually available at the point of purchase, even when you buy your room air purifier online. And don't forget to submit the required forms to make sure your room air purifier purchase is covered.

A warranty is a  
manufacturer's pledge  
of product quality.



# assurance