

# HEPA Portable Air Cleaners for Wildfire Smoke



## What's a HEPA portable air cleaner?

HEPA PACs are portable appliances that filter out tiny particulate matter (PM) - 2.5 microns and smaller. These ultrafine bits are the most common and dangerous component of wildfire smoke, which rolls into Montana more frequently and for longer durations as our climate changes. PM2.5 impacts our hearts, lungs, immune systems, and general health.

HEPA PACs also come with replaceable pre-filters that also remove larger PM, including allergens such as pollen and pet fur.

HEPA PACs are available for central heating and cooling systems as well, but here we focus exclusively about portable filtration units. These you can plug into a standard wall outlet in your home. For information about filtration for central heating and cooling systems, visit

[MontanaWildfireSmoke.org/clean-indoor-air1](https://MontanaWildfireSmoke.org/clean-indoor-air1).



## How Do I Know Which Model to Buy?

Most importantly, **make sure the unit uses a genuine HEPA air filter**. Other filter types and air purification methods may not filter the smallest PM that causes the greatest health problems. Avoid "HEPA-like" units.

### Key considerations:

- **True HEPA.** Make sure the air purifier is labeled HEPA, *not* HEPA-like. True HEPA filters filter out 99.97% of particles as small as 0.3 microns. Some units only filter down to 3 microns - which means they do NOT filter out the dangerous components of smoke.
- **Room size.** Buy the right air filtration unit to fit the room where you'll use it most frequently. We recommend the bedroom; see below. Most units list the size room they can filter effectively. Others list a Clean Air Delivery Rate (CADR), in which case, choose CADR at least 2/3 the room's area. For example, a 10' x 12' room (120 square feet) would require an air cleaner with a CADR of at least 80.
- **Filter maintenance.** HEPA filters must be replaced from time to time. This is really important – see next page!
- **Ozone.** Some air purifiers produce ozone, which is a pollutant and harmful to human health. Check to make sure the unit has been approved by the California Air Resources Board (CARB). If you're unit has a "PlasmaWave" function, we recommend turning it off, as it may emit small amounts of ozone.
- **Noise level.** Some units are noisier than others. If this is a concern, check user comments and feedback online.
- **Energy Star rating.** To save energy and money on your electricity bill, choose units with the U.S. Department of Energy's *Energy Star* rating.

**Flip over for more on using your HEPA PAC**



## More on HEPA Portable Air Cleaners for Wildfire Smoke



- A note on brands of HEPA air purifiers – there are now so many!
- Consider basic criteria: true HEPA, price, room size, noise, energy star, etc.
- Winix, Lasko, Medify, and Honeywell all make reliable, effective models. Our best suggestion is to check online reviews to ensure a unit meets your needs.

### I've got One! Now How Do I Use It?

We highly recommend using your HEPA air filtration unit **in your bedroom at night**. This way your body gets a break while you sleep, and for most people, this is the longest period of time you'll spend in one room. For most of us, the portable nature of these units allow you to move them to a more central room during the day. For people who cannot move their filter, simply keep it in the room you spend the most time in. And consider purchasing more than one if you can.

**HEPA air filtration units work best when all windows and doors are closed.** This works well for indoor allergies in the winter, but it can be more complicated with hotter weather during wildfire season. During **high temperatures**, we generally recommend closing windows and blinds to keep your home cool, then opening them back up at night to draw in cool air. In this case, running your filter during the day in the room where people spend time might be best.

When it's both smoky and hot, it's complicated. Ideally, air filter users can open bedroom windows in the early evening and close them again just before going to bed and turning on their air filtration units. But if your home is just too hot, it is more important to cool off your bedroom than to clean the air. Fans can also help, as can air conditioners set on recirculate. For more tips on how to cool your home, see our [www.missoulaclimate.org/heat](http://www.missoulaclimate.org/heat).

**Change your filters!** HEPA filters should be replaced about once per year, and more often if you've experienced a lot of smoke. Look online to find the right filter for your make/model of air purifier. For the most part "off brand" replacement filters are effective and will save you money. You'll also want to replace the carbon pre-filter to remove larger PM including pollen and volatile organic compounds (VOC'S), as they can be quickly saturated with particles.



For more information on HEPA filters and wildfire smoke health impacts, see [MontanaWildfireSmoke.org](http://MontanaWildfireSmoke.org)