

## Wildfire Smoke Ready: Using Your Home HVAC System to Clean the Air

**Sarah Coefield** – Air Quality Specialist, Missoula City-County Health Department

In today's column, we'll look at how folks with forced air heat or central air conditioning can clean all the air in their homes. You lucky ducks!

This is straightforward. The only equipment you need is a stack of efficient furnace filters. However, there are some extra considerations for those with central air conditioning and there are best practices everyone should follow to make sure they benefit from their filters.

**Central Air Conditioning Considerations:** Can your A/C system cope with a better filter? Find out before you follow the below steps! For some A/C systems, a better filter will cause the cooling coils to ice up. Read your manual or talk to your technician before installing efficient filters. If you cannot install a better filter, use portable air cleaners with HEPA filters or DIY fan/filter combos to clean your air on a room-by-room basis.

If you are using your furnace fan, or you want to use your central air fan without using the air conditioning function, or your central air handler can function with efficient filters, here's what to do:

1. **Find your filters.** The filters in HVAC systems are placed so return air is filtered before being sent into the air handler. This keeps insect and pet hair from gumming up the works. If you have multiple return vents, you may have multiple filters to replace.
2. **Stock up on replacement filters and be ready to change your filter(s) mid-fire season.** Once you know how many and what size filters your system uses, you can invest in a stack of high-efficiency replacement filters. For wildfire smoke, you want to aim for a MERV 13 filter, but a MERV 11 or 12 will do in a pinch. Note that efficient filters get dirty faster than you may be accustomed to because they are capturing all the gunk in the air.
3. **Save money on HVAC filters by buying them in bulk.** A single MERV 13 filter can cost \$20-\$30. If you can swing an online bulk order of 12 or so, you can get that below \$10/filter.
4. **Install your filter correctly.** You want a snug fit, but you do not want the filter to bend or be crushed. If air can sneak around the filter, you will just have dirty air recirculating through your home. Also, there is an arrow on your filter. It needs to point in the same direction as the airflow.
5. **Set your fan to "On" instead of "Auto."** Your indoor air will only be cleaned while the fan is running. You need to decouple the fan from the thermostat to ensure continuous air cleaning.
6. **Close your windows and doors and seal up leaks to keep smoke outside.** Smoke comes inside fast every time you open a window or a door. Fortunately, if you keep your fan running air through your efficient filter(s), the indoor air improves rapidly. (We know – we looked. Your friendly local air quality specialists are indeed the type of nerds who measure their indoor air quality under different scenarios.)
7. **Keep interior doors open.** This is most important for older homes with a centrally located return vent. Your HVAC system likes balance – it pushes air into rooms and pulls air back into the air handler. If your return air vents aren't getting air from the rooms with air supply vents, the HVAC system will pull smoky air into your house to make up the difference.

Tomorrow we'll go over a more challenging task: Cleaning the air in commercial spaces!

As always, check out [montanawildfiresmoke.org](http://montanawildfiresmoke.org) for more information!