

## Air Purifier Purchase and Use Guidance

Air purifiers have become popular over the last several years, especially since the COVID-19 pandemic. While not required, if you or your department chooses to purchase stand-alone units for comfort purposes or other reasons such as to fulfill an [ADA accommodation](#), EHS has established these requirements for their selection and use:

- They **must only** utilize filters, such as High Efficiency Particulate Air (HEPA) filters, or a combination of HEPA and carbon filters (many units on the market incorporate both HEPA filters for particulates and carbon filters for odors.)
- **No ionizers or photocatalytic oxidation (PCO) technologies** – These are marketed as able to remove odors, smoke, and other contaminants, but they can produce ozone, a harmful respiratory irritant and/or other hazardous by-products.
- **No Ultraviolet (UV) technology** – These devices can also produce ozone and has the potential for harmful UV exposure to eyes and skin.
- **No aroma diffuser technology** – These devices use essential oils or other synthetic oils to diffuse into environments. They release volatile organic compounds (VOCs), which may trigger allergic reactions or sensitivities in some individuals. Within a small space, these products may have a greater effect.

EHS will only approve air purifiers that meet these requirements.

Additional concerns to keep in mind when using air purifiers:

- Some portable units may also contribute to overload of electrical circuits in some locations. Take care in selection and placement.
- Do not plug the units into extension cords or power strips.
- Nuisance noise can be generated from the units, especially when operated at higher levels. Operating at low levels, however, reduces the effectiveness of the unit. If nuisance noise is an issue, look for units advertised as quiet or with specifications indicating levels under 50 decibels (dB).
- They must be maintained following manufacturer's instructions. Facilities Operations will not service or maintain department-purchased air purifiers, nor supply replacement parts.
- In small spaces without HVAC systems, place the air purifier opposite where fresh air enters the room (e.g., do not place the unit directly in front of an open window).

To size an air purifier for your space, the [Association of Home Appliance Manufacturers' \(AHAM\) general rule of thumb](#) is to select a device with a smoke Clean Air Delivery Rate (CADR) approximately two-thirds of the area of the space. For example, an office that is 10 feet by 12 feet has an area of 120 square feet. Two-thirds of 120 is 80. You'd want to purchase a device with at least a Smoke CADR of 80. This general formula is good for a ceiling height of 8 feet. If your ceilings are taller, a device with a higher CADR should be selected.

For additional information, click the hyperlinks below:

- [AHAM's Facts About Clean Air](#)
- [EPA's Air Cleaners and Air Filters in the Home](#)

Contact Environmental Health and Safety (860-486-3613 or [ehs@uconn.edu](mailto:ehs@uconn.edu)) with any questions or concerns regarding air purifiers.