



Fact Sheet: Personal Air Cleaner

SHOULD YOU USE AN AIR CLEANER?

A personal air cleaner is a device utilized to reduce contaminants from the air. There are various kinds of air cleaners available to consumers. The two most common types are mechanical air filtration and air ionizing filtration. Many factors need to be considered in determining whether use of an air cleaner is appropriate in a particular setting. Therefore, the decision whether or not to use an air cleaner is left to the individual.

AIR CLEANING

Air cleaning is a method of reducing pollutants in indoor air; source mitigation and ventilation are the key control measures. Air cleaning can be used as an adjunct to source control and ventilation. However, air cleaning alone cannot adequately remove all of the pollutants typically found in indoor air.



AIR CLEANERS UCIAQ RECOMMENDS

- Mechanical air cleaners-draw air through a fibrous or metal filter with different sized pores that trap particles. Use a disposable high (HEPA) or medium-efficiency filters. With charcoal filters, odors may be reduced

AIR CLEANERS UCIAQ DOES NOT RECOMMEND:

- Electronic air cleaners-include Ozone Generators (banned for sale in CA in 2009 by California Air Resources Board) and Ion Generators, which act by charging the particles in a room. The charged particles are then attracted to walls, floors, draperies, etc. or a charged collector.
- "Hybrid" devices, which contain two or more of the particle removal devices discussed above.

WILL AIR CLEANING REDUCE HEALTH EFFECTS?

- Air cleaners may reduce the health effects from some particles - small solid substances suspended in air, such as dust.
- Some controversy exists about whether air cleaners can reduce the allergic reactions produced by larger particles such as pollen, house dust allergens, some molds, and animal dander. Most of these particles are found where they settle on surfaces in the home, rather than in the air. They cannot be removed by an air cleaner unless disturbed and re-suspended in the air.

ADDITIONAL FACTORS TO CONSIDER

1. Check the room size rating and use the appropriately sized unit for your situation.
2. The decrease in performance which may occur between maintenance periods and if periodic maintenance is not performed on schedule.
3. Ion generators and electronic air cleaners may produce ozone (lung irritant), particularly if they are not properly installed and maintained.
4. Gases and odors from particles collected by the devices may be re-dispersed into the air.
5. Some devices scent the air to mask odors, which may lead you to believe that the odor-causing pollutants have been removed.
6. Ion generators, especially those that do not contain a collector, may cause soiling of walls and other surfaces.
7. You may be bothered by noise from portable air cleaners, even at low speeds.
8. Maintenance costs, such as costs for the replacement of filters, may be significant. You should consider these costs in addition to the initial cost of purchase. In general, the most effective units are also the most costly.

OBTAINING ADEQUATE PERFORMANCE

Proper placement. Place portable air cleaners so:

- They are near a specific pollutant source, if one exists.
- They force the filtered air into occupied areas.
- The inlet and outlet are not blocked by walls, furniture, or other obstructions.
- They perform most efficiently when used in an enclosed office.

FOR MORE INFORMATION

This handout was based on the EPA's Residential Air Cleaning Devices guidelines, <http://www.epa.gov/iaq/pubs/residair.html#What%20Types%20are%20Available>