

Residential Air Cleaners Fact Sheet



HEPA Filters are the most efficient mechanical filters for removing small particles which can be breathed deep into the lungs.

Mechanical Filters draw air through a flat, pleated or high efficiency particulate air (HEPA) surface to trap particles.

Plate and Wire type Electronic Air Cleaners their simplest form include negative ion generators that charge airborne particles so they become attracted to and settle on room surfaces. Other units called electrostatic precipitators electrically charge airborne particles and then trap them on oppositely charged metal plates (May produce ozone).

Ionizing Air Cleaners produce ozone (see below) and do a poor job of removing particles from the air¹.

Hybrid Filters are made up of two or more types of filters.

Ozone damages lung tissue!

The Environmental Protection Agency (EPA) has found that ozone exposure can contribute to asthma development in otherwise healthy people². Ozone is a potent lung irritant and exposure to elevated levels is a contributor to the exacerbation of lung disease; it is especially dangerous for persons with asthma and other chronic lung diseases, children, and the elderly. Residential indoor ozone is produced directly by ozone generators and indirectly by ion generators and some other electronic air cleaners. There is no difference, despite some manufactures' claims, between outdoor ozone and ozone produced by these devices.

Things to Consider Before Purchasing an Air Cleaner

- Low cost alternatives to air cleaners such as damp dusting at least once a week, frequent vacuuming, and removing shoes before entering the home. Use bathroom and kitchen exhaust fans frequently and open windows and doors occasionally to increase ventilation.
- Neither the EPA or the Consumer Product Safety Commission endorse the use of air cleaners.
- HEPA Air Filters remove almost all airborne particles, are relatively inexpensive, and produce no harmful ozone.
- Air Cleaners may not remove larger particles such as pollen, house dust allergens, some molds, and animal dander.
- For much more information on air cleaning devices see the American Lung Association's web site at: www.lungusa.org

¹ *Consumer Reports*, May 2005

² *Asthma Research Results Highlights*, U.S. Environmental Protection Agency Office of Research and Development: Washington, DC 20460