Indoor Air Quality





Pollen, second-hand smoke, & other outdoor pollutants

and pressed wook furniture can give off formaldehyde and other VOCs







Formaldehyde. **VOCs**, and other particulate matter from cleaning & other household products

Building materials



- **Radon and other** gases leaking from ground
- Combustion gases from stove, carbon monoxide



Understanding Labels

ENERGY STAR labels the energy efficiency

Avoid **ozone generating** air purifiers as they are harmful to health and are not very effective. Many negative-ion purifiers and UV-light purifiers produce ozone and are ineffective.



Clean Air Delivery Rate Higher CADR rating = More effective air filtration CADR score should be at least 2/3 of the room's area **H**inimum 180 sq ft CADR of **120** 18 ft 10 ft

CADR ratings may differ by size pollutant

Types of Air Filters

HEPA Filter

Type of filter that forces air through its fibers to trap harmful particles

Effective in removing particulate matter and other solids



Examples: Pollen, bacteria, dust-mites, smoke, etc.

Activated Carbon Filter

Traps gases through a process called absorption where the gases react with the carbon to stick on the surface of the filter

Effective in removing odors, gases, and volatile organic compounds (VOCs)



Examples: VOCs from paint, aerosol sprays, printers, mattresses

Tips for Portable Air Purifiers

Air purifiers with both HEPA filters and an activated carbon filter work better, but may be more expensive



Replace/clean filters using gloves and N-95 mask as instructed by manufactures



Place air purifier where airflow won't be blocked



Will clean the air of a room better if all windows and doors are closed



Tips for HVAC Filtration

To remove both gases and particles, purchase 2-in-1 MERV-rated and carbon activated filters



Understand what size filters your HVAC system needs and what is the maximum MERV that the HVAC system can handle



An MERV rating of 10-13 is recommended for most HVAC systems HVAC filters will only filter air when system is running, therefore, a portable air purifier may help reduce energy costs



Carefully replace HVAC filters about every two to three months wearing gloves and N-95 mask



https://envhealthcenters.usc.edu/

 @USCEHC

 @USCEnviroHealth

USC Environmental Health Centers Infographic: Jennifer Ahumada, USC