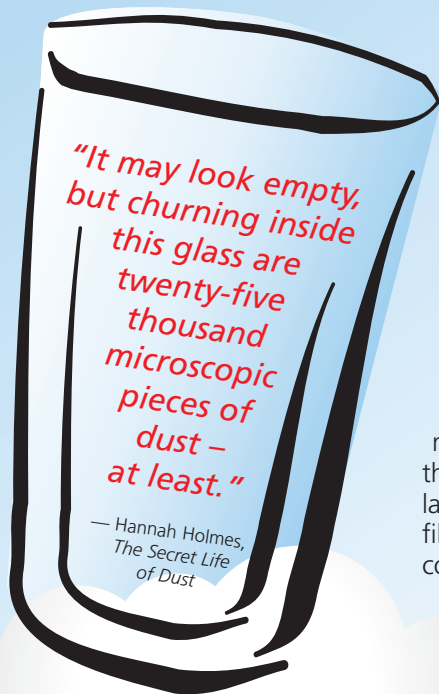




Allergy & Asthma Network

Mothers of Asthmatics

When Indoor Air Is No Safe Haven...



Every time you inhale, thousands of dust particles swirl into your body. Some lodge in the maze of your nose. Some stick to your throat. Others travel deep into your lungs. By the time you have read this, you may have inhaled 150,000 of these specks.*

Household dust holds a bit of everything under the sun – pollen, mold, flakes of human skin, bacteria, dust mite debris, tobacco smoke, animal dander, fecal pellets, automobile exhaust, pesticides, industrial gasses and lead – and that's just for starters.

Health Risks Are Serious

Imagine particles so tiny that they defy gravity. These are the dusts that researchers consider most dangerous. When they are inhaled into your nose, throat or lungs, your immune system promptly isolates and rejects these particles, but not without damage to tender breathing passages. The larger particles get trapped in your nose. Those that waft past nasal hair filters and mucus traps become lodged in delicate airways, causing coughing, wheezing and shortness of breath.*

- According to a study by the Commonwealth of Massachusetts, indoor air contaminants are responsible for or aggravate half of all illnesses.
- Dust bits can lead to or cause symptoms of asthma, chronic rhinosinusitis (CRS), fungal sinusitis, pneumonia, bronchitis and certain types of cancer.
- Approximately 35 million Americans suffer allergic reactions to airborne allergens.
- The Centers for Disease Control and Prevention (CDC) estimates that more than 30 million Americans have asthma – 9 million of those under age 18. Eighty percent of people with asthma also have allergies.
- Children are especially vulnerable to air quality problems because they breathe at faster rates than adults – inhaling 50 percent more air per pound of body weight than adults – and are closer to ground-level dusts.

No two homes have the same indoor air quality problems. The quality of air is influenced by climate and seasonal factors; construction materials; the type (multi-family housing, single family home), condition and age of the building; and how you live inside your home. It's not necessary or even possible to eliminate all dust and contaminants in indoor air. But it is possible to minimize exposure to the types of dust considered unhealthy.

(over)

*Hannah Holmes, *The Secret Life of Dust*, New Jersey: John Wiley & Sons, Inc., 2001.

An Air Cleaner Guide for Shoppers

- A whole-house air cleaner attaches to your central heating and air conditioning unit, filtering the air that circulates through every room in your house. Portable air cleaners are designed to filter air in a specific room, like a bedroom.
- The Clean Air Delivery Rate (CADR) is the amount of filtered air an air cleaner can deliver – the higher the number, the better the unit will filter airborne particles and allergens. CADRs range from 10 to 1,200 for residential air cleaners.
- Some air cleaners emit ozone, an indoor air pollutant, so look for levels below the FDA ozone emissions limit for medical devices. (Read more about ozone health standards at www.epa.gov/iaq/pubs/ozonegen.html.)
- When considering a whole-house air cleaner, look for one that will remove the greatest percentage of particles that are small enough to cause symptoms – anything smaller than .5 microns (the size of pet dander and dust mite allergens). Some cleaners can filter particles as small as .1 microns (such as skin flakes, bacteria and some viruses). You want the most effective unit you can afford.
- Portable air cleaners should list the recommended room size in square feet (multiply the dimensions of your room – a 10x12' room is 120 square feet). Buy the correct size air cleaner for the room it will be used in.
- Look for products made by reputable manufacturers who invest in research and independent testing conducted in real-world settings. If a manufacturer says a device can remove up to 99.98 percent of particles and allergens from the air, check the source for documentation and results of performance testing.
- Some whole-house air cleaning units work with air conditioning systems or dehumidifiers to reduce your dust mite population by keeping the humidity levels at or below 50 percent.
- If you are renting your home or don't have a central heating and cooling system, a portable air cleaner may be a better fit than a whole-house unit. In that case, look for a HEPA filter manufactured by a reputable company. Some less expensive air cleaners require high-cost replacement filters, so read the fine print carefully. Don't leave the store without checking the noise levels of the fan when the product is switched on; expect to hear and feel air moving.
- A reputable heating and air conditioning contractor can offer expert advice about available whole-house air cleaning systems and the effects you are likely to notice after one is installed. It can be installed during or after your home is constructed.

Allergy & Asthma Network Mothers of Asthmatics does not endorse one type or brand of air cleaner over another because individual homes have individual needs. Steps to clean indoor air should be combined with other steps in your asthma or allergy management plan like removing the source of allergens and irritants and/or using medications to treat symptoms.

Clean indoor air is not a luxury – it's an investment in your health and your home's resale appeal.

Want more tips on improving the air your family breathes – at home, school and play? AANMA's *Indoor AirRepair* kit, developed with funding from the Environmental Protection Agency (EPA), helps you identify sources of indoor air quality problems and offers low- and no-cost solutions.

Download your free copy from AANMA's Web site at www.breatherville.org/publications.

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