



Air Cleaners Vary in Price, Effectiveness

Q: *I need a room air cleaner for my son's allergies. I see ads for cleaners with no fans and others called "HEPA." How can I tell what types are effective and use less electricity?*

A: There is an array of room air cleaner designs and styles available. Unlike most home products, the price of a room air cleaner is not an indication of its effectiveness. Some of the television ads for room air cleaners are long on claims, but the products are short on performance and specifications.

I called the 800-phone number shown in an ad for one of the expensive, no-fan air cleaner models that consumes little electricity. After pressing them for the clean air delivery rating (CADR) for that specific model, I determined the rating was effective for a room not much larger than a closet. Models with fans use more electricity, but one with multiple speeds allows you to run it on the efficient low speed.

One of the best methods to compare air cleaners is by their CADR. It indicates the effectiveness of a room air cleaner as determined by testing per the Association of Home Appliance Manufacturers (AHAM) standards. The

CADR is recognized as the standard by the U.S. Environmental Protection Agency and the American Lung Association as a good representation of an air cleaner's effectiveness.

The rating, if the room air cleaner manufacturer had its products tested and certified, should be listed on the packaging or in the user manual. You will see three CADR numbers, referring to household dust, tobacco smoke and pollen. Even though there are other pollutants in a home, such as mold or pet dander, the range of the former three covers the gamut of most particles in room air.

The CADR numbers range from less than 50 for small air cleaners to more than 300 for large, effective ones. Some air cleaners are better at removing smoke, which contains some of the smallest particles in room air. Other air cleaners are better at removing pollen, which consists of large particles. Ask an allergist to determine which allergens should be removed from your room air.

To effectively circulate enough air through the cleaner, the unit should have a fan. An air cleaner rated to clean a larger room will have a larger fan and will use more electricity. You may want to run it on high speed for about



This model uses a two-stage filter. It is designed to clean the air in a 17-foot by 20-foot room five times an hour. Photo by Essick Air.

30 minutes before bedtime, and then switch it to a more efficient low-speed setting overnight.

If your house has hot water radiant heat or electric in-floor heat, the air cleaner may not be needed all night. To save electricity, install a timer and run it for 15 minutes after you are in bed.

With these types of nonforced-air heating systems, once there is no movement in a room, particles and allergens should not become airborne. When you get up in the morning and kick up dust, run the air cleaner again while you are in the room.

The AHAM recom-

mends that the rating of a room air cleaner to be two-thirds of the square footage of the room. For example, if you son's bedroom is 10 feet by 12 feet and he is allergic to pollen, select an air cleaner with a pollen CADR of 80 as a minimum. You can also select one with a higher rating to clean the air faster, but it will likely cost more and use more electricity.

I use a HEPA room air cleaner with a carbon element in my home, which reduces odors and some volatile chemicals. The HEPA and carbon filters need to be replaced periodically, but they are effective and reasonably quiet. Be sure to get a true HEPA model. It must state it removes 99.97 percent of all particles 0.3 microns or larger.

These companies offer room air cleaners:

- Blueair, (888) 258-3247, www.blueair.com;
- Cloud 9, (630) 595-5000, www.4cloud9.com;
- Essick Air Products, (800) 826-2665, www.essickair.com;
- Kaz, (800) 447-0457, www.kaz.com;
- LakeAir, (800) 558-9436, www.lakeair.com. ■



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