

AIR CLEANERS FOR ASTHMA PROGRAMS



Air cleaners, sometimes called air purifiers, can help clear out wildfire smoke particles and other asthma triggers in the home.

Air cleaners and replacement filters are expensive. Asthma programs can help improve their clients' asthma by giving them portable air cleaners.

Asthma programs can provide air cleaners through:

- grant funds
- contracts with Managed Care Organizations
- partnerships with regional air districts
- donations & discounts from air cleaner manufacturers

HOW TO CHOOSE A SAFE & EFFECTIVE AIR CLEANER

Consider the following

- How big is the room where the air cleaner will be used?
- Is it a mechanical air cleaner with no ionizer?
- Is it CARB certified?

Why is room size important?

- Air cleaners are made to clean different sized rooms. So it is important to use one that is powerful enough to clean the amount of air in the room where it will be used.
- The clean air delivery rate (CADR) tells you how much air the air cleaner cleans hourly. This is measured in cubic feet per minute (cfm).
- Use an air cleaner with a CADR up to 200 cfm for a small room, 200-300 cfm for a medium sized room, and more than 300 cfm for a large room.

What type of air cleaner is best?

- Mechanical air cleaners with High-Efficiency Particulate Air (HEPA) filters or filters rated *MERV-13 and higher are best.
- Many electronic air cleaners have a feature called "ionizers". Ionizers may emit ozone or other byproducts that can irritate the lungs. For air cleaners with an ionizer feature, encourage clients to keep the ionizer turned off.

What does CARB certified mean?

- All air cleaners sold in California must be certified by the California Air Resources Board (CARB). It is important to check this because sometimes air cleaners that are not certified are sold in California.

Other certifications that might be useful are:

- Energy Star – means that the product uses energy efficiently. This saves money and helps the environment.
- Association of Home Appliance Manufacturers (AHAM) – means that the product is independently tested & rated for its ability to clean the air. Manufacturers pay for AHAM to evaluate their products, so an air cleaner may still be good even if it is not certified by AHAM.

Other things to consider:

Cost

- Air cleaners and replacement filters are expensive, so it's important for asthma programs to provide them to clients, when possible. If your program is unable to buy air cleaners, you can inform clients about less expensive options like the DIY box fan. Here's a construction guide: Corsi-Rosenthal Cube - Encycl
- There are very effective air cleaners for \$250 or less.

Noise level

- Air cleaners work best at their highest fan speed. However, they may also be loud. During a poor air quality day, the cleaner should be on the highest setting for best results.
- Air cleaners that are above 55 decibels (dB) are quite noisy and will be unpleasant for most people.

EXAMPLES OF EFFECTIVE AIR CLEANERS

Examples for **small rooms** (165 square feet and under)

Product	**Price	***Filter cost	Noise level
Isinlive	\$40	\$80	55 dB
Levoit Core 300	\$100	\$30	50 dB
Airthereal APH230C	\$110	\$40	49 dB
3M Filtrete FAP-C03BA-G2	\$150	\$43	55 dB
Medify Air MA-25	\$160	\$50	49 dB
Ikea Starkvind	\$179	\$15	53 dB

Examples for **medium rooms** (165- 225 square feet)

Product	Price	Filter cost	Noise level
Taotronics AP003	\$104	\$60	52 dB
Govee H7122	\$170	\$55	52 dB
Smart Health S	\$190	\$30	52 dB
Airthereal AGH550	\$240	\$120	46 dB
Levoit LV- H135	\$250	\$65	54 dB

Examples for **large rooms** (225 - 440 square feet)

Product	Price	Filter cost	Noise level
Levoit Core 400S	\$220	\$100	52 dB
Afloia Max	\$230	\$70	56 dB
Rovacs RV550	\$230	\$50	54 dB
Levoit LV- H133	\$250	\$63	54 dB
Afloia Mage	\$250	\$80	56 dB
Winix D360	\$250	\$80	51 dB

*Minimum Efficiency Reporting Values, or MERVs, report a filter's ability to capture larger particles between 0.3 and 10 microns (µm).
 **Costs may fluctuate. These costs were accurate as of 05/31/2022
 ***Replacement filter costs were calculated based on the replacement frequency recommended by the manufacturer. Wildfire smoke events may require more frequent filter replacement.