

HEPA Air Purifiers

What Schools Need to Know

Why should schools care about indoor and outdoor air quality?

Children are particularly vulnerable to air pollution. Their lungs are still developing and prolonged exposure to polluted air may lead to respiratory problems later in life.

Studies have shown that poor indoor air quality has a negative impact on learning performance. Tasks involving calculation, memory and focus are especially hindered by poor indoor air quality.

Creating a clean indoor air environment and preparing for poor outdoor air quality can:

- ◆ Reduce student and staff absenteeism
- ◆ Reduce unplanned trips to the nurse's office or emergency department for individuals with respiratory conditions
- ◆ Help educate students and staff about how they can protect themselves at school and outside of the school setting

Why might a classroom need a HEPA air purifier?

- ◆ Students with respiratory conditions may experience breathing problems if they are exposed to airborne allergens or irritants.
- ◆ Older buildings can emit particles from lead-based paints, crumbling masonry, areas that have not been cleaned in years, and hidden mold. Poor ventilation is often present, and sometimes water leaks and pet infestation are issues.
- ◆ Pesticides, toxic fumes from harsh chemicals, volatile organic compounds (VOCs), fragrances, and cleaning solutions can be dangerous on their own, but the combination of chemicals can quickly send a child into an asthma attack.
- ◆ Wildfire smoke during the first couple months of the school year may create unhealthy indoor air quality conditions depending on the quality of the school ventilation system.

Which areas in the school should have HEPA Air Purifiers?

Classrooms

Classrooms with individuals who have asthma or other chronic health issues.



K-8 classrooms should be targeted beginning with classrooms containing students with asthma or chronic health conditions. Start with the youngest classrooms, as these students are the most vulnerable.

Distribute remaining filters to all classrooms by age, youngest to oldest.

Libraries

Libraries may serve as a clean air zone for students who need relief when air quality is poor.

It's important to remember that some HEPA air purifiers produce ozone. Ozone is a contaminant meant to reduce odor, but in addition to its negative health impacts it can also be detrimental to artifacts, paintings and books.



Gymnasiums



It is critical to have clean air in the spaces where students physically exert themselves.

When participating in health enhancement or other physically active classes, respiratory rates increase causing students to take in more air than they would at rest. Because gymnasiums are normally larger, a central heating, ventilating, and cooling system is ideal for this environment.

Multiple high capacity HEPA filters may be necessary to clean the air in such a large space.