

Indoor Anti-Virus Air Filtration Systems Can Increase Student Attendance & Health

Updated 10/7/21

General Description:

Improving school Indoor Air Quality (IAQ) has been shown to decrease respiratory-related illness infection rates and positively impact student attendance. This includes reducing rates of COVID-19 but extends to reducing the spread of other respiratory illnesses (common cold, flu, etc.) and reducing the severity of asthma symptoms.

Research findings are clear that indoor air quality improvements improve respiratory health-related outcomes:

In Connecticut, adopting a program based on the *IAQ Tools for Schools* has helped address IAQ problems in more than 850 schools (Connecticut Education Association, 2011):

- In Hamden (CT), absenteeism rates fell by **more** than 50%
- In the North Haven (CT) school district, school nurse visits were reduced by 11% and reported respiratory cases declined by 48%
- In Hartford (CT), the school **district** saw a 21.2% decrease in **asthma** cases within a single year

After implementing an indoor air quality management program, the Omaha Public School District observed a decrease in asthma attacks' frequency and severity.

Lower ventilation rates have been linked to more missed school days caused by respiratory infections; greater prevalence and incidence of symptoms of sick building syndrome; greater mean number of school nurse visits caused by respiratory symptoms; increased asthmatic symptoms and risk for viral infections; and the transmission of airborne infectious diseases such as chickenpox, measles, and influenza.

Improved air quality is also linked to improved student outcomes:

Students' attention processes are significantly slower in classrooms with high CO₂ levels and low ventilation rates. Researchers observed a 5% decrease in speed of attention² in classrooms with poor ventilation processes in "poor

Frequently Asked Questions:

1. **Can COVID-19 be transmitted through HVAC (ventilation) systems?** According to [the Centers for Disease Control and Prevention](#), aerosolized COVID-19 particles can remain suspended in the air for long periods, including after an infected person leaves a room. Research shows that upgrading air filtration systems and increasing outdoor airflow into indoor spaces can help prevent the transmission of COVID-19 and other airborne diseases.

2. **Where can I find out more information on ventilation systems and their impact on schools?** For