

Cleaning for Asthma-Safe Schools

A paradox exists for how most of our schools are cleaned. While we're trying to get rid of dirt and germs to keep schools healthy, we may unintentionally make them unhealthy. By using conventional cleaning products, we sometimes cause or worsen asthma and emit unsafe chemicals into the air.

Years of research show that conventional cleaning products in schools negatively impact the health of custodians and staff. The Cleaning for Asthma-

Safe Schools (CLASS) program, a joint partnership between the Work-Related Asthma Prevention Program in the California Department of Public Health (CDPH) and the Green Schools Initiative, is working to change that paradox. CLASS helps California schools adopt safer cleaning methods to protect worker and student health.

Work-Related Asthma in California

The Work-Related Asthma Prevention Program in CDPH tracks the effects of chemicals on workers' asthma. Asthma is considered work-related when caused or made worse by exposure to substances at work.

Workers who never had asthma can begin a new job, work with certain chemicals, and then develop asthma. People who already have asthma can get worse when using certain chemicals. Some workers can use chemicals for years, and develop asthma years later due to those chemicals. This is not just from chemicals used in manufacturing or chemical industry jobs, it can also happen among school custodians using

cleaning products, which contain chemicals that can cause or worsen asthma.

The work-related asthma program found that almost one in ten work-related asthma cases in its data base were related to cleaning products. Of those cases, about one in five people worked in jobs where cleaning tasks were part of their job, such as custodians. The other 80% were among people working in areas where cleaning was going on or had happened recently – their asthma symptoms were attributed to the cleaning products used nearby. Cases include workers in schools.

Cleaning Products' Impact on Indoor Air Pollution in School Buildings

According to the Environmental Protection Agency, half of America's schools have poor indoor air quality, and a new study by the Environmental Working Group (EWG) offers a partial explanation. EWG found that cleaning supplies commonly used in many of California's school districts pollute classroom air. Over 20 cleaning products chosen by major California school districts were tested by EWG, ranging from conventional products to certified green products. Products that are certified green meet rigid standards to protect human health and minimize the product's impact on the environment. More than 450 toxic contaminants were found in the air from conventional cleaning products, whereas certified green cleaning products emitted 15 air contaminants.

EWG also compared cleaning a model classroom using three conventional cleaners with three certified green products. Results showed that green cleaning supplies released less than one-sixth of the air pollution produced by conventional cleaning. Almost half of the cleaning products tested contained ingredients known or suspected to cause asthma. Tests found low levels of chemi-



cals tied to asthma in a few of the green products, which are being investigated further. Overall, certified green cleaning supplies produce much lower pollution levels and use fewer chemicals than conventional products.

Why Use Green Cleaning Products

Many school districts have responded to the need to change how schools are cleaned. Several states in the US, including New York, Illinois, and Hawaii, passed legislation mandating districts to purchase certified green cleaners. Some California districts, including San Diego, Fresno, and Elk Grove, switched to green products on their own.

These changes have resulted in part because good alternatives to conventional products now exist. EcoLogo and Green Seal are two third-party certification programs that require ingredients in cleaning products to protect the environment and human health without sacrificing cost and performance. These products must maintain a high level of performance in order to be certified green. For this reason, they perform as well or better than most conventional products. Products certified under these standards are widely available and can often be purchased through the same vendors that supply conventional cleaning products.

Districts also use green products because they find that they frequently cost the same or less than conventional products. Rather than purchasing expensive “ready to use” products, green cleaners are highly concentrated and cost less. Installing equipment to automatically dilute these cleaners with water onsite is considerably more cost-effective. Dilution control systems also eliminate the need to purchase multiple products since custodians can dilute the product at different strengths. This reduces the number of cleaning products needed for purchase, which also saves money. Finally, districts can negotiate comparable prices for green cleaners from their

vendors or through cooperative purchasing agreements.

Certified green cleaners are better for the environment. Not only do they improve indoor air quality by reducing ozone and volatile organic compounds (VOCs), they are biodegradable and help to minimize harm to aquatic life.

To protect human health, EcoLogo and Green Seal do not allow ingredients which cause cancer, reproductive harm, or are corrosive to eyes or skin. According to the Green Schools Initiative, districts in California using green products have seen fewer sick days for custodial staff and students, reduced injuries from chemical spills or splash accidents, and no longer receive complaints about smells and odors.

Green Seal’s Environmental Standard for Industrial and Institutional Cleaners - GS-37, also prohibits ingredients in cleaning products that cause asthma. This is especially important since we know that conventional cleaning products can cause or worsen asthma. While cleaning products impact the health of custodians, they also affect people who don’t actually clean. More than 1 million California schoolchildren have asthma, and asthma related absences of 12-17 year-olds costs schools more than \$40 million per year in lost revenues. Since asthma is a primary cause of school absenteeism from a chronic illness, it is critical to use asthma-safe products to protect students, custodians, and other school staff.

Cleaning for Asthma-Safe Schools Program (CLASS)

The Cleaning for Asthma-Safe Schools program, established in spring 2009, helps California schools adopt safer cleaning methods and products to safeguard worker and student health. CLASS recently conducted a webinar on “How to pilot a green cleaning program in your school district.” It can be viewed online at <https://california-breathingevents.webex.com>.

CLASS is also working closely with a few school districts to give specialized training and assistance to switch from conventional cleaning products to green cleaning. Pilot sites select schools and a team of custodians to participate in testing and evaluating the products. Districts also receive a small stipend to support the transition to healthier cleaning practices in schools.

Summary

While well-intentioned, some cleaning products can impact workers’ and students’ asthma, as well as pollute the air in California schools. The Cleaning for Asthma-Safe Schools program is one resource available to help school districts transition to green cleaning. By using healthier cleaning products we can keep schools clean, safe, and end the paradox of unhealthy cleaning. 

Resources

In addition to the CLASS program, resources to transition to green cleaning exist.

- Work-related asthma: www.cdph.ca.gov/programs/ohsep/Pages/Asthma.aspx
- Green Schools: <http://greenschools.net/article.php?id=245>
- Strategic Plan for Asthma in California: www.californiabreathing.org
- Purchasing safer cleaning products: http://www.greenseal.org/certification/g37_iicleaners.cfm and www.terrachoice-certified.com/en
- Cleaning for health: http://informinc.org/project_cleaning_health.php
- Environmental Working Group cleaning in schools report: <http://www.ewg.org/schoolcleaningsupplies/fullreport>

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