

SCHOOL HAZARD FACTS FOR FAMILIES

UNITE FOR GOOD VENTILATION

Schools with Good Ventilation

If families and school staff work together, good ventilation in schools is more likely and all will benefit. See the ***Unite for Healthy Schools*** factsheet for how to do this.

Contaminants and odors build up in school indoor air every school day. School buildings need good ventilation to dilute this indoor air pollution. Otherwise rooms will be stuffy and smelly and the air may be unhealthy and polluted with cleaning, pest control, and maintenance chemicals; toxins from furniture and carpeting; body odor from staff and students; products used in school activities; and pollution from outdoors like exhaust fumes. Ventilation must:

- Bring in clean outdoor air
- Mix it with indoor air
- Filter the air
- Distribute the mixed air
- Exhaust part of the indoor air

Schools also need special exhaust ventilation in areas that generate large amounts of odors, moisture, heat or toxic materials, for example:

- Bathrooms and kitchens
- Locker rooms and showers
- Labs, art rooms, and shops



TYPES OF VENTILATION

School buildings are typically ventilated using:

- Natural ventilation
- Mechanical ventilation
- A combination of these

The type of systems in your school will depend on the age of the building and whether or not upgrades have been made. Staff and families should have a basic understanding of the ventilation in their schools.

Natural Ventilation

In a natural ventilation system, there is a natural flow of outdoor air coming into rooms through operable windows, doors, leaks and other openings. Air is exhausted naturally through windows and other openings. Sometimes there is a mechanical exhaust fan on the roof which pulls the air out of the building through ductwork in hallways.

Mechanical Ventilation

The two most common mechanical systems used in schools are:

- Unit ventilators
- Central Heating, Ventilation, and Air Conditioning (HVAC) systems

Both types perform the same functions, but a unit ventilator serves a single room while a HVAC system serves multiple rooms or even whole wings of a building. Keep in mind that some schools have a combination of different systems, and it is not uncommon to find natural ventilation, unit ventilators, and central HVAC systems in one school.

Local Exhaust Ventilation

Local exhaust systems remove odors and pull pollutants from the point they are generated and directly exhaust them to the outside of the building. Local exhaust ventilation hoods should be located as close to the source of pollution as possible. The air should exit the building where it will not be able to get back in through windows, doors or air intakes.

CHECKING UP ON VENTILATION

The air in every occupied area of a school building

should smell fresh. Outdoor air should be drawn from unpolluted outdoor areas. Air should be felt coming out of supply vents and going into exhaust vents. A light piece of tissue or ribbon held near a vent should be pushed away from a supply vent and sucked towards an exhaust vent. There should be good air movement but not drafts. Windows should be operable and opened as much as weather permits. Broken windows, doors and mechanical equipment should be promptly fixed. There should be adequate staffing and training for custodians and other staff who operate and maintain ventilation systems.

LAWS THAT APPLY

The PEOSH Indoor Air Quality (IAQ) Standard lists some useful things that should be done concerning ventilation. It requires the district to have a written plan to comply with the IAQ Standard and identify a Designated Person who is responsible for compliance. It requires the district to make sure the ventilation is in proper operating order when carbon dioxide (CO₂) levels are above 1,000 parts per million parts of air (ppm), which indicates too little outdoor air supply. (Carbon dioxide measurements are valid only if taken after four hours of continuous occupancy.) The PEOSH IAQ Standard also requires proper preventive maintenance of existing ventilation systems, both mechanical ventilation and natural ventilation, including windows and doors. Maintenance records must be kept for three years and be available to employees and their unions.

PEOSH can only be utilized by school employees, not students and their families. So families should work through school staff and their unions to see if they want to involve PEOSH.

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Healthy Schools Now is a coalition of parents, educators, students and public school advocates dedicated to ensuring that all New Jersey children and school employees learn and work in safe, modern school buildings.

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