

The Risk Management Insider

A health, safety, risk management resource for school officials

Ensuring safe school grounds and facilities

Preventing slips, trips and falls through cooperation

Slips, trips and falls don't just happen—they can be prevented, according to James C. Kristoff, CSP, regional loss control manager of Utica National Insurance Group.

"In today's economic environment, who can afford to lose anyone because of a senseless accident?" said Kristoff. "School district personnel can effectively work together to raise awareness about the risks associated with slips, trips and falls to prevent unnecessary injuries, accidents and—in many cases—even fatalities."

The United States Department of Labor reports 15 percent of all accidental deaths are the result of slips, trips and falls, second only to motor vehicle accidents.

Fortunately, these risks can be reduced by identifying the reasons why people slip, trip and fall, educating the entire school community and implementing a comprehensive approach to school safety, said Kristoff.

Slips occur when there is too little friction between an individual's feet and the walking surface, which often becomes slippery when wet—setting the stage for disaster. For these hazards, good housekeeping is essential. For

example, when cleaning floors, let one side dry completely before cleaning the other side, and block off the area with warning signs to alert others.

Trips occur when the movement of the foot is interrupted, causing a loss of balance. Torn flooring or carpeting, clutter, open drawers and objects on the floor, in combination with obstructed views and poor lighting, often contribute to tripping accidents. Keeping all rooms clean and orderly with good housekeeping and maintenance procedures greatly diminishes the likelihood of accidents.

Falls occur when an individual loses his/her center of gravity or balance. While slips and trips generally result in a fall, falls may also be caused a number of things, such as the improper use of ladders and scaffolding. It is important not to risk serious injury by taking shortcuts or using inadequate equipment to accomplish a task, e.g., using a chair instead of a ladder to reach a higher level.

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Advances in technology improve diabetic devices, add to demand for skilled professionals

Diane S. Lightfoote, R.N.

Nurse's Corner



I have a shiny red cell phone that has a camera, stores 1,000 phone numbers and could, so I am told, access the internet. I bought it four months ago, and already it's outdated.

The same concept of rapidly changing technology applies to insulin pumps and other diabetic devices. Each time you master one, a new, more complex version enters the market. The principles are the same, but each one touts more information and wizardry with less manual computations. Despite their intent to improve lives, these advancements add even more mystery and complexity to the registered professional school nurse's day.

The first insulin pump prototype—a large cumbersome backpack—was developed by Dr. Arnold Kadish in 1963. In 1980, insulin pumps the size of a check book box and weighing half a pound became available to the general public. Today, insulin delivery is similar, but further reductions in size and weight and the addition of small computer chips have improved the efficiency and durability of insulin pumps.

These computerized devices are now about the size of a flip phone and deliver a measured amount of rapid-acting insulin. Inside the pump is a reservoir that holds up to three days' worth of insulin. The computer chip is individually programmed to deliver continuous basal doses of insulin. The wearer manually enters a bolus dose of insulin whenever food is consumed or to correct hyperglycemia.

Recently another electronic tool was developed for diabetics—the continuous glucose monitor. A CGM is a small oval device, about the size of half an egg. It's inserted into the interstitial fluid and is capable of continuous “real-time” glucose readings. An advantage to using this instead of a scheduled blood glucose check is that a diabetic can actually monitor dips in the glucose level or note a rising trend as it happens. Additionally, a programmed alarm can alert the individual when the blood glucose reaches a dangerous level.

Diane Lightfoote earned her RN from Adirondack Community College and her bachelor's degree from SUNY Potsdam. She has been a school nurse at Sandford Street Elementary School in Glens Falls since 1997. Prior to that, she was a middle school nurse for two years. Lightfoote achieved National Board Certification for school nursing in 2002. She is currently president-elect of the New York State Association of School Nurses and is on the faculty of the school nurse orientation program.

Save these dates:

- Wednesday, November 12: 4:30-6:30 p.m.
Saratoga Springs City School District, Administrative Offices, High School Campus, 3 Blue Streak Blvd.
- Wednesday, November 19: 4:00-6:00 p.m.
Capital Region BOCES, 900 Watervliet-Shaker Rd., Albany

Plan to attend Diane Lightfoote's workshops, above, to learn about the following: Different types of diabetes; current medications and treatments; the responsibilities of the school nurse in terms of assessment, planning, intervening and evaluating the diabetic student; the roles of students, parents/guardians and physicians; the signs, symptoms and treatment of hypoglycemia and hyperglycemia; the use of insulin pumps and continuous glucose monitors; how to administer glucagons; and comprehensive individualized health care plan resources.

Slips, trips and falls...

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According to Kristoff, a comprehensive approach to school safety addresses the factors that can cause slips, trips and falls, and includes adopting district policies, identifying individual responsibility, providing employee training and establishing procedures for inspections, maintenance and housekeeping.

While administration is responsible for implementing policies and procedures that prevent slips, trips and falls, each student and staff member is responsible for following the procedures put in place.

Formal training helps individuals become aware of the various situations that may lead to slips, trips and falls and provides them with ways to prevent or avoid these types of accidents.

Each individual can also take steps to prevent injuries, such as wearing the appropriate footwear, paying attention to the path ahead and not moving too fast. Staff are encouraged to notify personnel of safety concerns, hazards or violations. Examples of unsafe conditions include inadequate lighting, slippery floors and loose handrails.

To ensure proper maintenance and housekeeping procedures are followed, staff should record products used, as well as the individuals who completed tasks and when.

“In the event of an accident, documentation is always to your benefit,” said Kristoff. “For example, if someone slips in a school parking lot, proper documentation showing the lot was properly maintained and cleared can help to prove there was no negligence on the part of the school district.”

If you're interested in preventing slips, trips and falls in your district, consider making it an agenda item at your next safety meeting. Your BOCES safety specialist can also assist you with many aspects of implementing a comprehensive safety program.

Decoding pesticide notification requirements

Cockroaches, rats and wasps... oh my! These types of pests not only disrupt the learning environment—they pose potential health risks to children.

For example, cockroaches and mice carry numerous disease-producing bacteria viruses, while bees and wasps can cause painful stings and severe allergic reactions. Cockroaches found in a school cafeteria may contaminate food and are sure to send all of the students running.

But, on the bright side, proper management can prevent most problems. Many schools are using an Integrated Pest Management program (IPM) that takes advantage of all pest management strategies, including the judicious and careful use of pesticides when necessary. Often sealing away food sources, caulking around pipes and other barriers help to keep pests from entering schools. Pesticides are considered as a last resort when other methods have proven unsuccessful. Even then, only the least toxic and pest-specific pesticides are used. When this occurs, school districts are responsible for sending notifications to staff and parents of students.

In accordance with Section 409-h of the New York State Education Law and Commissioner's Regulation 155.24, a formalized pesticide application notification process has been put into place and provides specific direction on when and how school districts must send notifications.

Annual notices

A written notice must be provided to all students, parents and staff annually, at the beginning of the school year and at the beginning of summer school, which includes a statement that pesticide application may take place throughout the school year.

The notice must offer individuals an opportunity to register to receive a written notification at least 48 hours prior to pesticide applications. It also must include instructions on how to register with the school to be on the notification list. Individuals may request that their name be added to the registry at any point during the school year.

48-hour registry notification

Not less than 48 hours prior to a pesticide application, individuals on the 48-hour registry must be provided with written notification about the specific date and location of the application, the name of the product including the EPA pesticide registration number and the contact information for the appropriate school representative.

Follow-up

In addition to the 48-hour advance notification, a follow-up notification must be sent to all staff and parents of students in relevant school buildings. These notices must be sent within two days of the end of December/January break, within two days of the end of April break, within ten days of the end of the school year, and within two days of the end of summer school, as applicable. This notification includes

the date(s), location(s), and pesticide product(s) used in the pesticide application(s). It also must give information on signing up for the 48-hour advance notifications.

Emergency

If any emergency pesticide application is necessary to protect against an imminent threat to health, a good faith effort must be made to supply the written notification to individuals on the 48-hour registry, prior to the actual application. A notification must also be provided to the State Department of Health.

According to the New York State Department of Environmental Conservation, as a commercial entity, a school district is prohibited from applying any pesticides themselves unless they are a licensed pesticide applicator.

Remember, your BOCES specialist is here to help. If you are ever in need of guidance regarding pesticides contact your representative directly, or call Health/Safety/Risk Management at (518) 464-5115. For sample notification letters and information, visit <http://risk.capregbores.org>.



This summer, Capital Region BOCES Health/Safety/Risk Management sponsored a presentation on spill prevention, control and countermeasure plans and regulations. Featured speaker Kurt M. Bedore, a New York State licensed professional engineer for more than 17 years is pictured above with Chemical Hygiene Officer Lynn Tarnowski.

Fall asbestos training sessions planned

School building personnel with asbestos certification must renew their certification every year. Renewal cannot occur unless the individual demonstrates evidence of refresher training, which is offered by BOCES Health/Safety/Risk Management. The following one-day courses will be offered:

- **September 24: Supervisor refresher**
- **November 3: Inspector/management planner refresher**
- **November 5: Supervisor refresher**
- **December 4: Handler refresher**

Unless otherwise noted, all courses are offered at 900 Watervliet-Shaker Road in Albany. Registration begins at 7:45 a.m., and courses begin promptly at 8 a.m.

All classes are approved by the New York State Department of Health and the United States Environmental Protection Agency.

Preparing school facilities for a new world

Using C-band ultraviolet lights in HVAC systems can improve air quality

While advances in technology continue to revolutionize the face of education, so too does it shape the direction of our school facilities—in ways we could never have imagined.

When it comes to indoor air quality, advances in heating, ventilation and air conditioning (HVAC) technologies are leading the way to more healthy, energy-efficient environments for all of our students, teachers and staff.

According to the United States Government Accountability Office, more than one-half of our nation's schools have unsatisfactory indoor air quality. Poor indoor air quality may reduce student, teacher and staff productivity, leading to greater absenteeism—not to mention the potential for short-term and long-term health problems as well as life-threatening conditions.

Fortunately, the application of C-band ultraviolet light (UV-C) inside HVAC systems can prevent biological growth that causes poor indoor air quality. To that end, some schools have begun using this hi-tech tool.

For years, UV-C technology has been used for water disinfection and to provide sterilization in medical and food and beverage processing applications. In the mid-1990s, high energy output UV-C lights were developed that could kill infectious disease particles existing under the cold temperatures and moving air of HVAC systems.

Today, UV-C lights can be added to air handlers and other pieces of equipment through a relatively simple retrofit kit, and several manufacturers even offer them as a factory-installed option in HVAC equipment.

How HVAC systems work

HVAC systems have become the perfect breeding ground for mold and mildew. As the system cycles on and off, it creates condensation—allowing microbes to multiply on cooling coils and drain pans, which then ventilate throughout school buildings, potentially causing allergic reactions.

Coil cleaning can bring performance back to the original operating conditions. However, traditional cleaning methods are labor-intensive and costly and require facility shutdown several times a year, as well as the use of chemicals and biocides. The cleanliness degrades steadily immediately after treatment.

In contrast, UV-C lights installed inside HVAC systems clean coils quickly and effectively—maintaining the coils in a continuously clean condition. Typically, lights are installed on the discharge side of the cooling coil and are mounted in a way to expose both the coil surface and drain pan to as much light as possible. The lights

work by attacking the DNA of mold and other organisms, essentially killing them by preventing reproduction and multiplication. The lights require virtually no maintenance, except for a yearly change-out.

Schools throughout the country have been using UV-C technology successfully over the past few years. The Stepping Stones Center in Cincinnati used UV-C lights to effectively remove mold from an otherwise unusable building. The installation of UV-C lights in a building infected with fungal growth in the LaPorte Independent School District in Texas eliminated the need for costly, time-consuming cleaning, inspections and chemical sprays and provided a nearly 10 percent reduction in energy use.

With limited resources, the decision to revamp school district facilities is never easy. BOCES safety specialist Mark Sullivan said he is unaware of any school districts in the region that have adapted this new technology. However, he said it is an item worth considering when discussing upcoming capital projects and updates.

“Maintaining good indoor air quality for a healthy work and learning environment is on every school districts’ agenda,” said Sullivan. “Studies of schools using UV-C technology have consistently shown a reduction in absenteeism, which has untold benefits for everyone.”

Benefits of using UV-C technology:

- ▶ **Kills or inactivates the surface and airborne microorganisms that trigger allergy and asthma symptoms, such as mold and mold spores.**
- ▶ **Eliminates odors associated with mold and other allergens, producing a clean, fresh-air smell in a matter of days.**
- ▶ **Prevents the spread of infectious diseases caused by bacteria and viruses.**
- ▶ **Improves indoor air quality by controlling indoor pollutants and irritants.**
- ▶ **Produces no ozone or secondary contaminants.**
- ▶ **Continuously cleans coils, drain pans and other air handling system components, reducing the need for manual cleaning and extending the service life of your HVAC system.**
- ▶ **Lowers energy costs by keeping coils free of mold and organic build-up—the lights bring HVAC systems back to peak efficiency.**
- ▶ **Increases occupant comfort, which improves attendance and productivity.**