

A New Tool to Help Prevent the Spread of Illness in Schools



Illnesses are Costly to Schools: Contagious Illness Impacts Student Performance

After coming off the worst Flu season in more than two decades, school administrators continue to search for ways to keep students and staff healthy and reduce absenteeism.

When students miss school due to illness, they fall behind academically. When teachers and students miss due to illness, revenue is lost from attendance based reimbursements and costs go up when substitute teachers are used.

A new tool is available to help slow the spread of contagious illnesses.

Even the best efforts at sanitation can fall short when contagious illnesses like the cold and flu are pervasive throughout a school. Some surfaces harboring germs simply get missed because they are complex in shape or maybe hard to reach. Think about a student desk, the top surface is easy to clean/disinfect, but what about the underside, the seat, rails, and legs?

Germ Hot Spots



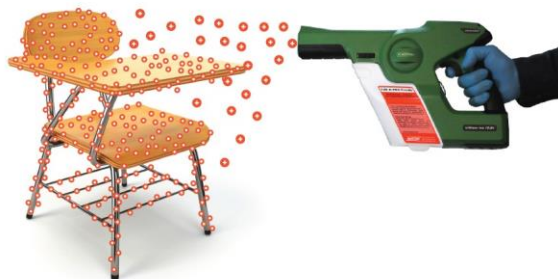
Furthermore, cleaning staffs often have limited time to cover large areas where traditional spray and wiping methods take a substantial amount of time. Enter the electrostatic sprayer, a special type of sprayer that charges disinfectant spray droplets so they are attracted to surfaces similar to opposite poles of a magnet. A battery powered electrostatic sprayer can uniformly cover a lot of surface area rapidly and insure coverage of all critical surfaces.

A new tool for the Infection Control Toolbox.

Electrostatic sprayers are not a cure all for stopping the spread of infection. However, they can be a critical component of an overall infection control strategy.

The Infection Control Toolbox should include the following:

- Actively Promoting Flu Vaccinations.
- Encourage hand washing after using the bathroom.
- Locate hand sanitizing stations.
- Sick teachers and students should be encouraged to stay home.
- Implement a High Touch Surface Disinfecting Program during cold and flu season.
- Regularly clean and disinfect surfaces.
- End of day cleaning using electrostatic spraying of disinfectants.



Key Pathogens impacting the education market

Influenza: The flu is a highly contagious respiratory illness caused by the influenza A and B viruses. It affects approximately 20% of the population annually.

Transmission can be from person to person through a cough or a sneeze, or by contacting contaminated surfaces followed by touching the mouth, eyes or nose.

Studies have shown the influenza virus can survive on surfaces up to 8 hours. Students miss an estimated 38 million school days each year due to the flu.

Cold Virus: The common cold is a highly contagious illness that can be caused by a number of different respiratory viruses.

The common cold is the main reason why students miss school. Students miss an estimated 22 million days annually due to the common cold.

Norovirus: A highly contagious virus that causes abrupt onset of nausea, vomiting or diarrhea. Outbreaks are a particular problem among closed populations in tight quarters. The school environment can be an ideal scenario for norovirus outbreaks to occur.

MRSA: MRSA is methicillin-resistant *Staphylococcus aureus*, a type of staph bacteria that is resistant to several antibiotics. In the general community, MRSA most often causes skin infections.

Anyone can get MRSA on their body from contact with an infected wound or by sharing personal items, such as towels or razors, that have touched infected skin. MRSA infection risk can be increased when a person is in activities or places that involve crowding, skin-to-skin contact, and shared equipment or supplies. People including athletes, daycare and school students can be exposed to MRSA.

Areas that can benefit from Electrostatic Disinfecting

Classrooms: Desks, shelves, tables

Cafeteria: Help prevent the spread of flu, common cold, and norovirus.

School Buses: Seats, wall, and hand rails.

Gym: Wrestling Mats: prevent cases of MRSA and Ring Worm.

Weight Room: Barbells, weight machines, fitness equipment.

Locker Room: Metal lockers inside and out. Behind toilets.

About Electrostatic Spraying

While this is new technology to the cleaning industry, electrostatic spraying of liquids is widely used and in other industries.



Example #1: electrostatic paint spray systems charge paint particles so that they are attracted to surfaces to be coated. The benefit is uniformity of coverage, drastically reduced overspray, and complex shapes can be coated even if they are out of the line of sight.

Example #2: Farmers use electrostatic sprayers to protect their crops from insects and disease. Electrostatic spraying of pesticides on crops results in more uniform coverage and allows for less use of pesticide. Most importantly, the undersides of leaves that would be missed with ordinary spray systems get treated with electrostatic systems. Use 40-70% less liquid per square feet of coverage.

Electrostatic spraying differences from other types of sprayers:

With conventional sprayers, the only surfaces that will be coated are those that are in the line of sight of the spray nozzle. Electrostatically applied liquids have a wrapping effect, so that complex objects and areas hidden from the line of site get coated with the liquid.

Benefits of using electrostatic sprayers in the cleaning industry:

The most important benefit of electrostatic sprayers in the cleaning industry is around the application of disinfectants and sanitizers.

Tips to remember with Electrostatic Sprayers

It is not a substitute for wipe/cleaning high touch surfaces.
It is another tool in the arsenal against the spread of contagious illness.



POWER SOURCE: The electrostatic sprayers require a power source to charge the liquid particles and propel them toward the target objects. There are electrostatic sprayers that use a cord to plug into 120V outlets, and those that use rechargeable lithium ion batteries.

Validation: Disinfectants and sanitizing products that make public health claims must be EPA registered. Manufacturing of such products must be in EPA licensed facilities that follow specific protocols. It is important for disinfectants and sanitizers used with electrostatic sprayers are validated for these devices. For users planning on using an electrostatic sprayer to apply a disinfectant/sanitizer that makes public health claims, it is important to be sure that the germicidal/antimicrobial active ingredient in the product is not compromised.



When an object is sprayed with a conventional sprayer (including the use of a trigger sprayer), portions of the spray particles reach the target object. The rest of the liquid particles succumb to gravity and fall to the floor or simply float past the object. Further, surfaces of complex objects or hard to reach spots are often missed.



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128 E-FECTicide



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