



# Healthy Colorado Schools

## LESSONS LEARNED

In 2012, we did assessments of 23 schools and childcare facilities in the state. Here are the lessons learned.

### 1. Mice are the most common pest problem we have encountered in Colorado schools.

**DON'T** allow exterior doors to become invitations for pests to enter the facility. **DO** install well-fitting door sweeps to keep the pests out of the building and heat or

air conditioning in. **DO** train maintenance staff and contractors in proper placement. Properly installed sweeps have no gaps at the ends, or at the middle of double doors. A young mouse can enter through a ¼" gap! **DON'T** place rodenticide bait inside school buildings. **DO** pest proof buildings to keep mice and rats out. If mice or rats do get inside, use snap traps or repeating mouse traps placed in areas inaccessible to children. Traps can be placed in tamper-resistant containers.

## BE SAFE

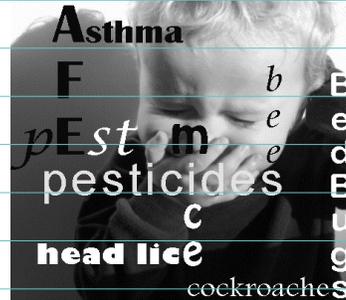
The [Colorado School Safety Resource Center \(CSSRC\)](#), an organization formed by the Colorado Legislature to work with Coloradans to help prevent not only large-scale terrible events such as the shootings at Sandy Hook Elementary,



but also more common problems like bullying and suicide, wants to remind everyone of the importance of contacting your local law enforcement agency **FIRST** with tips and concerns about suspicious activity around schools.

## Integrated Pest Management

### Schools



### 2. We found a variety of general use pesticides under sinks, in closets, and in desk drawers in classrooms.

**DON'T** allow staff to bring pesticides to school to control infestations on their own. **DO** designate employees or pest management professionals who are allowed to apply pesticides and make sure those individuals are trained and licensed and/or certified.

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### Special points of interest:

- ✓ 5 Top Lessons For School IPM
- ✓ School Safety Resources
- ✓ Ways to Combat Flu Season
- ✓ Why A Picture Is Worth A 1,000 Words—Check Out Our Flickr Site
- ✓ What To Know About Head Lice
- ✓ Online IPM Training For Child Care Providers

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## FLU SEASON IS HERE

According to the Center for Disease Control and Prevention (CDC), Colorado is one of 29 states that have a high level of flu activity. For more information about the advisory click here:

<http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251607766255>

A comprehensive cleaning program with a written protocol for infection control can help prevent the spread of pathogens (germs) that cause infectious diseases throughout the entire school. It also ensures that facilities use the most appropriate products and procedures available for the task to help avoid exposing product users and other building occupants to potential health hazards. CDC provides the following guidance on the difference between cleaning, sanitizing, and disinfecting:

✓✓ **Cleaning** removes germs, dirt, and impurities from surfaces or objects. Cleaning works by using soap (or detergent) and

water to physically remove germs from surfaces. This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

✓✓ **Sanitizing** lowers the number of germs on surfaces or objects to a safe level as judged by public health standards or requirements to lower the risk of spreading infection.

✓✓ **Disinfecting** kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection. Sanitizing and disinfecting require the use of EPA-registered pesticides or disinfecting/sanitizing water-based devices.

According to the Colorado Department of Public Health and Environment, **kitchen and dining area surfaces and toys should be sanitized with a solution of 1 Tablespoon of household chlorine bleach per gallon of water or 50 - 200 ppm chlorine bleach.** Approved sanitizers must be equivalent in strength, registered with the US EPA and approved for use on food contact surfaces without a rinse step. A test kit should be used to confirm that sanitizer's strength. Determining whether a product is approved can be challenging. Refer to the Guidelines for the Use of Sanitizers and Disinfectants in Child Care Centers or contact the Colorado Department of Public Health and Environment or your local health department for assistance before purchase.

## KILL BED BUGS WHILE YOU SLEEP!

The New York Times (go to: <http://mobile.nytimes.com/2012/12/31/blogs/pill-could-join-arsenal-against-bedbugs.xml?f=26> for the full article) reported that investigators at Eastern Virginia Medical School are studying “xenointoxication” as a way to control bed bugs. Ivermectin is a deworming drug commonly used in dogs

to kill heartworms. For humans, it is available by prescription only and usually used by travelers who pick up worms overseas. The use of ivermectin to kill bed bugs was tried first in mice. When dosed, 86% of the bed bugs feeding on the mice died. In a limited trial with human volunteers, over 60% of the bed bugs died after volunteers took one dose of the drug.



This mattress was found in a dumpster outside an apartment building. It was covered with bedbugs. photo by Matt Camper.

## CHECK OUT OUR FLICKR SITE

Would you like our team to do a pest assessment in your school? Check out some of the things we have found in Colorado schools. Photos can

be found at <http://www.flickr.com/photos/bspm/>. (No names were used to protect the innocent!)



Children are asked to keep their belongings separate to prevent the spread of head lice. This is one school's solution.

## PESTICIDE POISONINGS SPUR LEGISLATION

After reading several cases of pesticide poisonings throughout the state of Utah, State Senator Gene Davis (D-Utah), has announced plans to sponsor legislation that requires notification when nearby homes are being treated with toxic pesticides. Pre-notification is a critical

step in the right direction to allow people to avoid unwanted chemical exposures. Utah's current pesticide notification system is voluntary. While pesticide applicators are required to alert their customers of the dangers associated with certain pesticides they apply,

residents are not required currently to notify their neighbors when they apply pesticides around their home.

For more information go to: <http://www.ewnews.com/latest-news/science-a-environmental/37368-pesticide-poisonings-spur-legislation-proposal-in-utah.html> Enews.com. 12 October 2012.

## IT'S TIME FOR HEAD LICE

Head lice are small insects that live on the human scalp. They are about the size of a sesame seed, while their white eggs are about the size of dandruff flakes. Both lice and nits (lice eggs) are easiest to detect above the neckline and ears. Although lice live a few weeks, they typically die within two days if they don't have food. Nits don't survive longer than a week once removed from the warmth of the human scalp. We **DO NOT** recommend applying pesticides to control head lice in schools.

Head lice are common in school settings because children are in close proximity to each other. Fortunately, head lice do not transmit disease and they do not live on other animals. They do not fly or hop from one infested child to another. Lice spread only through direct contact with the head or head-related items (such as hats, headphones, combs, brushes, hair decorations) of an infested child. At-home strategies to control lice typically consist of scalp treatment with specialized

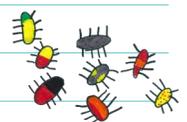
shampoo and comb, regular lice in schools scalp inspection and hot water washing and drying of personal items. See our YouTube video on tips for parents about head lice (<http://www.youtube.com/watch?v=onQLVmfP7XQ>).



Head lice can be spread by sharing hats, combs and other belongings.

## ON LINE IPM TRAINING FOR CHILD CARE PROVIDERS

A ten-module training course is available for childcare directors, staff, teachers and caregivers from the U.S. Environmental Protection Agency. See <http://epa.gov/childcare/training.html>





**For More Information About The Colorado Coalition For School IPM:**

Colorado State University  
 Fort Collins, CO 80523-1177  
 Phone: 970-491-1377  
 Email: [deborah.young@colostate.edu](mailto:deborah.young@colostate.edu)  
<http://coloradoipmcenter.agsci.colostate.edu>

The Colorado Coalition for School IPM is an effort by Colorado State University, U.S. Environmental Protection Agency, Colorado Department of Agriculture, Colorado Department of Public Health and Environment, Colorado Department of Education, school districts, National Environmental Health Association and private pest control professionals.



**For All The Latest News Don't Forget To Check Out Our Website/Blog at:**

[www.ccsipm.wordpress.com](http://www.ccsipm.wordpress.com)

**LESSONS LEARNED continued:**

3. **We found floor drains, in kitchens, student stores, and family and consumer science rooms, with lots of 'gunk'.**

**DON'T** think bleach will keep pests away from drains or other surfaces. Bleach does not remove organic matter buildup that cockroaches, ants and mice can feed on. **DO** use a microbial digester on a weekly or monthly basis to keep drains clean. **DO** invest in trap guards to keep cockroaches from climbing up drains to get into the building.

4. **Food was found throughout many schools, not just in the cafeteria.**

**DON'T** provide an attractive home for pests by storing food

products and materials in cardboard boxes. **DO** remove incoming food items from cardboard and place on movable wire-rack shelving, and discard the cardboard packaging in recycling containers outside of your building. **DO** place holiday decorations, craft supplies and food items in tamper-resistant containers. **DO** keep clutter to a minimum to reduce pest harborage, and allow proper cleaning and inspection.

5. **This fall, environmental health personnel from several county health departments joined us in school assessments. We found many classrooms using Clorox and other brand wipes. These wipes appear to be taking the**

**place of the soap and water cleaning of surfaces.**

**DO** follow the warnings and label instructions. A good practice is to keep any and all chemicals (hand sanitizer, Clorox wipes, cleaners, air fresheners, spray cleaners, 409, bleach, etc.) out of the reach of children. Note that Clorox wipes are not approved for sanitization or disinfection.



Gunky floor drain