

GUIDELINES FOR BED BUG RESPONSE IN A SCHOOL BUILDING

Bed bugs are spreading rapidly within the United States. Contact with bed bugs can occur anywhere, even at schools. It is important for schools to be informed about how to prevent a bed bug infestation and how to address the detection of bed bugs.

Since bed bugs are not known to transmit disease, students should not be excluded from school due to bed bugs. The school nurse or school administration should privately follow these guidelines with the student's dignity in mind.



Education is Key: Provide training for custodial, teaching, and nursing staff on bed bug identification. The training should include the following topics: identification of bed bugs and bed bug evidence, bed bug hiding spots and the school's bed bug response protocol. The training can be conducted by the local health department, an entomologist, or a pest management professional.

Care for the Student

- Discreetly remove the student from the classroom so the school nurse or a qualified individual can perform an inspection of the student's clothing and belongings, including shoes, jackets, hats, books, backpacks, school supplies, etc.
- Place any of the student's items that may not be essential to the school day, such as book bags and coats, into a large plastic bag and tightly seal the bag.
- Heat kills bed bugs. If the school has a washer or dryer, the school may wash the student's clothing at the hottest recommended setting. Tumble dry the clothing on high heat for 30 minutes (120°F or above).
- Check areas where the student sits or where the student's belongings may have been placed for extended periods of time. Bed bugs are excellent hitchhikers and can be found on various surfaces in many different locations.
- Take measures to minimize the amount of attention drawn to the student.



Collect a Specimen for Identification

- Collect a specimen using a tissue or a piece of gauze. Try not to crush the bug. Multiple specimens can be very helpful in identification of the insect.
- Dispose of additional bed bugs found by placing them in a tightly sealed bag and discarding the bag in an outdoor trash receptacle or dumpster. **VERY IMPORTANT:** If a specimen is found on a student or the student's belongings, remove the specimen as instructed above, but do not send the student home. The parents should be immediately notified by the school nurse or the school administration if the specimen is a confirmed bed bug.
- Contact the local health department, a pest management professional, or utilize the website (www.cuyahogabedbugs.org) to assist in identification. The local health department may also consult with the Ohio Department of Health as needed.
- An additional service to identify insects is available at the Ohio State University (www.ppdc.osu.edu).
- Do not send live specimens via any postal or shipping service. Check the appropriate websites for proper submission protocols. Once received by the agency, an entomologist will examine the specimen and then notify the school administration of the bug's identification, typically within two days of receipt.

Positive Identification of Bed Bugs: What to Do Next

After positive identification, the school administration or the school nurse should send the school community a parent or guardian notification letter and a bed bug fact sheet available at www.ccbh.net or www.cuyahogabedbugs.org.



If the bed bug was found directly on a student or the student's belongings, the school administration or nurse should make direct contact with the student's parent or guardian and provide the following information:

- Instruct the parent or guardian to send the student to school with a sealable plastic bag containing a clean, freshly laundered change of clothes. The clothes should be washed at the hottest recommended setting and tumble dried on high heat for at least 30 minutes before being placed in the bag.
- Request that the parent or guardian send only essential items to school with the student. These items should be inspected upon arrival at school. The school may offer to keep non-essential items overnight to help ensure the items are bed bug free.
- Suggest keeping school items sealed in a plastic bag at home and limit items going back and forth from home to school until the infestation is under control.

Treating an Infestation

An Integrated Pest Management (IPM) program should be implemented to help achieve long-term, environmentally sound pest control. An effective IPM approach incorporates a number of components, including education, thorough monitoring, identification of both chemical and non-chemical pest management techniques, accurate record keeping, and periodic program evaluation.

- Ongoing pest management should be overseen by the school administration.
- A properly licensed pest management company should be contracted to apply pesticides. A list of licensed pest management companies and applicators can be found at the Ohio Department of Agriculture's web site (www.agri.ohio.gov/apps/odaprs/pestfert-PRS-searchindex.aspx). Verify the company is experienced in bed bug treatment.

In addition to following an IPM program, the school administration should implement a protocol to treat areas where bed bugs are found. The following vacuuming procedures should be incorporated:

- Vacuum areas where bed bugs are found during the normal after-school cleaning schedule. Make sure floor and baseboards are included.
- Sprinkle about ¼ to ½ cup of talcum powder on the last section of floor to be vacuumed. The talc will help dry out and kill bed bugs in the bag or cup.
- Carefully remove the vacuum bag or contents of the bag-free vacuum container and place it in a tightly sealed plastic garbage bag for disposal.
- Dispose of the sealed bag in an outdoor trash can.
- Do not use the same vacuum bag in uninfested areas.

To help minimize the potential transfer of bed bugs or their eggs from one student's belongings to another, it is recommended to store each student's items (coat, backpack, lunch bag, etc.) separate from those of their classmates or in individual plastic containers labeled with the students' names. Coats hung next to each other and lunch bags stored together in a common container provide bed bugs an opportunity to relocate and to be transported home with an unknowing student.

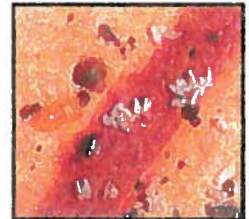
Note: These guidelines include recommendations of the Central Ohio Bed Bug Taskforce



Public health officials and pest control operators in northeast Ohio and across the country are responding to a significant increase in bed bug complaints. Bed bugs were once found only on bedding in homes, apartments, and rooming houses. Now they are found in office buildings, retail stores, hospitals, dormitories, nursing homes, libraries, movie theaters, buses, or any other place where people gather. The Center for Disease Control (CDC) and the Environmental Protection Agency (EPA) have declared that the bed bug is now a “pest of significant public health importance.”

Identifying Bed Bugs

- Bed bugs are small, flat, oval, reddish-brown, wingless insects that feed on the blood of humans and other mammals.
- Adult bed bugs are approximately ¼ inch long, about the size of an apple seed. Young bed bugs (nymphs) are quite small and when unfed they appear lighter and almost clear in color.
- Bed bugs do not fly or jump. However, they can crawl very fast.
- Female bed bugs can lay up to five eggs a day and five hundred during a lifetime.
- They are excellent hitchhikers and are easily spread by moving beds, furniture, luggage, clothes, or other possessions from one location to another.
- Anyone who comes in direct contact with bed bugs or their eggs can unknowingly carry them into their home or workplace.



Bed bug eggs and cast skins



Fecal spots by outlet cover

Bed Bug Bites

- Bed bugs are primarily a nuisance to humans and are not known to transmit disease.
- Bites can cause welts which may become infected by excessive scratching.
- Bed bug infestations can cause anxiety as well as psychological and emotional stress.

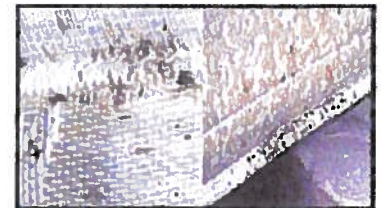


Welts from bed bug bites

Signs of a Bed Bug Infestation

Usually the first sign of a bed bug infestation is the appearance of red itchy welts on any bare skin that is exposed while sleeping. Be aware that not every welt or bite is due to bed bugs. Consult a medical provider with questions about unexplained bites or red welts.

Live bed bugs, eggs and cast skins indicate a bed bug infestation. Small black or rusty colored spots found on bed linens, pillows, or the mattress may be blood spots and bed bug droppings.



Blood stains and fecal spots on a mattress

Inspecting for Bed Bugs

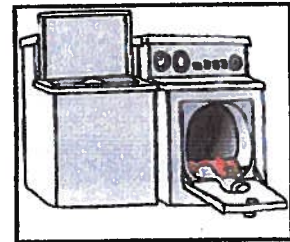
Bed bugs hide close to where people sleep. They prefer fabric, wood, and paper surfaces over metal or plastic. Look for live bed bugs, eggs, cast skins, and blood or fecal spots in these locations:

- | | | | | |
|--|--|--|---|--|
| <input type="checkbox"/> mattresses | <input type="checkbox"/> recliners | <input type="checkbox"/> telephones | <input type="checkbox"/> luggage | <input type="checkbox"/> hollow furniture legs |
| <input type="checkbox"/> box springs | <input type="checkbox"/> baseboards | <input type="checkbox"/> radios | <input type="checkbox"/> futons | <input type="checkbox"/> door frames & hinges |
| <input type="checkbox"/> head boards | <input type="checkbox"/> behind pictures | <input type="checkbox"/> televisions | <input type="checkbox"/> gym bags | <input type="checkbox"/> wall / ceiling junction |
| <input type="checkbox"/> bed frames | <input type="checkbox"/> under loose wallpaper | <input type="checkbox"/> stacks of books | <input type="checkbox"/> draperies & curtains | <input type="checkbox"/> wheelchairs/walkers |
| <input type="checkbox"/> upholstered furniture | <input type="checkbox"/> sleeper sofas | <input type="checkbox"/> piles of papers | <input type="checkbox"/> stuffed animals | <input type="checkbox"/> bed side tables |
| | <input type="checkbox"/> electrical outlets | <input type="checkbox"/> back packs | | <input type="checkbox"/> edge of carpeting |

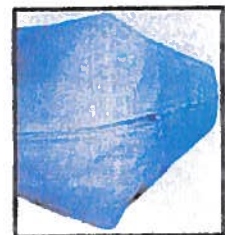
Treating Bed Bug Infestations

Complete elimination of a bed bug infestation can be a difficult process and may require the services of a knowledgeable and licensed pest management company. It may take several treatments to gain control over an infestation. If a “do-it-yourself” method is chosen, only use pesticide products that are labeled to kill bed bugs. Always read and follow the label directions before applying any pesticide product. Here are some additional tips to help eliminate bed bugs.

- Reduce and eliminate clutter. Do not keep piles of clothes, boxes, toys, shoes, etc. on the floor, under the bed, or in closets. They are prime hiding places for bed bugs.
- Heat kills bed bugs. Wash clothes at the hottest recommended setting. Tumble dry the clothes on high heat for at least 30 minutes (120° F or above).
- Encase an infested mattress and box spring in a zippered cover that is labeled and certified “bed bug proof.” Leave the covers on for at least one full year.
- Vacuum home thoroughly and often. Pay particular attention to the area around the bed and the bed itself. Sprinkle ¼ to ½ cup of talcum powder on the last section of floor to be vacuumed. The powder will help dry out and kill bed bugs in the bag or cup. Place the vacuum cleaner bag or contents in a sealable plastic bag and discard it in the trash outside.
- Pesticides labeled to kill bed bugs are available over the counter and may provide effective control. However, if the problem persists or is heavily entrenched, contact a knowledgeable, experienced, and licensed pest management professional for assistance.
- Since bed bugs are difficult to control, plan on several thorough treatments to eliminate an infestation.
- DO NOT USE “Bug Bombs”. These products may kill on contact but they are mostly ineffective against hidden bed bugs. They may make the infestation worse by scattering the bugs throughout the home or apartment.
- If an infestation is suspected in a rental unit, contact the building manager or landlord about the problem. Property owners should contact a professional pest control company for advice and assistance. The local health department can also provide assistance on bed bug identification, prevention and control options.
- The property manager and pest management professional may provide preparation guidelines prior to treating for bed bugs. Getting rid of bed bugs is a cooperative effort and these guidelines should be followed closely.



Wash sheets and blankets in hot water and dry them thoroughly in a hot dryer before making up the bed



A zippered bed bug proof cover can help protect against



Do not use foggers

Preventing Future Infestations of Bed Bugs

- Do not bring discarded bed frames, mattresses, box springs, or upholstered furniture into the home.
- Carefully inspect used or rented furniture prior to bringing it into the home.
- Place any recently purchased clothes, whether new or second hand, into the dryer at a hot setting for at least 30 minutes (120°F or above).
- When traveling, inspect the bed, headboard, and furniture upon arrival. Keep suitcases off the floor and bed and inspect them before leaving. Wash and dry all clothing, per the above recommendations, after returning home.
- Caulk and seal any cracks and crevices throughout the home, especially in rooms where people sleep.
- Be careful of who stays overnight or sleeps at the house. Likewise, be mindful when staying away from home. Inspect all children’s backpacks, stuffed animals, and other belongings if they have stayed overnight or spent considerable time at another location.

