

What are bedbugs?

Bedbugs are small, wingless insects that feed solely upon warm-blooded animals (such as birds, bats, and humans). The scientific name for bedbugs is *Cimex lectularius*. Bedbugs are known by a variety of names, such as redcoats, chinchies, or mahogany flats.



Bedbug, *Cimex lectularius*.
(Adults can be nearly 1/4" long.)

How do bedbugs feed?

Bedbugs feed mostly at night by biting people who are asleep. However, they will feed during the day in subdued light when they are hungry.

When bedbugs bite, they inject saliva into the skin that assists them in obtaining blood. The fluid often causes the skin to become irritated and inflamed. Welts commonly develop and itch. Bedbugs have never been proven to carry disease.



Skin irritation caused by bedbug feeding.

If feeding is undisturbed, a fully grown bedbug becomes engorged with blood in 3 to 5 minutes. It then crawls to its hiding place, where it remains for several days digesting its meal. When hunger returns, the bedbug emerges from hiding and seeks another meal of blood.

How can you tell if your residence is infected with bedbugs?

Bedbugs infest only a small proportion of residences. They should be suspected if residents complain of bites that occurred while they were sleeping. The bedroom and other sleeping areas should be carefully examined for bedbugs and signs of bedbug activity. Areas that should be inspected include folds and creases in bed linens, seams and tufts of mattresses, and box springs. These areas may harbor bedbugs or their eggs. Other hiding places include pleats of curtains, loose areas of wallpaper near the bed, corners of desks and dressers, spaces in wicker furniture, areas behind cove moldings, and laundry or other items on the floor or around the room.



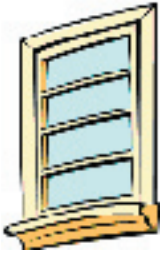
How are bedbugs spread?

Bedbugs are found worldwide and hitchhike on the clothing and baggage of travelers and visitors.

Previously used or owned beds, bedding, furniture, and laundry are also sources of bedbug infestations.

Where do you find bedbugs?

Hiding places are evident when black or brown fecal spots are found on surfaces where the bugs rest. At the beginning of an infestation, bedbugs are likely to be found in the tufts or folds of mattresses or covers. Later, they spread to crevices in the bedframe. If allowed to multiply, they establish themselves behind baseboards, window and door casings, pictures and picture moldings, furniture, and cracks in plaster or partitions.



A peculiar coriander-like odor may be detected in heavily infested residences.

What do you do when you find bedbugs?

Because several kinds of insects resemble bedbugs, insects should be carefully identified. If possible, collect specimens for identification. Specimens should be collected in a small break-resistant container such as a small bottle or zip-lock bag and sent to a knowledgeable expert for positive identification. Identification can be provided by your county MSU Extension office.

Once their identity is confirmed, a careful plan should be devised to eliminate the bedbugs in a manner that promotes success while limiting unnecessary costs and exposure to insecticides. Do not discard infested furniture, and do not treat until you have a plan.

What are the available controls for bedbugs?

Techniques to help reduce bedbug infestations include:

- Reducing clutter to limit hiding places for bedbugs.
- Thoroughly cleaning the infested rooms as well as other rooms in the residence. Be sure to scrub infested surfaces with a stiff brush to dislodge eggs and use a powerful vacuum to remove bedbugs from cracks and crevices. Once vacuuming is complete, put the vacuumed contents outside of the premises in a sealed plastic bag for rubbish collection.
- Inspecting and cleaning all hidden spots. Remove drawers from desks and dressers and turn furniture over, if possible. Inspect and clean all hiding spots. Dismantling bed frames will expose additional bug hiding sites.
- Using special mattress bags to permanently enclose mattresses and box springs. Once they are installed, inspect the bags to ensure they are undamaged; if you find any holes or tears, seal these completely with permanent tape. Any bugs trapped within these sealed bags will eventually die.
- Preventing bedbugs from crawling onto a bed. Pull the bed frame away from the wall, tuck sheets and blankets so they will not contact the floor, and place the frame legs into dishes or cups with mineral oil.

When using chemicals to control bedbugs:

- Do NOT apply any pesticide to mattresses or to surfaces that would be in direct human contact, except when the pesticide label specifically states that the product can be applied in that manner. Pesticides can be harmful to people and pets. READ and UNDERSTAND the label.
- Carefully read the label before applying any pesticide. Apply the product only if you fully understand the instructions and if you have the appropriate training/certification and equipment.
- Insecticide formulations used to treat bedbug infestations consist mainly of:
 - Insecticide dusts that injure the insect's outer waxy coat and cause the bugs to dry out quickly.
 - Contact insecticides that kill the bugs shortly after they come into direct contact with the product or residue.
 - Insect growth regulators (IGRs) that affect the insect's development and reproduction.

Pest control operators may also consider and propose a variety of other methods to manage bedbugs. See MSU Pesticide Safety Education Bulletin E-2760, "Choosing a Pest Control Company."

New, August 2006. Developed by the MSU Pesticide Safety Education Program, B18 Food Safety and Toxicology Building, Michigan State University, East Lansing, MI 48824 (<http://www.pested.msu.edu>) and the Michigan Department of Agriculture. The publication of this bulletin was made possible by funding from the Michigan Department of Agriculture.

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#7: Questions and Answers about Bedbugs

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Guidelines to help you solve bedbug problems in your home



Community IPM Education Series
MSU Pesticide Safety Education Program
Extension Bulletin E-2971