



Bedbugs

Appearance

Adult bedbugs are straw-colored to reddish-brown, oval-bodied insects. They are wingless but are fast runners. Their upper bodies are crinkly, like paper, and covered with short, golden hairs. Before feeding, they're 1/4 -3/8" long (about the size of a pencil eraser) and nearly as flat as a piece of paper---which is why they can fit into such narrow crevices. Their appearance changes dramatically after they've fed. They become bloated and dark red and have been described as "animated blood drops."



Biting Behavior and Health Effects

Bedbugs feed on domestic animals, wild birds, bats and humans. They come out from their hiding places at night and feed for about five to ten minutes while the host sleeps. They then drop off the host and crawl to a sheltered crevice where they'll remain for several days while digesting the blood meal. Bedbugs feed only on blood, and human blood is preferred.

Bedbugs are not known to transmit diseases to humans, but bedbug bites can result in adverse health effects. The most common health effects are skin reactions (wheals), which are similar to mosquito bites, although many individuals have no health effects. Rarely more severe reactions may occur in some individuals. The skin reactions are due to saliva being injected into the skin during feeding. In some cases, reactions may be delayed for more than a week. The most commonly affected areas of the body are the arms, shoulders, and trunk.

Preferred Hiding Places

In the early stages of an infestation, bedbugs will be found around the seams and tufts of the mattress, while later on, they'll spread to cracks in the bed frame and then to gaps behind baseboards, pictures, window and door casings, and other similar shelters. Ordinarily bedbugs stay close to wooden bed stands, but they can travel considerable distances to find a blood meal. They are often found in large groups or assemblages in convenient crevices or beneath some loose wallpaper. Furthermore, they may migrate from one living area to another via walls and water pipes if the unit is vacated and the food supply cut off.

To find bedbugs, you should look for the insects themselves, their shedded skins, and eggs near crevices. Check pillowcases, sheets, and the mattress for bloodstains, smears, or flecks (the sign of their feeding). When their populations are high, you may notice a pungent sweet odor that's smells similar to raspberries.

Controlling Bedbugs

Although your first reaction may be to dispose of mattresses or furniture, this is not necessary and may not eliminate the problem. Purchasing a cover for your mattress and box springs is a way to control any infestation on your bed. The best strategy to control bedbugs is to use integrated pest management (IPM), which combines a variety of practical techniques and products that pose the lowest risk to our health and to the environment. There's no getting around it. If you want to get rid of bedbugs, you need to clean a lot. Removing clutter is important to eliminate some of their potential hiding places.

Also note that travelers can unknowingly transport bedbugs in their luggage after staying in infested hotel and motel rooms. They also can stow away in furniture or boxes that are being moved from one site to another, or arrive in second-hand furniture or mattresses purchased from thrift shops or private parties.

VACUUM

Vacuuming is an effective way to remove bedbugs and the dirt that provides them with shelter (it works for many other insects, too). To manage bedbug infestations, it's best to vacuum each area thoroughly, every day. Tilt the mattress, boxspring, and furniture upside down so you can reach all sides. Concentrate on seams, creases, folds, and around any tufts or buttons.

Vacuum the furniture, the bed frame, the floor, and baseboards---wherever your inspections revealed the presence of bedbugs. Empty the vacuum immediately. If your vacuum has a bag, you can close the bag and place the bag in a freezer for at least 24 hours before disposing of it. This will kill the bedbugs.

CLEAN BED LINENS

Bedbugs are sensitive to extreme temperatures at all stages of life; the young are more vulnerable than the adults. So place your sheets, pillowcases, bed skirt, and blankets into a hot (140°F) dryer for 20 minutes to kill bedbugs. Steam cleaning is another option if it is done thoroughly at a high temperature. You don't have to throw out your bedding. Both extreme heat and freezing can also be used to remove bedbugs from clothing and other objects that can withstand that temperature.

CHEMICALS

Chemical control includes the use of insecticides that retain their effectiveness in cracks and crevices. Synthetic pyrethroids and pyrethrins are commonly used to control bedbugs. Sorptive dusts such as fumed silica (also called diatomaceous earth) are useful in closed, hard-to-reach places. If used, insecticides should be applied to sites that provide shelter for bedbugs. In some cases treatment of adjacent rooms may be

necessary. Treatment is best done by a professional pest control company. In all cases, the manufacturer's directions for use should be followed if insecticides are used.

Controlling Bedbugs at School

If a bed bug is found in school, it should be collected for identification by a trained professional. If the specimen is confirmed to be a bed bug, the principal and school health professional should be notified and the following steps are recommended:

1. The classroom or other area where the bed bug was found should be carefully inspected by a trained professional. This includes desks, floors, walls and storage areas for student's belongings. A thorough cleaning may be needed, including vacuuming, with special attention to cracks and crevices in furniture and equipment, walls and floors, and laundering washables in hot water and drying on the highest heat setting. Delicate fabrics can be soaked in warm water and laundry soap for several hours before rinsing. Infested items that cannot be cleaned or treated with high heat (>120°F for several hours) should be disposed of. If necessary, a licensed pest management professional can treat infested areas with pesticides labeled for bed bugs.
2. If the bed bug was found on a student's clothing or other belongings, the child's parent(s) or guardian(s) should be notified. **There is no need to send the student home.** Similar to head lice, the school health professional should manage the case including re-inspecting belongings, desk, classroom, etc. until the problem is resolved. Student belongings, such as backpacks, can be isolated in tight-sealing plastic containers or bags to reduce potential for bed bug dispersal, both at home and in school while the problem is being resolved.
3. Parents of all children using the room where the bed bug was found should also be notified and provided with basic information about bed bugs, including description, signs and symptoms, strategies to monitor for and eliminate infestations in homes, including cleaning, laundering and specially designed mattress and box-spring covers that can entrap bed bugs and reduce harborage opportunities. The information should include where to go for additional help.

The key to eliminating a bedbug infestation is finding all harborage sites.