

What are bed bugs?

Bed bugs are small wingless insects that feed solely upon the blood of warm-blooded animals. Bed bugs and their relatives have evolved as nest parasites. Certain kinds inhabit bird nests and bat roosts and await the return of their hosts; others have adapted well to living in the 'nests' (homes) of people.

Hatchling bed bugs are about the size of a poppy seed, and adults are about 1/4 of an inch in length. From above they are oval in shape, but are flattened from top to bottom.



Their color ranges from nearly white (just after molting) or a light tan to a deep brown or burnt orange. The host's blood may appear as a dark red or black mass within the bug's body. Because they never develop wings, bed bugs cannot fly. When disturbed, bed bugs actively seek shelter in dark cracks and crevices. Cast skins of bed bugs are sometimes discovered. Although such a finding confirms that bed bugs had been present previously, it does not confirm that any continue to infest the residence. Thus, inspect carefully for live crawling bed bugs. Because many other kinds of small brown bugs may be discovered, it is critical to ensure that the bugs are correctly identified (more about this below).

Do bed bugs cause harm or spread pathogens (disease-causing germs)?

Bed bugs seek out people and animals, generally at night while these hosts are asleep, and painlessly sip a few drops of blood. While feeding, they inject a tiny amount of their saliva into the skin. Repeated exposures to bed bug bites during a period of several weeks or more causes people to become sensitized to the saliva of these bugs; additional bites may then result in mild to intense allergic responses. The skin lesion produced by the bite of a bed bug resembles those caused by many other kinds of blood feeding insects, such as mosquitoes and fleas. The offending insect, therefore, can rarely be identified by the appearance of the bites. A physician should be consulted to rule out other causes for the lesions and to offer treatment, as needed. The affected person should resist the urge to scratch the bites, as this may intensify the irritation and itching, and may lead to secondary infection. Physicians often treat patients with antihistamines and corticosteroids to reduce allergic reactions and inflammation. Despite what you may have heard or read elsewhere, bed bugs are not known to transmit any infectious agents.

Where do bed bugs occur?

Bed bugs and their relatives occur nearly worldwide. Bed bugs became relatively scarce during the latter part of the 20th century, but their populations have resurged in recent years, particularly

throughout parts of North America, Europe, and Australia. They are most abundant in rooms where people sleep, and they generally hide nearest the bed or other furniture used for sleeping. Bed bugs are most active in the middle of the night, but when hungry, they will venture out during the day to seek a host. Their flattened bodies allow them to conceal themselves in cracks and crevices around the room and within furniture. Favored hiding sites include the bed frame, mattress and box spring. Clutter around the room offers additional sites for these bugs to hide, and increases the difficulty in eliminating bed bugs once they have become established.

How do bed bugs invade a home?

Because bed bugs readily hide in small crevices, they may accompany (as stowaways) luggage, furniture, clothing, pillows, boxes, and other such objects when these are moved between apartments, homes and hotels. Used furniture, particularly bed frames and mattresses, are of greatest risk of harboring bed bugs and their eggs. Thus, one should carefully scrutinize and consider the history of any used furniture, particularly 'street' items so plentiful at the beginning and end of each academic year.

How can you tell if the residence is infested?

Bed bugs infest only a small proportion of residences, but they should be suspected if residents complain of bites that occurred while sleeping. The bedroom and other sleeping areas should be carefully examined for bed bugs and signs of bed bug activity. Folds and creases in the bed linens, and seams and tufts of mattresses and box springs, in particular, may harbor bed bugs or their eggs. They may also be found within pleats of curtains, beneath loose areas of wallpaper near the bed, in corners of desks and dressers, within spaces of wicker furniture, behind cove molding, and in laundry or other items on the floor or around the room. Sometimes, characteristic dark brown or reddish fecal spots of bed bugs are apparent on the bed linens, mattress or walls near the bed. A peculiar coriander-like odor may be detected in some heavily infested residences. Adhesive-based traps used for sampling insects or rodents are not particularly effective for trapping bed bugs.

What should you do if you find bed bugs?

Because several different kinds of insects resemble bed bugs, specimens should be carefully compared with good reference images (such as those in this document) to confirm their identity. If any questions remain regarding the identity of your samples, then submit them to a competent entomologist for evaluation (see information below).

Once their identity is confirmed, a careful plan should be devised to eliminate the bed bugs in a manner that promotes success while limiting unnecessary costs and exposure to insecticides. Don't discard furniture and don't treat until and unless you have a plan.

What can you do to manage bed bugs?

Search for signs of bed bugs. Carefully inspect the bed frame, mattress, and other furniture for signs of bed bugs and their eggs. Although dead bed bugs, cast bug skins and blood spots may indicate an infestation occurred previously; they do not confirm that an infestation is still active. Search for live (crawling) bugs and ensure they are bed bugs before considering treating.

Reduce clutter to limit hiding places for bed bugs.

Thoroughly clean the infested rooms as well as others in the residence. Scrub infested surfaces with a stiff brush to dislodge eggs, and use a powerful vacuum to remove bed bugs from cracks and crevices. Dismantling bed frames will expose additional bug hiding sites. Remove drawers from desks and dressers and turn furniture over, if possible, to inspect and clean all hiding spots.

Mattresses and box springs can be permanently encased within special mattress bags. Once they are installed, inspect the bags to ensure they are undamaged; if any holes or tears are found, seal these completely with permanent tape. Any bugs trapped within these sealed bags will eventually die.

To prevent bed bugs from crawling onto a bed, pull the bed frame away from the wall, tuck sheets and blankets so they won't contact the floor, and place the frame legs into dishes or cups of mineral oil.

Caulk and seal all holes where pipes and wires penetrate walls and floor, and fill cracks around baseboards and cove moldings to further reduce harborages.

If you own your residence, we suggest you contact a licensed pest control operator who is knowledgeable and experienced in managing bed bug infestations. Ask the pest control company for references, and ask at least a few of their customers about their experiences before you agree to any contract.

If you are a tenant, contact your property manager or landlord to discuss your respective obligations, and to agree on a plan to manage the infestation. Generally, landlords are legally required to contract with a licensed pest control operator.

Request a written integrated pest management (IPM) plan from the pest control operator. This plan should detail the methods and insecticides to be used by the pest control operator, and describe the efforts expected by the building manager as well as by the tenants.

What are your rights and obligations?

Landlords and property owners have specific legal obligations to provide safe and habitable accommodations for tenants but, tenants have an obligation to cooperate with owners and landlords because most infestations are caused by the tenant or guests of that tenant. The tenant's responsibilities include preparing the apartment so that the pest control operator can easily inspect the rooms and treat if necessary.

What shouldn't you do?

Don't panic. Although bed bugs can be annoying, they can be battled safely and successfully if you adopt a well-considered strategy.

Do not apply pesticides unless you fully understand what you are applying and the risks involved. You are legally liable if you misapply a pesticide, or apply it without a license to the property of another (including common spaces in apartment buildings). The tenant, owner or

landlord should, instead, hire a licensed pest control operator to confirm the infestation and to develop an integrated pest management plan.

Do not dispose of furniture that is useful. Infested furniture can be cleaned and treated. Placing infested furniture (particularly mattresses) into common areas or on the street may simply help spread bed bugs to the homes of other people. Infested furniture intended for disposal should be defaced to make it less attractive to other people.

Resources:

Education & Reporting – Washoe County Health Department @ 775-328-2400 - 1001 East 9th Street, Reno, NV 89512

Chemical Remediation – Bonanza Pest Control @ 775-972-8212

Thermal Remediation – Temp-Air @ 1-800-836-7432

