

Bug-Wise



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Bed Bugs: Before the early 1900s most people were well acquainted with bed bugs, yet most Americans living today have never seen this pest and can't fully appreciate the admonition to "sleep tight and don't let the bed bugs bite". The development and use of synthetic insecticides and modern pest control methods caused bed bugs to all but disappear from US homes and hotels. Now these pests are making a comeback and Mississippi pest control companies are getting an increasing number of requests for bed bug control each year. They are still uncommon, not nearly as common as head lice, and most of us will probably never experience an infestation. But infestations do occur, and they can be most distressing, especially if it is your bedroom that is infested.

This resurgence of bed bugs is due to a number of factors, but the increase in mobility that has occurred at all socioeconomic levels of society and increased international travel are probably the major causes. Changes in cockroach management methods may also play a role. The bait treatments that are so effective and so widely used to control German cockroaches do nothing to control bed bugs. Whatever the reasons, bed bugs are beginning to appear in all kinds of living quarters: homes, summer camps, upscale hotels, budget motels, college dormitories, cruise ships, etc. Fortunately, bed bugs have never been shown to vector any serious human diseases.

Bed bugs, *Cimex lectularius*, are true bugs. They are related to stink bugs, pests with which most vegetable gardeners are quite familiar. Adults are about ¼ inch long and about 1/8 inch wide and wingless. Their bodies are flattened and oval-shaped, and they are a uniform mahogany brown. The immatures, or nymphs, look similar but are smaller. The eggs, which are deposited in cracks and crevices, normally hatch in 7 to 10 days.

Bed bugs feed almost exclusively on human blood. Although they will feed on rabbits and a few other animals under laboratory conditions, they won't normally feed on dogs or cats. Bed bugs usually feed at night, while their host is asleep, but will feed during the day if they have a sleeping host in a quite, dark room. They hide in nearby cracks and crevices in the daytime, usually in the mattress and box springs or within a few feet of the bed, sneak out at night to feed for 20 or 30 minutes, and then scurry back to their refuge. Fortunately, bed bugs are not known to vector diseases, but the raised red wheals caused by their bites can be uncomfortable and irritating. As with most insect bites, some people react more than others. Heavy infestations can interfere with sleep.

How can you determine if you have bed bugs? The bites are the first clue, but don't automatically assume you have bed bugs just because you have a few insect bites. Those bites could be caused by mosquitoes, chiggers, ticks, or other insects that you encountered outside. Maybe they are not even bites. Rashes caused by poison ivy or allergies are sometimes mistaken for insect bites. If you continue to get new bites on subsequent nights then you should consider bed bugs as a possible cause. Bed bug bites often occur in a somewhat linear pattern, with several bites in a row. The next step is to check the sheets. If you find small spots of blood or rust colored stains you can be reasonably sure you have bed bugs. These rust colored stains are the fecal deposits of bed bugs, which contain digested blood. Of course if you have some small, bleeding injury this can cause similar spots.

If you have recurring bites and rust colored stains on your sheets, it is time to get serious about looking for bed bugs. First check underneath the mattress and box springs, keeping in mind that these insects are very flat and like to hide in small cracks, folds, and crevices. Next check the headboard and bed frame along with the nightstand and any other nearby furniture.

Bed bugs will usually be in or very near the bed. But infestations can occur anywhere people sleep, and this can include couches or recliners in other rooms of the house, if people routinely sleep there. Bed bugs don't have to feed every night. In fact, they can survive weeks, or even months, without a blood meal. This is why infestations can persist in infrequently used motel rooms and guest rooms.

These are fairly large insects that should not be that hard to see once you find where they are hiding. If they have been there very long the hiding areas will be rather obvious. There are usually accumulations of dark excrement and shed skins, as well as live insects. Have a small vial of alcohol handy so you can collect any insects you find. This is an important step, because many people think they have bed bugs when they really don't. If you have actual specimens to show to the pest control technician, it removes any doubt. Stop looking after you find and capture the first bed bug. You do not want to disturb them further until you are ready to treat. Disturbance may cause them to scatter to other areas of the room.

What do I do if I have bed bugs? Because bed bugs can be difficult to control, it is usually best to hire a professional pest control service to help you deal with this pest problem. Call several and get price quotes and information on what they will do. Some companies are more experienced with bed bugs than others. Be prepared to do your part. The key to eliminating a bed bug infestation is to find and treat all of their hiding places. This means moving mattresses and bed frames, pulling out drawers, emptying and moving nightstands and any other nearby furniture, maybe even emptying closets. Talk to the technician who will be doing the treatment; they may want you to be there to help. It often takes several follow up treatments to totally eliminate a bed bug problem. That's why bed bug jobs are usually costly.

Can I treat for bed bugs myself? You can, but you will not succeed unless you are willing and able to be thorough, and being safe is more important than being thorough. If you do choose to do it yourself, be sure the product you use is labeled for use in and around sleeping quarters to control bed bugs. Read the label very carefully. Do what it says and do not do things it does not specifically say you can do.

The key to eliminating bed bugs is to find and treat all of their hiding places. Start by removing the sheets and mattress cover and washing them in hot soapy water. Do the same with any dirty clothes that have been lying on the floor near the bed. Then de-clutter the bedroom if necessary and thoroughly clean and vacuum.

Now you are ready to deal with the mattress and box springs. If the infestation is heavy, or if the mattress and/or box springs are in bad shape, it may be best just to throw them out. But be sure to clearly label them as having bed bugs so someone else won't try to use them.

If you want to try to salvage the mattress, get a zip up 'dust mite' mattress cover ahead of time, so you can use it to encase the mattress after you have cleaned and inspected it. The goal is to seal any remaining bed bugs inside so that they cannot get out and will eventually starve. If you get the right kind of mattress cover they will not be able to feed through it. Leave the cover on for at least a year. Bed bug eggs usually hatch in a week to 10 days, but nymphs can live as long as three months without a blood meal, and adult bed bugs can live more than a year.

Use a strong vacuum to carefully go over the mattress and box springs and vacuum up any bugs you can. Be sure to empty the contents into a plastic bag as soon as you finish, seal, and dispose in an outside trash receptacle. Vacuum around all seams, folds, tufts, cracks, crevices, and any other potential hiding places.

You will need to stand the mattress and box springs on edge, or flip them over, to access the undersides. If the box springs have a dust cover on the bottom, you will need to remove it so you can treat inside.

If you use a product labeled for spraying on the mattress, allow it dry before enclosing the mattress in the dust mite cover. Do not spray any insecticides on the mattress unless the label clearly indicates you can do so. If you do spray the mattress with an approved product, be sure to use a mattress cover, especially if you use a product that provides residual control. You do not want you or a family member to be sleeping directly on a treated mattress.

There are several products labeled to control bed bugs that can be used to spray cracks and crevices on the undersides of box springs, bed frame, and cracks and crevices in furniture and other areas of the room. These usually contain either deltamethrin or permethrin, two pyrethroid insecticides that provide long-term residual control. Products containing pyrethrins or phenothrin will provide contact control but no residual control.

Treat the furniture next, especially furniture like nightstands that is near or touching the bed. Move it away from the wall, empty and remove the drawers, lay it on its side or back, and treat all cracks, crevices, and corners and allow spray to dry. Also remove any pictures and other wall hangings, especially those hanging over or near the bed, check for bed bugs and treat the backs. Check for cracks and crevices around window casings, molding, doorframes, room corners, peeling wallpaper, etc, and treat any you find.

Also check around light switch plates and electrical outlets, but use appropriate care and don't apply any liquid sprays around electrical outlets. Bed bugs will hide in these places if they are near the bed. If you need to treat use an appropriately labeled dust, like Drione, DeltaDust (deltamethrin) or Terro Ant Dust (deltamethrin), applied according to label directions.

Finally, spray the baseboards, especially those under or beside the bed, with a properly labeled residual treatment. Be sure to treat any cracks and crevices that exist behind or beneath them. If the room is carpeted, spray around the edge of the carpet. If you want to be sure that you have gotten rid of these pest for good, you may want to retreat in about a month. Of course if you continue to get bitten, you may need to re-treat even sooner.

If one bedroom in a home is infested with bed bugs, there is a possibility that the infestation has spread to other bedrooms. Infestations can also occur around sofas and recliners if people routinely sleep there. Be sure to check all areas of the home that could potentially be infested and treat if necessary.

How can I avoid bringing bed bugs into my home? This is not something you need to be paranoid about, but if you travel a lot there are some relatively simple precautions you can take to reduce the potential of bringing an infestation home. Develop the habit of keeping your luggage and clothing off the floor and as far away from the bed as possible. Keep your luggage on a luggage rack if one is available. Hang dirty clothes or place them back in your luggage as soon as you remove them. If you are really paranoid about this, you can also check the room for signs of infestation (see previous discussion) before you unpack.

Bringing used mattresses, box springs, or beds into the home is a good way to introduce an infestation. Be aware of this and know the source of any used mattresses or box springs that you purchase or bring in. Carefully check other used bedroom furniture, like bed frames, nightstands, etc. for signs of infestation before bringing them into your home.

Examples of Treatments Labeled for Homeowner Control of Bed Bugs

Active Ingredient	Brand Name (example)
Treatments that can be applied to mattresses (Follow label directions!)	
Phenothrin 0.2% + isopropyl alcohol 60%	Sterifab
Pyrethrins 0.5% + PBO 4%	CB-80 Extra
Pyrethrins 0.5% + PBO 1%	V One Pyrethrin
Permethrin 0.5%	CVS Pharmacy Bedding Spray for Lice
Permethrin 0.25%	Ferti-Lome Indoor/Outdoor Multi-Purpose Insect Spray
Permethrin 0.25%	Gordon's Home Pest Killer
Treatments that can be applied to box springs, bed frames and other sites	
Deltamethrin (0.02%)	Hi-Yield Kill-A-Bug II
Deltamethrin (0.02%)	Bonide Household Insect Control, Ready-to-use
Permethrin (0.25%)	Ferti-lome Indoor/Outdoor Multi-Purpose Insect Spray
Permethrin (0.25%)	Gordon's Home Pest Killer

Be Sure They Are Bed Bugs: Bat bugs and bird bugs are related species that feed primarily on either bats, chimney swifts, swallows, or other birds. They look very similar to bed bugs, and these bugs will feed on humans if their primary host is not available. These insects are not common, but you need to be aware they exist. If you find insects that look like bed bugs but have recently had bats in the attic or birds nesting in the chimney or other areas of the house, you could be dealing with bat bugs or bird bugs, rather than bed bugs. There is a big difference in how you treat for these pests, primarily because of where they originate. Methodically cleaning and treating the bedroom, as you would for bed bugs, probably won't help control these other species. Contact a professional pest control company if you think you have an infestation of bat bugs or bird bugs.

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