

Bed bug Information – ID and control options from MU Guide 7396

Bed bugs and their relatives

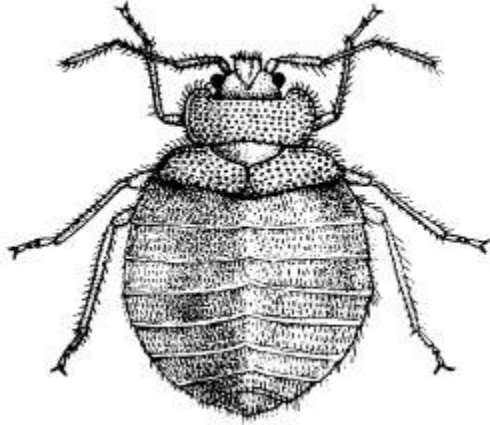


Figure 1
Bed bug (actual size 6 to 9 millimeters).

The common bed bug, *Cimex lectularius*, belongs to the family Cimicidae (Figure 1). A related species called the tropical bed bug, *Cimex hemipterus*, occurs in the southern United States but is relatively uncommon in Missouri. Bed bugs are brown, flattened, oval, wingless and 6 to 9 millimeters long when unfed. They possess a piercing-sucking beak through which they imbibe the blood of a host. When engorged with blood, the body becomes swollen and elongated, and the color changes to a dull red. Newly hatched bugs are the same shape as adults but translucent and nearly colorless.

Bed bugs hide in cracks and crevices in and around the bed during the day and come out at night to feed on people asleep in the bed. The result of their bite is an itchy, inflamed wheal, or slightly elevated area of skin, at the site of beak insertion. Bed bugs are not known to carry diseases but are undesirable because of their irritating bite.

There are several other bugs in the bed bug family that may accidentally become biting pests of humans. Bats are infested with a close relative, the bat bug, *Cimex adjunctus*. Like the bed bug, bat bugs live away from their host except when feeding. When bats infest a structure and are later excluded, bat bugs leave the bat roosting area in search of a blood meal. If humans are nearby, they can be bitten by bat bugs. Similarly, the swallow bug, *Oeiacus vicarius*, and the poultry bug, *Haematosiphon inodorus*, can be found in homes that have birds roosting in the attic or walls. When the birds are removed, swallow bugs may crawl about and bite humans.

Bed bug Information – ID and control options from MU Guide 7396

Control

Thoroughly clean bed coverings, mattresses and pillows. Lightly but thoroughly mist all cracks and crevices in the bed frame, springs, slats and mattress with an aerosol insecticide. Do not treat the entire surface of the mattress; focus on the creases around the edges and buttons. Treat all crevices in the infested area, especially around doors, windows, picture frames, baseboards, etc. Bat bugs or swallow bugs in the attic and wall voids can be treated by a light but thorough application of a suitable insecticide to the infested areas.

Pyrethrins and pyrethroids (usually have active ingredients ending in -thrin) that include bed bugs on the label can be used for these treatments. Do not use bedding until it is thoroughly dry. Read and follow all label directions when using these products.



This picture shows where we can usually find the bed bugs or evidence of their presence. You can often find the bed bugs in the crease of the binding around the edge of the mattress. You can also look for the stains of the partially digested blood that they will excrete in that crease. This is something you should look for anytime you are staying at a location away from home, even before you carry your bags into your room. The bed bugs spread by hitchhiking in luggage and coats. If you must carry luggage into the room before inspecting the bed, set the luggage in the bathtub. The bed bugs do not have good hiding place in the tub.

Bed bug Information – ID and control options from MU Guide 7396

One of the best guides I've seen on bed bugs, and share with clients, is this one from the University of Kentucky:

<https://entomology.ca.uky.edu/files/efpdf3/ef636.pdf>

Resources for Health Professionals

Treatment

Minimal symptomatic treatment and good hygiene to prevent itching and secondary infections are usually sufficient treatment for most cases of bed bug bites.

A wide range of empirical treatments, including antibiotics, antihistamines, topical and oral corticosteroids, and epinephrine have been used for bite reactions with varying results. Treatment options for cutaneous and systemic reactions from bed bug bites have not been evaluated in clinical trials and there is no evidence that outcomes differ significantly from those receiving no treatment.

In more extensive or severe cases, topical steroid creams with or without systemic anti-H1 receptor antihistaminics may be given. Topical antiseptics or antibiotics as well as systemic antibiotics may be needed in the case of secondary infection.

References

- Goddard J, deShazo R, Bed bugs (*Cimex lectularius*) and clinical consequences of their bites. *JAMA* 2009;301(13):1358-66.
- Thomas I, Kihiczak G, Schwartz R. Bedbug bites: a review. *Int J Dermatol* 2004;43(6):430-3.
- Burnett JW, Calton GJ, Morgan RJ. Bedbugs. *Cutis* 1986;38:20.
- Honig PJ. Arthropod bites, stings, and infestations: their prevention and treatment. *Dermatol Pediatr* 1986;3:189–97.

Joint CDC and EPA - https://www.cdc.gov/nceh/ehs/publications/bed_bugs_cdc-epa_statement.htm

How to find bed bugs - <https://www.epa.gov/bedbugs/how-find-bed-bugs>

From Mo DHSS - Top Ten Tips for Missourians to Know About Bed Bugs
<http://health.mo.gov/living/environment/bedbugs/index.php>

Bed bug Information –

ID and control options from MU Guide 7396

Don't bring bed bugs home this holiday season

<http://health.mo.gov/information/news/2017/bed-bugs121817>