

## You are not alone!

Bed bug infestations are on the rise. As people travel more, the bed bug goes along. They are found in all parts of the world, in all social and economic strata. Bed bug complaints are on the rise. When traveling, be sure to pull back the bed sheets to look for the tell tale brown spotting. If using dressers, pull the drawers out to look for eggs or adults. Leave your luggage bag zipped up. When you return wash ALL clothes in hot water and dry on high heat, even if unworn. We recommend you store belongings in the bathtub or on the metal rack in the hotel room. Do not place your luggage on the bed to pack and unpack, and always check your clothes before you put them on.

## How long until they die?

Except for the "thermal" option, many chemical applications will kill the adults and immature bugs immediately (if applied directly on them) to a few hours. The eggs may not be in contact with the pesticide and thus may need multiple treatments to get rid of. Eggs hatching in the 10-day period are likely to be killed during the two-week treatment interval.



Egg sack of a bed bug. (Photo courtesy of Gary Alpert Harvard University)



(Photo-Ken Lambert/Seattle Times/MCT)

## My room is clean, now what?

Take all of the precautions that are listed in this brochure. If there is an outbreak in a building, monitor the garbage area to make sure no one is collecting infected belongings and spreading the problem to another apartment. Conceal infected items in plastic bags. A high regimen of cleaning is required by the occupant to prevent an opportunity for the bed bugs to surge back. This is a several month battle, and the outcome depends on the one-two punch. It requires everyone's cooperation and a coordinated plan to effectively kill bed bugs. People who frequent second hand stores should keep purchases sealed in plastic bags until they can be washed in hot water. Used furniture should be thoroughly steam cleaned by a professional before bringing into a room. Used furniture should be inspected closely and if suspect, discarded. Apartment managers should have an action plan in place before an outbreak. They should monitor their tenants and investigate any complaints in a timely fashion to avoid expanding the problem. Be sure the problem is resolved before bringing any new furniture or mattresses into the dwelling.

## How to win the battle of the bed bug

As with most human linked infestations, cleanliness is a common denominator. We like to use the phrase "fastidious cleaning" which means a systematic and comprehensive program that assures no part of the room is missed or under-cleaned. With that mind-set, the battle against the bed bug can be won.

## Helpful websites with more information

- <http://njaes.rutgers.edu/bedbug/>
- [www2.epa.gov/bedbugs](http://www2.epa.gov/bedbugs)
- [www2.epa.gov/bedbugs/controlling-bed-bugs-using-integrated-pest-management-ipm](http://www2.epa.gov/bedbugs/controlling-bed-bugs-using-integrated-pest-management-ipm)
- [www.publichealthmdc.com/environmental/healthyHomes/bedBugs.cfm](http://www.publichealthmdc.com/environmental/healthyHomes/bedBugs.cfm)

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City of Milwaukee  
Department of  
Neighborhood Services

City of Madison

# How to Deliver a One-Two Punch to Bed Bugs!



**Tips for property owners and tenants to deal with a tough to kill pest that requires everyone's participation to eradicate**

KEEP MADISON HEALTHY

## For more information:

City of Madison  
Building Inspection, LL100  
Madison Municipal Building  
215 Martin Luther King Jr. Blvd.  
Madison, WI 53703  
(608) 266-4551  
[www.cityofmadison.com/BI](http://www.cityofmadison.com/BI)



## Why do I have bed bugs?

Bed bugs don't travel far, which is why humans are the main reason they spread. Travelers leaving their suitcases open can allow the bed bugs to hitch a ride. People bringing in used furniture or clothing can spread the bugs throughout a building.

### Where do they hide?

Bed bugs are flat and can hide in very narrow spaces. They like the area under a mattress near the human host. They are found behind mirrors, headboards, wall molding and pictures, under chairs, in furniture cushions or seams, cracks in the wall, electric outlets or any small openings. They generally are a few feet from where someone sleeps. Their "creep factor" is high as they come out at night and feed on the blood of their host. Look for blood spotting on the sheets or around pillows. Small brown spots and red rash-like itching sores are tell tale signs. So far, no disease transmission has been linked to bed bugs. Bed bugs are very hard to kill.

### What's the one-two punch?

A two step process is required to effectively deal with bed bugs. The first punch is to eliminate the adult population with sprays, powders, heat or other treatments. The second punch is to stop the transmission to other locations. Both the landlord and the tenant have a shared responsibility to eliminate this pest. If one end fails, the pest will return. Cooperation is the key.

### Who can I call?

After finding evidence of a bed bug, contact your landlord or if the owner, contact a professional exterminator. Check their references and experience with bed bugs. Some have bed bug sniffing dogs trained to locate sources of bed bugs. Check with the Better Business Bureau to determine their performance record. Toll free in Wisconsin (800) 273-1002.

## What works best?

The type of treatment varies by the degree of infestation. One bed bug may simply require fastidious cleaning to get rid of. More serious cases may require professional help to assess and treat. The EPA has banned popular pesticides to which some pests have become immune. Treatments for animals cannot be applied to humans because of various health risks. After the owners have done their job, the tenants must follow through with their share which could range from extensive cleaning to discarding infected belongings.

Keeping the bed bug out requires numerous steps:

- Mattress and box spring must be encased in zippered plastic sheets.
- All clothes, linens and bedding should be washed in hot water and dried on high heat.
- Vacuum the unit and discard the vacuum bag
- Use boric acid around the headboard and baseboards and under the bed to treat your unit daily.



Photo courtesy of Gary Alpert (Harvard University)

- Reduce clutter to remove hiding places.

- Bed bugs are tough to kill. One adult can lay 500 eggs which hatch in 10 days and can survive up to two years. An adult may only need to feed once a month. Many first infestations will likely require multiple treatments and repeated applications of pesticide to control.

- Various treatments may involve the application of a spray or powder. Do not vacuum in those areas where the pesticide was applied. Follow the directions of the exterminator.

- Anywhere the bed bug can hide is an area of concern. Adjacent rooms or closets may need treatment. Closets are typically contaminated from luggage. Don't forget about your car or purse! They may have hitched a ride.

- If you have birds or fish tanks be sure to take special precautions, the treatment may be harmful to them. Keep cats or dogs away from treated areas.

- Some treatments may require the disassembly of furniture components. Dressers with drawers may need to be treated. Box mattresses may need the bottom cover removed. It may be best to discard if severely infected.

- If discarding mattresses or belongings, render them undesirable by cutting or marking them so others do not spread the infestation. Slash the mattress with a knife or break up furniture or spray paint it.

### Other treatments?

One of the sure kill methods for severe infestation is to do a "thermal remediation." This process involves heating each room to 120-140° for 2-4 hours. You should expect to pay from \$750-\$6,000 depending on the size of the dwelling and amount of clutter. Get prices before you commit. This is not a do-it-yourself procedure. Experienced professionals are recommended, and their instructions must be followed.



**Life cycle of the bed bug,** starting from the top left, moving counterclockwise: eggs (1mm), 1st stage nymph (1.5 mm), 2nd stage nymph (2 mm), 3rd stage nymph (2.5 mm), 4th stage nymph (3 mm), 5th stage nymph (4.5 mm), unfed adult (5.5 mm) and fed adult. Photo courtesy of Stephen Goggett, Department of Medical Entomology, Westmead Hospital, Sydney, Australia. (Photo-Ken Lambert/Seattle Times/MCT)