

# Let's Beat the Bug!

## *In Short:*

- Take your time when looking for bed bugs.
- Have these tools on hand when looking for bed bugs:
  - Flashlight
  - Playing card or old credit card
  - Roll of sticky tape
  - Cloth and hot soapy water
  - Plastic bags
  - Mattress encasements
- Create a clean zone where you can put items that you have inspected for bed bugs.
- Search for bed bugs
  - Where you sit and where you sleep
  - In mattresses, box springs, bed frames and bedding
  - In cracks and crevices in bedroom furniture, floor boards, base boards, windows, door frames and electrical outlets
- As you are looking for bed bugs capture or kill any that you find.
- This method will not kill all bed bugs but will help reduce the number of bed bugs in your home.

Remember, bed bugs are very small, flat and fast.

**For more information contact the bed bug hotline at 612-624-2200, 1-855-644-2200 [bedbugs@umn.edu](mailto:bedbugs@umn.edu), or visit [www.bedbugs.umn.edu](http://www.bedbugs.umn.edu)**

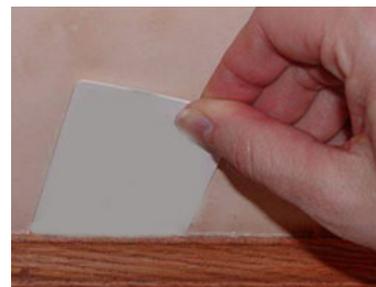
## Controlling Bed Bugs by Hand

Do-it-yourself bed bug control starts with carefully looking for bed bugs and squashing them or capturing them. To be successful you have to be patient and check all the places bed bugs may be hiding. This method will not kill all the bugs at once, but it can reduce the number of bed bugs in your home if done repeatedly.

### Tools necessary to kill bed bugs by hand

Tools needed to find and kill bed bugs are easy to use and available at hardware stores or around your home. These include:

- **A flashlight:** Bed bugs hide in dark areas and in cracks and crevices. Bed bugs are a dark red to brown color, but they can be light brown if they haven't been feeding. This makes it very hard to see them. When hunting for bed bugs hold your flashlight parallel to the surface being inspected, this will cause eggs and small bed bugs to cast a shadow, making them easier to find.
- **A playing card or old credit card:** Use one that is plastic or that has a plastic coating which allows their edges to be pushed into cracks and crevices. By moving the card's edge along cracks and crevices, you can push bed bugs out where they can be captured or killed.
- **A roll of tape:** Wide, clear plastic shipping tape is a good option because it enables you to capture bed bugs, and it provides a closer look at them to confirm that it is a bed bug. As you see insects, or as you are digging along cracks and crevices, have a sticky edge of the tape exposed to quickly trap bed bugs.
- **A cloth and hot soapy water:** Like the sticky tape, a cloth with hot water can be useful for capturing bed bugs. Have a bucket of water handy and as you wipe an area, check the surface of the cloth for bed bugs and then immerse the cloth in the bucket. Wring the cloth to remove excess water; you do not need to soak the surface that you are wiping. Also, check the area that you just wiped because heat may cause hungry bed bugs to move. The cloth is particularly effective when you find a cluster or group of bed bugs. Keep in mind that wet surfaces will reduce the effectiveness of sticky tape as a trapping method.
- **Plastic bags:** Shopping bags and garbage bags are useful for holding items like clothes and bedding that may be infested. Placing infested items in bags will help you move these items without spreading bed bugs into other areas.
- **Mattress Encasements:** Mattress encasements are large "fabric bags" that you place a mattress inside. Once zippered closed, any surviving bed bugs will eventually starve. You will need an encasement for each mattress and box-spring in your home. If there are bed bugs in your mattress or box-spring they will start to die within two weeks, inside an encasement, but encasements should be left on for at least a year.



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There are many types of encasements so it is important to make sure you use an encasement designed for bed bug control.

## Establishing the Clean Zone

To begin your search for bed bugs establish a clean zone into which you can move furniture and items which you have inspected and cleaned to reduce the chance that they will be re-contaminated.

Start in the corners and along edges of an open wall. With the card, see if you can dig things out of the cracks and crevices. Work your way along the cracks and crevices. For example, if you are checking a baseboard along the floor, see if you can get the card between the baseboard and the floor, as well as the top of the baseboard and the wall. If you have a bare tile or wood floor, consider using a damp cloth or map to wipe the floor. Don't use too much water as floors can be slippery. Look for anything moving after you wipe the floor. If you have carpeted areas vacuum the clean area. See "*Vacuuming Items to Capture Bed Bugs*" ([www.bedbugs.umn.edu/bed-bug-control-in-residences/vacuuming-to-capture-bed-bugs](http://www.bedbugs.umn.edu/bed-bug-control-in-residences/vacuuming-to-capture-bed-bugs)) Don't forget to check pictures and other items on this wall.

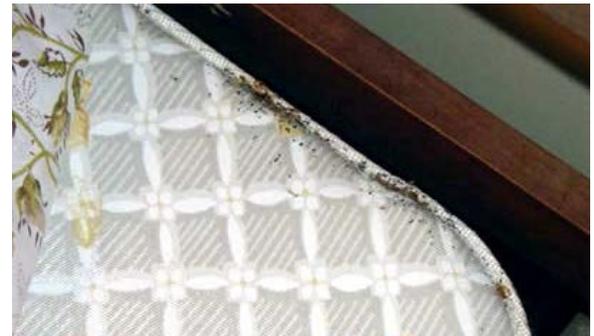
You are now ready to inspect other items and put these into the clean zone. As you continue to move things into the clean zone, more of the room will open and you can expand this clean zone. Using this method means you will not have to move furniture and items more than twice. This will allow you to concentrate on searching for bed bugs, rather than moving furniture.

Sort clothes, bedding, and other items that can be laundered. Fewer things to inspect mean an easier job. See: "*Laundering Items to Kill Bed Bugs*" ([www.bedbugs.umn.edu/bed-bug-control-in-residences/laundrying-bedbug-control](http://www.bedbugs.umn.edu/bed-bug-control-in-residences/laundrying-bedbug-control))

## Searching for Bed Bugs

With your tools by you, begin searching for bed bugs. Remember what you are looking for: adults, young bed bugs, eggs, molted skins and fecal spots. More information on how to identify bed bugs can be found in the factsheet titled "*Have I found a Bed Bug?*" ([www.bedbugs.umn.edu/have-i-found-a-bed-bug](http://www.bedbugs.umn.edu/have-i-found-a-bed-bug))

Start with the bed, including mattress, box-spring and bed frame. Inspect the visible areas first. Look along all edges and corners. Also check along all stitch lines and the mattress label. Five sides the mattress can be checked while the mattress is on the bed.



Look along edges and corners of mattress for signs of bed bugs



Remove the ticking when inspecting box springs

When you are finished checking the upper surfaces, you can then stand the mattress upright so you can check the bottom of the mattress.

Repeat this same search with the box-spring. The only difference is that box-springs usually have plastic edge guards and a loose fabric called "ticking" stapled on the underside. These seams and edges on the underside of the box-spring are very common hiding places for bed bugs. To ensure there are no bed bugs inside the box-spring, you should remove the ticking and check the wood,

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cracks and crevices, and screw holes within. After inspection, the ticking can be re-stapled in place.

Check all sides of the bed frame, even if it is a metal frame. Pay attention to where the frame is joined together and any overlapping parts. The headboard and footboard are particular areas where bed bugs may set up their first infestation. Carefully check all surfaces, and look closely at any slots, screw holes and cracks in the furniture.

After the bed is complete, continue with any furniture that is in the room. Preferably, the larger furniture should be inspected first because it can be placed safely against the wall, in the clean zone, and other items can be placed around the larger furniture.



Check the bed frame for signs of bed bugs

Start with the visible areas of furniture first. Look along all edges, corners and overhangs. Carefully look at molding details and any gaps. Move the furniture out from the wall and check the back. Look closely at the seam along the backer board and any screw holes.

Remove any drawers and check all sides, corners and edges. Remove items from the drawers and sort for laundering or other appropriate treatment.

Once the furniture is empty, you will need to check the bottom. You may have to obtain help to move the furniture and place it on its side. Make sure you take steps to protect the finish of the furniture – use a towel or soft item between the furniture and the floor.

Continue checking furniture and other items until everything is in the clean zone. You may have to expand the clean zone two or three times to accommodate everything. To expand the clean zone follow the same steps that you used to originally establish the clean zone.

After you are finished with all the furniture and objects in the room check the remaining areas of the room that are not in the clean zone. As described above check along baseboards, and in any other cracks or crevices.

Once you are finished, put the furniture back and do your laundry. Anything that was not inspected will have to undergo one of the other control methods (freezing, steam) or you will have to consider discarding the item.

It is highly recommended that you put mattress encasements on your mattress and box-spring. Encasements reduce the number of areas you would have to re-inspect and make it easier to find and control bed bugs in the future.

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In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651/201-6000. TTY users can call the Minnesota Relay Service at 711 or 1-800-627-3529.

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