

## What Do Bed Bugs Look Like?

- ◆ Adults are rusty red, and apple seed sized, 3/8", with six legs, oval, and flattened from top to bottom.
- ◆ They do not jump or fly, but are good runners and hitch hikers.
- ◆ They tend to congregate together.
- ◆ Eggs are tiny, white and glued to surfaces.
- ◆ Nymphs are light colored, and 1/16th".
- ◆ Bed bugs can live several months without a blood meal.



## Signs of Bed Bugs

- ◆ Infestations will leave small, yellowish shed skins and black and rusty spots on bed linens which are droppings and blood stains from crushed bugs.
- ◆ You may have red, itchy welts or rashes from bites; however, bite marks alone are **not** a reliable indication of a bed bug infestation, as bites could be from any number of other sources.



## Important, Be Sure Your Pests are Bed Bugs!!

- ◆ Capture and contain several examples of the pest and have them identified by a qualified expert before taking any further actions.
- ◆ Skipping this step could be an expensive mistake. Many people have been treated for bed bugs without actually having them.

## Recognizing and Finding Bed Bugs



## Bed Bug Hiding Places

- ◆ Most common places:
  - ◆ Blankets, bed sheets and pillows.
  - ◆ Mattresses: along seams and piping, under handles and labels.
  - ◆ In bed frames and head boards.
  - ◆ Box springs: under the thin dust cloth, on bottom hidden in nail holes, cracks, by staples, and nails.
  - ◆ Seams and folds of chairs and sofas.
- ◆ Less common places:
  - ◆ Under and along edges of wall-to-wall carpeting and padding.
  - ◆ Cracks, crevices or nail holes in walls, and under wood moldings.
  - ◆ Under loose wallpaper and seams.
  - ◆ In and behind picture frames and mirrors.
  - ◆ In clothing and clutter stored under beds, in closets and elsewhere.
  - ◆ Inside switch plates, electrical outlets, and clutter around sleeping areas.
  - ◆ On and in luggage, backpacks and bags.

**Proactive monitoring, early detection and prompt response will avoid larger problems.**

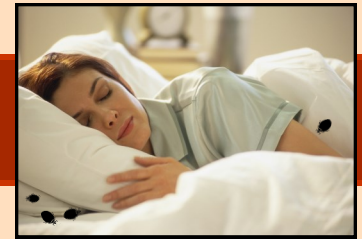
For more information on bed bugs and IPM go to:

[www.epa.gov/bedbugs](http://www.epa.gov/bedbugs)

Bed bug video: <http://youtu.be/QCZ5bg3o10>

# GOT BED BUGS?

Bed bugs are tiny parasites that seek out sleeping people or animals for a blood meal. They are attracted to the CO<sub>2</sub> that you exhale, your body heat and your smell. After feeding, they hide. It is extremely challenging, but not impossible, to prevent, detect and control bed bugs.



**Simple,  
Common Sense,  
Methods to  
Control  
Bed Bugs**

THE STATE UNIVERSITY OF NEW JERSEY  
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# Controlling Bed Bugs Using Integrated Pest Management

## 1. Environmental Modification

- ◆ Vacuuming reduces bed bug populations. Clean and vacuum bed bug prone areas daily.



Immediately seal and dispose of vacuum bag.

- ◆ Install encasements on mattress and box spring.

- ◆ Make the bed an island: Keep bed away from wall and do not let bedding touch the floor.



- ◆ Install bed bug interceptors under bed and furniture legs.

- ◆ Remove clutter where bed bugs can hide.

- ◆ Keep clothing off of the floor.

- ◆ Isolate infested items in sealed plastic bags or containers.



- ◆ Seal cracks where bed bugs can hide.

- ◆ If you live in an apartment or other multi-family dwelling, and you see a bed bug, contact your landlord immediately.



**Bed bugs are not your fault.  
Anyone can have them.**

In most cases, pesticides alone will not eliminate bed bugs. **Integrated Pest Management (IPM)**, needs to be implemented for effective bed bug control. IPM is an environmentally sensitive approach to pest management that relies on knowledge of the pest and a combination of common sense practices, such as inspection, monitoring, reducing clutter, sealing cracks, the use of barriers, non-chemical methods and the judicious and careful use of pesticides, if needed.

## 2. Non-Chemical Controls

Items that cannot be washed or dried may be steamed, heated or frozen using specialized equipment. Raising the indoor temperature with a thermostat or space heaters will not kill the bed bugs.

- ◆ Launder bed sheets and clothing regularly. Dry for 30 minutes on highest heat setting.
- ◆ Put small items in a freezer for 4 days.
- ◆ Apply hot steam to infested furniture.
- ◆ Dispose of heavily infested items.
- ◆ Other methods available to professionals: Place items in heat chambers designed for controlling bed bugs.



## 3. Monitoring

- ◆ Visually inspect bed and sofa.
- ◆ Place interceptors under bed and sofa legs. Interceptors should be checked every 1-2 weeks.
- ◆ If you cannot find bed bugs but are still concerned about their presence, you may set up a home-made monitor to detect low numbers of bed bugs. Instruction are found at: <http://njaes.rutgers.edu/bedbug/>



## 4. Insecticide Treatments

- ◆ **Diatomaceous Earth (DE)**: DE is a natural, white powder-like substance that kills insects. When used properly, bed bugs will have to crawl through DE around your home. Use only DE labeled for insects and follow the directions.
- ◆ Apply DE to cracks and crevices in walls, bed frames, spaces around the bed, behind wall plates and along junction of wall and floor.
- ◆ Wear a mask to apply DE.
- ◆ Apply DE dust to new harbor-ages found during follow-up inspections.
- ◆ DE may take one to two weeks to kill bed bugs and two months to eliminate an infestation. Be patient.



## 5. Follow up Monitoring

- ◆ Continue to launder bed sheets at least weekly until bed bugs are eliminated.
- ◆ Make sure you have enough interceptors for legs of every bed, couch and plush chair.
- ◆ Conduct visual inspection and check the interceptors placed under the furniture every 1-2 weeks.
- ◆ Wipe interceptors clean using a cotton ball dabbed with talc.



**If no live bugs or their signs are noticed for 6 weeks, you may declare "the bed bugs are eliminated!"**