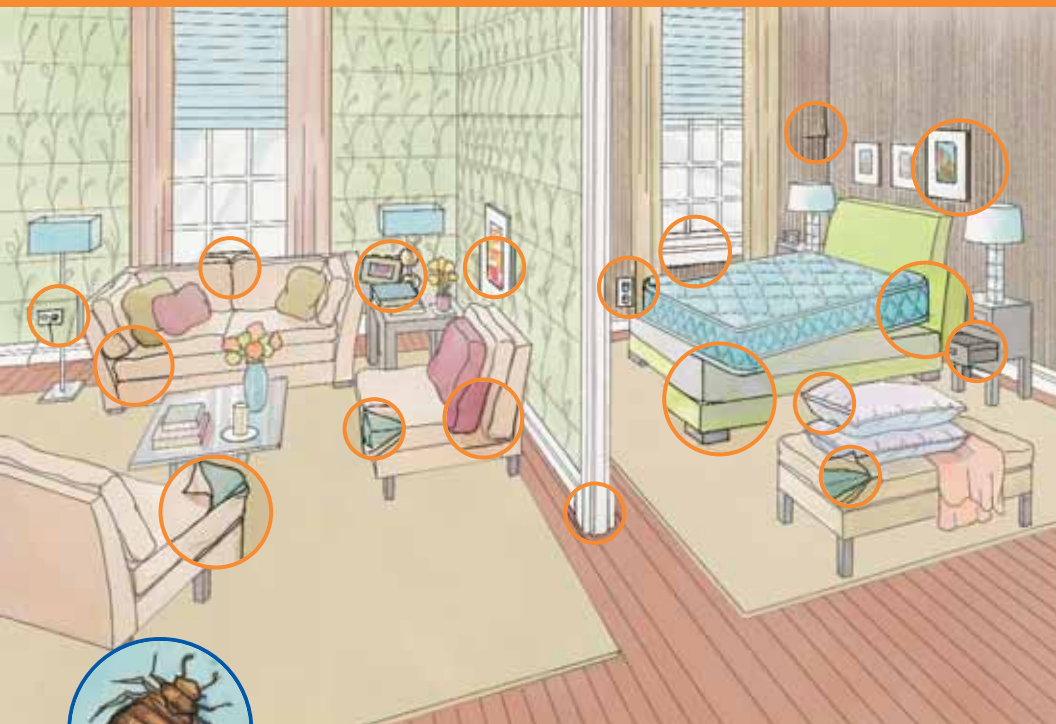


# Preventing and Getting Rid of Bed Bugs Safely



*A Guide for Property Owners,  
Managers and Tenants*



**A Healthy Homes Guide**

The Pennsylvania Integrated Pest Management Program  
Philadelphia School & Community IPM Partnership



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## Using This Guide

**Bed bug infestations are increasingly common in our cities. There are steps that can be taken to prevent bed bugs from infesting your home. When bed bugs are present, they can be safely controlled.**

**This guide will help you:**

1. Learn more about bed bugs and how they thrive.
2. Prevent bed bugs from infesting your home.
3. Safely rid your home of bed bugs if they do occur.
4. Select and work with a pest control professional.

## Recognizing a Bed Bug

### From its appearance

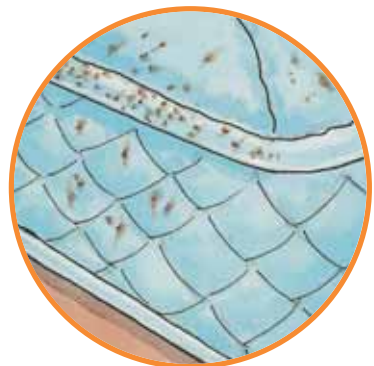
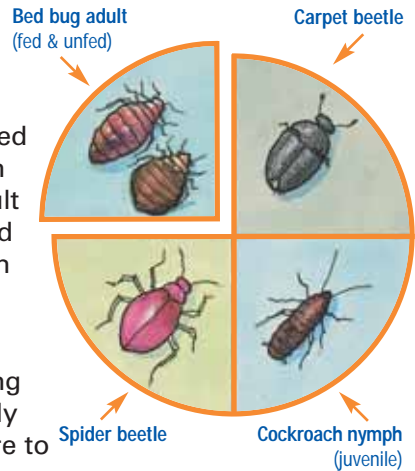
Bed bugs are small insects that feed mainly on human blood. A newly hatched bed bug is semi-transparent, light tan in color, and the size of a poppy seed. Adult bed bugs are flat, have rusty-red-colored oval bodies, and are about the size of an apple seed.

Bed bugs can be easily confused with other small household insects, including carpet beetles, spider beetles and newly hatched cockroaches (nymphs). Be sure to verify with a professional that they are bed bugs.

### From its markings, droppings and eggs

Blood stains, droppings and eggs can be found in several locations including:

- Mattress seams and tufts, sheets, pillow cases and upholstered furniture.
- Crevices and cracks in furniture.
- Baseboards of walls.



## From its bite

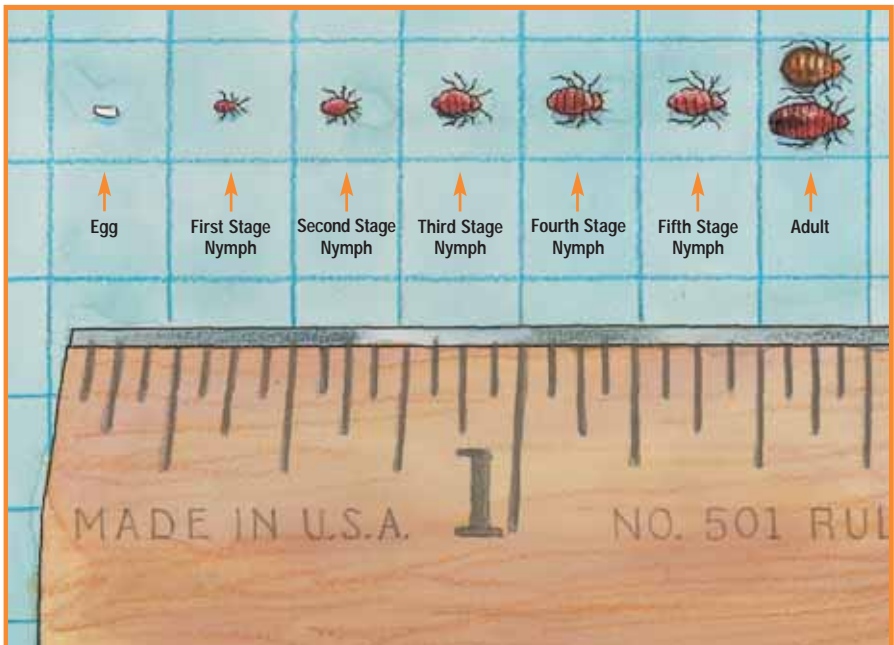
Some people do not react to bed bug bites. But for those who do, bite marks may appear within minutes or days, usually where skin is exposed during sleep. They can be small bumps or large itchy welts. The welts usually go away after a few days. Because the bites may resemble mosquito and other insect bites, a bump or welt alone does not mean there are bed bugs.



## How Bed Bugs Grow and Reproduce

Bed bugs are most active when we sleep. They crawl onto exposed skin, inject a mild anesthetic and suck up a small amount of blood. Most people never feel the actual bite.

Bed bugs need a blood meal to grow and lay eggs. A female lays 5-7 eggs per week and if fed, will lay 200-500 eggs in her life. Eggs take about 10 days to hatch. Bed bugs are fully grown in 2 to 4 months and can live as long as a year.



## The Health Effects of Bed Bugs

Although bed bugs and their bites are a nuisance, they are not known to spread disease.

- Bed bug bites can be very itchy and irritating. Most welts heal in a few days but in unusual cases, the welt may persist for several weeks. Usually an anti-itching ointment will help, but if bites become infected, people should see their doctor.
- The anxiety about being bitten can lead to sleeplessness, which can affect one's wellbeing. Properly and effectively responding to bed bugs helps to keep anxiety in check.

Some people become so desperate that they use illegal or excessive amounts of pesticides that can lead to poisonings. This guide provides advice on how to get rid of bed bugs safely.

## Preventing Bed Bugs from Infesting Your Home

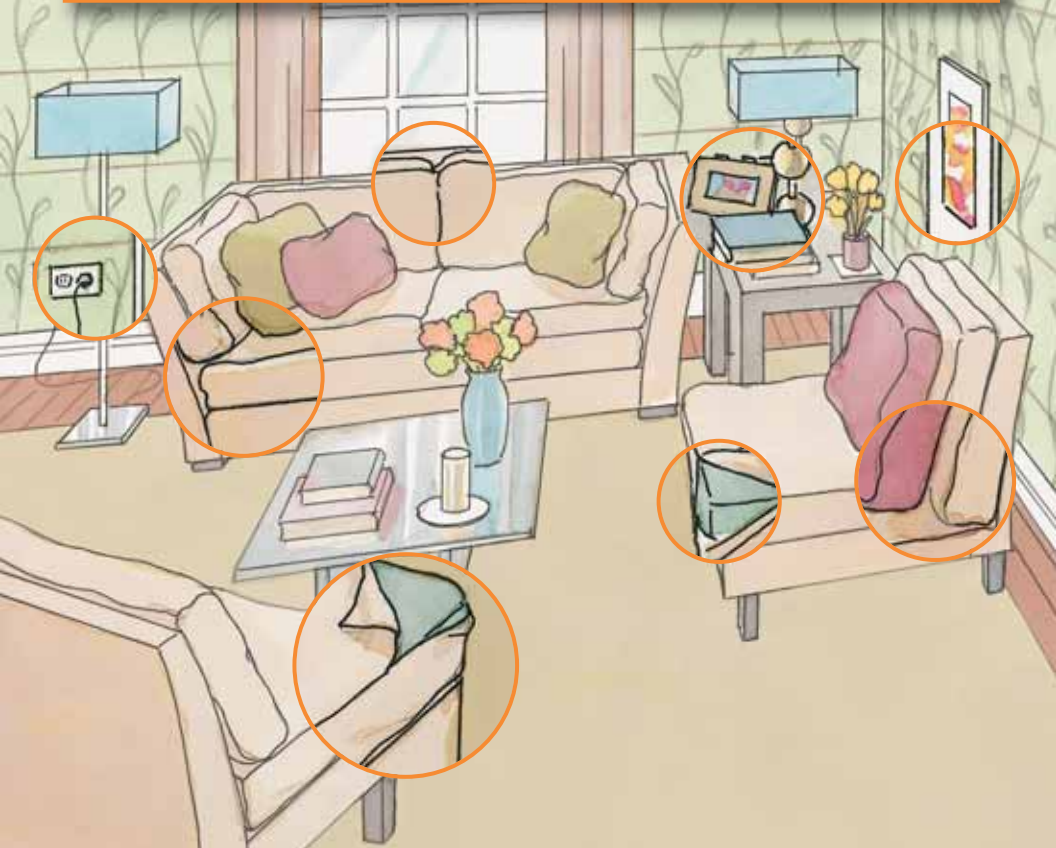
Bed bugs can enter homes by latching onto used furniture, luggage and clothing, and by traveling along connecting pipes and wiring.

- Never bring bed frames, mattresses, box springs or upholstered furniture found on the street into your home.
- Check all used or rented furniture for bed bugs.
- When traveling, inspect the bed and furniture. Keep suitcases off the floor and bed, and inspect them before you leave.
- If you suspect you have been around bed bugs, immediately dry your clothing on the hottest setting or store it in a sealed plastic bag until you can.
- Seal cracks and crevices with caulk, even if you don't have bed bugs. This will help prevent bed bugs and other pests from coming in.
- Regular "preventative" pesticide use in your home will not prevent bed bugs and can lead to your family being needlessly exposed to toxins.



## Inspecting for Bed Bugs

Look for bed bugs, blood stains, droppings and eggs (a flashlight and a magnifying glass will help). Start by looking in an area 10-20 feet around where you sleep or sit. That's the distance a bed bug will usually travel. Keep a written record of every room and location where you find signs of bed bugs. Share this record with a pest control professional.



### Check mattresses, box springs, bed frames and bedding

- Check the top and bottom seams, tufts and any rips in the covers of mattresses and box springs.
- Look underneath the bed and along the bed frame and headboards.

### Check cracks and crevices in bedroom furniture, floor boards and baseboards, windows and door frames

- Use a flashlight to inspect cracks and crevices of furniture, windows and door frames.
- Swipe a putty knife, an old transit or playing card into cracks and crevices to force bed bugs out. A hot blow-dryer on a low setting will

also work. If live bugs do come out, crush them with a paper towel and throw them away outside your building.

- Remove drawers from furniture and check the inside, top and bottom, joints and even screw holes.



### Check walls and wall hangings

- Remove and check zippers, seams and tufts in cushions of upholstered furniture, and their frames.
- Using crevice tools, check paintings, posters, pictures and mirrors.
- Check cracks in plaster and peeling wallpaper.
- Inspect the face plates of electrical outlets and light switches (by eye only – do not insert anything into areas with wires). Look in phones, clocks, smoke detectors and toys.

## Getting Rid of Bed Bugs

If you have bed bugs, you shouldn't feel ashamed. Bed bugs are hitchhikers, so anyone can get bed bugs. Notify your landlord and neighbors. The sooner everyone responds, the more successful everyone will be.

### Choosing and working with a pest control company

Bed bug infestations usually require the services of well-trained, licensed pest management professionals, also called exterminators.

There are many pest control companies and licensed pest professionals in Philadelphia and other cities. Not all are well-trained in managing bed bugs. To get rid of bed bugs, you must choose the right company, be clear about what you want done and monitor performance.

### To choose a good professional...

- Find a company through dependable referrals, directories, professional associations and check to make sure they are licensed. Ask to see their current license issued by the PA Department of Agriculture.
- Interview several companies before choosing. Ask about their training, and their approach to controlling bed bugs. Make sure they follow the procedures described in this guide.
- Agree on a service plan and its cost. Expect at least two treatment visits and a third follow-up visit to confirm that bed bugs have been eliminated. Severe infestations or cluttered apartments may take more visits to eliminate bed bugs.

### A good company will...

- Inspect your property before giving you a price quote or begin any pesticide application.
- Give you a written inspection report, and an action plan of how to prepare for treatment and prevent further infestation.
- Base quotes on inspection findings, not flat fees. The cheapest services are rarely the best.
- Visit often until the job is done.
- Employ qualified, well-trained pest management professionals.
- Educate you on how to prevent bed bugs.
- Work with you until the bed bugs are gone.
- Treat you with respect.



## About the Use of Pesticides

**Bed bug infestations usually require the use of pesticides. Only professionals should apply pesticides for bed bugs. Foggers and bug bombs are not effective against bed bugs.**

Ask the professional to:

- Use the least-toxic pesticide labeled for bed bugs that will be effective.
- Follow all instructions and warnings on product labels.
- Tell you when it's safe to re-enter a treated room.
- Avoid spraying pesticides on mattresses, box springs and sofas. Use steam, heat or bed bug-proof covers instead.

***To report, or ask about pesticide exposures,  
call the Poison Control Center 24 hours a day:  
1-800-222-1222***

***For more information about pesticide products,  
call the National Pesticide Information Center at  
1-800-858-7378.***

***Translation services are available for multiple languages.***

## What Can Be Done to Support the Work of a Professional

Everyone should learn how to identify bed bugs and inspect for them. Cleaning and disinfecting will help to reduce bed bugs and their spread, but may not get rid of them totally.

### Tools You Can Use



- Bright flashlight
- Small mirror, ideally one with a handle, available from hardware stores
- Magnifying glass
- Blow-dryer
- Paper towels
- Vacuum with crevice tool, brush and plenty of vacuum bags
- Putty knife, playing card or transit card as a crevice tool
- Garbage bags
- Plastic packing tape, cockroach sticky traps or mouse glue boards
- Bucket of soapy water and sponge

## Trap and Kill Bed Bugs

- Force bed bugs out of cracks and crevices with a putty knife or an old transit or playing card, or with hot air from a blow-dryer on low setting. Catch them with sticky packing tape or crush them in paper towels. The heat from blow-dryers will kill bed bugs after 30 seconds of continuous contact.



## Clean and Disinfect

- Get rid of clutter to reduce places bed bugs can hide. After checking them for bed bugs, consider putting non-essential belongings into storage until the bed bugs are gone from your home. Check all items again before returning.



- Wipe off dead bugs, blood stains, eggs and droppings with hot soapy water.



- Wash all items showing bed bug stains in hot water (140°F) and dry on the highest setting for at least 20 minutes. Other clean items suspected of having bed bugs should be placed in a hot dryer for at least 20 minutes to kill bed bugs. After drying, store items in sealed plastic bags until you are sure you have gotten rid of bed bugs.



- Vacuum carpets, floors, bed frames, furniture, cracks and crevices daily, using the brush and crevice tools. Empty the vacuum or seal and dispose of its bag outside of your home after each use.



- After vacuuming, enclose both mattress and box spring in zippered encasements that are rated to prevent piercing by bed bug bites or their escape through the zippers (e.g. Protect-A-Bed®).

## Seal Cracks and Crevices

- Repair cracks in plaster, repair or remove any loose wallpaper and tighten light switch covers.
- Apply caulk to seal crevices and joints in baseboards and gaps on shelving or cabinets.



## Getting Rid of Infested Items

- Usually, it is not necessary to get rid of furniture or bedding at the first signs of bed bugs. Cleaning and enclosing is often adequate.
- Box springs should only be discarded if they cannot be covered and are heavily infested.
- Use plastic sheeting (shrink /pallet wrap) and place any items to be thrown away securely in plastic bags. Label with a sign that says "infested with bed bugs."



## What Landlords and Building Managers Can Do

- Provide tenants with information about bed bugs. Share this guide.
- Encourage everyone to report bed bugs as soon as they know of a problem.
- Notify tenants, and inspect all units adjacent to, above and below, the apartments found to have bed bugs.
- Hire a pest management professional to treat for bed bugs. Be wary of companies that make unrealistic claims that bed bugs can be controlled with one visit.
- Help tenants if they cannot move furniture themselves or need help to get rid of clutter.
- Give advance notice of the planned use of pesticides.
- Inspect upon vacancy and, if necessary, treat units to ensure they have no bed bugs or other pests before renting.



## More Information?

**For additional copies of this guide,  
please contact the PA IPM/PSCIP Program**

Pennsylvania IPM Program in Philadelphia  
Philadelphia School and Community IPM Partnership  
Penn State Philadelphia Outreach Center  
111 N. 49th St., Ste. KN3-100, 3rd Fl. North  
Philadelphia, PA 19139

**Phone:** 215-471-2200 Ext. 109 • **Email:** [pscip@psu.edu](mailto:pscip@psu.edu)  
<http://www.pscip.org>

**More information on bed bugs and other pests  
is available at  
<http://extension.psu.edu/ipm/resources/bedbugs>  
and <http://www.paipm.org>**

***To report, or ask about pesticide exposures, call  
The Poison Control Center 1-800-222-1222 or  
The National Pesticide Information Center 1-800-858-7378.***



***A Healthy Homes Guide***



## Key Messages about Bed Bugs

- Learn to identify the signs of bed bugs.
- Dirty living conditions do not cause bed bugs, but cleaning and removing clutter will help in controlling them.
- Anyone can get bed bugs. Seek help immediately if you find them.
- Sealing cracks and small holes will help to reduce hiding places and prevent bed bugs from crawling between apartments.
- Cooperate with your neighbors, landlord and pest management provider. Getting rid of bed bugs needs to involve everyone.
- Do not use pesticide bombs or foggers to control pests. They can make conditions worse.
- It is hard, but not impossible to get rid of bed bugs. The advice in this guide will help.



Adapted with permission from the New York City Department of Health and Mental Hygiene's Guide to Preventing and Getting Rid of Bed Bugs Safely.

