

**PA IPM FACT SHEET SERIES**

# Got Bed Bugs?

## Eliminate Bed Bugs with IPM



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Bed bugs are making a comeback in apartment buildings, dorm rooms, hotels, hospitals, and homes. Why now? Both people and the things they buy are traveling greater distances more frequently, causing hitchhiking bed bugs to spread more rapidly. Follow the steps below to learn how to identify, prevent, and control them safely and effectively.

### What Is IPM?

Integrated pest management (IPM) uses information about the pest in order to choose methods of control that are safest and most effective. IPM methods include pest prevention, exclusion, and nonchemical tools first. If chemical pesticides are needed, products are chosen that pose the least risk to human health. With IPM, you start by asking, “Why is this pest here?” and try to remove the conditions allowing the pest to enter and live. This approach solves pest problems rather than just treating the symptoms. It also reduces the need to use pesticides repeatedly.

### Steps for Managing Bed Bugs

#### Step 1: Pest Identification

What exactly are bed bugs? Bed bugs are blood-feeding parasites that bite people at night and hide during the day. They are tiny, less than 1/8 inch long, wingless, chestnut brown in color, with flattened, generally oval-shaped bodies. They become swollen, elongated, and dark red after a blood meal. Bed bug bites may cause itchy welts on their victims. They often leave small dark spots on sheets and other surfaces. Bed bugs do not cause or spread any diseases, but they do cause mental anguish—no one

wants to “let the bed bugs bite”! They are difficult to control because their small size enables them to hide almost anywhere in and around their feeding sites on mattresses and bed frames, cracks and crevices in walls, under peeling paint, or behind wall sockets. Unlike head lice, which remain on human heads, bed bugs only stay long enough to feed before moving away to hide.

#### Step 2: Prevention

Bed bugs cannot fly, so they infest homes by being transported in clothing, backpacks, suitcases, mattresses, or other furniture. They can also walk in from adjacent apartments or rooms through cracks or conduits for electrical wiring or plumbing. They search for a sleeping human by moving up walls, bed linens, bed legs, or anything touching the bed.

Prevent bed bugs from gaining a foothold in your home.

- Carefully inspect clothing and baggage after you have traveled. Place clothes in sealed plastic bags until they can be laundered.
- Avoid acquiring used furniture and mattresses—these may be infested.
- Remove clutter from the home, especially the bedrooms where bed bugs can find added places to hide.
- Seal cracks and crevices, especially those that lead to other rooms/floors.
- Keep beds clear above and below. Do not store items under beds and do not pile coats or clothing on beds.
- Use solid, light-colored sheets—these make early detection of bed bugs easier.
- If you live in an apartment building and are concerned about bed bugs, keep them from climbing up the bed by pulling the bed away from the walls and making sure no bedding touches the floor. Around each bed leg, spread a thick layer of petroleum jelly (e.g., Vaseline) in a band at least 2 inches wide and about 6 inches off the floor. Bed bugs cannot crawl through this barrier. You can also use small, nested dishes of soapy water (in the outer dish) under each leg or commercial devices such as the ClimbUp Insect Interceptor.

The Pennsylvania IPM Program is a collaboration between The Pennsylvania State University and the Pennsylvania Department of Agriculture.

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### Step 3: Controlling Bed Bugs Safely

To control bed bugs effectively, you will need a combination of actions. Control is difficult, so it is best to consult a licensed and experienced pest management professional (PMP) to help rid your home of these pests.

#### For Safe and Effective Control

- An initial assessment of the severity of infestation is key. The PMP must conduct a thorough inspection of the home to look for bed bugs and their harborage sites for targeted cleaning and treatments.
- Inspect and vacuum mattresses, box springs, and bed frames, as well as carpets and crack and crevices that bed bugs may hide in during the day.
- After vacuuming, enclose the mattress and the box springs in zippered encasements that are rated to prevent piercing by bed bug bites or their escape through zippers (e.g., Protect-A-Bed). Any bed bugs or eggs remaining on the mattress and box spring will be trapped inside the cover. Do not remove the covers. They are your new mattress and box spring surface. Be careful not to rip or tear the cover.
- Wash bedding, pillows, and clothing in hot water (140°F) or dry them in the dryer on the hottest setting for at least 20 minutes.



Allison Talsey

Various life stages of bed bugs shown on a human hand.

### Using Pesticides on Bed Bugs

If bed bugs have been found in your home, resist the urge to use household bug sprays or “bombs.” Bed bugs are resistant to most commonly used pesticides. Using bug bombs and sprays on mattresses and in bedrooms will only increase your exposure to more toxins, not control bed bugs. Since pesticides are poisons, they should be used sparingly and carefully. If chemicals are to be used, seek assistance from a licensed and professional pest control company trained to deal with bed bugs.

#### Why You Need Help

- Common household products generally will not kill bed bugs and can cause them to spread and infest other parts of the home.
- “Bug bombs” do not reach into the tiny cracks and crevices or into clutter where bed bugs can hide.
- Insect repellents sprayed on people or mattresses will not kill the bed bugs or stop them from biting. Repeated use of these

products in this way can pose health threats to you and your family.

- The insecticides that are most effective are those used by trained and licensed professionals and may require specialized equipment to apply. These are not readily available as household products and require state certification to purchase and use safely.
- Experienced companies know where to look for bed bugs, are schooled in proper techniques, and have an assortment of management tools at their disposal.
- Pesticides alone will not eliminate bed bugs.

### Professional Pest Control

When choosing a pest control company, make sure the company meets all the legal requirements that qualify them to service your home, including a Pennsylvania Pesticide Applicator Certification or Registered Technician card, a business license, and general liability insurance coverage. Also ask for a list of local references so you can learn about their past performance in treating bed bugs.

For more information, go to our bed bug resources link at [extension.psu.edu/bedbug](http://extension.psu.edu/bedbug) or contact us at either location listed below.

**If you suspect that a child has been accidentally exposed to chemicals, immediately call the Poison Control Center at 1-800-222-1222.**

### For More Information

#### Pennsylvania IPM Program at Penn State

Phone: 814-865-2839

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[extension.psu.edu/ipm](http://extension.psu.edu/ipm)

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[extension.psu.edu/ipm/resources/urbanphilly](http://extension.psu.edu/ipm/resources/urbanphilly)

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