



Bed Bug Prevention Methods

Dini M. Miller, Ph.D., Department of Entomology, Virginia Tech

Introduction

Prior to the 1950s, most people had a certain level of bed bug awareness. Whenever they left home, in the back of their minds, they were conscious that they might encounter bed bugs. People modified their behavior to prevent bringing bed bugs back home with them. For example, if a woman went to the theater, she would not just put her handbag and wrap into the seat next to her because she was aware that bed bugs might be there. If someone stayed at a hotel, they would check the room for bed bugs before unpacking their bag. Apartment managers were also bed bug conscious and made new tenants fumigate their belongings (usually in the complex's own fumigation chamber) before letting them to move in.

Because bed bugs have not been a problem in the United States for close to 50 years, we have lost our bed bug consciousness. If we go to the movies, we throw our purses and jackets into the empty seat next to us. When we ride in a taxi, we set our computer bags on the seat and put our luggage in the trunk. If we go to the laundromat we set our clothes basket on the floor or on the top of the washer. If we stay in a hotel, we throw our suitcases on the extra bed. We don't think twice about buying a chair at a garage sale or storing our daughter's furniture in the spare room. However, all these behaviors make us vulnerable to bed bug infestation. This publication is intended to make you aware of the many ways that bed bug infestations get started in homes and apartments, and to help you protect your home against bed bug invasion.

Bed Bug Prevention When Traveling

One of the most common ways of encountering bed bugs is during travel. Whether traveling in the United States or internationally, there are hundreds of places where your luggage might come in contact with bed bugs. Bed bugs might be in your hotel room, in the trunk of the taxi, in the luggage compartment of the airplane, or in the baggage handling facility at the airport. While you may not be able to control your bag's travel experience, you can inspect your hotel room before your sleep there, and you can inspect your luggage prior to bringing it into your home.

Inspecting your hotel room for bed bugs is very important for protecting yourself against bed bug bites as well as preventing bed bugs from infesting your bag. Hotel infestations are typically focused near the bed, so a quick inspection of the mattress and head board is generally enough for you to determine if bed bugs are present. Before opening your suitcase:

- **Pull back all of the bedding at the head of the bed near the head board to look for bed bugs or their fecal stains on the mattress (usually several black spots in a group)**
- **Check the underside of the mattress tag**
- **Check the seams of the mattress and the boxsprings**
- **If possible remove the head board from the wall and inspect the back of it, particularly the holes for set-in screws and the plate that allows the head board to hang from the wall.**
- **If bed bug evidence is found, report it to the management and ask for another room.**



To protect your luggage:

- Do not place your suitcase on the spare bed
- Inspect the luggage stand (where the straps are attached to the metal bars) and place your bag on the stand away from the wall.
- Keep your clothing in your bag, do not unpack and place your belongings in drawers
- Using a flashlight, give a quick check to the closet for bed bug evidence before hanging clothes
- Place your shoes in an open area, not under the bed or in the closet
- Upon returning home, unpack your luggage immediately in some location other than the bed room (bathroom, garage, mud room, foyer etc.). Launder all clothing.
- Using a flashlight, inspect your bag for bed bugs.
- If you have reason to believe that your bag did encounter bed bugs, place your suitcase in a plastic bag. If the weather is warm, the bag with the suitcase can be put out in the hot sun or in the hot car for a day. Alternatively, a fumigant strip (NoPest® strip) can be put inside the bag to chemically treat the suitcase. You can also purchase a collapsible heat chamber designed for heat treating luggage (PackTite Portable Bed bug Killing Unit™).
- Although it is not always practical, using a soft bag like a duffel style bag or gym bag when traveling will allow you to put the bag in the dryer when you get home.



Avoiding Used Furniture

By far the most common method of developing a bed bug infestation is by bringing used furniture into your home. Used furniture comes in many forms, and while picking up a nice looking mattress sitting next to the dumpster may be an obvious risk, storing your son's furniture when he moves home from college may not be so obvious. Bed bugs can infest many items. To protect yourself:

- Never take *any* furniture from a dumpster no matter how good it looks. The better it looks the more likely it is to be infested with bed bugs.
- Do not purchase refurbished mattresses or couches.
- Do not purchase furniture at a garage sale or antique store without carefully inspecting it first.
- Never rent furniture or store *anyone's* furniture in your home.
- Do not purchase used books without first inspecting them.
- If you purchase a new mattress (or any piece of furniture), do not have it delivered to your home. Often the same trucks that deliver new mattresses, also take the old (potentially infested) mattresses away. So your new mattress might pick up bed bugs on the truck.
- If you are helping a friend move, or transporting other people's belonging for any reason, be sure to inspect your vehicle once the belongings have been removed. While bed bugs do not typically survive the heat of a car during the warmer months, the car is an excellent bed bug habitat during the cooler weather.

Being Conscious of Visitors to Your Home

Not only does infested furniture have the potential to bring bed bugs into your home, so do other people. While we do not want to avoid having visitors, we simply need to be conscious of who they are and what they might bring with them in their bags and travel accessories. For example, if your mother is coming for Christmas, and she is visiting

from your childhood home in Iowa, you may have nothing to be concerned about. However, if your mother has been at a rest home for the last several years, you may want to inspect her things (discretely) as you are unpacking them. Likewise, if your daughter is coming home to visit after travelling aboard in Asia, and she is bringing several of her Swedish backpacking buddies with her, you may want to inspect their bedroom after they leave.

At the Laundromat

Most people that have had their homes or apartment treated for bed bug infestations have been told by their pest control company to bag up (in plastic bags) everything that can be laundered and place the infested items in a hot dryer to kill the bed bugs. Because there may be several bags full of items to be laundered, many people will take their bags to the nearest laundromat. While there is no question that washing, and particularly drying, household items will kill all of the laundered bed bugs, you have to wonder what happens to the bed bugs that may get left in the empty plastic bags. Typically, those infested bags are stuffed into the trash cans at the laundromat. There they will remain until the trash is emptied. While some trash receptacles may be emptied every night, others may be left there several days, allowing hungry bed bugs to escape and potentially infest the facility, and your warm, freshly dried clothes.



To protect your belongings from becoming infested:

- **Do not transport laundry in cloth bags unless you plan to wash and dry them. Instead use white, plastic baskets that are easy to inspect when they are empty.**
- **Do not set your laundry basket on the floor or on top of the washer but put it back in your car when it is not in use. If you do not have a car, place the basket on top of the washer and inspect it thoroughly before putting clean laundry back into it.**
- **Do not set your laundry basket anywhere near the seating areas or trash cans.**
- **Inspect any chairs in the seating area of the laundromat before sitting on them.**
- **Inspect the table used for folding laundry before placing your clean clothes on it. Better still, fold your clean laundry at home.**

Encountering Bed Bugs While at Work

Some professions make you more at risk of encountering bed bugs than others. Obviously, if you are in the pest control business, you are at constant risk of bringing bed bugs home. However, other professions that bring you into contact with other people's living quarters will also increase your potential for bed bug encounters. For example, doctors, nurses, home healthcare and hospice workers, homeless shelter employees, school teachers, daycare workers, parole and police officers, prison wardens, firemen, ministers, priests, plumbers, electricians, movers, painters, handy-men, apartment managers, hotel managers, hotel maids and maintenance personnel, taxi and limousine drivers, should all be familiar with bed bugs and on the look out for them in their day to day activities. If you belong to a profession where you are required to visit people's homes that you know or suspect have bed bugs, it is best to wear dedicated clothing and shoes that you can bag up in your vehicle, so that you avoid taking bed bugs into another person's home or your own. Also you need to be aware of not sitting on the couch or laying your hand bag or

backpack on the furniture. Also be sure to inspect your clothing and the bottom of our shoes immediately after you leave a person's home and before you get into your vehicle. Some professions now provide Tivec™ suits for employees that who make regular visits to client's homes as part of their job.

Slowly but surely bed bugs are also making their way into office buildings. If you work in an office building, it is best to keep you hand bag and personal items in a desk drawer rather than setting them on a chair or the floor. Hang your jacket on a hanger in your office or cubicle. Do not just hang it on the back of your office chair. If you find a bed bug in your office, catch it in a plastic bag for positive identification. Be discrete (bed bugs can cause mass hysteria in an office) and contact the building maintenance personnel immediately*.

Early Detection Tools*

Early detection is critically important to putting a bed bug problem behind you quickly and efficiently. So, if you find a bed bug in your home, don't freak out! You don't have time. You will need all of your rational faculties focused on the tedious bed bug elimination process. First, catch the bed bug if you can and preserve it in a plastic bag for positive identification. Next, try to isolate the location where the bed bug was seen. Then call a qualified and experienced pest management company to do an inspection. Comply with all of the pest managers directions on preparing your home for inspection and treatment. If your pest control company confirms from your specimen that you do have bed bugs, you may want to purchase high quality mattress encasements for your mattress and box springs. The encasements will not prevent or control bed bugs, but they will keep you from having to throw the bed away, and will prevent bed bugs hiding in the bed from escaping and biting you. Encasements will also prevent any new bed bugs from infesting the box springs (a favorite harborage for bed bugs that is very difficult for your pest manager to treat). Your pest management company may also suggest that you place ClimbUp™ devices under the bed and furniture legs to detect additional bed bugs that might be infesting the home. The ClimbUp™ devices, when used properly, are excellent for intercepting bed bugs as they attempt to climb the bed legs to feed on you when you are asleep. The mattress encasements and ClimbUp™ devices are the best methods for preventing bed bug infestations from progressing undetected. They are also excellent tools for determining whether or not a small infestation has been eliminated.

A State of Bed Bug Consciousness

The purpose of this publication is not to make you paranoid about bed bugs, but to heighten your awareness about encountering bed bugs during your daily activities. Because there is currently no simple and inexpensive way to eliminate bed bug infestations, we are seeing their populations becoming more and more widespread. It is for this reason that we need to develop a bed bug consciousness so that we can modify our behavior to avoid bringing bed bugs into our home.

*Cooper Pest Solutions, Lawrenceville, New Jersey

