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Bed Bug Information for Landlords and Property Managers

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Introduction

In the past few years, in the U.S. and in Utah, bed bugs have been on the rise. Bed bugs have been found in hotels, shelters, condominiums, apartments, multi-unit housing complexes, jails, schools, hospitals, care centers, nursing homes, dormitories, offices, movie theaters and on public transit.

These pests are commonly transported in luggage or belongings, in clothing, or in used furniture or electronics from an infested area to other areas and structures. Bed bugs may also move from room-to-room or from unit-to-unit through cracks in drywall or plaster and through holes meant for wiring and plumbing.

The process of getting rid of bed bugs is grueling and can be very expensive. Multi-unit housing complexes, apartments, and homes must be repeatedly treated. Other prevention and control measures include placing clothes in airtight bags; daily vacuuming; sealing baseboards and the floor with caulking; and, in some cases, throwing out much of the furniture in the affected home. To make matters worse many people do not have the financial resources and energy to do everything that is required to eliminate these pests.

While bed bugs are not considered a major public health threat because they do not transmit disease, they are indeed a nuisance and their bites can lead to itchy welts that can cause discomfort. In addition, they can lead to sleep deprivation, anxiety, high stress, and psychological issues.

Landlords and property managers should learn about identifying bed bug infestations, best practices for controlling and eliminating bed bugs, and ways to prevent bed bug infestations, and provide this same educational information to tenants.

How to Identify Bed Bugs

Effective bed bug control strategies start with a careful inspection and identification of the bugs.

Bed bugs are oval, flat, reddish brown insects about 1/4 of an inch long as adults. As larva or nymphs they are smaller and more of a clear, yellowish color. Before feeding, bed bugs are flat; after feeding they become engorged with blood and turn a darker reddish color (adults) or a bright red color (nymphs).



Adult bed bug



Adult bed bug
after feeding



Adult & Nymph



Nymph bed bug



Nymph bed bug
after feeding



Bed bug eggs

Females can lay up to 500 hundred eggs in their life span. Eggs are small and whitish and are laid in loose clusters and covered in a glue-like substance. It takes about ten days for an egg to hatch.

Bed bugs are nocturnal, hiding in the daytime and traveling from five to twenty feet at night to feed. They are attracted by body heat and carbon dioxide as it is exhaled. They can move fast, similar to the speed of an ant. Bed bugs only feed for five to ten minutes and then quickly return to their hiding place. When a host is readily available they will feed every few days. However, studies show that bed bugs can go weeks to months without a blood meal, and in some cases up to a year or more, without feeding.

Common Signs of a Bed Bug Infestation

Usually people discover they have a bed bug infestation because they notice small, itchy welts on their skin. These bite marks at first are often mistaken for mosquito bites or spider bites. But as they continue to occur, people begin to investigate and usually find the other signs of a bed bug infestation, which include:

- Dark reddish-brown spots (bed bug fecal matter) on bed linens, mattress seams, other furniture, and areas within close proximity to where people sleep, rest, or sit.
- Other common places where bed bugs hide: headboards, bed frames, under box springs, behind baseboards, behind window and door casings, behind wall hangings, in telephones or other electronic devices, between curtain folds, in drawers and drawer rails, behind and underneath furniture, behind electrical covers, under and around floor clutter, and in any small crack or crevice in the wall or floor.



Bed Bug Prevention Information

For landlords, housing providers, and property managers

In recent years, the number of bed bug complaints to public health in Utah (particularly in urbanized areas) is on the rise, especially in apartment housing and other multi-unit housing complexes. Utah is not alone in fact, many urban areas throughout the U.S. and the world are experiencing increases in bed bug infestations occurring in people's homes and residences.

The reasons for the explosion of bed bug populations in urban areas across the world aren't exactly clear. But we know that bed bugs are excellent hitchhikers, and can easily be transported from an infested area to a non-infested area by climbing onto a person's clothing or by hiding in a person's bag, backpack, luggage, etc., and once that bag, backpack, or clothing is removed and is set down, the bed bug(s) can now become established in their new home.

It doesn't take long for bed bugs to quickly multiply and establish themselves in previously non-infested dwellings. In places such as apartment buildings and multi-unit housing complexes, bed bugs can easily move between walls, utilizing cracks in drywall or plaster and holes for wiring and plumbing to infest adjoining units.

The effort, cost, and energy needed to eliminate bed bugs from a heavily infested structure can be enormous. To prevent and control bed bug infestations, landlords and property managers should become educated about bed bugs and should establish policies aimed at preventing and quickly controlling bed bug infestations. Landlords and property managers should work closely with tenants to educate about what they can do as residents to prevent and quickly recognize a bed bug infestation.

Prevention tips/ideas for landlords and property managers include the following:

- Develop protocols for tenants who are moving into units and provide information about bed bugs and bed bug prevention.
- Develop policies and procedures for dealing with bed bugs. These should be made available and communicated clearly to tenants.
- Develop a policy that tenants are to immediately report bed bug infestations (or suspected infestations). Be sure to specify the time frame and how that notification is to be submitted (e.g. written).
- If housing units come furnished, use beds with metal frames. Bed bugs have more difficulty climbing metal frames than wood frames.
- If beds are provided, cover mattresses and box springs with completely sealed covers. Make sure that the covers are taken care of and maintained without tears or holes. This will prevent bed bugs from being able to infest the mattress and box springs.
- Replace upholstered furniture in common areas with vinyl or metal.
- Vacuum common areas daily, paying particular attention to furniture and baseboards.
- Maintain records on pest control, cleaning, and sanitation.
- Carry out routine inspections of units and common areas.
- Take efforts to educate tenants about bed bugs (prevention strategies, recognition of an infestation, control measures, risk factors, and policies).

Bed Bug FAQs for Tenants

What are bed bugs and what do they look like?

Bed bugs are small wingless insects (adults are about 1/4 inch long) that feed on human and animal blood. Adults are reddish-brown in color and larva or nymphs are a clear-yellowish color, but when they feed, their bodies swell and become bright red. They can be found in homes, apartments, hotels, hospitals, nursing homes and other dwellings.

Bed bugs feed primarily on human blood and they usually feed at night. They can go weeks, even months, without feeding. Bed bugs do not transmit disease, but their bites can cause itchy welts that if scratched too much, can bleed and become infected.

Where do bed bugs live and hide?

Bed bugs are most commonly found in sleeping, resting, and sitting areas of homes, such as in bed mattresses/box springs, bed linens, and in the cracks and crevices of bedroom furniture. Bed bugs also hide in other rooms, in such places like couch cushions, other household furniture, wall hangings, floor clutter, and in any crack or crevice in walls and floors. They are usually found within 10-20 ft of places where people sleep, rest, and/or sit.

Why are bed bugs a problem? Are they dangerous?

Bed bugs may be a nuisance to people, but they are not considered a major public health threat because they do not transmit disease. Despite this, bed bugs are a nuisance and their bites can lead to itchy welts that can cause discomfort. In addition, they can lead to sleep deprivation, anxiety, stress, and psychological issues.

What are the signs of bed bug infestation?

If you have bed bugs, you may notice itchy welts (raised red bumps or flat welts) on your skin. You may also see the bed bugs themselves; small bloodstains from crushed bed bugs; or dark spots from bed bug fecal droppings in, on, and around the following places in your home:

- Seams or creases of mattresses or box-springs.
- Around bed frames and headboards.
- In and under furniture (chairs, couches, beds, night-stand, chest-of-drawers, etc.).
- Between couch cushions.
- Under rugs and the edge of carpets.
- Between curtain folds.
- Behind baseboards, windows, door casings, and any small cracks in walls and floors.
- Behind electrical plates/covers, under loose wallpaper, and behind wall hangings.
- In telephones, radios, TVs, clocks, and other electronic devices.
- In, under, and around floor clutter.

Once in the home, bed bugs are mostly found in rooms where people sleep, rest, sit, or lay for extended periods of time.

How does a home become infested with bed bugs?

Bed bugs are great “hitchhikers” and can be transported from an infested area to a non-infested area by clinging onto someone’s clothing or they can crawl into luggage, furniture or bedding that is then brought into the home.

Bed bugs can be picked up while spending time in a home that is infested with bed bugs, or while traveling and staying in a hotel or motel room infested with bed bugs.

Bed Bug FAQs for Tenants continued...

How does a home become infested with bed bugs? (continued from previous page)

If you live in a multi-unit housing complex, such as an apartment building, it is possible for bed bugs to get into your home from your neighbor's residence. Bed bugs can travel through wall voids and along pipes, wires and cracks in the wall. If you live in a multi-unit housing complex and you discover a bed bug infestation, it is important to report it to your landlord promptly.

Anyone can get bed bugs. An infestation has nothing to do with how clean and tidy a person keeps their home. A bed bug infestation is not something to be ashamed of or feel embarrassed about. So if you are dealing with a bed bug infestation, it is important to let anyone that may visit your home know, so they can take the necessary steps to prevent taking bed bugs home with them.

How can I prevent a bed bug infestation?

While there is no way to completely prevent a bed bug infestation, there are steps you can take to avoid an infestation or detect one sooner, for example:

- Remove floor clutter from rooms in your house (especially bedrooms) and seal wall or floor cracks with caulking.
- Inspect all furniture (especially used furniture) that is brought into your home. Do not take furniture left on the street, even if it looks like it is in great condition.
- When traveling, inspect your hotel/motel room carefully for bed bugs.
- Use the metal luggage rack in the hotel room to place your luggage on, or place it in the bathtub, or on the bathroom counter. You could also place your luggage in large plastic garbage bags. Make sure that the bag is sealed and that there are no holes in it.
- After returning home from a trip, leave your luggage in the garage. Wash all items that were stored in the luggage with hot water and dry on high heat.
- If visiting a place where a bed bug infestation is suspected, clothing should be changed as soon as possible after leaving the site, and the potentially infested clothing should be placed in a plastic bag until it can be laundered in hot water and dried on high heat.

How do you get rid of bed bugs?

Getting rid of bed bugs can be costly and difficult because they are small, elusive, transient, and nocturnal. Bed bugs are hardy and can live for months without feeding, and can withstand a wide range of temperatures from nearly freezing to more than 112 degrees Fahrenheit.

Because of how difficult bed bugs are to exterminate, a bed bug infestation, is best handled by a professional pest control company. An experienced professional pest control company will know where to look to detect bed bugs in their many hiding places, and has the special tools, equipment, insecticides, and know-how to completely eliminate them from your home. Removing clutter from around the home will allow you or a professional to more easily find potential hiding places. It also reduces the potential hiding places for bed bugs.

What should tenants or renters do if they discover bed bugs in their home?

Tenants should contact their landlord or property manager promptly to report a bed bug infestation. The sooner everyone responds, the more successful removal will be. Discuss respective responsibilities regarding the infestation and come to an agreement on a plan to manage the infestation. If there is an infestation, hiring a licensed pest control company to control and eliminate the bed bug infestation is recommended. The pest control company should provide you with a plan that will include the methods and insecticides to be used, and describe the efforts expected by the landlord or manager, and the tenants. Follow any instructions given by the pest control company.

Getting Rid of Bed Bugs

To effectively control and eliminate bed bugs you will need to find all places where they are hiding. This will take time and effort, so be dedicated in doing it. You will need to learn to recognize, inspect for, and control the spread of bed bugs, even if you plan to hire a professional exterminator to get rid of the bed bug problem.

Inspecting for Bed Bugs

Begin by cleaning up any floor clutter. Look for bed bugs, blood stains, droppings, and eggs (using a flashlight and a magnifying glass will help). Thoroughly search all places within 20 feet of where you sleep, rest, or sit. Bed bugs usually only travel 10-20 feet to find a host to feed on. Keep a record of every spot where you find signs of bed bugs. Share this information with the pest control company you work with.

Inspect the following areas: mattresses, box springs, bed frames, headboards, bedding, bedroom furniture (look inside drawers), and any other furniture (couches, etc.). Also, inspect cracks and crevices in furniture, flooring, baseboards, walls, windows, and door frames. Look behind torn or peeled back wallpaper; behind picture frames and other wall hangings; behind outlet and light-switch covers, and inspect curtains and blinds.

Bed bugs are small and thin and can hide in the smallest of places. To force bed bugs out of cracks and crevices where they may be hiding, use a small putty knife or playing card, or a hair-dryer on low setting. If bed bugs do come out, catch and kill them. Crush them using a paper towel and throw them away outside in the trash can.

Cleaning and Disinfecting to Get Rid of Bed Bugs

Targeted cleaning and disinfecting will help to reduce bed bugs and keep them from spreading, but it may not get rid of them completely. That is why it is recommended to employ the services of a professional pest control company. However, your own efforts to clean and disinfect can help a lot in reducing and controlling the spread of bed bugs in your home.

Remove floor clutter. While inspecting belongings, wipe off dead bed bugs, blood stains, eggs, and droppings with hot soapy water. Wash all items that can be laundered in hot water (140 degrees Fahrenheit) and dry on high heat for at least 20 minutes [items that are too delicate to launder can be sealed in a plastic bag and placed in a freezer for 2-3 days].

Thoroughly vacuum carpets, floors, bed frames, furniture, cracks and crevices every day. Empty the vacuum into a garbage bag, seal it and throw it away outside in the trash can. Enclose infested mattresses and box springs in bed bug or dust mite specific covers for at least a full year. You may need to get rid of heavily infested items. Use garbage bags or plastic shrink wrap to seal and throw away such items. Label items to be thrown away as "infested with bed bugs". This will discourage another person from taking these items.

Working with a Pest Control Company

Not all pest control companies are equal. Find a company that knows how to deal with bed bug infestations. Below are tips that will help in working with a pest control company:

- Ask the company how they will approach the bed bug problem. Make sure it is clear what the pest control company is to do and what the property owner (or tenant) is to do.
- Agree on a treatment plan and pricing. The pest control company should do a thorough examination of your property before putting together a treatment plan and quoting a price.
- Walk around your property with the pest control professional during each visit and keep track of the work being done.
- Do your part to assist; follow any instructions and recommendations the company may give.

Bed Bug Treatment - Planning & Preparation

When working with a professional pest control company, planning and preparation for the bed bug treatment is necessary. It can involve considerable effort and time on the part of the property owner, tenants, and landlords or property managers.

A professional pest control company should come out first to assess the extent and severity of the infestation.

Based on the assessment, the company should work with the tenants and the landlord or property owner to determine the best method for treating the bed bug infestation and to develop a plan of action. The plan of action should include a time line and actions to be taken. These can include the following:

- Methods and treatments the pest control company will use to get rid of the bed bugs.
- What the tenants or property owners need to do to prior to the extermination treatments.
- Time line of follow-up treatments and inspections.
- How to prevent further bed bug infestations.

Tenants and landlords or property owners need to work closely with the pest control company throughout the process to be sure that the plan of action is carried out as planned.

Tenants, property owners, and landlords should follow the instructions given by the professional pest control company and should make sure the following plans and preparations are made so that the pest control company will be able to effectively treat the home.

- Cleaning will need to be done. Remove all floor clutter; vacuum everywhere and everything in the house (floors, furniture, blinds, baseboards, corners, inside drawers, etc.); launder clothing, bedding and other washable items; or move unnecessary items (furniture, clothing, etc.) prior to the treatment.
- Move all furniture at least 12 inches away from the wall.
- Empty bookshelves and drawers, and look behind picture frames and other wall hangings for bed bugs. If signs of bed bugs are found, thoroughly clean these items.
- If removing items from the infested home, take measures to ensure that such items are properly bagged or enclosed to prevent infestation of other places or areas (vehicles, storage units, other homes, etc.).
- Arrangements should be made that allow for tenants to be out of their homes for the specified time (could be anywhere from 4-8 hours or longer).
- Make plans to accommodate tenants with particular medical or mobility needs.
- Don't forget about accommodations for pets; they will not be allowed to be in the residence during the treatment.
- Determine how to properly dispose of any infested furniture items to be thrown out.
- Repair holes or cracks in walls, floors and ceilings, cupboards, around pipes, etc. with caulking.
- The above listed preparations will need to be done before the first treatment and any follow-up treatments.

To see a step-by-step guide for preparing your home for bed bug treatment, see appendix.

Additional Information & Resources

To learn more about bed bugs, there are many credible resources available on the internet. There are many federal, state, and local government websites, as well as many university websites, that contain good information regarding bed bugs, and their identification, treatment, control and prevention. Below are just a few of the many resources available on the internet:

National Center for Health Housing.

- What's Working for Bed Bug Control in Multifamily Housing: Reconciling best practices with reasearch and the realities of implementation (February 2010). Available at - http://ento.psu.edu/publications/nchh_bedbug

Government Information and Resources:

- Environmental Protection Agency - <http://www.epa.gov/pesticides/bedbugs/>
- Utah Department of Health - www.health.utah.gov/epi/diseases/bedbugs/index.html
- California - <http://www.cdph.ca.gov/HealthInfo/discond/Pages/BedBugs.aspx>
- Illinois - <http://www.idph.state.il.us/envhealth/pcbedbugs.htm>
- Indiana - <http://www.nyc.gov/html/doh/html/vector/vector-faq1.shtml>
- Maine - <http://www.maine.gov/dhhs/boh/ddc/epi/disease/bed-bugs.shtml>
- Michigan - <http://www.michigan.gov/emergingdiseases/0,1607,7-186--147759--,00.html>
- New York City - <http://www.nyc.gov/html/doh/html/vector/vector-faq1.shtml>
- City of Toronto, Canada - All About Bed Bugs - An Information Guide - http://woodgreen.com/Temp/BB_TenantManual.pdf
- All About Bed Bugs - An Information Guide (Canada) - <http://www.woodgreen.org/LinkClick.aspx?fileticket=eSvmfntPoeE%3D&tabid=115>
- City of Toronto, Canada - Bed Bugs Are Back - Are We Ready - <http://www.woodgreen.org/LinkClick.aspx?fileticket=6WSSiMTtpGY%3d&tabid=115>

University Information and Resources:

- Harvard - <http://www.hsph.harvard.edu/bedbugs/>
- Ohio State University - <http://ohioline.osu.edu/hyg-fact/2000/2105.html>
- Penn State University - <http://ento.psu.edu/extension/factsheets/bedbugs>
- Penn State University - <http://ento.psu.edu/extension/bedbugs>
- Purdue University - <http://extension.entm.purdue.edu/publichealth/insects/bedbug.html>
- University of California Integrated Pest Management Program - <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7454.html>
- University of Florida - <http://edis.ifas.ufl.edu/ig083>
- University of Kentucky - <http://www.ca.uky.edu/entomology/entfacts/ef636.asp>
- University of Minnesota - <http://www.extension.umn.edu/distribution/housingandclothing/dk1022.html>
- University of Nebraska-Lincoln - <http://lancaster.unl.edu/pest/resources/bedbug263.shtml>
- Utah State University - <http://extension.usu.edu/files/publications/factsheet/bedbugs07.pdf>

Other Information and Resources:

- Bed Bug Registry (report locations of bed bug infestations) - <http://bedbugregistry.com>
- www.webmd.com/skin-problems-and-treatments/features/dont-lose-sleep-over-bed-bugs
- www.webmd.com/skin-problems-and-treatments/slideshow-bedbugs
- www.badbedbugs.com/

Appendix



Facts about Bed Bugs

Don't Let the Bed Bugs Bite!



What are Bed Bugs?

Small insects (adults are about 1/4 inch long) that feed on the blood of humans and animals. Adults are reddish-brown in color and larva or nymphs are a clear-yellowish color, but when they feed, their bodies swell and become bright red. They can be found in homes, apartments, hotels, hospitals, and other dwellings.

Bed bugs usually feed at night and can go weeks to months without feeding. They nest in close proximity to sleeping and sitting areas. Bed bugs are not known to transmit disease, but their bites can cause large, itchy welts.

National Geographic bed bug video on YouTube

http://www.youtube.com/watch?v=WfKcCSPCOQo&feature=player_embedded

What do Bed Bugs Look Like?

Bed bugs hatch from an egg and go through five larva or nymph stages before becoming an adult. Nymphs are very small and a clear yellowish color, unless engorged with blood. If engorged with blood, they become bright red in color and double in size.



Bed bug eggs



Adult bed bug



Nymph bed bug after feeding



Adult bed bug after feeding

Signs of a Bed Bug Infestation?

- 1) Bed bug bites can itch and look like a raised red bump or flat welt and are often mistaken for mosquito or flea bites.
- 2) Small, dark spots of bed bug fecal matter on bed linens and around areas where people sleep or sit, which may include:
 - Seams or creases of mattress or boxsprings.
 - Around the bed frame and headboard.
 - Under furniture (chairs, couches, beds, night-stands, chest-of-drawers, etc.).
 - In drawers or drawer rails.
 - Between couch cushions.
 - Under rugs and the edge of carpets.
 - Between curtain folds.
 - Behind baseboards, windows, and door casings.
 - Behind electrical plates, under loose wallpaper, and behind pictures or other wall hangings.
 - Any small cracks in plaster or walls and floors.
 - In telephones, radios, TV's, clocks, etc.
 - In, under, and around floor clutter.

Once in the home bed bugs are mostly found in rooms where people sleep or sit/lay for extended periods of time.



Bed bugs in mattress seam

Photo Credit: A.M. Barbarin, Penn State University

Do Bed Bugs Cause Disease?

Bed bugs and their bites are a nuisance, but they do not spread disease to humans and therefore are not considered a public health threat.

How Do I Get Rid of Bed Bugs?

Bed bugs can be extremely difficult to get rid of because they are small, very elusive, transient, and nocturnal. They are very hardy. They can live for a year or more without feeding, and can withstand a wide range of temperatures from nearly freezing to more than 112 degrees Fahrenheit.

Because of how difficult bed bugs are to exterminate, a bed bug infestation is best handled by a professional pest control company. A professional pest control company will know where to look for and detect bed bugs in their many hiding places. They use special tools, equipment, and insecticides, and will know how to completely eliminate them from your home. Removing clutter from around the home will allow you or a professional to more easily find potential hiding places. It also reduces the potential hiding places for bed bugs.

Can I Get Rid of Bed Bugs Myself?

A bed bug infestation is best handled by a professional pest control company. However, if you do attempt to treat bed bugs on your own there are products available in stores and over the internet, such as sprays or dusts. There is no guarantee that such products will work. If you use these products, be sure to read and follow the product's instructions completely.

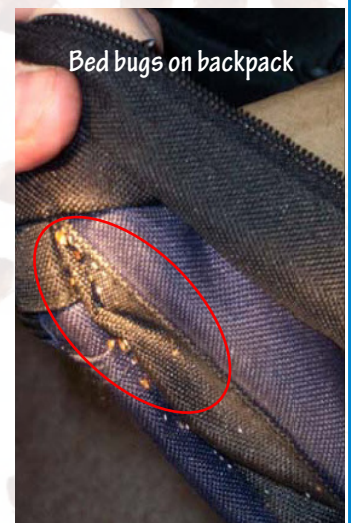
Also, because bed bugs are small, only come out at night, and hide in small cracks and crevices, they are extremely hard to find and control. You may seek the advice of a professional pest control company on how you should treat your home.

How Did I Get Bed Bugs in the First Place?

Bed bugs don't just magically appear in your home and they do not come in from the outdoors through small cracks and crevices. Bed bugs are great hitch-hikers and usually are carried into your home on things like furniture, clothing, bags, and luggage. Bed bugs can be picked up while spending time in other people's homes that are infested with bed bugs, or while traveling and spending time in a hotel or motel room infested with bed bugs.

If you live in a multi-unit housing complex, such as an apartment building, it is possible that bed bugs come into your place from your neighbor's place. Bed bugs can travel through wall voids, along pipes, wires and cracks in the wall. If you live in a multi-unit housing complex and you find that you have a bed bug infestation, it is important that you report it to your landlord promptly.

A bed bug infestation has nothing to do with cleanliness. Anyone can get bed bugs, so do not feel ashamed or embarrassed. It is important that you communicate to others that may have visited your home so they can take the necessary steps to prevent from getting bed bugs in their homes as well.



Inspecting for Bed Bugs

Signs of bed bugs include small dark blood spots/stains (bed bug fecal droppings) on bedding, furniture, walls, etc. as well as bug bites that appear on your body after sleeping or resting.

Before starting your inspection clean up any and all floor clutter.

Start your bed bug inspection by looking in areas within 10-20 ft where people sleep, rest or sit. Keep a written record of every location where you find bed bugs or signs of bed bugs. Share this record with a professional pest control company.

You will need to thoroughly inspect mattresses, box springs, bed frames, headboards, bedding, bedroom furniture (look inside drawers), and any other furniture where people sleep or sit. Also inspect cracks and crevices in bedroom furniture, flooring, baseboards, walls, windows, and door frames. Look behind torn or peeled back wallpaper; behind picture frames and other wall hangings; behind outlet and light-switch covers; and inspect curtains and blinds. Bed bugs are small and thin and can hide in the smallest of places.



Photo Credit: A.M. Barbarin, Penn State University

Bed Bug Prevention Tips

Bed bug infestations are becoming an increasing problem throughout the world, in the U.S., and even in Utah. It is important that we all become educated on ways to avoid and/or detect bed bugs to better prevent their spread.

While there is no way to completely prevent bed bug infestations, there are steps you can take to avoid an infestation or detect one sooner, or stop the spread of an infestation. They include:

- Remove floor clutter from rooms in your house (especially bedrooms) and seal wall or floor cracks with caulking.
- Inspect all furniture (especially used furniture) that is brought into your home. Do not take furniture left on the street, even if it looks to be in great condition.
- When traveling, inspect your hotel/motel room carefully for bed bugs. See the steps described above in the "Inspecting for Bed Bugs" section.
- Use the metal luggage rack in the hotel room to store your luggage. If all of your luggage does not fit on the rack, place it in the bathtub or on the bathroom counter. Or, bring large plastic garbage bags with you when you travel and store your luggage and other belongings in the garbage bags. Make sure that the bags are sealed and that there are no holes in them.
- After returning home from a trip, leave your luggage in the garage. Wash all items that were stored in the luggage with hot water and dry on high heat. Then carefully inspect your luggage for bed bugs before bringing it into your home, or just keep it stored in the garage.
- If visiting a place where bed bug activity is suspected, clothing should be changed as soon as possible after leaving the site, and the potentially infested clothing should be placed in a plastic bag until it can be laundered in hot water and dried on high heat for at least 20 minutes.

Preventing and Quickly Recognizing a Bed Bug Infestation

There is no fool-proof method for keeping bed bugs out of your home, but there are things you can do to greatly reduce the chances of bringing bed bugs into your home. Bed bugs are great hitchhikers and can enter your home by latching onto used furniture, luggage, and clothing, and through the walls along pipes and wiring of adjoining units in multi-unit housing complexes.

Bed Bug Prevention Tips:

- Do not pick up used furniture (including bed furniture) that has been left out at the curb. It may have been left there for a reason. It might just be infested with bed bugs.
- Be extremely cautious of used furniture being sold at a yard sale or second-hand store.
- When traveling, inspect the bed and furniture in the room in which you will be staying (including nice hotels). Keep your luggage off the floor and bed, and inspect your luggage before you leave for any signs of bed bugs. Remember they are great hitchhikers and they don't like to be found.
- If you are staying in a hotel/motel, place your luggage on the metal rack provided, or place it in the bathtub or on the bathroom counter top.
- If you suspect you have been in a place that is infested with bed bugs, immediately wash and dry your clothing on hot settings or store your clothing in a sealed plastic bag upon returning home until you can wash and dry it. It may be a good idea to leave luggage in the garage.
- Seal cracks and crevices in walls, floors, and baseboards with caulk. Even if you don't have bed bugs, this will help prevent bed bugs and other pests from coming in.
- Remove floor clutter from your home.

Tips for Quickly Recognizing a Bed Bug Infestation:

- Watch for early warning signs like blood spots or bed bug fecal excretions (bed bug poop) on your sheets.
- Use white sheets on your bed. It is easier to spot the reddish brown bed bug spots on white sheets.
- When you take off your sheets to wash them, check your mattress for signs of bed bugs.
- If you notice bed bugs (or their bites on your skin), or you suspect you have bed bugs, do something sooner rather than later. The sooner you do something, the sooner you will be able to get rid of them, and the easier it will be to treat the problem.
- Notify your landlord if you have a bed bug infestation.

Most of the time bed bugs are found within 15-20 feet of where people sleep, rest, or spend time (for example: close to or in the bed, on couches, armchairs, or around the computer). If you find bed bugs in one area of your home, make sure do to a thorough inspection of other rooms such as bedrooms and any other areas where people spend a lot of time seated or resting.

The longer it takes to discover an infestation of bed bugs, the bigger the problem is likely to become. Make a habit of regularly inspecting for bed bugs, especially if you travel a lot or live in a multi-unit housing complex. Discovering a bed bug infestation early makes getting rid of them easier. Bed bugs will not just go away on their own. It will take an aggressive effort to get rid of them.

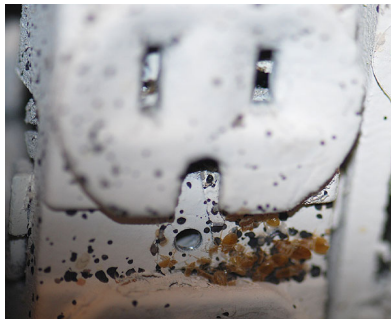


Photo by A.M. Barbarin, Penn State University



Photo by A.M. Barbarin, Penn State University



Photo by Richard Cooper from the Bed Bug Handbook

Step-By-Step Guide for Preparing Your Home for Bed Bug Treatment

Preparing your home for a bed bug extermination treatment can take a lot of time and energy. But, the better you prepare your home, the easier it is for the pest control company to come in and do an effective job. To better help you to prepare your home for bed bug extermination, follow the steps below.

What You Will Need:

- Access to laundry facilities
- A vacuum with hose attachment
- Clear plastic bags
- Cleaning products
- Caulk and a caulking gun

Step 1 - Cleaning:

- Bed bugs will hide in clutter. Get rid of all floor clutter (piles of clothes, toys, books, stuffed animals, etc.).
- Wash plastic or metal items with hot, soapy water.
- Empty bookshelves, cabinets, closets, and drawers so pesticides can be laid in every nook and cranny. Place clean items in plastic bags and seal the bags tightly.
- It is important to caulk and seal any gaps or cracks where bed bugs can hide. Use a caulking gun to fill all cracks in your baseboards, floors, and walls, as well as around exposed plumbing and fixtures.

Step 2 - Laundry:

- Put all clothing, bedding, and machine washable items in plastic bags and then empty them directly into the washing machine. Transfer these items from the infested room to the laundry area in sealed plastic bags to prevent from introducing bed bugs to new areas.
- Wash and dry the items on the Hot Water cycle and the High Heat cycle. Items that cannot be washed can be placed directly into the dryer. Dry all items on Hot Heat for at least 20 minutes.
- Place all clean and dry items in clear plastic bags and seal them tightly for the duration of the entire treatment process (the treatment process can take as long as 3 weeks or more).
- Be sure to keep a bag of clean laundry accessible that you can use during the treatment process.

Step 3 - Vacuuming:

- Vacuum floors, carpets, rugs, and baseboards.
- Vacuum under couch and chair cushions, as well as all seams; vacuum mattress seams, box springs, and bed frames.
- Vacuum curtains and blinds; vacuum inside drawers; vacuum the undersides and rear of wall units, kitchen chairs, hutches, refrigerators, and stoves.
- Seal the used vacuum bag in a plastic bag and dispose of it in a garbage area outside of your home.

Step 4 - Furniture:

- Move all furniture (couches, chairs, beds, lamps, etc.) at least 12 inches away from walls so that pesticides can be laid along baseboards and in all corners.
- Look behind picture frames and other wall hangings for signs of bed bugs. If signs of bed bugs are found, thoroughly clean these items.

Step 5 - Disposal:

- Throwing out furniture should only be done if necessary. Bed bugs will infest old and new furniture alike.
- Furniture or other items that must be thrown out should be securely wrapped in plastic wrap or a tarp before disposal to ensure that no bugs or eggs fall off on the way out.
- Make sure to mark (label) your disposed items clearly with "Infested with Bed Bugs" so that others will not be tempted to reuse these items.
- Do not take infested furniture to a second-hand store or sell at a yard sell. Dispose of such items properly. Dumping such items somewhere is not appropriate.

Remember to take care of stationary household pets. If you have a fish tank, turn off the air pump and cover the top. All residents and pets should stay out of the home during the treatment and for 4 hours afterward.



