

# BED BUGS:



\* - Not to scale; enlarged to show detail

## Guidelines for Best Practices in Prevention and Treatment

This document is meant to provide basic information about the biology and health significance of these pests, and to offer guidance on how to safely and effectively manage an infested location. The information contained in this document is intended to be used as guidelines – a document offering guidance – and is by no means an all-inclusive resource on all aspects of bed bug management.

City of Portland  
Health & Human Services Department  
Social Services Division



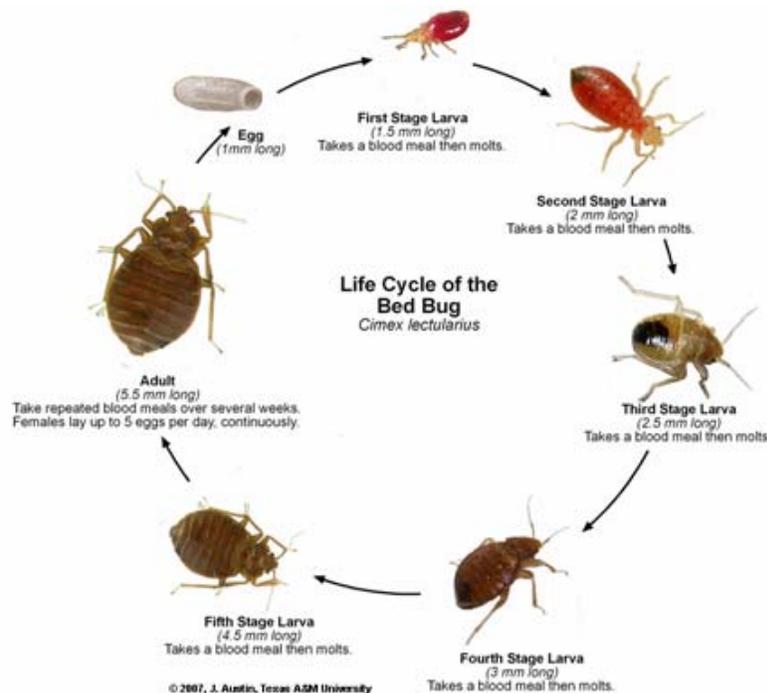
May 2008

## Introduction

Bed bugs are increasingly becoming a problem within residences of all kinds throughout the country; including homes, apartments, hotels, cruise ships, dormitories, and shelters. The common bed bug (*Cimex lectularius*), long absent from the United States for nearly thirty years, is back with a vengeance. Bed bugs spread easily, hide well, reproduce quickly, and are difficult to treat. With all prevention and treatment of bed bugs, it is important to be proactive and thorough.

## What Are Bed Bugs?

Bed bugs are in a group of parasites that live in the “nests” of their hosts. They are small, wingless insects that feed solely upon the blood of warm-blooded animals. Certain types of bed bugs inhabit bird nests and bat roosts and await the return of their hosts; while others have adapted well to living in the homes of people. By living in nests, bed bugs can feed when the host is not likely to notice them, and then can hide to avoid detection. These pests bite people typically when they are sleeping, resting, or sitting for long periods. Hungry bed bugs will move out from their hiding places in search of exposed skin. In heavy infestations, these bugs may also move into folds of clothing or under sheets to find a feeding site.



\*Not to scale

## Biology & Behavior of Bed Bugs

Bed bugs go through various stages during the course of their life cycle. They begin as eggs, hatching sometime between 6 and 17 days after they are laid. They emerge from the eggs as nymphs and begin feeding immediately. After its first meal, a bed bug will molt and grow to its next stage of development and begin feeding again. After five molts, the bed bug reaches maturity and begins to reproduce. A female bed bug lays between one and twelve eggs per day (average is approximately five eggs per day), and may lay up to 500 eggs in her lifetime.

Bed bugs are extremely hardy and can live up to 18 months without eating once. This means that bed bugs can be found in long-vacant rooms or abandoned furniture. ALL areas must be treated aggressively – even uninhabited rooms.

Bed bugs are nocturnal and spend the daytime hiding in cracks and crevices in walls, floors, and ceilings; in furniture and clothing; in seats in theaters, taxis, and on public transportation; and in any number of other areas. Although bed bugs cannot fly, they can run quickly and are small enough to easily go unnoticed. Bed bugs are generally introduced into a new space in one of three ways:

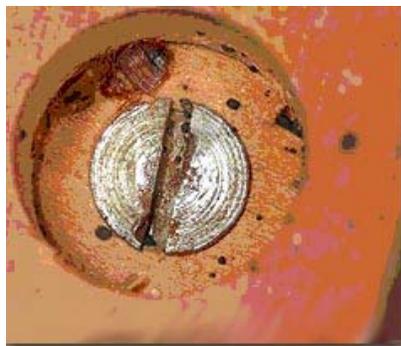
1. By falling, climbing, or jumping (they can jump no more than three inches) onto a person's clothing or belongings when he/she comes into contact with an existing infestation, allowing the bed bug to "hitch a ride" to a new home.
2. When someone brings used furniture, clothing or another item that is harboring bed bugs into the space.
3. By spreading through walls and floors from an adjacent infested unit.



Bed bugs at the seam of a mattress



Bed bugs in a mattress seam



Bed bug in wooden furniture  
(above the head of the screw)

As previously stated, bed bugs are nocturnal. They hide during the day but come out at night to feed, usually reaching the peak of their activity about an hour before dawn. Bed bugs are attracted to their hosts by carbon dioxide and warmth. Depending on its age, it takes a bed bug between 3 and 15 minutes to feed. When a bed bug bites, it injects saliva to prevent blood clotting and to numb the area. The bites inflicted by bed bugs can go unnoticed or be mistaken for the bites of other pests. All people are not equally sensitive to bed bug bites, so while some victims may break out in rashes from the bites, other people may not display symptoms. Even among people sleeping side-by-side, one person may show severe reactions while the other has no evidence of having been bitten at all. When a reaction does occur, the resulting feeling can be mild (a simple red spot) to severe (rash or even hives). One telltale sign of bed bug bites is a series of three bites in a row – sometimes referred to as “breakfast, “lunch,” and “dinner” – but bed bugs do not always bite in this pattern. The bites are usually concentrated on the upper body, especially on the face, neck, and arms. Bed bugs are not known to transfer any diseases and the bites are generally not at all dangerous, though in serious cases, excessive scratching may damage skin and a large number of bites may lead to mild anemia.

## Prevention

There are many things that can be done to prevent bed bugs, beginning during construction or renovation/rehabilitation. During construction and/or renovation, it is important to heed the following:

- Caulk, foam, seal, paint, and otherwise fill any cracks and holes in the walls, ceilings, floors, and furniture. Re-glue any loose wallpaper and patch cracked or peeling paint.
- Eliminate any bird, bat, squirrel, rat, mouse, and other animal pests in the building, as these animals can be vectors for bed bugs.
- Install hard floors (wood, tile, linoleum, etc.) instead of carpets or rugs if possible.

Furniture:

- Do not use built-in furniture, as it can prevent exterminators from reaching the bed bugs’ hiding places.
- Buy new furniture whenever possible, and check used furniture (including antiques) thoroughly to be sure that there are no bed bugs or eggs.
- Avoid upholstered furniture; opt instead for leather or vinyl. If upholstery is unavoidable, try to prevent bed bugs from reaching it by ensuring that the furniture stands on metal legs and that the fabric is at least a few inches from the floor and from any other pieces of furniture.
- Discard any mattresses and box spring with tears, holes, or other openings that would allow bed bugs to hide and lay eggs inside.
- Use metal or laminate bed frames, bookcases, and other furniture instead of wood. Bed bugs cannot climb up slick surfaces like metal and glass, and such materials generally do not provide as many cracks, screws, and other hiding places for bed bugs.

- Use vinyl, anti-allergy, or other covers on mattresses.
- Do not use bed skirts that drape down and touch the floor.

Prevention in occupied buildings requires many of the same tactics. In addition to the steps listed above, the following protocol should be adhered to in the prevention of bed bugs in an occupied dwelling:

- Assign responsibility to staff members (i.e. shelter staff, facilities crew, etc.) for various tasks, including educating residents, performing inspections, and performing treatment of minor infestations.
- Contract with a pest management specialist licensed with the Maine Board of Pesticides Control to provide monthly inspections and/or provide treatment in the event of an infestation.
- Hold staff training sessions for all staff involved to educate them about bed bugs: how to detect them, how to prevent infestations, how to prevent spreading once an infestation has been discovered, how to work with uncooperative residents, etc.
- Provide seal-able plastic bins for storage. Such bins are invaluable both in preventing the spread of infestations and in facilitating treatment. Though purchasing these bins requires a small up-front cost, it can save a great deal of money in the long run. The more cluttered and the less organized someone's belongings are, the more difficult and expensive treatment becomes.
- Make vacuum cleaners available to tenants so they can regularly vacuum their units. If you have a choice, opt for bagless vacuum cleaners that will be emptied into plastic bags and sealed after every use. If it is not a bagless vacuum, vacuum bags should be immediately sealed in plastic bags and thrown away.
- Encourage residents to wash clothes and bedding on a regular basis.
- Use sticky traps in units and throughout the building to monitor for any infestations before they become severe. This is a cheap and very effective way to catch an infestation as soon as it begins. Educate tenants on the use and importance of the traps. You should always check the traps for bugs during monthly inspections, and may, in addition, want to ask the tenants to check the traps themselves.

## Education of Residents

- Educate residents on the nature of the problem, the severity of an infestation, the need to treat it proactively, and the preventative steps that can be taken to avoid getting bed bugs in one's room.
- Stress to residents that bed bugs are not a sign of poor hygiene, and thus not something to be ashamed of. **Bed bugs can affect anyone, anywhere.** Encourage residents to come forward with infestations so that the bed bugs can be treated, and emphasize that there will be no punitive measures.
- Hold informational meetings. Have a pest management specialist licensed with the Maine Board of Pesticide Control speak at the meetings. Perform outreach to any residents not in attendance.

- Provide educational literature (FAQ's, "Bed Bug Basics," etc.) and information on building procedures to all residents.
- Establish rules and/or guidelines for residents. Examples include:
  - Do not enter an infested room.
  - Do not pick up used furniture.
  - If you pick up used clothes or bedding, be sure to wash and dry them on the hottest possible setting before bringing them into your unit.
  - If you suspect you've been in contact with bed bugs, wash and dry all clothes on the hottest possible setting. Thoroughly vacuum backpacks and any other belongings. Notify a building manager immediately.
  - Wash clothes and shower regularly.
  - Store clothes in plastic bins.

### **Procedures for Moving-In**

- Provide information about bed bugs and prevention/treatment procedures at initial interview.
- Encourage new residents to talk about potential exposure they may have had to bed bugs, perhaps through the use of a survey.
- Have new residents launder all clothes and shower **before** being admitted to their new unit.
- Consider designating a freezer to hold move-ins' belongings for a 24-48 hour period to kill off any bugs and eggs that might otherwise be introduced.
- Inspect new residents' units one week after arrival.

### **Procedures for Existing Residents**

- Provide all residents, new and existing, with proper storage and, in furnished rooms or apartments, furniture.
- Ensure that the resident understands and agrees to regular inspections.
- Follow up on all complaints and monitor infestation cases proactively. In some cases, residents may become panicked and assume any bite or mark of any sort is from a bed bug. Ease the tenants fears, but be sure to take every complaint seriously.
- Encourage residents to come forward and identify infestations by stressing that it does not reflect on them, and the management wants only to treat the bed bugs and will in no way inflict any sort of punishment.
- Educate residents to teach them how to identify an infestation and impress upon them the importance of coming forward if an infestation is discovered.
- If any unit is infested, treatment should be initiated immediately.
- Maintain records of all complaints and confirmed cases.

## Inspecting for Bed Bugs

Bed bugs are small and can be very hard to spot. Though they vary in size and color through the course of their life cycles, they are visible to a carefully trained eye. Look for the following:

- Adult bed bugs: Reddish-brown flat, oval bodies;  $\frac{1}{8}$  of an inch to  $\frac{1}{4}$  of an inch long (approximately the size of an apple seed).
- Nymphs: Like adults in shape, but translucent or whitish in coloring and as small as 1mm (about the size of a period in a newspaper). Nymphs in later molts are larger.
- Molted skins: Light brown dry molted skins.
- Eggs: Tiny, whitish and sticky – approximately  $\frac{1}{25}$  of an inch (about the length of two grains of salt or the size of a speck of dust).
- Excrement: Black, dark red, brown or rust-colored spotting and staining, particularly around seams on mattresses and bedding.
- Blood spots on sheets and pillows.
- In addition to visual evidence, seriously infested areas may have a sickly sweet odor sometimes described as smelling like “rotting raspberries” or “almonds.”



Bed bug compared to a penny for size-relation

Bed bugs can hide in any number of locations – Including some relatively surprising locations. They are usually found in highest concentration in, on and around the bed. Focus inspections, but don't overlook anything: Bed bugs can be found anywhere and everywhere. Generally, bed bugs tend to seek out dark and hidden places like cracks, crevices and holes, and they tend to prefer textured surfaces like wood, fabric, and paper over smooth surfaces like metal, glass and plastic.

Typical hiding places include:

- Mattress, box spring and bed frame: Particularly buttons, seams, and other nooks and crannies. Mattress covers should be removed from the bottom of the box spring for inspection. Remove the box spring and check the frame, particularly slats, joints, and behind the headboard up against the wall.

- Walls: Particularly in cracks, behind baseboards, picture frames, wall hangings, electrical outlets, wallpaper, and cracked or peeling paint; and in joints between walls or between the wall and the floor or ceilings. Check door and window frames.
- Floors and ceilings: Particularly in joints where the floor or the ceiling meet the wall, under floorboards, under rugs, and under tack boards in wall-to-wall carpeting.
- Chairs, couches, nightstands, drawers, and other furniture: Remove cushions from chairs and couches, and vacuum thoroughly, paying special attention to seams. Check cracks and crevices in all furniture. Remove clothes from drawers and wash; remove drawers from dressers and vacuum in, under, and around dresser.
- Check and vacuum lamps, alarm clocks, smoke detectors and all other electronic equipment and items near the bed.
- Clothes, bedding, backpacks, purses, and other belongings.

The following is a checklist that should be utilized on a monthly basis to help prevent an infestation of bed bugs:

- Inspect cracks and crevices in head & footboards, attached side railings and supports of your bed.
- Inspect mattress top, sides and bottom. Check all buttons, seams and any rips or tears.
- Inspect electrical switch and outlet plates and behind any pictures/decor on the walls.
- Inspect cracks in plaster or seams in wallpaper.
- Inspect electrical appliances; radios, phones, televisions, etc.
- Inspect tack strip under wall-to-wall carpet and behind baseboards.
- Inspect any secondhand/used items you bring home; including bedding, furniture, clothing, etc. The newer, better-designed mattresses do not offer as much shelter and protection for bed bugs to hide in.

## **Treatment of Bed Bugs**

There are several types of treatments used for bed bugs. Working with a professional pest management specialist licensed with the Maine Board of Pesticide Control is always the best way to determine proper treatment(s) for your situation.

- Vacuuming & Cleaning
  - Vacuuming, soap and water, alcohol-water solutions, and steam cleaning are basic treatment methods that can be very effective with minor infestations. Anything more than a minor infestation will require an additional type of treatment. First vacuum all suspected hiding places and then follow-up by wiping down all surfaces with soap and water and/or by steam cleaning, any of which should kill bed bugs and eggs in all stages of their life cycle.
- Freezing – Furniture and belongings may be frozen for a period of 24 hours to kill eggs and bugs. Beware of bundled or stacked bedding and clothing, as the

interior may be sufficiently insulated to prevent effective freezing of all bed bugs and their eggs.

- Heating – Bed bugs die at about 111-113° F. Possible methods of heating include: Dryers (for clothes and bedding), steam cleaning (for mattresses, baseboards, etc.) and placing items in sealed black plastic bags in direct sunlight for a day. As with freezing, beware of insulating bugs in bundled bedding or clothing.
- Preparation for Treatment
  - All personal items are to be removed from closets, drawers, etc. Clothes should be unfolded and laid out.
  - Washable and non-washable items should be bagged and sealed separately. Care must be taken to assure that there are no tears in the bags and that the bags are well sealed.
  - Washable items must be washed in hot water and dried on high setting.
  - Non-washable items may be discarded, left in the hot sun in black plastic bags, or frozen for a minimum of 24 hours.
  - Heavily infested mattresses should be bagged, sealed and discarded; other mattresses should be encased in vinyl covers and reused after the initial treatment of the room. Ideally, the mattress should be replaced with a new one after the final treatment.
  - If the area is carpeted, all furniture must be moved away from the walls so carpet can be pulled back for treatment of the tack strip. Heavily infested carpet should be bagged in plastic, sealed and safely disposed of.
  - All baseboard edges should be sprayed with a mixture of 50% alcohol/water solution and then well caulked.
- Treatment of Minor Infestations
  - Wash and dry all clothes and bedding.
  - Thoroughly vacuum and steam clean the area, paying particular attention to the typical hiding places previously mentioned.
  - Fecal spots should be cleaned with a disinfectant cleaner.
  - Flea powder should be vacuumed into vacuum cleaners after use to kill any live bugs inside the vacuum.
  - Always inspect clothing for bed bugs before exiting an infested area.
- Costs of Treatment

The costs of treatments are highly variable depending on the specifics of a given infestation, but are **very expensive** under any circumstances. It is far better to invest in preventative measures, inspections, and early treatments than it is to hold out and hope that your building gets lucky.



Bed bug bite marks to the back and abdomen

City of Portland  
Social Services Division  
FAMILY SHELTER  
Bed Bug-Related Policies & Procedures

Family Shelter apartment units should be set up in the following manner:

- Utilize metal bed frames;
- Utilize vinyl mattress covers;
- Utilize wire shelving for clothing storage (NOT wood/laminate bureaus);
- Utilize vinyl mini-blinds;
- No carpets or area rugs are to be used; and
- No fabric furniture; use only SOLID wood or preferably metal.

Family Shelter apartment units will be inspected on a regular basis. Inspections will look at the following:

- Units must be kept clean;
- Individual shelter room must be neat and organized; and
- Check mattresses for rips, tears, and discoloring around the outer seams.

The following should be avoided in order to minimize the risk of bed bug infestation:

- Clutter – Please maintain a clutter-free environment.
- Books & magazines – Please do not collect books and/or magazines as these items add to the clutter and offer ideal nesting environments for bed bugs.
- Piles of laundry & fabrics – Please do not allow laundry and/or other fabric items to collect in piles. Keep dirty laundry in hampers and use plastic bureaus to store clean laundry.

City of Portland  
Social Services Division  
FAMILY SHELTER  
Bed Bug-Related Policies & Procedures

LAUNDRY

When a new family enters the Family Shelter, the following procedures must take place:

- Inform the family that **ALL** laundry must be washed prior to entering the Shelter
- Determine how many pounds/loads of laundry the family needs to wash and dry
- Obtain a laundry voucher from the Administrative Assistant with the required information correctly filled out
- Make a copy of the laundry voucher and place copy in Laundry Voucher book
- Refer family to the laundromat and inform the family that must present voucher to the Laundromat clerk before any of their laundry can be washed/dried
- Inform the family to bring changes of clothing to the laundromat so they can change into CLEAN clothing and wash the clothing they were wearing
- Inform the family that if they are transporting the laundry in their own vehicle, it is imperative that the vehicle be free of bed bugs. If there is any doubt, the laundry should be placed in sealed clear plastic bags.
- All laundry vouchers must be used within 24-hours of being issued
- Family Shelter Program Coordinator will review the Laundry Voucher book on a monthly basis



City of Portland  
Social Services Division  
FAMILY SHELTER  
Bed Bug-Related Policies & Procedures

ALLOWABLE ITEMS

The City of Portland's Family Shelter is a temporary emergency shelter designed to shelter adults with children and provide basic necessities to meet each family's needs. The Family Shelter's units have limited space and it is **mandatory** that families limit belongings, including toys and stuffed animals, brought into the Shelter.

Items **NOT** Allowed in the Family Shelter:

- No household appliances; this includes televisions, stereo systems, and boom boxes.
- No furniture (i.e. chairs, couches, tables and lamps).
- No curtains or sheets over the windows.
- No personal bedding allowed (the Family Shelter will provide blankets and pillows).
- No towels (the Family Shelter will provide towels).
- No cardboard boxes.



City of Portland  
Social Services Division  
FAMILY SHELTER  
Bed Bug-Related Policies & Procedures

REPORT OF BED BUGS

If a client reports a suspected infestation of bed bugs or suspected bed bug bites, the following must be done:

- Refer the client to a Primary Care Physician (PCP), Homeless Health or Brighton First Care;
- Do NOT assume that the bites are actually from bed bugs;
- To minimize further infestation, do NOT relocate the client(s) to other areas of the shelter; and
- Notify the Maintenance/Facilities Crew to inspect the area(s) of concern.

Once an infestation is **confirmed**, the following protocol should be followed:

- Alert all necessary families of the infestation;
- Seal all bedding and clothing in **CLEAR** plastic bags; and
- Place all dishware and cookware in a sealed location (i.e. refrigerator).

Once a bed bug treatment has been scheduled with a licensed pest controller, the following must be completed:

- Strip the bed(s) and launder all sheets, pillowcases, mattress pads, and blankets in the hottest water possible for the fabric being laundered. Dry items for at least one (1) hour in the hottest cycle possible for the fabric being dried. Please make sure that washer/dryer is filled **ONLY** to  $\frac{3}{4}$  capacity. **DO NOT OVERLOAD.**
- Have all clothing and fabrics laundered (or dry cleaned) in the hottest water possible for the fabric. If a dryer is used, dry for at least one (1) hour in the hottest cycle possible for the fabric being dried.
- Remove stuffed animals/toys and have them laundered, dry cleaned, or replaced. Again, use the hottest water possible for the fabric being laundered. If a dryer is used, dry for at least one (1) hour in the hottest cycle possible for the fabric being dried.

- Clean and organize. It is time to throw away things you do not need/want. Discard cardboard boxes, shoeboxes, paper and plastic bags, old newspapers, stacks of magazines and similar items. A **clutter-free environment** must be maintained in order to access all areas and to eliminate where bed bugs can hide.
- Remove everything from bedroom closet(s) and place in plastic bags. This includes hanging items and anything stored on the floor. Remove everything from dresser drawers, nightstands, and dressing tables and place in plastic bags.
- Box springs and mattresses MUST be removed from the frame and stood against a wall.
- Vacuum all infested rooms. Besides the floor, also vacuum mattresses, box springs, couches, chairs, closets and closet shelves, shoes, and inside dresser drawers and bedside table drawers. After vacuuming an infested area, flea powder should always be spread on the floor and then vacuumed up to kill any bugs inside the vacuum cleaner. Vacuum bags should be immediately sealed in plastic bags and thrown away.
- Turn up the heat for several hours before the service begins to stimulate bed bug movement.
- For the first visit only, remove all faceplates from electrical outlets.
- The unit should be ventilated prior to re-entering. Please open doors and windows to ventilate the areas treated.
- Do **NOT** place **ANYTHING** on or around bed frame, box spring, or mattress.

#### **IMPORANT NOTES:**

- Discarding of any compromised (ripped/torn) materials or heavily infested items may be required. Discarded items must be disposed of immediately and marked to prevent re-use. Any item to be discarded should be tightly wrapped in plastic to contain any bed bugs within.
- Do not move items from heavily infested rooms/areas to other non- or less-infested rooms. Any items suspected of being infested MUST be pointed out to the pest controller prior to the service being performed.
- Dismantling of bed frames and other items may be performed as part of the service program.
- The pest control company will remove the cheesecloth covering the underside of the box spring and other furniture for proper inspection and/or treatment. This cheesecloth covering **WILL NOT** be re-attached.

- Mattress covers should be placed on box springs and mattresses **AFTER** the initial pest control service. Place mattress covers on **AFTER** the service and seal the zipper of the cover with tape. Keep the mattress cover on the mattress and box spring as long as the cover is not torn or ripped. When tears or rips occur, replace the cover. Mattress covers are available from several web sites (Google search "mattress covers") or local stores such as Wal-Mart, Linens & Things, etc. The quality of covers will vary. As a rule, the better quality covers will last longer and are less likely to tear or rip. Mattress covers should be placed on new mattresses and box springs also.
- Staining may also occur on surfaces as a result of pest control treatments contacting dry blood that is left behind by the bed bugs.
- A clutter-free environment **MUST** be provided in order to allow access for the pest control operator to treat all of the needed areas and to eliminate hiding areas.
- Once the treatment is completed and **BEFORE** removing all bagged items from the bag, the items must be inspected for pest activity by the resident.
- The resident should not touch or move any monitoring/control devices that are placed out as part of the service.
- Only pest management specialists licensed by the Maine Board of Pesticides Control are permitted in the area during the treatment. **ALL** other occupants must vacate the premises and not return until authorized by the applicator.
- Insecticide treatments **MUST NOT** be performed by the resident.
- Please note that failure to follow these preparation guidelines **WILL** result in less effective treatment of bed bugs.

City of Portland  
Social Services Division  
Bed Bug-Related Policies & Procedure

HOME VISITS

When conducting home visits where you are certain or suspect bed bugs are present, we suggest the following:

- Leave your backpack, tote bag, pocketbook, and other personal belongings in your office/car. This way you will not be tempted to place it on the floor, in a chair, etc. If you forget and bring any items with you, carry them on your person, instead of putting it somewhere in the apartment.
- Stand in the middle of the living room, kitchen or where ever you are comfortable. Do not lean up against the walls, doors, stoves, or sit on any cloth furniture. Wooden furniture is acceptable, but you still want to be careful!
- If you wear your coat, it is recommended that you leave it in your vehicle, you can take it off but carry it with you as opposed to taking it off and draping it over the furniture, doors, etc. Avoid wearing slacks/pants with cuffs, long skirts or other apparel that will drag on the ground. Also avoid wearing multiple layers.
- Leave alcohol wipes in your car so you can wipe down you shoes upon leaving. We also suggest shaking out your clothes/coat.
- If your visit is going to be extended, bring a change of clothes and change when you get back to the office. Place your clothes in a clear plastic bag and wash in hot water immediately when you get home.

City of Portland  
Social Services Division  
Bed Bug-Related Policies & Procedure

FACILITIES PEST CONTROL PROCEDURES

The Social Services Division has the capacity to handle most pest issues internally. We have a Commercial Applicator/Master Certification on staff within our Division. Any insect or pest problems should be reported to the Social Services Division Administrator, Facilities Manager or, in the absence of the Facilities Manager, our Commercial Applicator on staff.

Please adhere to the following if/when an insect or animal pest problem arises:

- Notify the Facilities Manager or the Commercial Applicator with the location and nature of the problem.
- The Facilities Manager and/or the Commercial Applicator will conduct a site survey and the information collected will be analyzed.
- A plan of action will be formed. The plan of action will meet all criteria set forth in the State of Maine Core Pesticide Education Manual and the Category 7A Industrial, Structural and Health-Related Pest Management Manual.
- In the event of any pesticide application, employees and shelter residents will be notified in the proper manner prescribed by Code of Maine Regulation 01-026, Chapter 26.

City of Portland  
Social Services Division  
Bed Bug-Related Policies & Procedure

TIPS FOR SHELTER CONSUMERS

There are some precautions consumers can take to minimize exposure to bed bugs while staying at a homeless shelter. Below are some suggestions to assist consumers:

- When staying at a shelter, be sure to utilize the shower and laundry facilities on a daily basis.
- Request a clear plastic bag to keep belongings in. This will limit the bed bugs ability to nest in clothing, backpacks, etc.
- If signs of bed bugs are present, alert staff immediately.

## **RESOURCES & REFERENCES**

Atlantic Pest Control, <http://www.atlanticpestsolutions.net/>

Bay Area Local Initiatives Support Corporation (LISC) and the Bed Bug Task Force,  
Bedbugs: Guidelines for Best Practices in Prevention & Treatment,  
<http://sinope.redjupiter.com/gems/lisc/Guidelines07.06.pdf>

City of Portland, Health & Human Services Department, Social Services Division, Family  
Shelter Policy & Procedure Manual

Harvard School of Public Health, <http://www.hsph.harvard.edu/bedbugs/>

Maine Department of Health & Human Services, Maine Center for Disease Control and  
Prevention, <http://www.mainepublichealth.gov>

University of Minnesota, Control of Bed Bugs in Residences, Dr. Stephen A. Kells,  
Assistant Professor; Jeff Hahn, Extension Professor  
<http://www.extension.umn.edu/distribution/housingandclothing/DK1022.html>

It is strongly recommended that a Pest Management Specialist licensed with the Maine Board of Pesticides Control be utilized for positive pest identification and all pesticide applications. Licensed applicators have the experience and knowledge in bed bug control strategies along with the proper equipment to apply pesticides into cracks and crevices. In addition, licensed applicators can use more effective pesticides with residual properties that continue to kill bed bugs after they've been applied. For a listing of licensed applicators in the State of Maine you may contact:

Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333-0028  
Tel 207-287-7545  
Fax 207-624-5020

<http://www.ThinkFirstSprayLast.org>  
<http://www.YardScaping.org>