

# BED BUGS: A GUIDE FOR CONGREGATE LIVING SETTING OPERATORS

Bed bugs are pests that are often found in temporary accommodations, apartment buildings, and sometimes, congregate living settings (CLS). A thorough intake process and routine monitoring of areas where bed bugs may hide can help prevent them from infesting your CLS. This resource provides guidance to CLS operators on how to include Integrated Pest Management (IPM) strategies into daily operations to prevent and manage bed bug infestations.

The goals of an IPM are to:

- Use chemicals only when necessary
- Take measures to prevent, detect, and eliminate the pest problem early
- Teach staff and residents how to manage bed bugs in the CLS
- Always be aware that bed bugs can become a problem in your CLS

## WHAT ARE BED BUGS?

Bed bugs are parasitic insects that only feed on blood. Before feeding, they are about one quarter of an inch long and flat as paper. After feeding, they turn dark red and become bloated. Bed bug eggs are whitish, pear-shaped and about the size of a pinhead. Clusters of 10 to 50 eggs can be found in cracks and crevices around your house. Bed bugs have a one-year life span during which a female can lay 200 to 400 eggs that hatch in about 10 days.



Bed bugs mostly bite at night but can also bite throughout the day. Bed bugs bite around the face, neck, upper torso, arms and hands and can survive for up to six months without feeding.

Between feedings, bed bugs hide in dark protected areas such as mattress seams, pillows, cracks in the bed frame, drawers, behind baseboards, in floor cracks, behind posters or wallpaper, in curtains, behind electrical plates, and in telephones. Bed bugs do not fly or jump but move by walking. Bed bugs can travel between rooms through pipes, electrical wiring, and other openings. However, they usually travel from place to place on clothing, bedding, or luggage. The movement and behaviour of bed bugs are important to consider when developing an IPM strategy and policies.

There are no reported cases of bed bugs transmitting disease to humans. Bed bugs and bed bug infestations are not considered a direct health hazard. However, secondary health concerns can occur, including skin infections and allergic reactions from bites, as well as the stress and anxiety of dealing with extreme infestations. Rarely, some individuals may be allergic to the saliva injected while the insect feeds, which results in painful swelling.

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## PREVENTING BED BUG INFESTATION

### 1. Ask new residents if their most recent place of residence had bed bugs

If they did, ask that they immediately wash and dry all their clothing and any personal items made of fabric (e.g., plush toys, etc.) to prevent bed bugs from entering your CLS. If they carry their items in a knapsack or similar bag, have them wash and dry the bag as well. Washing helps but drying is the most effective step. If drying is your only option available, place the items for 30 minutes in a dryer at 35°C or hotter. This will generally kill bed bugs. The hotter the temperature, the better.

### 2. Ask the resident if they have bed bug bites

If they do, laundering fabric items becomes even more important. The bed bugs will be killed, and clean items will reduce chances of infection in sores caused by scratching the bites. If there are infested items that cannot be laundered or steam cleaned, they should be discarded immediately.

**NOTE: Have some clean spare clothes ready during intake so that all clothing used by the client can be laundered immediately.**

### 3. Record Keeping

When residents tell you that they have been bitten, record and track the information:

- The date
- The number of people affected
- Which sleeping area and/or part of a sleeping area involved

This information is valuable for your pest control operator (PCO) and helps staff monitor the severity of the infestation and inform decisions about mitigation options

### 4. Inspect Donations of Furniture and Clothing

Before accepting and bringing any donated furniture or clothing into the CLS,

- Use a flashlight to inspect the item(s) carefully
- Pay special attention to the cracks, crevices, seams and folds
- Vacuum and/or steam upholstered furniture and mattresses before using
- Put all donated clothing through a dryer cycle to kill any bed bugs or eggs

### 5. Maintenance and Housekeeping

- Maintain the facility, equipment, and furniture in good repair to eliminate hiding places for bed bugs
- Regular housekeeping to ensure there is minimal clutter to reduce hiding places
- Routine cleaning and disinfection of surfaces and equipment helps maintain general cleanliness
- In CLS with **no known bed bugs**, checking the vacuum contents can help detect early activity

## 6. Monitor

Staff play a critical role in mitigating bed bugs in sleeping areas. Regular monitoring for bed bugs is an important part of having a safe, and livable environment. Schedule routine inspections of beds and bedding to support early detection. Insect glue boards are valuable as an early warning tool. They can capture bed bugs that may not be easily visible during routine checks.

**NOTE: For facilities that share staff or equipment, stop sharing or transporting items when a bed bug infestation is suspected or confirmed to prevent continual spread.**

| Do                                                                                                                             | Do not                                                           |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Using the facts and a calm, reasonable manner, inform clients and staff that bed bugs are present in the CLS                   | Panic – bed bugs can be controlled                               |
| Record all occurrence(s) including who was affected, where it happened, when, how many bites or bugs were observed.            | Throw out all the bedding and belongings                         |
| Let your manager/owner know if the problem continues                                                                           | Think the problem will go away on its own                        |
| Encourage the person who was bitten to continue to stay at your CLS                                                            | Delay taking actions needed to minimize the presence of bed bugs |
| Manage the storage of belongings differently and adjust the intake process                                                     | Move the bed to another area                                     |
| Increase access to laundry services                                                                                            |                                                                  |
| Contact your pest control operator to make sure you have an effective IPM strategy in place – before an infestation t happens! |                                                                  |
| Remove clutter from sleeping areas                                                                                             |                                                                  |

## MANAGING A BED BUG INFESTATION

Once bed bugs are found, a quick response is needed to prevent further spread throughout your CLS. There are many ways to reduce bed bug activity in CLS, but no single method will prevent bed bugs entirely. A combination of approaches needs to be implemented.

### 1. Contact Your Pest Control Operator

Contact your PCO to ensure that an effective IPM strategy is in place.

### 2. Check the Bed and Bedding

Finding bed bugs early helps reduce their spread in your CLS.

Some places to check for bed bugs include:

- Check a sample of bedding in the morning
- Look for small blood stains on the bedding
- Look for live bed bugs inside pillowcases
- Check around the elastic area of a fitted sheet

- Check the folds of the mattress and the areas where the bed touches the bed frame

Laundering bedding is an effective step in reducing the spread of bed bugs. If the mattress is washable, wash the entire surface, especially the folds and seam areas, as this can help reduce bed bugs.

### 3. Laundry

Washing and drying clothes and other fabric items can reduce the number of bed bugs in a facility. Drying is the most important step.

- Wear appropriate personal protective equipment (PPE) before handling laundry (i.e., gloves, shoe covers, gown)
- If laundry needs to be sorted before washing, place all items into the bathtub to sort
- Place sorted laundry inside separate garbage bags for transport to the laundry room
- Rinse excess bugs down the drain
- Before leaving the client's room, remove gloves, gown and shoe covers at the door. Discard them in a plastic bag, seal it tightly, and dispose of it outdoors in the garbage or in a designated dumpster. Perform hand hygiene after removing PPE and after disposing of garbage
- At the washing machine, put on clean gloves and empty laundry directly into the washing machine from the plastic bag. Remove gloves and perform hand hygiene again
- Wash all laundry in hot water and dry in a hot dryer for 30 minutes or more
- After laundry is cleaned and dried, store items in a tightly sealed container or bag until the affected area(s) have been treated by pest control services or there are no more bed bugs present in the CLS

### 4. Steam

Steam is an effective method for killing bed bugs. Rent or purchase a steamer and apply steam to mattresses, bed frames, carpets, rugs and curtains in your CLS. Move slowly when steaming, if it is too fast the heat won't penetrate deeply enough.

- Steam is effective at a depth of 3 cm from the surface of the material that is being steamed.
- The steam must be 70°C or hotter to kill bed bugs and their eggs

### 5. Vacuum Often

- In CLSs **with bed bugs**, vacuuming removes bugs from dark, hidden spaces where they rest during the day
- The wand attachment helps you vacuum the spaces where mattresses meet the bed frame, along baseboards, behind and in the folds of furniture, in cracks in the floor or wall, along the edges of windows, in the folds of curtains, and in carpets and rugs
- Empty your vacuum cleaner immediately and seal the contents in a sealed bag before disposing of it

### 6. Storing Belongings

Proper storage of personal property helps prevent bed bugs from spreading. This is important for items that cannot be laundered or steam cleaned. Store these items in a sealed plastic bag, such as a large garbage bag. While this may not kill the bed bugs, it will prevent them from travelling within the CLS. Next, choose a storage location away from the sleeping area. Bed bugs cannot survive if they are far away from their food source (humans) or if they are exposed to heat (35°C or hotter).

Placing small items in the freezer for prolonged periods of time will kill some, but not all bed bugs. With the client's permission, place the sealed bag of items in a freezer that is -19°C or colder for four consecutive days. Air must circulate around the items. If the freezer is packed too tightly, the temperature may not stay cold enough to kill bed bugs. After freezing, keep items sealed in the bag until the CLS has been treated or until the client needs them. **NOTE: The freezer used for this purpose cannot be used for food storage. Items must not enter the kitchen or any other food preparation or storage areas.**

To reduce the chances of re-infestation, items should be inspected for the presence of bed bugs before being returned to the clients for use.

## **7. Bed Position and Bed Frame**

Bed bugs do not fly, and it is very difficult for them to walk on polished surfaces. This is why the position of the bed, choice of furniture material, and treatment of the bed frame are important. Bed bugs have difficulty climbing up metal bed frames, especially if the legs of the bed are wiped with a cloth every few days to keep them smooth and shiny. If possible, replace all existing wooden bed frames and wooden legs with metal ones. Move the bed 3 to 6 cm away from walls and other fixed furniture to eliminate one of the ways bed bugs can access the bed. Make sure blankets and sheets do not touch the floor.

Making changes to the bed frame, especially wooden frames, can be done in many ways:

- Seal all wood with a glossy wood sealer
- Apply a 3 cm band of petroleum jelly, such as Vaseline, around each leg
- Place each leg of the bed in a clean, polished metal can, such as old soup tins, or wrap each leg in metal tape
- Wrap double-sided tape around the bed legs, making sure the tape is tight, or the bugs will crawl underneath it
- Place an insect glue trap under each bed leg
- Wipe legs of the bed with a cloth every few days to keep them smooth and shiny
- Consider replacing existing wooden bed frames and wooden legs with metal ones

## **8. Small Mattress Tears**

Small mattress tears are a chance for bed bugs to go deeper into the mattress during the day. If you cannot replace a torn mattress immediately or cover it, stitch the torn area or apply heavy-duty tape, such as duct tape, as a temporary solution.

## **9. Eliminate Other Daytime Hiding Places**

It is important to caulk or fill daytime hiding places such as in and along cracks and crevices of baseboards, walls and floor. If bed bugs are present:

- Remove all posters, wall art, or other things on the wall that can be hiding places
- Repair or remove wallpaper if bed bugs are found behind it
- Choose curtains with fewer folds or seams, as these provide fewer hiding places
- Seal any cracks and crevices
- Remove unnecessary clutter

## **12. Resident Transportation During a Bed Bug Infestation**

If you are transporting a resident in your vehicle:

- Place a bed sheet over the passenger seat
- After delivering the client, roll the bed sheet into itself to contain bed bugs. If transporting additional clients, shake the bed sheet outdoors and replace
- Once transport is completed for the day, place the sheet in a plastic bag to be laundered
- Avoid storing bags, purses, and coats inside the car or trunk (overnight or after transporting clients)
- Vacuum the car upholstery occasionally
- Use a stiff brush on seams and crevices before vacuuming to dislodge bed bugs and eggs

### 13. Never Stop Monitoring, Cleaning and Treating

This pest is tough. Never think that the problem is gone. Monitor, clean, and treat the problem, and make this a part of your standard daily operating practice to prevent infestation.

### 14. Re-Opening the CLS/Room After Pest Control Treatment

After the CLS/room has been treated, the following measures shall be taken prior to admitting new residents:

- Walls, bed frames, dresser tops, etc. should not be washed down for fourteen days or as recommended by the PCO, as this will remove the residue that will kill bed bugs that were not killed by the initial spraying. Monitoring of residents to ensure they practice hand hygiene is important
- Floors may be vacuumed, as this will not affect the residual effect of the treatment
- If any live bed bug is found after treatment, it should be reported to the building site manager **immediately**

## COST

Managing the costs of bed bug control requires rethinking processes and investing in strong preventive measures for your pest control program.

There is no standard cost for treatment because many variables affect pricing. However, prevention is always cheaper than managing active infestation.

## CONCLUSIONS

Bed bugs are an issue beyond the walls of your facility. Reducing transmission within your CLS and between facilities requires ongoing dedication. There are several common-sense, cost-effective strategies that can be implemented to prevent and minimize bed bugs from taking a foothold in your facility as outlined in this document. Implementing these strategies as part of the IPM approach will significantly improve your ability to manage and control bed bugs.

## RESOURCES

City of Toronto (n.d.). *Bedbugs: A Handbook for Shelter Operators*. Resources.  
<https://www.toronto.ca/community-people/community-partners/emergency-shelter-operators/references-and-resources/bedbugs-a-handbook-for-shelter-operators/>

Winnipeg Regional Health Authority (n.d.). *WRHA/WIS Community Health Services Protocol For Bed Bugs In Client's And Staff Homes*. Winnipeg Regional Health Authority.  
<https://professionals.wrha.mb.ca/files/BedBugProtocol.pdf>

Government of Canada (2022, December 15). *Bedbugs - what are they?*. Pest control tips.  
<https://www.canada.ca/en/health-canada/services/pest-control-tips/bedbugs-what-are-they.html>