Bedbugs 101

A campus guide for bedbug procedures.
Introduction

The University of Richmond is committed to an effective and organized response to assist students who suspect they might have bedbugs. The University of Richmond has established bed bug procedures and works closely with a licensed pest control service expert.

It is important to know that a bed bug infestation can happen to anyone. Bed bugs have become increasingly common with the number of reported infestations growing exponentially over the past decade. Bedbugs have emerged in greater numbers in the United States, spreading through hotels, apartments, airports, movie theaters and college dormitories, among other places. Bed bugs are great hitchhikers and can travel easily from place to place in luggage and personal belongings. Greater worldwide travel and mobility have contributed to increasing infestations.
FAQs

What are bedbugs?
Bedbugs are small wingless oval-shaped bug with a flat body, approximately the size of an apple seed. They survive by feeding on blood typically at night and on humans.

Where do bedbugs live?
Bedbugs tend to live in very small spaces, such as:

- In seams of mattresses
- Behind bed headboards and bed frames
- In cracks and crevasses of walls and baseboards
- In electrical outlets or electronics
- In furniture and drawers
- In seams of curtains that touch the floor

How do bedbugs get into a resident’s room?
Bedbugs are nature’s hitchhikers and travel from place to place on personal belongings, such as luggage, backpacks, furniture, boxes, clothing, etc., that have been exposed to bedbugs in another location, such as airports, hotels, and movie theaters. Bedbugs are rarely spread from person-to-person contact.

What are the signs of a bedbug infestation?
- **Seeing the bugs:** Adult bed bugs are about the shape and size of an apple seed.
- **Case skins:** As the juvenile bugs grow, they shed their skins, discovery of which can indicate their presence.
- **Defecation:** After feeding, bed bugs return to their harborage to hide where they defecate black to brown stains on surfaces.
- **Bites:** Also may indicate bed bug activity, but further signs will need to be found, since other sources can cause red welts also on the skin. Bites are commonly found on the parts of the body that are more likely to be exposed to bed bugs during sleep.

Do bedbugs spread disease?
Bedbugs feed on the blood of humans; however, there is no evidence that they transmit any diseases. They can cause discomfort by leaving tiny bite marks on the body that in some people can form rashes and itching, similar to mosquito bites.
Why is it important to promptly report the suspicion of bedbugs?
Bedbugs multiply quite rapidly, increasing the probability that they move to other locations, such as adjoining rooms. Students can also carry bedbugs home with them on breaks, so treating before leaving campus is essential.

How does one report a suspected infestation?
During business hours, the student(s) should contact Office of Residence Life and Undergraduate Student Housing at 804-289-8930.

At night or on weekends, the student(s) should go to one of several RA duty offices—Freeman Hall, Gateway Village, and Westhampton Center—and report the problem to the resident assistant on duty. These offices are open from 8:00 pm–1:00 am, Sunday through Thursday nights, and 8:00 pm–3:00 am, Friday and Saturday nights.

If a problem occurs outside of duty office hours on nights or weekends, the student should contact the resident assistant in their building.

The resident assistant will contact the area coordinator on call. The area coordinator will talk to the student about the university’s procedure for the suspicion of bedbugs, which in most cases will require waiting until the next business day until action is taken. The area coordinator will contact facilities so that they can make preparations for a response on the next business day.

Generally, how do we get rid of bedbugs?
Heat treatment is the most effective way to eliminate bedbugs and their eggs. It has the highest success rate and that success rate is also dependent on the proper preparation of the room prior to the treatment. Pest management professionals say clutter is the biggest challenge to successful treatment, so cleaning up the clutter will allow the heat to do its job.

What is heat treatment?
Hot air is pumped through a large flexible hose into the resident’s room in order to raise the interior air and surface temperatures to 130°, which is well above the effective temperature for killing bedbugs and their eggs. That temperature is maintained for several hours to ensure extermination.

Specifically, what does the University do to get rid of bedbugs and help those affected?
The Facilities department contracts with a licensed pest control company to provide heat treatment to the affected room(s).

Facilities also coordinates with housing a temporary room for student(s) during treatment, including the provision of all linens and a backpack for use during the treatment. Also provided are specific instructions in order that the student(s) prepare their rooms and belongings for the treatment period, and a name and contact information of a Facilities contact person, who is available throughout the process.
**What is the student(s’) role in this process?**
Students are required to promptly report a suspected infestation. Once bedbugs are confirmed, the success of the treatment depends entirely on how well the student(s) have prepared the room. Student(s) are expected to follow all instructions from University officials, and to cooperate fully in the treatment process.

**How does the University communicate with students about bedbugs?**
The University has posted information and an FAQ page on its website to educate individuals on bedbug prevention and treatment.
At a Glance: University Procedure for Eradicating Bedbugs

Student suspects bedbugs.

Student informs Housing; Housing contacts Facilities; Facilities contacts Pest Control Contractor.

Pest Control Contractor inspects room (typically next business day) and informs Facilities of results.

Facilities coordinates with Housing a temporary room assignment and provides specific instructions to affected student(s).

Affected student(s) prepare the room following specific instructions given.

Facilities works with Pest Control Contractor to schedule treatment.

Pest Control Contractor treats the room and notifies Facilities when room treatment is completed.

Facilities washes and dries bed linen, and tidies and vacuums the room for student return.

Facilities notifies student(s) when they can move back into their room.
Student Instructions

Your living area, (location), will be treated for bedbugs. This procedure requires your full cooperation. All instructions below and any instructions received verbally must be followed exactly as given. If you have any questions regarding the instructions, call Facilities at 804-289-8600 and ask for Allison Steele or Scott Lincoln.

Treatment involves three steps

- Preparing the room for treatment
- Treating the room, by raising the temperature to above 130° for a period of 4-6 hours to kill bedbugs and their eggs
- Cleaning the room and preparing for you to move back in.

Schedule

- Treatment of your room will take place (date and time).
- Your temporary room assignment (location). You will need to move there by time (day, date).
- You will spend a minimum of two nights in the temporary location; the night before treatment and the night of treatment.
- You will be notified via email of the time you may reenter your room by Facilities.

University Facilities department will provide:

Delivered to your regular room:

- Keys to the temporary room
- Several large plastic bags and a plastic storage container to serve as your suitcases to move your belongings to the temporary room. Do not use your own luggage or any bags from your room; they may harbor bedbugs.

Delivered to the temporary room:

- Bed linens, comforter, and pillow
- Towel and wash cloth
- A backpack to carry your books/belongings in around campus

The student’s role

The student’s role in this process is important. Please follow these instructions closely.

You will use plastic bags and containers to transport your belongings to the temporary room. Do not use your own backpack, luggage or any bags from your room.

It is not recommended that you stay with a friend; it is very possible you could carry bedbugs or their eggs with you to your friend’s room. You will read below very specific procedures to avoid carrying the bugs with you to your temporary assignment. If you carry the bugs with you to the temporary room, then you will carry them back to your heat-treated room and nothing will have been accomplished.
When you return to your room, we want to be as certain as possible that no bedbugs are carried back in.

Instructions for preparing your room for treatment and moving to a temporary location

This is an overview of the process. You will also receive a step-by-step checklist to help you follow all these instructions.

It is important to follow all instructions in order to eliminate the bedbugs. Failure to do so may, and probably will, prevent success. We are a team in this effort, and it’s important that we all do our part.

If you have questions or concerns from this point forward, please call Facilities at 804-289-8600 and ask for Allison Steele or Scott Lincoln.

1. **Remove clutter**
   It is difficult for heat to travel into high piles of clothes and clutter. Pest management professionals say clutter is the biggest challenge to infestation prevention. You need to throw out trash and pick up personal items from the floor. Clothes should be in drawers or hanging in the closet. In essence, straighten your room up. Move anything on the floor of your closets to the floor in the center of your room.

2. **Move heat sensitive items**
   The following items should be placed in your room or hall refrigerator due to heat sensitivity:
   - Aerosol cans and other combustible items
   - Wax, crayons, lipstick and other cosmetics or products that could melt
   - Household cleaners, medicines and vitamins
   - Oil paintings, acrylics (art work), paintings and pictures
   - Paint (both spray and canned).
   - Arts and craft items that are assembled with hot melt glue.
   - Hygiene products (i.e. shampoo, deodorant, liquid soap, etc.)
   - Fresh fruits and vegetables, shortening, chocolates, carbonated beverages, wines, liquors

3. **Gather your essentials for the next two days**
   - **All items except clothing:**
     In the provided plastic container, place all items you will need for a minimum of two days and nights (instructions for clothes in #4 below). Use the container for toiletries, medications, books, necessary electronics and anything else you need over the next couple of days. Please carry only the necessities and keep as many of your belongings as possible inside the room during treatment.

     Do not take backpacks, laptop bags, wallets/purses, luggage or any other similar items with you. They are notorious for transporting bedbugs and will likely cause re-infestation when you return.

     *Note:* You will not be able to go in your room once treatment starts.

   - **Clothing:**
This is the most time-consuming part, but it is also the most important part of preparation. Failure to follow these instructions is likely to cause re-infestation.

The key to the whole process is this: anything that could possibly have bedbugs or their eggs (cloth and/or anything with seams/stitching) needs to stay in the room to be heat-treated, and anything that you have to have with you in the temporary room should not go in unless it has been wiped off, washed and dried, or dried on high heat for a minimum of 20 minutes.

- Clothes that you need to wear to the temporary room and for the next couple of days must be washed and dried on the highest temperature possible before taking them with you to the temporary room to prevent the possibility of carrying bed bugs with you.

- Dry clean items, shoes, and other non-washable cloth items that you need for the next couple of days should be tossed in a hot dryer for a minimum of 20 minutes— this includes ball caps, handkerchiefs, gloves, coats----anything that can go in a dryer without damage. It is heat that kills bedbugs and their eggs.

- Carry all the clothes to the laundry room in a plastic bag. Wash and dry them on as high a heat setting as possible. Throw the emptied plastic bag away.

- After drying the clothes, place one set of clothes that you will wear to your temporary room in one clean plastic bag and the remainder of the clothes needed for the next couple of days in a separate plastic bag.

- Carry the two bags of clothing back to your room. Place the bag with the clothes you will wear to the temporary room in your bathroom. Leave the other bag of clothes in the hallway outside your room door.

- Go into your bathroom and take a shower. Leave the clean clothes in the plastic bag until; after you have showered. Once dressed, place your “dirty” clothes in that plastic bag, tie a knot in the top and toss it back in your room so they will be heat-treated. Place your towels and any other fabric items that were in the bathroom inside your room also, so they will be heat-treated.

4. **Leave your regular room for the temporary room**

Once you have taken your shower and put on the clean clothes, pick up the plastic bin you have packed with your belongings and immediately leave the room. Please lock your room door when you leave. Take with you the bag of clean clothes that you had left in the hall.

Once you have followed these instructions and left your room, Facilities staff will change the lock on your room door the morning of treatment to avoid anyone entering the room during treatment. We will change the lock back by the time you return.
Treatment procedures
The company treating the room will pull clothes out of dresser drawers and closets in order to allow the heat to permeate thoroughly. This means the temperature of all surfaces, including clothes, must be raised to a minimum of 130°.

There will be several thermostats placed throughout the room to verify temperatures. The technicians will remain outside the room during the entire process monitoring these thermostats via a laptop. Occasionally, they will go inside to move things around a bit to ensure heat permeation.

You may find that furniture, clothes, and other personal items have been moved. This has been done to facilitate the movement of heated air throughout your room to accomplish heat penetration in items like mattresses, box springs, sofas, and inside wall voids, as well as other hard to reach areas. Facilities will respect your room and make every effort not to disrupt it any more than is absolutely necessary to achieve the common goal of complete bedbug control.

After Treatment
The following morning, your bed linens will be washed and dried by Facilities staff and returned to the room in large plastic bags. If we know which linen goes on which bed, we will make the beds for you. Facilities staff will vacuum and tidy the room after the treatment.

Facilities will email the student(s) when they are able to return to their room.

When you leave your temporary room...
...to move back to your room, please leave all the University-provided items, including the backpack, in the temporary room. Leave the key on the dresser and lock the door when you leave. You may use the plastic containers to carry your belongings back to your room. Facilities staff will pick them up on the afternoon after treatment so please be sure they are empty.
Student Checklist

Please comply with the following instructions, in the order given, to avoid a re-infestation of your room.

Prepare room for treatment...

☐ Throw out all trash.
☐ Put all clean clothes away in drawers or hang in closets. Dirty clothes may be left on the floor in the center of the room or in an open clothes hamper.
☐ Move everything from the floor of the closets to the floor in the center of the room.
☐ Place the following items in your room or hall refrigerator due to heat sensitivity. They can also be placed in your bathroom. The bathroom will not be heat treated.
  o Aerosol cans and other combustible items
  o Wax, crayons, and other items or products that could melt
  o Household cleaners, medicines and vitamins
  o Oil paintings, acrylics (art work), paintings and pictures
  o Paint (both spray and canned)
  o Arts and craft items that are assembled with hot melt glue
  o Hygiene products (i.e. shampoo, deodorant, liquid soap, etc.)
  o Fresh fruits and vegetables, shortening, chocolates, carbonated beverages
  o Vitamins, medicines, and artificial sweeteners.

☐ Gather any items you need for the minimum of 2 nights, including toiletries and class materials. Take only the essentials, thoroughly wipe them down, and place these items in the plastic container and cover them with the lid. Do not take book bags, laptop bags, purses, or gym bags with you. They are notorious for transporting bedbugs and will likely cause re-infestation when you return. Leave the container on the floor in the center of the room while you deal with your clothing. Do not place anything on or near the bed.

☐ Choose 3 sets of clothes: one set to wear to the temporary room and 2 sets to wear for the next two days. Place the 3 sets in one of the plastic bags provided by Facilities.

Prepare to move to the temporary room...

☐ Carry all the bag of clothing and the extra plastic bags to the laundry room.
☐ Remove the clothes from the plastic bags. Throw that bag away.
☐ Wash and dry the clothes on as high temperature as possible.
☐ Dry-clean items, and any of the non-clothing items where feasible, should be tossed in a hot dryer for a minimum of 20 minutes.
☐ When they come out of the dryer place 1 set of clean clothes in a new plastic bag, and the other 2 sets in a separate new plastic bag. Place the bags back into the plastic container to carry to your temporary room. Do not take these bags back into your regular room.
☐ Take the 1 set of clean clothes with you to the bathroom. Leave the clean clothes in the bag until after you have showered and washed your hair.
☐ Once dressed, place your “dirty” clothes in that plastic bag, tie a knot in the top and toss it back in your room so they will be heat-treated. Place your towels and any other fabric items that were in the bathroom inside your room also, so they will be heat-treated.
☐ Once you have taken your shower and put on the clean clothes, pick up the plastic bin you have packed with your belongings and immediately leave the room. Lock your room door when you leave.
☐ Take the bag of clean clothes that you had left in the hall with you to the temporary room.
Before entering your temporary room...
□ Ask yourself: has everything I am carrying into this room been wiped off, washed and dried, or at least dried on high heat before I take it in here?

When leaving temporary room to move back to your room...
□ Leave keys on the dresser.
□ Leave all items that were in the temporary room when you got there, including the backpack.
□ Pack all your belongings in the plastic storage bin return to your room.
□ Lock door when you leave.

The day after treatment...
□ Be sure the plastic container is empty and ready for pick-up by Facilities.
Facilities Department Checklist

☐ Upon receiving a bedbug concern, Facilities contacts our licensed Pest Control company to inspect the student’s room. This is typically a next business day response.

☐ Facilities contracts with a licensed pest control company to treat the room.

☐ Facilities staff notifies the student(s) about the treatment via email and provides the *Bedbugs 101* information to the students, which will inform them of the treatment schedule and their responsibilities.

☐ Facilities coordinates:
  - Temporary room assignment
  - Delivery of keys to the temporary room
  - Bed linens, comforter, pillow, towels and backpack delivered to the temporary room
  - Plastic bags and storage bin delivered to the infested room

☐ On the morning of the heat treatment, Facilities staff:
  - Changes the lock on the room door to GM4
  - Ensures the window can accommodate the flexible heat hose
  - Removes the smoke detectors and fire extinguisher from the room
  - Turns off the building alarm system to prevent false alarms during the heat treatment

☐ The company technicians treating the room ensure that any heat sensitive items have been removed from the room, and move clothes around in dresser drawers and in closets to ensure the heat can penetrate all surfaces.

☐ The technicians cover sprinkler heads and place thermostats on them for monitoring to avoid activation.

☐ The technicians funnel heat into the room with the goal of reaching 130° and maintaining that temperature for 4-6 hours.

☐ After the heat treatment, the sprinkler heads are uncovered, smoke detectors and fire extinguishers are re-installed, windows and doors are secured, and the building alarm system is re-activated. The room is left to cool off overnight.

☐ The next morning, Facilities staff washes and dries all bed linens and returns them to the student(s) regular room. Staff makes the beds if it is clear which linens go on which beds. Staff places items back into drawers and closets as best they can and vacuums and tidies the room.

☐ Once the room is ready, Facilities staff notifies student(s) by email. The goal is to have the room ready by noon on the day after treatment.

☐ On the day after the students move back into the room, Facilities staff returns to pick up the plastic storage containers.

☐ Facilities staff collects keys, linens, and the backpack from the temporary room and
  - Washes and dries all linens; tosses the backpack in the dryer for 20 minutes on high heat; places the items in plastic bags
  - Returns the items to the Lora Robins storage room, where they will be ready for the next use
  - Returns the keys to the housing office or to the locksmith, wherever they originated.