



Texas Department of State Health Services
Health Service Region 1
Epidemiology

Bed Bug Fact Sheet

1. What are bed bugs?

Bed bugs (*Cimex lectularius*) are small, flat, parasitic insects that feed solely on the blood of people and animals while they sleep. They are reddish-brown in color, flat, have 6 legs, are wingless, range from 1mm to 7mm (about the size of an apple seed), and can live several months without a blood meal. They will be a more rusty red color after feeding. Bed bugs are nocturnal in nature. They usually feed during the night with peak biting/feeding usually taking place just before dawn. They can obtain their meal in as little as 3 minutes and then drop off and hide to digest their meal.

2. Where do bed bugs come from?

Bed bugs are found across the globe. Although the presence of bed bugs has traditionally been seen as a problem in developing countries, it has recently been spreading rapidly in parts of the United States, Canada, United Kingdom, and other parts of Europe. Bed bugs have been found in 5 star hotels and their presence is not determined by the cleanliness of the living condition where they are found.

Bed bug infestations usually occur around or near the areas where people sleep. They hide during the day in places such as seams of mattresses, box springs, bed frames, headboards, dresser tables, inside cracks or crevices, behind wallpaper or any other clutter or objects around a bed. They have been shown to be able to travel over 100 feet in a night but tend to live within 8 feet of where people sleep.

Adults and all nymph stages of bed bugs need to take blood meals from warm-blooded hosts, which are typically humans, although other mammals and birds can be utilized for feeding in the absence of a human host.

Females will lay about 5 eggs daily throughout their adult lives in a sheltered location (like a mattress seam, crevices in a box spring, or space under a baseboard). Eggs hatch in about 4-12 days into the first stage of nymph. The nymph goes through 5 stages each requiring a blood meal to develop into an adult. Mating occurs off of the host. Adults live 6-12 months and may survive for long periods of time without feeding.

3. What are symptoms of bed bugs?

One of the easiest ways to identify a bed bug infestation is by the bite marks on the face, neck, arms, hands, or any other body parts. However, these bite marks may take as long as 14 days to develop in some people so it is important to look for other clues when investigating if bed bugs have infested an area. These signs include:

- The bed bugs' exoskeletons after molting
- Bed bugs in the folds of mattresses and sheets
- Rusty colored blood spots due to their blood filled fecal material that they excrete on the mattress or nearby furniture
- A sweet musty odor

This fact sheet is for information only and is not intended for self-diagnosis or as a substitute for consultation. If you have any questions about the disease described above or think that you may have an infection, consult with your healthcare provider.

Because bed bug bites affect everyone differently, some people may have no reaction and will not develop bite marks or other visible signs of being bitten. Other people may be allergic to the bed bugs and can react adversely to the bites. These allergic symptoms can include enlarged bite marks, painful swelling at the bite site and on rare occasions, anaphylaxis.

It may be hard to tell if you have been bitten by a bed bug unless you find the bed bugs or signs of infestation. When bed bugs bite they inject an anesthetic and an anticoagulant that prevents a person from realizing they are being bitten. Most people do not realize they have been bitten until the bite mark appears days afterwards. The bite marks are similar to that of a mosquito or a flea. It may be a slightly swollen and a red area that may itch and be irritating. Bite marks may be in a straight line or be random. Other symptoms of bites may include insomnia, anxiety, and skin problems that arise from the profuse scratching of the bites.

4. How soon do symptoms of bed bugs appear after exposure?

Bite marks may take as long as 14 days to develop in some people.

5. How are bed bugs spread?

Because bed bugs can be found in homes and a variety of public places, they can easily be transported from place to place by people. They can hide in the seams of luggage, overnight bags, bedding, and in the folds of clothing. They can also be transported in furniture. Most people do not realize they are transporting bed bugs as they travel from location to location, infecting areas as they go. Bed bugs are experts at hiding, can stay hidden for long periods of time, and can stay alive even without a blood meal.

6. How are bed bug bites diagnosed?

Although most people do not realize they have been bitten by a bed bug until bite marks appear (which can be as long as 14 days after the bite), finding a bite mark is the easiest way to identify a bed bug infestation. A bed bug infestation is apparent by noticing black or brown spots (which is from their fecal waste) on surfaces. Sometimes the eggs, egg shells, and exoskeletons of the bed bug can be found in their hiding places.

7. Are there long-term complications of a bed bug infestation?

Bed bugs should not be considered a medical or public health hazard. Bed bugs are not known to spread disease. They can be an annoyance because of their itching and loss of sleep. Itching which can lead to excessive scratching can increase the chance of a secondary skin infection. Although bed bugs are not considered to be dangerous, an allergic reaction to several bites may need medical attention.

8. How are bed bug bites and infestations treated?

Bed bug bites usually do not pose a serious health or medical threat. The best way to treat a bite is to avoid scratching the area and apply antiseptic creams or lotions and take an antihistamine. Minimal treatment and good hygiene to prevent itching and secondary infections are usually sufficient treatment for most cases of bed bug bites. If you suspect you are having an allergic reaction to bed bug bites contact your physician. In severe cases, topical steroid creams, antihistamines, topical antiseptics, or antibiotics may need to be given in the case of a secondary infection.

Bed bug infestations are commonly treated by insecticide spraying. If you suspect you have an infestation, contact your landlord or a professional pest control company that is experienced with treating bed bugs. It usually takes multiple visits by a licensed pest control operator to successfully treat a bed bug infestation. Over the counter foggers and pesticides will not eliminate bed bugs. Early detection and efficient treatment is crucial for the control of bed bugs.

Prior to treatment by an exterminator:

- The home/apartment should be cleaned, organized, and free of clutter.
- Caulk and seal crevices around the room and on furniture. Seal any spaces between floors and baseboards.
- Seal items in plastic bags or airtight containers. Store these outside the apartment or home for at least 6 months to insure re-infestation does not occur.
- Remove all bed linens (including blankets, bed skirts), stuffed animals, pillows, and drapes. Launder these items in hot water and highest dryer setting. If needed dry clean items.
- Move furniture away from walls. Apply a knee high stocking over the vacuum wand then vacuum entire area including mattress, furniture and baseboards. Place the mattress and box spring in a sealed plastic mattress cover bag and store away from the home for 6 months to 1 year. Remove the stocking from the vacuum and discard immediately in a sealed plastic bag. If any furniture is discarded be sure to paint on it that it is infested with bed bugs to prevent others from taking items into their homes.

9. Who gets bed bugs?

Everyone is at risk for getting bed bugs when visiting an infected area. Anyone who travels frequently and shares living and sleeping quarters where other people have previously slept has a higher risk of being bitten and or spread a bed bug infestation.

10. How long can a person carry bed bugs?

Bed bugs can continue to live in areas of infestation as long as they are reproducing and are able to feed periodically on humans if they are not treated by a pest control professional. They do not live on humans but they get on humans to feed. It usually takes multiple visits by a licensed pest control operator who has experience in elimination of bed bugs. Over the counter foggers and pesticides will not eliminate bed bugs. Unless the source is excluded from the property the bed bugs will continually replenish and the life cycle will continue.

11. How common are bed bugs?

Bed bugs are not a notifiable condition so the magnitude of bed bug infestations is not known. But it is known they are a resurging problem causing property loss, expense, and inconvenience. Bed bugs are found across the globe from North and South America, to Africa, Asia, and Europe. Although the presence of bed bugs has traditionally been seen as a problem in developing countries, it has recently been spreading rapidly in parts of the United States, Canada, United Kingdom, and other parts of Europe.

12. How can bed bugs be prevented?

The best way to prevent bed bugs is a regular inspection for the signs of an infestation. Hotel staff should inspect rooms upon vacancy for signs of bed bugs as part of the cleaning routine. If bed bugs are found,

mattresses, box springs, and drapes should be removed from the room. Mattresses and box springs should be stored in zippered plastic covers isolated and stored offsite for one year to insure elimination of bed bugs. A thorough cleaning and vacuuming should be done. Cracks in wall papers, baseboards, or plaster should be filled/caulked prior to calling a professional exterminator.

Travelers should only take what you will need for the trip. Inspect the room prior to bringing your luggage into the room. Pack toiletries in plastic zip lock bags and take large plastic bags to store worn clothes. Do not place suitcase on the floor. Before packing to leave the hotel inspect your luggage for bed bugs, place all personal items in bags, then in the suitcases. When arriving home, leave your suitcases outside. Remove items and inspect for bed bugs; wash all clothing in hot water and high heat dryer setting. Non-washable items should be dry cleaned. Place your luggage in tightly sealed plastic bags and leave in the garage or outside the home.

13. Are there any restrictions for people with bed bugs?

Bed bugs usually feed at night and then drop off the host. People who live in an area infested with bed bugs do not have to be excluded from work or school, but they should not bring items outside the home which could spread bed bugs to other places. If items must be brought to school, like backpacks, they should be sealed in an airtight container while at school. Early detection and efficient treatment is crucial to controlling bed bug infestation.

14. Where can I get more information?

Additional information can be found at the [Texas Department of State Health Services, Centers for Disease Control and Prevention](#), from your local health department, or a pest control exterminator with experience with bed bugs.

Sources:

Centers for Disease Control and Prevention. (2013, January 10). Bed Bugs. Retrieved March 31, 2014, from <http://www.cdc.gov/parasites/bedbugs/>.

Texas Department of State Health Services. (2012, August 15). Bed Bugs – Public Health Sanitation Program. Retrieved March 31, 2014, from <http://www.dshs.state.tx.us/phs/bedbugs.aspx>.

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