

# Bedbug Symptoms – Do Bedbugs Spread Disease?

## Cimex lectularius Bites Often Cause an Irritating Skin Rash

Though many people don't react to bedbug bites, a rash may be the first obvious sign of a bedbug infestation. Fortunately, bedbugs don't spread diseases. Bedbugs (*Cimex lectularius*) live in bedding, furniture, and in other interior décor like baseboards, curtains, carpets etc. They hide in dark cracks and folds during the day, and visit sleeping people at night to take a blood meal. Up to 70% of people never react to bedbug bites and don't know they've been bitten; others develop red, itchy bite lesions.

### Bedbug Symptoms

The first encounter with bedbugs is unlikely to cause symptoms because it takes time for the human immune system to develop a reaction to the bug's saliva. If the victim remains in a place with a bedbug infestation, or is bitten again at a later date, a skin reaction is more likely to occur:

- Bedbug bites are typically red, raised, itchy lesions, up to half a centimeter wide.
- The rash is persistent and worsens if each night's sleep results in new bites.
- Bites that have been scratched become raw, weepy, and they may bleed.
- More severe skin reactions include nodules (firm lesions under the skin at the bite site) and blisters.
- Secondary bacterial infection may occur within days, especially if bites are scratched and not allowed to heal.
- An allergic reaction, ranging from asthma to anaphylactic shock occurs in rare cases.
- The response to bedbug bites may get faster over time, with repeated exposure.

In a bedbug infestation, the number of bugs present can reach high numbers, sometimes resulting in hundreds of bites per night. When the victim experiences an irritating rash as a result, bedbugs can cause long-term misery, particularly if the cause is not immediately recognized. If bedbugs are suspected, but no bugs are found, a bedbug trap may provide the answer.

### Do Bedbugs Spread Disease?

Many insects and arachnids (mites, spiders etc.) that suck blood from people also transmit disease. Mosquitoes, ticks, black flies, kissing bugs, and lice are all well-known examples. Scientists have analyzed the blood in bedbugs that have recently fed and found various disease-causing organisms but, to date, there is no evidence that bedbugs spread disease by passing these pathogens on with their next bite. Diseases that might be passed in this way include:

- Chaga's disease (South American trypanosomiasis, a parasitic disease)
- Filariasis (caused by various species of tissue roundworms)
- Hepatitis B
- HIV / AIDS
- Leprosy (a bacterial disease related to tuberculosis)
- Leishmaniasis (a parasitic disease)
- Plague
- Relapsing Fever (a bacterial disease usually transmitted by ticks or lice)
- Smallpox (now eradicated)
- Tuberculosis
- Yellow fever

Of all these diseases, hepatitis B is the most likely candidate for transmission by bedbugs, but, to date, this is not known to have occurred.

## The Stigma of Bedbugs

For many people the stigma, and the revulsion, of having bedbugs is the worst part of a bedbug infestation – even worse than the physical symptoms. Despite the fact that bedbugs will make themselves comfortable in anyone’s bed, rich and poor alike, these pests are associated in the public mind with poverty and a lack of cleanliness. There are a number of reasons why this is so that have little to do with the individual:

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- Bedbugs spread more easily in large buildings and housing where units are connected because they tend to travel through the walls along plumbing pipes.
- They characteristically avoid some of the pesticides used to kill them: treating one unit often results in the infestation moving next door.
- They are extremely hard to eradicate completely, and success is even less likely where rooms are cluttered.
- Because bedbugs hide in locations off the bed itself, someone moving into new premises may inherit the previous occupant’s bedbug problem.
- Low income families often do not have the financial resources to stick with an eradication program over the long term.

Being faced with a bedbug infestation, with or without unpleasant physical symptoms, is usually simply the result of being in the wrong place at the wrong time.

### Sources

"Bed Bugs (*Cimex lectularius*) and Clinical Consequences of Their Bites." Goddard, Jerome and Richard deShazo. *Journal of the American Medical Association*; 301 (13), April 1, 2009. 1358-1366

