

Bedbugs



Bedbug feeding. CDC.

Bed bugs that bite humans belong to the family Cimicidae (Order Hemiptera) along with a number of similar bugs that infest the nests of birds and mammals.

The larval stages resemble adults

except they are smaller. All stages feed solely on blood for their entire lifetime. Feeding takes 4-10 min. They may feed anytime the host is quiet, but human bed bugs generally feed at night.

It's not clear why bed bugs have become abundant after being nearly absent in the U.S. for decades. However, people are doing a great deal more travel outside the U.S., possibly increasing the chances that the parasites are being brought back in luggage or other personal materials. There is also strong evidence that some populations of bed bugs in areas such as New York City, are becoming insecticide resistant.

Bedbugs rapidly walk or crawl when seeking blood or places to hide. They occasionally ride in the clothing, fur or feathers of their hosts, which makes it possible for them to infest new locations frequented by the host. They depend on their hosts for dispersal to new locations. Although no imperative causes bed bugs to recognize and stow away in luggage, travelers staying the night in an infested hotel room may inadvertently pack bedbugs into luggage with clothing and other belongings and thus transport them home. Bed bugs may be moved with bedroom or upholstered furniture to new premises when families relocate. They may also be transported to new locations in recently purchased used furniture. The common bedbug is essentially a lazy hitchhiker.

Whether or not bedbugs establish an infestation depends on whether they can predictably locate blood and hiding places in the new location. For example, bed bugs could temporarily contaminate a locker or moving van where a family stores infested beds or furniture, but not establish an infestation without a local supply of blood. Bed bugs can last up to 3 months without food in the laboratory, but this period is probably shorter in the field. Single family dwellings of any kind

present different opportunities for bed bugs than multiple unit structures such as hotels, apartment complexes and residential hotels, and these would differ from theaters and offices. Yet all these locations provide resting places close to where hosts predictably spend hours in a quiet state or sleeping.

Bed bugs rarely shelter more than 1-2 ft from sources of blood. The most frequent hiding places are around the bed, bedsteads, headboards, mattresses, box springs, bed frames, immediately adjacent furniture, under the edge of carpet, stacks of infrequently disturbed magazines, papers or books, pictures and wall hangings, electrical outlets, wall paneling, baseboards, cinderblock and brickwork. Mattresses and bed framing are by far the most frequently infested. In offices they most frequently reside in furniture, particularly upholstered chairs.

Unlike lice, bed bugs like being near but not on you. They hang out in preexisting hiding places and cannot tunnel, bore, chew, or dig into mattresses or pillows. Because of their flattened shape and tendency to hide in groups, large numbers can shelter in easily over-looked cracks or screw holes. The cream colored eggs and dark fecal spots give a salt and pepper appearance to surfaces near heavily infested locations.

To determine whether bed bugs are the problem it's important to first collect some of the bugs. Bed bugs are rarely felt while feeding, but after the blood meal a very itchy welt similar to that of a mosquito bite develops, which may persist for some time. A small fraction of people repeatedly bitten will develop an increasingly serious immune response, which may lead to anaphylaxis. There is no evidence that bed bugs transmit any disease pathogens to humans.



Bedbug droppings on mattress.