

SPECIAL UPDATE

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Everything you need to
know about bed bugs!

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While you were sleeping: Everything you need to know about bed bugs



Complaints about bedbugs in urban areas more than doubled last year and are on target to reach a record this year.

Managers and owners of co-op and condominium apartments report similar trends, and expectations are homeowners are experiencing climbing infestations as well, although there is no comprehensive reporting mechanism to track incidents.

Bed bugs have infested every type of housing, from run-down single-room-occupancy hotels to elegant condominiums, raising storms of questions from travelers, tenants, landlords and homeowners. Getting rid of bed bugs can be extremely difficult.

Michael F. Potter, an urban entomologist in Kentucky and an authority on bedbugs, believes they are poised to join the ranks of cockroaches and rats as the pre-eminent household pests in the country. "This is one serious issue," he said. "This will be the pest of the 21st century — no question about it."

Bed bugs are reddish-brown, flattened, oval, wingless insects that can grow to three-sixteenths of an inch. Females live as long as a year in colder temperatures and several months in temperate climates. Males don't live quite as long; the population is evenly divided between the sexes.

The female bedbug can lay up to five eggs a day, and several hundred over its lifetime. At room temperature, the sticky clumps of eggs hatch in 7 to 14 days into tiny nymphs no bigger than a speck of dust. The nymphs go through five life stages, taking a blood meal each time, before molting one last time into adulthood.

Bedbugs are mostly active at night, with peak activity around 3 or 4 a.m. Drawn by warmth and carbon dioxide, they pierce the skin and withdraw blood for about 5 minutes before retreating to a hiding place. They typically feed every 7 to 10 days.

Bites often appear in rows of 3-4 welts or more. There are currently a couple of explanations for why bites often appear in rows. The first explanation is based on the sensitivity of bed bugs to motion. A single bug may withdraw its

mouthparts while feeding in response to the slightest disturbance (i.e. person twitches during sleep). After removing their mouthparts, the bug will move a short distance and then begin feeding again, resulting in several bites in a row caused by a single bug. The second explanation involves numerous bugs that are lined up one next to the other (typically along a fold in a bed sheet) all feeding at the same time (similar to cattle at a trough). The important point is that the number of welts does not always correlate with the number of bugs that bit the individual. Just a few bugs can be responsible for many welts in a single evening.

Occasionally you may see evidence of a bed bug infestation without actually seeing any bed bugs. Bed bugs leave fecal stains in the areas they inhabit. These stains are actually partially digested blood but it will not be red unless you crush a bed bug that has just recently fed. As the blood is digested it turns black and therefore the bed bug droppings usually consist of several black spots in one area. The fecal spots will not flake off if rubbed and will smear if wiped with a wet rag.

1. Having bed bugs is NOT a sign of dirty living conditions, nor are older homes more likely to have them. The CLEANEST home can be infested. This occurs when bed bugs are brought into the home. Individuals and families who travel a lot have a high probability of bringing bed bugs into the home from hotels, motels and other living spaces they visit.
2. While sanitation is not a key factor, clutter is, especially in bedrooms. Clutter provides excellent places for bed bugs to live and hide near their hosts.
3. In addition to being nasty, bed bugs have been documented to have at least 28 different kinds of human pathogens in their bodies. However, studies by both entomologists and medical doctors have never shown that those bed bugs transmit even one of those pathogens to humans or lab animals.
4. When bed bugs feed, they inject saliva into their blood-meal host (you), and the saliva can routinely cause an allergic response from most hosts. The severity and timing of those reactions depends on the bitten person's immune response to the salivary allergens, and they can vary greatly.
5. Typical reactions to bed bug bites are local reddening, minor swelling, inflammation and itching (which can be very intense, and can sometimes recur without another bed bug bite) at each bite site. A person being

repeatedly bitten by bed bugs can be very uncomfortable, develop lots of reddish, itchy welts (at bite sites) and often have difficulty sleeping. The more bugs present, the more bites they inflict, and the worse the problems usually become (tending to be progressive as the bug numbers increase – usually rapidly).

6. Home methods of eliminating bed bugs have not been shown to be reliable. Cleaning the room and linens and beating the mattress won't do it. Laundering most cloth items with hot water and detergent followed by drying on low heat for at least 20 minutes (or standard dry cleaning) should kill all bed bugs in or on such items, but won't eliminate them from the room or area. Common bed bugs are small and thin, and can hide deep in very narrow cracks. They are very adaptable and mainly active at night. They will routinely travel as far as a 20-foot radius from their hiding places (and back) to take a blood meal. They move faster and through much smaller openings than people expect. Even entomologists who work with live bed bugs for the first time are often surprised. Bed bugs can detect (and avoid) chemical deposits in many cleaning agents. Adult bed bugs can live longer than a whole year without feeding and most currently labeled insecticides used against them in the U.S., Canada, Europe and Australia, do not last more than one to three months. While there are new consumer products coming into the marketplace regularly, self-applied chemicals seldom have a noticeable impact because individuals do not have the background knowledge or technical support needed to use them effectively.
7. Under current conditions, the use of residual (long-lasting), properly labeled insecticide is needed to effectively control bed bugs in the U.S., and any practical control effort could not be carried out without use of such a product. The U.S. EPA-approved insecticide products that are currently labeled against bed bugs must still be used properly and applied at the proper sites (in the proper formulations and concentrations) to be effective. Successful programs to eliminate these bugs require detailed knowledge of their biology and exact harborage (hiding) locations determined by thorough inspection. Pest management professions offer strategies, techniques and products which can be used effectively, safely, and legally to control bed bugs. The vast majority of homeowners cannot expect to effectively control even a very small and localized infestation; and probably could not even tell if their efforts had any impact.

8. IF you DON'T have bed bugs and don't want to get them, there are some preventive measures that are effective. Try to avoid picking up bed bugs from hotels or any other sources when you or your family members travel, even to local destinations (e.g., within the same or a nearby city). Don't buy used furniture (especially bedding items or upholstered items), or at least do not bring them into your home until you, or a competent expert, have inspected them carefully for any signs of bed bugs (live or dead bed bugs, their eggs, fecal spots, or cast skins). And it's a bit clumsy (and can be noisy) but consider covering all of your mattresses and box springs with a plastic cover which you can seal shut to prevent such pests from getting into them (or to permanently trap any already there). Periodically inspect bedding and other places in your home that typically harbor bed bugs.
9. If you DO have bed bugs, or think you might, consult with properly licensed, trained, and experienced (with bed bug control) local pest management professional or company. They should help with effective and thorough inspections, to provide you with information you may want, and to carry out any needed control effort under a suitable contract. Be sure to ask any questions you may have before you sign a control contract.

This update was compiled from 2010 reports filed by The New York Times, MSNBC, BedBugs 101, The Philadelphia Inquirer and other sources.