They hide in dark places. They come out when you sleep. They creep up on your body. They suck your blood. Then they go back into hiding.

That's the life of a bedbug. Bedbugs cannot fly and have a relatively soft outer shell. They need to hide to stay safe. They are true bugs, insects with sucking mouthparts, distant relatives of stink bugs and boxelder bugs. Bedbugs and about 75 related species, all of similar appearance and habits, form the family Cimicidae. Bugs of this family all suck blood, but only a few species prefer a human meal. Although bedbug bites can cause severe skin reactions in some people, the bugs do not transmit diseases. They are mostly a mere nuisance rather than a health risk.

Most cimicids live with other animals, such as rodents, birds, or bats. In the United States, only one species, the quarter-inch-long common bedbug *Cimex lectularius* is considered a problem for people, but a fast-growing problem, with Denver being one of the nation's bedbug hot spots.

The species was scientifically described as early as 1758 by Carolus Linnaeus, right at the beginning of zoological nomenclature, the scientific naming of animals. Common bedbugs have been people's cohabitants since well before recorded history. In the Mediterranean they lived in the same caves as our ancestors, probably originally feeding on bats but soon adapting to the new lodgers. From the caves they moved with humans into houses and spread through trade and migrations all over the world, finally arriving in America with European settlers.

Up to the middle of the last century, bedbugs were among the most hated household insects, often found in a majority of human dwellings, rich and poor. With the arrival of DDT in the 1940s and organophosphate and carbamate insecticides shortly after, bedbugs became less of a problem. Bedbugs rapidly develop resistance to insecticides, but some compounds continue to be effective control agents in countries where they are still used. These agents are no longer used in the United States due to serious health risks for humans. Very few effective alternatives are available for indoor use. Are changes in pesticide regulations and efficiency the reason for the current bedbug epidemic?

Yes, but together with several other factors:

People travel more, increasing opportunities for hitchhiking bedbugs. Even more people live in high-density environments, where bedbugs can easily spread from one host to another. Households have more furnishings and clutter than ever before, providing more hiding spaces for bedbugs. Internet trade makes buying and selling used furniture and other potentially infested items easier than ever. All contribute to improved conditions for the bedbug's proliferation and survival.

Here are a few tips to reduce the risk of bedbugs in your home:

- Watch for bite marks on your skin (red circles with a dark prick mark in the center) and brown spots left by the bugs defecating on bed linens.
- Don’t buy secondhand mattresses or upholstered furniture.
- Move your bed away from the wall, where the bugs can hide.
- When traveling, inspect your lodgings before settling in and place your luggage on a rack. Keep clothes in your closed luggage; hang clothes on a shower rail, not in the closet.
- Not every bug in your home is a bedbug. Get the bugs you consider to be bedbugs identified by an expert.
- Act on bedbug infestations early. You may need to engage an exterminator who can apply an integrated pest management strategy.

Without the discovery of a new control agent as similarly effective and cheap as DDT, bedbugs are unlikely to go away any time soon. Infestations will increase, and as a colleague from a nearby university told me, “If you want to have a safe and well-paid job, do something with bedbugs.” Bedbugs are likely to stay. We need to learn to deal with them, again.

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See Dr. Krell discuss bedbugs @ www.dmns.org/sciencebites.