

# History & Resurgence

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## KEY POINTS:

No one knows for certain what caused the resurgence of bed bugs in the US. Contributing factors may include:

- Worldwide increase in bed bug activity
- More frequent introductions during international travel
- Changes in pest management practices & resistance to pesticides
- Lack of public awareness is perpetuating the continued dispersal of bed bugs

Bed bugs were a common problem in the United States up through the World War II era. Around this time, they were virtually eradicated from the US with the wide scale usage of pesticides, such as DDT and Malathion. During the late 1990's bed bugs began to re-emerge as a pest in the United States, Canada, Australia, the UK, along with a number of other countries. Their secretive behavior, coupled with a lack of public awareness, has enabled this insect to move very efficiently from one dwelling to another and has facilitated their rapid dispersal throughout the country.

While no one can say for certain what caused the resurgence of bed bugs in the United States, there are a number of factors that have probably influenced the re-emergence of this difficult pest. There has been a general increase in bed bug activity on a world-wide basis over the past decade. Due to the increased prevalence of bed bugs world-wide, the frequency of encounters with bed bugs during travel is also likely to have increased resulting in a greater number of introductions into the US than in the past. Most of the early introductions appear to have been associated with travel as many of the early infestations in the late 1990's were identified in hotel guest rooms.

It is also likely that changes in pest management practices coupled with the development of resistance to modern day pesticides has contributed to the successful re-establishment of bed bug populations in the United States. In the past, hotel guest rooms were typically treated on a regular basis with residual pesticides. As a result, bed bugs introduced during travel were likely to contact pesticide as they left the luggage and traveled to the bed. During the mid 1990's there was a dramatic shift in pest management practices. Routinely scheduled treatments of baseboards in hotels, motels and apartments were replaced with targeted applications of baits for pests such as ants and cockroaches. With the absence of the residual pesticide applications, bed bugs are able to travel freely and safely from the luggage to the bed, and successfully begin an infestation. It is likely that these factors have played a role in the bed bug's ability to become re-established in the United States.

Now that bed bugs are back, they are spreading throughout the United States at a very rapid rate. Bed bugs are excellent hitch hikers and once they are introduced into an environment are able to readily spread from infested locations to new locations that were previously un-infested. All one needs to do is to spend a night in a bed bug infested environment and there is a good chance that they will take bugs with them to their next destination. Some of the more common dispersal mechanisms include overnight stays in bed bug infested quarters, the purchase of infested furniture (rental furniture, used/second hand furniture, reconditioned mattresses etc.), the acquisition of discarded items that are infested, and migration of bed bugs from one infested dwelling to another in multi-occupancy settings (apartments, college housing, medical facilities, senior communities etc.)

Perhaps the most significant factor that has enabled bed bugs to spread throughout the US at an exponential rate is the lack of public awareness. Many people simply don't believe or realize that bed bugs truly exist. As a result people do not think twice before picking up discarded furniture that is infested with bed bugs and bringing them into their home. Once the bugs are introduced it is not uncommon for infestations to go undetected for several months or more. One of the reasons that infestations are not detected sooner has to do with the cryptic and secretive habits exhibited by bed bugs. They are mostly active at night, coming out of secretive hiding places to feed on people as they lay fast asleep. Their bite is painless so people are unaware that they have been bitten. Once they have finished taking a blood meal they retreat back to their hiding places where they remain undetected and are not likely to come back out until it is time to feed again (often going several days to a week or more between blood meals). In addition many people must first become sensitized to the bite before developing any bite symptoms while others never react at all. As a result it is not uncommon for people to have delayed reactions of several weeks or more. Even when symptoms do occur, they are often confused with poison ivy, scabies, allergic reactions etc. All of these factors enable bed bugs to become very well established before the occupants of the infested structure identify the infestation.