

# BED BUGS



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### Physical Identification

Adult bed bugs are light brown to reddish-brown, flat, oval, and have no hind wings. The front wings are degenerative and reduced to pad-like structures. Bed bugs have segmented abdomens with microscopic hairs that give them a banded appearance. Adults grow to 4–5 mm long and 1.5–3 mm wide.

Newly hatched nymphs are translucent, lighter in colour, and become browner as they moult and reach maturity. A bed bug nymph of any age that has just consumed a blood meal has a bright red, translucent abdomen, fading to brown over the next several hours, and to opaque black within two days as the insect digests its meal. Bed bugs may be mistaken for other insects, such as booklice, small cockroaches, or carpet beetles; however, when warm and active, their movements are more ant-like and, like most other true bugs, they emit a characteristic disagreeable odor when crushed.

### Feeding

Bed bugs are bloodsucking insects. Most species feed on humans only when other prey are unavailable. They obtain all the additional moisture they need from water vapor in the surrounding air. Bed bugs are attracted to their hosts primarily by carbon dioxide, secondarily by warmth, and also by certain chemicals. Bedbugs prefer exposed skin, preferably the face, neck, and arms of a sleeping person. The bite usually produces a swelling with no red spot, but when many bugs feed on a small area, reddish spots may appear after the swelling subsides.

### Lifecycle

Although under certain cool conditions adult bed bugs can live for over a year without feeding under typically warm conditions they try to feed at five- to ten-day intervals, and adults can survive for about five months without food. Younger ones cannot survive nearly as long, though even the vulnerable newly hatched first instars can survive for weeks without taking a blood meal.

### Harbourage

Diagnosis of an infestation involves both finding bed bugs and the occurrence of compatible symptoms. Treatment involves the elimination of the insect (including its eggs) and taking measures to treat symptoms until they resolve. Bed bug bites may lead to a range of skin manifestations from no visible effects to prominent blisters. Effects include skin rashes, psychological effects, and allergic symptoms.

### **Health Risk**

Although bed bugs can be infected with at least 28 human pathogens, no studies have found that the insects are capable of transmitting any of these to humans.

