

## BEDBUGS

# Breakfast in bed

Once again bloodsucking insects are invading mattresses across Australia.

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“I COULDN’T believe I could bring them into my house without knowing it,” recalls Ian Goldthorpe, an environmental health officer in Sydney. “My daughter looked at the sheets and said, ‘Bedbugs,’ and I thought, ‘Impossible!’”

Dozens of the lentil-sized, blood-sucking insects were living in his bedroom, undetected in part because he doesn’t react to the bites, the 66-year-old says. In this way, he may be lucky – although bedbugs don’t spread disease, they can cause allergic reactions ranging from minor rashes to weals and blood blisters. In severe infestations, their bites have been known to cause anaemia, and their presence in the sanctuary of the bed can be a psychological burden, leading to anxiety and depression.

It isn’t clear how the bugs came to be in Ian’s home, which he shares with his daughter and two sons. He suspects they may have hitchhiked in on a stranger’s dirty sock mixed up with his belongings after a hospital visit. But following months of regimented cleaning and a \$1400 extermination bill, he’s not keen on having them back.

In the past 15 years, Australia has seen a surge in two species of the pest: *Cimex lectularius*, or the common bedbug, is found in temperate southern climes; and *Cimex hemipterus*, or the tropical bedbug, is spotted mainly in the warmer regions along the Gold Coast, Sunshine Coast and as far north as Darwin. Compared with other pests, infestations are difficult to detect and eradicate because the bugs spend most of their time hiding in small cracks and holes, and around the edges of mattresses, mostly coming out to feed at night. Bedbugs can be found anywhere that people are and, particularly,

where they sleep – from ritzy hotels to backpacker lodges and public housing.

A 2006 pest-control survey suggested that there has been a 4500 per cent increase in Australian infestations since 1999. Dr Stephen Doggett, a medical entomologist at Westmead Hospital, Sydney, estimates the resulting costs have exceeded \$100 million. Similar resurgences have been seen around the world in recent years, but bedbugs have a much longer history. Archaeologists have found bedbugs in 3300-year-old ancient Egyptian remains.

The relationship between human-kind and the bugs may extend back tens

## Infestations are difficult to detect and eradicate.

of thousands of years. Our cave-dwelling ancestors around the Mediterranean may have encountered a related species, which feasted on bats before evolving to feed on us. From there, the bug appears to have followed people as they travelled and traded around the world. Early Australian records of bedbugs are scarce but surviving documents suggest that they arrived with the First Fleet. Their numbers were strong until after World War II, when DDT and other chlorinated hydrocarbons came onto the market. These insecticides worked well because they left a residue long after application, so even hidden bedbugs would eventually get a dose.

However, the bugs soon grew resistant to DDT and many other

pesticides including pyrethroids, which are the most common currently used in Australia. The bugs’ resistance to these has played a key role in the resurgence, and as our experience shows, they’re happy international travellers. It is unlikely that bedbugs will ever take the same hit from any pesticide as they did following the 1940s. “We’re not going to get a magical insecticide like DDT or organophosphates where you spray once and it’s a 10-minute job,” Stephen says. “We will see pockets in society that will continue to have bedbugs.”

New products show some promise, including desiccants such as diatomaceous earth – a fine dust that kills the bugs by dehydrating them. Different approaches are also on trial, says David Gay, who runs a pest control business in Melbourne. Rather than reactively treating infestations, in 2009 his company began offering maintenance packages for hotels, which include regular inspections and emergency services, as needed. “Treatments have definitely reduced,” David says. “We’re getting better at controlling bedbugs.”

Residential exterminators, such as the one who treated Ian’s home, are also improving eradication techniques and, increasingly, educating clients on how to minimise the problem – from drying bedding and clothing on high heat (which kills the bugs), to picking up clutter and vacuuming. A tidy house isn’t a guarantee against bedbugs, but it offers them fewer places to hide. “I didn’t think it could happen to me because I was so careful about hygiene and cleanliness in my home,” says Ian, whose house is now, seemingly, bug free. “It’s a little unsettling to know they could still be there.”

## ▼ THE EVIDENCE

- Bedbugs feed every few days. Afterwards, they hide in narrow spaces anywhere, from wall sockets to alarm clocks, but are most commonly found near the bed.

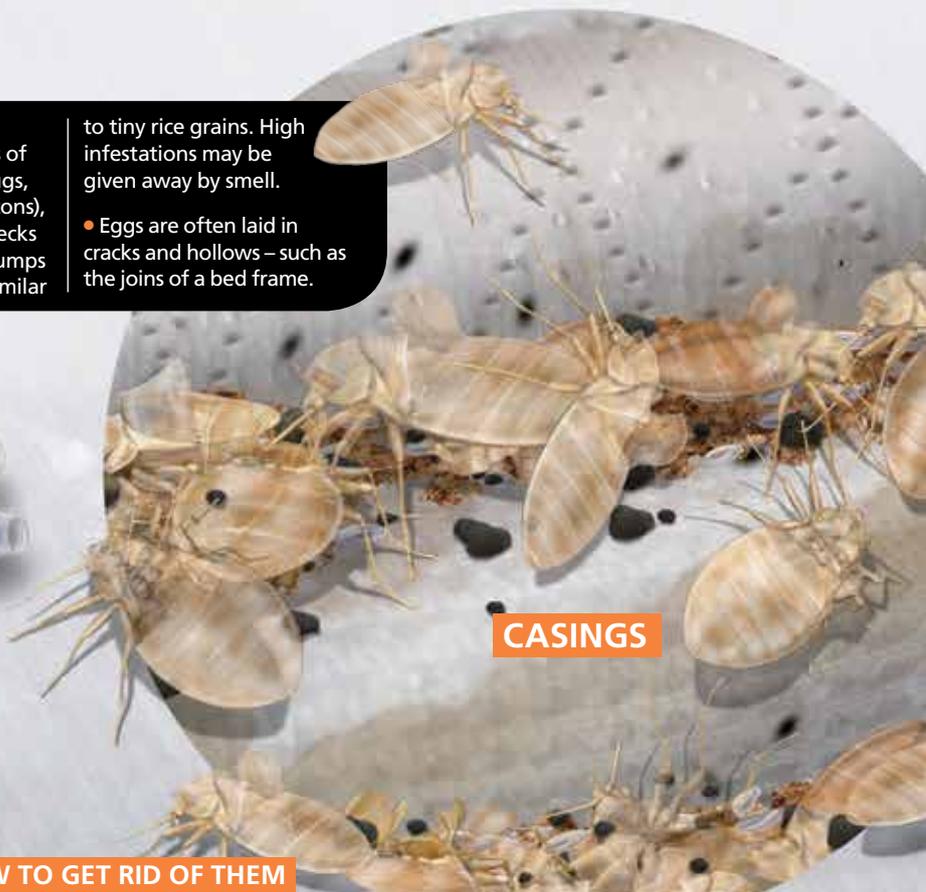
- One common hiding spot is along the seams of a mattress. Look for bugs, casings (shed exoskeletons), small reddish-brown flecks of faeces, and white clumps of eggs that look similar

to tiny rice grains. High infestations may be given away by smell.

- Eggs are often laid in cracks and hollows – such as the joins of a bed frame.



**EGGS**



**CASINGS**

## ▼ BITES

- Bedbugs have tiny mouths, and don't leave visible wounds, so the appearance of bites depends on an individual's allergic response. Some people get massive weals and welts, while others don't react at all.

- Often, bites appear in a straight line along exposed skin, likely from bugs feeding at the juncture where the body meets the bed.



## ▼ HOW TO GET RID OF THEM

- If you think you have an infestation check all areas where bedbugs hide.

- Treat infested areas and hiding places with insecticide. Contact a pest control company for advice.

- Bedbugs are difficult to eradicate: hiding spots are inaccessible so insecticide must be applied repeatedly.

- Vacuum area of bed and mattress and dispose of contents in a sealed bag.

- Wash clothes and bedding at 60°C. Drying clothes in a dryer on high heat and ironing also kills bedbugs.

- Reduce hiding spots by removing excess furniture and clutter around the bed.

## ▼ BEDBUG

- The common and tropical bedbugs found in Australia are two of about 100 bloodsucking insects from the family cimicidae, which all feed on blood from animals such as bats, birds and humans.

- Bedbugs are 4–5mm in length when fully grown. They have a flattened shape and can hide in very tight spaces.

- The typical life span of a bedbug is about 10 months. They can survive for months without feeding.

