With a new initiative highly effective Bed Bug Control

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Bed Bugs All You Need To Know

Hello I am a bed bug sniffer dog.

Go to the next page for the link to BED BUG DETECTIVE

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Introduction

You cannot just “get” bed bugs. They have to be brought into your home. So what is your first clue that you have brought bed bugs home in your luggage after a trip, or on a piece of used furniture that you bought at a garage sale? Most people become suspicious of a bed bug infestation when they find unexplained bites on their bodies. Most commonly a person will go to bed feeling fine but wake up in the morning with itching bites. While bites might suggest bed bugs, they are not a good method for diagnosing a bed bug infestation. This is because bite reactions are so variable from person to person. For instance, a person who has been bitten while travelling may not react for several days, and only notice the bites after they have returned home. These bites do not mean the home is infested. Alternatively, a person may not react to bed bug bites at all. This can allow an infestation to get started in their home and remain unnoticed until the bed bug population increases so much that bed bugs start to be seen. Because bites are an unreliable indicator of an infestation (they may not be bed bug bites at all), it is very important to be familiar with the other signs that bed bugs leave behind to detect a real infestation (particularly a small one). By looking for specific bed bug evidence, the infestation can be identified early before the population becomes difficult to control.

Bug Identification

**Bed** It is very important to know what bed bugs look like. The adults can easily be seen with the naked eye. Adult bed bugs are reddish brown in colour, wingless, and are about the size of an apple seed. Immature bed bugs (there are 5 immature or nymphal instar stages) can also be seen with the naked eye but they are smaller than adults, and translucent whitish-yellow in colour. The most difficult life stage to see is the first instar nymph. This is the youngest life stage that hatches out of the egg. These nymphs are so small that they are difficult to see unless they are moving or have recently fed (bright red when full of blood). Bed bug eggs are also tiny, about the size of the head of a pin. The eggs are a pearl-white colour and have obvious eyespots if they are older than 5 days.
Bed bugs can look somewhat different depending on their feeding status. If an adult bed bug has not fed recently, it is approximately $\frac{3}{16}$" long and oval in shape. In fact, an unfed bed bug can look like a flat disc. However, once it takes a blood meal the body blows up like a balloon. The bed bug elongates so that it looks more like a torpedo than a disc. The colour also will be a bright red if the bed bug has fed within the last couple of hours. The bed bug will darken and flatten again over the next couple of days as it digests the blood meal.

Bed bug nymphs also change in their appearance after a blood meal. A hungry bed bug nymph is almost completely pale white or yellowish. However, once it is fed it plumps up, becomes brilliant red, and looks like a plump raspberry seed. Nymphs are the easiest to see when they have recently eaten.

**Identifying Molted Skins**

Immature bed bugs have to take a blood meal in order to grow, and molt to the next life stage. The molting process is where the bed bug has to shed its “skin.” Because all insects (like the bed bug) have their skeleton on the outside of their body (exoskeleton), they have to shed it in order to grow larger in size. Because each bed bug has five immature stages before it becomes an adult, it will have to molt (shed) five times. After adulthood, the bed bug no longer grows or sheds its skin. In a large infestation there will be many thousands of these molted skins lying around where they bed bugs have left them behind. In a new infestation, say in a hotel room, bed bug evidence may be very hard to find. Yet, because the largest percentage of any bed bug population is always in an immature stage, there is always potential to find these cast skins.

The molted skins of the bed bug look very similar to the bed bug itself. They are the same shape and generally translucent in color. However, you will notice that they look like an empty bed bug shell. They will be different sizes depending on the life stage of the bed bug that molted. In small infestations, molted skins can be found almost anywhere. In large infestations, most are found in areas where bed bugs aggregate together in groups.

**Where to look for molted bed bug skins:**

- Along mattress seams
- Behind head boards
- In ceiling/wall junctions
- Along baseboards
- Stuck to personal belongings

**Identifying Fecal Spots**

Bed bugs feed every 5-7 days if a host is present. On the days they are not feeding, they are spending their time digesting their previous meal. Blood contains a lot of water so the bed bugs must condense their meal right away and excrete some of the excess liquid as waste. This digested blood is then deposited wherever the bed bugs happen to go
after feeding. The excreted waste comes out in a semi-liquid form and can be easily seen on the surfaces of mattresses, bed frames and other locations where the bed bugs travel or aggregate. These fecal spots are black in color (not red because the blood has already been digested) and are often seen in groups of 10 or more. However, if the infestation is low, and the bed bug was just passing through the area, there may be only one of two spots in a particular location. Fecal spots can be found anywhere in a large infestation, but when the infestation is small, there are some places where fecal spots are more likely to be found. See below.

Where to look for Fecal Spots:
- Along the mattress seams and on the tag
- On the wood frame of the box springs
- Behind the head board
- Along the tops of baseboards or the edge of carpeting
- Ceiling/wall junctions and behind pictures on the wall
- At electrical outlets
- In curtain seams where they gather at the rod

Notice that the bed bug faecal spotting can look similar to German cockroach faeces that you might find in an apartment with a heavy cockroach infestation. One way to tell these two types of faecal spots apart is to first look for additional bed bug evidence in the area. Do you see shed skins or hatched eggs? If not, touch the faecal spots (yes, touch them). Bed bug faecal spots have a smooth feel because they consist of a dried liquid food (blood). German cockroach faeces tend to feel very granular because they contain solid wastes.

Identifying Bed Bug Aggregations

Looking for bed bug aggregations is similar to looking for faecal spots in that bed bugs often leave numerous faecal spots where they aggregate together after feeding. However, these aggregations also contain a variety of other bed bug evidence:

- Live bed bugs (multiple life stages)
- Fecal spots
- Cast skins (from nymphs that have molted)
- Live and hatched eggs

Although the photograph opposite makes a bed bug
aggregation look obvious, these aggregations are not so easily identified if you do not look closely. For example, take a look at the photograph taken of an apartment ceiling below. At first glance, this looks like mould or mildew problem, indicative of a moisture issue coming from the apartment upstairs. However, if you look more closely you can see that the “mould” is actually numerous aggregations of bed bugs on the ceiling. The black material is the faecal spotting described previously.

Where to look for bed bug aggregations:

- Along mattress seams, in the tufts and under the mattress tags
- Behind the headboard
- Inside the holes for set-in screws
- Along wood creases in the box springs or in bed frames
- Where the box springs fabric is stapled to the wood frame
- Behind loose wallpaper
- Behind chipped paint
- Under the base of the air conditioner
- Beneath the wood framing that holds the bar in the closet
- Along the interior frame of closet doors
- Behind baseboards
- Inside the baseboard heaters
- Inside curtain rods, and on the curtains near the top where they are pleated
- In personal belongings, including books, stuffed animals, picture frames and hundreds of other locations

Summary

The first clue suggesting that you may have a bed bug infestation is often the presence of itching bites. However, bites reactions are quite variable and may not be due to bed bugs at all. Be aware of the other signs that bed bugs leave behind: faecal spots, molted skins, and aggregations.
Bed Bug Control

Bedbugs are a very specialized group of true bugs (of the insect Order Hemiptera) that have evolved away from their plant-feeding cousins to specialize in sucking blood from vertebrate hosts. Probably evolved from insects that originally fed on the blood of bats in caves; the two main pest bedbugs; the common bedbug (Cimex lectularius) and the tropical bedbug (Cimex hemipterus) now feed almost exclusively on man. When bitten, people generally have a very red, very itchy reaction which can succumb to secondary infections; however there is no evidence to suggest that bedbugs are vectors of disease.

Bedbugs are very much an urban pest problem; one that was more or less forgotten about until only a few years ago. The increased ease in international travel and the more focussed (less broad spectrum) nature of professional pest control pesticide applications have been a couple of reasons offered for the recent resurgence in bedbug activity. They are now an increasingly common pest in a variety of situations. Due to their cryptic nature and the fact that they will utilize all manner of cracks and crevices as harbourages, their successful control can be difficult. A thorough Inspection of the infested area, as well as adjacent rooms and areas is absolutely essential and control methods should integrate both chemical and non-chemical approaches.

- A Bed Bug doesn’t fly or hop
- A Bed Bug will scurry about and are very quick
- The Bed Bug mouthparts are modified for piercing and sucking.
- A Bed Bug grasps human skin with its forelegs, pierces the skin, and injects anticoagulant and anesthetic containing saliva.
- A Bed Bug normally feed at night, about an hour before dawn, but if the conditions are favorable, they will also feed during the day.
- A Bed Bug feeding time takes from 3-12 minutes
- An Adult Bed Bug can survive starvation in proper conditions for a year or more.
- A Female Bed Bug will lay about 300 eggs in her lifetime.
- A Female Bed Bug lays approximately five eggs per day.
- Bed Bug eggs hatch in 10 days.
- The Bed Bug nymph stage lasts 6 weeks, undergoing 5 molts.
- A Bed Bug feeds mainly on human blood.
- Bed Bug bite symptoms may not be noticeable for 2-3 days.
- Bed Bug bite symptoms could include swelling and itchiness.
- Bed Bug bites may appears in a line of 2 to 3 bites.

You must be very thorough in order to properly address Bed Bug infestations. As Bed Bugs can travel up to 30m and can be transported in clothing, luggage, furniture etc … you will have to treat nearby rooms and possibly vehicle interiors and work places etc … to prevent the infestation from continuing.

Various populations of common bedbugs from Australia and elsewhere in the world have been shown to exhibit resistance against various insecticides (pyrethroids and carbamates), it is clear therefore that it is in everyone’s best interest to acknowledge the work done by local and international researchers and choose a company proficient in bedbug management accordingly.

CAIRNS PEST CONTROL HAS THE KNOWLEDGE AND EXPERTISE TO CARRY OUT INSPECTIONS & TREATMENTS.
THEY WILL ALSO SET UP A MONITORING (ELECTRONIC) SYSTEM THAT WILL ALLOW THE FUTURE CONTROL BEFORE THE PROBLEM GETS OUT OF HAND.
IN THE NEAR FUTURE CAIRNS PEST CONTROL WILL HAVE A SNIFER
Detective Bed Bug

Stop a bed bug explosion through early detection – with an inspection by a bed bugs dog sniffer. Canine scent detection services are well-known for accurate narcotics and bomb inspections, while new detector dogs for cancer, bootleg DVDs, narcotics, cadavers, firearms, mold, termites, e-coli, salmonella and even illegal cell phones smuggled into prisons— are emerging services. Bed bug k9s are in high demand as an accurate and fast confirmation a bed bug infestation.

How Do Dogs Detect Bed Bugs?

While we smell the aroma of a freshly baked apple pie, a sniffer dog discerns all the ingredients individually: flour, salt, shortening, water, eggs, sugar, cinnamon apples and butter. A dog has the ability to discriminate a single drop of water diluted into the combined capacity of 20 Olympic-size swimming pools.

A bed bug sniffing dog has been specifically chosen for their suitability for the job: personality, drive, health and disposition. The dog is less intrusive than a human inspector, friendly with people, gentle with children and the customers’ health is treated with care and attention.

As a team, dog and handler, are able to find bed bugs in seams, creases, tufts and folds of mattresses and box springs, cracks in bed frames, underneath chairs and chesterfields, between cushions of upholstered furniture, underneath area rugs and the carpets edges, between the folds of drapery and curtains, in nightstands and dresser drawers, behind baseboards, around doors and window casings, behind electrical plates and walls, under loose wallpaper, paintings and posters, in cracks in plaster, and in telephones, radios, electronics and in vehicles. A canine bed bug detective is able to ‘sniff’ out a single live bed bug or viable egg in these situations with 97% accuracy. A human’s visual inspection has accuracy between 20 to 45%. The dog is also faster to accurately pinpoint the hot spots, as the dog is relying upon their superior sense of smell to find the bed bug.

Bedbug sniffing dogs are cost effective. The time savings = reduced labor costs and the accuracy = minimized pesticide use and exposure.

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