

Bedbugs are small, wingless insects found all over the world. They are nocturnal parasites, which means they rest during the day and are active at night. However, bedbugs are opportunistic and will bite in the day, especially if starved for some time. They feed on the blood of humans and prefer to hide in bedding and on mattresses where they have ready access to a source of food. Although bedbugs can harbour diseases in their own bodies, transmission to humans is highly unlikely and there is no evidence for transmission of disease. They are not dangerous, unless a person is allergic to them. However, their presence can be distressing and their bites can be highly irritating! Please note their presence is not an indicator of poor hygiene!

Where do bed bugs like to hide?

- Mattresses, particularly along the seams
- Bedding such as sheets and blankets
- Beneath loosened edges of wallpaper
- Between the cracks of wooden floors
- Wall cracks or crevices
- Carpet
- Furniture, particularly in seams and cracks
- Luggage and clothing being transported from one location to another

What do they look like? Can you see them?

Bed bugs can be detected visually, especially in the later stages of their life cycle when they can be over 5mm long. Small blood stains on mattresses are also another clear visual indicator of infestation; you may sometimes even be able to observe their "exoskeletons" after moulting.

See pictures below for examples:

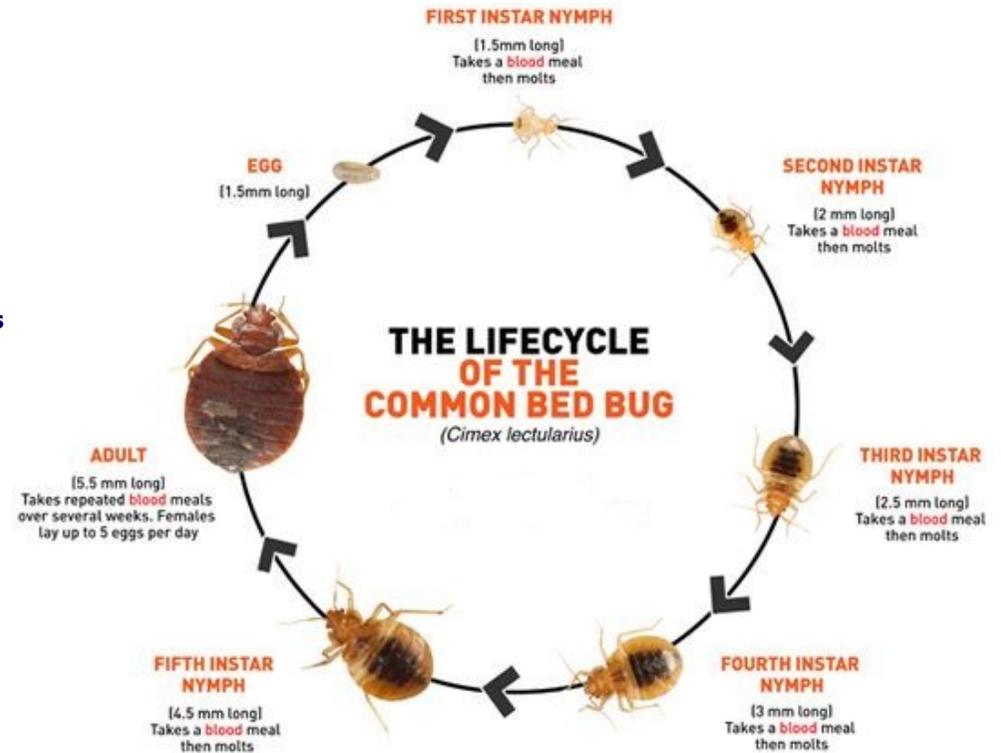


Life Cycle of Bed Bugs

The 6 stages of bed bugs are as follows:

- The Egg: The bedbug egg is 1mm long and hatches after 7 - 12 days.
- Stage 1 First Instar Nymph : The bedbug is about 1.5mm long. When hatched, it is a beige colour however after its first blood meal, it will turn red. It will then shed its outer shell.
- Stage 2 Second Instar Nymph: Immature - At 2mm long, the bed bug will shed its shell.
- Stage 3 Third Instar Nymph: Immature - At 2.5mm long, the bed bug will shed its shell.
- Stage 4: Fourth Instar Nymph : Immature - At 3mm long, the bed bug will shed its shell. The bed bug continues to grow and becomes easier to see.
- Stage 5: Fifth Instar Nymph: Immature - At 4.5mm long, the bed bug will shed its shell. The bed bug is getting bigger and almost at its adult stage.
- Stage 6: Adult: At 5.5mm long, the bed bug will feed and reproduce constantly.

Important note:
Unlike headlice, bed bugs can survive for months away from the human host!



How do I know if I have been bitten by bed bugs?

Bed bugs will usually bite on the arms and shoulders (or any exposed area of the body) which may result in small areas of swelling and itching of the skin. When bed bugs bite, they inject an anaesthetic (so you do not wake up from your sleep) and an anticoagulant (to make the blood thinner and feeding easier). Most people will not even realise they have been bitten until marks appear from one to several days after the initial bite.

It can be difficult to distinguish bedbug bites from other insect bites. In general, the sites of bedbug bites usually are:

- *Red, sometimes with a darker red spot in the middle (but this spot is not always visible)*
- *Itchy (although this symptom does not help you to distinguish from other "allergic" skin conditions)*
- *Arranged in a rough line or in a cluster, rather than just "here and there" on the skin (note this lines are not always clearly seen, especially if the person has had a "restless" sleep and has been "rolling" and moving around in the bed)*
- *Located on the face, neck, arms, legs and hands (rather than the ankles where sand-flies more commonly will focus their attack). Mosquitoes can also often be "ruled out" as the patient will usually "hear them" unlike the silent bed bug.*

It is important to note that some people have no reaction at all to bedbug bites, whilst others experience an allergic reaction that can include severe itching, blisters or hives. Therefore, you may have slept in the SAME bed as someone else and only ONE of you will be experiencing symptoms.

Please see the pictures below for examples of what bed bugs may look like:



Treatment Options for Optimal Care

Bed bugs bites do not usually pose a serious medical threat. The best treatment for a bite is to AVOID SCRATCHING the area along with the use of these common over-the-counter products found in your pharmacy:

Antihistamine Tablets

Antihistamine tablets will help to relieve the allergic reaction that you are experiencing from the bites and will help to reduce the inflammation and "itching." They will also help to clear up the bite marks faster, thus removing any unsightly "spots" on the skin. It is important to note that antihistamines should be used every day until the spots have cleared totally, as ceasing treatment too early may lead to the bites "flaring up" again and causing more unwanted symptoms. Non-drowsy antihistamines are usually preferred, as they are less likely to interact with your daily activities. E.g. Telfast, Fexorelief, Aerus. Drowsy antihistamines may be preferred in cases where the "itching" of the bites is disturbing your sleep at night. E.g. Phenergan, Polaramine - please note these "drowsy" antihistamines are Schedule 3 products and require consultation with the pharmacist.



Soothing creams with anaesthetic

These creams will help to "numb" the affected area, so that you are less likely to scratch while waiting for the antihistamines to "kick in." They contain local anaesthetics (such as lignocaine and benzocaine) and antiseptic in a soothing cream base and are able to be used on open or closed lesions/wounds. E.g. SOOV Bite cream, Apothecary Itch-Eze Plus Cream (currently only available in QLD). Please note that non-sedating antihistamines are **FIRST LINE** treatment for bed bug bites and these creams are used **IN ADDITION** to these medicines and preferably not alone (as it will take much longer for the itching to stop and bites to clear).



Hydrocortisone Cream

If the bites are very red and inflamed or if there is blistering, your pharmacist may recommend some hydrocortisone cream alongside some antihistamine tablets to relieve the symptoms. These creams work by reducing the amount of "inflammatory mediators" in your body visiting the affected area and thus reduce inflammation and itching. E.g. DermAid, Cortic-DS, Amcal Skin Irritation Cream.

Note: these creams cannot be applied to broken skin!!



Antiseptic cream

Sometimes a secondary bacterial infection may develop if you have been scratching the bed bug bites. If the skin has become broken, it is important to apply a good quality antiseptic cream to avoid any infection. E.g. Betadine, Savlon, Bepanthen Antiseptic cream.



Soap-free washes

Soaps can dry out the skin and cause further irritation to the already inflamed and "itchy" bites. Consider using a soap-free wash (especially those with pine tar or oatmeal) to avoid drying out the skin and soothe those irritating bed bug bites. E.g. Pinetarsol, Dermaveen.



Ice Packs

Ice packs provide symptomatic relief of itching from the bed bug bites. Consider using ice packs to soothe particularly "itchy" bed bug bites, along with the other products recommended previously in order to maintain "optimal care."



Repellants

Deet will work well to repel these insects at night; however, it is important to choose an appropriate strength that will last over 8 hours; otherwise, they will start to bite as soon as the repellent wears off. We recommend Bushman's Gel with 80% DEET. Please ensure you apply to all exposed skin before sleep.

Lifestyle Advice for Management and Prevention of Bed Bugs

- **Avoidance of infested areas is THE method for prevention of bed bug bites. Thus, recognition of bed bug infestation (see page 1 of this information leaflet) and proper treatment of affected rooms is the best way to prevent bed bugs in the home.**
- **Reduce the number of hiding spots available to bed bugs by eliminating cracks and crevices.**
- **Tuck your sheets in around you at night or wear clothes to bed!**
- **Sleeping with the lights on has not been shown to be effective in preventing bed bug bites.**
- **If you suspect you have bed bugs, look thoroughly in the areas they like to hide (see page 1 of this information leaflet). Remove mattresses from bed frames to complete a thorough check of the bedroom. Infested areas including all possible hiding places should then be treated with an appropriate insecticide (by using a qualified pest control company!!)**
- **Vacuum the infested area thoroughly including the mattress and place the contents of the vacuum cleaner bag in a sealed plastic bag for disposal. Mattresses should be sealed in dark plastic and left outside in the hot sun for as long as possible.**
- **The application of steam to the infested areas may also help to treat the infestation.**
- **All clothes and bedding suspected of being infested should be washed in hot water (at least 60 degrees Celsius) and/or heated ironing or drying. Delicate materials can be placed into the freezer.**
- **Items not able to be washed should be put in black plastic bags and hung in the sun for a few hours, as high temperatures will kill any infestation –please note this includes your toiletries, purse, notebooks etc**
- **Get your carpets steam cleaned professionally on a regular basis.**
- **Good hygiene practices in your home such as regular house cleaning should help to prevent further infestation**

Note: The best way to prevent bed bugs is regular inspection for the signs of an infestation! Make sure YOU know what to look out for!

