PATIENT INFORMATION LEAFLET

BEDBUGS AND MANAGING BEDBUG INFESTATIONS



This leaflet has been written to help you understand more about bedbugs. It explains what they are, what the bites look like, what can be done about it and where you can find more information.

WHAT ARE BEDBUGS?

Bedbugs are small, flat, wingless (non-flying) insects that feed on the blood of warm-blooded animals, mainly humans (but they can feed off other animals, mainly chickens and bats, very rarely cats, dogs or other domestic pets).

Bedbugs are found all around the world and can infest anywhere humans live. They tend to be in buildings, particularly bedrooms, to be close to their food source (the human). They can be found in the cleanest of homes. When there is a bedbug infestation they are frequently found around a bed, such as in the seams of the mattress, as well as in cracks in the furniture, sofas, behind pictures and in other small crevices.

Bedbugs can spread to other items in the room and can potentially spread to other rooms.

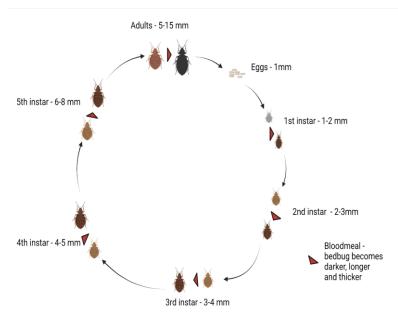
WHAT DO BEDBUGS LOOK LIKE?

Bedbugs can be difficult to correctly identify as they may be confused with other insects. Bedbugs are small and wingless (non-flying) with flat, egg-shaped (oval) bodies. They have six legs, a small head and two antennae. They crawl at the speed of an ant. They cannot fly and cannot jump. The young bedbugs (juveniles) are only 1 mm across, their eggs are smaller and are difficult to see. The

larger juveniles and adults are at least 5 mm across.

It is difficult to say how many eggs female bedbugs lay and how often as it depends on temperature and how often they are able to feed. With warmer temperatures and food readily available they will lay more eggs and lay them more regularly.

The colour of bedbugs depends on what stage they are in their lifecycle and whether they have fed or not (the picture below is a representation). Initially they can be very pale/white but as they mature, they tend to become slightly darker brown/tanned in appearance. Their colour becomes brighter red after feeding on blood. Their body also widens and gets longer. (Instar means the stage of development they have reached).



Bedbugs generally live around three to nine months, but it has been documented

that they can live as long as 16 months in cool (cold) temperatures.

HOW DO I GET BEDBUG BITES?

To be bitten by a bedbug, it must walk onto your bare skin to find a vein (they cannot suck blood through your clothes). It drinks the blood by inserting a tube (called 'proboscis') which looks a little bit like the trunk of an elephant. It takes them about two to five minutes to feed. If the bedbug is disturbed during feeding it will fall off your skin. Bedbugs are attracted to carbon dioxide (what we breath out) and warmth, and they tend to feed mainly at night as that is when they are less likely to be disturbed. Typical skin-exposed areas that bedbugs target include neck, arms, hands and legs.

On average, bedbugs feed every five days, but again this depends on their environment (they will feed more often when it is warm).

ARE BEDBUG BITES CONTAGIOUS?

No. The bites themselves can cause irritation (itch) but cannot be passed onto another human and the bedbugs do not jump from person to person.

The bedbugs can spread from place to place. As they are small and flat, they live in crevices (splits or cracks) of things like luggage cases, furniture, mattresses or boxes. This means they can be transferred from one place to another – for example, if you were staying in a hotel with bedbugs and they get inside your luggage, you could bring home some unwelcomed guests from your holiday! Keeping your suitcase on a raised suitcase stand (rather than the floor) in hotels can help reduce this risk.

It is important to understand that bedbugs can be found in the cleanest of homes and hotels, they simply need a food source.

WHAT ARE THE SYMPTOMS OF BEDBUG BITES AND WHAT DO THEY LOOK LIKE?

People have different reactions to bites. The bedbugs do not sting as they have no venom (poison). The reactions can develop slowly, for example up to 10 days after a bite. Things you may see if you have been bitten by a bedbug include the following:

- 1. Nothing at all some people get no reaction and do not notice.
- Small bite mark, a very tiny red spot of blood.
- 3. A bedbug bite like any other common insect bites (for example, similar to a mosquito bite), are red or darker, itchy and raised. Sometimes you may see a row of bites when the bedbug has been disturbed and tried to feed again (sometimes called the breakfast, lunch and dinner sign).
- 4. Water-filled blisters.
- 5. Pus-filled spots.
- 6. Wheals like a nettle sting rash.
- 7. Infection around the bite (for example, redness, hot to touch, swelling of the skin).
- 8. In extremely rare instances, a person may develop anaphylaxis, a serious allergic reaction.

CAN BEDBUGS CARRY DISEASE?

So far, bedbugs have not been shown to spread diseases between humans.

HOW ARE BEDBUG BITES DIAGNOSED?

If you think you have been bitten by bedbugs, then finding the bedbug is essential to confirm the diagnosis. You will need to look carefully and thoroughly around the bed, especially in the mattress seams, and around the furniture, particularly in small gaps. If you cannot identify bedbugs yourself, you may need help from a specialist, such as a pest control company. If you find a bedbug and are unsure if it is a bedbug - catch it and keep it in a secure pot with a very tight lid (they are flat so they can easily crawl out unless you have killed the bedbug first)



and show it to a specialist to confirm the diagnosis.

Another sign of bedbug activity is dark brown or rust-coloured bedbug droppings which can stain materials (bed linen) and mattresses.

HOW CAN THE BITES BE TREATED?

Often no treatment is required, they usually clear up on their own after about a week. Sometimes putting a cool, clean damp cloth on the affected area can help with the irritation and prevent you from scratching the bites. If the bite areas are sore, then you may need topical steroid creams or anti-histamines to settle the reaction and itch. In the rare case of a skin infection, you may need antibiotics. If you develop a serious allergy, you may need an EpiPen (a device to inject a hormone called adrenaline) to quickly improve the allergy symptoms. Please speak to your GP who can ask for dermatology advice if required.

CAN BEDBUGS BE CLEARED FROM MY HOME?

Yes. Bedbugs can be difficult to treat so please seek professional help. Treatments include insecticide chemicals and heat treatment.

Getting rid of bedbugs by yourself can be very difficult and requires time, care, diligence and thoroughness. Pesticides (chemicals) that can be bought by the general public need to be handled carefully and are not always effective (resistance). They are usually safe for humans and pets but not for other insects and fish so must be handled carefully.

Commercial companies have pesticides available that cannot be bought by the general public. More than one (chemical) treatment will usually be needed. You cannot get a room hot enough to kill bedbugs without specialist equipment and similarly you will usually not be able to get a room cold enough for long enough to kill bedbugs.

It does not help to move into a different room as the bedbugs can follow you. Pesticides often do not kill the eggs and so repeated treatments and using more than one treatment may be required. Repeat inspection is recommended.

SELF-CARE (WHAT CAN I DO?)

If you are on holiday, try to keep your bags off the floor of the hotel room. If you have bites which you suspect might be due to bedbugs, please check your luggage. Check the small gaps and seams to ensure you do not take any bedbugs home with you. A vacuum cleaner can help remove the bedbugs.

Try combining the following suggestions along with professional help to clear them from your home:

- A vacuum cleaner with a High Efficiency Particulate Air (HEPA) filter will suck up the bedbugs and make sure they do not get out through the bag. You will need to make sure you empty the vacuum cleaner regularly and dispose of the bedbugs in a way that they cannot just crawl out of your bin, for instance, a tightly tied bin bag.
- A mattress encasement (a cover that completely covers and seals) can trap any bedbugs in the mattress and prevent them climbing out at night. You will need to leave the encasement on for at least a year, longer if your house is cold. There are also encasements for the bed base. Do not just buy a new mattress until you know the infestation is dealt with fully, otherwise you may just infect the new mattress.
- Fill in cracks in walls, furniture, window frames, floorboards etc. to reduce the places where they can hide.
- Declutter the home, such as removing pictures and small unnecessary items from the bedroom to again reduce hiding places.

- Heat treatment such as washing anything you can at a high temperature (60°C) or tumble drying (at least 30 minutes or longer if you have a lot in the machine or the clothes are cold and wet to start with) to ensure that all clothing/soft toys etc. gets hot enough to kill the bedbugs and eggs. Steam cleaners will also work on the mattress and bed, but you have to be careful not to send all the bedbugs running away to hide.
- Cold treatment is less effective as the bedbugs can hibernate and survive for long periods but useful for items in your rooms that you cannot heat or put in the washing machine or tumble dryer. Ideally you need to get an item below 20° C (-4° F) for the bedbugs to die. Depending on the size or the material of the item, you may need to keep the item frozen for a few weeks (for example, a cuddly toy/doll) to ensure that all parts have reached the low temperature for long enough.
- You can stop the bedbugs with traps and blockers. Old fashioned traps were wood blocks with holes in that went around bed legs. Nowadays there are modern plastic versions, known as interceptors, which should go around each bed leg to trap the bedbugs. These trap the bedbugs as they come out and try to climb up the bed. Homemade interceptors are not very effective, the ones that you can buy are especially designed so that some of the surfaces are too smooth for the bedbugs to climb (bedbugs are very good at climbing surfaces which feel smooth to human touch). The use of sticky tape to trap the bedbugs does not work well.
- They will only climb up the bed if you are asleep in it, so you should continue to sleep in the bed, to attract them out.

- Be vigilant when buying used furniture and mattresses - always inspect them for bedbugs. Avoid buying a second-hand mattress.
- Wash second-hand bedding and clothing in hot water (60°C for at least 30 minutes) before use.
- Be careful how you dispose of unwanted items - you do not want to pass on the bedbugs to your neighbours. If you are getting rid of articles that are home to bedbugs there are special disposal bags that they can be put in to prevent them spreading to wherever the article ends up.
- There is a lot of bad advice on the internet - traditional/folk remedies do not work.
- Keep inspecting the rooms to see if you need a repeat visit from a pest control company.
- When travelling get into a habit of checking the hotel room for bedbugs.
 Use hotel provided stands to keep the suitcases off the floor. When you return home, hotwash your clothes and vacuum your bags.

Finally, if you are struggling with anxiety or lack of sleep about bed bedbugs the following points are worth bearing in mind:

- They do not sit on your body and clothing, so you are safe to leave your home, go to work and the shops and socialise with family members and friends.
- 2. The bedbugs will normally concentrate in rooms where you sleep so are unlikely to be present in other rooms and will not bite people who drop into your home to visit (but you might not want to invite people over for sleep overs until you have cleared the infestation).
- Professional companies are experienced in the eradication (killing)

of these insects, but treatments have to be repeated to get all the eggs once they have hatched.

WHERE CAN I GET MORE INFORMATION ABOUT BEDBUGS?

Links to detailed leaflets:

www.bpca.org.uk/a-z-of-pest-advice/bed-bugs-control-how-to-get-rid-of-bed-bugs-bpca-a-z-of-pests/189186

www.nhs.uk/conditions/bedbugs/

You can find specialists through the British Pest Control Association website:

www.bpca.org.uk/

To report an infestation:

www.gov.uk/report-pest-problem

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel.

BRITISH ASSOCIATION OF DERMATOLOGISTS

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PRODUCED | NOVEMBER 2022

NEXT REVIEW DATE | NOVEMBER 2025