



PestAware Advice Sheet

# Bitten by bed bugs?

## British Pest Control Association 'Bitten by bed bugs?' pest awareness advice



BPCA is the trade association for the professional pest management sector. It's our role to help everyone understand the importance of proper pest control, provide pest

prevention advice, and help you find an appropriately trained and trusted pest management company. Our PestAware guides are designed for home and business owners

and are packed with practical advice and tips for getting to grips with British pest species.

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Driving excellence in pest management

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# Bitten by bed bugs?

## Pest advice for controlling bed bugs

Found some unexplained reddish brown spots on your bedding?  
Been bitten while slumbering?  
And have you ever wondered if bed bugs live anywhere other than your mattress?

Find out everything you need to know about one of the most detested pests in the UK, including how and why we control them, using our complete guide.

Whether you're thinking about doing some DIY bed bug pest control or you're looking to enlist the help of a professional pest management company, this guide is for you.



**Bed bugs can be an uphill battle to control and DIY treatments are not recommended.**

Bed bugs are parasitic insects with a knack for travel. Scientists estimate there are around 90 species of bed bug worldwide, however the main culprit adapted to human environments is the common bed bug (*Cimex lectularius*)

According to recent studies, these pests have been chowing down on blood for at least 115 million years ago, making them

**“Find out everything you need to know about one of the most detested pests in the UK, including how and why we control them, using our complete guide.”**

### In this guide

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bunk buddies with dinosaurs like the Tyrannosaurus Rex.

Bed bugs can be tough to control because they carry a stigma, so sometimes people will avoid calling a professional straight away due to being embarrassed.

Instead, they may try to treat using an amateur product, which could prolong the infestation and lead

to it spiralling out of control.

### The dangers: why we control bed bugs

The main reason for controlling bed bugs is that they bite.

Bed bugs can harbour various pathogens, but transmission to humans has not been proven and is believed to be unlikely.

Although there are no known disease risks associated with bed bug bites, they can cause acute irritation and distress.

Everyone reacts differently to a bed bug bite; some develop red, irritating marks and lumps, while others do not react to the bites.

The bites can be itchy and cause painful swelling, with excessive scratching sometimes leading to infections.

Bed bugs also cause mental distress and can, in extreme cases, lead to ongoing delusional parasitosis, even after successful treatment has eradicated the infestation.

### Bed bugs around businesses

The businesses most likely to experience bed bug infestations are hotels, hostels or bed and breakfasts.

But that doesn't mean you won't also find them in office buildings, movie theatres, aeroplanes and other places that have a high volume

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of traffic or favourable conditions.

Bed bugs can be a costly pest to a hospitality business. As well as the cost of replacement furniture, mattresses, towels and bedding, or having to close for extensive treatment, a ruined reputation can cause a loss of future revenue.



**Negative reviews can undermine a company's reputation and lead to financial loss.**

If customers experience a bed bug infestation in the premises you manage, they are likely to complain and request a refund.

But they may also review your company negatively online and share their experience on social media. The worst-case scenario is that the media reports on the story and causes further reputational damage.

You may end up lowering the value of your accommodation to fill rooms. And if your establishment is part of a chain, it could affect other locations in your group, as the issue of pests is associated with the brand name rather than the individual business.

### DID YOU KNOW?

Customers taking hospitality businesses to court over bed bugs is not unheard of, and there are even lawyers who specialise in bed bug compensation cases.

### Habitat: how bed bugs choose a home

This common pest was once associated with unhygienic surroundings, but bed bugs can set up home in any property.

However if you clean and vacuum your home more frequently, you

furniture, behind skirting boards, under loose wallpaper, behind pictures and even in plug sockets, to name just a few places.

The ideal temperature for an adult bed bug to thrive is between 21-32°C, but they can survive in temperatures as low as zero and as high as 49°C.



have a higher chance of spotting and eradicating an infestation before it is out of control.

Poverty can also be a factor in large infestations due to the inability to afford effective professional pest control.

They are more prevalent in densely populated areas or buildings, particularly in multi-occupancy buildings with rapid resident turnover, for example, hostels, hotels, holiday camps and blocks of flats.

However, despite their namesake, they are not limited to your sleeping area. They will infest crevices in the surrounding

In short, bed bugs can generally thrive anywhere there is a food source - blood - and they will always hide in places close to that next meal.

### Where do bed bugs come from?

Bed bugs are travel experts: the Anthony Bourdain of the pest world, moving around looking for fine cuisine to sample (it's us, we're the cuisine).

It's not always obvious where they've come from, but commonly they can be introduced to your property after attaching themselves to luggage, bags, clothes or through second-hand furniture and even laptops.



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### Why are bed bugs more common in summer?

Bed bugs usually thrive during the warmer months of the year when they are more active, feeding and mating.

However, as an indoor pest, temperature-controlled buildings give bed bugs a place to thrive year-round without the need for dormancy.

In extreme cold, they will reduce their activity right down and can even survive up to a year without feeding.

Bed bugs are small and agile, avoiding detection by crawling into concealed locations.

Bed bugs can also move from one room to another in search of food or after mating. This means that your infestation could have come from a neighbouring property if you live in a multi-occupancy building.

### Bed bug biology and behaviour

#### Appearance

Adult bed bugs are oval and flattened like a small brownish-red disc, often described as the size

of an apple seed and measuring between 4-6mm in length. Their shed skins are lighter brown and look like flaky exoskeletons.

Their mouths are adapted especially for piercing skin and sucking blood.

Bed bugs do not have wings, but they have six thick, well-developed legs, which enable them to crawl up most vertical surfaces.

Their elongated eggs are whitish cream, developing a darker colour as they get ready to hatch into larvae.

The early stages of the bed bug are called nymphs; these are tiny, making them hard to detect with the naked eye.

### Mating and lifespan

The bed bug's life cycle develops in stages: egg, several immature nymph stages, and then adult. This process is called incomplete metamorphosis and can take 6 to 10 months.

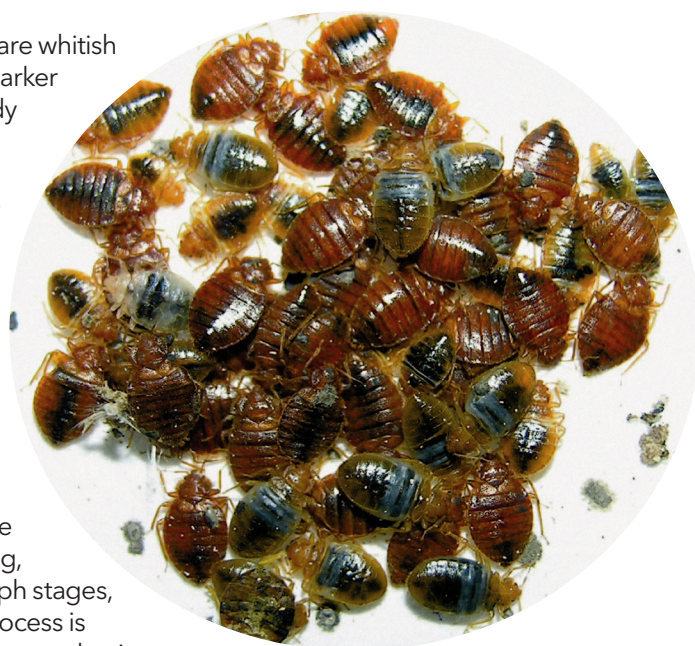
Other insects, such as fleas, develop by complete metamorphosis and have four stages: egg, larva, pupa and adult.

Bed bugs reproduce by a rather grim ritual named "traumatic insemination". This is where the male stabs the female's abdomen and injects sperm into the wound.

Female bed bugs lay 200 - 500 eggs over two months in batches of 10 to 50. The eggs are sticky and attach to items of furniture or fittings in clusters.

Depending on conditions, eggs can hatch in about a week, and the newly hatched nymphs shed five times before reaching maturity.

A blood meal is needed between each moult, and under favourable conditions with a ready supply of blood, they can mature in as little as a month and produce multiple generations per year.



The typical lifespan of a bed bug is about ten months.

### Other characteristics

Like most blood-sucking arthropods, they inject saliva during feeding, which has anticoagulant properties, meaning the bite can go unnoticed at first.

When not in use, a bed bug's proboscis or "feeding tube" is tucked under its body. After a meal, the bug can increase by up to 50% in length and 200% in weight.

Bed bugs respond to the warmth and carbon dioxide of a host and

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quickly locate a suitable feeding site. They can be in an inactive state for weeks or months and quickly “wake” when they detect biological signatures like CO<sub>2</sub>.

Bed bugs are nocturnal and usually start feeding when people are asleep. This is the safest time for them to get a meal, as they are less likely to get squished if detected.

In heavily infested areas, bed bugs will become opportunistic and feed during the day if conditions are favourable. When alarmed, they move quickly and emit an odour.

A 2013 study in the journal Nature Scientific Reports suggested that bedbugs have evolved ways to resist insecticides.

### Bed bug, flea, tick or mite?

Although all belong to the phylum classification Arthropoda, bed bugs, and fleas are insects, whereas ticks and mites belong to another group of arthropods: Arachnida.

This puts them in the same class as spiders and scorpions.

Bed bugs most closely resemble the flea in appearance; both have six legs, are wingless and can appear reddish-brown in colour.

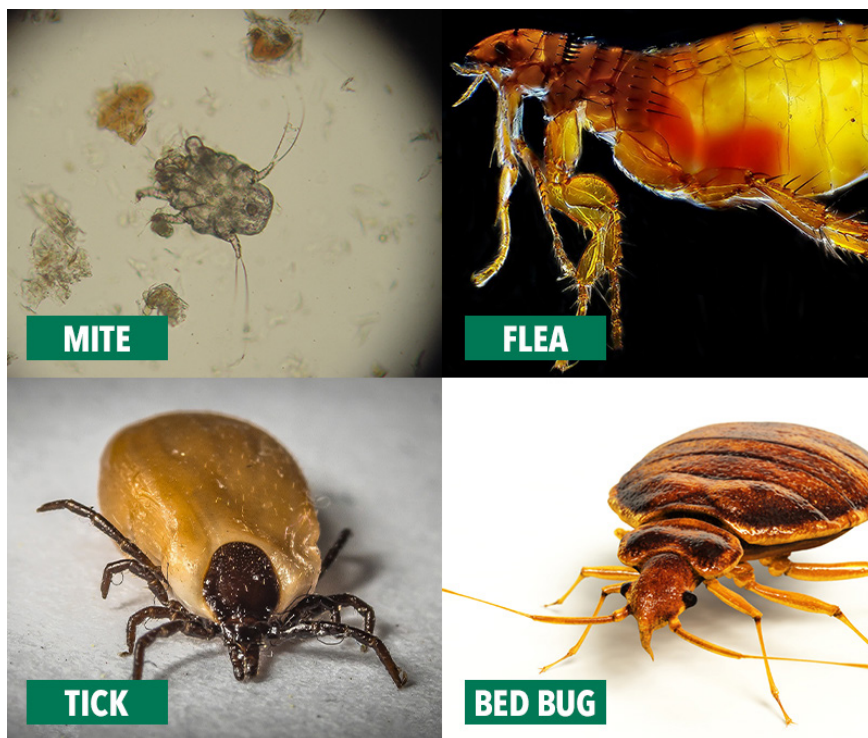
However, fleas are more often a shade of grey and have bodies that are flattened laterally, where bed bugs are flat horizontally.

There are many differences between bed bugs and ticks.

Ticks are much larger and have pear-shaped bodies, and become engorged as they feed on blood. They have eight legs, where ticks only have six. Crucially,

ticks don't generally infest indoor environments.

An exception is the invasive Brown Dog Tick or *Rhipicephalus sanguineus*, brought into the UK from Europe on dogs.



often go unnoticed at first, as bites are attributed to other things like mosquito bites or allergic reactions.

If you experience any of the following, you may have bed bugs:

It can survive and reproduce inside a home, unlike native tick species, and is spreading in the UK.

Mites have a few things in common with bed bugs, but the key difference in appearance is the number of legs; mites have eight legs and more closely resemble a spider than a bed bug.

However, ear mites can rarely be seen by the naked eye, and diagnosis will need to be confirmed by a vet.

### The tell-tale signs bed bugs are about

Signs of a bed bug infestation can

- Red, irritating bites, typically in rows on your neck, shoulders, back, legs or arms
- Small reddish-brown clusters or dark faecal spots (about 1mm wide) that look like an ink dot are usually found on the bed frame, upholstery or the bottom side of the mattress
- Small blood smears on the bed linen or headboard
- Bed bug moult skins, pale-white eggs, empty eggshells are quite small but still visible to the human eye
- And the most obvious but not always the first sign you find - seeing the small brown insects themselves, in and around your bed frame or sleeping area.



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Bites alone, without further evidence, do not necessarily mean you have an infestation. Look for these other signs and if you're unsure, call in a pest professional.

### What do bed bugs eat?

Bed bugs need to feed on the blood of a host animal. An interesting fact about bed bugs is that they can survive for months at a time without feeding.

Although our primary concern would be bed bugs feeding on human blood, they also feed on other animals' blood and are a well-known parasite of bats.

### How to treat a bed bug bite

Unlike flea bites, which occur mainly around the ankles, bed bugs feed on any skin exposed while sleeping (face, neck, shoulders, back, arms, legs, etc).

A bite is not necessarily evidence of bed bugs and could be from another biting insect, such as mosquitoes or fleas. Bedbug bites usually clear up on their own in a week or so.

Some people have a reaction to the bites. They can be very itchy, and there may be painful swelling.

#### DID YOU KNOW?

Cleaning staff with a bit of pest awareness training can be a fantastic first line of defence against bed bug infestations.

No matter how much a bite itches, you must not scratch it. This could cause an infection, which can lead to fever, nausea and further pain.

A severe allergic reaction (anaphylaxis) is also possible but rare.

Putting something cool, like a clean, damp cloth, on the affected area may help with the itching and any swelling. You should also keep the affected area clean.

However, you can do some things to reduce your chances of getting an infestation. Before staying or moving into accommodation, make sure you check for signs of bed bugs.

Take a look for signs around the bed, paying particular attention to the edges of the



**Bed bugs are travel experts, known for introducing themselves to people's homes via luggage or second-hand furniture**

You should consult a pharmacist for advice and treatment if you develop an itchy rash or eczema.

For itching, your pharmacist may recommend crotamiton cream or lotion, hydrocortisone cream or ointment and antihistamine tablets.

For swelling, you should apply a cold compress or ice pack to the affected area or ask your pharmacist about treatments such as antihistamine tablets.

If these treatments don't help, you should visit your GP. They may prescribe stronger medicines such as steroid tablets.

### How to prevent bed bugs

It's impossible to prevent a bed bug infestation as they are generally spread through bad luck.

mattress and the headboard.

Avoid putting your luggage directly on the bed or furniture, as this is the easiest way for bed bugs to attach themselves to your belongings.

If you're buying second-hand furniture, do not take it into your home without checking it thoroughly.

Good housekeeping will also help: you should regularly vacuum your house and wash your bedding.

For some businesses such as hotels, a proactive monitoring regime by a professional pest management company can help detect early signs.

Also, training your staff in what to look for when they are cleaning or working within the rooms will mean you can detect a problem before

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a guest does, thereby protecting your company's reputation.

Cleaning staff with a bit of pest awareness training can be a fantastic first line of defence against bed bug infestations.

### Getting rid of bed bugs

#### DIY bed bug control

For a suspected bed bug infestation, we strongly recommend you act immediately by contacting a professional pest control company.

Self-treatment of a bed bug infestation with amateur pesticides is highly unlikely to be successful, and failed treatments will occur if accurate knowledge of the bed bug is absent.

A 2013 study in the journal Nature Scientific Reports suggested that bedbugs have evolved ways to resist some insecticides.

Another downside is that amateur products can, in many cases, make the infestation worse by causing the bed bugs to migrate to other rooms in the house or even to adjacent properties.

A trained professional will have the technical knowledge needed, plus access to a range of professional use products and equipment not available to the public.

If you find bed bugs, there are a few things you can try to remove the bugs and eggs from your luggage, clothing and bedding.

Wash everything at a hot (60°C) temperature setting; tumble dry at a hot setting for at least 30 minutes; dry clean everything; or place

everything into a bag and then in the deep freezer for at least three days.

Pest management professionals may also use something called an Insect Growth Regulator (IGR).



**Good housekeeping will also help: you should regularly vacuum your house and wash your bedding**

BPCA has a strong warning to anyone using insecticides - always follow the instructions on the label. Take all necessary precautions to ensure you do not cause collateral damage or suffer personal injury.

### Professional pest control

Pest technicians get plenty of call-outs to treat properties for bed bugs - so if you're having issues, you're not alone!

**REMEMBER  
ALWAYS FOLLOW  
THE LABEL  
INSTRUCTIONS**

The first thing you should know is that a bed bug survey is a very invasive process. A pest professional will leave no stone unturned looking for evidence of bed bugs, which includes your bed and the inside of your bedside tables or drawers.

The standard treatment for any infested premises is the application of a residual insecticide, either as a liquid spray or powder.

The insecticide is applied to all floor surfaces.

This prevents proper completion of the bed bug life cycle, from egg to the adult stage. It won't actually kill adult bed bugs, so will be used alongside a conventional insecticide.

Once treatment is complete, it is critical you do not wash or vacuum your carpets for a minimum of two weeks - longer if possible. Over the course of the treatment,

#### DID YOU KNOW?

There are some companies who employ the use of bed bug detection dogs, usually in environments that would be labour intensive for a pest technician such as hotels.

eggs and nymphs will continue to go through the life cycle stages, eventually emerging as adults. As the insecticide has a residual effect, it will kill the newly-formed bed bugs.

If you clean your carpet, you'll be in danger of eliminating the

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residual insecticide which will lead to a failed treatment.

One method BPCA members use to get rid of bed bugs is heat treatment. You can learn more about how heat treatment works in our PestAware article. [bpca.org.uk/News-and-Blog/everything-you-need-to-know-about-heat-treatments-for-bed-bugs](http://bpca.org.uk/News-and-Blog/everything-you-need-to-know-about-heat-treatments-for-bed-bugs)

## What if my pest controller can't find evidence of bed bugs?

Delusional Parasitosis (DP) is a mental disorder in which individuals incorrectly believe they are infested with parasites, insects or bugs when, in reality, no such infestation is present.

If a professional pest controller carries out an inspection and cannot

## "A BPCA member company will be able to treat infestations quickly and safely."

find evidence of an infestation, then it's possible that DP is the issue.

Individuals with DP usually report tactile hallucinations known as formication, a sensation resembling insects crawling on or under the skin.

Sufferers of this condition should see their GP.

## Finding a pest controller to get rid of bed bugs

A BPCA member company will be able to treat infestations quickly and safely.

They can help minimise pest activity with a range of techniques and have the technical knowledge

and experience to apply products in an efficient manner, while minimising risk to the environment and non target species.

All BPCA members employ qualified technicians who frequently update their knowledge.

## BPCA members all have:

- The correct insurances
- Trained and qualified technicians
- Been audited to the British Standard in pest management EN 16636
- To follow BPCA's Codes of Best Practice.

# BE PROTECTED. PROFESSIONALLY. How do you know your pest management contractor is fit for the fight?



British Pest Control Association is the trade association for professional pest management companies in the UK.

By choosing an audited BPCA member you can be assured that the services you receive are from a trained and trusted company that meets our strict membership criteria.

Our member companies meet or exceed all legal and 'due diligence' requirements and comply with the most current legislation.

**No other trade body gives you this security.**

Make sure you stay safe.

**Select a BPCA member.**

**Stay protected.  
Always look for  
the logo.**



## Find a pest controller

A BPCA member company will be able to treat infestations quickly and safely.

They can help minimise pest activity with a range of techniques and have the technical knowledge and experience to apply products in an efficient manner, while minimising risk to the environment and non target species.

You can find a BPCA member, local to you, using our Find a pest controller tool.

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