CONDITION

Bed bugs

A bed bug infestation occurs when small blood-feeding insects live in sleeping areas and may cause itchy bites.

WHAT IT IS
Infestation by blood-feeding insects, often with itchy bites

BODY SYSTEM
Skin, with possible effects on sleep and wellbeing

MAIN SYMPTOMS
Itchy bumps, redness, swelling, disturbed sleep

WHAT CAUSES IT
Bed bugs carried into homes or belongings

HOW IT IS DIAGNOSED
Finding and identifying bugs, eggs, skins, or droppings

MAIN TREATMENT
Pest eradication plus relief of bite symptoms

CAN IT BE CURED?
Yes - complete eradication ends the infestation

IS IT AN EMERGENCY?
Sometimes - breathing trouble or facial swelling

LONG-TERM OUTLOOK
Usually resolves after eradication, though reinfestation can occur

Overview

Bed bugs are small, flat insects that feed on blood, usually while people are asleep. They do not live on the human body. Instead, they hide in mattresses, bed frames, furniture, cracks, and belongings near places where people rest.

A bed bug infestation is not a sign that a home is dirty. Bed bugs can enter clean or cluttered spaces by travelling in luggage, clothing, furniture, boxes, or other belongings. They can also move between nearby rooms or apartments.

The insects are reddish-brown, wingless, and about the size of an apple seed when fully grown. Younger bed bugs and eggs are smaller and harder to see. They often hide during the day.

Bed bug bites can cause itchy skin reactions, but some people develop no visible marks.

According to the Centers for Disease Control and Prevention (CDC), bed bugs are not known to spread disease to people. Even so, an infestation matters because itching, loss of sleep, anxiety, and the work of removing the insects can affect daily life.

Symptoms

Bed bug bites often appear on skin that was uncovered during sleep, such as the face, neck, arms, hands, or legs. Common features include:

The pattern is not always typical. Bites may be scattered, and they can look similar to mosquito bites, flea bites, hives, eczema, or other skin conditions. Bite marks alone cannot confirm that bed bugs are present.

A skin reaction may appear soon after a bite or take several days to develop. Some people have little or no reaction, while others develop larger itchy areas or blisters. Two people sleeping in the same bed may react very differently.

You may also notice signs of the insects rather than symptoms on your body. These include live or dead bugs, pale eggs, shed skins, or dark reddish-brown spots on mattress seams and nearby surfaces. The dark spots may be bed bug droppings.

- Small, raised, itchy bumps
- Redness or swelling around the bites
- Several marks grouped together or arranged in a line
- Spots of blood on bedding from bites or crushed insects

Causes and risk factors

Bed bugs are caused by an infestation of the insect Cimex lectularius or, in some regions, related species. They feed on blood but can survive for long periods between meals.

Bed bugs do not usually jump or fly. They crawl and are commonly carried from one place to another in personal belongings. They may be picked up in hotels, dormitories, shelters, hospitals, transport, workplaces, apartment buildings, or other places where people and belongings come and go.

Factors that can make exposure or spread more likely include frequent travel, living in multi-unit housing, buying used furniture, and moving belongings from an infested space. Clutter does not cause bed bugs, but it creates more hiding places and can make treatment harder.

Bed bugs can affect anyone. Their presence does not reflect personal hygiene, income, or housekeeping habits.

Diagnosis

The best way to confirm an infestation is to find and correctly identify a bed bug or clear evidence of one. Check mattress seams, box springs, headboards, bed frames, upholstered furniture, skirting boards, and cracks near sleeping areas. A flashlight can help.

A qualified pest management professional can inspect the space and identify insects, eggs, shed skins, and droppings. If you find a possible bed bug, place it in a secure container or sealed bag for identification rather than crushing it.

A healthcare professional may assess your skin if the marks are painful, severe, infected, or difficult to identify. There is no routine blood test or skin test that proves a mark came from a bed bug. Diagnosis of the skin reaction is based on its appearance, your symptoms, possible exposure, and evidence from the sleeping area.

Other causes may need to be considered, including fleas, mosquitoes, scabies, allergic reactions, contact dermatitis, and bacterial skin infections.

Treatment and management

Managing bed bugs has two separate goals: relieving skin symptoms and removing the insects from the environment. Treating bites does not eliminate the infestation.

Most bites improve without medical treatment. Gently wash the skin and try not to scratch, since broken skin can become infected. A pharmacist or healthcare professional can advise whether an anti-itch treatment, corticosteroid cream, or oral antihistamine is suitable for you. More severe allergic reactions may need prescription treatment. An infected bite may require antibiotics after medical assessment.

Removing bed bugs usually takes a coordinated approach called integrated pest management (IPM). This combines careful inspection, cleaning, heat, physical barriers, monitoring, and pesticides when appropriate.

Useful steps may include:

Do not move unsealed belongings into another room, because this may spread the infestation. Mattresses and furniture do not always need to be discarded. If an item must be thrown away, mark or damage it so that someone else does not take it home.

The United States Environmental Protection Agency (EPA) advises using only pesticides whose labels specifically allow bed bug control and following every label direction. Applying extra pesticide does not make treatment safer or more effective. Never apply a room pesticide to your skin, and do not use outdoor pesticides indoors.

Rubbing alcohol, kerosene, gasoline, and similar liquids are unsafe bed bug remedies and may cause fires or poisoning. Total-release foggers, sometimes called bug bombs, may not reach the insects' hiding places and can create safety risks if misused.

Because bed bugs and eggs can be difficult to find, more than one treatment or inspection may be needed.

- Contacting an experienced pest management professional
- Washing bedding and clothing, then drying them on the highest heat safe for the fabric
- Moving cleaned items in sealed bags or containers
- Vacuuming mattress seams, furniture, floors, and cracks, then securely disposing of the vacuum contents
- Reducing clutter that provides hiding places
- Using bed-bug-proof mattress and box-spring covers
- Placing monitoring traps under bed legs
- Following the pest professional's preparation and follow-up instructions

Complications

The most common complication is a skin infection caused by scratching. Warning signs include increasing pain, warmth, swelling, pus, or redness that continues to spread.

Some people develop a stronger allergic response, with large areas of swelling, blisters, or widespread hives. A severe allergic reaction affecting breathing or circulation is uncommon but requires emergency care.

Ongoing infestation can disturb sleep and contribute to anxiety, embarrassment, low mood, or difficulty concentrating. These effects are real even when the skin reaction is mild. Fear of reinfestation may continue after treatment.

Heavy, prolonged infestations have rarely been associated with anaemia, meaning too few healthy red blood cells, particularly in people who are already medically vulnerable. This is not a typical result of bed bug bites.

Prevention

It is not always possible to prevent bed bugs. They can be carried unknowingly in ordinary belongings, and early infestations are easy to miss. Practical checks can reduce the chance of bringing them home or allow earlier detection.

When travelling, inspect mattress seams and the headboard before unpacking. Keep luggage on a rack away from the bed and walls rather than placing it on upholstered furniture. After returning home, inspect luggage and wash or heat-dry suitable clothing.

Check second-hand beds, sofas, chairs, and other upholstered items carefully before bringing them indoors. Avoid taking discarded furniture from the street unless it has been professionally assessed.

Mattress covers and bed-leg monitors do not prevent every infestation, but they can make signs easier to find. If you live in an apartment or other shared building, report suspected bed bugs promptly to the landlord, housing provider, or building manager. Nearby rooms may also need inspection.

Living with it and what to expect

Individual bites often settle within one or two weeks, although healing time differs between people. New marks may continue to appear while bed bugs remain present. Marks can also become visible several days after the bite, so a new bump does not always mean that treatment has failed.

Environmental treatment may take several weeks and require repeat visits. Bed bugs hide in very small spaces, and eggs may survive an initial treatment. Follow-up inspection is part of routine eradication, not necessarily a sign that the problem cannot be controlled.

During treatment, keep cleaned belongings sealed and follow the pest professional's instructions about sleeping arrangements. Moving to another room may encourage bed bugs to spread in search of a blood meal.

Once the infestation has been eliminated, skin symptoms should stop as existing bites heal. Bed bugs do not remain inside your body, and bites do not create a lasting infection. Reinfestation is possible if new insects are brought into the space, so continued monitoring can be helpful.

The emotional effects may last longer than the bites. If worry about insects is preventing sleep or affecting your daily life after the infestation is gone, routine support from a healthcare professional may help.

When to get medical help

Call emergency services if you develop trouble breathing, swelling of the tongue or throat, faintness, confusion, or a rapidly worsening widespread allergic reaction. These may be signs of anaphylaxis, a severe allergic reaction.

Seek prompt medical advice if a bite area becomes increasingly painful, hot, swollen, or red; starts draining pus; or occurs with fever. These symptoms may suggest a skin infection.

Arrange a routine appointment if:

For evidence of bed bugs without concerning medical symptoms, contact a qualified pest management professional. In rented or shared housing, also follow local reporting procedures.

- Itching is severe or is not improving
- Blisters or large swollen areas develop
- You are unsure whether the marks are bed bug bites
- Scratching is repeatedly breaking the skin
- Sleep problems, anxiety, or low mood are affecting daily life

Common questions

Are bed bugs caused by a dirty home?

No. Bed bugs are carried into places in luggage, furniture, clothing, and other belongings. Clutter can give them more hiding places, but cleanliness does not determine who gets them.

Can bed bugs live in my hair or on my body?

Bed bugs do not usually live on people. They feed for a short time and then return to hiding places near beds or other resting areas. Persistent insects or eggs attached to hair suggest another cause, such as head lice.

Can bed bugs spread disease?

Bed bugs are not known to spread infectious diseases to people. Their bites can still cause itching, allergic reactions, skin infection from scratching, and loss of sleep.

Do I need to throw away my mattress?

Not necessarily. A mattress may be treated and enclosed in a bed-bug-proof cover if it is in usable condition. Ask the pest management professional before discarding furniture, since moving it may spread insects through the building.

Why am I getting bites but my partner is not?

People react differently to bed bug bites. One person may develop obvious itchy bumps while another has no visible reaction. This does not show who was or was not bitten.

Will bed bugs go away on their own?

Usually not while they can reach people or animals for blood meals. Bed bugs can survive for extended periods without feeding, so leaving a room empty is not a reliable solution. A planned eradication process is generally needed.

Sources

- Centers for Disease Control and Prevention: About Bed Bugs
- Centers for Disease Control and Prevention: Caring for Patients with Bed Bug Bites
- United States Environmental Protection Agency: Getting Rid of Bed Bugs
- United States Environmental Protection Agency: Do-It-Yourself Bed Bug Control
- American Academy of Dermatology Association: Bedbugs-Diagnosis and Treatment
- Doggett SL, Dwyer DE, Peñas PF, Russell RC. "Bed Bugs: Clinical Relevance and Control Options." Clinical Microbiology Reviews . 2012;25(1):164-192.