



Bedbugs

Pest Note



Photos courtesy of:
Gary Alpert; Whitney Cranshaw, Colorado State University; Bugwood.org

Bedbugs: What are they?

Bedbugs are making a comeback. People now travel more than ever before, and bedbugs are hitching rides on clothing and luggage. They can now be found everywhere from homeless shelters to five-star hotels to single family dwellings to public transportation. They are moved from room to room on infested objects. Anyone can get an infestation of bedbugs and this does not mean a lack of cleanliness.

Adult bedbugs are about the same size and shape as an apple seed. They have an oval, broad, flat body and a short, broad head. Bedbugs cannot easily climb metal or polished surfaces and cannot fly or jump. Unfed adults are around 6 to 10 mm long, brown and wingless. After feeding, they swell slightly in size and darken to a blood-red colour. The nymphs are shaped like the adults, but are yellow-white in colour.

The bedbug eggs are white, about 1 mm long (1/25 inch), and are almost impossible to see on most surfaces. The female bedbug lays at least 200 eggs in her lifetime, at a rate of about 2 to 4 per day. The eggs have a sticky coating and are placed in cracks and crevices, behind woodwork and any other hiding place they can find. They usually hatch in 6 to 17 days.

Newly hatched nymphs feed as soon as food is available. A bedbug goes through five moults (shedding its skin) before it reaches full maturity. Adults usually live for around 10 months, but can live for a year or more and can breed year round in a home where the environment is good for reproduction (like temperatures between 21° and 28°C). Bedbugs can live from several weeks up to roughly a year and a half without feeding.

What can they do?

Bedbugs are not known to transmit disease from one person to another person.

Bedbugs can go undetected because they are small, can easily hide in tiny cracks and crevices and usually feed at night. Itchy welts on skin and/or black or brown spots on mattresses, sheets, bed frames or walls are all signs of a bedbug infestation.

Reactions to bedbug bites vary between people. Some people don't react to bedbug bites while others can have allergic reactions like itchy welts. Allergic sensitivity in a person may increase the more they are bit. Bedbug bites may not be noticed right away because bedbugs usually feed at night when people are asleep and there may be a delayed reaction to the bites. It can also be hard to identify a bedbug bite compared to other insect bites or other skin conditions.

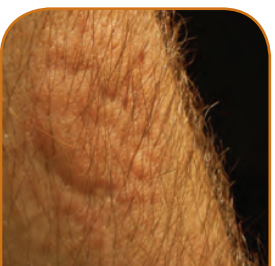
How can I manage them?

Bedbugs are very hard to get rid of. Because they are so difficult to completely eliminate, it is strongly recommended that you hire a pest control operator experienced in bedbug control. They may suggest chemical, heating or freezing treatments. Usually more than one treatment is needed, and must be done in addition to the control treatments you can do yourself.

Early detection of a bedbug infestation is very important. The larger the infestation, the more difficult getting rid of the bedbugs will be. Because bedbugs travel easily, you may also have to treat nearby rooms. Remove or reduce any clutter where bedbugs can hide. Bedbugs may fall off infested items when moved. Securely seal items in an enclosed bag, plastic wrap or plastic container to prevent them from spreading to non-infested areas of the building.

Bed treatment

Steam can be used to control bedbugs on infested mattresses. Take care to use steam that is hot enough, and avoid excess moisture, which could lead to mould. Inspect your bed thoroughly by checking the seams and tufts of the mattress as well as the box spring, bed frame and headboard. You may have to remove the cloth underside of the box spring to see if there are bugs inside. Mattress pads, sheets and other bedding should be washed in hot water and dried on the high setting.



Bedbug bite region
Photo: Lou Sorkin



Bedbug nymph
before and after feeding
Photo: Lou Sorkin



Responsible Pesticide Use

Before Purchasing a Pesticide

- Identify the pest correctly.
- Use physical control methods and alternatives to pesticides.
- Read the label directions and safety precautions before buying the product. The label must include the name of the pest to be controlled and the treatment location (e.g., indoor, outdoor, garden uses, pet treatment).
- Purchase only the quantity of product needed for the treatment.
- Consider hiring a licensed pest control operator.

Using a Pesticide

- Carefully read all label instructions and precautions before using pesticides.
- Do not drink, eat or smoke while applying pesticides.
- Persons and pets should vacate the area during treatment. Cover or remove aquaria.
- If kitchen area is to be treated, cover or remove food, dishes and utensils.

After Using a Pesticide

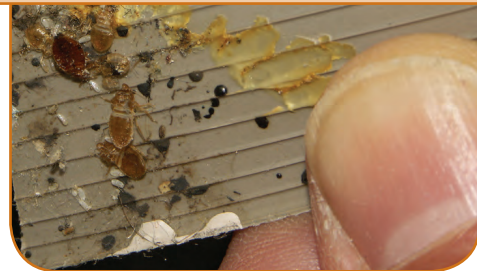
- Always wash your hands thoroughly after handling any pesticide product.





Adults, nymphs, eggs, feces, and shed skins on cardboard

Photo: Lou Sorkin



Bedbugs hiding behind flat rubber moulding

Photo: Lou Sorkin

Create a barrier to stop bedbugs from crawling up from the floor and walls of the room to the bed. Keep all items on the bed from touching the floor and walls (e.g., bed skirts). Commercially available devices are now available which prevent bedbugs from crawling up the legs of beds to the mattress. You can also place the legs of the bed inside glass jars or metal cans with a bit of talc (baby) powder. Then treat the legs of beds with double sided tape to keep the bedbugs from reaching the bed.

Infested areas can be vacuumed carefully with a brush attachment. Afterwards, throw the vacuum bag out right away and check the entire vacuum for bedbugs.

You may have to throw your bed out or purchase a mattress encasement. Holes or worn spots in the fabric may let bedbugs lay eggs in areas not easily reached.

Not all pesticides can be used on mattresses and bed frames. Carefully read the label to ensure that the pesticide is approved for use on mattresses and bed frames.

Treatment of other items

Check items carefully for bedbugs before moving them from one location to another. Bedbugs like to rest in dark, undisturbed areas. Carefully examine all night tables, baseboards, dressers, headboards (especially padded ones), electrical outlets, any items stored near or under the bed, any nearby carpeting or rugs, picture frames, switch plates, inside clocks, phones, televisions and smoke detectors: in short, anything and everything that is in the room where there is an infestation.

Bedbugs can hide in upholstered chairs and sofas that should also be treated with careful vacuuming, steaming or freezing and laundering of all possible parts (cushions, slipcovers, skirts, etc.).

Small items that cannot be laundered can sometimes be treated by heating (temperatures greater than 50°C) or by freezing. Some items can be wrapped in plastic wrap and placed outdoors in the sun on a very hot day, or in sub-zero temperatures in the winter. However, the freezing temperatures must be kept for a prolonged period of time (e.g., 4 days of consistent cold at -19°C) and may not kill all of the bedbugs.

Be very cautious about taking in second-hand items such as furniture and mattresses. Inspect and clean them before bringing them into the home. When you travel, carefully check the hotel room for bedbugs. Don't bring your pillow from home; and don't put your suitcase and other items on the bed.

Zippered mattress and box spring encasements designed for bedbug control will prevent bedbugs from hiding in the seams and tuft of mattresses and in the boxsprings. However, bedbugs are capable of crawling between the teeth of zippers and not all encasements are able to keep bedbugs out. In these cases, duct tape can be placed over the zipper. Check encasements often for tears and holes where bedbugs could get in.

Products

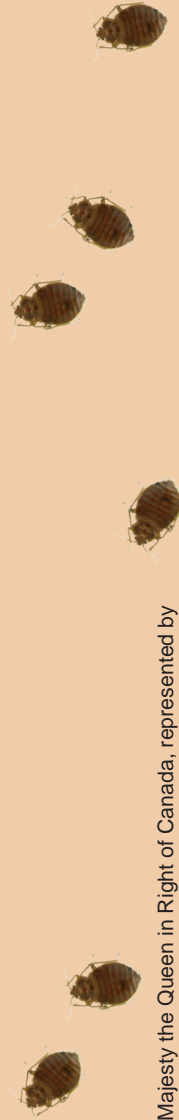
Pesticides are just one part of bedbug control. A variety of chemical and non-chemical methods are usually needed to get rid of bedbugs.

Products available to homeowners will generally contain the active ingredients pyrethrin or other pyrethroids or diatomaceous earth.

Several commercial class products and techniques are available to professional pest control operators. These may include low-odour sprays, dusts, aerosols, canine detection, heat and freezing devices. Your pest control operator will choose the best approach for your particular situation.

Please note:

- Bedbug infestations are extremely hard to treat, and repeat applications may be needed.
- Between treatments, keep monitoring the situation to control ongoing infestations and prevent future ones.
- Always follow the pesticide label directions to protect yourself and maximize how well the product works.
- Never use, or allow anyone else to use, a pesticide indoors that is meant for outdoor use. Using the wrong pesticide or using it incorrectly to treat bedbugs can make you, your family, and your pets sick. It can also make your home unsafe to live in – and may not solve the bedbug problem.



© Her Majesty the Queen in Right of Canada, represented by the Minister of Health Canada, 2010
HC Pub: 8195
ISBN: 978-1-100-17054-1 (978-1-100-17055-8)
Catalogue Number: H113-1/35-2010E (H113-1/35-2010E-PDF)

Health Canada Pest Management Regulatory Agency

2720 Riverside Drive, Ottawa ON K1A 0K9
Phone from inside Canada: 1-800-267-6315

Phone from outside Canada: 613-736-3799 (long distance charges apply)
Fax: 613-736-3798

www.healthcanada.gc.ca/pmra



Note: These are general recommendations. Consult the label for specific instructions. When in doubt, contact a professional.

- Do not permit persons or pets to contact treated surfaces until residue has dried completely.
- Provide adequate ventilation of treated areas after use.
- Wipe clean all surfaces that come in direct contact with food, such as counters, tables and stovetops, including indoor and outdoor surfaces.
- Always store pesticides out of reach of children and pets and away from food and beverages.

Accidental Poisoning

- Call a poison control centre immediately and seek medical attention.
- Take the pesticide container or label with you to the emergency facility or physician.
- Follow first aid statements on the label.
- In case of accidental poisoning of pets seek veterinary attention immediately.
- Report pesticide incidents to manufacturers (phone number on label). They are required to send them to Health Canada.

Disposing of Pesticides

- Do not reuse empty pesticide containers. Wrap and dispose of in household garbage.
- Follow the product label instructions or contact provincial authorities for disposal of pesticides.

Health Canada

Pest Management Regulatory Agency
www.healthcanada.gc.ca/pmra
1-800-267-6315