

### Hazard summary

Bed bugs are small pests that feed on blood. They are not known to spread disease, and should not be considered a threat to public health. Bed bugs normally enter a workplace environment by “hitchhiking” on furniture, luggage, handbags, and clothing. Once bed bugs have entered a workplace, it can be difficult to eliminate them and prevent them from spreading to other locations.

### Who do bed bugs affect?

For most people, bed bugs do not present a serious health hazard; however, bed bug bites affect each person differently. Some people have no reaction to bites, some may have minor inflammation, and others may develop itchy welts. For sensitive individuals, the itchiness of a bite can lead to excessive scratching and increased risk of a secondary skin infection. People who are allergic to bed bugs, or sensitive to insecticides that are sometimes used to control bed bugs, may also be affected.

### Where are bed bugs found?

Bedbugs can be found in any workplace. Those who handle bedding, clothing, and furniture are more likely to find bed bugs at their workplace. Fire fighters, police officers, health care professionals, as well as those who work in hotels, hostels, and shelters should take precautions to reduce the likelihood of having bed bugs in their workplaces.

### Signs of Bed Bugs:

- Adult bed bugs are about 0.5 cm long, and they have a red-brown colour. Young bed bugs (nymphs) have a lighter colour than adults, and they are smaller. Eggs are about 1 mm long, sticky, and have a white colour.
- Bed bugs are wingless and have 6 legs. They tend to move slowly, cannot jump or fly, and will not burrow into your skin.
- You could see just one bite, or a couple bite marks in a group or line. A bite mark is not confirmation that a bed bug is present – you would need to see a bug.
- Seeing multiple bugs in various stages of their life cycle is a sign of infestation.
- Bed bugs can feed at any time, but tend to feed when people are sleeping or sitting quietly, often when it’s dark (they are attracted to warmth and the carbon dioxide that animals exhale).
- Bed bugs hide in cracks and crevices when they are not feeding.
- Bed bugs leave behind tiny fecal spots that look like blood which can sometimes be seen on bed sheets.
- If beds are present in the workplace, using a flashlight and while wearing disposable gloves, you can check the piping of the mattress and box spring. You could also check baseboards, the feet of furniture, and curtain folds for bugs and eggs.
- Placing long strips of double-sided carpet tape around a bed where someone sleeps, and checking the tape 24 to 48 hours later can be helpful in detecting bed bugs.
- In severe infestation, there may be a musty smell.

### Regulatory Measures

There are no occupational health and safety (OHS) regulations in Nova Scotia that specifically address the issue of having bed bugs in a workplace. However, certain requirements under general OHS provisions apply; for example, although the risk to employees from bed bug exposure may be low, if bed bugs are found to present in the workplace employees must be informed of the hazard that bed bugs may present. According to the *Occupational Health and Safety Act*, section 13(1)(d), employers must inform employees and supervisors about any health and safety hazards that may be met by them in the workplace.

Given the potential disruption and negative impact that a bed bug infestation may cause, employee concerns should not be ignored, and a pest control program is strongly recommended. If an employee has a concern regarding their health or safety, they should report it immediately to their supervisor, joint occupational health and safety committee, or health and safety representative, as required by the “Employees’ precautions and duties” section of the *Occupational Health and Safety Act*, s. 17 (2).

Finally, if insecticides are used in the workplace, the requirements of the *Workplace Hazardous Materials Information System* (WHMIS) regulations apply, including employee education. Employees must be informed regarding the health hazards that the insecticides used in the workplace may present, and the precautions that are required to prevent excessive exposure. Employees must be trained in the safe use, handling, storage, disposal, and emergency response procedures for the controlled products that they work with or near. The employer must also ensure that all employees are educated in the key components of WHMIS, which includes product labelling, employee education, and material safety data sheets. Records of WHMIS training must be created and maintained by the employer (see section 4 of the WHMIS Regulations for details).

## **Prevention**

Be sure to clarify reporting procedures and to emphasize the importance of communication. This will help to reduce the likelihood of transfer from home to the workplace and vice versa. It will also help to ensure that an issue can be addressed as early as possible. Here are some steps that can be taken to prevent infestation provided by the New York State Integrated Pest Management Program (see link below):

- Reduce clutter in the workplace to eliminate hiding places and make cleaning easier.
- Do not store objects under a bed or furniture.
- Choose furniture of plain design. A metal chair offers fewer places for a bed bug to hide than a wicker one.
- Choose light-coloured bedding so that it’s easier to see insects and blood spots.
- For mattresses and box springs, use tightly fitting, zippered, bed-bug proof encasements. Be sure to check regularly for holes.
- Vacuum frequently and use an attachment to clean cracks and crevices.
- Keep a gap between furniture and the walls.
- Seal cracks in wooden floors.
- Repair peeling wallpaper.
- Keep bedding and dust ruffles from touching the floor. Better yet, remove the ruffles.

Routinely spraying insecticides to prevent infestation is strongly discouraged. If insecticides are used in the workplace, employees must be informed of the hazards of the insecticide that is used and trained in protective and emergency response measures regarding the use of the insecticide (see regulatory measures, above).

## **What you can do if bed bugs are discovered in your workplace?**

Stay calm, but act quickly. Seek advice from an experienced pest management professional to determine if it is bed bugs that are present. If you find a critter that you suspect is a bed bug, place it in a sealed plastic bag, and freeze it for identification.

If bed bugs are confirmed to be present, it is recommended that you consult a pest management professional to develop a plan of action. This will help to ensure that the issue is addressed, costs are minimized, and the use of insecticides is limited. In the meantime, if you see a bed bug, kill it.

Provide employees with information about bedbugs, and ask for their cooperation in preventing bed bugs from being transported from one place to another. Minimize what you bring to work, and check your shoes, clothing, and belongings when you leave.

The three main treatments to exterminate bed bugs include the use of chemicals, extreme heat or steam, and carbon dioxide freezing. Each method has advantages and disadvantages, and can affect the operation of the workplace and the health of staff. Heat and pesticide treatments may require temporary closure of a

workplace. There is some debate regarding the effectiveness of freezing. Clothing and linens can be washed and then dried on the hottest setting for 60 minutes.

Thorough inspection and cleaning will help to remove bed bugs from cracks and crevices and to dislodge eggs from smooth surfaces. Long-term vigilance and a written prevention plan in place are the best tools to keep bed bugs out of your workplace.

### **Useful links**

Government of Canada:

<http://www.healthycanadians.gc.ca/environment-environnement/pesticides/bedbugs-punaises-prevent-prevenir-eng.php>

Government of Ontario:

<http://bedbugsinfo.ca/tools/bed-bugs-and-occupational-health-download>

New York State Integrated Pest Management Program, part of Cornell Cooperative Extension:

[http://www.nysipm.cornell.edu/whats\\_bugging\\_you/bed\\_bugs/bedbugs\\_faq.asp#whatare](http://www.nysipm.cornell.edu/whats_bugging_you/bed_bugs/bedbugs_faq.asp#whatare)