

## Bedbug bites becoming bigger battle

Previously published at [www.cmaj.ca](http://www.cmaj.ca)

**T**hey're back, and they're blood-thirsty. Bedbugs, not too long ago little more than a riff in a nursery rhyme, have returned with a vengeance in the United States and around the world.

And the problem only promises to get worse before it gets better.

"Our ability to stop the spread is absolutely nonexistent," says bedbug expert Dini Miller, an entomologist at Virginia Tech in Blacksburg, Virginia.

No corner of the US has been spared, and the situation is similar in Canada, as seen in an international survey of almost 1000 pest control companies released over the summer by the University of Kentucky and the National Pest Management Association, which represents the pest control industry.

Roughly 95% of respondents in the US and 98% of those in Canada reported encountering bedbug infestations in the previous year, compared with about 25% of respondents in both countries before 2000. Cities are being harder hit than rural areas.

"We really are saying it's a pandemic," says Missy Henriksen, the association's vice president of public affairs.

The situation has government policymakers, local officials, businesses, landlords and private homeowners all struggling to respond to apple-seed-sized insects that have demonstrated an extraordinary ability to multiply in the face of the best defenses that humans can muster.

Bedbugs were largely eradicated in the US and Canada during the 1940s and 1950s because of widespread use of the now-banned synthetic pesticide dichlorodiphenyltrichloroethane (DDT) but have made a comeback. The bugs have now become highly resistant to many of the more limited insecticides still available to combat them. Canada has even fewer approved insecticides than the US for addressing the problem, says Miller.

The bugs are not just turning up in beds. They can be found in chairs, sofas, electrical outlets, baseboards and crevices at homes, apartments, hotels,



Dr. Harold Harlan/Armed Forces Pest Management Board

A partly engorged adult male bedbug.

hospitals, college dorms, offices, movie theaters, high-end stores and more.

How do they get around? They don't fly, but can easily travel from room to room and beyond by crawling or hitching a ride on people's clothing or shoes, bedding, luggage, handbags and furniture.

The flat, brownish bugs, which do not transmit disease, generally come out at night to feed on human blood with a painless bite, often delivered when people are asleep. While people react differently, the bites can leave itchy, bloody welts. Miller says many doctors used to mistake them for scabies, and now, too many are diagnosing bedbugs simply by eyeing the bites, without enough information about where and when the bites were delivered. Other health effects include skin rashes and allergic symptoms, as well as psychological effects like exasperation and irritation. Treatment of the bites typically involves symptomatic use of antihistamines and corticosteroids.

Getting rid of bedbugs is hugely difficult. Methods include insecticides, heat, steam, freezing and vacuuming, but can take time and be very costly.

The proliferation has people trying all sorts of questionable tactics, including bombarding their homes with chemicals approved only for outdoor use, and turning to businesses that aren't equipped to handle bedbugs.

The Environmental Protection Agency held its first "bedbug summit" in

2009 and is participating in a US government task force trying to educate the public and develop better eradication options.

Officials in Ohio, home to some of the hardest-hit cities, asked the agency to approve an emergency exemption allowing indoor use of propoxur, which was banned for in-home use in 2007. The request, backed by dozens of other states, failed to win approval over the summer, but the agency has been asked to look at more information and reconsider.

Politicians are taking notice. Federation legislation, known as the "Don't Let the Bedbugs Bite Act," has been introduced to provide states with more resources to educate health professionals and increase inspection, prevention and eradication programs. Its sponsor invited government officials, industry representatives and others to an Oct. 5 forum to discuss options.

Miller says people and property managers need to start paying attention and changing habits. For individuals, that means taking steps like carefully inspecting their hotel room, and checking clothing and luggage after a trip. "We can't just go crazy and freak out over bedbugs," Miller says. "We're going to have to use all our rational faculties to deal with what is going to be a tedious process of keeping bedbugs out and then eradicating them when they get in." — Nancy Benac, Washington, DC

DOI:10.1503/cmaj.109-3676