# Dealing with Bed Bugs in Your Community

By Dr. Mohammed El Damir, Technical and Training Director, ADAM'S Pest Control, Inc.

S ince the time of cave dwellers, bed bugs have loved feeding on human blood. When people moved out of caves, so did the bed bugs. In the 18th century, these bloodsuckers impacted the quality of life for people in Europe, the English colonies and Canada. The same situation was observed in the US during the early 20th century, when bed bugs were a considerable problem and were believed to be among the top three pests in and around structures.

Due to a number of reasons, including the extensive treatments of long-lasting insecticides such as DDT, bed bug infestations were dramatically decreased after World War II, and almost disappeared by the 1950s. Very little attention has been paid to them until recently, when bed bugs were reintroduced and became a fast growing nightmare in many parts of America. Regardless of the sanitation conditions, these opportunistic insects are found attacking all kinds of buildings, including but not limited to apartments, dorms, single family houses, multi-unit housing, cruise ships, hotels, motels, hospitals, schools, and movie theatres.

The majority of people think of bed bugs as microscopic insects that we cannot see with the naked eye. This is probably due to their painless bites, their cryptic lifestyles as they can hide in tiny protected areas, and because they are nocturnal and can go undetected for a long time.

In reality, bed bug adults are large enough to be seen without magnification. They are about 3/16 to 1/4 inch long, oval, and reddish-brown in color. Unlike fleas, bed bugs cannot jump. But they can crawl very fast, and their bodies are flattened from top to bottom. Nymphs are nearly colorless when hatched, becoming brownish as they mature. Females lay white, sticky, pear-shaped eggs approximately 1/32-inch long in concealed areas, such as any crack, crevice or void in mattresses, box springs, furniture, walls, ceilings, etc.

Unlike mosquitoes, fleas or midges, bed bug adults, and those in immature stages, are bloodsuckers. They have piercing sucking mouthparts and feed externally on warm-blooded



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animals, including humans, bats, and birds. Another interesting feature of bed bug toughness is that nymphs can survive without feeding for several months and adults can survive up to two years. While bed bugs have reduced wings, they cannot fly. They are skilled hitchhikers and, with no trouble, get a ride on luggage, clothing, beds, furniture, or other items, and relocate to a new home.

The significance of bed bugs as public health risk pests is a big controversy. Although, there is no evidence that they can transmit disease-causing organisms to humans, their bites can create allergic reactions in sensitive individuals. This can eventually disrupt people's sleep and lead to anxiety, delusions, panic or depression problems. As bloodsuckers, common bed bugs, *Cimex lectularius* L. are not picky about their meals. When they are hungry, the gender, skin color or

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(b), but may reasonably regulate the type, style, and quality of the improvements or alterations, as they relate to health, safety, and architectural standards. In addition, improvements or alterations made pursuant to subsection (b) must comply with subsection (a)(i), (ii), (iii), and (iv).

(d) Notwithstanding any contrary provision of section *515B.1-102*, *subsection (b)* applies to all common interest communities subject to this chapter, chapter 515, or 515A. The unit owner's rights under this section may not be waived.

(e) Subsection (b) does not apply to restrictions on improvements or alterations imposed by statute, rule, or ordinance.

(f) Subject to the provisions of the declaration and applicable law, a unit owner may, at the unit owner's expense, after acquiring title to an adjoining unit or an adjoining part of an adjoining unit, with the prior written approval of the association and first mortgagees of the affected units, remove or alter any intervening

## Correction

In the Spring 2009 issue of *CIC Midwest News*, on page 5, in the article *Fair Housing in Common Interest Communities*, one of the state's protected classes, marital status, was omitted. The listing should have also stated "Receipt of Public Assistance" rather than "Respect to Public Assistance." For a complete listing of the Metro Area Fair Housing Laws, go to www.hud.gov/local/mn/ working/localpo/fheolaws.cfm partition or create apertures therein, even if the partition is part of the common elements, if those acts do not impair the structural integrity or mechanical systems or lessen the support of any portion of the common interest community. The adjoining unit owners shall have the exclusive license to use the space occupied by the removed partition, but the use shall not create an easement or vested right. Removal of partitions or creation of apertures under this paragraph is not an alteration of boundaries. The association may require that the owner or owners of units affected replace or restore any removed partition, that the unit owner comply with subsection (a)(i), (ii) and (iii), and that the unit owner pay all fees and costs incurred by the association in connection with the alteration.

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age of their hosts doesn't matter. Bed bugs feed on any exposed body parts and their bites cause red, itchy, swelling marks in almost half of the population. Usually, these unpleasant, irritating spots seldom last more than a few days, but their reaction may be delayed up to a week or more. Conversely, in sensitive people, bite blisters develop necrotic lesions that will heal over several months. Bed bugs also leave behind a mess of rusty fecal matters, shed skins and a musty or sweet odor.

#### **Bedbug Management**

Good communication and collaboration practices are the first step to managing and stopping the spread of bed bugs. The Pest Management Professional (PMP), board members, property managers, building maintenance personnel, and homeowners need to cooperate at all levels to achieve a successful management program.

Due to their cautious behaviors and capabilities to hide in tough places, bed bugs can spread easily in several ways, and become epidemic in a relatively short period of time. Infested mattresses, box springs, furniture, clothing, luggage, bedding and travelers' suitcases facilitate these opportunistic pests, enabling them to travel and spread from one area to another. People may help distribute bed bugs simply by discarding their infested mattresses and box springs. They often fall out during the move to the dumpster. Sometimes people dumpster dive, bringing the infested, furniture back into their homes. To avoid this from happening, disposable mattress and box spring covers can be used to hold bed bug life stages inside the encasements and provide a peace of mind during the bed bug clean out process. Disposed items should be treated, destroyed or spray-painted "BUGS." Also, from a practical point of view, if a bed bug infestation is confirmed in a structure, it is not recommended to move items from the infested rooms before the pest management professional has inspected and approved the plan. Moreover, all bedding materials, curtains and clothing in the infested room should be separately bagged, laundered and hot dried, or dry cleaned.

Since bed bugs are resilient pests, their management requires employing non-

chemical pest management tactics in conjunction with chemical methods.

The best way to eliminate bed bugs is to prevent them from coming. If properly implemented, the following practices can prevent bed bug infestations:

 Check in and look for any bed bug signs in mattresses, box springs, luggage, clothes, bedding and second hand furniture before bringing them to your home.
 Remember that bed bugs are survivalists and can succeed in alternative ways of existence. Therefore, be careful to check public transportation and look underneath cloth seats for bed bug fecal marks or life stages.

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3.) Check backpacks for bed bug life stages or other signs.

4.) Check coat racks for bed bug signs.
5.) Properly screen all open areas to prevent warm-blooded animals from entering buildings because common bed bugs can feed on warm-blooded animals, and bed bug related species (i.e., bat bugs) can feed on humans if their hosts are not available.
6.) Regularly inspect all bed linens, curtains, and clothing materials for rusty spots, insects' life stages and shed skins.

7.) Inspect where pets sleep.

8.) Wash and hot dry bedding items frequently.

9.) Use proven bed bug mattress and box spring encasements.

10.) Caulk all hidden areas (cracks, crevices, holes, etc.).

11.) Glue or replace all loose wallpaper.

12.) Reduce clutter.

13.) During an epidemic, it is wise to keep monitoring.

#### **Thermal Remediation**

Thermal remediation (sometimes called heat treatment) is another example of a non-chemical pest management strategy. An infested unit is gradually heated up to temperatures lethal to the bed bugs (120°F-130°F) and held at these temperatures for

a certain period of time (usually two to three hours) to achieve total elimination of all insect life stages. Recently, this non-toxic remediation method has become an integral part of bed bug management in hotels, apartments, homes, dorms, hospitals, and other locations.

#### Insecticides

When insecticides are used to manage bed bugs, the Pest Management Professional (PMP) must use EPA-approved residual insecticides in a manner that minimizes the exposure risks. The PMP will treat all bed bug hiding places using an aerosol cane, a duster, a handheld pressurized spryer, or a combination of these. Because bed bugs hide in small holes, cracks, voids, folded parts and protected areas, reducing clutter and making infested rooms accessible for the treatment is essential for successful bed bug elimination. It is also vital to ensure that you fully understand and follow all preparation and precautionary measures provided by your PMP before and after treatment. Applications should be done according to label instructions. To know more about the product being used in your unit/ structure, request a copy of the product label and Material Safety Data Sheets (MSDS). Because more than 70% of a bed bug population is linked with bed-associated items, especially mattresses and box springs, most people prefer discarding them. But if this is not an option, these items can be treated with an approved insecticide. In this case it is recommended to cover the mattress and box spring with encasements approved and designed for bed bug prevention after the treatment. Follow up treatment evaluation is highly recommended. Make sure to schedule a post treatment evaluation inspection. The frequency of this practice depends upon the level of the infestation, pest management policy, homeowner cooperation, bed bug biology, and other related factors.

Understanding more about bed bugs will help eliminate these troublesome pests and stop the spread of the infestation.

Dr. Mohammed El Damir, 800.227.2214. Technical and Training Director ADAM'S Pest Control, Inc. mohammed@adamspestcontrol.com www.adamspestcontrol.com