

## Will Bed Bugs Hurt Me?

**T. J. Gibb, A. Gondhalekar, and T.S. Gibb 2016. Bed bugs and society: the true cost of bed bug infestations. Pest Management Professional. Blog Post 0116 link to 83 (12): 54-56**

The question: “Will bed bugs hurt me?” has been asked by countless people throughout the country in recent times. Surprisingly, the answer may depend upon whether you are rich or poor? Sound preposterous? We know that bed bugs bite the rich just as they do the poor, do not discriminate between races, religions or political affiliations and yet, surveys across socio-economic lines clearly show that bed bugs are more common in lower income residences and in larger cities. The fact is that bed bugs have become an established urban pest, and a disproportionately common pest of the poor. This may have always been the case. During his extensive global travels, Ulysses Adrovandi (1522-1605), an Italian aristocrat, physician, academic and naturalist, observed that bed bugs were less common in homes of the rich because the rich had the resources necessary to keep them out. He said, “They infest both the chambers of the rich and the poor, but are more troublesome to the poor... for they do not breed in beds of which the linen and straw is frequently changed, as in the houses of the rich” (Adrovandi, 1602). It seems that not much has changed over the centuries. Bed bugs are still most common in the houses of the poor mainly because the poor lack the means to properly eradicate them.

Long lasting pesticides (esp. DDT) as well as home washing and drying machines were introduced into most American homes during the mid 1900s. Many insects including the then common bed bugs were no match for these two powerful weapons and within a decade, bed bugs became a rare sighting in the US and Canada.

However, in subsequent years, DDT was banned in North America, worldwide travel and family relocation became common and the buying and selling of used furniture (2<sup>nd</sup> hand stores and antiquing) became a popular practice. These and other changes in American behaviors set the stage for a significant



resurgence of bed bugs throughout the continent. Within a single decade beginning at the turn of the 20<sup>th</sup> century, bed bugs returned from near eradication to become the most serious household insect pest in the country – surpassing ants, termites and even cockroaches. Today, nearly every city or town has or has reported incidences of bed bugs in hotels, family residences, churches, nursing homes, schools, hospitals, and even libraries. Social media is replete with stories, articles and dialogs about the cause and control of this insidious pest.

In response, University researchers have tested for effective pesticides, demonstrated proven control techniques, recommended prophylactic devices and monitoring tools but these products and techniques are only effective if they are correctly implemented and they can only be implemented if they can be afforded.

### **Physical Health Costs? Ask Medical Health Care Professionals:**

Most primary care physicians and even epidemiologists will respond something like “Bed bugs have never been proven to transmit diseases to humans, even though they may carry many pathogens on their bodies.” Their answer is “NO, bed bugs will not hurt you.” However, this is not necessarily the definitive or final answer to the question. While bed bugs may not cause illness or death, it does not answer the question about harm in a more general sense. Those considering the potential harm from bed bugs should also consider answers provided by other consultants before making a hasty conclusion about harm caused by bed bugs.

Dermatologists may add the following facts: Bed bugs are external parasites that feed exclusively on blood. To access blood, they must bite or pierce the skin. Skin lesions due to the initial bite may seem minor, but they are often itchy.

Scratching further irritates the itching sensation, and may eventually result in



secondary infections. Bed bugs are not known to ‘transmit’ disease-causing pathogens through their own feeding but it has been well documented that they do harbor many such pathogens on their bodies. It is uncertain if they can ‘transfer’ them. Ultimate effects of itching and scratching of open sores in the presence of heavy infestations of bed bugs and their fecal matter have not yet been determined.

What is known is that the immediate health effects of bed bug bites vary widely, depending upon a patient's individual immunological response. Prolonged exposure to bed bug infestations results in increased sensitivity by the individual. Severe discomfort and itching may occur. Repeated bug bites over a period of several weeks may cause some people to become sensitized to bed bug bites - resulting in ever-intensifying allergic responses. Anaphylaxis, a severe allergic reaction, can sometimes follow.

### **Psychological Health Costs? Ask Social Scientists and Psychologists:**

Diminished physical health is not the only potential harm caused by bed bug infestations, however. Sociologists have described some of the mental and emotional costs. For many people, the prospect of being attacked by bloodthirsty parasites, especially at such a vulnerable time (asleep in bed) may evoke a terror slightly short of death itself. Mental anguish is often cited as a common experience in cases of bed bug infestations. Adding to that the social stigma and negative repercussions of being identified as a 'bed bug carrier' can lead to many bizarre and self-destructive behaviors. Fear of being identified by peers, as 'bed bug contaminated' is a leading cause of not only extreme eradication measures but also 'non-reports'. When humans fear the consequences of reporting their infestation more than they fear the infestation itself, bed bugs spread.

Bed bug infested individuals engage in destructive behaviors such as social distancing as a way of limiting the risk of infecting others. Individuals may decide not to attend social events, where contact with others is likely. They may believe that their 'loss of society' will help curb the spread of bed bugs. Such self-imposed quarantines can be highly detrimental to a person's sense of well-being and mental health and can actually exacerbate feelings of abandonment and depression.

Interestingly, even individuals who mistakenly thought that their home was infested but was not, showed increased depression and social distancing behaviors (Gibb unpublished data).

### **Mental Health Costs? Ask Psychologists:**

Psychologists also report a plethora of mental health costs associated with bed bugs in addition to mental anguish. These harmful effects range from paranoia, sleep disturbance, insomnia, depression, and hyper-vigilance to obsessive thoughts and even suicide. Psychological symptoms seldom have a one-for-one correlation with causes, but it is certain that having bed bugs is a stress that can exacerbate many symptoms. It is clear that physical and emotional harm caused

by bed bugs can negatively impact relationships, employment, and quality of life, things not commonly considered when tabulating the true cost of a bed bug infestation.

### **Financial Costs? Ask Home Economists:**

A measure of the true cost of bed bugs requires that property loss and damage be added to the list of expenses. Victims of bed bug infestations commonly discard real property in an effort to rid themselves of the pest. Beds, including mattresses, box springs, frames and bedding are almost always the first to go into the trash. Upholstered chairs and couches follow closely behind. Clothing, luggage and other personal items that may have been stored near or under the bed quickly follow. Carpets are torn up, curtains are removed, baseboards and headboards are taken apart. In extreme cases victims sell or simply abandon their homes, cars and furniture just to rid themselves of bed bugs. All of these things carry a price tag. Add to that the cost of the many do-it-yourself products purchased for control, cost of increased laundry and the resources devoted to bed bug eradication by everyone involved. In summary, financial losses are high.

### **Eradication costs? Ask Professional Pest Managers:**

Professional control of bed bugs is expensive. Cost estimates by professional pest managers to treat a bed bug infested home depend upon several factors. The size of the home is important. The kind of treatment employed (heat, pesticide or combination of both) also is a factor. Charges to implement control programs in small (2–3 room) apartments have been estimated at an average of \$480 - \$500 ([Wang et al. 2009](#), [Copper et al. 2015](#)). Cost of even a small bed bug job in a single-family residence may begin at \$2000 and go up from there depending upon whether or not a home is heat treated ([Gonzales et al. 2015](#)). Professional pest managers cite expensive equipment, travel time, labor, concerns about guarantees, training of employees, liability and the likelihood of return visits or callbacks as reasons for the high cost.

### **The bottom line? Ask for Legal Conclusions:**

An interesting but powerful voice in the discussion about the true cost of bed bugs lies within the legal profession. When people have sued because of bed bugs, their lawyers have drawn up a lengthy and often generous list of losses incurred by their clients. Lawyers, representing victims of bed bug infestations, have sought compensation for a wide variety of harms, including bites, scarring, emotional distress, post-traumatic stress disorder, personal property damage, loss of property, depreciation of real estate value, loss of employment, breach of

contract, injury caused by chemical exposure, lack of consortium, remediation costs and undoubtedly many others.

Curiously, it falls to a judge or jury to actually apply a monetary value to losses incurred due to bed bug infestations. Even though the legal process is somewhat mysterious and the values given to different harms can be highly subjective, it amounts to a definitive answer to the cost of having bed bugs. It turns out that the cost is whatever the judge or jury says it is – for that individual case.

Compensatory awards for bed bug infestations have ranged from hundreds of thousands of dollars when bed bug resurgence was just beginning in the United States, to much less than that now that bed bugs have become a common occurrence. In fact, most states currently do not consider bed bugs as a ‘regulated pest’ that must be reported, disclosed or controlled by a landlord.

### **Societal costs? Ask those infested – the poor:**

What judge or jury have never considered is the cost of bed bugs to society in general. If bed bugs are a pest of the poor, which has been the case for centuries, it follows that the cost of having bed bugs is also borne primarily by the poor.

Societal costs of having bed bugs extend beyond control and health concerns,



however. How our society responds to residents of bed bug infested homes also can become critically important when determining if bed bugs hurt people. A final tally of the cost of having bed bugs can only be estimated by considering how we as a

society respond to bed bug infested individuals, who are already at the margins of our society. Do we shun those who are prone to have bed bugs (the poor) more now than we did before? Are we more selective in where we allow them to live, can we evict or deny rental contracts, or make discriminating tenant qualifications. To what extent does a bed bug infestation influence what in-home services we provide or where we allow potentially bed bug infested people to frequent? Imagine the additional cost and harm if financially strapped individuals were required to prove they were bed bug-free before riding public transportation, visiting a local library, checking into a hotel, hospital or being accepted into an apartment or nursing home. The ultimate cost to the poor may be even greater than what we have thus far discussed.

## Conclusions

Some bed bug researchers estimate that at the current rate of bed bug resurgence is occurring throughout the country, within the decade every person living in the United States will either have a personal encounter with bed bugs or will personally know someone who has. What remains to be seen is the effect that bed bugs will have on our society. Will bed bugs hurt us?

So, the next time that someone suggests that bed bugs do not cause harm, point them to the studies mentioned above, and to the many ways in which they can and do affect people's lives. The next time someone suggests that bed bugs do not discriminate, point them to the fact that bed bugs are a pest that disproportionately impact the poor and until adequate legislation regarding disclosure and control is created and enforced, they will continue to be so. If they are still unconvinced, send them to a poor person's home for a sleep over. Bed bug infestations hurt people.

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