

# BED How to Protect Yourself and BUGS Your Home

Presented by the Dodson Urban Pest Management Laboratory at Virginia Tech in cooperation with the Virginia Department of Agriculture and Consumer Services, Office of Pesticide Services and Virginia Cooperative Extension.

For more information, please visit:

Bed Bug Outreach and Education Program  
<http://www.vdacs.virginia.gov/pesticides/bedbugs.shtml>

VDACS Office of Pesticide Services  
<http://www.vdacs.virginia.gov/pesticides/>

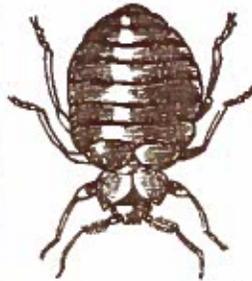
Virginia Department of Agriculture and Consumer Services  
<http://www.vdacs.virginia.gov/>

Virginia Tech Department of Entomology  
<http://web.entom.vt.edu/ento/>

Virginia Cooperative Extension  
<http://www.ext.vt.edu>

Created by Maddy Stodessa and Dina Miller  
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**VT** Virginia Tech Entomology  
c/o Dodson Urban Pest Management Laboratory  
216 A Price Hall  
Blacksburg, VA 24061



# BED How to Protect Yourself and BUGS Your Home



# BED BUGS

## How to Protect Yourself and Your Home



Bed bugs have been a pest of humans throughout history and were a common pest in the United States at the turn of the previous century. They were essentially eradicated in the U.S. in the 1940s and 1950s largely because of the use of the insecticide DDT, which was readily available to consumers and was broadly applied with little regulation. Since the 1990s, we have seen an increase in bed bug infestations in the United States. There are many theories about why bed bug infestations have returned including increases in international travel, the transfer of secondhand furniture and clothing, a higher turnover of occupants in multi-unit housing, widespread resistance to insecticides (including DDT), and a lack of bed bug awareness and precautions worldwide. While these factors all contribute to the rise in infestations, we need to remember that bed bugs are natural ectoparasites of humans. When we consider the billions of people living on earth today compared to 100 years ago, it should be no surprise that there are more bed bugs.

This book will give you information that you need to identify a bed bug, and the signs of a potential infestation. You will also learn about how bed bugs can get into your home. Use this guide to learn how to check yourself and your home for bed bugs, and what management tools should and should not be used in your home.

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## What NOT To Do For Bed Bugs In Your Home

Bed bugs will not walk through piles of dust. If a pile of dust is higher than their eye, why would they get in it? This dust is a potential inhalation hazard, a mess, and bed bugs will just avoid it.



Never attempt to control a bed bug infestation yourself with insecticides. If spraying insecticides worked, we would have no bed bug problems in the United States. Insecticide exposure is dangerous for you, and will not control bed bugs.



Do not put insecticides or repellents on your skin or bedding to stop bed bugs from biting. These products pose more danger to you than the bed bugs, and do not prevent bed bug bites.



House fires and explosions have been caused by people over-using bug bombs to control bed bugs. Studies have shown that bug bombs do not control infestations.



# What Can Your Housing Management Do?



Items that may contain bed bugs can be sealed and cooked inside a heat box. The heat will kill all bed bugs and their eggs in furniture and personal items.

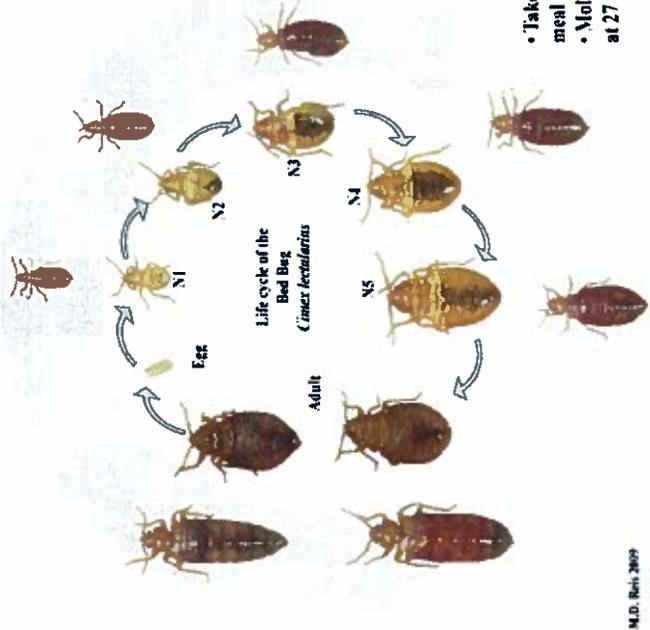


When a bed bug infestation occurs, trained bed bug exterminators will be needed to get the population under control. Trained bed bug-sniffing dogs may be brought in periodically for inspections.

A desiccant dust can be applied in wall voids, behind faceplates, and in drop ceilings to prevent bed bugs from moving from one apartment unit to another.

# Bed Bug Identification

Bed bugs have five immature stages. Each stage must consume a blood meal to develop into the next stage. Adult bed bugs must have regular (~7 days) blood meals in order to keep producing eggs.



- Take a blood meal then molt
- Molt ≈ 5-8 days at 27°C



Adult bed bugs are flat and reddish brown in color. They are the size and color of an apple seed.  
 Nymphs, or immature bed bugs, are yellowish in color and semi-transparent. Immature bed bugs range from the size of this comma (,) to the size of this zero (0).  
 Eggs are very tiny, pearl white in color and about the size of this comma (,). You can see their red eyes developing at age 5 days.

# The Life of a Bed Bug



When bed bugs are not feeding (typically during the daylight hours) they gather together in groups or aggregations.



Bed bugs feed only on blood. They may probe your skin several times with their mouthparts before settling in to feed.



Female bed bugs will begin laying eggs within a day or two of feeding and mating. Eggs will hatch in 6 to 9 days and, with access to regular blood meals, nymphs will continue to develop.



Adult bed bugs will mate very soon after feeding.

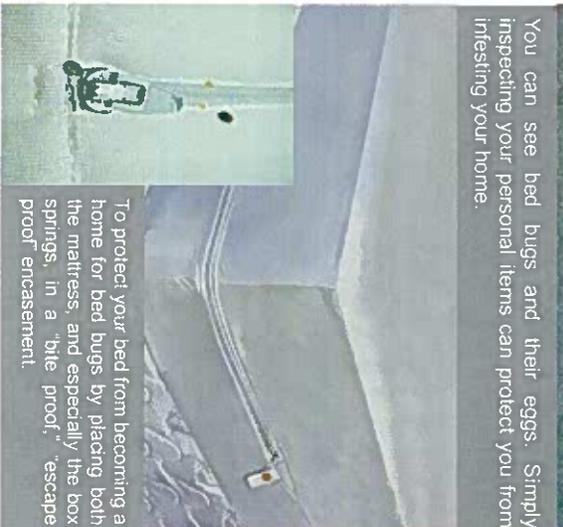
# What Can You Do in Your Home?



You can see bed bugs and their eggs. Simply inspecting your personal items can protect you from infesting your home.



Bed bug monitors is like these capture any bed bugs that try to find their way to a blood meal (you). The bugs fall into the trap and cannot escape.



To protect your bed from becoming a home for bed bugs by placing both the mattress, and especially the box springs, in a "bite proof," "escape proof" encasement.



The heat from a hot clothes dryer will kill all bed bugs and their eggs. Many types of items can go in the dryer, including clothes, shoes, and bed linens.

# How to Check Your Home For Bed Bugs



Inspect the nightstands and furniture next to the bed using a flashlight to see inside drawers, set-in screw holes, cracks and wood seams.



Make sure to have a flashlight with a strong and bright beam!



If you think you may have bed bugs at home, inspect locations where you (the food source) like to rest. Check the bed seams and mattress tags for bed bug evidence.



Inspect upholstered furniture, like couches. Using a flashlight, carefully look over surfaces, seams, cracks and crevices and cushions for bed bug evidence.

# Bed Bug Indicators



Seeing and identifying live bugs is the most obvious indicator of a bed bug problem.



Immature bed bugs have to shed their skin in order to grow. Sometimes the shed skins are the only bed bug evidence you will find, not the bugs themselves.



Bed bugs feed on blood and then excrete it as feces (bed bug poop). These black poops are common indicators of bed bug presence.



Each person reacts differently to bed bug bites. Skin reactions are not the best way to identify bed bugs.



# How Do Bed Bugs Get Into Your Home?



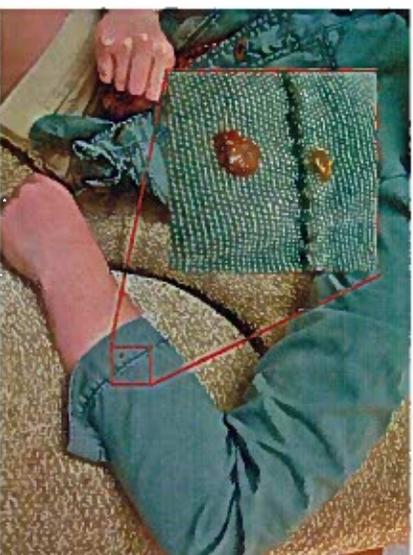
Storing furniture or bringing used furniture into your home is a common way to get bed bugs. Inspect any used furniture for before bringing it inside.



Friends and family coming to visit may also have hitchhiking bed bugs on their belongings, even without them knowing it.

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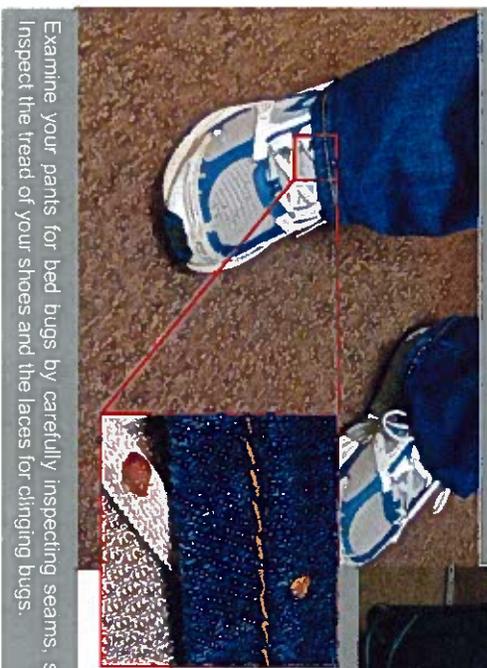
# How to Check Yourself For Bed Bugs



You can also pick up bed bugs on the seams, surfaces or cuffs of shirts and blouses when sitting on infested furniture.



Inspect your purses, computer bags, gym bags and other items for bed bugs before bringing them back into your home each day.



Examine your pants for bed bugs by carefully inspecting seams, surfaces, and cuffs. Inspect the tread of your shoes and the laces for clinging bugs.

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Bed bugs can get into your home by hitchhiking on your belongings.

In some cases, bed bugs can get from your neighbor's home to your home by climbing through the voids in the walls.

