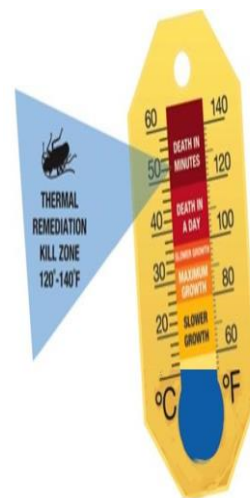


Killing Bed Bugs with HEAT OR FREEZING

Bed bugs are difficult to eliminate with only one method of control. Commercial pesticides approved for use for bed bugs have limited residual value, and the repeated use of pesticides increases the risk of bed bugs becoming immune to that specific chemistry. The use of heat and/or freezing has been shown to be an effective tool in eliminating bed bugs, and should be considered in any integrated pest management plan for bed bugs



Temperatures Needed to Kill Bed Bugs

Research at the University of Minnesota has determined the temperatures and times needed to kill bed bugs and bed bug eggs using heat or freezing.

Temperature / Exposure Time Required to Kill All Bed Bug Stages	
Temperature	Exposure Time
<i>High temperatures</i>	
113 F (45 C)	7 hours
118 F (48 C)	90 minutes
122 F (50 C)	< 1 minute
<i>Low temperatures</i>	
0 F (-18 C)	80 hours
-8 F (-22 C)	48 hours

Note: Recommendations refer to temperatures at bed bug harborage areas, not ambient air temperatures. For steam treatments, surface temperatures should reach 160 - 180 F (71- 82 C) to ensure that surface temperatures rapidly exceed 122 F (50 C). Use of a laundry dryer requires sufficient time for all fabric areas to reach the target temperature.

Treating Furniture With Heat

The use of heat to kill bed bugs in furniture is a common and effective approach. Steam can be used to treat almost any area where bed bugs are found or suspected, such as beds, couches and recliners, nightstands, dressers, baseboards, carpet edges, and floor areas under and around beds. Avoid treating finished wood surfaces or delicate items that might be damaged by high heat.

- Vacuum furniture to remove bed bugs, eggs and casings. Use a business card or thin scraper to get into cracks and crevices of wood and fabric covered furniture. Remove and discard the dust cover under a sofa and under a box spring and vacuum the underside of this furniture. Dispose of the vacuum contents and dust covers outside in a sealed plastic bag.
- Use a steamer carefully to avoid burning yourself. Steam all areas of the furniture, especially folds, cracks and crevices. Move the steam nozzle slowly, allowing steam to penetrate the area being treated. Bed bugs and bed bug eggs will be killed on contact with the steam due to the high temperature. Keep your vacuum nearby to catch bed bugs that run away ahead of the steam reaching them.
- Baseboards, carpet edges, window and door trim can also be steamed. Do not steam electrical outlets or switches.

Treating Laundry and Soft Items With Heat

Clothing and most fabric items can be treated using a household clothes dryer. Carry items to the laundry area in plastic garbage bags that are tied tightly.

- Place clothing and fabric items into a household clothes dryer. Using the hottest dryer setting, heat the clothes for 30 minutes. If items were washed first, be sure to keep heating the clothes after dry for an additional 30 minutes.
- Wool items, plush toys, shoes and many other items that cannot be washed can be placed dry into a clothes dryer on the hottest setting for 30 minutes to kill bed bugs.
- Put cleaned items in new plastic bags. Do not open the bags until after the home has received the final pest control treatment and is bed bug free.

Treating Books / Fragile Items With Freezing

Books and some fragile household items that cannot be easily heated to over 122 F (50 C) in a household dryer can be placed in a freezer. It is important to note that the time required to kill bed bugs with cold is significantly longer than with heat.

- Carefully wrap items and put them in a plastic bag. Seal the bag and put the items in a household freezer. Leave the items in the freezer for 4 days.
- After 4 days, remove the items from the freezer but keep sealed in the bag until the item reaches room temperature.
- Do not open the bags until after the home has received the final pest control treatment and is bed bug free.

Getting rid of bed bugs takes the cooperation of the resident, the building manager and a pest management professional. If you think you have bed bugs, speak with your building manager immediately.

Produced in co-operation with



For more information about bed bugs, visit www.Hamilton.ca/bedbugs