

## Bering Strait Bed Bug Resources

**Bed Bug Heat Treatment:** Putting furniture and household items outside in the subzero winter temperatures is not the best way to kill bedbugs, but heat is effective if hot enough. Heat treatments will need to be done two or more times in coordination with all other methods to totally eradicate the infestation. *Important note:* Users of heat treat devices need training and devices should not be left unattended to avoid a fire hazard.

1. *Norton Sound Economic Development Corporation* (NSEDC) sent free tent type bed bug heat treat machines to all the schools in the region. These can be used to heat furniture and clothing and other small items. NSEDC is also willing to send heat treat machines used to heat buildings, and ten Bering Strait villages have received them. Nome, Brevig Mission, Wales, Shaktoolik and Teller have not requested one. Shishmaref is not eligible as they are not part of the CDQ.
2. *Bering Sea Regional Housing Authority* (BSRHA) has bed bug heat treat machines and staff who treat homes managed by BSRHA. The machines are available for rent to business & homeowners in Nome. The 1 million BTU machine costs from \$50-\$400 per day plus fuel per day based on income and the 204 thousand BTU machine costs \$20-75 per day plus fuel based on income. Business & homeowners must operate and monitor machines and assume all liabilities while in use. If interested in renting call Frank Johnson (907-443-8605).
3. *Heat Treat Machines:* For those who want to buy and own a bed bug heat treat machine, they come in personal or commercial sizes ranging from \$200 to \$1500, see <https://www.zappbug.com/>.
4. *Clothes Dryers:* Washing all clothes and linens can be very expensive when the only option is the village washeteria, costing an average family over \$700. If the clothes are clean, then putting them in the dryer is all that is necessary. Keep in mind that if the dryer is not hot enough then it may not be effective. Temperatures of 122 degrees kills all bugs and their eggs immediately.

### Bed Bug Detectors and Monitors:

1. There are bed bug detecting dogs in Alaska that can be contracted to travel all over the state, see <http://www.eaglepestcontrolak.com/meet-rudolph.php>. This may not be feasible to small communities.
2. Online stores have bed bug detection devices <https://www.amazon.com/dp/B01HSI9S9A> and bed bug monitors [https://www.amazon.com/Springstar-First-Response-Monitor-Count/dp/B009CYG9IW/ref=sr\\_1\\_27?ie=UTF8&qid=1505237792&sr=8-27&keywords=bed+bug+monitor](https://www.amazon.com/Springstar-First-Response-Monitor-Count/dp/B009CYG9IW/ref=sr_1_27?ie=UTF8&qid=1505237792&sr=8-27&keywords=bed+bug+monitor) ranging from \$10-\$50.

### Other Bed Bug Eradication Strategies:

1. *Vacuuming:* drapes, upholstery, and rugs is very important as is removing the waste canister or lint bag outdoors and disposing of it properly.
2. *Sealed Barriers and Traps:* Once clothes are cleaned items should be stored in sealed plastic bags, and Amazon sells zippered mattress and pillow protectors that are effective bedbug barriers that run in the \$30 - \$100 range. Traps or interceptors are small plates placed under the legs or feet of the beds or chairs to keep bugs from climbing upward. These cost about \$15 dollars for a set of four.



3. *Sensitive Areas*: Amazon sells a non-toxic bed bug killing spray for about \$20 for baby and children bedrooms [https://smile.amazon.com/Bed-Bug-Patrol-Environmentally-Friendly/dp/B0043WM5VI/ref=sr\\_1\\_6\\_sspa?s=lawn-garden&ie=UTF8&qid=1505252661&sr=8-6-spons&keywords=bed+bug+killer+for+nursery&psc=1](https://smile.amazon.com/Bed-Bug-Patrol-Environmentally-Friendly/dp/B0043WM5VI/ref=sr_1_6_sspa?s=lawn-garden&ie=UTF8&qid=1505252661&sr=8-6-spons&keywords=bed+bug+killer+for+nursery&psc=1) and another safe alternative called diatomaceous earth for about \$10 [https://smile.amazon.com/Safer-51703-Diatomaceous-Crawling-Insect/dp/B01D60GAW2/ref=sr\\_1\\_2?ie=UTF8&qid=1505252560&sr=8-2&keywords=diatomaceous+bed+bugs](https://smile.amazon.com/Safer-51703-Diatomaceous-Crawling-Insect/dp/B01D60GAW2/ref=sr_1_2?ie=UTF8&qid=1505252560&sr=8-2&keywords=diatomaceous+bed+bugs).
4. *Bed Bug Products*: Grizzly Building Supply in Nome (907-443-2108), Home Depot in Anchorage (907-563-9800) and Amazon online all have bedbug killing products and kits from \$12 - \$300 for home or commercial use. There are also Integrated Pest Management approaches available too that includes non-chemical products. Care should be taken if using chemical insecticides and directions should be followed. Both methods have solutions, powders and sprays for the following:
  - Complete Treatment System-Kills Bed Bugs & Their Eggs
  - Use on bed, furniture, carpet, luggage, and garments
  - Odorless, Non Staining

#### **Resources from Other Sources:**

1. *EPA Grants*: Tanana Chief's Conference (TCC) and Bristol Bay Area Health Corporation (BBAHC) assist people statewide in addressing bed bugs. The three-year grant ends soon, but funds education and outreach <https://www.tananachiefs.org/environmental-health/>. See the news article at <http://kdlg.org/post/bbahc-frontlines-against-bed-bugs-rural-alaska#stream/0>. Village IGAP programs might be able to access this funding.
2. *Norton Sound Health Corporation* (NSHC) provides these resources:
  - Josie A. Bendickson, Manager of Environmental Services, [jbendickson@nshcorp.org](mailto:jbendickson@nshcorp.org) 907-443-4519 and Kevin Zweifel, Environmental Health, [kzweifel@nshc.org](mailto:kzweifel@nshc.org) 907-443-3308.
  - EPA Website on Bed Bugs - <https://www.epa.gov/bedbugs>
  - Bed Bug Home & Office Card- <https://www.epa.gov/bedbugs/print-bed-bug-card-page-cards>
  - Bed Bug Card for Travel- [Print a Bed Bug Card - \(Page of Cards\) | Bed Bugs: Get Them Out and Keep Them Out | US EPA](#)
  - CDC Bed Bugs FAQs - <http://www.cdc.gov/parasites/bedbugs/faqs.html>
  - Bed Bug Facts - <http://www.bed-bugs.com/facts/>
  - For financial assistance in addressing bed bugs NSCH has a small "Make a Patient Smile" fund and volunteer staff do periodic special fundraisers to help needy families: contact Angie Gorn at [agorn@nshcorp.org](mailto:agorn@nshcorp.org)
  - NSHC has an attorney, David Panepinto, who supports housing, financial and other needs of tribal members and provides free legal advice and representation to regional patients to address health-harming legal needs. Contact [dpanepinto@nshcorp.org](mailto:dpanepinto@nshcorp.org), 907-443-3360.
3. *Nome Community Center* (NCC) may be able to help with utility costs for elders who have increased usage to operate dryers and heaters in treating for bed bugs. Contact NCC at 907-443-5259 or Rhonda Schnieder at [rschnieder@nomecc.org](mailto:rschnieder@nomecc.org) with copies of utility bills.
4. *Alaska Native Tribal Health Consortium* (ANTHC) has a bed bug expert: Mary Schneider, [mdschneider@anthc.org](mailto:mdschneider@anthc.org), 907-729-4006.



# Bedbugs

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## What Is A Bed Bug????

- Bed bugs are small insects that live in your house
- Bed bugs eat blood - they feed on people who are sleeping.
  - Bed bugs are tiny, about the size of a sesame seed.
  - Bed bugs can be clear, orange, or dark red.
  - Bed bugs are 'hitch hikers' and can easily ride on your backpack or clothing to new areas.



## Bed Bug Bites

- Most people don't know if they have bed bugs
  - People usually don't wake up when they are bitten.
  - Most people don't react to bites.
  - The bites do not spread diseases.
- For some people the bites may turn red, swell, and itch. **Don't scratch!** Scratching them might give you a skin infection.



## How to Tell If You Have Bed Bugs

- Bed bugs like to hide. They live in cracks, crevices, and small holes, especially in beds and sofas.
- Use a flashlight and magnifying glass. Look under your sofa cushions, under the sheets on the mattress, in your box springs, and in cracks and crevices near sleeping areas.
- Look for:
  - Live bed bugs
  - Small red stains from crushed bugs
  - Small black dots from bedbug droppings
  - Tiny white eggs
  - Bites on your skin (not all people react to the bites)





## What to Do If You Have Bed Bugs

- Clean up: Get rid of clutter where bed bugs can hide.



- Vacuum: Use a vacuum in areas where there are bugs. Seal up the vacuum bag and take it to an outside trash can so the bugs don't come back! Steam cleaners also work well.



- Laundry: Wash all bedding and clothing in hot water and use the dryer on high heat to kill bugs. Make sure to carry items to the laundry area in a sealed plastic bag. Don't use the plastic bag again! Take it to an outside trash can so the bugs don't come back!

- Mattresses: Vacuum and scrub the mattress to get rid of all the bugs. Then seal it in a special bedbug-proof cover (you can find these on-line). Seal up the vacuum bag and take it to an outside trash can so the bugs don't come back!
- Destroy and dispose: Get rid of furniture and bedding if there are too many bugs. Make sure to destroy the items first so no one else decides to use them!
- Keep looking! Bed bugs can survive many months without food. Once you have gotten rid of all the bugs, keep watching to make sure they don't come back.
- Tell your teacher: Your school can help make sure you don't share your bed bugs with everyone else!



**DO NOT use 'bug bombs' or other pesticides – they will not work, and the chemicals can be very dangerous.**



- **Sealant/Caulk** - seal off cracks and crevices around baseboards, door frames, etc.
  - **Vacuum** - make inspections easier; make sure to dispose of bag when done; if using bagless vacuum, use vacuum hose with a nylon placed over it.
  - **Clothes Dryer** - heat from dryer will kill bed bugs and their eggs
  - **Steamer** - use heat to kill bed bugs on furniture
  - **Desiccant dust** (ie. Diatomaceous earth or Cimexa) - will kill bed bugs that come in contact;
- READ AND FOLLOW THE LABEL!**
- **Tool for applying desiccant dust** - use a hand duster tool to apply a thin even layer of desiccant dust
  - **N-95 Mask** - for safety purposes, wear an N-95 mask when applying desiccant dust
  - **Monitoring Device** - use to detect the presence of bed bugs and determine if you've been successful in eliminating bed bugs



*ClimbUp™ monitoring device placed under leg of bed to capture bed bugs*

### For more information

Be careful where you get information. There is a great deal of bad information available. Some good sources include:

- <http://dec.alaska.gov/eh/pest/bedbugs.html>
- <http://www.vdacs.virginia.gov/pesticide-bedbug-fact-sheets.shtml>
- <https://www.bedbugs.umn.edu/>
- <http://u.osu.edu/bedbugs/>

**Alaska Native Tribal Health Consortium  
Community Environment and Health  
4500 Diplomacy Drive  
Anchorage, AK 99508**

(907) 729-4006  
[mdschneider@anthc.org](mailto:mdschneider@anthc.org)



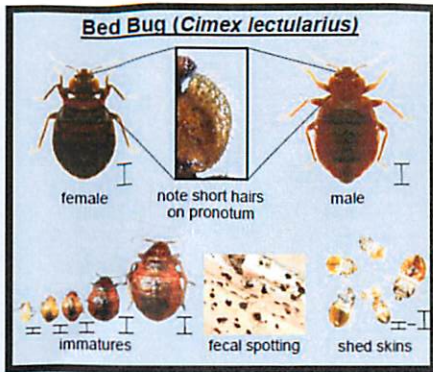
**ALASKA NATIVE  
TRIBAL HEALTH  
CONSORTIUM**

# Bed Bugs



**Identification  
Prevention  
&  
Eradication**





## Bed Bug Identification

Bed bugs are small, wingless, flat, oval-shaped insects. Adult bed bugs are brown and are the size of an apple seed. Bed bugs go through five developmental life stages before they become adults. Between each developmental stage, bed bugs will shed their skin.

Bed bugs feed exclusively on blood. After a meal, the bed bugs will leave their host and go back into hiding to digest their food. Bed bugs will excrete their meal and leave behind dark brown or black fecal spots, also known as bed bug poop.

Some people will react to bed bug bites while others will not. Your body's reaction depends on your immune system and the number of bites. You cannot confirm the presence of bed bugs by their bite marks alone.



## Prevention and Detection

Bed bugs are known hitch-hikers. In most cases, people carry bed bugs into their homes unknowingly in infested luggage, furniture, or clothing. Your best line of defense is to thoroughly inspect any used furniture before bringing it into the home and to inspect your luggage when returning from a trip.

### Inspecting for Bed Bugs

- Use a bright flashlight
- Look for the bugs and their dark spotting and shed skins
- Carefully inspect bedrooms and main living areas where people rest or sleep, focusing on:
  - Mattress seams, box springs, and bed frame
  - Behind hanging pictures, baseboards, moldings, and loosened wallpaper
  - Tops, sides, underside, and interior of furniture
  - Underneath carpet edges

### Travelers' Tips

#### During your trip:

- Carefully inspect your room for signs of bed bugs
- Change rooms if you find any signs of bed bugs
- Never store luggage on the floor or bed
- Keep your clothes in your suitcase, not in provided dressers

#### When arriving home:

- Inspect your luggage
- Launder all of your clothing. The dryer set on high heat for 30 minutes will kill all bed bugs and their eggs
- Store empty luggage inside sealed plastic bags

## What about Chemical Products?

There is no "magic bullet" product that will eliminate bed bugs on its own. Most products available are not that effective.

- Sprays have low residual efficacy
- "Bug bombs" move bed bugs out of one room only to infest another
- Bed bugs are highly resistant to a number of insecticides, and their eggs are impervious to most insecticide formulations
- Bed bugs don't make you sick, but the poisons used to kill them can!
- If you do use chemical products, be sure to **READ AND FOLLOW THE LABEL!**



## Eradication

If you find bed bugs in your home, act immediately.

### Tools for Do It Yourself Eradication

- **Flashlight** - use to inspect dark, hard-to-reach areas
- **Garbage Bags** - reduce clutter by placing items in sealed bags
- **Mattress Encasements** - protect your mattress and box spring and make inspections easier

*Continued*



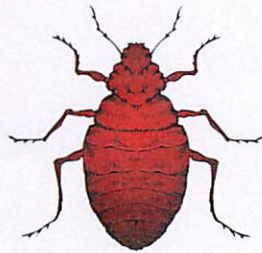
# BED BUG FACT SHEET

## HOW DO BED BUGS END UP IN ALASKA?

Bed bugs live wherever people do. People often pick up bed bugs or bed bug eggs while traveling and then carry them to hotels, homes and environments in their luggage and clothing. Bed bugs can live up to several months or even a year without food or water, and can withstand temperatures below zero for many days.

## WHAT ARE BED BUGS?

Bed bugs are small insects that feed on human blood. They do not transmit diseases, but their bites can leave itchy red welts on their victims. Adult bed bugs appear reddish-brown and have a flattened, oval shape. They are wingless and look about the size of an apple seed. They are big enough to be seen, but they hide in cracks in furniture, floors, walls, suitcases or clothing. Newly hatched nymphs look translucent and become brown when they molt. When bed bugs feed, their bodies swell and become brighter red.



## WHAT DOES A BED BUG BITE FEEL AND LOOK LIKE?

Most bed bug bites are initially painless, but they may turn into large, itchy skin welts. These wounds do not have a red spot in the center like flea bites. Some people don't develop welts at all and can carry bugs without knowing it.

## ARE BED BUGS DANGEROUS?

Although bed bugs are a nuisance, they are not known to spread disease.

## HOW DOES A HOME BECOME INFESTED WITH BED BUGS?

In most cases, people carry bed bugs into their homes unknowingly in infested luggage, furniture, bedding, or clothing. Bed bugs may also travel between apartments through small crevices and cracks in walls and floors.

## HOW DO I PROTECT MYSELF AGAINST BED BUGS?

- Inspect used furniture for bed bugs before bringing it into your home.
- Never bring discarded bed frames, mattresses, box springs, or upholstered furniture into your home.
- Always wash clothing and bedding immediately after returning from a trip.

## WHEN YOU STAY IN A HOTEL OR SOME OTHER PLACE OF LODGING, FOLLOW THESE PRECAUTIONS:

- Store your suitcases on luggage racks or in the bathroom.
- After check-in, look for bed bugs behind the headboard and pull back the bed sheets to look for blood smears or little black spots (bed bug excrement).
- Check the seams of the mattress and box springs as well.
- If you see any evidence of bugs, ask for another room.

## HOW DO I KNOW IF MY HOME IS INFESTED WITH BED BUGS?

You may notice itchy skin welts or see the bed bugs themselves. You may also notice small bloodstains from crushed insects, or dark spots from their droppings on linens or bed spreads. It is often hard to see them because they hide in or near beds, furniture, and in cracks in the walls.

## HOW CAN I GET RID OF BED BUGS?

Non-chemical eradication methods like vacuuming, steaming, laundering and sealing mattresses in plastic can help, but these methods usually do not completely eradicate a bed bug population. Also, bed bugs have become resistant to some types of insecticides, making it difficult to get rid of them. For this reason, you will probably need to consult a licensed pest control company, which should:

- Inspect your home to confirm the presence of bed bugs.
- Find and eliminate their hiding places.
- Treat your home with special cleaning and/or pesticides if necessary.
- Make return visits to make sure bed bugs are gone.



Be sure you see or check the license of the exterminator you hire. For information, contact the Alaska Pesticide Control Program at 800-478-2577 or <http://dec.alaska.gov/eh/pest/index.htm>.

### **ARE PESTICIDES SAFE TO USE IN MY HOME?**

Talk with a professional exterminator about the safe use of pesticides and make sure he/she:

- Uses the least toxic pesticide
- Follows instructions and warnings on product labels
- Advises you about staying out of treated rooms and when it is safe to reenter
- Treats mattresses and sofas by applying small amounts of pesticides on seams only. Pesticides should never be sprayed on top of mattresses or sofas.

### **WHAT OTHER OPTIONS DO I HAVE IF I SUSPECT AN INFESTATION IN MY HOME?**

First find the bed bugs. Use a bright flashlight to look for bugs or their dark droppings in bedroom furniture. You can use a hot hair dryer to force them out of hiding spaces and cracks. Also check these areas of your home:

- Behind your headboard
- In the seams and tufts of your mattress and inside the box spring
- Along bedroom baseboard cracks
- In and around nightstands
- In, on, under and behind other bedroom items like window and door casings, pictures, moldings, nearby furniture, loose wallpaper, cracks in plaster and partitions, and other clutter.

Second, clean areas where bed bugs are likely to hide.

- Wash bedding, linens, curtains, rugs, carpets, and clothes in hot water and dry them on the highest dryer setting to kill any remaining bugs. Soak delicate clothes in warm water with lots of laundry soap for several hours before rinsing them.
- Scrub mattress seams with a stiff brush to remove bed bugs and their eggs.
- Vacuum mattresses, bed frames, nearby furniture, floors and carpets. Pay special attention to cracks and open spaces. Immediately after vacuuming, put the vacuum cleaner bag in a sealed plastic bag and throw it away in an outdoor container.
- If you find bed bugs on a mattress, cover it with a waterproof, zippered mattress cover labeled "allergen rated" or "for dust mites." Keep the cover on for at least one year.
- If your box spring is infested, seal it inside a vinyl

box spring cover for at least one year. If no cover is available, throw the box spring away.

- Throw away infested items or clutter that can't be cleaned. Make sure the items are sealed tightly in plastic garbage bags before placing them in an outside container.
- Repair cracks in plaster and loose wallpaper.

Finally, be cautious about using pesticides yourself.

Pesticides can be harmful to people and pets. If a licensed exterminator recommends pesticides, follow these guidelines:

- Only use pesticides clearly labeled for bed bug extermination. Never use a cockroach spray, ant spray, or any other pesticide that does not list bed bugs on the label.
- Follow label instructions exactly.
- Never spray pesticides on top of mattresses or sofas, or in areas where children are present.
- Never purchase or use a product without a manufacturer's label and never buy pesticides from street vendors.
- Avoid "insecticide bombs" and "foggers" in your home. These products can spread harmful chemicals throughout your home

### **HOW CAN I KEEP MY FURNITURE FROM INFESTING SOMEONE ELSE'S HOME?**

Never resell or donate infested furniture. If you throw infested furniture away, cut or poke holes in its upholstery so others will not want it, or tape a sign that says, "Infested with Bed Bugs" on it.

### **WHERE CAN I GET MORE INFORMATION?**

Several online sources focus on various methods of preventing and getting rid of bed bugs, such as

<http://www.bed-bug.org/>

<http://bedbugger.com>

<http://www.nyc.gov/html/doh/downloads/pdf/vector/bed-bug-guide.pdf>

To report an infestation in hotels, motels or other accommodations in Alaska, contact the Division of Environmental Health, the Food Safety and Sanitation Program, at (907) 269-7501.



State of Alaska  
Department of Health  
and Social Services  
Division of Public Health  
<http://www.hss.state.ak.us/>  
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