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**STEP BY STEP GUIDE FOR BED BUG INFESTATION**

**Prepare the area: Pretreatment Procedures**

* Reduce clutter to make inspection easier. Be careful in removal of any items in other area where you may transfer bed bugs.
* Personal items (stuffed animals, soft toys, and blankets) should be removed, cleaned with a vacuum cleaner, and bagged in plastic for a couple of days if infestation is severe. You can also bag your laptops, phones, radios in a bag as well.
* If you dismantle the bed frames, you may expose additional bedbug hiding sites.
* Remove drawers from desks and dressers and turn furniture over, if possible, to inspect and clean all hiding spots. All furniture should be pulled away from the walls.
* Stand up the box spring and shine a flashlight through the gauze fabric to expose bed bugs. If the fabric is torn (possible hiding place), remove fabric to prepare for spraying. If the mattress and or box springs are infested, you may want to consider Bed Bug Certified Encasements. Once covered with these encasements, bed bugs cannot enter or exit. There is no need to treat the mattress or box spring with these encasements. Keep them on for a year.
* Caulk and seal all holes where pipes and wires penetrate walls and floor, and fill cracks around baseboards and moldings to further reduce harboring areas.
* Since infested garments and bed linen can't be treated with insecticide they will need to be laundered in hot water (120°F minimum) and dried at high temperature for a minimum of 20 minutes. If washing is not available, sometimes heating the garments or bed linens for several minutes in clothes dryer may work.
* Thoroughly clean the infested rooms .Scrub infested surfaces with a stiff brush to dislodge eggs.
* Vacuum along baseboards, nearby furniture, bed stands, rails, headboards, foot boards, bed seams, tufts, buttons, edges of the bedding as well as the edges of the carpets(particularly along the tack strips) are key areas to vacuum. A good vacuum cleaning job may remove particles from cracks and crevices to encourage greater insecticide penetration. Bed bugs cling tightly to surfaces, so it is best to repeat the vacuuming by scraping the end of the vacuum attachment over the infested areas to pull them up. It would not be good to use a bristle attachment because you may transfer bed bugs to other areas in the brush. Dispose of vacuum cleaner bag afterward.
* Caulk cracks and crevices in the building exterior and also repair or screen openings to exclude birds, bats, and rodents that can serve as alternate hosts for bed bugs.
* Monitoring devices can be placed to help determine areas of dense populations. It is important to know that these devises are for monitoring only. Lack of trapped bed bugs does not necessarily mean that you are bed bug free.

**Inspection**

To inspect well, it may be helpful to understand Bed Bug diet and habits. Because bed bugs may be difficult to see with the naked eye, we recommend an industrial powered magnifier and/or a flashlight.

The common bed bug is visible to the naked eye. Adult bed bugs are brown to reddish-brown, oval-shaped, flattened, and about 1/4 to 5/8 inch long. Their flat shape enables them to readily hide in cracks and crevices. After a blood meal, the body elongates and becomes swollen. Eggs are not known to be placed on the host's body but are found on surfaces near where the host sleeps.

Look in any place that offers darkness, isolation and protection. These bugs will often wander. Inspect adjoining rooms where an infestation is found. Even when the bed bugs themselves cannot be found, their hiding places can be located by looking for the spots of fecal material they often leave in easily visible places. Pyrethrins will help flush out the bed bugs for easier inspection. These aerosols will kill on contact, but here the idea is to flush them out for inspection. Simply insert the crack and crevice tip of the aerosol in the hiding place to see if any bed bugs are flushed out.

Fecal spots and the bloody spots (looks like rust) left on sheets and pillowcases when engorged bugs are crushed serve as sure signs of infestation. Adult bed bugs are about 1/4-inch long and reddish-brown, with oval, flattened bodies. Bed bugs prefer to hide in cracks and crevices during the daytime and come out to feed on the host's blood at night, usually while the host is sleeping. Because they can flatten their bodies, they can fit in very small crevices, especially around the bed area. They are found in habitual hiding places, preferably close to a blood meal. Even though their preference is to be close, they will travel several feet for a blood meal. Initial infestations tend to be around beds, but the bugs eventually may become scattered throughout a room, occupying any crevice or protected location. They also can spread to adjacent rooms or apartments.

Look for areas close by where the bed bugs are biting. Main areas of inspection are cracks and crevices in head and foot boards and attached side railings and supports. Look for any cracks or crevices where bed bugs may crawl into to hide. If the top of the mattress has any rips or vent holes, the bed bugs may hide there as well. Look also in your box springs, both top and bottom for any rips that might shelter these bugs.

**Inspection Check List:**

* Cracks and crevices in head and foot boards, attached side railings and supports
* Inspect mattresses top, sides and bottom. Check all buttons, seams and rips.
* Inspect electrical switch plates, pictures on walls, wall posters
* Inspect cracks in plaster or seams in wall paper.
* Inspect electrical appliances-radios, phones, televisions, etc.,
* Inspect tack strips under wall-to-wall carpeting and behind baseboards
* Inspect secondhand beds, bedding, and furniture. The newer better built mattresses do not offer as much shelter and protection for the bed bugs to hide.

**Do I Have to Throw Out the Mattress?**

This question would be answered upon the condition of the mattress or size of infestation. If there are holes or tears in the gauze fabric or fabric of the mattress, bed bugs and eggs may be inside, as well as outside. There are restrictions on how beds can be treated with insecticides.

The mattress and box spring that can be salvaged, needs to be placed in bed bug certified covers immediately after they are treated with insecticide.

**Bedbug Diet**

Although the preferred host is human host, it will feed on other animals, such as poultry, mice, rats, canaries, dogs, and cats if necessary. They normally feed at night, but may feed in the daylight in rooms that are not used at night.

**Bed Bugs Life Cycle**

The life cycle stages of a bed bug are egg, nymph and adult. The reason they are called bed bugs is that they readily infest mattresses, bed frames and box springs. Eggs are laid along the edges of or around buttons on the mattresses. Eggs can also be glued to rough surfaces.

Bed bug females lay about 200 eggs, usually at the rate of three or four a day, in cracks and crevices in the floor or bed. Eggs are placed in cracks, crevices and other isolated and protected shelters. Females lay eggs after a blood meal. Eggs will hatch in one or two weeks into Nymphs. Newly hatched bugs (Nymphs) begin feeding immediately. At room temperature, and with an available food supply, the nymphal period will last 14 to 30 days. They shed their skin five times before becoming adults. Bed bugs will mate soon after becoming mature, so the time from egg hatch to egg laying will be 4 to 9 weeks, under favorable conditions. The average life span of the bed bug is 6-12 months and they will feed every 10 days or so during this time. Because bed bugs survive many months without a blood meal, their reproduction rate is high.

**Bedbug Habits**

The female will lay eggs in cracks and crevices along the edges of mattresses, box springs and bed frames. Bed bugs will also inhabit other cracks and crevices throughout a room that is infested. These other areas include; behind picture frames, switch plate covers, loose wallpaper, under door and window casings, baseboards or along the edges of carpets.

Bed bugs hide in cracks and crevices during daylight hours.

They hide in the folds and tufts of mattresses, coils of springs, cracks and hollow posts of bed stands bed rails and headboards. They may be found in box springs, inside the cabinetry of furniture and the bottom and sides of drawers.

Bed bugs may hide in upholstery of chairs and sofas.

They are not restricted to these places, however.

A second common source for bedbug infestation occurs in homes where bats, swallows, chimney swifts, pigeons, or other wild hosts have been roosting. Although similar in appearance, these bedbug species that normally feed on bats and birds can be differentiated from the Common Bedbug that prefers humans.
The bat bedbug can and often feeds on humans. The bat bedbug has long hairs on its body. Eliminate their bat hosts from the building and seal all openings so that bats cannot enter.

Another group of bugs resembling the bed bug infest birds. These bugs are usually confined to bird nests.

Bed bugs are not usually considered to be disease carriers.

They do suck blood from their host with piercing mouth parts but the bite is painless.

The skin may become irritated or inflamed due to the salivary fluid injected by the bed bugs .A small, hard, swollen, white welt may develop at the site of each bite.

**It is important to recognize that not all bites or bite-like reactions are due to bed bugs. Bed bugs or their signs will be present if it is a bed bug bite.**

**Bed bugs do not live under the skin. If you experience biting sensations during the day, it may be an allergy related condition.**

**Can I prevent bed bugs from entering my home?**

* After coming home from a trip some infestations can be prevented by washing any clothing or bedding used on the trip. Do this immediately.
* If you buy used furniture, inspect very well all the items before bringing them into your residence.
* Never bring discarded bed frames, mattresses, box springs, or upholstered furniture into your home.