

Logan County Bed Bug Task Force Collaborative Bed Bug Protocol

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LOGAN COUNTY BED BUG TASK FORCE

Bellefontaine City Schools
Benjamin Logan Local Schools
Council on Rural Services, Inc.
Indian Lake Local Schools
Logan County Board of Developmental Disabilities
Logan County Children Services Board
Logan County Family & Children First Council
Logan County Family Court
Logan County Health District
Riverside Local Schools

Logan County Bed Bug Task Force Collaborative Bed Bug Protocol Information on Bed Bugs

1. GENERAL INFORMATION What is a bed bug?

- It is reddish-brown, oval-shaped and flat measuring 3/16 to 1/5 inches long (about size of an apple seed) with a beak-like piercing-sucking mouth part.
- They survive off of a host's blood. They typically find their host and eat their meal within 15-minutes and then leave their host and hide. When they are hungry again, the bed bug will search for its host again.
- There are no known diseases spread through bed bug bites
- They cannot fly, but can run fast
- Eggs are white and 1/32 inches long. They hatch in 6-17 days
- Newly hatched nymphs are colorless and they become brown as they mature. They need blood to molt and survive. Maturity is reached with 5 molts, approximately 21-120 days depending on the room temperature.
- They leave egg shells and shed skins behind when they hatch and molt.
- A female will lay 5 eggs a day and up to 500 in a lifetime.
- They can survive up to 18-months without a blood meal and while they prefer humans, can feed on any mammal including rodents, and household pets.
- When not feeding, they frequently hide on mattress seams and folds, baseboards, pictures, windows, door casings, under loosened wall paper, curtains, cracks in plaster, electrical plates, and any other place shielding them from light and visibility.
- They can travel 100 feet per night to find a host, but typically stay within 8 feet of where people sleep.

2. PREVENTION How do I keep from getting bed Bugs?

- Bed bugs are most common in dwellings with high rate of turnover (hotels, dorms, shelter, apartments), so it is important to check before moving in or staying in one of these locations. Check mattress edges at hotels, furniture.
- Avoid sharing personal items such as towels, bedding, clothes, coats, backpacks, etc.
- When bringing home new or used furniture, inspect the item for bugs
- When returning home from an overnight trip, immediately wash everything in hot water and heated dryer. Inspect luggage and shoes to ensure no bugs have "hitch hiked" onto you.

3. INSPECTION How do I know if I have bed bugs

- Red, itchy bite marks or welts appear on the skin within 14-days of the bite. Typically they are in a line of three spots.
- Small rusty (blood/droppings) spots on mattress and bed linens
- Can cause a sweet musty odor with heavy infestations
- Egg shells and molt around mattress seam, box springs, head boards, etc.
- Finding hiding bugs on mattress seams, tufts, folds, bed frame or head board. They can also hide on baseboards, pictures, windows, door casing, loosened wall paper, curtains, cracks in plaster, electrical wall plates, and other dark hiding spaces.
- If you find one, using a piece of clear tape, trap the bug and take to your local health department or a certified pest operator for verification.
- Daytime sightings indicate heavy infestation.
- Explore if mammals have nests near the home
- Inspect adjoining units for multiple dwelling units

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4. RESPONSE How do I get rid of bed bugs?

4.a. Sanitation

- Frequent vacuuming of mattress and premise, preferably with a bagless vacuum. Use vacuum brush around mattress seams. If vacuum uses a bag, remove bag after vacuuming and put in sealed plastic bag.
- Sometimes corn starch/talc powder have been used to suffocate
- Spray visible bugs with 90% rubbing alcohol to kill them on the spot
- Use a washing machine and/or clothes dryer for exposed items to kill bugs. Should be 120 degrees and run for 30 minutes.
- Repair cracks in plaster & pull down loosened wall paper

4.b. Trapping

- After vacuuming, cover mattress pad and box springs with a plastic cover for at least 1-year.
- Remove/destroy animal nests close to home
- There are sticky traps or glueboards, but research is not available to support their effectiveness.

4.c. Insecticides

- Only a certified pest operator should treat your home by providing spot treatment of pyrethroids where the bugs are likely hiding.
- It is important to vacuum likely hiding places before insecticides are sprayed to remove dust. This will give the pesticide better penetration in the small areas.
- The chemical called DDT has been used to effectively kill bed bugs, but it has been outlawed. Bedbugs have become immune to many pesticides that have since been in use.
- Do not use any insecticide on mattress unless the product label specifically mentions such use. Take measures to minimize pesticide exposure to occupants of the bed. Do not sleep directly on treated mattress; be sure bed linens are in place. Remember you can use a sealed cover.
- Typical bug aerosol sprays, such as bug bobs purchased at a local store, are not recommended as they will not kill bedbugs and only cause the bugs to scatter and hide for a few days and then come back out. Certified pest operators use mild chemicals as they are most effective.
- Do not use insecticides for bedding or linens, these items should be laundered in hot water and dried using the "hot" setting.
- No public agency has money to help pay for bed bug insecticide treatment. Talk to your exterminator about setting up a payment plan.

5. Information for renters

- Inform your landlord by certified letter about the bedbugs and request him to remedy the condition within 30-days. Negotiate a plan with your landlord on how to rid the home of bedbugs.
- Only a licensed exterminator experienced with bed bug control can spray your home for bed bugs.
- Bed bugs are not a reason to violate a lease agreement.
- If leaving a unit with bed bugs, make sure you wash and dry all clothes and possible household goods in hot water/dryer prior to the move. If moving furniture, check all nooks and crannies and clean them thoroughly. Talk with a licensed exterminator to get a quote for cleaning mattress and furniture. Store personal items in airtight containers.

Logan County Bed Bug Task Force Collaborative Bed Bug Protocol BED BUG REMOVAL GUIDELINES

STEP 1: VERIFICATION (Inspection)

Catch a bug you found with scotch tape by sticking it on the adhesive side and wrapping it in the tape. Bring the bug to a trained professional for a visual inspection to verify it is a bed bug. You may bring it to a licensed exterminator or the Logan County Health District

Logan County Health District
310 S. Main St., Bellefontaine, OH 43311
937.592.9040

If verified as a bed bug, proceed immediately to Step 2

STEP 2: CONTACT/FIND AN EXTERMINATOR

It is important to determine who you will use as your exterminator. Get this scheduled as soon as possible. There are no known agencies to help with costs of an exterminator, so you and your landlord will need to work with the exterminator to cover costs.

Take the time to Interview your Pest Control company on the phone and ask them for a certification # and a bed bug preparation check list, if they don't have these this is typically a very clear sign you don't want to hire this pest control extermination company. Any experienced pest control company will have a bed bug preparation list they can email you or it is clearly listed on their web site.

Below are three pest control companies that service Logan County. There are more that come to the area so feel free to do further investigation for yourself. Please note that pest control companies use many different types of treatment so pre-treatment recommendations may vary from company to company. Guarantee also varies between companies.

Company	Contact	Treatment Type	Cost	Financing Available	Mattress Cover costs
ORKIN	Shawn Rust 800-830-9950	Liquid dust, head and they also have Green treatments	Varies \$100-375 per active room. Rooms touching active rooms \$50-100. Pricing may be adjusted for completely empty rooms. Offer a 7-10 day follow-up	Yes	\$45-110 depending on size.
TERMINIX	Jerry Craig 614-473-0305	Rapid Freeze (CO2) with extensive vacuuming	Apartments \$350-450; homes \$450, but both depend on number of rooms	No	Yes, but prices vary
VARMIT GUARD/ PROGUARD	Nancy Holderman 800-793-8169	Chemical and Chemical/ heat variation	Varies depending on treatment and area, but range from \$125 per room for chemical treatment to \$1,200 for 1,100 square foot house with heat treatment	Case by case basis	Yes, prices vary

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STEP 3: GET TO KNOW YOUR ENEMY

Read the general bed bug information in the Logan County Protocol so you know what you are dealing with. Then follow the remaining steps below.

TREATING BED BUG BITES: The recommended treatment for Bed Bug bites would be topical Benadryl and/or oral over the counter antihistamines such as Claritin, Zyrtec, Allegra and Benadryl. The medications are for comfort measures only. Ultimately we would recommend primary physicians to diagnose and treat.

Home remedies for itch relief include the following:

- **Baking Soda Paste**-Take baking soda and salt. Mix them in equal parts with a little water until you have a thick paste. Apply to bites frequently.
- **Oatmeal Paste**-Pour oatmeal powder in warm water and make a thick paste. Apply to bites frequently
- **White Vinegar**-Put white vinegar on a cotton ball and dab bite
- **Ice**-Place ice on the bite

STEP 4: PRE-TREATMENT

General Bed Bug Pre-Treatment preparation is recommended in the First 48-hours after verification. This is simplified preparation before an exterminator comes to your home.

It would be ideal to find someone you trust to help you as you get ready and prepare your bed bug infested living space for a bedbug pest control extermination.

You must know the more cluttered and dirty your space, the more spaces and places for bed bugs to occupy. Please Strive for a minimalism, clutter free living and constantly vacuumed / cleaned home, this makes your home less hospitable for bed bug colonies to hide, glide and thrive. If you can't live a minimalism oriented or clutter free existence than at the very least you need to seal up all that stuff in plastic bags, so you do not create unnecessary safe harborages for bed bugs.

Steps to take to Sanitize your home before the exterminator comes:

- ✓ Remove all bedding from mattresses; gather all linens, clothing, etc. from living space. This includes any textile materials that are machine washable - pillows, mattress covers, anything - and those that must be dry cleaned. Even fabric that is in storage should be collected. Wash bedding and any clothing/fabrics that may have come in contact with bedbugs in HOT water, and dry in the dryer high heat if possible. Wash all other linens and fabrics as directed.
- ✓ After washing, place items in storage bins or bags, or garbage bags. Seal as much as possible to prevent bugs from entering and hiding in the clean fabrics.
- ✓ Empty closets in rooms where bugs have been found. The exterminator will need access into these spaces.
- ✓ Unplug electronic devices in rooms being exterminated. This will make the area more accessible to the exterminator.
- ✓ Move objects away from perimeter of rooms. For example, if your sofa or bed is positioned against a wall, pull it away from the wall. The exterminator will need access to the perimeter of the rooms where bugs have been found, (probably bed rooms, living room, and den/study). Vacuum along the perimeter of the room, if you were unable to before.
- ✓ Empty wooden bookshelves, desks, dressers, etc., and remove drawers if possible. Bedbugs can and will seek refuge between the boards of wooden furniture. This may include coffee tables, television stands, bed frames, photo frames, and box springs.
- ✓ Vacuum your bare mattress bed frame to remove bugs and eggs, the nozzle should have brush or bristles on the end. Include every square inch of the mattress and box spring, then the entire bed frame, then take a scrub brush with hot water and soap, and scrub the mattress and box spring incase the vacuum didn't suck up all the tiny eggs which are attached to these units, then you're going to vacuum it again, every square inch, to make sure you got everything
- ✓ Encase the mattress and box spring in plastic covers.
- ✓ Use white sheets, blankets, and pillow cases as they enable you to see blood stains more easily should bed bugs ever attack again, they can also help you more readily identify bed bug feces.

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Bed Bug mattress or protection covers **Need to make sure they say “bed bug proof mattress covers”**

<i>Name of company/ store</i>	<i>Phone number</i>	<i>Sizes and cost</i>	<i>Comments</i>
Mattress safe	1-888-405-5335	Crib- cal King \$22- \$70	Zipper with hook
Protecta Bed	1-866-581-7378	Crib- queen \$68- \$136	Zipper and flap
Wal Mart	Local Bellefontaine, Sidney	Full -Queen size \$50	No crib size No hook to keep bugs out
Target	Springfield, Columbus	Full –queen \$30-40	No hook no crib
JC Penney	1-800-322-1189	Twin-king \$40- \$90 On sale \$40-52	No crib 2 yr warranty Zipper with hook
US BED BUG	1-888-587-2332	Crib box springs student campus Mattress \$68- 35-108- 81	Zipper with flap
Meijer’s Store	Springfield, Columbus, Lima	Twin to full @25-40	Bed Bug proof
Bed Bug Supply	1-866-238-9868	9” depth 15” depth Mattress \$50 Box springs \$34	10 year warranty Micro zipper Secure zipper Based on ht of mattress
Web: e Pest Solutions	1-888-523-7378	Twin-full \$100 Queen \$120 King \$ 140	Fits mattress and box spring one piece free shipping Texas
Web: JT Eaton		Mattress full \$42 Springs \$31	Discount for 12 or more Mattress \$41 Springs \$ 29

Make sure to leave a contact number at which the exterminator can reach you, as you probably will not be allowed inside the space for at least 4 hours. Keep the exterminators number as well, to report any problems. The best exterminators offer a guarantee, so if your exterminator doesn’t offer you a guarantee you don’t want to hire them, because sometimes they will need to come more than once.

Wait for all mattresses, sofas, etc. to dry before sitting or laying on them. The chemicals used to exterminate the premises will irritate your skin.

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STEP 5: ONGOING PEST CONTROL-POST TREATMENT

Daily: Set aside 5 minutes every morning

Inspect your body every morning when you wake up in a well lit bathroom with a mirror. Start from the top down inspecting your forehead, face, especially neck, then move down to the arms, fore arms, hands, thorax chest area, abdomen, pelvis, thighs, legs, feet. Just because you don't have welts, bumps or inflammation on your skin does not mean you do not have bed bugs, some bed bugs do not cause inflammation after they drink your blood. Bed Bugs are evolving and mutating so they become less detectable and harder to eradicate.

Weekly:

- ✓ Closely inspect your removable bedding for blood spotting. Change your sheets, pillow cases and bedding once a week, wash them or have them washed thoroughly. The best color of sheets, pillow cases, blankets and so forth is white. It gives you the highest and best chance to see blood spotting. White is also the color hardest for bed bugs after their first molting to hide against white because they become dark brown.
- ✓ Closely inspect your bed, mattress, box spring and head board for black or blood spotting or signs of bed bug molting or the bed bugs themselves. The best color for these items is white, white color items make it the hardest for bed bugs to hide. Mattresses and box springs come in all colors sizes and shapes, choose white color for best ability to monitor bed bugs.
- ✓ Inspect all your furniture in your dwelling, especially furniture with drawers. Take out drawers, take items out and turn upside down and inspect. Bed Bugs also love couches and chairs where there are plenty of opportunities to hide out.
- ✓ Inspect closets, top to bottom, you really should keep your clothes zipped up in sealed clothing containers.
- ✓ Inspect drapery, valences, window coverings, venetian blinds etc...
- ✓ Inspect wall hangings, by removing them from the wall.
- ✓ Inspect all areas where they might hide, nooks, crannies, seams and cracks - those areas should be sealed properly.
- ✓ Use Insect climb up identification tools like double sided tape around the legs of all furniture in your dwelling - but only after you have had a professional pest control exterminator treat your living dwelling.
- ✓ Box spring and mattress covers should be replaced at expiration or if any tearing occurs. Don't buy the cheapest covers to save money, spend the money to get quality items that not only work, but are built to last.
- ✓ Put old luggage, clutter and items you don't use in sealed garbage bags, keep your place clutter free as best you can.

Long Term Vigilance-Post Extermination

- ✓ Be prepared for follow-up exterminations. Bedbugs are persistent, and they don't care how much time and money you spend trying to get rid of them. Since they can survive up to 1.5 years without food, be prepared to take this battle to the long term.
- ✓ Bed Bugs travel - people pick up bugs in hotel and motel rooms and transport them home in their luggage. Visually inspect mattresses before sleeping on them and your luggage before settling in at home after a trip. Bedbugs are easier to avoid than to get rid of! Always inspect your hotel room thoroughly on arrival with the focus on the bed itself and areas within 15 feet of the bed.

**Logan County Bed Bug Task Force
Collaborative Bed Bug Protocol
ORGANIZATIONAL PROCEDURE**

PREVENTION

Provide staff and clients/parents with brochure, “Everything You Need to Know About BED BUGS” to make them aware of what to look for. Share with staff the response procedure below.

RESPONSE

IF A CLIENT/STUDENT IS FOUND TO HAVE A LIVE BED BUG OR APPARENT BITES ONSITE OF ORGANIZATION:

1. Stick the bug onto some tape and place it in a plastic bag. Bring to office/building administrator who will have the bug identified by the local health department or a pest control specialist.
2. Notify the organizational/school nurse if available
3. Place client/student’s things into a plastic bag
4. Send client/student and his/her things to the nurse’s office for inspection
5. Client/student should return to services/class, & their things remain in the bag. NOTE: the client/student HAS to be served. Bed Bugs is NOT a reason to send them home or refuse them services.
6. If other family members are present, staff/nurse should inspect all those who live in the same house (all students should return to class)
7. Have room/class where bug was found thoroughly cleaned when not in use (ie: restroom or recess break). Continue to inspect the room for bed bugs.

NOTIFY:

1. Notify any client/student’s parents and provide bed bug removal protocol
2. Notify custodial staff so that thorough cleanings and inspections can be performed
3. Notify bus driver/transportation services so that affected client/student can sit alone or with siblings & vehicle can be cleaned & inspected after each transport.

NEXT DAY/SERVICE:

1. Affected client/student should be inspected before entering the organization/school along with his/her belongings
2. Staff/Nurse follow-up with client/student’s parents to ensure resources, bed bug removal protocol were given and if the family has questions.

Logan County Bed Bug Task Force Collaborative Bed Bug Protocol Home Visiting Protocol

Bed bugs are a serious concern and one faced by all individuals conducting program delivery in family homes. Infestations are not always apparent and staff who visit families or residents in their home should review and follow the guidelines below in order to minimize the potential for transporting bed bugs, cockroaches and other pests to other residences, your workplace or home.

Home visitors and service coordinators are encouraged to offer assistance in any way they can to help the family control the infestation of bed bugs, cockroaches, or other pests which can have a negative impact on the young children in the home. It is very important that every effort is made to continue to provide services to families. Following these guidelines will protect not only you but the families you visit.

Guidelines to Reduce the Risk of Transporting Bed Bugs During Home Visits

Prepare a Bed Bug Prevention Kit to keep in your car

- Large plastic storage bin with cover
- Disposable shoe covers
- Wet wipes and/or spray bottle of 70% isopropyl alcohol
- Clear sealable plastic bags
- Large disposable trash bags
- A change of clothes, socks, and shoes
- You may also wish to take a small portable stool

Before you enter a home

- Wear clothes and shoes simple in design to provide fewer hiding places for bed bugs
- Avoid wearing clothes that need to be dry-cleaned
- Light colors make it easier to see bed bugs on your clothes
- If wearing scarves, hats, gloves, or coats consider leaving them in your car
- Secure personal belongings such as purses in the car rather than take them into the home
- Put shoe covers on if directed by employer

In the home

- Bring as few items as possible into the home
- Use a plastic tote to carry work affects (e.g. paper, pens, computer, etc.) and return items immediately to the tote rather than sitting them down in the home
- If a client asks you to take off your shoes: you can wear a second pair of socks or shoe covers
- Work in well lit areas such as kitchen and avoid “hot spots” such as the bedrooms and living rooms
- Try not to sit or set anything down on beds, upholstered furniture or on the floor
- Remain standing (unless inappropriate) avoid leaning on walls, doors, counters, or other surfaces
- When sitting – plastic or wooden chairs are best
- If in a home with a known infestation, inspect yourself and items for bed bugs before you leave

If you detect bed bugs in the home

- Ask the occupant if they are aware of their infestation

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- If a rental, help them report the infestation to the landlord
- Provide information or refer them to reliable sources of information for safe bed bug eradication

After you leave (whether or not bed bugs are seen)

- Carefully inspect your clothes, shoes, and other items before you enter your car or a neighboring unit
- If wearing shoe covers, remove them and seal in a plastic bag for disposal
- Take shoes off, inspect them inside and out, and wipe shoes down with a wet wipe
- If you find bed bugs, crush them with a wipe or spray them with 70% isopropyl alcohol
- If bed bugs are found on your clothes, change them and seal infested clothes in plastic bag
- Place all items that were in the home into plastic bin until they can be inspected

When you get home

- Don't bring work items into your home or workplace until carefully inspected
- Remove clothes in a garage or on non-carpeted floor
- Launder and dry clothes immediately or seal them in plastic bag until you can inspect them
- Coats and other items can be dried on moderate to high heat for 20 to 30 minutes

Protect your car

- Vacuum regularly and avoid clutter in your car. Canister vacuums allow for easy cleaning between uses
- Vacuum bags which potentially contain bed bugs should be sealed in a plastic bag prior to disposal
- Keep home visit equipment in large plastic storage bin or sealed in plastic bags
- Inspect yourself and belongings before entering car