

# Infestation Control

## **BACKGROUND**

Reasons for increase in pest infestations :

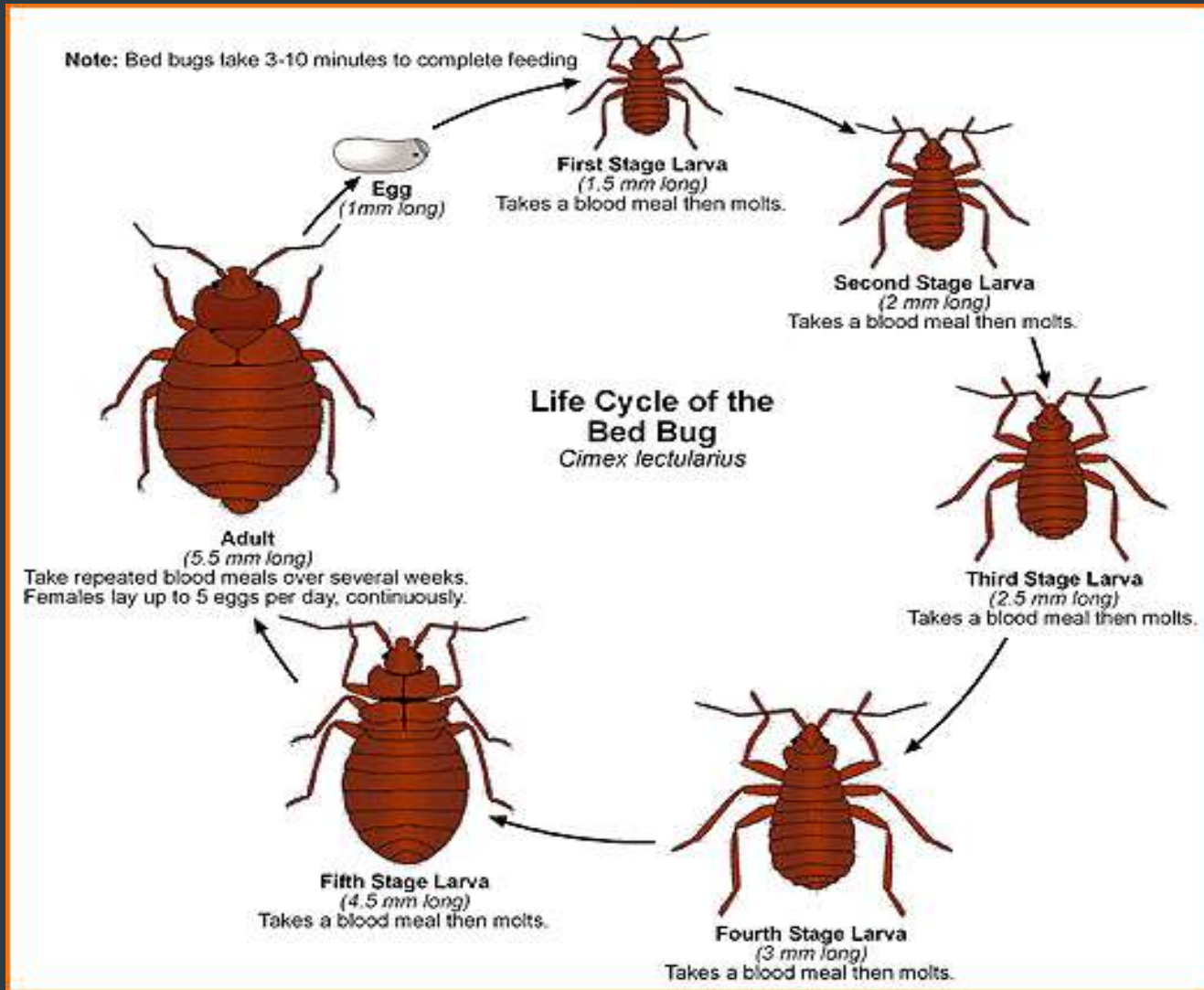
- Climate /Environmental change
- Ban of pesticides and other conditions have led to increased pest control issues throughout Metro Vancouver i.e.. bed bugs, cockroaches, spiders and ants..
- Resistance to treatment

Bites from insects are not usually a health concern, but they are irritating at the least, and when scratched, can be at risk of infection similar to any open wound.

The intent of this presentation is to prevent infestations in your buildings through prevention , action and education.

*All infestations, especially Bedbugs, are difficult to prevent timely management and prevention are key.*

# Life cycle of the Bed bug



# Prevention

We are all responsible to reduce the risk of infestation in our buildings and in our homes by :

- closely monitoring all individuals, belongings, and materials coming into the building .
- Monitors have been proven to reduce infestations by as much as 60%
- Identifying an infestation as soon as possible.
- Bag belongings of guests visiting .(if possible)

Understanding it is not only your problem but everyone's problem and together we can greatly reduce the risk to everyone.

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## If Infestation is present

- Report it immediately
- Prepare for treatment (following the instructions given)
- All personal packages/belongings need be bagged with each bag sealed separately.
- All washable items are to be laundered on a cycle that uses high heat and/or disinfectant (bleach) to kill any bugs as well as their eggs.
- Where clothing is not washable (e.g. some leathers, silks, etc.), they are to be treated with the designated treatment solution. i.e. Steam cleaned , Treatment sauna , etc.



# Treatment Sauna

## Sauna Guidelines:

When an individual needs to use the treatment sauna they must:

Check availability, Make arrangements to deliver items to the sauna.

- insure all items are bagged and sealed before removing from unit.
- Place items in the sauna
- All bags and/or furniture must be labelled with the originating unit number/name.
- All items are entered on the Sauna Record Sheet.(The Record Sheet records incoming and outgoing items and that they are signed in/ out)

## Deadlines:

- Sauna treatment takes approximately 2 hours @ 90 degrees Celsius (core temp)
- All items must be picked up as soon as possible after the treatment is complete and cleared of any infestation.

# Building Infestation

*As soon as possible*, and within 48 hours of segregation and bagging of infested goods, the following treatment should be implemented.

- washable items are to be laundered on a cycle that uses high heat and/or disinfectant (bleach) to kill any bugs as well as their eggs.
- Move furniture to centre of room, away from all walls and edges. Where appropriate, dismantle bed; unscrew bed legs, pull drawers out to ensure chemical penetration to all areas of furnishings.
- Remove pictures and electrical/switch plate covers from walls.
- Eliminate clutter using the double sealed bag process ensuring nothing is left on the floor.

Option: Steam-clean all cracks and crevices in walls, ceilings, and floors, paying particular attention to areas around pipes. (Only trained employees are to use steam-cleaners.) should caulk all baseboards top and bottom .

# Building Infestation

**Spread diatomaceous earth (food grade):**

- **By dusting it into any cavities that are accessible including between walls/floors onto areas that are rarely accessed such as behind or underneath fridges, stoves, or under counters, etc. Following dusting procedure .**
- **Caulk cracks and crevices in walls, ceilings, and floors. Caulk the bottom and top of any floor base. Large gaps around pipes should be filled in with steel wool prior to being sealed. Pipe 'collars' should be fitted and caulked into place.**

**If there is heavy infestation, mattresses and fabric covered furniture may be first put in the sauna. Only discard mattresses or fabric covered furniture if infestation has not been resolved after sauna use. When discarding mattresses are to be cut or broken to reduce the risk of someone else utilizing them and spreading the infestation. Transport in sealed bags to prevent insect transferral.**

## (Diatomaceous Earth)

### What is Diatomaceous Earth How does it work

It is a non-toxic, safe substance made up from crushed fossils of freshwater organisms and marine life. Crushed to a fine powder and observed through a microscope, the particles resemble bits of broken glass.

INSECTS CANNOT BUILD UP A TOLERANCE OR RESISTANCE TO IT.

INSECT STOP REMAINS ACTIVE FOREVER.\*\* (unless it is washed away or cleaned up)

INSECT STOP is a proven insect controller, repellent and killer of earwigs, ants, cockroaches, spiders, beetles, silverfish, bedbugs, fleas and grain insects, to name only a few. It is an all year round insecticide.





# Building Infestation

## **AREAS to be treated with pesticide:**

- **It is always necessary by law to post instructions on door .It is also important to follow advise of pest control supplier.**
- **Vacate during treatment**
- **Re-entry time varies depending on treatment.**
- **Ventilate the area well.**
- **Insure that your pets are removed during treatment.**



# What do bed bugs look like?

## Appearance:

reddish-brown, flattened, oval, multiple sizes

microscopic hairs that give a banded appearance.

Adults = 4 – 5 mm in length and do NOT move quickly.

Newly hatched – translucent, lighter in color and continue to become browner.

First stage juveniles frequently hide in shed skins.



## Habits:

- Generally active at night, or when food is available.
- Attracted to vibration, warmth and carbon dioxide.
- Can live for 1 year without feeding, but typical lifespan is 6-8 months.
- Are very active between feedings (usually every 7-10 days).
- Have hooks for feet so prefer to textured surfaces near host (raw wood)

# Bedbug infested furniture



# bed bugs ...

## Facts:

- Bedbugs are NOT linked to the transmission of disease
- Although scratching the bites can cause severe infection
- Female bedbugs can lay up to 5 eggs in 1 day.
- They are most active in the late evening early mornings.
- Anyone can get bed bugs (clean/ dirty )



## Infestations:

- Through infested furniture or used clothing entering a home.  
Can travel between units in multi-unit dwellings, usually travelling on electrical lines.

## Where to look for bedbugs:

- Found in tiny crevices, usually within arms reach of the primary host in the first weeks.
- Stay out of light in the daytime.
- Often in cracks and seams of beds, bed frames, night stand also baseboards, etc.
- Potentially adjacent rooms when source room infestation is medium to high.



# Infestation Management

## After Treatment:

- Open as many windows as possible (weather permitting)
- Leave your home for 6 hrs or until the spray has dried. Keep pets out of room.
- Install mattress covers on mattress and box spring (plastic/vinyl).

## NOTE:

bites may follow treatment for 7-10 days.

heavy infestation may require several treatments before eliminated.

# Infestation Management

## Bug Treatment Rooms:

If your building has a bug room for isolating tenant items while they are in the process of de-bugging.

- It is helpful to have a ledger of when the items came into the isolation rooms, when they were sprayed, # of times, who items belong to.
- It is good to treat this room from time to time.



## Policy and Procedure

### Background :

Climate change and other conditions have led to increased pest control issues throughout the Metro Vancouver area, including infestations of bedbugs, cockroaches, spiders and ants.

Bites from insects are not usually a health concern, but they are irritating at the least, and when scratched, can be at risk of infection similar to any open wound.

The intent of a policy is to prevent infestations at all buildings through prevention, quick remedial action, and education. All infestations, especially Bedbugs, are difficult to prevent, thus good communication ,timely management and prevention are key.

All clients, visitors, tenants and staff need to understand and be fully engaged in infestation prevention and management to reduce the risk of infestations and increase successful treatment.

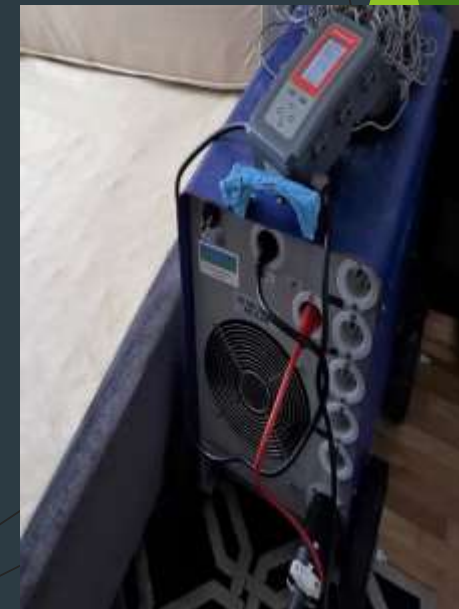
A high level of cooperation is required amongst everyone.

**Please help yourself to a copy of the sample policy and procedure.**

# Types Of Treatments

## Thermal Heat Treatments (aka 'we can't afford that treatment' treatment)

- Heat is used as primary mode of action to kill.
- Temperatures must reach 122 Fahrenheit for a minimum of 2 hours to be lethal to a bed bug.
- Treatment time is usually a full day.
- Heat kills all stages equally, from eggs to adults
- In most situations, can eliminate up to 100% in a single day (preparations & instructions followed)
- Requires less preparation than a traditional treatment (no laundering bedding or clothing)
- Heat treatments do not drive bed bugs into neighbouring units.





## Traditional Treatment (non heat treatment or 'chemical treatment')

- Combination of mechanical control and pesticide application to achieve complete eradication.
- Usually completed in 2 visits; occasionally a 3rd visit required.
- Vacating usually required for most residents.
- Preparation can range from minor to major depending on infestation size found during inspection.
- Activity SHOULD BE EXPECTED between visits and frequently 7-10 days after final visit.
- Treatment intervals should be around 2 weeks.
- Traditional treatment has evolved greatly in past few years (big spray tanks and smell chemicals are history!)
- More affordable\* than a thermal heat treatment.



# Monitoring

Monitoring devices are designed to provide evidence of infestation.

- Can reduce treatment costs by catching early infestations before they grow & begin to effect neighbouring units.
- Can be used to verify an infestation is eradicated.
- Work around the clock 24/7 and last for years.
- Can reduce infestations in advance of treatments.
- Come is Active (has attractant) and Passive (human host required) styles and design.
- Can easily be inspected by on site management.
- Can & should be used as part of bed bug management plan to reduce costly treatments.



# Other Bed Bug Stuff need to know or nice to know (you decide!)

- 30% of people DO NOT react to bites whatsoever. Seniors even higher! A single bed bug found does not require a treatment (see monitors).
- Standard preparation sheets are/should be history (over prep, stress, etc.)
- Clothing and personal items leaving while treatments occur should be prepared and inspected in advance to avoid reintroduction.
- Bed bugs are sensitive to strong smells (oils, cleaning products, sprays) and commonly avoid the area (neighbours?) until the smell dissipates.
- Bed bugs don't eat breakfast, lunch & dinner. Bites are in a row because they didn't hit a vein on the first try so they followed the seam along.

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- Bed bugs have wings. They are just underdeveloped.
- Doctors cannot ID a bed bug bite vs a mosquito or flea bite. We all react differently to skin penetration and irritation.
- Bed bugs are here to stay. No silver bullet or magic trap on the horizon.

The combination of monitoring, communication & proper treatment is the best way to manage bed bugs in buildings.



# Questions and Answers

