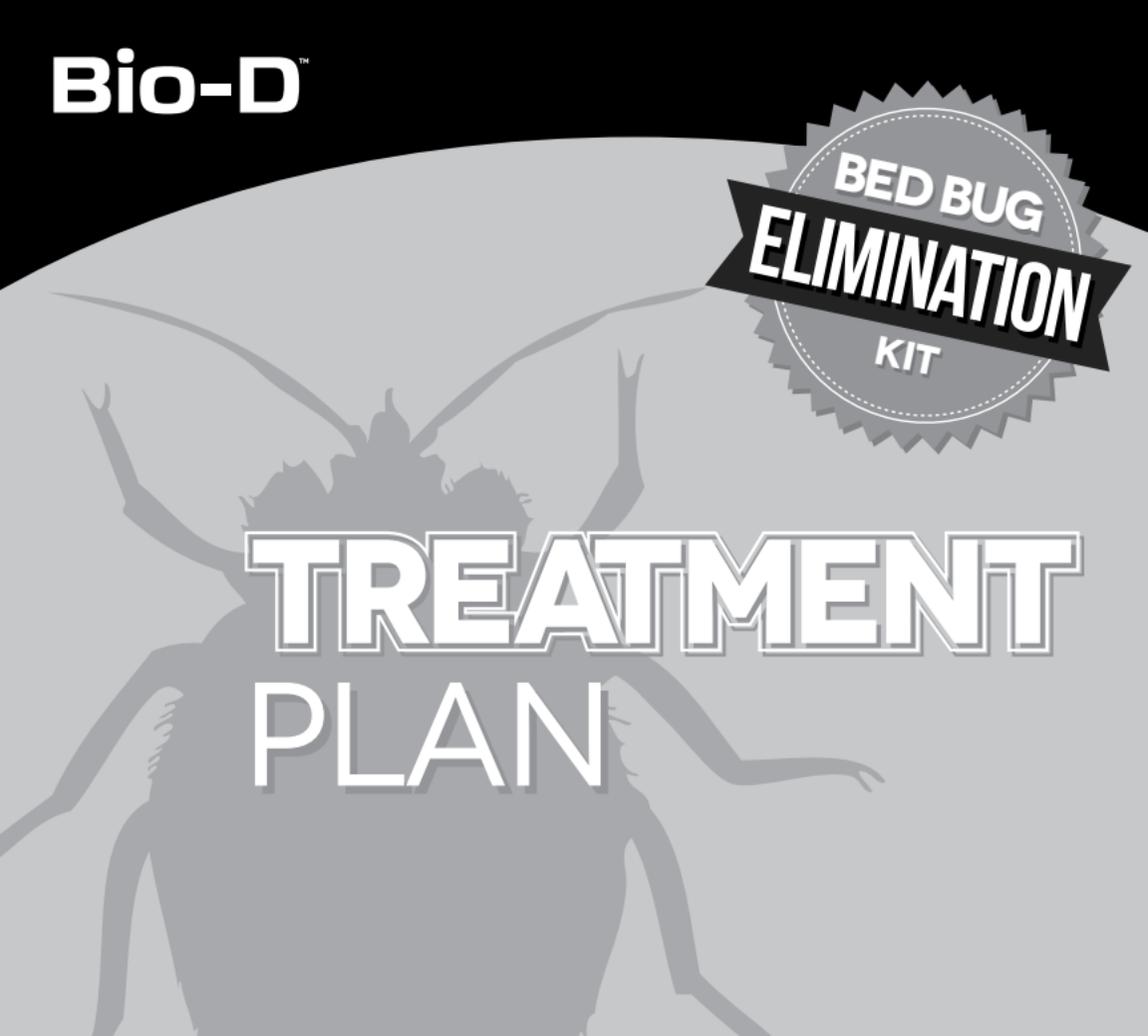


Bio-D™

**BED BUG
ELIMINATION
KIT**



**TREATMENT
PLAN**

CONTENTS



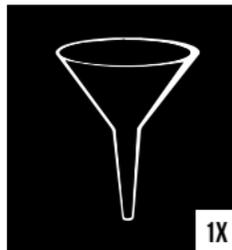
2L BIO-D™ BED
BUG CONTROL

1X



300ML BIO-D™
BED BUG CONTROL
(REFILLABLE SPRAY BOTTLE)

1X



FUNNEL

1X



TREATMENT
PLAN

1X

PRODUCT INFORMATION

Bio-D™ Bed Bug Control eliminates and prevents a bed bug infestation. It provides 100% bed bug knockdown in just 4 minutes and 94% mortality within 24 hours (independently tested in the US). **Bio-D™ Bed Bug Control** is non-toxic and completely safe to use around children, pets and food.

The Bio-D™ Bed Bug Elimination Kit is designed to completely eliminate a bed bug infestation from the home. The common bed bug (*Cimex lectularius*) has long been a pest – feeding on blood, causing itchy bites and irritating their human hosts. They have proven to be a very challenging pest and eliminating an infestation takes time as well as patience. The good news is that by following this treatment plan you can get rid of your bed bug problem and prevent it from reoccurring. Please follow this treatment plan carefully.

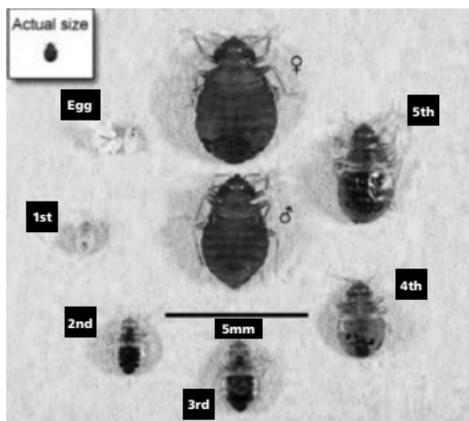
TREATMENT PLAN: HOW TO ELIMINATE A BED BUG INFESTATION

STEP 1: INSPECT FOR BED BUGS & HIDING PLACES

Knowing what to look for is the first step in controlling bed bugs. Adult bed bugs are 4-5mm long, brown in colour, with a flat oval-shaped body. Young bed bugs (nymphs) are smaller and lighter in colour.

WHAT TO LOOK FOR?

- Live bed bugs.
- Dark coloured dots (about this size: •) which are bed bug faeces.
- White eggs and eggshells (approx. 1mm).
- Skins that nymphs shed as they grow larger.
- Reddish stains on bed sheets or mattresses caused by bed bugs being crushed or blood.



1. Life cycle of bed bug starting from top left, moving counterclockwise: eggs (1mm), 1st stage nymph (1.5mm), 2nd stage nymph (2mm), 3rd stage nymph (2.5mm), 4th stage nymph (3mm), 5th stage nymph (4.5mm), unfed adult (5.5mm), and fed adult. Photo courtesy of Stephen Dogget, Department of Medical Entomology, Westmead Hospital, Sydney, Australia.

Inspect all areas of the room, plus surrounding living spaces for **physical signs of bed bugs and where they hide**. Carefully check around bed, along seams of mattress and box spring/divan, in crevices of bed frame and headboard, inside drawers, furniture, electrical outlets, behind wall-hangings. Bed bugs will hide anywhere – **Check everything possible**.



Bed bugs are as thin as a credit card and can squeeze into very small cracks. If a crack will hold a credit card, it could hold a bed bug.

STEP 2: REMOVE CLUTTER WHERE BED BUGS CAN HIDE

Highly cluttered rooms provide more places for bed bugs to hide and will make locating and treating them harder. **Removing clutter is a very important step in eliminating an infestation.**



Place any clothes touching or laying on the floor into tightly sealed bags for washing.



Remove all items from under the bed.



Go through closets. Place items with no value/no longer used (newspapers, magazines, broken electronic equipment) in tightly sealed plastic bags and immediately dispose in an outside rubbish bin.



Stack items that you wish to keep in front of the closet door so they can be cleaned later.



Do not move anything from one room into another as this may spread the infestation.

STEP 3: PREPARE THE AREA BY CLEANING & VACUUMING

Clean the premises to physically remove bed bugs and prepare the area for treatment.



Wash all bed sheets, blankets and pillowcases in very hot water for at least 1 hour. Very hot water (60° C +) kills bed bugs. The higher the temperature, the shorter the time needed to kill bed bugs at all life stages.



In severe infestations, clothes should also be removed from closets/drawers and similarly washed.



Put bedding and clothing in a clothes dryer for 20-30 minutes on high heat to eliminate bed bugs.



Vacuum every surface in affected rooms thoroughly including walls, floors, inside drawers, closets. Note: use a hand-brush vacuum attachment or crack and crevice attachment to remove bed bugs/eggs from hard to reach areas (bed frame, seams/folds of mattress, inside furniture, floor cracks and crevices).

After vacuuming is completed, remove vacuum bag, tie tightly and remove from premises immediately.



Rest of the room: Thoroughly spray **Bio-D™** throughout the rest of the room in all cracks and crevices of furniture, walls and floors. This includes:

Inside closets and drawers

In floor panels/underneath carpet edges

Behind peeling paint/wallpaper

Inside cracks and crevices of wooden and upholstered furniture (sofas etc.)



Turn bed bug infested furniture over and treat from the bottom. Some furniture or bed frames are hollow (bunk beds). Take these frames apart and spray inside to make sure all bed bugs are killed.

STEP 4: TREAT INFESTED AREA WITH BIO-D™

Spray **Bio-D™ Bed Bug Control** directly onto bed bugs and places where they hide such as the mattress, bed frame and furniture throughout affected room(s).

Bed bugs will be killed on contact and also repelled from areas where **Bio-D™** has been applied. Use the included 300ml spray bottle to apply **Bio-D™** and refill it using the funnel and 2 litre bottle of **Bio-D™ Bed Bug Control**.



The Bed: Sleeping areas are a favourite hiding place for bed bugs because after feeding they can easily retreat to these locations. For this reason, the bed is considered the most important treatment area. Spray **Bio-D™ liberally** on:

Underneath bed and on all areas of the mattress (folds, seams)

Headboard and footboard

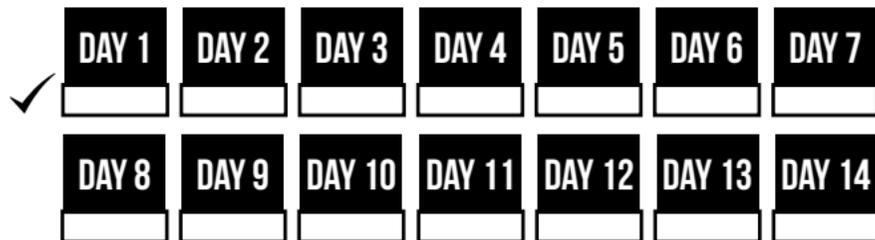
All areas in close proximity to the bed (inside electrical outlets, bedside furniture)



STEP 5: FOLLOW UP TREATMENT

Apply **Bio-D™** throughout affected rooms once a day for at least 12-14 days.

This follow up treatment is necessary because bed bug eggs laid prior to application of **Bio-D™** (step 4) will continue to hatch on a daily basis for around 12-14 days. Daily treatment using **Bio-D™** will kill newly hatched nymphs before they lay eggs and eventually eliminate the infestation by stopping the bed bug lifecycle.



To help prevent bites,

- 1) Try to conduct follow-up treatments shortly before going to bed
- 2) Move the bed at least 6 inches away from the wall
- 3) Make sure all bedding is tucked under the mattress and does not touch the floor.

FREQUENTLY ASKED QUESTIONS

Is **Bio-D™ Bed Bug Control** safe to use?

Bio-D™ Bed Bug Control is non-toxic and completely safe to use anywhere in your home including around children, pets and food.

How do I use **Bio-D™ Bed Bug Control**?

Spray **Bio-D™ Bed Bug Control** directly onto areas where bed bugs hide such as the bed frame, mattress, furniture and cracks and crevices throughout affected rooms. Bed bugs will be killed upon contact and also repelled from areas where **Bio-D™ Bed Bug Control** has been applied.

How long does it take for **Bio-D™** to work?

Bio-D™ Bed Bug Control was independently tested in the US and shown to provide 100% bed bug knockdown in 4 minutes and 94% mortality within 24 hours. You can view the laboratory report on our website at www.bio-d.com.my

What is the active ingredient in **Bio-D™ Bed Bug Control**?

Bio-D™ Bed Bug Control contains EGX-101™, a natural ingredient derived from the wild tomato plant that is highly effective at killing and repelling bed bugs.

How can I tell whether I have a bed bug infestation?

First, carry out a thorough inspection as described in step 1 of our bed bug treatment plan. Bed bug bites are another way to tell whether you have an infestation. Bed bug bites are usually:

- Red, often with a darker red spot in the middle.
- Arranged in a rough line or a cluster.
- Located on the neck, face, arms and hands.

Some people have no reaction to bed bug bites while others will display the above signs.

How do I get rid of bed bugs in my bed sheets and pillowcases?

Washing items in very hot water of at least 60 degrees Celsius kills bed bugs of all life stages. Drying items in a dryer on high temperatures for at least 20-30 minutes is also an excellent way to kill bed bugs. We recommend that you set the dryer or washer to the highest setting that the fabric can withstand to make sure that bed bugs are killed.

Why is Bio-D™ Bed Bug Control exempt from registration by the Malaysia Pesticide Board and the Singapore National Environment Agency?

Bio-D™ Bed Bug Control contains only ingredients considered safe and exempt from registration requirements. This means that it is not classified as a pesticide and is approved for use anywhere in your home including around children, pets and food.

Is there a Material Safety Data Sheet available for Bio-D™ Bed Bug Control?

Yes. You can view the MSDS on our website at www.bio-d.com.my

How often do I have to apply Bio-D™ Bed Bug Control to get rid of an infestation?

We recommend applying **Bio-D™** throughout affected rooms once a day for at least 12-14 days. This is necessary because eggs laid before treatment began will continue to hatch on a daily basis for around 12-14 days. Daily treatment will kill newly hatched nymphs before they lay eggs and eventually eliminate the infestation by stopping the bed bug lifecycle.

In severe infestations, bed bugs may persist beyond the recommended treatment period. In this instance, continue treatment until there are no longer any signs of bed bugs. **Bio-D™** also repels bed bugs so you can apply it regularly to prevent an infestation from reoccurring.

Why are bed bugs such a challenging pest to eliminate?

- They can hide in very small cracks and crevices because of their small body and flat shape.
- Bed bugs often go unnoticed because they come out to feed at night while people are asleep and quickly retreat to their hiding places after feeding.
- Most pesticides are prohibited from use against bed bugs because they are not safe for indoor use. Bed bugs have also developed resistance to many commonly used pesticides (e.g. Pyrethrins).
- Eliminating an infestation takes time and patience because you have to kill all adult bed bugs and conduct follow up treatments to kill any newly hatched nymphs before they lay eggs.

How did bed bugs get into my home?

Bed bugs can “hitchhike” to your home by travelling on clothing or luggage. They are commonly picked up from public places such as movie theatres, hotels, schools, office buildings, and even public transportation such as planes and taxis. Nowadays, even five-star hotels are susceptible to infestations.

If you live in an apartment, bed bugs can migrate from next door apartments into your home. They may also enter if you bring infested furniture into your home.

How do I prevent bed bugs from entering my home?

- Do not bring furniture (mattresses, sofas) found on the street into your home.
- Inspect all used or rented furniture carefully for bed bugs.
- Do not place backpacks, bags, or purses on areas where you rest (beds, sofas)
- For apartments, seal cracks and crevices around plumbing and wiring to prevent bed bugs travelling from next door apartments.
- If you suspect you have come into contact with bed bugs, immediately wash and dry items on the hottest setting the fabric can withstand or store them in a sealed plastic bag until you are able to do so. Shoes, bags, and other items can be put in the dryer for 20 minutes on the highest temperature the material can tolerate.

When travelling:

- Inspect for bed bugs in your hotel room. Check the bed, mattress, bed sheets etc. for physical signs of bed bugs.
- Use luggage racks to hold your luggage when packing or unpacking, rather than setting your luggage on the floor or bed.
- Upon returning home, inspect luggage for any signs of bed bugs and unpack directly into the washing machine or store items in a sealed plastic bag until you are able to do so.

What else can I do to get rid of a bed bug infestation?

We highly recommend purchasing a mattress encasement. These professionally-available encasements will seal your mattress so that bed bugs inside the mattress are trapped and those outside cannot enter the mattress. If a mattress encasement is used, there is no reason to discard a mattress.

Mattress encasements are also a very good preventive measure for keeping bed bugs out of your mattress and box springs.

Note: Since bed bugs can live up to a year without feeding, we recommend keeping the encasement on your mattress until you are absolutely certain there are no surviving bed bugs inside.

