



# ALL ABOUT BED BUGS

AN INFORMATION GUIDE  
JUNE 2009





## Introduction

Thank you for reading our information guide, “All About Bed Bugs”. This information guide has been written for tenants, landlords, community groups, and anyone looking for simple and straightforward information about bedbugs. We hope that everyone who reads this information guide finds it useful. We encourage you to share and use any of the information to help address bed bugs in your home, neighbourhood, or community.

This book was created by WoodGreen Community Services and Habitat Services, with assistance from Public Interest Strategy & Communications.

We’d like to thank Rebecca Price from Public Interest Strategy & Communication and Jasmine Wi-Afedzi from WoodGreen for helping us write this book.

Thanks also to Leslie McDonald and Chris Persaud from Habitat Services, and Paula Cassin from ABI Possibilities, for giving their support and input.

We want to recognize the leadership of Toronto Public Health and everyone who has participated in the Toronto Bed Bug Project for helping to develop effective strategies to deal with bed bugs in Toronto. We also want to thank the Community Bed Bug Committee for its commitment and dedication to the bed bug issue in Toronto.

And finally, we’d like to thank the City of Toronto and the Ontario Ministry of Health for its generous funding of this information guide.

Sincerely,

**Rima Zavys**

*Director  
Mental Health and Developmental Services  
Homelessness and Housing Help Services*

**Elaine Magil**

*Manager  
Tenant Outreach and Education  
WoodGreen Community Services*

WoodGreen Community Services

Toronto, Canada

June 2008

## Table of Contents

- 4 What Do Bed Bugs Look Like?
- 5 Quick Facts About Bed Bugs
- 6 Are There Bed Bugs in My Home?
- 7 Am I Being Bitten By Bed Bugs?
- 8 I think I have Bed Bugs! What Do I Do?
- 9 What Can I Do to Keep Bed Bugs Away?
- 10 Bed Bugs Do's and Don'ts
- 12 Who Is Responsible for What?

### Step by Step Guides:

- 15 Introduction to Step by Step Guides
- 16 How to Do an Inspection for Bed Bugs
- 18 Preparing Your Home Before Treatment
- 22 What Treatments Should the Pest Control Company Do
- 24 Who Can Help?



**ANYONE**

CAN GET THEM

**IT'S NOT YOUR FAULT.**

**DON'T BE  
ASHAMED**

IT'S TOTALLY NORMAL  
FOR IT TO TAKE A WHILE  
TO GET RID OF THEM

**DON'T  
GIVE  
UP** **IT'S NOT  
YOUR FAULT.**

TELL SOMEONE.

ASK FOR

**HELP.**

LET YOUR LANDLORD KNOW

**RIGHT AWAY. IT'S NOT YOUR FAULT.**

YOUR LANDLORD HAS A RESPONSIBILITY TO HELP YOU.

KEEP WITH IT. **YOU CAN DO IT.**

**KEEP REPORTING** IT TO YOUR LAND-  
LORD, IF THE BED BUGS DON'T GO AWAY AFTER THE  
SPRAY. **LOOK** FOR EARLY WARNING **SIGNS:**

TINY **BLOOD SPOTS** ON YOUR SHEETS. YOU

CAN'T RELY ON BITES TO TELL IF YOU HAVE

BED BUGS. UP TO 70% OF PEOPLE DO NOT REACT TO BITES.

**BED BUGS WILL NOT GO AWAY ON THEIR OWN.**

THE SOONER YOU **BEGIN** TO **TAKE**

**STEPS** TO GET RID OF THEM, THE less time it will

take for you to be **BED BUG FREE.**

## What do Bed Bugs Look Like?

Bed Bugs are oval, flat reddish brown insects, about as big as an apple seed.



Dr. T. G. Myles

Before feeding they are flat and brown. After feeding they become larger and turn a more reddish-brown colour.



Dr. T. G. Myles

Baby bed bugs are smaller, whiter, and harder to spot.



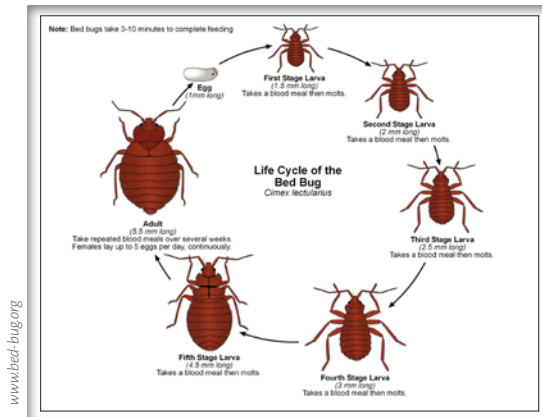
Dr. Lou Sarkin

A female bed bug can lay about 200 to 500 eggs during her lifespan. Eggs are very small; about the size of a grain of rice.



David P. James

## Quick Facts About Bed Bugs



Bed bugs can be found all over world: in many cities and towns, in homes, stores, offices and public places.

Bed bugs feed on the blood of animals or birds, but they prefer people.

Adult bed bugs can live for up to a year without feeding.

Usually bed bugs live for 6 to 9 months.

The eggs hatch about 10 days after they are laid.

They usually hide during the day and come out at night to feed.

Bed bugs can't fly or jump, but can walk as quickly as an ant.

Bed bugs are attracted to body heat, and the air people exhale.

Bed bugs can travel from place to place on clothing, and personal belongings like luggage, knapsacks, computer bags and purses.

Bed bugs are not known to spread any human disease.

## Are there Bed Bugs in My Home?

Bed bugs are hard to find! They are very small and usually only come out at night. They often hide in the seams of mattresses and box springs, and along the edges of beds and other furniture.

Before you find a bed bug, you might find the **signs of bed bugs:**

- Itchy red bumps on your body
- Black dots (bed bug poop) on your sheets blankets, pillow cases, mattress
- Blood stains on sheets, blankets, pillow cases
- Dried remains of shed bed bug skin on your bedding
- Dead bugs on your bed or in your bedroom

Remember: many people don't react to being bitten and won't have red itchy bites on their body.

✓ **Good Tip for Catching the Problem Early:** You can do a simple inspection of your bed and bedding every time you remove the sheets for washing. For a more detailed description of how to inspect for bed bugs see the **"Step by Step Guide: How to Do an Inspection for Bed Bugs"** on page 16 of this Information Guide.



bloodstains on mattress

brbismustgo



bed bug on mattress

David P. James



bugs, eggs and feces on mattress

David P. James



under boxspring

David P. James



bugs and fecal stains on carpet

David P. James



on a CD shelf

Dr. Lou Sarkin



house slipper

Dr. Lou Sarkin



## Am I Being Bitten By Bed Bugs?



Dr. Lou Sorkin

bed bug feeding on a hand



bassommeijer

bite on a hand



bassommeijer

bites on arm

Bed bugs feed on human blood, but will also bite other animals. Bed bugs usually bite at night, and will bite all over a human body, especially around the face, neck, chest, arms and hands.

Most people feel very itchy where bed bugs bite, but some feel nothing at all. You might see bites and red welts in groups of two or three. A doctor can prescribe special cream to help with the inflammation and itching.



bites

misplaccdporm



bite on forearm

Dr. Lou Sorkin

# I Think I Have Bed Bugs!

## What Do I Do?

If you suspect you have bed bugs or have found signs of them in your home:

1. Do a full inspection of your bed
2. Do a full inspection of your bedroom and other rooms where you spend a lot of time, watching television, using the computer, or talking on the phone
3. Inform your landlord right away
4. Work with your landlord to schedule professional pest control treatments
5. For good results make sure you 'prepare' your home properly before treatments
6. Make sure your home is prepared and treated **TWICE** in a 2 or 3 week period

✓ For a more detailed description of what to do if you find bed bugs or signs of bed bugs, see the **"Step by Step Guide: How to Do an Inspection for Bed Bugs"** on page 16, in this Information Guide.



bedrail frame

David P. James



mattress

David P. James



upholstery

David P. James



getting ready

misplacedpoom

## What Can I Do To Keep Bed Bugs Away?

Do not pick up used furniture – it may have bed bugs living on it or in it.

Do not have too many belongings in your home – extra clutter makes getting rid of bed bugs harder.

Watch for early warning signs (like blood spots or bed bug poop on the sheets).

Use white sheets on your bed. Bed bugs, blood spots, and bed bug poop is easier to spot on white sheets.

When you take off your sheets to wash them, check your mattress for signs of bed bugs.

If your friends have bed bugs, try to socialize with them outside of their homes or change your clothing when you get home from being at their house. Bag and seal your clothing until you can put your clothing in a dryer for at least 20 minutes. Make sure you seal your bag very well, by tying it up twice and sealing the top with tape. Also inspect your shoes and anything that you may have brought with you for signs of live bed bugs and eggs.



socialinterloper

mattresses on street



David P. James

new mattress - old bug



socialinterloper

used furniture on street

## Bed Bug Do's and Don'ts

- ✓ Do something sooner, rather than later – the sooner you do something the sooner you will be able to get rid of them
- ✓ Notify your landlord and keep letting your landlord know if you continue to see bed bugs even after treatments
- ✓ Make sure that a professional pest control company sprays your home as soon as possible
- ✓ Make sure that your home is properly prepared before the treatment
- ✓ Do get a mattress cover for your mattress and box spring



installing a new mattress with cover

David P. James



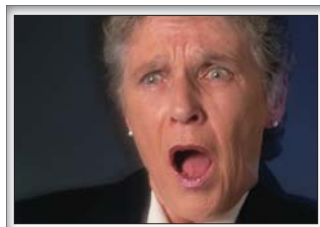
professional pest control

David P. James



socialinterloper

stained mattress on the street



- ✗ Don't throw away all your furniture – bed bugs can move into a new bed too!
- ✗ Don't panic: bed bugs are very annoying and stressful, but not a health risk
- ✗ Don't try to get rid of them yourself! Home remedies, such as kerosene, are often dangerous and may not work

## Why Should I Bother to Prepare.



David P. James

bugs in the smoke detector



Dr. Lou Sorkin

access to all corners - checking the rubber molding

## Isn't Spraying Enough?

### 2 Very Important Reasons to Prepare Your Home for spraying before Treatment by a Pest Control Company

1. Spraying kills bugs on contact, but not the eggs. The eggs need to be vacuumed up (remember to throw out the vacuum bag right away!). A Pest Control Company needs access to baseboards, electrical outlets and cracks and crevices to apply the chemical treatment. Items blocking access to these spaces will reduce the effectiveness of the treatment.
2. Bed bugs can live for up to 1 year without eating. They hide in cracks and crevices and may not come out after a spray. Any bed bugs left in your home will feed again, lay more eggs, and these eggs will hatch into baby bed bugs.

## Who is Responsible for What?

### TENANT

- Inspect all 2nd hand furniture and clothing before bringing it home
- Look around your home regularly for signs of bed bugs
- Inform landlord immediately if you suspect bed bugs
- If you can, prepare (“prep”) your home for pest control treatment
- Cooperate with the bed bug treatment process
- Continue to regularly look for signs of bed bugs after treatment has occurred
- Continue to report to your landlord and make sure to prepare your unit if additional pest control treatments are required
- Teach family members and friends how to look for signs of bed bugs
- Report bed bug infestations to Toronto Public Health
- Talk about bed bugs with others and help to remove the myths and embarrassment

### LANDLORD

- Respond immediately to tenant complaints
- Pay for pest control treatment services and ensure that treatments are thorough and follow best practices
- Provide caulking/sealing of all cracks all of your units
- Assist tenants in proper preparation whenever needed

*... more Landlord Responsibilities*

- Allow for proper disposal of infested furniture
- Don't blame tenants for 'bringing in' bed bugs if they report it
- DO try to determine if the problem is more widespread in other units and in common areas
- Educate other tenants about the need for early intervention
- Give 24-hours' notice whenever going into tenants' units to inspect
- Report bed bug infestations to Toronto Public Health
- Talk about bed bugs with others and help to remove the myths and embarrassment

## **PEST CONTROL**

- Inspect the residence to determine the extent of the infestation
- If possible, inspect other units in the same building
- Follow the best practices for bed bugs developed by the Ontario Pest Control Association (found at the end of this information guide)
- Provide vacuuming and pesticide treatment twice within 2 to 3 week period
- Caulk and seal units if landlords aren't able to do so
- Treat with spray, dust, and mechanical methods, as well as steaming whenever possible
- If possible, inspect other units in the same building
- Talk about bed bugs with others and help to remove the myths and embarrassment

## Where Can I Get Help?

1. Contact your landlord
2. Contact pest control to schedule treatment
3. Get help with preparing your home for treatment
4. Contact Toronto Public Health for help and information



✓ For a more detailed description of how to prepare your unit before a spray, see the “**Step by Step Guide: How to Prepare Your Home Before Treatment**” on page 18 of this Information Guide.

✓ For a more detailed description of where to get help see the “**Step by Step Guide: Who Can Help**” on page 24, of this Information Guide.



## Introduction to Step By Step Guides

We have put together **4 Step by Step Guides** at the back of this Information Guide so that you have all of the information that you need to get rid of bed bugs in your home or to help someone else with a bed bug problem.

1. Step by Step Guide: **How To Do an Inspection for Bed Bugs?**
2. Step by Step Guide: **How to Prepare Your Home Before Treatment?**
3. Step by Step Guide: **What Treatments Should the Pest Control Company Do?**
4. Step by Step Guide: **Who Can Help?**

Step by Step Guide: **How To Do an Inspection for Bed Bugs** has been developed to help you, your landlord, a Pest Control Company, and others to determine how severe a bed bug infestation may be, where to focus the preparation work and treatment, and where to re-inspect to determine if the infestation has gone.

Step by Step Guide: **How to Prepare Your Home Before Treatment** has been developed to help you, your landlord, a Pest Control Company, and others to carry out all of the steps that need to be taken before a Pest Control Company treats a home for bed bugs with insecticides, pyrethroid aerosols, and other methods.

Step by Step Guide: **What Treatments Should the Pest Control Company Do** has been developed by the Toronto Bed Bug Project in conjunction with the Structural Pest Management Association to help you, your landlord, and others hire a Pest Control Company that follows the minimum standard guideline for the treatment of bed bugs in multi-unit dwellings.

Step by Step Guide: **Who Can Help** has been developed to help you and others assisting you to get rid of bed bugs in your home know where to turn to if information, financial resources, preparation services, or legal support is needed.

## STEP-BY-STEP GUIDE:



Dr. Lou Sorkin

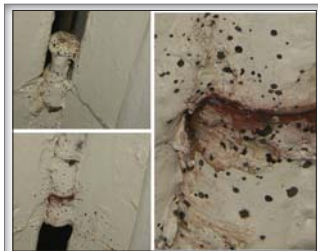
inspect your bed

### How To Do an Inspection for Bed Bugs

The longer it takes to discover a bed bug infestation, the bigger the problem is likely to be. **Bed bugs do not go away on their own.** Finding them early makes getting rid of them easier. Developing regular habits of inspection will help to keep the problem more manageable.

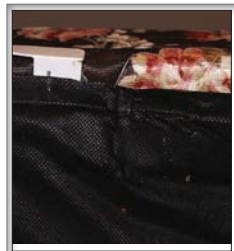
Most of the time bed bugs will stay close to where you sleep. Often bed bugs will be found close to or in the bed, or where you spend a lot of time (on couches, armchairs, around computers) and may spread to other parts of your home.

If you find bed bugs in your bedroom, you also need to do a thorough inspection of other bedrooms and anywhere you spend a lot of time. If you have reduced eye sight, ask a family member, friend or neighbour for help.



Dr. Lou Sorkin

door hinges



David P. James

boxspring



David P. James

bedframe

---

### **DO A FULL INSPECTION OF YOUR BED:**

- Take off all your bedding and carefully look over your mattress and box spring. If possible, remove the material from the bottom of your box spring and look on the inside for signs of bed bugs.
- Inspect all sides of your mattress and baseboard (underneath and along the sides especially the seams – bed bugs often hide there).
- If you have a headboard and baseboard inspect both for signs of bed bugs. If your headboard and baseboard are made out of wood and/or have cracks in them, you may need to seal these cracks with caulking. Bed bugs can slide into spaces that can fit a bank card or credit card.

### **DO A FULL INSPECTION OF YOUR BEDROOM:**

- Remove all items from your nightstand, dressers, any wooden furniture in the bedroom and inspect the items. Look carefully at the insides and along the sides of drawers for signs of bed bugs. Inspect the frames of your furniture for signs.
- Inspect your curtains and other window coverings. Bed bugs are known to hide here, especially if these are close to your bed.
- Inspect any picture frames and other wall hanging that you may have for signs of bed bugs. Look on the back side as well!
- Look for signs of bed bugs around light switches and electrical outlets. Bed bugs have been known to hide in these places and move from room to room through small openings in the walls, like electrical switches and outlets.

### **INFORM YOUR LANDLORD RIGHT AWAY:**

In the Ontario Residential Tenancy Act, pest control is identified as a responsibility of the landlord: *“A landlord is responsible for providing and maintaining a residential complex, including the rental units in it, in a good state of repair and fit for habitation and for complying with health, safety, housing and maintenance standards. 2006, c. 17, s. 20 (1)”*. The landlord must hire a professionally licensed pest control company to treat the residence, and the pest control operator must follow the minimum standards that have been developed by the Ontario Association of Pest Control Companies for bed bugs.

## STEP-BY-STEP GUIDE:



### Preparing Your Home Before Treatment

The preparation process takes a lot of time and energy. Make sure you have enough time to complete the entire preparation before your home is treated by a pest control professional.

#### YOU WILL NEED:

- Access to laundry facilities
- A vacuum with extra vacuum bags
- Clear plastic bags
- Cleaning products
- Tape
- Caulk and a caulking gun



*dried toys*

#### 1. CLEANING

- Bed bugs love to hide in clutter! Get rid of all unnecessary clothing, toys, books, junk and other unneeded household items.
- Plastic or metal items should be put in boiling water and/or washed with hot soapy water.
- Empty all of your bookshelves, cabinets, closets and drawers so pesticides can be laid in every nook and cranny. Place all clean items in plastic bags and seal the bags tightly.
- It is important to caulk and seal any gaps or cracks where bed bugs can hide. Use a caulking gun to fill all cracks in your baseboards, floors, and walls, as well as around exposed plumbing and fixtures.



*misplacedpom*

*clothing in plastic bags*

## 2. LAUNDRY

- All clothing, bedding and washable belongings should be put in plastic bags and then emptied directly into the washing machine.
- Wash and dry the items on the **HOTTEST CYCLE**. Items that can not be washed can go straight into the drier (i.e. pillows, shoes, stuffed animals etc). Make sure you dry all the items **HOT** for at least 20 minutes.
- Place all clean, dry items into clear plastic bags and seal them tightly for the duration of the entire treatment process (remember: this process can take up to 3 weeks!).
- Keep a separate bag of clean laundry for use during the treatment process.



*David P. James*

*box spring*

## 3. VACUUMING

- Vacuum floors, carpets and rugs.
- Vacuum baseboards.
- Vacuum under couch and chair cushions, as well as all seams.
- Vacuum mattress seams, box spring and bed frame.
- Vacuum curtains and blinds.
- Vacuum inside drawers.
- Vacuum the undersides and rear of wall units kitchen chairs, hutches, refrigerators and stoves.
- After vacuuming, seal the used vacuum bag in a plastic bag and dispose of it in a garbage area outside of your home.

#### 4. FURNITURE

- Couches, chairs, beds, lamps and other furniture should be moved at least 30cm (12 inches) away from the walls so that pesticides can be laid along all baseboards and in all corners.
- Check behind picture frames and other items on walls for signs of bed bugs. If signs are found, place the items on the floor to be treated by pest control companies.



mirror frame

#### 5. DISPOSAL

- Throwing out furniture should only be done if necessary. Bed bugs will infest old and new furniture.
- Furniture or other items that must be thrown out should be securely wrapped in plastic or a tarp before disposal to ensure that no bugs or eggs fall off on the way out of your home.
- Make sure you damage or mark and label your disposed items clearly so they will not be reused.
- Try to place the items for disposal on the curb shortly before trash pick-up so there is less of a chance someone will take the item home.



wrapped and labeled

---

**REMEMBER!**

- Your home must be prepared before each and every treatment by pest control for it to be effective. A second pest control treatment should take place within 2 weeks of the first.
- If you have a fish tank, turn off the air pump and cover the top so pesticides do not get into the water.
- All residents and pets should stay out of the home during the pesticide treatment and for a minimum of 3-4 hours afterward.
- Do not vacuum baseboards or in corners for 3 weeks after your home has been treated.
- Leave clean laundry sealed in bags until after the second treatment by a pest control company.

## STEP-BY-STEP GUIDE:



### What Treatments Should the Pest Control Company Do

The Toronto Bed Bug Project in conjunction with the Structural Pest Management Association and its members has developed the following set of “Best Practices” that are a minimum standard guideline for the treatment of bed bugs in multi-unit dwellings for Pest Management Professionals (PMP).

#### TREATMENT

Vacuum cleaners should be used in all treatments to remove all bed bugs (both dead and alive) and any fecal matter and eggs.

#### RESIDUAL INSECTICIDES

Dusting should be done behind switch plates, duplex receptacle plates, cable wire plates etc. Dusting should also be done in gaps in the base boards and other accessible voids. Due to liability issues, it is not the responsibility of the technician to remove any plugs in the receptacle or any receptacle plates. In cases where the unit is heavily infested with bed bugs, where applicable, small ¼ inch holes will be drilled through the walls close to the baseboards and the wall voids will be dusted. It is recommended that a minimum of 3 holes be drilled per wall. PMP will immediately caulk these holes following treatment.

Residual insecticides will be used to spray all baseboards, door frames, bed frames, the underside of the box spring, shelving, furniture (where possible) and other areas within the unit. The choice of products used is at the discretion of the applicator/ PMP and in accordance to the product label.

#### AEROSOLS

The use of Pyrethroid aerosols should not be used unless there are visible signs of bed bugs. Since this is a contact insecticide it serves no purpose if not sprayed directly on the bug. The use of Pyrethroid aerosols can be used as a flushing agent to find



---

suspected areas of activity where no live evidence is found. It is not recommended that this be used in wall voids as the pyrethrum can flush the bed bug further into the walls and perhaps into adjoining units.

#### **FOLLOW-UP SERVICE**

It is recommended that at least one follow-up service be done 2 - 3 weeks after initial service. The follow-up service will consist of an inspection, spot treatment and if necessary a full treatment. The follow-up service will also consist of a baseboard perimeter treatment throughout the unit. The client will need to prepare the unit again if a re-treatment is required.

#### **LENGTH OF TIME FOR TREATMENT**

The length of time it takes to treat a unit for bed bugs varies on size of unit, amount of furnishings to be treated and severity of infestation. Approximate treatment times vary from 30 - 45 minutes for a bachelor apartment or a student resident room to more than 3-4 hours or more.

#### **REPORTING**

The PMP should fill out a report on all units treated stating the unit number, condition of the unit, bed bug activity found and follow-up on recommendations for additional treatment/s if necessary.

#### **STEAM TREATMENT**

If budget permits, steam treatment is recommended for treatment of bed bugs. The mattress and box spring and sofa should also be steamed. This is a time consuming process, but steam kills all stages of bed bugs.

#### **MATTRESS ENCASEMENTS**

Mattress and box spring covers specifically designed to exclude bed bugs should be used to salvage the mattress and box spring and protect them from future infestations. To help mitigate further infestation in the building, landlords should supply the tenant with mattress bags or moving wrap for disposal of infested articles.

#### **For more information, please contact:**

Structural Pest Management Association of Ontario  
3800 Steeles Ave. W. | WoodBridge, Ontario L4L 4G9  
Toll free: 1-800-461-7622 | [www.spmao.ca](http://www.spmao.ca)

## STEP-BY-STEP GUIDE:



Dr. T. G. Myles

### Who Can Help?

#### **TORONTO PUBLIC HEALTH**

The City of Toronto provides information and assistance for people who have bed bugs in their homes. Toronto Health Connection (416-338-7600) is an information hotline that can answer all of your questions about getting rid of bed bugs, and what to do if your landlord will not help. Toronto Public Health has developed a lot of information about bed bugs that can also be accessed through the follow computer link: <http://www.toronto.ca/health/bedbugs/index.htm>

By calling the Toronto Health Connection hotline, you can arrange for Public Health Inspectors to assist you and your property manager to get rid of a bed bug infestation. They can identify the type of infestation and provide education on the right approach.

If a landlord or property manager refuses to help a tenant treat their home for bed bugs, a Public Health Inspector can issue a Health Protection Order (Section 13) to a landlord, tenant, or both under the Health Protection and Promotion Act, to ensure clean-up and treatment is completed.

#### **LEGAL CLINICS**

Tenants can also get help or advice from legal clinics or the Landlord and Tenant Board  
[www.ltb.gov.on.ca](http://www.ltb.gov.on.ca)  
416-645-8080

---

### **PREPARATION COMPANIES**

Some companies that offer preparation services prior to bed bug treatment are just starting to be formed. The services can be expensive. Speak to your landlord first to find out if he or she would be willing to cover the cost of the services. Here are some that are available in Toronto:

Bug and Scrub  
416-392-5572

EarthSafe Canada  
1-866-723-3313

Greenleaf  
416-998-9473

Premium Bed Bug Prep  
416-916-2229

### **PEST CONTROL TREATMENT COMPANIES**

Pest Control Treatment Companies can be found in your yellow pages under Pest Control or Exterminators. If you or your landlord is hiring a pest control treatment company for bed bugs, make sure that the company has agreed to meet the minimum treatment standard that has been set by the Structural Pest Management Association of Ontario before they start the treatment process. Please see the "Step by Step Guide: What Treatments Should the Pest Control Company Do" on page 22, in this Information Guide.

### **HELP WITH THE COSTS**

If you are receiving financial assistance from Ontario Works or the Ontario Disability Support Program you may qualify for Community Start Up Benefits to help pay for the cost of preparation services or pest control treatment. Please speak with your Ontario Works or Ontario Disability Support Program worker to find out if you qualify.





© 2009 WoodGreen Community Services  
Toronto  
October 2009  
printed in Canada

design by yaddaYadda communication

We are grateful to all the individuals who kindly gave  
permission to use their photographs:

Dr. T. G. Myles - from the website: [http://www.utoronto.ca/  
forest/termite/Bedbugs/photoindex.html](http://www.utoronto.ca/forest/termite/Bedbugs/photoindex.html)

David P. James

socialinterloper

sonci

misplacedpom

Dr. Lou Sorkin

bassommeijer

Ry (aka Olympia) - for the cover image



