

A rising problem

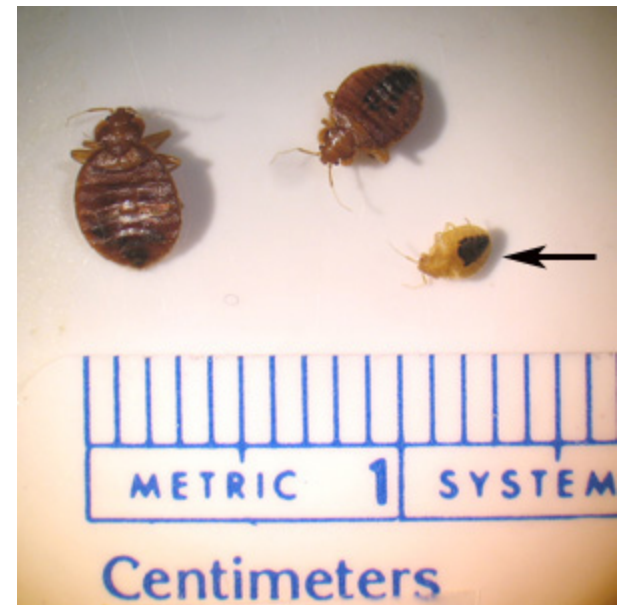
# Bed Bugs

*AKA Cimex Lectularius and C. Hemipterus*

# A LITTLE PARASITE...A BIG PROBLEM

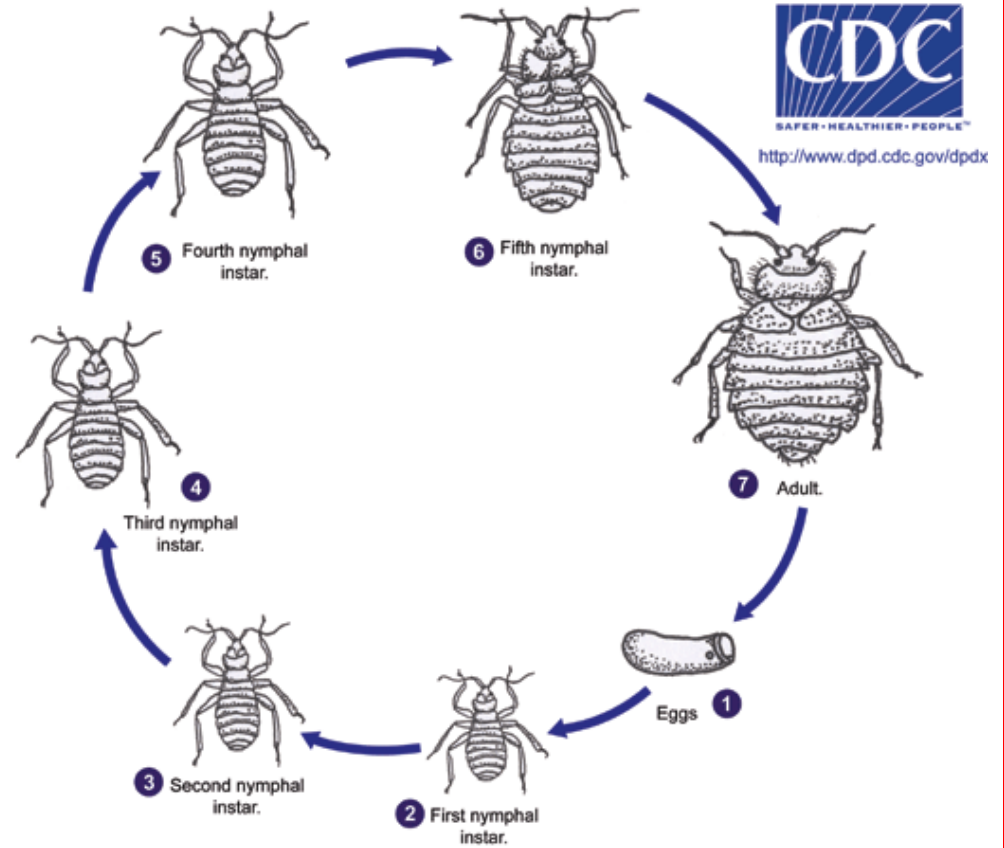
WHAT ARE BED BUGS AND WHAT DO THEY LOOK LIKE:

- A blood sucking parasite
- About 5-7 mm long
- Oval-shaped flattened
- Piercing-sucking mouthparts
- Reddish brown in color
- Wingless



## The life cycle of a Bed Bug

They need a “**blood meal**” before molting to the next phase



# Clinical Features

- Bed bugs have been found naturally infected with blood-borne pathogens
- Bed bugs have a stink gland and emit a distinctive odor

# Night...Night...Don't let the Bed Bugs Bite!!

- \* Homes
- \* Hotels (EVEN 5 STAR)
- \* Motels
- \* Shelters
- \* Cruise ships
- \* Dorm rooms
- \* Resorts
- \*\* any place that humans frequent continually
- \*\* beds/mattress ribbing
- \*\* couches
- \*\* chairs
- \*\* crevices of box springs /sheets
- \*\* under baseboards
- \*\* behind wallpaper

## • Where are bed bugs commonly found ??

*Where ever people sleep !!*



*BED BUGS ARE EXPERTS AT HIDING AND THEY  
LOVE TO TRAVEL*

# WHERE CAN BED BUGS DINE??

BED BUGS NOT ONLY BITE HUMANS

THEY CAN GET A "BLOOD MEAL" FROM ANIMALS ALSO.....

ANYTHING WARM BLOODED IS FAIR GAME FOR THESE  
NIGHT FEEDERS

MOST COMMONLY EFFECTED:

\*\* #1 BIRDS, MICE

\*\* #2 DOGS, CATS, HAMSTERS



# HOW CAN YOU TELL ???

## What are the Signs and Symptoms of Bed Bugs ?

- Patient has bites that occur while sleeping (face, trunk, extremities, back)
- Bed bugs exoskeletons
- There will be little brownish/red smears(fecal matter) in the mattress ribbing and sheets

## How are Bed Bugs Diagnosed ?

- Go where the patient is bitten
- Tell tale bite marks on patients after sleeping
- Must Identify Adult of Nymphs
- Bed Bugs Have A distinctive Sweet Musky Odor/blood smears on bed sheets



## **Make sure to watch for these !**

The bed bug itself, the exoskeleton, whealy rash on body parts that come in contact with bed, couch etc. and bugs in the ribbing of mattress/bloody spots



# How do you know if you have been bitten by a bed bug?

- *When bed bugs bite, they inject an **anesthetic** and an **anticoagulant** that prevents a person from realizing they are being bitten.*
- *Bite marks look similar to a mosquito or a flea
  - \* and **red area**
  - \* *Itchy and irritated.**
- *Bite marks may appear in a straight line or random.*
- *Other symptoms include:
  - \* *Insomnia, anxiety, and skin infections from profuse scratching.**

# How to get rid of the little BUGGERS!?

## In Personal Homes

### ELIMINATE THE SOURCE!!

- \* **Insecticide** treatment
- \* **Professional Pest Control**

**Vacuum** all areas well the seams and tight areas on beds etc.

- \*\* **Skin Treatment:** Avoid scratching !  
antiseptic cream to prevent secondary infection/ antihistamine

**In Public Places Hotel, motels etc.**

### ELIMINATE THE SOURCE!!

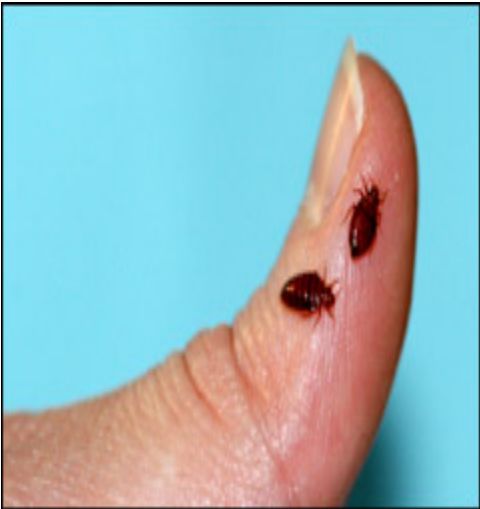
- All treatment is the same as is in the personal home except:
- **Local Environmental Health** needs to be contacted !!!

# PREVENTION OF BED BUGS

**PREVENTION IS KEY !!!!!**

**AVOID** them in the **FIRST** place.

THOUROUGHLY  
INSPECT IT !!!



- CURBSIDE ITEMS SHOULD BE AVOIDED
- EXAMINE SECONDHAND ARTICLES CLOSELY BEFORE BRINGING INTO HOME (laundered or placed in a dryer).
- PREVENTATIVE INSPECTION IS BEST WAY TO CATCH INFESTATION IN THE EARLY STAGES WHEN IT IS EASIEST TO CONTROL

# BE ON THE LOOK OUT !!

- BED BUGS A RESURGING WORLDWIDE PROBLEM....  
\*\* Causing property loss, expense and inconvenience.
- GOOD NEWS... bed bugs **DO NOT TRANSMIT DISEASE !!!**
- PREVENT SPREAD AND INFESTATION BY REGULAR INSPECTIONS OF SLEEP AREAS AND COUCHES/CHAIRS.



*Although Bed Bugs are traditionally found in developing countries it has recently been rapid spreading in the United States and Canada*

- **BED BUGS HAVE AFFECTED EVERY MAJOR CITY IN OHIO.**

- **IN THE PAST 4 YEARS, SIGNIFICANT INCREASE IN REPORTS TO LOCAL HEALTH DEPARTMENTS**

**\*\*\*HIGHLIGHTS THE NEED FOR EDUCATION AND ACTION AGAINST INFESTATION !!!**

# HOME VISIT PRECAUTIONS

- **PRIOR TO 1<sup>ST</sup> HOME VISIT**, ask client if they are having the home treated for roaches/bed bugs



- WEAR PROTECTIVE SHOE COVERS

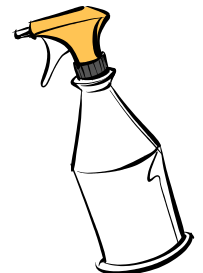
- STAND DURING VISIT...do not sit on couches, upholstered chairs, or beds

- TAKE IN ONLY NECESSARY ITEMS  
(clip board, etc.)



- DON'T LAY ITEMS ON UPHOLSTERED FURNITURE

- KEEP A SPRAY BOTTLE OF 70% ISOPROPYL ALCOHOL IN YOUR CAR

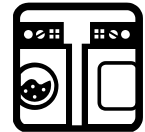


# PRECAUTIONS CONTINUED

- KEEP DISPOSABLE PLASTIC BAGS IN YOUR CAR TO DISPOSE OF CONTAMINATED ITEMS(shoe covers, coveralls etc)
- *IF BED BUGS ARE FOUND DURING VISIT:*
- RETURN TO BUT **DON'T ENTER YOUR CAR**
- DO A **CLOSE SELF INSPECTION**
  - \* **shoe laces**, socks, pant legs
  - \* around hands and arms
- **SPRAY ALCOHOL DIRECTLY ON BED BUG**
- REMOVE AND PLACE SHOE COVERS/COVERALLS IN DISPOSABLE BAG AND PLACE IN **OUTSIDE TRASH**

# PRECAUTIONS CONTINUED

- SELF-INSPECT IMMEDIATELY AFTER A VISIT AND BEFORE ENTERING ANOTHER FACILITY OF VEHICLE
- IF YOU FIND BED BUGS ON YOU...NOTIFY YOUR SUPERVISOR AND GO HOME
- REMOVE ALL ITEMS IN A GARAGE(IF POSSIBLE) OR ON A HARD SURFACE
- WASH ALL ITEMS IN **HOT, HOT** SOAPY WATER and DRY ON THE **HIGHEST HEAT SETTING** POSSIBLE.





# PRECAUTIONS CONTINUED AGAIN.....

- IF YOU USE A DRY CLEANER...MAKE SURE TO INFORM THE CLEANERS OF POSSIBLE BED BUGS
- IF UNABLE TO WASH ITEMS IMMEDIATELY PUT THEM IN A **HOT, HOT** DRYER FOR **20** MINUTES.
- IF EVER IN DOUBT.....WEAR YOUR BOOTIES!

**\*\*\* I HAVE PROVIDED A HANDOUT WITH FURTHER DETAILS AND RECOMMENDATIONS**

# REPRODUCTION

## JUST A LITTLE INTERESTING FACT

- Bed bugs have a unique form of copulation called:

“TRAUMATIC INSEMINATION”



(doesn't sound like fun)

When Bed bugs reproduce the male penetrates the female's abdominal wall with his external genitalia and inseminates into her body cavity.

(thank goodness it works differently for humans)



# Thank you for your time !!

- THE ITCHING THAT YOU HAVE BEEN EXPERIENCING.. SINCE I HAVE MENTIONED THE WORD.... “BED BUG” is ALL in your HEAD..... AND WILL GO AWAY SHORTLY

HAVE A WONDERFUL DAY



# Presentation Provided by

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- Melissa Bradshaw, Student Nurse
- North Central State College of Nursing

# RESOURCES

- <http://www.cdc.gov/parasites/bedbugs/>
- *ohioline.osu.edu/hyg-fact/2000/2105.html*
- ***www.ca.uky.edu/entomology/entfacts/ef636.asp***
- ***www.bed-bug.org***