

Good night, sleep tight...

Bedbugs

- Small (but easily visible) nocturnal insects that crawl (cannot fly) and feed on humans' blood
- Hitch-hikers – transported via suitcases, backpacks, bookbags, laptop cases, purses
- Increasing in prevalence by approx 5-fold
 - Increased travel
 - Decreased use of highly effective pesticides (DDT)
 - Decreased recognition
- A potential nightmare for college campuses

What do they look like?



What do they do?



Photo from www.bedbugger.com

- Bite areas of exposed skin (ask about their pj's)
- Often clustered or linear
- Classic “breakfast, lunch dinner” pattern sometimes seen
- Welts or rash may not develop in all victims, and can also take time to develop, as it is an allergic response to the bite (“but my boyfriend doesn’t have a rash” does not exclude diagnosis)

Making the Diagnosis

- Clustered bites on exposed areas of skin while sleeping
- Finding new bites in the mornings
- Blood spots on sheets
- Find the Bugs!

Making the Diagnosis

- Differential diagnosis:
 - Flea bites
 - Mosquito bites
 - Scabies
 - Contact dermatitis
 - Urticaria
 - Neurogenic dermatitis
 - Delusory parasitosis
 - Swimmer's itch



Impact on Health

- Annoying bites (compare to mosquito)
- Possibility of secondary infection
- Do NOT transmit diseases (aren't vectors)
- Mental Health
 - “skeeved” factor
 - Stigma
 - Anxiety
 - Can become obsessive and paranoid
 - Insomnia
 - Strain on relationships (roommates, intimate partners, family members)



Treatment

- Confirm the bug
- Solve the problem
- Support the student

Confirm the bugs

- Ask patients to look for them
 - Blood spots on sheets
 - Mattress seams
 - Headboard
 - Wallpaper
 - Edges of carpet, baseboards
 - Upholstered furniture
- Capture and bag them!
- Exterminator or housing services to investigate

Solve the Problem

- These bugs are difficult to eradicate
- Need to call an exterminator (usually)
- Need specialized/intensive methods
 - Special pesticides
 - Steaming / Heating
 - Freezing
 - Putting articles in the dryer on high
 - Mattresses and furniture are difficult to treat and may need to be replaced
 - Mattress covers + thorough vacuuming of furniture can work
- Don't move things out of the room without checking them carefully first!

Support the Student

- Medically
 - Topical or oral antihistamines
 - Topical steroids
- Emotionally
 - Analogy to mosquitoes
 - Reassurance (no, you're not dirty)
 - Validation
 - Counseling and other support services
- Logistically
 - Rapid response from housing (if on campus)
 - Temporary alternate housing

Patient Instructions

- Don't move ANYTHING out of the room without checking it carefully first!
 - Bookbags
 - Backpacks
 - Clothing
 - Laptop bags
 - Purses / handbags
 - Electronics / computers
- Either put in dryer on high for 20 min or carefully check ALL seams and crevices, inside and out, with a flashlight
- Notify friends, family, etc, to be on the lookout

Bedbugs in the Dorm

- Partnership with Campus/Res Life & SHS
- Concern needs to be taken seriously and addressed rapidly
- Policies and procedures need to already be in place
 - Established chain of communication & notification
 - Temporary housing during investigation/treatment
 - Rapid investigation and treatment
 - Replacement of furniture if needed
 - Policy for investigating nearby rooms, consider surveillance monitoring strategies
 - RA Training and information
- Education materials need to already be available

Prevention / Early Detection Strategies

- In hotels, use luggage stands (don't put suitcase on bed or on floor)
- Check sheets and be on lookout for bugs and bites when traveling
- Check all items thoroughly when returning from travel
- Avoid clutter – keep items off the floor (hiding places)
- Use white sheets (can see spots easily)
- Keep bed pulled away from wall and put catchment devices under feet of bed (dishes of soapy water, petroleum jelly, sticky tape)
- Don't put bookbags, suitcases, etc, on your bed
- No dust ruffles, no low-hanging comforters

Conclusion

- This problem is here to stay
- Make sure your staff (and campus life/housing) are informed
 - Training
 - Educational materials
- Forge partnerships with Campus Life / Housing
 - Protocols for efficient communication and handling
 - Educational materials for staff and for students

Don't let the bed bugs bite!

Questions and Comments?

http://www.nysipm.cornell.edu/publications/bed_bugs/files/bed_bug.pdf

FAQ:

http://www.nysipm.cornell.edu/whats_bugging_you/bed_bugs/bedbugs_faqs.asp#where_liv_e

<http://www.entomology.cornell.edu/cals/entomology/extension/idl/upload/Bed-Bugs.pdf>

wallet cards:

http://www.nysipm.cornell.edu/publications/bed_bugs/files/bb_travelers_online.pdf

In-depth manual on bedbugs in institutions:

http://www.nysipm.cornell.edu/publications/bb_guidelines

www.ca.uky.edu/entomology/entfacts/entfactpdf/ef636.pdf

<http://www.ca.uky.edu/entomology/entfacts/ef636.asp>