



The Nitty Gritty's of :

Bed Bug Inspection

*California Department of Public Health
Vector-Borne Disease Section*

www.cdph.ca.gov search word: *bed bugs*



The Nitty Gritty's of :

Bed Bug Inspection

- Tools needed for a bed bug inspection
- Signs of a bed bug infestation
- How to inspect for bed bugs in:
 - Hotels
 - Homes
 - Transportation
 - “Alternative Lifestyle” Bedbugs
- Preventative inspections a.k.a. Don't take bed bugs home with you!



Keep in Mind:

- Bed bug inspections are tedious and can take 1-2 hours for a standard size bedroom
- Bed bugs are exceedingly wary and cautious and their hiding places tax the patience and ingenuity of all in search of their presence!*



*Mallis, Handbook of Pest Control

FACT OR FICTION???????

After being bitten by a bed bug, it may take 14 days for a reaction at the bite site to develop.



FACT!!!!!!!

Although most bite reactions occur immediately after feeding, a reaction may take as long as 14 days to develop.*



Bed Bug Inspection Tools

- Pest Control Operator (PCO)
- Flashlight
- Plastic baggies
- Gloves (optional)



Do not bring extra items into infested room!!!

What to look for while inspecting?

- Bed bugs
- Blood spots, fecal stains
- Cast exoskeletal skins
- A sweet or musty odor



FACT OR FICTION????????



Adult bed bugs are very small and difficult to see with the naked eye

FICTION!!!!!!!

Adult bed bugs are reddish-brown, oval shaped, flattened and around 1/5 inch long



After feeding their body weight is increased 5x!

Bed Bugs!



Hungry



Bloodfed

- Bed bugs are about $\frac{1}{2}$ the size of a penny as adults

- Hungry bed bugs are flat with a circle shaped abdomen

- Blood fed bed bugs are elongated with a long, tapered abdomen

Bed Bug Exoskeletons



- Bed bugs shed their skin to grow
- Egg --- nymph (5 molts) — adult
- Adults ½ the size of a penny
- Duration: 5 weeks to four months
- Can live up to 18 months or longer w/o blood meal
- Adults live about 10 months

Rusty Blood Spots/Fecal Stains

- Bugs try to feed every 3-7 days
- Most bed bugs double their weight with every blood meal
- 1/2 of blood meal is lost through the anus in the first 5 hours after feeding



Bedbug “Brood Center”



Fecal matter, egg shells and cast exoskeletons accumulate in brood centers

If you find one brood center – don’t stop looking – there are more!!!!

Bed Bug Odor

Bed bugs emit a unique sweet, musty odor.



Population Density

In 70°F temperature conditions, if 40 bed bugs are in a room on May 2, by November 2 the population would reach 5,905 bugs!



Inspection Tips

- Do not remove anything from the infested room before inspection/treatment*
- Assume all clutter around bed is infested
- Inspect likely hiding spots first (5-10 ft around sleeping area)
 - Mattress
 - Boxsprings
 - Bed Frame/Headboard
 - Dresser Table



***Follow guidelines from PCO**

Keep in Mind:

- Bed bug brood centers are found in a dark, sheltered location
- Bed bugs prefer to feed at night, during the day they found hiding in cracks and crevices
- Bed bugs do not like drafts
- Bed bugs must walk to get from place to place (or are moved on linens, sheets, furniture)

Bed Bug Inspection Sites

Likely hiding places may include, but are not limited to:

- Seams in mattresses
- Cracks in bed frames and head boards
- Crevices in box springs
- Behind loose wallpaper
- Any clutter around or under the bed

Bed Bug Inspection Sites

- Under baseboards and carpet
- Wall/floor or wall/ceiling junctions
- Within clock radios, irons or telephones
- Within desks, bed stands or dressers
- Within curtain rods and folds of drapes

Be ready to tear the room apart!!!



©2002 Western Exterminator Co.

The pest control company will often charge for the time it takes to inspect the infested room.

Hotel, building staff, or homeowner should provide assistance.



©2002 Western Exterminator Co.



“Rusty Spots” on Mattress



Bed Bugs & Rusty Spots on Sheet



Mattress (especially seams)



©2005 Department of Medical Entomology, Westmead Hospital, Westmead.

Mattress (especially seams)





Survey Sites: Box Frame





©2002 Western Exterminator Co.



©2002 Western Exterminator Co.

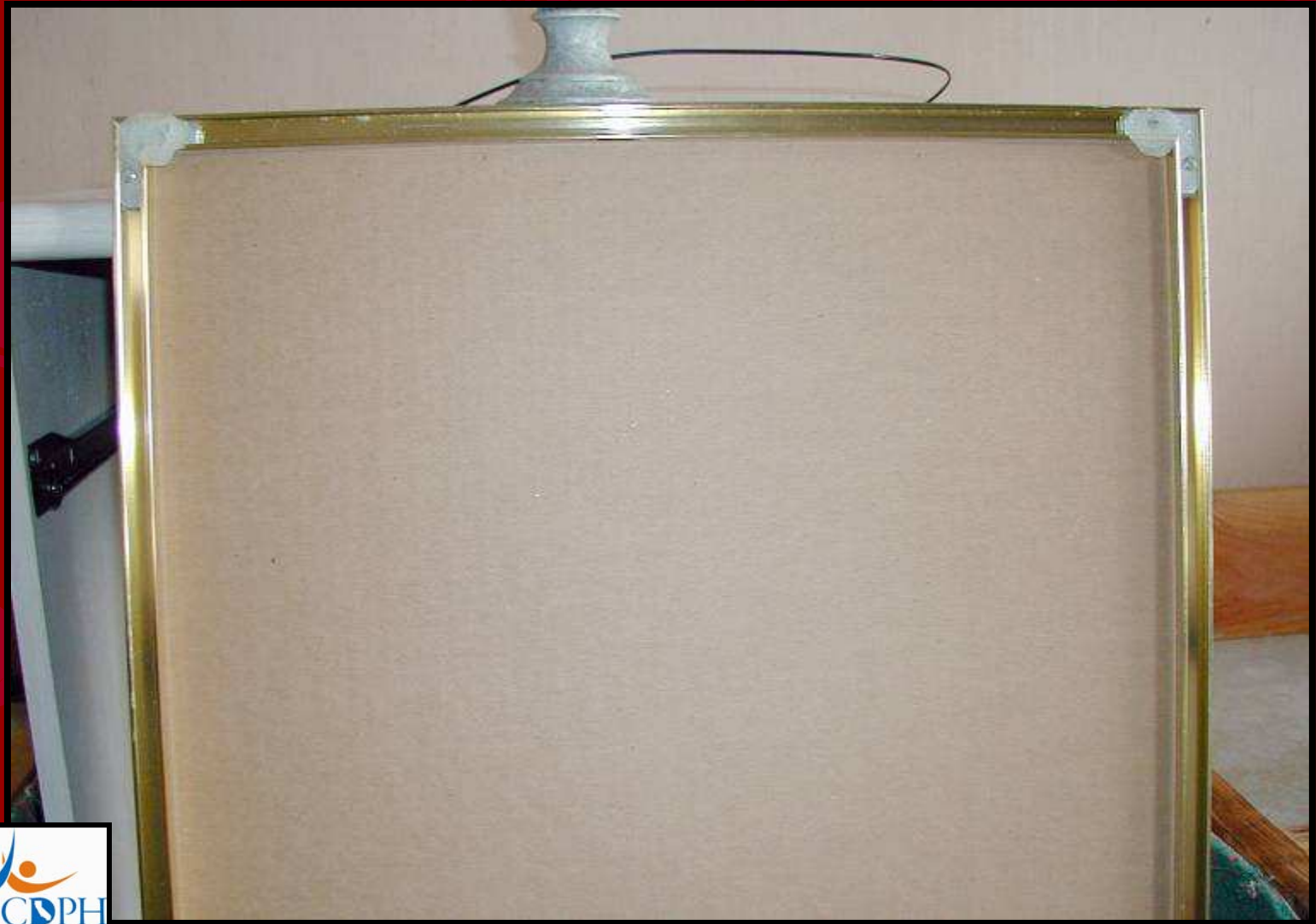
Upholstered Chairs



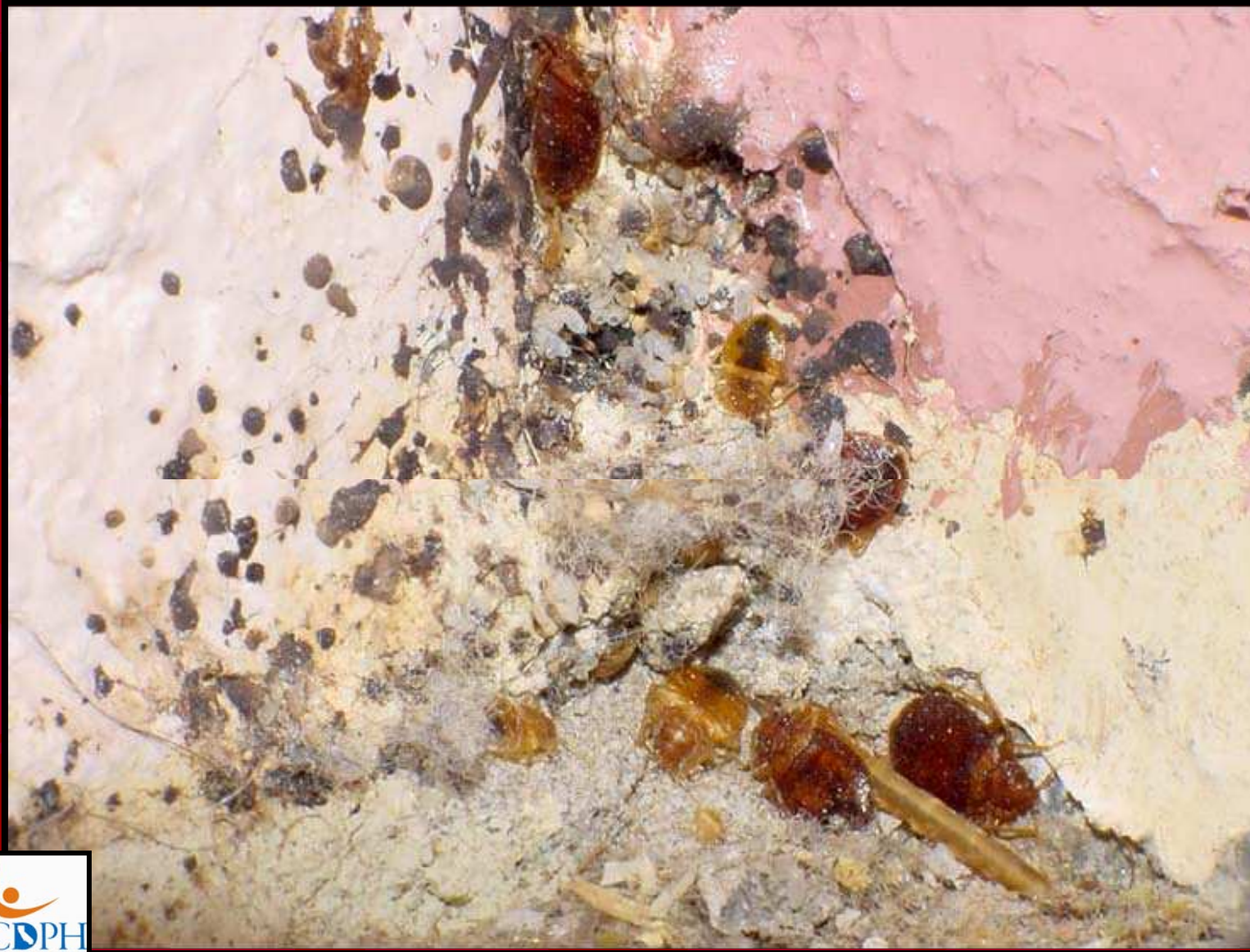
Window Curtains & Frames



Picture Frames



Base of Wall Covering



©2005 Department of Medical Entomology, Westmead Hospital, Westmead.

Bedbugs Will Stain Walls

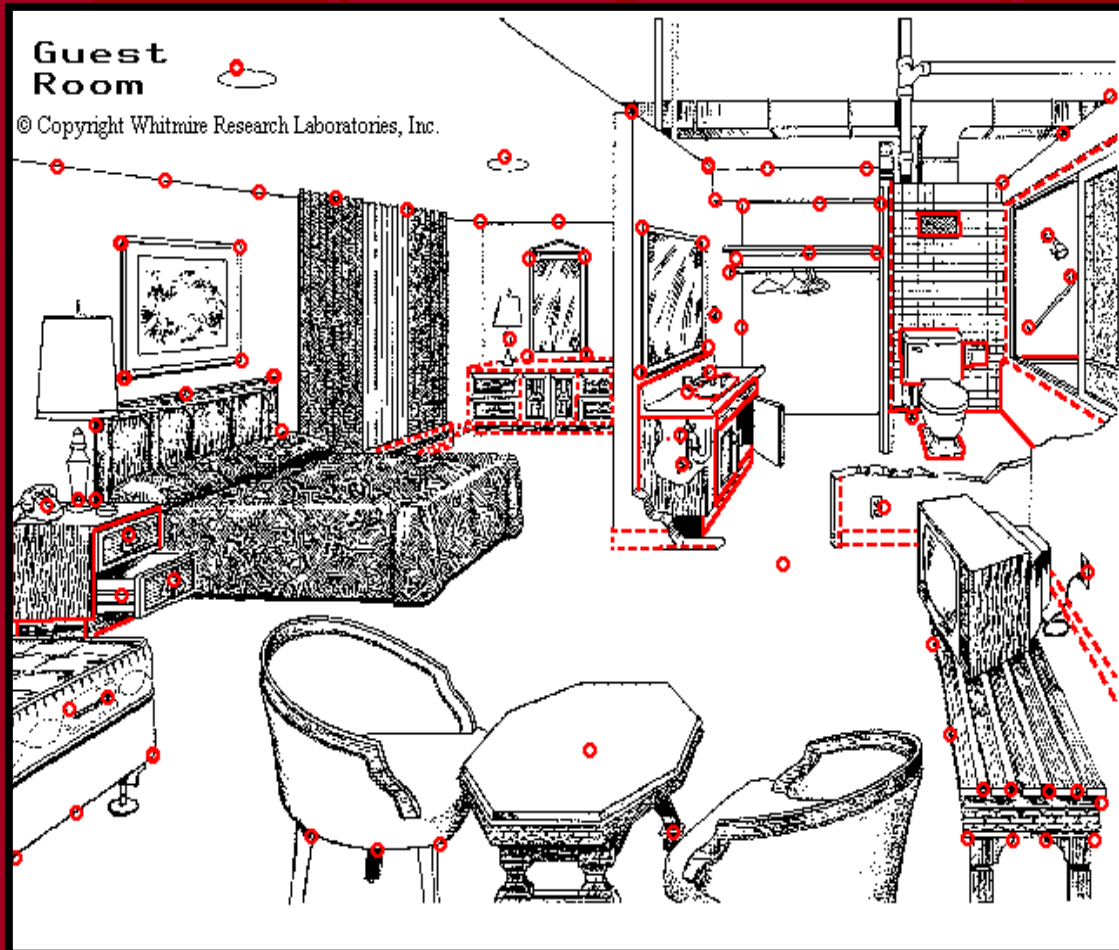


How Far Do Bedbugs Travel?

- Literature sources report bed bugs traveling from 2-100+ ft
- Think about what this means for a:
 - Hotel
 - University dorm rooms
 - Prison
 - Hospital
 - Residence



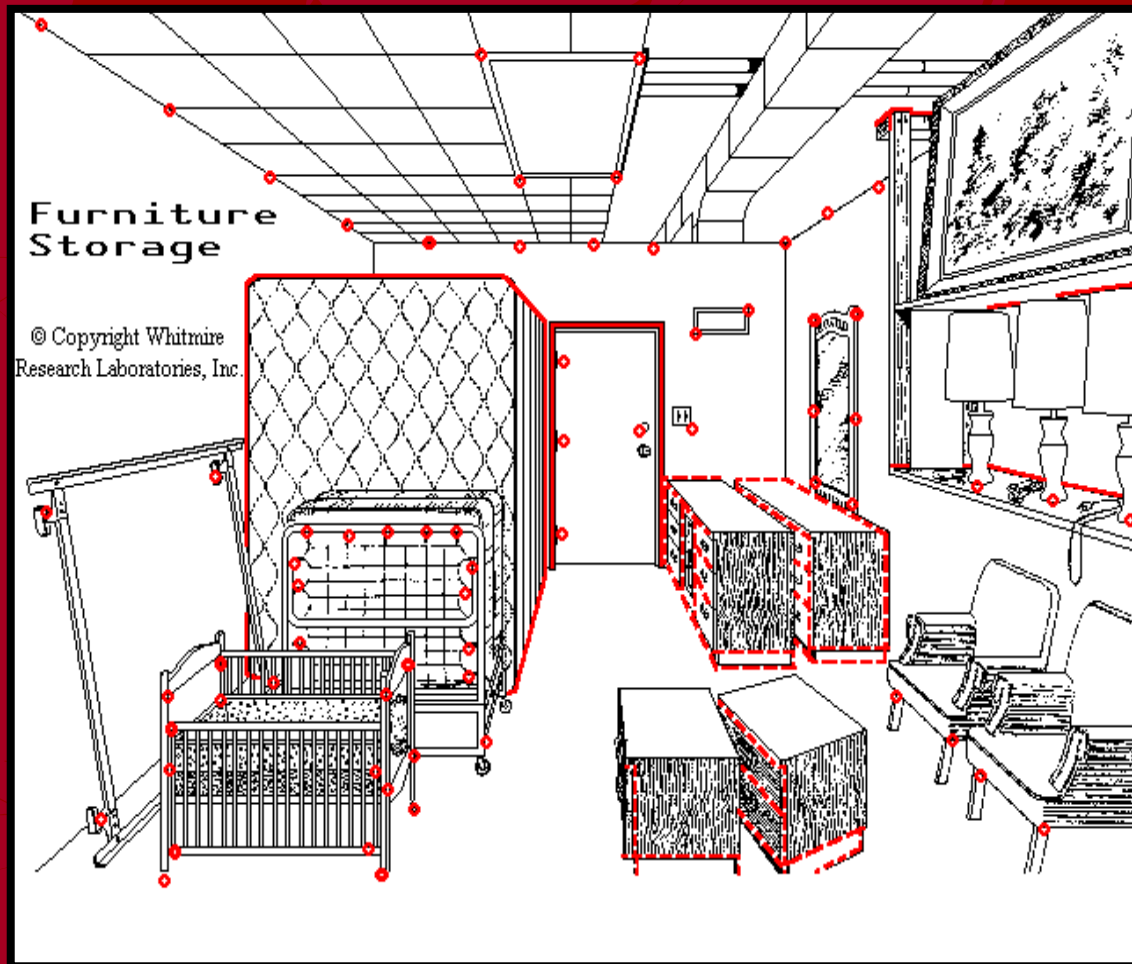
Inspection In Hotels



Inspect rooms adjacent to infestations

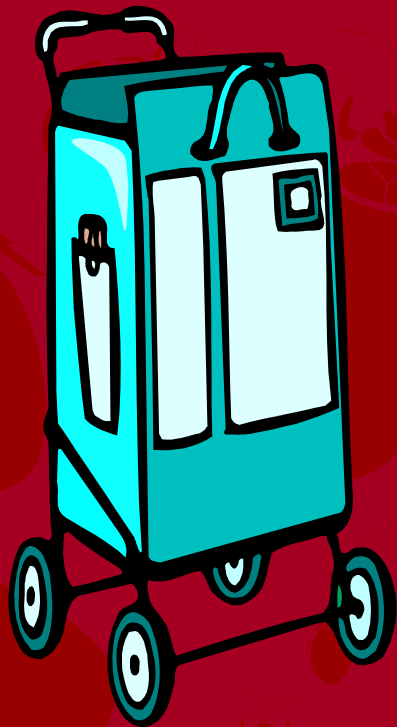
- Rooms above and below infestations

Hotels: Storage Areas



Inspect
furniture
storage areas
where extras
are kept

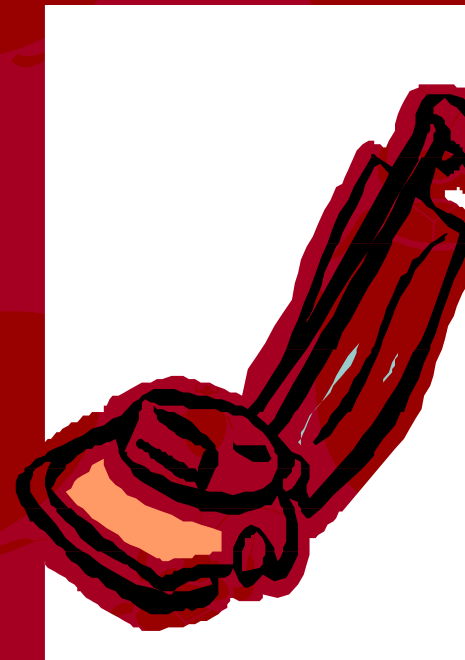
Hotels: Inspect Service Carts



Service carts should be inspected and treated as necessary

Homes: Throw Out Vacuum Bags

Vacuum infested
room and throw
away bag

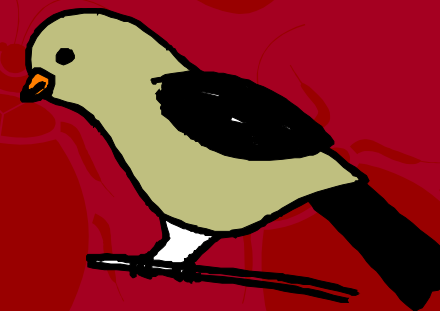


Homes: Other Inspection Sites

- Luggage and luggage storage areas
- Hampers, laundry rooms
- Pet sleeping areas
- “Couch Potato” sites

Bed Bugs Will Feed On Other Animals Including:

- Humans
- Mice
- Birds (best development time)
- Bats



Bed Bug “Alternative Lifestyles” Transportation



Bed bugs are found on public transportation living underneath cloth seats.



Bed Bug “Alternative Lifestyles” Travel Companions



Bed bugs can survive in backpacks.

Bed Bug “Alternative Lifestyles”

Suspicious bites around your head?



Reports of bed bugs infesting coat racks!

Preventative Bed Bug Inspection Travelers

Quick 3 Point Inspection for Lodging Facilities



Mattress (run finger along seams)

Headboard (remove from wall)

Dresser Table (open drawer and inspect side facing wall)



Preventative Bed Bug Inspections Hotels

- Education of housekeeping staff
- Follow up on all customer complaints
- Change bed lines frequently and inspect for rusty spots/insects/cast exoskeletons
- Follow advice of pest management professional, schedule follow-up visit after treatment
- Glue boards placed under beds may collect bed bugs

Monitoring

- Place glueboards under bed for monitoring purposes



Topics Covered Today:

- Signs of a bed bug infestation
- Bed bug inspection sites
- Preventative bed bug inspection



**THANK YOU
QUESTIONS????**

**www.cdph.ca.gov
search word: bed bugs**



***California Department of Public Health
Vector-Borne Disease Section***

