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OPERATIONS MANUAL

STANDARD INSTRUCTION 06 STATION MANAGEMENT

SECTION 14 BED BUG POLICY

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I. PURPOSE

The purpose of this policy is to acquaint the first responder and transport personnel to the potential hazards attributed to close contact with bed bugs, develop procedures to educate and actions to limit exposure, contamination and infestations of bed bugs in the field, stations and apparatus.

II. SCOPE

This policy shall apply to all SDFD personnel.

III. AUTHORITY

The Fire Chief authorizes the information within this policy.

IV. DEFINITIONS

- A. **Bed bugs** are small, brownish flat bugs that feed only on the blood of humans and animals. They are roughly the size of a ladybug, with small eyes and large antennae. They cannot fly, but move quickly over floors, walls, ceilings and other surfaces. Bedbugs are not known to transmit any diseases to humans.

Bedbug Life Cycle

4 Weeks - 5 Months Depending On Conditions



V. BACKGROUND

- A. DEVELOPMENTAL STAGES

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1. **Nymphs.** Tiny and colorless at first, **nymphs** undergo five molts, each resembling the adult form and each requiring a blood meal. Each blood meal takes about three to ten minutes. The nymphal period can last for several weeks under favorable conditions to as long as a year when temperatures and host availability are low.
2. **Adults.** Adults are 1/5-inch-long, 1/6-inch-wide and reddish-brown in color. Their flattened oval bodies allow for hiding in crevices. The body may become greatly enlarged and blood-red in color during a blood meal but turns a dirty brown subsequently. Females can live nearly a year without food.
3. Bed bugs lay one to five eggs a day over a period of two to ten months, producing about 200-500 eggs over a lifetime. They deposit the 1 mm white eggs intermittently each day in protected places near their hosts, cemented to bedding or in cracks. The eggs hatch in one or two weeks, depending on temperature.

B. BED BUG BEHAVIOR

1. Bed bugs and/or their eggs can travel on clothing, luggage, furniture and animals (bats, birds, rodents, domesticated pets, etc.). They can be found almost anywhere. Cleanliness has no bearing on where they are found, however excessive clutter provides more hiding spots. Once bed bugs are introduced, they spread from room to room.
2. Bed bugs are most active at night. Their most common places to hide are in mattresses (especially at the seams), box springs, bed frames and headboards. Bed bugs normally start off in the bed, but they will spread around the sleeping area and hide in small crevices.
3. Bed bug infestations are often identifiable by a visible dark spotting and staining on the mattress, caused by their droppings. You might also see the eggs and eggshells, molted skins of aging nymphs and the bugs themselves.
4. If there are a large number of bed bugs, there may be a sweetish odor, although this is not always easy to smell.

C. BITES and HEALTH EFFECTS

1. Bites will occur anywhere on the body where the skin is exposed. Reactions vary from nothing to an itchy welt.
2. Bed bugs have been found naturally infected with at least thirty human pathogens but have never been proven to transmit any of them biologically or mechanically (Usinger 1966, Cooper and Harlan 2004, Webb *et al.* 1989).
3. Bed bug bites are often almost undetected on some people, but their saliva contains biologically and enzymatically active proteins that may cause progressive, visibly detectable allergic skin reactions to repeated bites.
4. Typical symptoms included a raised, inflamed, reddish wheal (welt) at each bite site, which may itch intensely for several days. Immediate reactions typically appear from one to twenty-four hours after a given bite and may last one to two days.

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VI. POLICY

A. IN THE STATION

1. During the monthly station inspection, all living quarters shall be inspected for bed bugs or evidence thereof.
 - a. All mattresses and box springs shall have a 'bed bug bag' installed. These bags make it more difficult for bed bugs to hide and prevent them from entering the mattress or box spring. If missing or in need of replacement, email SDFDFMO@sandiego.gov for a replacement.
 - b. Crews shall inspect folds and creases in the bed linens, and seams and tufts of mattresses and the entire box spring, in particular, as these are areas that may harbor bed bugs or their eggs.
 - c. They shall also inspect corners of desks and dressers, behind cove molding, the laundry area and the bull pen lounge chairs.
 - d. A characteristic dark brown or reddish fecal spots of bedbugs are sometimes apparent on the bed linens, mattress or walls near the bed.
 - e. A peculiar coriander-like odor may be detected in some heavily infested areas.
2. Regularly and thoroughly vacuum rooms, pulling beds away from walls in bedrooms.
3. Employee's must use bed linen and not sleep directly on the mattress.
4. Sleeping bags, if used, should be inspected regularly and bagged between uses.
5. Personal bedding shall be washed at least once per go around.
6. Bedspreads shall be washed weekly on Sunday.
7. Mattress and box spring covers (bags) may be machined washed as needed.
8. Bag your street clothes when you come on duty. If an exposure occurs or goes unnoticed, this helps to mitigate you taking bed bugs home with you. This includes footwear or any other article that will go home with you at the end of your shift.
9. Keep all uniform clothing and bedding in your locker bagged, separating clean from dirty.
10. When working in stations other than your own, do your own inspection of the mattress and box spring, in addition to other areas, for signs of bed bug infestation. Keep your items bagged until you need it.
11. Make it a habit to inspect clothing/footwear/bedding before moving from station to station.
12. Whenever possible, work clothes and bedding should be laundered at the station to prevent cross contamination.
13. Do not wear any PPE into the station.
14. Keep your spare PPE clean and bagged until needed.
15. Employees shall eliminate clutter in living spaces that may harbor bed bugs.

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16. Leave work clothes at the fire station. Dirty laundry should be placed in a sealed bag and left until it has been washed and dried.

B. ON THE INCIDENT

1. Make an immediate visual inspection of the area for any evidence of bed bug infestation, especially during nighttime hours.
2. Check the floor area and clothing or material near the person needing aid.
3. Check the person for any visible signs of bites and visually survey other persons at the scene.
4. Check the person's clothing for signs of bed bugs.
5. Keep plastic trash can liners on apparatus; use liners to set equipment on during medical aid calls.
6. While on a call, do not unnecessarily lean on or touch walls, furniture etc.
7. If feasible, tuck pant legs into your socks or boots when an exposure is anticipated.
8. When moving and/or transporting a known bed bug infected patient, consider using a yellow blanket to encapsulate the patient and limit crew exposure.
9. Assure the patient's unnecessary clothing is removed and placed back in the home or in a plastic bag and transported with the patient.
10. Patients that "walk up" to the fire station should be treated on a wood or metal chair or the tailboard of the apparatus whenever possible based upon patient complaint and condition.
11. If exposure is suspected to have occurred,
 - a. If bugs are visible, attempt to capture or contain a bug, as this will help with positive identification. Tape works well to capture the bugs.
 - b. Identify an area for crewmembers to disrobe and place their uniforms in a plastic bag. Disposable Tyvek suits can be used for crews to wear as a means of protecting privacy. Crews should shower and change into their back-up uniform.
 - c. Place contaminated uniforms and/or turnouts into plastic bags PRIOR to getting on the apparatus, to prevent the possible spread.
 - d. Inspect shoes before entering the ambulance, engine, or returning to the fire station. Store your "bed bug boots" in a sealed plastic bag until they can be placed in a dryer for 15 minutes.
 - e. For contaminated gear, wash your uniforms and/or turnouts on the hottest water setting using soap. After washing, dry the clothing on 'high' or 'hot' setting for at least 30 minutes.
 - f. Other equipment may be placed in clothes dryer at high temperature for at least 30 minutes. Bed bugs die when exposed to 115 degrees Fahrenheit for a minimum of 7 minutes.
 - g. If clothing was changed at the station, the changing area may have been contaminated. Advise the FMO or pest control technician for evaluation.

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12. If the exposure may have been spread to the apparatus or station,
 - a. Park apparatus outside of the station on the apron and place the unit out of service. FCC shall notify the Shift Commander if an engine, truck, rescue or medic rescue goes out of service for decontamination.
 - b. Contact FCC and request an evaluation from the duty Logistics Officer. The Facilities Maintenance Officer (FMO), duty Logistics Officer and/or a pest control technician/specialist will respond to the station for evaluation and treatment if necessary.
 - c. If the exposure involves an ambulance, the duty medical supervisor and the EMS Battalion Chief shall be notified via FCC. For ambulances assigned to a fire station, the captain and the battalion chief shall also be notified. The ambulance provider will be responsible to request the pest control technician/specialist.

C. IF BEDBUGS ARE IDENTIFIED IN THE STATION

1. If bites are found,
 - a. Cleanse the wound.
 - b. Document the bite via a minor injury report. This is not considered an occupational exposure; therefore, an occupational exposure report shall not be completed.
 - c. Notify your chain of command and the FMO via FCC.
 - d. Logistics will take all steps to be prudent and responsible in their response to reports of bed bugs. Logistics will respond to these reports between 0800 hours and 2000 hours.
 - e. Employees are strongly encouraged to inform co-workers, friends and family members with whom they have been in close contact with.
2. Contact FCC and request an evaluation from the duty Logistics Officer. The Facilities Maintenance Officer (FMO), duty Logistics Officer and/or a pest control technician/specialist will respond to the station for evaluation and treatment if necessary.
3. You will be directed what actions to take based upon the exposure and evaluation.

D. IF BED BUGS ARE IDENTIFIED AT HOME OR IN YOUR PERSONAL VEHICLE

1. Immediately notify your supervisor.
2. Through FCC, have the FMO (work hours) or duty Logistics Officer (after hours) call you.
 - a. Explain the situation and your observations.
 - b. Pictures are a good idea if possible.

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3. The FMO/duty Logistics Officer will determine if a call out of the contracted pest control company is warranted.
 - a. If it is so determined, the employee will make every accommodation possible to meet with the pest control representative as soon as possible.
 - b. A department representative may be present for the inspection.
 - c. The cost of this inspection will be borne by the department.
 - d. The report will be provided to the department by the vendor.

4. Based upon the information provided by the city contracted pest control company, a determination of action will be made by the Logistics Deputy Chief.
 - a. If the department authorizes the remediation, the city will pay for the service.
 - b. If the department does not authorize the remediation, the employee may advance the issue to City Human Resources for a final review and determination.
 - c. If an employee chooses to self-remediate or hire their own vendor, the city will not cover any of these costs and the employee will bear all responsibility.