Pesticides used to treat bed bugs can make you sick.

**Prevention Points**
- Non-chemical bed bug treatments are effective and can reduce the need for pesticides.
- If pesticides must be used, make sure they are used safely.

The Occupational Pesticide Illness Prevention Program (OPIPP) tracks and investigates cases of work-related pesticide illness and makes prevention recommendations for employers and workers. With bed bug infestations on the rise, pesticide illness related to bed bug control is an increasing problem. A national study reported illnesses among workers who applied pesticides to treat bed bugs and among hotel and maintenance workers who entered rooms after they were treated.

**Why worry about pesticide use?** Pesticides have caused illnesses and sometimes don’t work against bed bugs. People exposed to pesticides used to treat bed bugs have reported symptoms such as headaches, dizziness, difficulty breathing, nausea, and vomiting. Illnesses have been reported even when pesticides were used according to the label instructions. In addition, bed bugs resistant to pesticides have been reported in California and in other states. Unnecessary use and careless application of pesticides means people may become ill and more bed bugs will become resistant to pesticides.

**How do you get rid of bed bugs safely?** OPIPP recommends Integrated Pest Management (IPM) for bed bug control. IPM is a pest control strategy that uses information about the pest’s life cycle and habitat needs to help prevent infestations and get rid of the pest. IPM includes physical methods of control, such as sanitation (eliminating clutter), exclusion (encasing mattresses, sealing crevices), removal (vacuuming); and non-chemical means of killing the pests (laundrying or using steam, heat, or cold treatments). While it is possible to treat and control bed bugs without using pesticides, limited and targeted pesticide use may be part of a comprehensive strategy. Targeted pesticide applications in areas where heat treatments do not reach (for example: cracks, crevices, and inside walls) may be helpful. Spraying pesticides is not necessary for bed bug treatment and should be avoided because of the risks for human exposure and because sprays and foggers may spread an infestation. Bed bugs are a particularly challenging pest to control; therefore, if you have a bed bug problem, hire a pest control operator (PCO) certified in IPM rather than asking workers to apply pesticides or attempting to treat the problem yourself.

**If pesticides are used to control bed bugs, how do you make sure they are used safely?** Hire a PCO certified in IPM to ensure that pesticides are used in the safest manner possible. The PCO can choose the safest and most effective chemicals and chemical formulations. Pesticides can be targeted to areas where non-chemical treatments can’t reach and where human exposure to pesticides is less likely. Work with the PCO to ensure that all precautions are taken. Educate workers about the hazards of pesticides before they are used. After the pesticide application, evacuate workers if symptoms occur and/or an unusual odor is detected. Follow regulations that require immediate medical evaluation in cases of illness suspected to be due to pesticide exposure.
EMPLOYER CHECKLIST FOR SAFE AND EFFECTIVE BED BUG CONTROL

- If you think that you may have a bed bug problem, hire a PCO certified in IPM to investigate.
- If the PCO confirms that there are bed bugs, ask the PCO to use the safest treatment methods possible.
- Inform your workers that there are bed bugs and reassure them that bed bugs do not transmit disease. Assure them that the bugs will be treated in a safe and effective manner. Request their cooperation with the PCO’s recommendations.
- If the PCO determines that pesticides must be used, work with the PCO to ensure that all precautions are taken, such as adequate ventilation and keeping workers out of the area during an application.
- Educate workers about chemical use before it occurs. Inform workers about which chemicals will be used, what the potential hazards are, and possible symptoms they could experience.
- After the pesticide application, evacuate workers if symptoms occur and/or an unusual odor is detected.
- If workers become ill, follow requirements that they receive medical attention immediately.
- If workers become seriously ill, call Emergency Services (9-1-1).
- If you think that pesticide misuse has occurred, report this to your County Agricultural Commissioner by calling 1-87PestLine (1-877-378-5463).

RESOURCES

Information about bed bugs:
- Guidance to identify, treat, manage, and prevent bed bugs:
  - http://www.epa.gov/bedbugs/
  - http://www.cdph.ca.gov/healthinfo/discond/Pages/BedBugs.aspx
- Safer bed bug control methods http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7454.html

Employer resources:
- California Code of Regulations requirements that workers who handle pesticides receive training (3CCR 6724) and that immediate medical care be provided for workers with suspected pesticide illness (3CCR 6726)
  - http://www.cdpr.ca.gov/docs/legbills/calcode/subchpte.htm#0303
- Cal/OSHA requirements to educate workers about chemical hazards in the workplace
  - www.dir.ca.gov/title8/5194.html
  - http://www.dir.ca.gov/title8/3203.html
- Search for PCOs certified in Integrated Pest Management
  - http://www.ecowisecertified.org
  - http://www.greenshieldcertified.org
  - http://www.certifiedgreenpro.org
- Ensure the PCO does not have violations by checking for penalty actions:
  - http://www.pestboard.ca.gov/license.shtml