



6-minute safety talk for plumbing

Instructor Guide

Lead

Topic overview (why the topic is important to the students)

Lead is a cumulative poison that can enter the body as dust or fumes. It is toxic to virtually every human organ and can have serious long term health effects.

Symptoms of lead exposure include stomach pain, headache, irritability, and muscle pains. For female plumbers, exposure to lead can result in pre-term birth, reduced birth weight, and decreased mental ability in infants from mothers exposed during pregnancy.

Lead sheet, flashing, PVC products, lead solder and a number of plumbing fittings all contain lead. Welding and soldering with lead-based solder increase the risk of lead exposure.

Demonstration and Discussion Topics

- **Discuss** the types of plumbing products that contain lead and the hazards of lead exposure.
- **Tour** the shop with the students and point out some of the items that contain lead.
- **Distribute** the student handout.
- **Review** the safety tips.
- **Emphasize** the importance of washing your hands before eating.
- **Discuss** the tasks involving lead that would require PPE.
- **Discuss** the options for removing fumes when soldering with lead-based solder, including fume heads and spot suction systems.
- **Discuss** the attitude that “it won’t happen to me”. Remind them that exposure can and will happen if they take shortcuts or are careless.
- **Instruct** the students to identify and report any safety concerns about lead exposure at any time.
- **Answer** any questions or concerns they might have.
- **Set a good example** by working safely at all times.

Resources

- Lead: Preventing Exposure at Work
http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/lead.pdf
- Hazard Alert: Solder Fume Risk
<http://www2.worksafebc.com/i/posters/1994/ha9404.html>