

PREVENTING LEAD POISONING WHILE CASTING

Know lead properties:

Lead melts at 621°F. Fumes are released at 900°F. Lead can be breathed in and also settle on surfaces. Lead oxide (fumes mixed with air) forms a fine yellowish/brown dust. Even with good ventilation you have 100% chance of lead dust in your "Lead Area". Good hygiene and ventilation are the best way to reduce lead exposure. The main hazard activities involve hot lead - smelting, casting and handling dross (the contaminate residue that is skimmed off in the melting process).

Lead Hazards from Firearms:

Cast lead bullets develop an outer layer of lead oxide. Lead is soft and can be transferred to skin when handled. It is not the skin absorption but breathing in dust or fumes, or handling anything that you place in your mouth that are the most common forms of lead exposure. These firearms related activities expose you to the toxic heavy metal lead:



- ◆ Firearm target shooting
- ◆ Firearm cleaning
- ◆ Ammunition handling and reloading
- ◆ Casting bullets and shot



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LEAD HAZARDS

FROM CASTING AND RELOADING



LEAD HAZARDS FROM CASTING BULLETS, SHOT, AND OTHER OBJECTS OR RELOADING

ESTABLISH A SMELT/CAST/RELOAD AREA

- **Preferable location is outdoors**, or, if you must do this indoors, make sure your location is a separate area away from kitchen or food handling or storage.
- **Do this on hard floors, without carpet**, and surfaces that are easy to clean. Make some floor sweeping compound (sawdust, peat, dry dirt with an oil to make it clumpy, not wet). Dust it on the floor to catch the lead dust and keep it from getting back up in the air.
- **Use lots of ventilation that exhausts** air up and out, not around the room. A box or desk fan is just as bad as poor ventilation. Do not use home air systems which blow dust throughout the home.
- **Never eat, drink, chew gum, or smoke** or have these items in the area. Lead will settle on these objects and you will eat or inhale the dust.
- **Use rubber gloves and dust mask** with special filters for lead when handling solid lead ingots, bullets and dross. Store dross in a closed container.

- **Melt lead below 900°F**



- **Do not sweep dry floors. Use a shop-vac with HEPA filter** to vacuum up your area and your clothes once you are done. Don't use this vacuum for anything else. **DO NOT** use the house vacuum.
- **Wipe down your work areas after casting** with a damp disposable cloth or mop, using a separate bucket system to keep wash water separate from rinse water.
- **Keep children and women of childbearing age clear** of the smelting/casting/reloading area. Children are more likely to come in contact with dust and get it in their mouth.
- **Laundry clothing** worn during casting or reloading separate from other laundry.
- **Shower off after smelting or casting.** Be sure to wash your hair too. Always wash hands after handling lead, particularly before eating or smoking cigarettes.

For more information on the hazards of lead and controlling exposure, contact the **Center for Disease Control and Prevention Agency for Toxic Substances and Disease Registry**

4770 Buford Hwy. NE • Atlanta, GA 30341

Contact CDC:

800.232.4636

TTY :

888.232.6348

www.atsdr.cdc.gov

KNOW LEAD CONTENT OF COMPONENTS FOR FIREARM AMMUNITION

- **Primers** that are lead-free are available, but the majority still contain lead. New and spent primers are a potential source of lead contamination. The yellow dust found in the priming station is a toxic lead component. Do not use a can of compressed air to blow off the dust. Clean affected parts with a disposable towel, dampened with cleaner. Wash lead residue from your hands and avoid inhaling fine dust from new or used primers.



- **Tumble cleaning brass cases** is a common practice. The inside of the case contains lead compounds that are removed by the cleaning media and can become airborne, settle on adjacent surfaces and require you to follow safe lead practices in this process, as well. Replace cleaning media when it starts to become gray, don't sift brass through an open colander, use a covered rotating basket style separator and always keep the lid closed while the basket is spinning to allow the dust to settle in the basket before removing the lid.

Lead builds up in the body so any reduction in lead intake will help prevent lead poisoning.