



LEAD HAZARD AWARENESS

FOR SHOOTING AREA CLEANUP VOLUNTEERS



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WHY ARE WE HERE?

- **First, thank you**
- **Lead** is one of several possible health hazards
- Refer to your **risk management worksheet**

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- Lead
- Refer

Form 1112-5 (August 2014)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT												
RISK MANAGEMENT WORKSHEET														
THIS WORKSHEET IS A TEMPLATE THAT LISTS POTENTIAL HAZARDS ENCOUNTERED DURING LAND CLEANUPS, TO INCLUDE DISPERSED SHOOTING AREAS. YOU MUST EDIT AND MODIFY THIS FORM TO ENSURE IT REFLECTS THE POTENTIAL HAZARDS AT YOUR SITE.														
1. Organization and Location:			2. Page 1 of <input type="text"/>											
3. Operation / Task: Land clean-ups, to include dispersed shooting areas		4. Beginning Date:	5. Ending Date:	6. Date Prepared:										
7. Prepared by (Name / Duty Position):														
8. Identified Hazards: (Be Specific)	9. Assess the Hazards: (Initial Risk)				10. Control Measures Developed for Identified Hazards: (Specific measures taken to reduce the probability of a hazard) Include all PPE	11. Assess the Hazards: (Residual Risk)	12. How to Implement the Controls: (May Be Filled in By Hand)	13. Supervisors and Evaluation by: (Continuous Leader Checks, Buddy System, etc.)						
	Negligible	Minor	Moderate	Serious	Critical		Negligible	Minor	Moderate	Serious	Critical			
Food Borne Pathogens (BBP) exposure: BBP/Hep B risk from contact with hypodermic needles, used prophylactics and uncovered man waste. Volunteers not trained BBP risks.						Brief all workers on BBP hazards and how to avoid pokes, skin contact or inhalation of BBP. Workers to mark the location of BBP items and inform the supervisor. Sharps may be placed in a sharps container or an empty marked hard plastic beverage bottle. Wear leather work gloves when handling							_____ will brief all workers on this potential hazard before the cleanup begins. Project supervisor to respond to reports of high risk BBP items. Sharps container provided by the BLM. Provide leather work gloves, picker sticks.	Spot checks by supervisor. Document unsafe conditions on the final report.





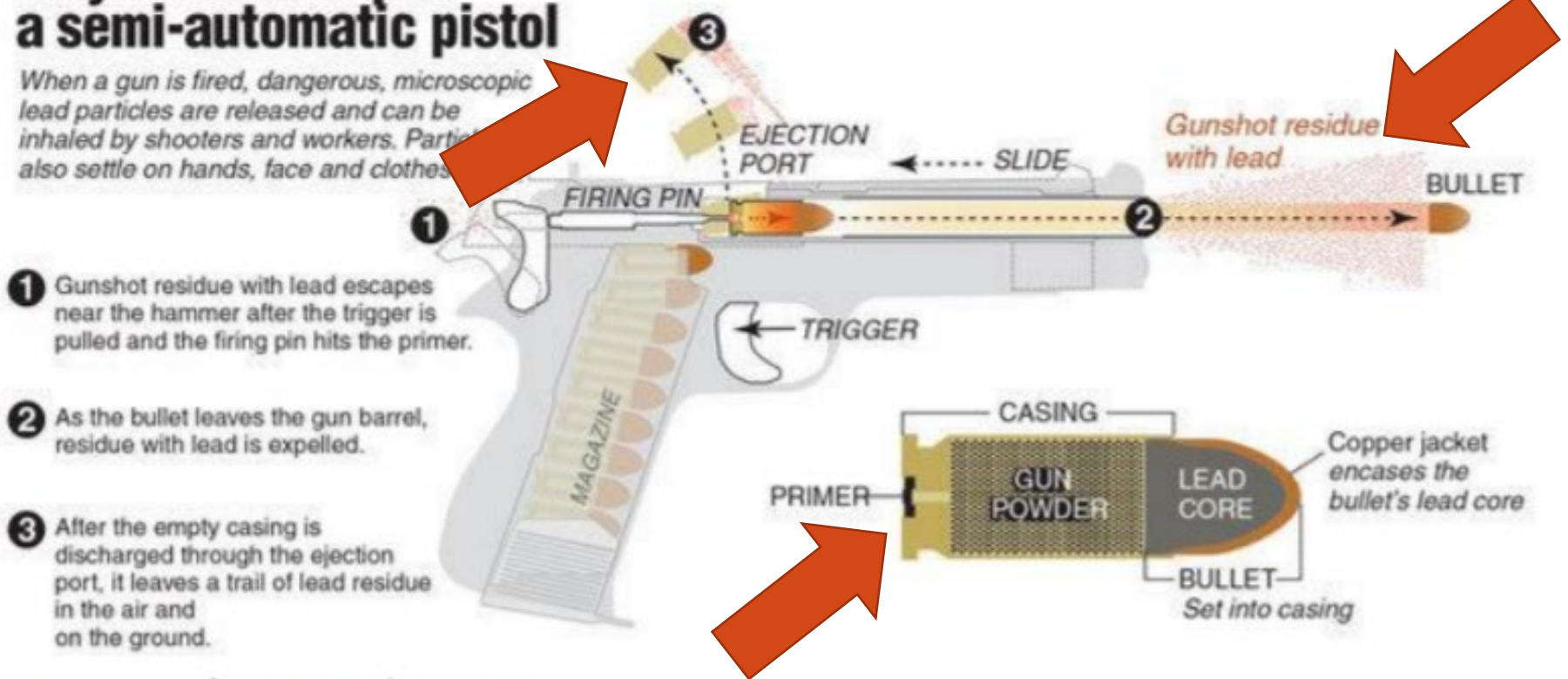
HOW DID THE LEAD GET THERE?

- Lead in ammunition
 - Bullets
 - Casings/shells
 - Primer (even most “lead-free” ammo!)
- Lead in shooting areas
 - Bullets & casings
 - Leach into soil

HOW DID THE LEAD GET

Ways lead escapes a semi-automatic pistol

When a gun is fired, dangerous, microscopic lead particles are released and can be inhaled by shooters and workers. Particles also settle on hands, face and clothes.



- 1 Gunshot residue with lead escapes near the hammer after the trigger is pulled and the firing pin hits the primer.
- 2 As the bullet leaves the gun barrel, residue with lead is expelled.
- 3 After the empty casing is discharged through the ejection port, it leaves a trail of lead residue in the air and on the ground.

Source: seattletimes.com/gunranges
Graphic: Mark Nowlin

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TRIGGER TRASH



Metal Targets



Some areas are **hazardous waste!**

Dirt

Trash

Anything used as a target





OTHER SOURCES OF LEAD

- Paint/water pipes in homes built before 1978
- Some workplaces
- Some glazed pots/dishware
- Stained glass
- Reloading/casting lead

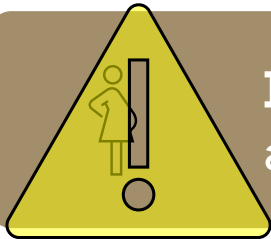




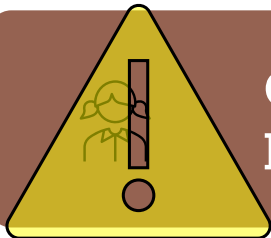
HEALTH EFFECTS



Adults: Impaired kidney, high blood pressure, heart disease, reproductive problems



Fetus: Premature birth or low birth weight, kidney and nervous system problems, miscarriage



Children: Behavior and learning problems, lower IQ, hyperactivity, slowed growth

LEAD EXPOSURE AND CHILDREN



- Effects well studied
- Some exposure today from homes, hobbies, and other sources
- Brain & nervous system

LEAD EXPOSURE AND CHILDREN



- Brain & nervous system
- Hand to mouth
- Stored in bones
- Look up “CDC + Lead” or <https://www.cdc.gov/nceh/lead/> for more info



LEAD EXPOSURE AND CHILDREN



Childhood Lead Poisoning Prevention



CDC has updated its [blood lead reference value \(BLRV\)](#) from 5 µg/dL to 3.5 µg/dL in response to the Lead Exposure Prevention and Advisory Committee (LEPAC) recommendation made on May 14, 2021.

Childhood Lead Poisoning Prevention Program

Learn more about CDC's

CDC's Childhood Lead Poisoning problem through strengthening

Look up “CDC + Lead” or <https://www.cdc.gov/nceh/lead/> for more info

30th Anniversary!

Continuing Our Commitment to Eliminate Childhood Lead Exposure



HOW DOES LEAD ENTER THE BODY?



- Presence of lead is not a hazard
- Must enter the body to be a health risk
- Paths into the body:
 - **Inhalation**
 - Breathe in lead contaminated dust
 - **Ingestion**
 - Contaminated hands





INHALATION RISK FACTORS

- Lead must be airborne
- Environmental risk factors
 - Dry/dusty conditions
 - Wind
- Work practice risk factors
 - Shoveling/scooping/raking
 - Shaking dust off trash





MINIMIZING INHALATION RISK

- ⑩ Cool, damp weather
 - ⑩ Less likely to become airborne
- ⑩ Minimize dust by:
 - ⑩ Avoid scooping, shoveling, raking
 - ⑩ Use a picker to pick trash out of dirt





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AVOID LEAD INGESTION

- **Do not eat, drink, or use tobacco during cleanup**





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AVOID LEAD INGESTION

- Onsite meal not advised
- Plan offsite afterward





STAYING HYDRATED

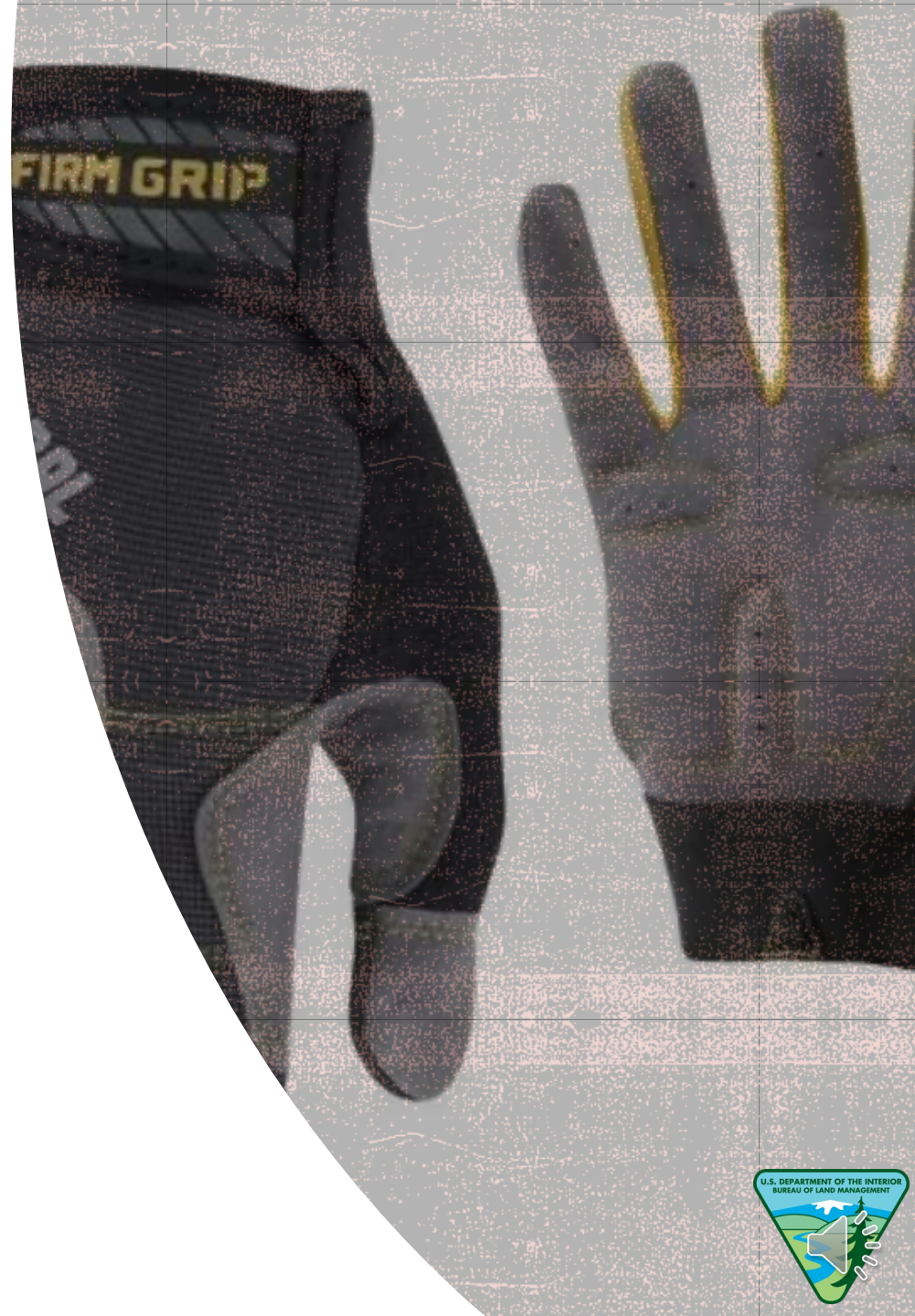
- “Clean” area for drinking
- Physically remove dust
 - Soap and water best
 - Otherwise use wipes
 - **Hand sanitizer does not remove lead**





GLOVES

- Washable is best
- Disposable gloves
 - Won't protect your hands from cuts/abrasions
 - Will help to keep hands clean





REDUCE “TAKE-HOME” EXPOSURE

- **Keep dust out of your car**
 - Bring clothing/shoes to change into or;
 - Wear layers that can be removed
 - Bring a towel to sit on



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REDUCE “TAKE-HOME” EXPOSURE

- **Keep dust out of your car**
 - Remove dust from shoes, clothing, gloves, hands, & face
 - Clean objects used at site
- **Change clothes immediately when you get home**
- **Wash clothing separately**



DOGS AT THE CLEANUP SITE



- Safety hazards
- Dust in fur and paws
- Pets should stay home
- Law enforcement dogs
 - Avoid getting soil onto fur
 - Wipe fur and paws before entering vehicle



SUMMARY & ADDITIONAL INFORMATION

- Environmental Protection Agency (EPA)
Lead: <https://www.epa.gov/lead>
- Centers for Disease Control (CDC)
Childhood Lead Poisoning Prevention:
<https://www.cdc.gov/nceh/lead/default.htm>

