Statement on Lead Azide Detonation in Southeastern Iowa: Tips for Iowans

When the U.S. Army detonates lead azide at the Iowa Army Ammunition Plant in Middletown, IA, at about 12:00 pm on November 20, 2026, the explosion will release a plume of lead-containing dust that is expected to be pushed north as far as Interstate 80. EHSRC researchers are assembling a task force to take measurements of lead levels in air, outdoor surfaces, and soil in the geographic area exposed to the plume.

What is Lead Azide?

Lead azide is an explosive compound used in ammunition and some civilian uses. Lead Azide is a crystalline chemical that contains lead, a heavy metal that is linked to neurological damage in young children and fetuses.

How much lead will I be exposed to?

There are two expected areas of exposure: 1) an area of settled lead particles extending about 25 miles downwind of the blast site, and 2) an area influenced by a cloud of airborne dust containing lead that the wind will carry away from the blast site for an estimated 100 miles. **The exact location of these two exposure areas will depend on the wind speed and direction during and after the detonation.** The Army will release updated maps showing the predicted exposure areas 6 hours before the scheduled detonation, and every hour thereafter until the detonation. The area influenced by the airborne dust plume is expected to be larger than the area where lead dust will settle. See the Army's Public Notifications page for the latest plume maps.

Communities in the region surrounding and downwind of the detonation location in Middletown, IA, could be exposed through two primary routes: 1) Inhalation of airborne lead dust, and 2) Inhalation or ingestion of lead dust that settles on surfaces (such as playground equipment).

The exact concentrations of lead that will be in air and dust are unknown, but researchers will conduct monitoring to determine the amounts and locations of lead exposure. The U.S. EPA cautions that no level of lead exposure is without risk for young children.

What can I do to reduce my family's lead exposure?

<table>
<tr><th>If you are in the area where lead dust will settle</th><th>If you are within the airborne lead dust plume</th></tr>
<tr><td colspan="2">• Stay inside as much as possible on the afternoon of Nov. 20. The plume generated by the explosion is expected to dissipate by Friday evening after which it will be safe to go outdoors.
• Young children and pregnant individuals are especially vulnerable to lead exposure and should avoid going outside.</td></tr>
<tr><td>• Starting on Nov. 21, hose down play equipment and other outdoor surfaces frequently touched by children.
• If your car was parked outside, wash it at a car wash.
• Cover bare soil on your property with mulch, a mat, or a sandbox to minimize young children eating soil. If desired, you can contact your county's Iowa State University Extension Office to request a soil testing kit.
• Have your children wash their hands before eating and sleeping.
• Feed your children foods rich in calcium, iron, and vitamin C, as these nutrients reduce the amount of lead their bodies absorb. If you need help obtaining fresh, healthy food, visit the Food Bank of Iowa website to find a resources near you.
• If you are concerned about your child's exposure to lead, ask their healthcare provider about having their blood tested.
• More information from the Iowa Department of Public Health</td><td>• Monitor the Army's Public Notifications page for information on where the cloud of lead dust is located. If the cloud has passed over your area and down wind, it is safe to go outdoors.
• For adults who must go outdoors before the cloud passes over their area, it is not necessary to wear a mask. However, pregnant individuals and children 2 and older may wish to wear N95 masks.</td></tr>
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