



Lead Poisoning Prevention News

Orange County Childhood Lead Poisoning Prevention Program

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In The News

• *The EPA has delayed enforcement of the new Lead Renovation, Repair, and Painting rule until October 1, 2010. Industry had expressed concerns about obtaining the required firm certification and renovation worker training. Renovators must be applied to enroll in, or be enrolled in, a certified renovator class by September 30, 2010, and complete the training by December 31, 2010.*

For more info:

www.epa.gov/lead

• *An environmental law group has filed a California Prop 65 notice of violation alleging that lead was found in various children's foods, including apple and grape juices, packaged pears and peaches, and fruit cocktail. Prop 65 requires a 60-day waiting period for compliance or for a law enforcement agency to prosecute the violations before a suit to enforce the law may be filed.*

For more info:

www.environmental.org

• *About 200 villagers, mostly children, in Nigeria have died recently due to lead poisoning as a result of villagers extracting gold from ore containing lead.*

Azarcon & Greta: Lead in Hispanic Home Remedies



Azarcon and Greta are two cultural home remedies used by the Hispanic community to treat stomach ailments. These home remedies are composed mainly of lead oxides and are associated with many childhood lead poisonings. It is thought they are mainly sold in Mexico at *botanicas*, or herb shops, or dispensed by *curanderas*, or folk medicine practitioners. Children with *empacho* (Spanish term for indigestion, diarrhea, and other stomach ailments), are given these remedies as part of a traditional folk treatment.

Azarcon is a bright orange powder and Greta is a yellow powder. Both powders are comprised of lead compounds with lead concentrations that can exceed 90%. The powders may be mixed with oil, juice, tea, baby formula, or honey. Other names for these remedies include Rueda, Coral, Alarcon, Liga, and Maria Luisa. Children given home remedies usually have a more serious case of lead poisoning because of the very high levels of lead in the remedy. Use of these products may result in neurological disturbances including seizures, coma, and death.

Families of lead poisoned children may be reluctant to admit use of the remedies due to the uncertainty about the legality of the remedy, their belief in the effectiveness of the remedy, and concerns about responsibility for the child's lead poisoning. These remedies are not approved for use in the United States and may be detained at import by the Food and Drug Administration. Generally, Azarcon and Greta are thought to be brought into the US by travelers.

Sources:

CDC, *MMWR* 32(42):554-5, *MMWR* 42(27):521-524

CDPH, *Childhood Lead Poisoning Prevention Branch, Health Ed material*

FDA Import Alert #66-20

Trotter II, Robert T.; *Human Organization, Spring 1985; Greta And Azarcon: A Survey of Episodic Lead Poisoning from a Folk Remedy*

Indoor Firing Ranges: Targeting Lead Exposure



Indoor firing ranges provide a place for the general public to target shoot and learn firearm safety. They also serve as a valuable training place for law enforcement officers and military personnel, and can be operated around the clock offering protection from inclement weather. Workers and customers at ranges are at an elevated risk of exposure to hazardous amounts of lead if safety measures are inadequate or not followed.

Lead Facts:

- About 240,000 children under 6 years of age in the U.S. are lead poisoned every year.

- Lead poisoning causes neurological damage, and lifelong behavior and learning problems.

Childhood Lead Poisoning Prevention Week
Oct. 24-31, 2010

Useful Lead Links

www.ochealthinfo.com/lead
Orange County Childhood Lead Poisoning Prevention Program

www.cdph.ca.gov/programs/CLPPB
California Childhood Lead Poisoning Prevention Branch

www.epa.gov/lead
U.S. Environmental Protection Agency

www.hud.gov/offices/lead
U.S. Housing and Urban Development Office of Healthy Homes and Lead Hazard Control

www.cpsc.gov
U.S. Consumer Product Safety Commission

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Lead is a naturally occurring element and has been used in firearms and assorted weaponry for many years. When the metallic form of lead is heated, airborne lead compounds are formed which can be inhaled and enter the bloodstream. Microscopic lead particles created as the bullet travels through the bore of the firearm can be ingested or inhaled.

Lead poisoning may be acute, such as a single large dose of lead, or chronic, in which the individual is exposed to small amounts of lead over an extended period of time. There is no safe level of lead in the human body and recent studies have shown that very small amounts of lead in the blood can cause damage. Lead harms the brain, nerves, red blood cells, kidneys, and reproductive systems of both men and women. Adults who are lead poisoned may feel tired, irritable, or get aches and pains. In children, lead can cause permanent brain damage, reduced IQ, behavioral problems, learning problems, hearing loss, and many other problems.

Lead Sources at the Range

Lead is used in ammunition primers and its high density makes it popular for use in bullets. When a gun is fired, the highly explosive primer (lead styphnate or lead azide) is ignited, which in turn ignites the gunpowder creating the explosion which propels the bullet forward. The lead fumes in the "gun smoke" are a potential inhalation source of lead. An unjacketed lead bullet can produce airborne lead particles through heat from friction between the bore of the firearm and the bullet. Lead may also become airborne from 'splatter' caused by bullets hitting various surfaces, such as baffles and backstops.

Cleaning and maintenance activities can cause lead dust to become airborne creating a hazard for workers. Dry sweeping can stir up lead dust and cleaning out the bullet traps can be a significant source of airborne lead. Lead dust can be carried home on an employee's clothing creating a hazard for their family. An employee's vehicle can even become lead contaminated. This is called "take home" exposure.

A lead safety program is required by Cal/OSHA to prevent employees from becoming lead poisoned. A safely run firing range will also help prevent the customers from being exposed to lead.

Minimizing Lead Exposure

Reduce the use of lead-containing ammunition. The use of jacketed or dipped ammunition and non-lead primers has been shown to greatly reduce lead emissions at the range.

Good Ventilation. Supplied air should move steadily and evenly across the shooting booths and firing line carrying all the gun smoke away from the shooters face and directly down range. This is accomplished with a specially designed and dedicated ventilation system, not the general building ventilation system.

Good Housekeeping Practices. Cleaning should be done using a HEPA (high efficiency particulate air) vacuum and by wet mopping. Never dry sweep the range. Minimize airborne lead dust when cleaning the bullet trap.

Training and Surveillance. Employees should be trained on lead safety, respirator use, and protective clothing. Work clothing and shoes should be left at work or carried home in a plastic bag and laundered separately. Employees should wash their hands, forearms, and face before breaks, lunch, and at the end of their work shift. The range should maintain an on-going lead medical program supervised by a licensed physician to identify employees with elevated blood lead levels.

Sources:

NIOSH Alert, Preventing Occupational Exposures to Lead and Noise at Indoor Firing Ranges, DHHS, CDC, NIOSH

Point Blank: Lead Hazards at Indoor Firing Ranges, OLPPP, Occupational Health Branch, CDPH

Lead Management & OSHA Compliance for Indoor Shooting Ranges, National Shooting Sports Foundation and OSHA