IOWA POISON CONTROL CENTER

# Poison HOTLINE

1-800-222-1222

June 2019

*Did you know .....*

Every year around the Fourth of July holiday, people are burned or injured by fireworks. However, fireworks are a poisoning hazard as well.

Fireworks often contain chemicals such as potassium perchlorate, barium nitrate, strontium carbonate or nitrate, sodium oxalate, and copper carbonate but are not listed on product labels.

Fireworks often come in pretty, colorful packages that are attractive to a child.

Swallowing fireworks can be harmful.

Call **1-800-222-1222** for Poison Help when fireworks are swallowed.

POISON Help®
1-800-222-1222

## Mercury Toxicity

Mercury is a naturally occurring metal that has been used for centuries as a medicine and in industry. The phrase “Mad as a Hatter” originated from observing that factory workers who used mercury to process felt for hats often developed changes in their personality, cognition and memory.

Mercury is present in three forms: elemental, inorganic and organic.

Elemental (metallic) mercury is unique in that it is a liquid (i.e. quicksilver) at room temperature. Toxic exposures are due to the inhalation of its vapors. Avoid vacuuming to clean up mercury spills as this will increase the mercury vapor content in the air by heating the mercury and breaking it into smaller particles. Mercury vapor is absorbed rapidly by the lungs and distributed to the CNS. Chronic intoxication produces a classic triad of tremor, neuropsychiatric disturbances (i.e. erythrism) and gingivostomatitis.

Inorganic mercury salts are water-soluble and corrosive. In the past, inorganic mercury compounds were used as diuretics, antibacterials, antiseptics, laxatives, and anti-syphilis agents. Ingestion is the typical route of exposure and acutely results in GI irritation, GI bleeding and renal injury. Chronic exposure may result in CNS effects.

Organic mercury may be absorbed by any route with the target organ being the CNS. The most common source is dietary fish consumption. The toxicity of organic mercury is unique in that there is rarely an acute phase.

When evaluating a patient with a potential mercury exposure, lab testing best serves to confirm exposure. Whole blood and urine mercury levels are useful in confirming elemental or inorganic mercury exposures. Organic mercury is eliminated via feces; urine levels are not useful in these cases.

The most important step in the management of mercury poisoning is eliminating the source of exposure. Aggressive supportive care may be needed when dealing with pulmonary effects of elemental mercury toxicity or the GI hemorrhage of inorganic mercury ingestions. Finally, chelation therapy can be considered with appropriate history and clinical symptoms.

Contact the poison control center at **1-800-222-1222** regarding diagnostic testing and chelation management of mercury exposures.

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