



MERCURY

Sources, Detection & Effects

Compliments of Dr. Donna F. Smith

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Mercury



Sources Of Mercury

- dental amalgam (silver fillings)
- tuna fish and swordfish
- contaminated drinking water
- seeds and vegetables treated with mercurial fungicides
- medications - diuretics, Mercurochrome, Merthiolate, Preparation H, contact lens solution
- occupational exposure - felt, algicides, floor waxes, adhesives, fabric softeners, manufacture of paper, production of chlorine
- children can be born with mercury toxicity that is passed through the placenta from their mothers. Mercury can also be passed to children in breast milk.



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Detection Of Mercury

Tests recognized as valid for detecting chronic mercury toxicity include hair analysis and urine challenge tests. The latter is a urine test performed after giving a dose of a chelating agent. A simple urine or blood test without a chelator will usually not reveal mercury toxicity unless the poisoning is acute.

Copper toxicity and zinc deficiency are often associated with mercury toxicity.

How Mercury Affects Health

- Energy - mercury compounds inhibit the enzyme ATPase, which impairs energy production in all body cells. degeneration of nerve fibers occurs, particularly the peripheral sensory nerve fibers. In addition to sensory nerve damage, motor conduction speed was reduced in persons with high hair mercury levels.
- Nervous System - The most common sensory effects are paresthesia, pain in limbs, and visual and auditory disturbances. Motor disturbances result in changes in gait, weakness, falling, slurred speech, and tremor. Other symptoms are headaches, rashes and emotional disturbances.
- Endocrine System - Mercury has been shown to concentrate in the thyroid and pituitary glands, interfering with their function. Impairment of adrenal gland activity also occurs.
- Kidneys - Mercury can accumulate in the kidneys, which may cause kidney damage.