

Arsenic and Mercury Toxicology As Related to Children's Health

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Abstract

Exposure of children to carcinogenic inorganic arsenic can occur by consuming food and water or by inhaling contaminated air in the vicinity of smelters. Cancer, cardiovascular problems, and diabetes can result. Exposure to organic mercury compounds by consuming contaminated fish can be a hazard in utero and in young children. Elemental mercury and mercurous chloride also can be hazardous. For either arsenic or mercury toxicity, the chelating agents dimercaptopropanesulfonate (DMPS) and mesodimercaptosuccinic (DMSA, succimer) acid are available and effective. Children must not be considered as small adults. Their organs are still developing. Their environment is closer to the floor. They absorb many metals and metalloids at a greater rate. Children are the future of families, nations, and the world all of whose futures are dependent on the health of their children.