Abstract

Concern for children exposed to elemental mercury prompted the Agency for Toxic Substances and Disease Registry and the Centers for Disease Control and Prevention to review the sources of elemental mercury exposures in children, describe the location and proportion of children affected, and make recommendations on how to prevent these exposures. In this review, we excluded mercury exposures from coal-burning facilities, dental amalgams, fish consumption, medical waste incinerators, or thimerosal-containing vaccines. We reviewed federal, state, and regional programs with data on mercury releases along with published reports of children exposed to elemental mercury in the United States. We selected all mercury-related events that were documented to expose (or potentially expose) children. Primary exposure locations were at home, at school, and at others such as industrial property not adequately remediated or medical facilities. Exposure to small spills from broken thermometers was the most common scenario; however, reports of such exposures are declining. The information reviewed suggests that most releases do not lead to demonstrable harm if the exposure period is short and the mercury is properly cleaned up. Primary prevention should include health education and policy initiatives.

Keywords

Children, Elemental mercury, Environmental health, Exposure, United States.