

Verhaltensstörungen durch Methylquecksilber im Mutterleib

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[Neurobehavioral effects of developmental methylmercury exposure.](#)

Abstract

Methylmercury (MeHg) is a global environmental problem and is listed by the International Program of Chemical Safety as one of the six most dangerous chemicals in the world's environment. Human exposure to MeHg primarily occurs through the consumption of contaminated food such as fish, although catastrophic exposures due to industrial pollution have occurred. The fetus is particularly sensitive to MeHg exposure and adverse effects on infant development have been associated with levels of exposure that result in few, if any, signs of maternal clinical illness or toxicity. High levels of prenatal exposure in humans result in neurobehavioral effects such as cerebral palsy and severe mental retardation. Prenatal exposure to MeHg in communities with chronic low-level exposure is related to decreased birthweight and early sensorimotor dysfunction such as delayed onset of walking. Neurobehavioral alterations have also been documented in studies with nonhuman primates and rodents. Available information on the developmental neurotoxic effects of MeHg, particularly the neurobehavioral effects, indicates that the fetus and infant are more sensitive to adverse effects of MeHg. It is therefore recommended that pregnant women and women of childbearing age be strongly advised to limit their exposure to potential sources of MeHg. Based on results from human and animal studies on the developmental neurotoxic effects of methylmercury, the accepted reference dose should be lowered to 0.025 to 0.06 MeHg microgram/kg/day. Continued research on the neurotoxic effects associated with low level developmental exposure is needed.

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