

Toxicology Litigation Support Lead Poisoning

Lead is ubiquitous in our environment. It used to be contained in gasoline but has now been replaced. It has been used in pipes, ceramic glazes, paints, and solder, among other sources. Exposure can be oral through ingestion of food or water or by inhalation from lead-containing dust or dirt. Once in the body it goes to soft tissues including the brain and kidneys but eventually is deposited in bone. It is then released from bone slowly over a period of time causing elevated lead concentrations in the blood and accumulation in the brain, resulting in behavioral and intellectual deficits in both children and adults. Children are the most susceptible. Lead is passed from mother to fetus and neonate via transplacental transfer and mother's milk. From fetus to neonate to young child, lead is accumulated faster in children than in adults, resulting in serious neurobehavioral problems, delayed developmental effects, and mental retardation. Lead also disrupts hemoglobin formation causing anemia. Currently, no safe level of lead in a child's blood has been identified, but a level of 10 ug/dl is considered a good guideline for maximum lead levels in children. In assessing the potential causal relationship in lead cases, we must be certain of the source. Cases involving lead paint must be carefully evaluated.

A case involving an alleged exposure to lead paint when there was no obvious lead paint available, resulted in the discovery that the child was given orange juice daily from a lead laden pitcher from Morocco. Each case requires careful evaluation, but no one disputes the neurotoxicity and nephrotoxicity of lead. Dr. Parent has participated in many lead cases for both plaintiff and defense. Selected references from our sizable lead database are provided below.

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