

Lead Poisoning and Learning

Lead is not safe in any amount and has no positive value to the body at all. Even small amounts can cause changes in a child's brain, making it difficult to learn, to pay attention, to control moods and behavior. Planning, good decision making and organization skills are all affected by lead's negative influence on the brain. Many children never reach their full academic potential, since lead poisoning can lower I.Q., causing a chain-reaction of failing to learn, discouragement and eventually drop out.

Findings

As the amount of lead in children's blood was on a downward trend between 1953-2003, Scholastic Achievement Test (SAT) scores rose, leading experts to conclude that lead could have been linked to lower scores on the achievement test. Lower lead in the blood also was linked to fewer cases of mental retardation overall. (1)

Childhood lead poisoning is found to affect the ability of the brain and nervous system to work together to connect thinking and behavior. (2)

Childhood lead poisoning can result in smaller brain size in adults in the parts of the brain that control moods and are responsible for planning and decision-making. (3)

Lead in the blood, even in small amounts, is connected with symptoms of Attention Deficit Hyperactivity Disorder (ADHD). A study of a group of 150 children ages 8-17 included children with ADHD and children who did not have ADHD. The amount of lead in each child's blood was measured. Higher amounts of lead were linked to symptoms of hyperactivity and also linked to lower intelligence as measured by IQ tests. (4)

This international study followed 1,333 children from birth or infancy until 5-10 years of age and found that in general, the more lead in the blood, the lower the child's IQ. Even a small amount of lead brought IQ down. (5)

Lead in a child's bloodstream is connected with lower IQ, even at amounts that are below the level currently defined as lead poisoning. (6)

Lead that has entered the body is eventually stored in the bones. This lead is pulled from the bones back into the blood stream during pregnancy and at times when bones are growing a lot, like early childhood. (7)

Children exposed to lead as fetuses (because, for example, from lead in the mother) showed slower mental development than other children until they reached 24 months old. After that age, children who had not had any further contact with lead since birth, and whose lead level did not rise, showed greater mental improvements than the children who continued to be exposed to lead after birth. (8)

Academic problems are connected with childhood lead poisoning. As the amount of lead in a child's blood increased, children showed some decrease in math scores, reading scores, non-verbal reasoning, and short-term memory. (9)

Source(s)

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