

Amalgam fillings don't affect children's brain development, says study

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Dental amalgam tooth fillings do not adversely affect children's brain development and neurological status, researchers report in the February issue of *The Journal of the American Dental Association*.

The authors of the report—members of a joint team from the University of Lisbon, Portugal, and the University of Washington, Seattle—studied the possible neurological effects of dental amalgam tooth restorations. Dental amalgam contains elemental mercury combined with other metals such as silver, copper, tin and zinc to form a safe, stable alloy. Dental amalgam has been used for generations to fill decayed teeth that might otherwise have been lost.

Beginning in 1997 and continuing for seven years, the authors studied 507 Portuguese children aged 8 through 12 years who received either amalgam or resin-based composite fillings. They conducted routine clinical neurological examinations to assess two types of neurological signs: hard (indicating damage to specific neural structures) and soft (subtle signs of central nervous system dysfunction that likely point to immature sensory-motor skills rather than to any structural damage in the brain). The researchers also evaluated the children for presence of tremor.

After seven years, the two groups of children did not differ in terms of the presence or absence of hard signs or tremor. They also didn't differ in terms of the presence or absence or severity of soft signs at any point. Also, as expected in healthy children, the severity of any neurological

soft signs diminished as the children aged.

“Even at the levels of amalgam exposure in this study (a mean of 7.7-10.7 amalgam surfaces per subject across the seven years of follow-up),” the authors write, “[we] conclude that exposure to mercury from dental amalgam does not adversely affect neurological status.

“These data indicate the absence of a generalized negative effect on children’s nervous system functions stemming from the presence of dental amalgam,” they continue, “and while we cannot rule out potential adverse reactions in individual children, we found no indications of any.”

Source: American Dental Association

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