



American Dental Association
www.ada.org

What Others Say

Alzheimer's Association: "According to the best available scientific evidence, there is no relationship between silver dental fillings and Alzheimer's. ...Many scientists consider these studies compelling evidence that dental amalgam is not a major risk factor for Alzheimer's disease (Clarkson, Thomas W. et al. "The Toxicology of Mercury: Current exposures and Clinical Manifestations." *New England Journal of Medicine*. October 30, 2003: 1731-1737, and Saxe, Stanley R., et al. "Alzheimer's Disease, Dental Amalgam, and Mercury," *Journal of the American Dental Association*, 1999, February: 130 (2): 191-199). Public health agencies including the FDA, the U.S. Public Health Service, and the World Health Organization endorse the continued use of amalgam as a safe, strong, inexpensive material for dental restorations. ... National Institutes of Health (NIH) in 1991 funded a study at the University of Kentucky to investigate the relationship between amalgam fillings and Alzheimer's. Analysis by University statisticians revealed no significant association between silver fillings and Alzheimer's." Source: Alzheimer's Association web site, "Alzheimer's Myths. Myth 7: Silver dental fillings increase risk of Alzheimer's disease," March 17, 2008

http://www.alz.org/alzheimers_disease_myths_about_alzheimers.asp

American Academy of Pediatrics: "Although dental amalgams are a source of mercury exposure and are associated with slightly higher urinary mercury excretion, there is no scientific evidence of any measurable clinical toxic effects other than rare hypersensitivity reactions. An expert panel for the National Institutes of Health has concluded that existing evidence indicates dental amalgams do not pose a health risk and should not be replaced merely to decrease mercury exposure." Source: <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;108/1/197>

Q. Should my child have non-mercury fillings? Or should the mercury fillings be replaced?

A. Mercury amalgams are a durable material for filling dental caries. There is no scientific evidence that this commonly used dental material is a health hazard, although mercury exposure may occur from the presence of dental amalgams. It is not necessary to replace amalgams just because of the mercury content; furthermore, the removal process may weaken the tooth.

Source: *Pediatric Environmental Health*, 2nd edition, American Academy of Pediatrics Committee on Environmental Health, Elk Grove Village, IL, 2003: p. 277

American Cancer Society: Biological dentistry is the removal of dental fillings or teeth claimed to contain toxins, which are said to cause systemic diseases or pain. Available scientific evidence does not support claims that removing healthy teeth or amalgam fillings can prevent cancer or any other disease. The clinical studies that have been published in peer-reviewed medical journals found no link between mercury-containing fillings and the development of cancer and other diseases. The amount of mercury absorbed by the body from amalgams is so small it is considered harmless.

Source:

http://www.cancer.org/docroot/ETO/content/ETO_5_3X_Biological_Dentistry.asp?sitearea=ETO

Autism Society of America: "There is no known single cause for autism, but it is generally accepted that it is caused by abnormalities in brain structure or function. Brain scans show differences in the shape and structure of the brain in autistic versus non-autistic children. Researchers are investigating a number of theories, including the link between heredity, genetics and medical problems. In many families, there appears to be a pattern of autism or related disabilities, further supporting a genetic basis to the disorder. While no one gene has been identified as causing autism, researchers are searching for irregular segments of genetic code that

autistic children may have inherited. It also appears that some children are born with a susceptibility to autism, but researchers have not yet identified a single "trigger" that causes autism to develop." Source: Autism Society of America Web site, http://www.autism-society.org/site/PageServer?pagename=about_whatcauses

U.S. Centers for Disease Control and Prevention (CDC): "Reports that suggest mercury from amalgam causes [...] symptoms, conditions and other diseases like Alzheimer's or multiple sclerosis, are not backed up by current scientific evidence. The evidence also suggests that the removal of amalgam has no health benefits." Source: CDC website "Dental Amalgam Use and Benefits," August 2008.
<http://www.cdc.gov/OralHealth/publications/factsheets/amalgam.htm>.

U.S. Environmental Protection Agency: "...[T]he primary exposure of people in the U.S. to mercury is from eating fish and shellfish containing methylmercury." "...EPA recognizes that the decision to use dental amalgam is a medical decision that is best made by dental professionals and their patients." Source: Letter to The Honorable Donald A. Manzullo, Chairman, Committee on Small Business, U.S. House of Representatives, Washington, D.C., January 5, 2006

Life Sciences Research Office (LSRO): LSRO conducted the independent scientific review of dental amalgam at the request of a work group made up of representatives from the National Institutes of Health, Centers for Disease Control and Prevention, Food and Drug Administration and the U.S. Public Health Service. The report, *Review and Analysis of the Literature on the Potential Adverse Health Effects of Dental Amalgam*, considered some 950 scientific and medical studies, 300 of which met criteria for scientific merit and study design. The report concludes that peer-reviewed scientific and medical literature published since 1996 provides insufficient evidence "of a link between dental mercury and health problems, except in rare instances of allergic reactions." http://www.lsro.org/amalgam/frames_amalgam_home.html

National Council Against Health Fraud: "The National Council Against Health Fraud believes that amalgam fillings are safe..." "There is no logical reason to worry about the safety of amalgam fillings." Source: National Council Against Health Fraud Web site, 2002
<http://www.ncahf.org/pp/amalgamp.html>

National Multiple Sclerosis Society: "There is no scientific evidence to connect the development or worsening of MS with dental fillings containing mercury, and therefore no reason to have those fillings removed. Although poisoning with heavy metals-such as mercury, lead, or manganese-can damage the nervous system and produce symptoms such as tremor and weakness, the damage is inflicted in a different way than occurs in MS and the process is also different." Source: National MS Society Web site, June 2008 <http://www.nationalmssociety.org/about-multiple-sclerosis/treatments/complementary--alternative-medicine/index.aspx>

New England Journal of Medicine: "Current concern arises from claims that long-term exposure to low concentrations of mercury vapor from amalgams either causes or exacerbates degenerative diseases such as amyotrophic lateral sclerosis, Alzheimer's disease, multiple sclerosis, and Parkinson's disease. Speculation has been most intense with respect to Alzheimer's disease after a report that the brains of patients with Alzheimer's disease had elevated mercury concentrations. However, several epidemiological investigations failed to provide evidence of a role of amalgam in these degenerative diseases . . . Patients who have questions about the potential relation between mercury and degenerative diseases can be assured that the available evidence shows no connection." Source: *New England Journal of Medicine* 349; 18, October 30, 2003, pp. 1731-1737.

U.S. Public Health Service and National Institute of Dental and Craniofacial Research (NIDCR): “As an institute, we have participated in department reviews and there’s an ongoing process within the Public Health Service, Centers for Disease Control and Prevention, Food and Drug Administration and the National Institute of Dental and Craniofacial Research to continue to review the literature and maintain and be current on the emerging literature, in both animal and human studies. And at this point in time no new evidence has come up to change our view from the mid-1990s [that evidence does not warrant discontinuing use of dental amalgam].” —Dr. Dushanka Kleinman, deputy director, NIDCR and chief dental officer, U.S. Public Health Service, July 2001.

World Health Organization and World Dental Federation: “No controlled studies have been published demonstrating systemic adverse health effects from amalgam restorations. Amalgam restorations are durable and cost-effective; they are, however, not tooth-colored.” —Consensus statement, September 1997.

American Association for Dental Research: “Minute mercury exposure does not cause verifiable adverse effects on the general health of patients or dental health personnel.” (September 1996)

Statements to the House Government Reform Committee, November 14, 2002

“Available scientific evidence continues to indicate that dental amalgam is a safe restorative material.” —Dr. Lawrence A. Tabak, Director, **National Institute of Dental and Craniofacial Research.**

“Eliminating dental amalgam as a restorative option precludes a dentist from offering patients what may be the best choice from a clinical perspective.” —Dr. Gregory Stoute, President, **National Dental Association.**

“This country enjoys the most accurate and comprehensive state-of-the-art medical institutions in the world. We should heed the advice and conclusions of these health professionals. The use of amalgam should remain a viable option for dentists and for their patients.” —**U.S. Rep. Butch Otter** (R-Idaho)

“I have always known this material to be safe and effective. Mercury is not the same thing as amalgam. We must put our emphasis on good peer-reviewed science.” —**U.S. Rep. Charles Norwood** (R-Ga.)

“Let me say, without equivocation, that if there were any credible and supportable evidence that amalgam was unsafe to the patient, I am certain that the ADA...would immediately call for its removal from the approved products list. I would also have the amalgams removed from my mouth.”—**U.S. Rep. Mike Simpson** (R-Idaho)

Recent Journal Articles

2007

Journal of the American Medical Association

295: 1775 – 1783, April 19, 2006

“Neuropsychological and Renal Effects of Dental Amalgam in Children: A Randomized Clinical Trial”

August 2008

Bellinger, et al
295: 1784 – 1792, April 19, 2006
“Neurobehavioral Effects of Dental Amalgam in Children: A Randomized Clinical Trial”
DeRouen, et al

Two studies measure whether children with dental amalgam fillings experienced any adverse effects related to neurobehavioral, neuropsychological (IQ) and kidney function. The authors find that there was no difference in neurological performance and kidney function in children who have amalgam fillings compared to a control group with composite (white) fillings.

The two studies bolster existing scientific understanding that the minute amount of mercury released by amalgams during such common activities as eating and drinking does not affect health adversely. Both studies support the continued use of dental amalgam as an important treatment option.

2005

NeuroToxicology
26: 241-255, March 2005
“Amalgam Exposure and Neurological Function”
Kingman, Ph.D., et al

A study of 1,663 subjects of the ongoing Air Force Health Study of Vietnam era veterans found no connection between dental amalgam to any level of peripheral neuropathy. Subjects were tested for abnormal tremors, coordination, station or gait, strength, sensation and muscle stretch reflexes as part of the overall neurological evaluation. “The bottom line is there was no association between abnormal neurological signs and amalgam exposure,” states co-researcher James W. Albers, M.D., Ph.D. of the University of Michigan Medical School in an *ADA News* article about the study.

2003

New England Journal of Medicine
349: 18, pp 1731-1737 October 2003
“The Toxicology of Mercury: Current Exposures and Clinical Manifestations”
Clarkson, Thomas W. et al.

Current concern arises from claims that long-term exposure to low concentrations of mercury vapor from amalgams either causes or exacerbates degenerative diseases such as amyotrophic lateral sclerosis, Alzheimer’s disease, multiple sclerosis, and Parkinson’s disease... however, several epidemiologic investigations failed to provide evidence of a role of amalgam in these degenerative diseases.... Patients who have questions about the potential relation between mercury and degenerative diseases can be assured that the available evidence shows no connection.

2002

Environmental Health Perspectives
Journal of the National Institute of Environmental Health Sciences
“Mercury Derived from Dental Amalgams and Neuropsychological Function”
Drs. Pam Factor-Litvak and Joseph Graziano, et. al

Nov. 13, 2002

<http://ehpnet1.niehs.nih.gov/docs/2003/5879/abstract.html>

Researchers from Columbia University studied 550 adults, ages 30-49, to examine whether or not dental amalgams are adversely associated with cognitive functioning. Based on their results, the researchers conclude, "In a sample of healthy working adults, mercury exposure derived from dental amalgam restorations was not associated with any detectable deficits in cognitive or fine motor functioning."

2001

Quintessence International

Vol. 32, Number 7, pp.525-532, 2001

"Amalgam—Resurrection and Redemption. Part 1
The Clinical and Legal Mythology of Anti-amalgam"

Michael J. Wahl, D.D.S.

"The use of amalgam has not been banned in any country in the European Union. According to the latest scientific information available, dental amalgam is a remarkably durable and long-lasting restorative material. Although its appearance is unaesthetic, its clinical performance and effectiveness are unsurpassed by those of resin composite."

Quintessence International

Vol. 32, Number 7, pp.696-706, 2001

"Amalgam—Resurrection and Redemption. Part 2
"The Medical Mythology of Anti-amalgam"

Michael J. Wahl, D.D.S.

"Mercury from dental amalgam restorations cannot be linked to kidney damage, Alzheimer's disease, multiple sclerosis, other central nervous system diseases, "amalgam disease," mental disorders, damage to the immune system, increases in antibiotic resistance, or harmful reproductive effects." ... "According to the latest scientific information available, dental amalgam remains a safe and effective restorative material."

1999

Journal of the American Dental Association

Vol. 130, Number 2, pp. 191-199, 1999

"Alzheimer's Disease, Dental Amalgam and Mercury"

Stanley R. Saxe, D.M.D., Merle W. Wekstein, M.P.A., et. al.

Researchers from the University of Kentucky studied 68 subjects with Alzheimer's disease and 33 control subjects without the disease and found no significant association of Alzheimer's disease with the number, surface area or history of having dental amalgam fillings. The authors conclude, "Our results do not support the hypothesis that mercury is a pathogenetic factor in Alzheimer's disease. This study demonstrates that dental amalgam is not a major public health risk factor for Alzheimer's disease."

Journal of Dentistry

Vol. 27, pp. 249-256, 1999

"Reproductive Toxicity of Occupational Mercury. A Review of the Literature"

A.H.B. Schuurs, Academic Centre for Dentistry Amsterdam, The Netherlands

The article reviews epidemiological studies to give insight into potential reproductive effects of handling dental silver amalgam. According to the author, "It seems warranted to conclude that negative reproductive effects from exposure to mercury in the dental office are unproven... Consequently, in view of the general low amounts of mercury stemming from dental amalgam fillings, the population at large is at even less risk than dental staff."

Studies Under Way

Exhaustive clinical studies supported by the National Institute of Dental and Craniofacial Research are under way in the United States and Portugal to determine whether dental amalgam has any demonstrable adverse health effects, by measuring a whole array of outcome measures to assess neuropsychological function (including I.Q., learning ability and behavior). Children participating in these studies also are being tested for kidney function and mercury levels in blood, urine and hair. The investigators identified one of the challenges in the design of the study being the identification of outcome measures, "since there is little evidence to indicate how health effects from such low-level exposure would be manifested." In addition, multiple assessments were to be made during the course of the study to determine whether there were any adverse health effects associated with dental amalgam, which might warrant discontinuing the study.

These studies, ongoing since 1997, have reported no adverse effects. And while the studies will not be completed until 2006, the government would have halted them immediately if at any point during the past six years the study subjects showed any sign that amalgam was harming them.