

Are Mercury Fillings Safe?



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Mercury amalgams (fillings) have been a hot topic of discussion in the past few years. There seems to be two extremely opposite viewpoints: one maintains that mercury amalgams are toxic and lead to an array of health problems, while the other maintains that mercury amalgams are safe and any associated side effects are incidental. The debate on the safety of amalgams has been going on since they were first introduced in the United States in 1833.

In Germany, dentists who installed mercury amalgams were once called “quacks” since amalgams were called “quacksilber”. In 1926, a German physician named Dr. Alfred Stock demonstrated that mercury vapor escaped from fillings and that this vapor could lead to serious health problems. This finding, however, was discounted for decades. The debate raged on into the 20th century, until in 1986 the American Dental Association (ADA) publicly admitted that mercury vapor does escape from amalgams into the patient’s mouth.

Mercury amalgams are used in dentistry to repair cavities before they can deepen and lead to infection or death of the tooth. Amalgams usually contain a mixture of mercury, silver, copper, tin and zinc. When a mercury amalgam is removed from the mouth, it is considered hazardous waste, and strict governmental regulations are applied to its storage, handling and disposal. Dentists and dental technicians must take a number of safety precautions when installing and removing mercury amalgams for their health and safety. It is estimated that the average mercury filling contains approximately 1,000 mg of mercury, while a four-foot fluorescent bulb, which is considered hazardous waste when expired, contains approximately 22 mg of mercury.

Mercury is one of the most toxic metals—more toxic than lead. Historically, the expression “mad as a hatter” referred to mercury poisoning developed by hatters due to their exposure to mercuric chloride when making hats. The hatters would often develop mental illness as a result of high mercury exposure. In October 1998, all over-the-counter products containing mercury in the United States were removed from the shelves because their safety could not be proven.

Based on current scientific literature and manufacturer warnings, mercury amalgams may be far from safe. Studies have shown that mercury from fillings may leach into the gums or saliva due to acidity of the mouth. Amalgams also generate an electromagnetic field which can create currents within the mouth and lead to various health problems; this condition is known as galvanism. One of the world’s largest amalgam manufacturers lists the following potential side effects of mercury amalgams:

- Skin, eye, respiratory tract and mucous membrane irritation
- Kidney toxicity
- Nerve toxicity
- Skin and lung sensitization
- A temporary increase in blood and urine mercury concentration after installation or removal of amalgams
- Galvanic effect (galvanism) if placed near other amalgams

The same manufacturer also listed the following contraindications (any condition or disease where a treatment, drug or product should not be used) for the installation of mercury amalgams:

- Pregnant women
- Children aged 6 years or younger
- Severe kidney disease
- Near other amalgams of dissimilar metal composition
- Known allergies to amalgams

Studies have shown that the number of mercury amalgams a person has directly correlates to the amount of mercury in the brain. Mercury toxicity has been associated with a number of health concerns, including memory loss, chronic bad breath, gingivitis, irregular heartbeat, allergies, asthma, chronic headaches, kidney damage, anemia, fatigue, joint pain and many others. Prenatal mercury exposure may lead to developmental problems in children, such as motor function disorders, and language and memory difficulties. Mercury is also a concern in breast-feeding mothers, since mercury may cross into the breast milk.