

## DENTAL AMALGAM STIRS CONTROVERSY

There is disagreement between dentists on the safety of dental amalgam. Although dental amalgam is the common filling material used today, its use is becoming less popular. Amalgam is that silver-colored metal filling that is mixed and then placed into the tooth. It is composed of approximately 50% mercury, 35% silver, and trace amounts of zinc, copper and tin.

The debate about the safety of dental amalgam is not new. During the 1830s, there were two groups of dentists; one group was made up of craftsmen-dentists, practitioners concerned mainly about the ease of manipulation and low cost of a filling. The medically oriented dentists were concerned about mercury and its possible effect on the body. The medicine-dentists formed the first dental school in 1840 to lend credibility to the profession. In 1843, the world's first dental organization, the American Society of Dental Surgeons (ASDS), was formed, after losing numbers to those who wanted to place amalgam, the ASDS eventually disbanded in 1856. In 1859, the American Dental Association was formed. Today, the ADA's position is "amalgam continues to be a safe restorative material for dental patients."

Over the past few decades, various government agencies have taken action against materials containing mercury because of their concern for the health of the people as well as the environment. MERCURY is a very harmful substance. Lead was removed from paint in 1971 because of the harm it could cause to people. During the summer of 1990, the United States Environmental Protection Agency permanently banned mercury as an ingredient of interior latex house paint.

The Environmental Protection Agency (EPA), in 1988, labeled scrap dental amalgam as a hazardous waste. The Occupational Safety and Health Administration (OSHA) requires a Material Safety Data Sheet (MSDS) be completed for every dental material used and that the dentist and staff be familiar with its contents. According to the MSDS, it is mandatory for the dentist to handle scrap amalgam (the portion of filling that remains after most of it is placed in your cavity as a filling) in the following manner:

1. Store in unbreakable, tightly sealed containers, away from heat.
2. Use a "no touch" technique for handling amalgam.
3. Store amalgam under special liquid to minimize escaping of mercury vapor.

Mercury is continuously released from amalgam fillings as both a vapor and microscopic particles. Mercury can then be transported to every part of the body via air pathways, the digestive tract, and the bloodstream, accumulating in tissue and organ systems. The manufacturer of ionosphere (one of the amalgam alloys) cautions dental professionals that there are health risks. The following chronic (long-term) health effects can occur at some time after exposure to mercury and can last for months or years.

- Repeated low exposure or a very high single exposure to mercury poisoning can cause tremors (shaking), memory and concentration difficulties, gum problems, increased salivation, loss of appetite and weight, and changes in mood and personality.
- Repeated vapor exposures (usually more than five years) can cause clouding of the eye lens.

- Mercury may cause a skin allergy, if allergy develops, very low future exposures can cause itching and a skin rash.
- Exposure can cause kidney damage.
- Mercury can lower sex drive.

Knowing all of this information, can one state that dental amalgam is in no way harmful to humans? In the next newsletter, I will discuss more evidence of how dental amalgam maybe harmful to one's health.

## OUR EDUCATION CONTINUES...

1998 has been a great year for my staff and me.

One of the reasons is being blessed with a great selection of courses that stimulate and educate us.

The American Academy of Biological Dentistry presented an outstanding program March 6, 7 and 8 in Carmel, California. On certain days, the programs would run for twelve hours, and the classes were well attended. The main speaker was Jochen Gleditsch, DDS, MD, a world-renowned doctor from Munich, Germany who integrates acupuncture with dentistry. There were many other health professionals with a wide variety of topics and treatments such as neutral therapy, thermography, EEG Biofeedback and numeric healing.

On April 6 and 7, 1998, I was fortunate enough to hear Ron Jackson speak. He dealt primarily with composites (plastic fillings). Dr. Jackson carefully went over techniques of placing posterior composites. He also discussed situations where composites should not be placed. Material selection was discussed as well as how to prevent sensitive teeth.

On May 7, 1998, the entire staff attended an emergency medicine class in Hilo. Dr. Malamed, one of the foremost authorities in the area of emergency medicine, reviewed the recognition of and the treatment of medical emergencies. Tips on how to prevent these emergencies were discussed as well as the proper use of emergency drugs and equipment.

On September 11, 1998, I attended an Alternative Medicine class on Oahu. I found the class full of information that I could immediately use, for we discussed herbs and vitamins and how they could be incorporated into a dental practice. More importantly, the instructor went over the dangers of certain vitamins and drugs as well as their recommended dosages. Our instructor, Martina Cartwright, Ph.D., R.D, also discussed some health fads that were ineffective and some products that show promise but whose research is not yet conclusive.

On September 12, 1998, I attended a course by Carl Jepsen, DDS, Ph.D. Practicing dentistry since 1995, he is the cofounder of The Health Center for Medical, Dental and Psychological Services in San Diego CA. His Ph.D. is in the field of Human behavior, and he is the founder and president of the Institute for Behavioral Research in Healthcare. He reviewed techniques of communicating more effectively with patients and with coworkers on a dental team. Dr. Jepsen used tools from NLP ~ neurolinguistic programming. We are as committed to taking advantage of opportunities to learn more about findings and advances in dental care, as we can continue to provide quality service.



## TESTIMONIALS

August 10, 1998

Dear Dr. Doi,

I want to thank you and your staff again for the excellent work performed on my daughter. Already, my wife and I have seen major improvements in her condition.

I really enjoyed working with you. I know, at times, I must have really tested your patience by asking so many detailed, technical questions, and I humbly apologize. I have the highest praise for your attitude in wanting to use the best techniques and special equipment, in minimizing patient ingestion of mercury amalgam vapors and particles. You really conducted yourself as a true professional in keeping an open mind and doing what is "best for the patient." In my book, as a dentist, you are in a class by yourself.

I hope you continue to obtain great satisfaction in helping people to get well through good biocompatibility dentistry. May your patients prosper as a result. Mahalo Nui Loa and God Bless,

Adrian Chang (Electrical/Nuclear Engineer)  
Honolulu, Hawaii