TESTIMONY BEFORE THE SUBCOMMITTEE ON HUMAN RIGHTS & WELLNESS

U.S. HOUSE OF REPRESENTATIVES – SEPTEMBER 8, 2004

Dental amalgam ("silver" mercury) fillings contain 50% mercury, which is more toxic than lead, cadmium, or even arsenic. These dental fillings contribute more mercury to the body burden in humans than all other sources (*e.g.* dietary, air, water and vaccines) combined (1,2,3). In fact the amount of mercury contained in one average filling exceeds the U.S. EPA standard for human exposure for over 100 years.

Mercury vapor which escapes from these fillings is readily absorbed into the body, accumulates within all body tissues, and has been shown to cause pathophysiology. In the case of pregnant women with mercury fillings, the mercury readily passes from her fillings into her lungs, through her blood stream, through the placental barrier and into the developing child, whose central nervous system and immune system are especially vulnerable to this poison. The fetus developing in the average American mother will be born into this world with more mercury – from its mother's dental fillings alone – than it will receive from all the vaccinations it receives during its first 5 years of childhood. Scientists around the world have come to realize that even minute amounts of mercury can cause permanent neurological harm to young children and developing fetuses.

The EPA recently announced that 630,000 babies are born each year with too much mercury in their bodies, and that one woman of childbearing age in 12 has enough mercury in her system to put her at risk of giving birth to a retarded child. In response the FDA has issued advisories to pregnant women and women of childbearing age to reduce their dietary intake of those fish, which are known to contain elevated levels of mercury, such as tuna, swordfish and shark. But according to leading toxicologists, including the World Health Organization, only 20% of mercury body burden in adults is derived from diet. In contrast 80% is derived from dental fillings.

As of today the FDA has yet to advise these same women whom they warned against eating fish to avoid having mercury fillings placed into their mouths. If 20% is a problem, then why isn't 80% a bigger problem?

In 1976 the President and Congress directed the FDA to evaluate all medical devices intended for human use and to classify them according to their **safety and effectiveness**. The FDA was also directed to "assure the safety and effectiveness of medical devices intended for human use." Dental amalgam has been the most widely used dental device for over 150 years. Yet, to date, the FDA has never accepted or classified mixed dental amalgam. I ask why?

In 1987 upon the advice of the FDA Dental Device Panel, the FDA accepted not dental amalgam but its pre-mixed and separate components, "Amalgam Alloy" as Class II and "Dental Mercury" as Class I. (Class I is for devices that present no risk of harm, and therefore are subject only to "General Controls" for good manufacturing procedures.) That's right. The FDA classifies mercury, the most neurotoxic element on the planet, to be of equal risk to humans as toothbrushes and dental floss.

Neither "Amalgam Alloy" nor "Dental Mercury' can be placed into a tooth until they have first been mixed together. Forgetting the safety issue for a moment, why does the FDA classify them as devices when neither is effective? They cannot become an "effective'

device until mixed together. One cannot put mercury into a cavity – it will immediately drip out. Neither can one place the powdered alloy into a cavity – it will immediately wash away.

In 1991 the FDA director of Dental Devices declared that the reason the FDA cannot regulate mixed dental amalgam is because it is prepared by the dental clinician. Yet at the same time they do classify dental resins (composite fillings) and dental cements, which must also be prepared by the dental clinician.

In 1998 the FDA ruled that mercury is not Generally Recognized as Safe (GRAS). However it left "Dental Mercury" as a safe and effective Class I Dental Device. Since all other medical uses of mercury have been banned, why should we assume that the only safe place to implant it is the human mouth?

Scrap amalgam, that unused portion of the filling material remaining after the filling is placed into a patient's tooth, must be handled as a toxic waste disposal hazard (4). It cannot be thrown in the trash, buried in the ground or incinerated. It must be stored in an airtight vessel until properly disposed of. How can we justify storing this same mixture inches from a child's brainstem and declare it harmless?

The International Academy of Oral Medicine and Toxicology applauds the efforts of this subcommittee in urging the Dental Profession to join the rest of the Medical Profession and abandon the use of mercury.

Respectfully submitted,

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References:

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2) Aposhian *et. al.,* FASEB J. 6:2472-2476, 1992
3) Clarkson & Friberg – Biological Monitoring of Toxic Metals. Plenum Press, N.Y. 1988.
4) Council on Dental Materials. Instruments and Equipment. Recommendations in dental mercury hygiene. 1984 JADA 109:617-9, October 1984.