October 3, 1986
MR 175

TO: AADS Councils of Deans, Auxiliaries and Hospitals

FROM: Richard D. Mumma, Jr., Executive Director

SUBJECT: Statement on Mercury Toxicity and Allergy

In 1985, a representative of the International Academy of Oral Medicine and Toxicology wrote presidents of universities with dental schools indicating that those schools risked litigation if they did not apprise their students of the alleged possibility of mercury toxicity arising through the use of dental amalgams. The chief administrator of a member institution requested that AADS respond to this event.

In response, the attached statement on mercury toxicity and allergy was developed for use by deans and program directors. The statement was developed with the cooperation of the AADS Section on Biomaterials and approved by the Council of Deans Administrative Board and Executive Committee. The statement is not official policy but is meant as a draft that administrators may use or modify to communicate with the lay public on the topic of mercury toxicity.

We hope that the statement is useful.

RDM/jf
attachment
Dental amalgams have been used in dentistry for nearly 150 years. Approximately 100 million Americans have amalgam restorations (fillings). Dental amalgams are alloys consisting of one or more metals that are combined with mercury. Mercury is used in amalgams because it produces the reaction that causes the restoration to harden in teeth. Amalgam is the preferred material for many single tooth restorations because it is safe, durable, and cost-effective. Recently, claims have been made that mercury vapor from amalgams may be potentially harmful to dental patients. Mercury can be released from amalgam restorations when the restorations are placed but before they harden in the teeth, when they are removed from teeth, during chewing, and possibly as restorations corrode. Current research indicates that the effects on humans of mercury in dental amalgams are negligible, except for those few who may be allergic to it. A miniscule proportion of the population is believed to be allergic to mercury.

An allergic reaction to mercury does not depend on the amount of mercury in the amalgam restoration or the concentration of mercury circulating in the blood. We are exposed to mercury from many environmental sources, and individuals who have no dental amalgams can have significant blood concentrations of mercury. Research has not yet clarified the contribution, if any, of concentrations of mercury from dental amalgam to circulating blood. Because mercury allergy occurs so rarely, routine allergy testing is not recommended for most people, although concerned individuals can have appropriately trained physicians diagnose an allergy to mercury.

In general, mercury can be harmful to humans if it is ingested in high concentrations. However, the mercury used in dental amalgams is the least toxic form of mercury. In addition, there is no conclusive evidence to support claims that dental mercury either causes systemic toxicity or contributes to other illnesses in humans. Except for those rare patients with a true allergy to mercury, there is no scientific basis for removing dental amalgams.