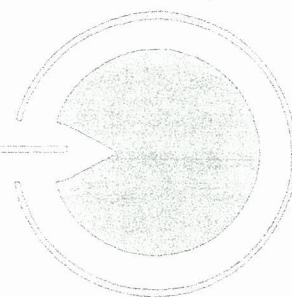


BIO-PROBE

NEWSLETTER



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WARNING

THIS OFFICE USES AMALGAM FILLING MATERIALS WHICH CONTAIN AND EXPOSE YOU TO MERCURY, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS AND OTHER REPRODUCTIVE HARM. PLEASE CONSULT YOUR DENTIST FOR MORE INFORMATION.

All dentists in the state of California using dental amalgam manufactured by Jeneric/ Pentron Inc. are now required to post this warning in their offices. The decision results from a legal action against Jeneric/Pentron by the Environmental Law Foundation (ELF) of Oakland, California. The ELF charged the company with violation of the 1986 Proposition 65 of the State of California, which requires that consumers be informed of products

containing materials that have been shown to cause cancer or birth defects and reproductive problems.

A California newspaper article called the action "a major break in a decade long controversy," while James Wheaton of the ELF stated "a major part of the (dental) industry has agreed to break the wall of silence and put in people's hands the information that mercury in fillings causes birth defects," The environmental group believes that other manufacturers and distributors of dental amalgam will follow the lead of Jeneric/Pentron.

Also in the newspaper article, a research toxicologist at the University of California (Berkeley) School of Public Health pointed out the published epidemiological studies demonstrating reproductive harm to female dental personnel. He also stated that no safety thresholds have been established for exposure to mercury. This latter position has also been taken by other mercury toxicology experts, in direct contradiction to statements by leaders of the dental profession that mercury exposures received by patients and dental staff are insufficient to cause harm.

This event, coupled with the recent California "Informed Consent" requirement for dental materials and the continued publication of dental amalgam mercury pathology studies, is certain to provide a major impact on the dental amalgam controversy in California, at the very least. The California State Board of Dentistry has been renowned for its attacks on mercury-free dentists in the state.

"OUT FOR AMALGAM"

"DEGUSSA STOPS PRODUCTION"

This statement appeared as the headline of an article in a German newspaper on 21 December

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1993. The translated text of the article was as follows:

"Degussa AG has, with immediate effect, stopped the production of the controversial tooth filling material amalgam. A spokesman for the firm in Hanau - until now the largest manufacturer of mercury products in Germany - stated that amalgam use was declining throughout the world. Moreover, the production site was to be moved from Pforzeim to Hanau to dedicate a great increase in the development of an alternative filling material. The spokesman stated that the cessation of production had no connection to the Wesseling based patient group, IGZ, that had made a complaint to the Frankfurt Prosecutor. The IGZ lodged a complaint over half a year ago against Degussa, claiming severe injury to the body by the use of amalgam."

BIO-PROBE COMMENT (courtesy of Dr. Graeme Hall, President IAOMT Europa e.V.): The likely real reason for the Degussa action is that next year a new law of the European Union may come into being. The law is now under discussion, but Germany has said that it is likely to agree to it. This law states that if a party thinks he has been damaged by a product, he no longer has to prove damage; the manufacturer must prove that it could not happen. This is a reversal of the present situation, with the onus of proof being transferred. The consequences of such a law are readily imaginable, as Degussa has apparently realized.

MERCURY-FREE AMALGAM DEVELOPED

A joint effort by the American Dental Association's Paffenbarger Research Center and the National Institute of Standards and Technology (NIST) has resulted in the development of a mercury-free metal alloy direct filling material. The new alloy is purported to be stronger, more durable and less likely to corrode than conventional silver/mercury dental amalgam. It is also stated to be less expensive than conventional amalgam.

The new alloy is based upon a unique fusing technique, the details of which are not available due to a pending patent application. It is known that the basic structure is composed of silver/tin particles that are electrolytically coated with silver by a special solution. The powder is mixed in the dental office with another liquid and inserted into the cavity preparation with minimal pressure. The resulting alloy sets more quickly than conventional

amalgam and can be polished and finished right away.

Studies are planned to determine the material's biocompatibility, tensile strength, compressive strength and longevity in order to obtain approval of the Food and Drug Administration (FDA).

BIO-PROBE COMMENT: The formal acknowledgement of the value of having a "mercury-free" dental filling material must be applauded. One must wonder, however, how the ADA will reconcile its new promotional effort with its heretofore position of claiming that the mercury exposure from silver/mercury amalgam has been proven to be safe because it has been used for over 150 years! If the long-standing position were correct, then the new "mercury-free" alloy would not be needed.

Judgement on the product should be reserved until the composition of the two "proprietary" liquids are known, along with the results of the planned biocompatibility studies. It is also well known that silver and tin are also metals that are toxic to humans, albeit much less so than is mercury. Claims of the product being less likely to corrode must be confirmed by studies valid to intra-oral human conditions. It has been established in the dental literature dating back to the 1800's that metal alloys, including amalgam and gold alloys, become miniature batteries in the oral cavity, thus assuring the release of their components. Moreover, the influence of the vagrant electricity created by these miniature batteries on body function has not been adequately addressed.

A point is made of the material being less expensive than conventional amalgam. The FDA has acknowledged that it has never evaluated and certified mixed silver/mercury dental amalgam. Accordingly, no biocompatibility studies have been conducted to obtain FDA approval. It is unlikely that the conduction of the studies to determine the biocompatibility and physical properties necessary to obtain FDA approval of the new alloy will allow the marketing of the product at a lower cost than that of conventional amalgam. Unless, of course, such studies are financed by the citizens of the United States through government grants. Should this be the case, then the patents and subsequent profits should belong to the U. S. citizens, not the ADA and/or the NIST.
