ADVERSE IMMUNE EFFECTS OF DENTAL AMALGAM - NEW EVIDENCE!

The following abstract is from a study published in the November 1994 issue of the FASEB Journal (Vol. 8, Pgs. 1183-1190). The study was conducted at three medical research centers, two in Sweden and one in the United States (The Scripps Research Institute, La Jolla, California), and demonstrated that both mercury and silver from dental amalgam adversely affects the immune system in genetically susceptible animals.

Hultman, P; Johansson, U; Turley, SJ; Lindh, U; Enestrom, S; Pollard, KM.

Adverse Immunological Effects and Autoimmunity Induced by Dental Amalgam and Alloy in Mice.


ABSTRACT: Dental amalgam fillings are the most important source of mercury exposure in the general population, but their potential to cause systemic health consequences is disputed. In this study, inbred mice genetically susceptible to mercury-induced immune aberrations were used to examine whether dental amalgam may interfere with the immune system and cause autoimmunity.

Female SJL/N mice were implanted in the peritoneal cavity with 8-100 mg silver amalgam or silver alloy for 10 weeks or 6 months. Chronic hyperimmunoglobulinemia, serum IgG autoantibodies targeting the nuclear protein fibrillarin, and systemic immune-complex deposits developed in a time- and dose-dependent manner after implantation of amalgam or alloy. Splenocytes from mice implanted with amalgam or alloy showed an increased expression of class II molecules. The functional capacity of splenic T and B cells was affected in a dose-dependent way: 10 weeks of low-dose and 6 months of high-dose amalgam implantation strongly increased mitogen-induced T and B cell proliferation, whereas 10 weeks of high-dose implantation decreased the proliferation.

Not only mercury but also silver accumulated in the spleen and kidneys after amalgam implantation. In conclusion, dental amalgam implantation in a physiological body milieu causes chronic stimulation of the immune system with induction of systemic autoimmunity in genetically sensitive mice. Implantation of silver alloy not containing mercury also induced autoimmunity, suggesting that other elements, especially silver, have the potential to induce autoimmunity in genetically susceptible vertebrates.

Accumulation of heavy metals, from dental amalgam and other sources, may lower the threshold of an individual metal to elicit immunological aberrations. We hypothesize that under appropriate conditions of genetic susceptibility and adequate body burden, heavy metal exposure from dental amalgam may contribute to immunological aberrations, which could lead to overt autoimmunity.
MORE NEW EVIDENCE OF POTENTIAL HARM FROM DENTAL AMALGAM MERCURY

The Twelfth International Neurotoxicology Conference was held on 30 October-2 November, 1994 in Hot Springs, Arkansas. The Conference Theme was "Neurotoxicity of Mercury: Indicators and Effects of Low-Level Exposure." Although the conference focused on exposure to methylmercury from fish consumption, several presentations addressed dental amalgam mercury exposure. Most dramatic, new data from the laboratories of the University of Calgary and the University of Kentucky was presented by Fritz L. Lorscheider, Ph. D. These new findings add further information to those previously reported regarding the potential for mercury, especially mercury vapor, to cause neurologic damage as is found in Alzheimer's Disease.

The conference was well attended by international authorities on mercury, as well as numerous governmental regulatory officials from the United States and Canada. Considerable attention was directed to the issue of dental mercury, related to both patient exposure and contribution to environmental mercury contamination. The controversy over the use of mercury in dentistry has definitely become a topic of great interest in the government agencies of both the United States and Canada.

Several representatives of the Scientific Division of the American Dental Association were in attendance, as was Michael F. Ziff, D.D.S., Executive Director of the International Academy of Oral Medicine and Toxicology (IAOMT). Dr. Ziff presented a poster clinic on the annual contribution of dental mercury to the environment. The following abstracts, related to dental amalgam mercury, were extracted from the program provided by the conference organizers and are to be published in the journal "Neurotoxicology, 15(4), 1994."

Recent studies have demonstrated that Hg is selectively concentrated in human brain regions involved with memory function, and may be implicated in the etiology of Alzheimer's Disease (AD). Abnormal microtubule formation in AD brains has been associated with a defect in the tubulin polymerization cycle (Khatooon et al., Ann Neurol., 26:210-215, 1989) which may increase the density of neurofibrillary tangles. A similar tubulin defect can be induced in the brain of HgCl2-treated rats, suggesting a connection between exposure to inorganic Hg and AD (literature reviewed in Goering et al., ibid). We have also demonstrated that HgCl2 markedly inhibits in vivo ADP-ribosylation of rat tubulin and therefore alters a specific neurochemical reaction involved in maintaining brain neuron structure (Palkiewicz et al., Neurochem., 62:2049-2052, 1994).

In our present investigations 3 groups of rats were exposed to Hg vapor 4 h/day for 0, 2 or 14 consecutive days. Vapor concentration during exposure periods was maintained at 300 mcg Hg/m3 air, a level detectable in mouths of some human subjects with large numbers of amalgam fillings. Cold vapor atomic fluorescence spectrometry (Winfield et al., Clin Chem., 40:206-210, 1994) revealed average brain Hg concentrations after 0, 2 and 14 days exposure to be 10, 108 and 396 ng/g tissue (wet wt.) respectively. Photolability of the beta-subunit of the tubulin dimer with [a32P]8N3GTP in brain homogenates was partially diminished after 2 days, and very markedly diminished after 14 days of Hg vapor exposure. Since the rate of tubulin polymerization is dependent upon binding of tubulin dimers to GTP, we conclude that low-level Hg vapor exposure inhibits the polymerization of tubulin essential for formation of microtubules.

Lorscheider, FL.

Amalgam Mercury - Emerging Evidence Questions a Dental Paradigm.

ABSTRACT: The use of mercury (Hg) metal as a material component in dental tooth fillings began in the early 1800's, and since its introduction periodic concerns have arisen about the health safety risks to dentists and their patients. For over 160 years the opinion within dentistry has been that Hg remains "locked in" the alloy portion of the amalgam fillings, a belief not based upon experimental evidence. At the present time amalgam fillings contain approximately 50% Hg and are used for 80% or more of all tooth restorations.

Since 1980 several laboratories have demonstrated that dental amalgam continuously releases Hg vapor (Hg0) into human mouth air. Intra-oral air concentra-
tion of Hg⁰ is correlated with the number of occlusal amalgam fillings in molar teeth. A primary absorption route is via respiration, where 80% of inhaled Hg⁰ can be retained in somatic cells where it is typically oxidized to Hg²⁺ and co-valently bound to proteins. Combinations of animal and human experiments conducted over the past decade have demonstrated significant body uptake, distribution and excretion of amalgam Hg. Based upon accumulated evidence, there is now general concurrence within medical science that the largest contributor to Hg body burden is dental amalgam.

Recent studies have examined possible systemic pathophysiological effects of amalgam Hg. Current research directions worldwide include investigations of: induction of antibiotic resistance in Hg-resistant intestinal bacteria, suppression of several indices of immune function, impaired kidney function, infertility, and alterations of specific brain neurochemistry. The collective results of such studies do not support the notion of amalgam safety, but instead bring into question the continued use of Hg within dentistry, and thus strongly contradict the opinions offered by various dental associations and related trade organizations that the safety of amalgams is assured because of their popularity and long-term use (Lorscheider et al., FASEB J., 7:1432-1433, 1993).

Warfinge, K; Berlin, M; Logdberg, B.
The Effect on Pregnancy Outcome and Fetal Brain Development of Prenatal Exposure to Mercury Vapour.

ABSTRACT: Fourteen pregnant female squirrel monkeys were exposed to mercury vapour (Hg⁰) 5 days/week from 5-7 weeks of gestation until delivery in an exposure chamber. Hg⁰ exposure varied from 1 mg/m³ for 22 hr/d (1 monkey), 7 hr/d or 4 hr/d to 0.5 mg/m³ for 7 hr/d or 4 hr/d. Hg concentration in maternal blood ranged 0.05-0.09 mcg/g.

There was a dose related increase in abortion rate and perinatal mortality in the exposed monkeys compared to unexposed controls. The morphology of perinatally sacrificed or succumbed offspring brains showed signs of migration disturbances such as increased cell density in the cerebral subcortical white matter, abnormal cell collections near the cerebral lateral ventricles. Autoradiographically, Hg was preferentially localized in the heterotopic cells and in the verticircular aspects of the pseudostratified neuroepithelium. Hg concentration in the brain of exposed offspring ranged 0.01-0.70 mcg/g.

Autoradiography of the maternal brains revealed that the pyramidal neurons of neocortical layer V contained more visualized Hg than the other neurons.

In the offspring brains, Hg was visualized throughout the whole neocortex and no laminar distribution pattern was found. In the fiber systems, the offspring brains contained more Hg than the adult brains. In the cerebellum, the Purkinje cells, the Bergmann glial cells, the astrocytes of the medullary layer and the deep cerebellar nuclei were the main targets for Hg accumulation in both maternal and offspring brains.

Echeverria, D; Heyer, NJ; Martin, MD; Naleway, CA; Woods, JS; Bittner, A.
Behavior Effects of Low-Level Exposure to Hg⁰ Among Dentists.

ABSTRACT: Exposure thresholds for health effects associated with elemental mercury (Hg⁰) exposure were examined by comparing behavioral test scores of 19 exposed (mean urinary Hg = 36 mcg/l) with those of 20 unexposed dentists. 36 mcg Hg/l is 7 times greater than the 5 mcg Hg/l mean level measured in a national sample of dentists. To improve the distinction between recent and cumulative effects, the study also evaluated porphyrin concentrations in urine, which are correlated with renal Hg content (a measure of cumulative body burden).

Subjects provided an on-site spot urine sample, were administered a one-hour assessment consisting of a consent form, the Profile of Mood Scales, a symptom and medical questionnaire, and 6 behavioral tests: digit-span, symbol-digit substitution, simple reaction time, the ability to switch between tasks, vocabulary, and the One Hole Test. Multivariate regression techniques were used to evaluate dose-effects controlling for the effects of age, race, gender and alcohol consumption. A dose-effect was considered statistically significant below a p-value of .05.

Significant urinary Hg dose-effects were found for poor mental concentration, emotional lability, somatosensory irritation and mood scores. Individual tests evaluating cognitive and motor function changed in the expected directions, but were not significantly associated with urinary Hg. However, the pooled sum of rank scores for combinations of tests within domains were significantly associated with urinary Hg, providing evidence of subtle pre-clinical changes in behavior associated with Hg exposure.

Coproporphyrin, one of three urinary porphyrins altered by mercury exposure, was significantly associated with deficits in digit span and simple reaction time. The porphyrin pooled sums of rank scores were as sensitive for the overall battery of tests.

The reported effects were detected among dentists with a mean urinary Hg level of 36 mcg/l, which lies between the proposed biological thresholds of 25 and 50 mcg Hg/l, suggesting the need for a more com-
The startling finding in the study was significant correlation of the mercury levels in fetal mercury levels in liver, kidney cortex and cerebral cortex with the number of dental amalgam fillings of the mothers. This dramatic human autopsy study confirms findings in three previously published animal studies [See Bio-Probe Newsletter, 10(5), 5, Sep 1994] and has apparently stimulated the German government to issue even more stringent advisories against the use of dental amalgam.

The Bundesinstitut for Drugs and Medical Products (the German government’s equivalent of the U.S. Food and Drug Administration) is proposing to modify its Directive for use of amalgam as follows:

- Amalgam fillings would only be allowed for use as occlusal fillings in molars if reinforced plastic (composite) filling materials were contraindicated and other restorative techniques are not applicable. For preventive health protection, the number of amalgam fillings for the individual patient should be as few as possible, since each amalgam filling contributes to the human mercury load.

- Metal amalgam is contraindicated for; retrograde root fillings, as a filling material under cast crowns, and when there will be occlusal or approximal contact with cast dental restorations.

- On the basis of preventive health protection, no placement or additional amalgam fillings during pregnancy. Based on the contribution of amalgam fillings to the total human mercury load and the possible higher sensitivity of the prenatal organism towards mercury, a strict risk/benefit evaluation should be made for amalgam use in girls and women of fertile age. Alternative materials should, if possible, be the preferred choice.

According to present knowledge, there is no reason to remove clinically faultless amalgam fillings. During removal of layers of amalgam there will be additional release of mercury. [ED. Note: The International Academy of Oral Medicine and Toxicology (IAOMT) has established Standards of Care for removal of amalgam fillings to mitigate this potential.]

The previous German government directive on amalgam stated that the increased mercury body burden related to placement or removal of amalgam fillings “is not connected to any risk.” The new directive deletes that phrase. This is in keeping with their new position that every effort should be made to minimize any increase in mercury body burden, as any increase in mercury levels increases the risk and potential to affect individual health.
An even more recent report from Germany, not yet confirmed, is that German dentists must now obtain written permission from the patient before placing an amalgam dental filling. These rapidly accelerating events in Germany, along with actions in several other nations, indicate a dramatic movement away from the use of dental amalgam throughout Western Europe.

Yoshida M; Watanabe C; Satoh H; Kisimoto T; Yamamura Y.

Milk transfer and tissue uptake of mercury in suckling offspring after exposure of lactating maternal guinea pigs to inorganic or methylmercury.


**ABSTRACT:** Maternal guinea pigs were injected with mercuric chloride (HgCl₂; 1 mg Hg/kg body weight) or methylmercury (MeHg; 1 mg Hg/kg) 12 hours after parturition, and exposure of the offspring to mercury (Hg) via breast milk were studied on days 3, 5 and 10 postpartum. Milk Hg concentrations were lower than maternal plasma Hg concentrations regardless of the form of Hg given to the dams. Milk Hg was higher in HgCl₂-treated dams than in MeHg-treated dams. In MeHg-treated dams, MeHg was separately determined. While the ratio of MeHg to T-Hg decreased in the dams' plasma, it did not in the milk. There was a strong correlation between milk and plasma T-Hg concentrations in HgCl₂ treated dams. In the milk of MeHg-treated dams, the plasma MeHg concentrations correlated better than did the plasma T-Hg concentrations. In the offspring, regardless of the chemical forms of Hg given to the dams, the highest Hg concentrations were found in the kidney, followed by the liver and the brain. Brain Hg concentrations were, however, significantly higher in the offspring of MeHg-treated dams than in those of HgCl₂-treated dams. In addition, Hg levels in the major organs of the offspring of HCl₂-treated dams peaked on day 5 postpartum, while those of MeHg-treated dams did not show a significant decrease up to day 10 postpartum. These facts indicate that the two chemical forms of Hg were transferred to the offspring via the breast milk and were distributed differently, depending on the chemical form, to the offspring's tissues.

**BIO-PROBE COMMENT:** The results of this study again demonstrate the transfer of both MeHg and HgCl₂ to the fetus and to the offspring via breast milk. It would be of significant value to see the study replicated with amalgams placed instead of a single injection of HgCl₂ and see the results of constant exposure to dental mercury vapor on breast milk Hg content and fetal and offspring distribution of mercury, as demonstrated in the Calgary sheep study.

The following is an Editorial Comment contained in the October 1994 issue of The FASEB Journal:

**Mercury and Dental Amalgam**

On July 11 the BBC Panorama television program, which addresses issues of public concern, chose the topic of the possible dangers of mercury in dental amalgam entitling it "Poison in the Mouth."

Investigators from North American medical schools in Washington, Kentucky, Arizona, Southern California, and Calgary were among those interviewed. Some of the findings on dental amalgam have been published in the FASEB Journal, e.g., FASEB J. 4 (1990) 3256-3260 and 6 (1992) 2452-2476.

On the day following the broadcast, The Times of London carried an attack on the "Panorama scare story" by Dr. Simon Wessely, which in turn provoked a response (July 19) from the Panorama presenter, Tom Mangold, whose rejoinder was entitled: "We did not ignore the good news—there is none."

Referring to the published series of findings on the perceived hazards of mercury amalgam, Mr. Mangold wrote: "The BDA (British Dental Association) is not fully conversant with all the latest science. When I asked its scientific advisor to comment on a key work by a scientist whose name we had already given the BDA a week earlier, he still had not heard of the paper...been published...in the journal of the Federation of American Societies for Experimental Biology (FASEB), one of the most distinguished scientific journals in the world. What kind of dental scientific advisory service is it that does not subscribe to FASEB?"

The rebuttal goes on to note that: "The truth is that although there is not conclusive proof of dental amalgam's harm to humans, there is now sufficient evidence to make some of the most serious scientific researchers and investigators deeply suspicious of it. Their concern is that amalgam is beginning to look as culpable as those other once-friendly substances that turned out to be eerily unhealthy—lead, DDT, asbestos, and tobacco. That is one reason why the Swedes, Germans, and Australians are getting rid of amalgams and mercury; that is why we ban mercury in paint, and why we are taking it out of batteries. When then are we still leaving it deep inside our mouths as a lifetime's implant?"

The Panorama program will be rebroadcast in North America. Watch this column for news. Meanwhile, another research communication on the hazards of amalgam will appear in the November issue of The FASEB Journal, entitled: Adverse immunological effects and autoimmunity induced by dental amalgam and alloy in mice. authored by P. Hultman et al.
BIO-PROBE NOTE: The article referred to is abstracted as the lead article in this issue.

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DETROIT CONCERNED ABOUT DENTAL AMALGAM MERCURY IN WASTE WATER!

On 30 August 1994, the Director of the Water and Sewerage Department (DWSD) of the city of Detroit, Michigan sent a letter and questionnaire to all dental offices in its jurisdiction. The letter expressed "concerns regarding mercury use and disposal practices with the Dental Industry" and noted requirements of federal and state regulations to minimize the amounts of mercury being released in waste water effluent. Pointing out that control can be exercised only by limiting the amount of mercury entering the system, the DWSD initiative began a three phase pollution prevention strategy to deal with mercury.

This action in Detroit follows on the heels of an announced regulation of mercury leaving dental offices in waste water in Metropolitan Seattle and concerns expressed over dental mercury pollution in the San Francisco Bay area. Previously, a number of dental offices have been fined for violations of mercury levels in waste water in Pima County (Tucson) Arizona. Bio-Probe has also learned of an investigation of the issue that has been initiated in the Minneapolis-St Paul area.

It would seem that the increasing concern over environmental mercury pollution, along with the new attention directed to the contribution of the dental profession to this concern, signals dentists that the time has come to learn everything possible and take immediate steps to ensure that their offices are equipped with the best possible emission control devices.

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FEDERAL COURT OVERTURNS CALIFORNIA PROPOSITION 65 RULING AGAINST DENTAL AMALGAM

In August of 1994, the U.S. District Court upheld a challenge by a group of dental amalgam manufacturers and distributors by ruling that federal law prohibits the state of California from applying its Proposition 65 against dental amalgam products.

California’s Proposition 65, enacted in 1986, requires that consumers be informed of products containing materials that have been shown to cause cancer or birth defects and reproductive harm. Mercury is on the California Proposition 65 list. In July of 1993, the Environmental Law Foundation (ELF) of Oakland, California had charged amalgam manufacturer Jeneric/Pentron with violation of Proposition 65. In December of 1993, Jeneric/Pentron had settled with ELF and agreed to provide warning signs to its amalgam customers.

The ELF also served notice to a large number of dental amalgam manufacturers and distributors of its intention to pursue legal action for violations of Proposition 65. Nine of these companies joined together in a counter effort coordinated by the American Dental Trade Association (ADTA). The U.S. District Court ruled in favor of the ADTA group on the basis that dental amalgam is already regulated by the Food and Drug Administration (FDA) and that state laws could not go beyond the provisions of federal law on medical devices.

ELF argued that the FDA has never evaluated and classified mixed dental amalgam as an accepted device, but the Court held that since the components of dental amalgam (“Dental Mercury” and “Amalgam Alloy”) have been accepted and classified by FDA as safe and effective dental devices, the end product of combining the two devices was in effect regulated. This court ruling sets a precedent that could have wide-spread implications by preventing other states from attempting to regulate any medical devices. This provides medical device companies with a powerful weapon to avoid regulation by states.

[BIO-PROBE NOTE: The Chairman of both the FDA Dental Device Panel and the American Dental Association’s Council on Dental Materials, Instruments and Equipment - both of which classified “Dental Mercury” and “Amalgam Alloy” separately, but refused to accept mixed dental amalgam - was John W. Stanford, Ph.D. In December of 1993, a presentation favoring dental amalgam safety was made to the FDA Dental Products Panel on behalf of the American Dental Trade Association (ADTA). The ADTA presentation was made by John W. Stanford, Ph.D.]

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ROOT CANALS - FRIEND OR FOE???

It is becoming increasingly obvious that some people cannot tolerate dental root canal treatments, at least as they are now routinely performed in dentistry.

The “focus of infection” theory had obtained considerable popularity many years ago. This approach held that a local focus of infection, particularly if derived from teeth, could provide harmful organisms and/or noxious agents to parts of the body distant from the oral site. For a time, wholesale removal of teeth became a popular treatment for a variety of systemic disease conditions. As the practice lost popularity, it even became a subject of considerable ridicule. Nonetheless, mainstream dental and medical organizations still recommend, if not insist upon, antibiotic premedication prior to most dental treatment if the
patient possesses any possibility of damaged heart valves. Failure to do so, we are instructed, could result in “subacute bacterial endocarditis” as the oral microorganisms pass to and proliferate on the predisposed heart valves. How advocacy of this policy could coexist with opposition to the (dental) focus of infection theory defies explanation.

The dental aspects of the focus of infection position were generated, primarily, by the research of Dr. Weston Price. Dr. Price was so highly esteemed that he was appointed as President and Managing Director of the American Dental Association Research Institute. More recent published research clearly confirms the presence of microbial colonies in many teeth with root canal treatments. These colonies could obviously find their way, through blood or lymphatics, to distant areas of the body.

The problem rests, it seems, with not only the root canals themselves, but with microorganisms and toxins in dentinal tubules that have become devital and necrotic. The inability of current endodontic techniques to totally seal the apex of the tooth, let alone the dentinal tubules compounds the problem.

Is extraction of all teeth with root canal treatments or those that are candidates for root canal treatments really the best answer to this dilemma? Many now advocate that extreme, which presents two additional points of contention. The first concerns the need for the dental procedures in lieu of endodontic therapy. Individuals who are found to be better off without the root-canaled tooth may not easily tolerate materials to replace the missing teeth.

The second concern relates to the recommendation that all endodontically treated teeth be removed, even if seemingly well tolerated by the patient. Are the latter patients really better off with prosthetic replacements or missing teeth? Should the baby be thrown out with the bath water? This issue cannot yet be answered, as there is no way to determine the presence or absence of harm in all cases. Nor has it yet been demonstrated that all endodontically treated teeth provide microbes or noxious agents. (Note: This is not the case for dental amalgam! It has been well proven that all bearers of dental amalgam are continuously exposed to mercury vapor and that a toxic threshold for exposure to mercury vapor has never been determined.)

The correct approach would seem to be to face the problem reasonably; that is, find a way to provide endodontic therapy that prevents common exposure to the microbes and noxious agents. Fortunately, hope is on the horizon. Bio-Probe has been searching the literature and has found some interesting information.

There have been published studies demonstrating the value of calcium oxide (CaO) in endodontic therapy. Calcium oxide combines with water to form calcium hydroxide (Ca(OH)2), which has been repeatedly demonstrated to be the most biocompatible material used in endodontic therapy. The permeation of calcium oxide + water to calcium hydroxide is due to the hydric affinity of the calcium oxide. The reaction travels to the water and is therefore expansive. This results, amazingly, in a penetration of devital dentinal tubules, a phenomenon that does not occur with the initial use of calcium hydroxide itself.

Calcium hydroxide effects a wall of calcification at vital tissue, thereby sealing root apices and vital dentinal tubules. Moreover, calcium hydroxide has been shown to be more effective than paranmonochlorophenol (PMCP) in killing anaerobic bacteria isolated from infected root canals. (1) In 1987, Tronstad and associates had determined that anaerobic bacteria were able to survive and maintain an infectious disease in periapical lesions of non-vital teeth. In a 1991 follow up study of endodontically treated teeth, these authors recovered microorganisms from periapical lesions of all examined teeth. (2) Another study determined that calcium oxide provided perfect asepsis in the root canals of the 58 teeth tested. This latter study found that calcium oxide was more effective than calcium hydroxide for sterilization of the root canal and also for decreasing the recovery time of the lesion before final filling of the root canal. (3)

Calcium oxide may or may not be the final answer to the emerging problem of root canal therapy, but the available research certainly indicates that it is worth serious consideration. Future Dentistry, Inc. has just FDA received permission to market a calcium oxide product called “Bioalex”. Interested dentists may contact: Future Dentistry, Inc. P.O. Box 608634, Orlando, FL, 32860-8634. Tel: (800) 282-9670. FAX: (407) 299-4149. Bioalex Kit is $150.00 (Shipping included). Mastercard/Visa accepted. In Canada, order from: Biodent, 400, Cure-Labelle, #450, Laval, Quebec, H7V 2S7 Tel: (514) 682-2861. FAX: (514) 682-2867.

REFERENCES

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IAOMT RESEARCH STUDY - VOLUNTEERS NEEDED!

Dr. H. Vasken Aposhian, the foremost authority on mercury chelation, will conduct a research study on IAOMT members at the Spring Scientific Symposium in Tucson, Arizona on 22-25 March 1995. The two day study will consist of urine mercury measurements before and after per oral administration of DMPS and will include a neurobehavioral test, dental exam, overnight fast, and pre- and post-physical exams. The mercury body burden and neurobehavioral function of IAOMT members will be compared to local dentists who use amalgam and a group of dental specialists (orthodontists, etc.) who have never placed amalgam.

Twenty eight IAOMT participants are needed, fourteen of whom must be in Tucson by Wednesday evening to be tested on Thursday and Friday and fourteen who must arrive by Thursday evening to be tested on Friday and Saturday. Those that have already previously received DMPS or DMSA are not eligible for the study, but Dr. Aposhian has kindly offered to provide the testing to others for a nominal $45.00 fee to cover lab expenses. The first fourteen to enroll will be tested on Sunday and Monday and the next fourteen on Monday and Tuesday.

If you wish to participate in this study, please contact IAOMT Executive Director Dr. Michael F. Ziff at (407) 290-9670 [Fax (407) 298-2450] or Wendy Durazo of Dr. Steven Swidler’s office (602) 743-7101 [Fax (602) 743-0450] AS SOON AS POSSIBLE. Dr. Aposhian must be provided with the names of test subjects at the earliest possible date.

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FORUM

IAOMT - SPRING SCIENTIFIC SYMPOSIUM

Date: 24-25 March 1995.

Site: Tucson, Arizona.


Program:

• H. Vasken Aposhian, Ph.D. = “Chelating Agents - Part II.”

• Boyd Haley, Ph.D. = “Mercury and the Documented Association with Alzheimer’s Disease.”

• Ann Summers, Ph.D. = “Dental Amalgams and Antibiotic Resistant Bacteria.”

• Harinder Garewal, M.D., Ph.D. = “Beta-Carotene and the Prevention of Oral Cancer.”

• John Lee, M.D. = “Fluoride.”

[Plus other IAOMT speakers and the DMPS research study by Dr. H.V. Aposhian described above.]

Registration: Dr. Steven Swidler, P.O. Box 85490, Tucson, AZ. 85754. (602) 743-7101. IAOMT members= $285.00; non-members= $395.00.

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AUSTRALASIAN SOCIETY OF ORAL MEDICINE AND TOXICOLOGY (ASOMAT)

“BIOCOMPATIBLE DENTISTRY FOR AUSTRALIA”

Date: 25-26 February 1995.

Site: Sydney Convention Centre, Darling Harbour, Australia.

Program:

• Murray J. Vimy, D.M.D. = Research and scientific facts on the biocompatibility of dental amalgam.

• Jerry Bouquot, D.D.S. = Research on NICO and local and systemic effects of Root Canal Therapy.

• Vera Stejskal, Ph.D. = Research demonstrating the immunopathological responses to mercury, gold and palladium in humans.

• Ian Brighthope, M.B.B.S. = Subclinical initiation of disease, detoxification, and how to achieve optimal health.

Registration: ASOMAT. P.O. Box A860. Sydney South, NSW, 2000, Australia. ASOMAT or IAOMT members= $200.00 (AUS).

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AMERICAN ACADEMY OF HEAD, NECK AND FACIAL PAIN

“NEW CONCEPTS IN PAIN TREATMENT”

Date: 19-21 January 1995.

Site: Scottsdale/Phoenix, Arizona.

Hotel: The Radisson Resort. 7171 N. Scottsdale Rd. Scottsdale, AZ. 85253. (602) 991-3800 or (800) 333-3333. Room rate: $130.00/nite.


Registration: Cordelia Mason, Executive Secretary. 520 W. Pipeline Rd. Hurst, TX. 76053-4924. Tel: (817) 282-8012. Before 10 Dec. 1994= $195.00; after 10 Dec. 1994= $395.00; CTA Assistant’s Course= $215.00.

If you are operating a mercury-free practice you should join the IAOMT. The Academy provides you with education, training and scientifically supported Standards of Care Protocols and Preferred Procedures. For an application call Bio-Probe at 800-282-9670.