HEALTH CANADA - CAVES IN TO CDA AND AMALGAM MANUFACTURERS

Health Canada’s second meeting of the Stakeholders for the risk assessment of dental amalgam was held in Toronto on 16-17 February 1996. There could, however, be some question raised as to whether the meeting was conducted under the direction of Health Canada or the dental profession and amalgam manufacturers.

Although Health Canada had specified that the issue was to be addressed by Canadians, several non-Canadians made formal presentations at the meeting. These included a representative (reportedly an attorney) of a United States amalgam manufacturer and an "expert" imported from Sweden by the Canadian Dental Association. The meeting even featured a "moderator", who demonstrated his "impartiality" by strongly attacking the risk assessment report of Dr. Richardson and, with ferocity, the research from the University of Calgary conducted and published by Dr. Murray Vimy, Dr. Fritz Lorscheider and other respected scientists.

The focus of the meeting was to denigrate Dr. Richardson’s risk assessment report, as well as any and all published research challenging the safety of dental amalgam. Dr. Vimy staunchly led the defense. Eventually, Stakeholder Consensus Recommendations were put to vote, without consensus. Pro-amalgam stakeholders outnumbered those opposed by three to one, with majority opinion overruling consensus agreement, even though the press release was billed as consensus. Not surprisingly, the American Dental Association immediately placed on-line a "Position Statement" supporting the Stakeholder conclusions and stated that they "reaffirm its support of amalgam as a safe, durable and cost-effective material."

Two representatives of Health Canada sat through the meeting without interfering or providing direction. On Saturday afternoon Dr. Vimy, representing the University of Calgary, resigned from the committee in protest. Two other groups resigned in protest on Sunday, as did the International Academy of Oral Medicine and Toxicology (IAOMT) on Monday morning and two other stakeholder groups several days later. The IAOMT has also formally presented Health Canada with a dissenting position and recommendations, as have several other stakeholder protest groups.

The two Stakeholder meetings and Dr. Richardson’s amalgam report have received considerable media attention in Canada. Fortunately, most of the reporting has been forthright, realizing and reporting that the Stakeholder meeting represented the vested interest of those supporting the continued use of amalgam. For example, on 18 February "The Montreal Gazette" quoted a pro-amalgam leader of Canadian dentistry as saying: "The odds are good that the anti-amalgamists will reign triumphant over the traditionalists. Maybe you shouldn’t write this, but I think it’s a war we’re going to lose pretty soon. It’s political pressure. By telling and telling about it, by reading it in the newspapers, I think..."
the momentum is there for us to lose that war and go on to other materials."

Health Canada had previously declared that it would not be held to the conclusions of the Stakeholder Committee, but would take the opinions into consideration. Dr. Richardson's risk assessment report represents a reasonable compromise and a rational solution to the difficult situation. It would be a tragedy if the power and influence of organized dentistry were allowed to sabotage the recommendation. However, it now appears that that is exactly what Health Canada is going to do. A 27 February letter issued by the Director of Health Canada accepts the recommendation of the establishment forces that there is not enough data to permit establishment of a TDI for mercury.

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ADA HAS PATENTS ON AMALGAM!!
Thanks to Dr. Ulf Bengtsson of Sweden, Bio-Probe has discovered that the American Dental Association owns two patents on dental amalgam. They are as follows:

   Inventors: Waterstrat, Richard M. (Gaithersburg, MD).
   Abstract: An improved alloy for a dental amalgam includes silver and tin and the additional element, manganese. The alloy is comprised of a minimum of about 60% by weight silver, a maximum of about 20% by weight manganese and the balance tin. Various amounts of other constituents known to those in the art such as gold, copper, zinc and mercury may be included.
   Government Interest: The invention described herein was made in the course of work under a grant or award from the Department of Health, Education and Welfare.

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WHAT DOES ADA MEMBERSHIP MEAN?
The following article is reprinted with permission from "The Farran Report", Volume 2, Number 12, February 1996, pages 24-25:

THE MACROVIEW
An Open Letter to William Ten Pas,
ADA President

Dear Dr. Ten Pas:
First of all I would like to congratulate you again on your rise through the ranks to the top of organized Dentistry. Obviously you have given a lot in time away from self and time away from your practice— you have truly given a great deal to the profession of Dentistry. But now that you’re at the top you must choose between following the massive herd of sheep that have been walking toward a cliff for twenty years or leading the sheep away from the cliff toward the future of our profession. When Republicans disagree with Democrats it’s called politics, but when anyone makes constructive criticism of the ADA it’s called bashing. If my punishment for speaking out on behalf of my colleagues is banishment from speaking at the ADA Convention in Orlando (per Dr. Morris Yates), so be it. That is one penalty that I will gladly pay to advance the profession of dentistry. But don’t worry, I’ll be in Orlando holding a "Banned in Orlando" rally and I guarantee you at least 2000 protesters.

I have two points. First of all let me explain my position to you. The first two dentists graduated from the University of Baltimore, Maryland in 1840. At that time 99 percent of dentists were blood letting barbers,
extractionist beard trimmers, and alcohol-for-anesthetic voodoo quacks. Through the years, the forefathers of modern dentistry, from G.V. Black to the founders of the ADA, have raised Dentistry's status in society to a level so high that when I graduated in 1987, the first doctor in my pedigree, my mom and dad cried. And I vowed that when I retired, I would leave the profession of dentistry in better shape than I found it. At that time my classmates were all scarred by the doom and gloom of the insurance alphabet soup, HMO, DMO, PPO, etc. After I graduated with $86,000 in student loans, opened up my own practice from scratch with a $100,000 practice loan, bought a home with a $96,000 loan and had them all paid off in three years, I knew I had to share my knowledge of the business of Dentistry with my colleagues who were scared and confused.

My first lecture was in New York City at the Sheraton Manhattan, August 4, 1990. After more than 385 day-long presentation to more than 40,000 dentists in the last five years, I found out why over 40,000 dentists are not members of the ADA and why 50 percent of all dentists under the age of 35 are not members of the ADA. I found out why the ADA is no longer a sacred cow and why the AGD dropped ADA membership as a requirement. (Like it or not, the AGD completely broke off from the ADA. What is your great leadership response? You ban the AGD from having a booth in Orlando. It looks like the AGD and I are in the same good company. It looks like the ADA leadership has sunk to an all time low level and are acting like children on the playground. Why don’t you sponsor an ADA/AGD pissing contest?!) After being a staunch member of the ADA since 1983, and after saying hundreds of wonderful things about the ADA, I found out that when I constructively criticized the ADA and brought my message to the Dentistry public, the ADA’s response was to shoot the messenger. The Soviet Union did not shoot Lech Walentza because they feared a Polish uprising. Reagan did not give the order to bomb Libya in 1982 until he knew exactly where Muammar Kadafi was, for had he been killed, a Middle East Islamic uprising was feared. But the ADA says shoot the messenger. It’s almost as if you are in denial that 40,000 dentists are not members, half the dentists under 35 are not members, that you have been dropped by the AGD, and that, by my polling, 98 percent of dentists would not name the president of the ADA or the president of their state dental association. How can you lead the profession into the 21st century when 98 percent of the dentists couldn’t name the president of the ADA or their state association?

The complaints are simple when the president is "elected" with the "good old boy" organization. You want our $800 per year in dues for your tripartite monopoly, but you don't want to be accountable for your governance. No one in dentistry has ever heard of you or your predecessor, but you were the installed presidents. And a little known man from Texas named Rainwater is guaranteed to be the president of the ADA next year, regardess if you are a status quo, preserve the good old boy club leader; or a renegade in the spirit of Bert Press. Whether we like it or not, he will be installed right down our throats. Forget that there are proven leaders in the field of Dentistry like Gordon J. Christensen, DDS, MS, Ph.D.; Peter Dawson; Omer Reed; Dick Barnes; Mike Schuster; Ken James; Rick Kushner; Earl Estep; Bill Blatchford; Michael Maroon; Bill Dickerson; Larry Rosenthal; Mike DiTolla; David Hornbrook; Craig Callen; Woody Oakes; Travis McPee; Ben Johnson; John McSpadden; Richard Madow; Oscar Quintana; Joe Stevens; Mark Trololo, and Roger Levin, to name just a few. The last 10 presidents of the ADA have less than four percent name recognition in the wet gloved trenches of Dentistry and the above named dentists are household names forever preserved in Dentistry Americana. Yet none will ever be given an opportunity to lead.

My second complaint is that the ADA, your organization, isn’t pro-active in leading Dentistry. It’s reactive, responding to the day-to-day problems of Dentistry, whether it be mercury amalgam or sterilizing hand pieces—you simply react to whatever crisis is at hand that day. How much is this "leadership" costing your members? When I asked the ADA how much the president’s office is budgeted for they wouldn’t tell me. No matter, I have a mole who mailed me a copy of the 1995 budget. In many departments, wages, salaries and earnings are intentionally mixed into the entire department and not itemized so that dues paying members of the ADA can see what we pay our leaders. After finding a way to allocate the $50,900,000 budgeted for 1995, (and spending $309,000 for you, the president of the ADA, $195,000 for the president elect; and six million dollars on travel and entertainment), you didn’t find one dollar for national television advertising even though Americans spend four hours a day watching television and any product that wants to become a top seller is on television non-stop, day-in and day-out. McDonalds has 12,800 locations selling a Happy Meal for $1.99. Dentistry has 146,000 locations trying to sell a sealant for $30.00. And while the NIDR says that only seven percent of American children have sealants on
their teeth, most of them have a happy meal stuck in between their teeth and every six-year old knows what a Big Mac is. Dr. C. Everett Koop made the Surgeon General’s office a household name when he put a health warning on a pack of cigarettes. Could the president of the ADA even comprehend a warning on the side of a can of Coke saying “this may cause tooth decay?”

When I suggest a dialogue in The Farran Report to discuss membership concerns, you respond that you won’t do it because you will not have editorial control over what is printed. That is a bold faced lie. I told you that I would print your response as is and would give you advanced notice of letters to the editor regarding your story so that you can respond to them. The ADA has tried to portray this effort as a dentist (me) blowing up the bridge, and that anybody can tear down institutions but few can build them. I am not trying to tear any institution down. I have been a member of the ADA since I entered dental school. I have never recommended or encouraged anyone to stop being a member of the ADA. I am, in fact, strongly opposed to that. I refer to non-members as whiners and losers. My father told me that if you don’t like the law you change the law but you never break the law.

The teamsters have 2 million members and each get a ballot to vote for their president; over 100 million Americans voted in the last presidential election. The ADA has always managed to find a way to get my dues bill to me, but you claim that you can’t find a way to get a ballot to the dentists. You’ve mastered taking my money, but you just couldn’t find a way to find out what our problems, concerns and needs are. It is obvious that the President of the ADA, the President-elect, and all of our trustees are truly legends in their own minds. When you install a president the glass will always be half empty. But when you vote for your leaders the glass will be half full and the leaders will have an elected mandate to change course. Right now the ADA president tries to please everyone. But when you have an election, losers go by the side and the winners chart a new course.

Bill, I can’t tell you how much I love dentistry—you and I are on the same team. But at 33 years old and knowing that half of the dentists under 35 are not members, I have no choice but to stand up and fight for the overdue changes necessary to preserve the profession of Dentistry. It is time to take our message of preventive and cosmetic dentistry to the public. If dairy farmers can spend $211 million last year advertising milk, why can’t we spend $100 million selling preventive dentistry? (Of course $100 million blows your mind, but remember I’m 33 years old and last month, my dental office alone collected $208,000.) The blood of that sin is on your hands, not the hands of the hard working, wet gloved dentists who have no say in the day-to-day matters of the ADA. We live in the oldest democracy in the world at over 220 years and over 3.5 million Americans have died defending it. You think that by banning me from Orlando I’ll shut up and go away. Think again. This is David and Goliath, boys.

I’ll tell you one thing about your membership, it is like a forest with six inches of dry pine needles on the floor. One spark and the whole forest will go up in flames. So quit pretending that the 40,000 dentists not on your team isn’t significant; that the AGD broke off ranks isn’t significant; and that 50 percent of dentists under the age of 35 are not members isn’t significant. I am not here to blow up the bridge I’m here to try to lead my generation and I need a dialogue so that problems can be addressed. Does the ADA need a new bill of rights ensuring elections for all of its dues paying member dentists? The ball is in your court. Go into denial and shoot the messenger, or lead us into the 21st Century.

Sincerely and with all due respect,

Howard E. Farran II, DDS, FAGD

**BIO-PROBE COMMENT:** Some of the points made by Dr. Farran are astounding, even for those dentists whose faith in the American Dental Association (ADA) had already been eroded. It is incomprehensible that the ADA would deny a booth at its annual meeting to such a prestigious organization as the Academy of General Dentistry (AGD), in apparent retribution for the recent policy change of AGD to no longer require ADA membership as a requisite for their members.

To ban Dr. Farran from speaking at the annual meeting is no less reprehensible. If honest differences of opinion will not be tolerated, what value can be offered by an organization? After all, dentistry is not a penal colony, or is it?

The ADA budget allocation of six million dollars for travel and entertainment boggles the mind. When the ADA court bailout on dental amalgam was revealed, many ADA members recoiled in shock. ADA lawyers had pleaded: "The ADA owes no legal duty of care to protect the public from allegedly dangerous products used by dentists. The ADA did not manufacture, design,
supply or install the mercury-containing amalgams. The ADA does not control those who do. "The ADA's only alleged involvement in the product was to provide information regarding its use. Dissemination of information relating to the practice of Dentistry does not create a duty of care to protect the public from potential injury." [Case No. 718228. In the Superior Court of the State of California, In and For the County of Santa Clara.]

The ADA excuse for the bail out was to plead a waste of membership dues for unnecessary legal action. Some ADA members feel that their dues would be better spent defending their use of amalgam, instead of the millions of dollars that are spent on travel and entertainment! After all, their use of amalgam is based on the staunch ADA promotion of the material. If legal liability is a consideration, they expect the ADA to stand up in Court, rather than leave the burden solely on the shoulders of the dentists and manufacturers.

The points made by Dr. Farran and the dental amalgam controversy are not the only areas where the ADA faces dissection. Within the dental community, considerable differences of opinion also exist over the potential toxicity of dental use of mercury, fluoride and nickel, dental licensure, the AIDS controversy, infection control, TMD therapy, periodontal therapy, and the status and function of auxiliary personnel, to name a few. The fact that over 40,000 U.S. dentists are not members of the ADA (over 50% of the dentists under age 35) is revealing. The ADA has lost credibility and dentists are rapidly losing faith in the leadership of the ADA. This is obviously not a result of the mishandling of only one issue; it is a compilation of many issues. Many dentists now feel that their $1000/year (average) dues for the ADA and components is contributing to problems, rather than helping to solve them. The large number of dentists who have chosen not to be members of the ADA indicates a growing belief that membership in other dental organizations (such as AGD) is more beneficial to the dentist, the dental profession, and the public health.

In his open letter to Dr. Ten Pas, Dr. Farran states: "I vowed that when I retired, I would leave the profession of dentistry in better shape than I found it." To that admirable goal, Bio-Probe would urge the addition of "and the public health." Hopefully, every conscientious and caring dentist would embrace these principles. At this point, the question is whether service to the dental profession and the public health is best served within the ADA or outside of it. If the honest belief is that ADA activities have been contrary to the two principles, one must realize that the power and influence of the ADA is derived from the size of its membership (and their dues). This conclusion is inescapable! Many dentists have eventually realized that their support of the ADA, through continued membership, is counterproductive. These dentists have sought a voice through other dental organizations. The negative influence of a monopoly has been well established, as has the benefit of effectiveness through competition.

Anyone desiring additional information on the THE FARRAN REPORT, please call (602) 598-9757 or Fax (602) 598-3450

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ALASKA LEGISLATIVE ACTION!

On 17 January 1996, the Senate Health Committee of the Alaska State Legislature unanimously approved a bill that would protect mercury-free dentists from Dental Board disciplinary action. If it passes, the bill would prevent the Board from punishing dentists just because they are opposed to the use of mercury dental fillings. The bill now goes to the full legislature where, reportedly, the response has so far been very favorable.

Iowa, Minnesota, Arizona, Pennsylvania and Florida also have citizen movements on dental amalgam with their state legislatures. In the absence of action from State Executive Department officials (ie, Governor, Attorney General, etc.), state legislative action is the only vehicle to oppose the malicious attacks of Dental Boards against mercury-free dentists. State Legislators are the closest government representatives to the people. The legislators usually respond to strong demands from their constituents, so the involvement of local citizens is essential.

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U.S. CONGRESS MAY INVESTIGATE DENTAL AMALGAM!

Sometimes one person can make a difference! In Georgia, a citizen activist has recently met three times with U.S. Representative Newt Gingrich or his staff members, all in the space of two weeks. As a result, Rep. Gingrich has agreed to ask Representative Joe Barton to hold hearings on the subject. Rep. Barton chairs a committee that is investigating actions of the FDA against several physicians who are not main-line.

The information provided to Rep. Gingrich focuses on the disciplinary attacks of Dental Boards against mercury-free dentists and, in particular, the seizure of patient records without consent from the patients. A number of mercury-free dentists have already provided information to Rep. Gingrich. Bio-Probe urges all concerned citizens to support an investigation by sending letters to your own members of Congress and to Rep. Newt Gingrich and Rep. Joe Barton. The letters
can be sent to each one at: The United States House of Representatives, Washington, DC 20515.

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SCIENCE

Pamphlet, R; Waley, P.
Motor Neuron Uptake of Low Dose Inorganic Mercury.

ABSTRACT: In animals, inorganic mercury can bypass the blood brain barrier and enter motor neurons. We sought to determine the lowest injected dose of mercury that could be detected in mouse motor neurons. Mice were injected intraperitoneally with mercuric chloride in doses from 0.05 micrograms/g body weight and studied between 5 days and 18 months after injection. After formalin fixation, 7 micrometer sections of cerebrum, cerebellum, brain stem, spinal cord and kidney were stained with silver nitrate autometallochromy.

Five days after injection, mercury granules were detected at doses of 0.2 micrograms/gram upwards in the cell bodies of spinal and brain stem motor neurons, more granules were seen at the higher doses. Mercury granules were also seen in 5% of posterior root ganglion neurons. At doses of 0.05 micrograms/gram upwards mercury was detected 5 days later in renal tubule cells. Mercury was still present in motor neurons 6-11 months after injection, but by this time mercury had been cleared from kidneys.

Low doses of inorganic mercury are therefore selectively taken up and retained by motor neurons, making this neurotoxin a good candidate for cause of sporadic motor neuron disease.

BIO-PROBE COMMENT: This new study should be of great interest to scientists who have already connected exposure to mercury to motor neuron diseases such as Amyotrophic Lateral Sclerosis (Lou Gehrig's Disease). Previous research, dating back to the 1960's, has demonstrated that inorganic mercury (Hg++) does penetrate the blood-brain barrier, but at a low rate. Mercury vapor, the form released from dental amalgam fillings penetrates the blood-brain barrier far more readily. We must also consider that the above study represents findings from just a single dose, whereas patients with amalgam fillings receive thousands of doses of mercury vapor each day.

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Molin, M; Berglund, JR; Mackert, JR.
Kinetics of Mercury in Blood and Urine after Amalgam Removal.

ABSTRACT: Even though a number of studies have not been able to reveal any correlation between subjective symptoms and amalgam load there still are speculations whether patients with subjective symptoms related by the patients themselves to their amalgam fillings could have a changed pattern of elimination of mercury. The aim of the present investigation was to study the elimination half-time of mercury in plasma, erythrocytes and urine over an extended period of time after amalgam removal in a group of 10 patients with subjective symptoms by the patients themselves referred to their amalgam fillings and a group of 8 healthy subjects. The average number of occlusal and total amalgam surfaces in the patient group were 13.0 (range 4-20) and 44.4 (range 24-68), respectively. Corresponding figures in the control group were 12.9 (range 10-16) and 40.9 (range 24-63).

The amalgam removal using rubberdam, water spray cutting and high volume vacuum evacuator, was carried out at one and the same time. Blood and urine samples were collected at two occasions before the amalgam removal, then blood was collected at thirty two occasions and urine at forty three occasions during the following year. The mercury content was analyzed by CVAAS technique.

The measured P-, Ery- and U-Hg concentrations before amalgam removal were slightly higher in the control group 6.4 ± 3.3 nmol/L, 19.4 ± 6.6 nmol/L, and 2.7 ± 1.3 nmol/nmol creatinine respectively than in the symptom group 5.6 ± 1.8 nmol/L, 14.8 ± 8.8 nmol/L, and 1.6 ± 0.9 nmol/nmol creatinine respectively.

The Hg-concentrations did not significantly increase in the two groups after amalgam removal. Six days after the removal the plasma mean concentration was significantly decreased at P level and ten days after the decrease was at a permanent P level. The mean Ery-Hg level was significantly decreased after eleven days (p), a level that remained stable for the rest of the year. The mean U-Hg level was significantly decreased one month after the removal and after six months the mean level was reduced with 80% compared to the initial level in both groups.

The conclusion to be drawn from the present study is that the symptom group did not have a changed pattern of elimination of mercury compared to the healthy group.

BIO-PROBE COMMENT: As the three authors of this study are pro-amalgam dentists, it is not surprising that they totally missed the significance of their findings. Their obviously thinly veiled intention was to demonstrate that amalgam mercury does not cause illness, while conveniently ignoring the well established factor of host resistance/susceptibility to toxic agents. Had they wished to honestly investigate the potential health effects of amalgam mercury, they would have compared subjects with amalgams to controls (without amalgams). The result of their efforts, however, was to add further evidence of the contribution of dental amalgam to exposure to mercury. Although it is well accepted that measurements of mercury in blood and urine do not correlate to body burden or toxic effects, they can reflect EXPOSURE to mercury. Here now is additional documented proof that the removal of amalgam dental fillings reduces exposure to mercury!

Further, these authors have now provided documentation disproving previous dental estimations of daily intake of dental mercury. Again, Bio-Probe is grateful to Dr. Ulf Bengtsson
of Sweden for the following: "The two groups investigated had a mean U-Hg excretion rate of 2.7 and 1.6 nmol Hg/nmol creatinine respectively. One year after removing all amalgam fillings these figures were reduced by 80% This means that at least 2.16 and 1.28 nmol Hg/nmol creatinine originated from amalgam.

Using an excretion rate of 25 mg creatinine/24 h and kg of body weight (The Merck Index, 1989), a mean body weight of 75 kg, a creatinine mol-weight of 113.12 and a mercury mol-weight of 200.6 it is now possible to calculate the excretion of mercury.

The first group excreted 7.18 micrograms/24h and the other 4.26 micrograms/24h. Many scientists say that the majority of the amalgam related mercury enters the body as vapor. Mercury vapor however has a urine/feces excretion ratio of 1/3. This means that the total excretion of amalgam related mercury is 28.7 micrograms/24h and 17 micrograms/24h respectively. Whoops! Now we are back to the amounts calculate 5-6 years ago. This time, however, we are dealing with 'live' figures.


Sandborgh-Englund, G; Ekstrand, J; Elinder, CG; Johanson, G; Skare, I.
Studies on Mercury Kinetics in Man.
ABSTRACT: The degree of absorption of mercury (Hg) vapour following Hg-exposure in conjunction with dental procedures is poorly documented. The purpose of the present investigation was to achieve quantitative information on the kinetics of Hg in man following Hg-exposure from (A) inhalation of defined doses of Hg as vapour and (B) removal of dental amalgam.

In study A, six amalgam-free subjects were exposed to Hg-vapour for 15 min. by means of airbags containing 400 mcg/m3 Hg. All expired air was collected and analyzed for Hg content. Frequent blood and urine sampling was performed for 30 days. Twelve healthy volunteers, with 18 amalgam-filled surfaces (range 13-34) participated in study B. During one dental session, all amalgam fillings were removed and frequent blood sampling and 24-hour urine collections were performed for 115 days. Hg was analyzed by cold vapour atomic absorption.

In study A, the retained dose was 71 mcg (range 61-95) or 71% (60-72%) of the total amount inhaled. In study B, peaks in blood and plasma Hg conc. were recorded at 7 and 24 hours respectively, followed by exponential decline.

These data indicate that Hg released from dental amalgam is absorbed via inhalation and/or via the G.I. tract. At the last sampling-point, the Hg-levels in plasma had declined to 1.1 nmol/l (range 0.8-2.1) equal to 44% (15-58%) of pre-experimental levels. The corresponding values for Hg in blood were 3.8 nmol/l (1.0-10.9), equal to 51% (31-82%) of pre-experimental levels. The urinary excretion declined to 45% of pre-experimental values (range 19-73%). These studies provide new important information concerning inorganic mercury kinetics in humans.

Bjorkman, L; Ekstrand, J; Sandborgh-Englund, G.
Mercury in Saliva and Feces after Removal of Amalgam Fillings.
ABSTRACT: It is well established that mercury (Hg) from dental amalgam fillings is inhaled, absorbed and retained in the body. Amalgam Hg may also be retained in the oral mucosa and subsequently released to saliva and swallowed. The purpose of the present study was to get quantitative data on Hg in saliva and feces in conjunction with amalgam removal.

Ten subjects ("amalgam group") with a mean number of 19 amalgam surfaces (range 13-34) had all amalgam fillings removed at one dental session (= day 0). A control group consisted of ten volunteers who had no history of dental amalgam fillings. Samples of feces and mixed saliva were collected at six different occasions: Two base-line samples collected the week before amalgam removal and additional samples collected 2, 7, 14 and 60 days after amalgam removal. Total Hg was analyzed by cold vapor atomic absorption spectrometry (CVAAS). Fecal samples were digested by nitric acid in a microwave oven.

In the amalgam group the median Hg concentration in feces was about 10 times higher compared with the control group at base-line (120 ng Hg/g wet wt. versus 11 ng Hg/g wet wt., p < 001). After a considerable increase two days after amalgam removal (median 15,000 ng Hg/g wet wt.) there was a significant decrease of Hg in feces in the amalgam group. However, at day 60 the median Hg concentration in the amalgam group (22 ng Hg/g wet wt.) was still slightly higher compared to the control group (p < 01). In saliva, there was an exponential decline in Hg concentration the first week after amalgam removal (T1/2 = 1.2 days). In the amalgam group, a significant correlation was found between Hg concentrations in feces and saliva at base-line. Further, significant associations between fecal and salivary Hg concentrations and number of amalgam surfaces were found.

In conclusion: Amalgam fillings are a significant source for Hg in saliva and feces. Hg levels in both media decrease considerably after amalgam removal. The findings support the hypothesis that oral mucosa is a reservoir for Hg released from dental amalgam.
Fuortes, LJ; Weisman, DN; Graeff, ML; Bale, JF, Jr; Tannous, R; Peters, C.

Immune Thrombocytopenia and Elemental Mercury Poisoning.


ABSTRACT: Three cases of severe mercury toxicity occurring within a family are reported. Two cases of thrombocytopenia occurred in this family and represent the second such report in the literature of an association between elemental mercury toxicity and thrombocytopenia. Three of the children presented with a combination of dermatologic and neurologic manifestations reminiscent of acrodynia or pink disease.

Each of the four children in this family were treated with dimercaptosuccinic acid. The hazard of vacuuming spilled mercury and appropriate cleaning up procedures are described.

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FORUM

IAOMT - 1996 SPRING SESSION


SITE: Reno, Nevada.

HOTEL: Reno Hilton. 2500 East 2nd Street, Reno, NV 89509. Room rate = $89.00/night + tax, double occupancy. IAOMT Code = ORALT. (800) 648-5080.

HOST: Duane E. Christian, DMD. 810 N. Nevada St., Carson City, NV 89701. (702) 882-4122.

PROGRAM:

☐ Murray J. Vimy, DMD: Scientific Update on Dental Amalgam.

☐ H. Vasken Aposhian, Ph.D.: Results of the DMPS Challenge for IAOMT Members.


☐ Diana Echeverria, Ph.D.: Behavioral Effects of Low Level Exposure to Mercury in Dentists.


☐ Daniel F. Royal, DO: Clinical Evaluation and Treatment of Mercury Toxic Patients.

☐ John R. Lee, MD: Fluoridation Update.

☐ Paul G. Rubin, DDS: Mercury Vapor in Amalgam Waste Discharge from Dental Office Vacuum Units.

Plus Workshops:

☐ W. Jess Clifford, MS: Materials Reactivity Testing.

☐ David C. Kennedy, DDS: Indirect Composite Restoration.

☐ Scott J. Loman, DDS: The Use of Biocalex in Endodontic Therapy.

• David W. Regiani, DDS: Low Level Laser Therapy.

• Phillip P. Sukel, DDS: IAOMT Positions/Standards of Care.

• Michael F. Ziff, DDS: Mercury 101 & 102.

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HOLISTIC DENTAL ASSOCIATION - ANNUAL CONFERENCE

DATE: 29-30 March 1996.

HOTEL: The Harvey Hotel, 4545 W. John Carpenter Freeway, Irving, TX 75063. Special room rate = $102.00 (s), $112.00 (d), before 8 March 1996. T: (214) 929-4500.

REGISTRATION: Holistic Dental Assoc. Annual Meeting, P.O. Box 5007, Durango, CO 81301. T: (970) 259-1091. Members: $225.00, non-members: $375.00 [Add $50.00 after 1 March 1996].

PROGRAM: "Toxicity & Detoxification", featuring Dietrich Klinghardt, M.D., Ph.D. and Paula R. Bickle, R.D.H., Ph.D.

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BRITISH DENTAL ASSOCIATION - AMALGAM, WHAT IS ITS FUTURE?

DATE: Thursday, 16 May 1996.

SITE: Edinburgh International Conference Centre, Scotland.

PROGRAM: Scientific and Legal Aspects; Quantifying and Minimizing the Risks [Including speakers Dr. Mark Richardson and Dr. Anthony Newbury, President of UK Chapter of IAOMT]; Alternatives to Amalgam; Implications for Prescribers.

REGISTRATION: British pounds = 75. BDA, 64 Wimpole St., London W1M 8AL, United Kingdom. T: 0171 935 0875; F: 0171 486 0855.

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IAOMT 1996 ANNUAL MEETING

DATE: Friday-Sunday, 27-29 September 1996.

SITE: Houston, Texas.

HOTEL: The Woodlands Executive Conference Center and Resort, 2301 North Millbend Drive, The Woodlands, TX 77380. Contact: Dana Green, (713) 367-1100. Room rate: $119 single, $134 double (Saturday lunch included). A beautiful facility, with golf course, close to big malls, 20 minutes from airport.

HOST: Dr. William P. Glaros, 17222 Red Oak Dr., #101, Houston, TX 77090. T: (713) 440-1190.