CONGRESSIONAL BILL TO PHASE OUT DENTAL AMALGAM ANNOUNCED
We all owe a great debt of gratitude to Congresswoman Diane Watson (D-Los Angeles) for having the courage and determination to propose legislation phasing out the use of mercury fillings in the United States. On 5 November 2001, Representative Watson announced her intention to introduce a bill, called "Mercury in Dental Filling Disclosure and Prohibition Act." Her bill would call for:

- No mercury amalgam dental fillings for pregnant women, nursing mothers, or children under age 18 by 1 July 2002.
- A health warning over dental amalgam mercury for all citizens by 1 July 2002.
- A phase out of use of dental mercury amalgam fillings in five years.

Some very important comments were made by Representative Watson in her statement: "Mercury is an acute neuro-toxin. It is the most toxic non-radioactive element and the most volatile heavy metal. In recent years, it has been, or is being, removed from all health care uses, save one."

"Today, I am announcing legislation to disclose and phase out the last major use of Mercury in the human body. The fillings that organized dentistry wrongly calls 'silver' are mainly Mercury, not silver. Mercury is the major ingredient in each filling, about one-half gram per. In the words of Professor Boyd Haley of

the University of Kentucky, that is a 'colossal' amount of Mercury in scientific terms - as much, in fact, as is in a thermometer. A teenager with six fillings has six Mercury thermometers worth of Mercury in his or her mouth."

We might add that the release of mercury from
amalgams has been acknowledged by organized dentistry for decades. So, Representative Watson’s statement might well be "six leaking Mercury thermometers."

Representative Watson goes on to state: "The public does not know about the presence of Mercury and its risks for two reasons. First, the fillings are falsely called 'silver.' This term is deceptive, because there is much more Mercury than silver in the product. It's time to call it what it is, and quit hiding the large presence of Mercury. Second, the ADA has a rule that gags dentists from talking about the risks of Mercury amalgam, a rule that some dental boards enforce against dentists who call for the elimination of Mercury in dental fillings."

Many individuals familiar with the mercury amalgam controversy will recognize Representative Watson. As a State Senator in California, she introduced the legislation that required the California dental board to write a Fact Sheet about the risks and efficacies of dental fillings. She states that her goal "was to ensure the public could make informed choices about Mercury dental amalgam. But the Dental Board continued to ignore the law and, in recent years, defy the Davis Administration's insistence that it comply with this law."

Representative Watson also pointed out that dental amalgam mercury presents a health risk to dental personnel and a danger to the environment. She stated: "Mercury amalgam is dangerous before it is put in the mouth - any dental journal will tell you that - and it is considered hazardous waste after it has been removed. Who can conclusively say it’s safe between, when it is in our bodies?"

In closing, Representative Watson stated: "My bill will protect children, pregnant women, and nursing mothers immediately - regardless of their income. Henceforth, amalgam will bear warnings that they not be placed in these most vulnerable people. And there will be health warnings for all consumers of amalgam, also immediately. Then, there is a five-year phase out of Mercury amalgam. That will give dentistry plenty of time to shift to alternatives that exist in today’s market - resin, porcelain, and gold - or to develop new materials. Dentistry says amalgam is fine because it has been used for 150 years. This statement makes no scientific sense. We have abandoned other remnants of pre-Civil War medicine, and we have abandoned all other uses of Mercury. It is no longer a question of if, but when, Mercury dental fillings will be history. I say five more years is time enough."

Representative Watson certainly deserves the support of everyone. Please express that, and your appreciation to your U. S. Senators and Representative, and to Representative Watson herself: [Diane.Watson@mail.house.gov] Our recommendations for "Act Against Mercury Now" follow later in this issue.

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NATIONAL BLACK CAUCUS RESOLUTION AGAINST AMALGAM

In late November of 2001, the National Black Caucus of State Legislators adopted the following resolution:

"Whereas:
1) The major ingredient of dental amalgams (43-54%) is mercury;
2) Mercury is an acute neuro-toxin;
3) Each mercury amalgam filling contains about one-half to three-fourths gram of mercury, the same amount of mercury as is in a mercury thermometer;
4) The mercury in dental amalgam continually emits poisonous vapors while in the filling;
5) The term 'silver' to describe a product that has substantially more mercury than silver does not accurately convey needed information to consumers;
6) Mercury is being removed from all other
health care uses, such as vaccines, disinfectants, and contact lenses. Many health organizations, such as the American Public Health Association, the California Medical Association, and Health Care Without Harm, recommend removing mercury from all health products;
7) Children under 18, pregnant women, and nursing mothers may be at particular risk to mercury exposure, because the mercury goes to the developing brain, through the placenta, and through the breast milk, according to the Agency for Toxic Substances and Disease Registry of the United States Public Health Service. Several authorities, including manufacturers who have issued contraindication and the Government of Canada, warn that children and pregnant women are at particularized risk for exposure to mercury amalgam;
8) Consumers and parents have a right to know, in advance, that, in the words of the California Dental Board: ‘There exists a diversity of various scientific opinions regarding the safety of mercury dental amalgam’;
9) Alternative to mercury-based dental fillings exist, such as resin composite and porcelain;
10) Medicaid and many third-party payment health plans do not allow consumers to choose alternatives to mercury amalgam, so poor children’s only options are mercury fillings or no fillings at all; and
11) The states of Arizona, California, and Maine have passed laws providing warnings to consumers about the risks of ‘silver’ (mercury) dental amalgam, and Rhode Island has passed a law giving consumers on insurance plans full choice on the type of fillings they may have. THEREFORE, the National Black Caucus of State Legislators recommends:
1. States enact laws providing warnings to all consumers that (a) Silver fillings are about 50% mercury, a neuro-toxin and environmental hazard; (b) There exists a diversity of various scientific opinions regarding the safety of mercury dental amalgam; (c) Particularized concern has been expressed regarding the health effects on children, pregnant women, and nursing mothers;
2. States enact laws to provide choices to all consumers, so that Medicaid families and moderate-income consumers on insurance plans will be able to choose alternatives to mercury amalgam.”

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ACT AGAINST MERCURY NOW!
The National Black Caucus of State Legislators represent African-American legislators from the State Senates and Houses (or Assemblies) in every state. This courageous and responsible group, along with United States Representative Diane Watson, have provided an opportunity that must be utilized.
Those concerned about the potential adverse health effects of dental amalgam mercury must now take action, as never before. Just look at what support we now have:
• A United States Representative has announce plans to propose national legislation to warn consumers of exposure to amalgam mercury, and to phase out the material within five years.
• A national organization of state legislators has issued a resolution calling for the same from state legislatures.
• Another United States Representative is directing a Congressional Investigation, through a key committee, on the use of mercury in vaccines and dental amalgam.
• Three states (Arizona, California, Maine) have already passed informed consent legislation on dental mercury amalgam.
• Numerous states have passed, or are proposing, legislation addressing mercury in the environment, including dentistry as a source in some cases.
• Several class action law suits have been filed. At the very least, these draw public and media attention to the issue.
• Publication of research studies casting doubt on the safety of dental amalgam mercury continues.
• More and more scientists and health care professionals are acknowledging a potential health risk from dental amalgam mercury.

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WHAT TO DO!
It boils down to legislation, state and national. Fortunately, this is the main area of our current progress.
There is an old axiom in politics: The politician, when faced with a controversy within a special interest group will side with the faction with the most money and influence. However, when faced with a controversy between a special interest group and constituents, the politician will side with the voters.
So - now is the time to let our voices be heard by our elected officials, state and national. The more voices they hear, the more likely they are to respond.
Although mail and email help, personal visits mean more; and the more the better. This can be done by preparing simple petitions, calling for support (and especially co-sponsorship) of the bill proposed by U. S. Representative Watson. On the state level, demand sponsorship of state legislation as outlined by the Black Caucus.
Again, prepare simple petitions to be signed by as many people as possible.
Names, addresses, etc. of United States and State Senators and Representatives can be found in the "blue" pages of your local phone book.
You will find a State Representative close to you; these are the officials closest to you, and the most likely to respond to voter wishes.
There are many sources of support; some are:
1. Your friends and family members.
2. Patients (give each a petition).
3. Health food stores; provide petitions to them.
4. Other sympathetic health professionals and their patients, especially chiropractors.
5. Health spas; again provide petitions for them.
6. Athletic groups; especially bikers, joggers.
7. Health oriented radio talk shows.
Again, now is the time for action! A concerted effort now will carry the day!

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FLORIDA EPA ON SCRAP AMALGAM
In October of 2001 the Florida Department of Environmental Protection (FDEP) of the Department of Health issued a pamphlet entitled "Best Management Practices for Scrap Amalgam: Guidelines for Dental Offices" [www.dep.state.fl.us]. The FDEP stated: "It is important to develop scrap amalgam guidelines to ensure that mercury is not released into the environment. So, its reclamation is extremely important for environmental and health-safety reasons."

Three sources of scrap dental amalgam are listed:
1. Excess amalgam which is mixed, but not used; damaged capsules.
2. Amalgam from the operatory. This can be unused mixed amalgam or amalgam retrieved from operatory drain traps. Amalgam from operatory drain traps can be handled as scrap amalgam as long as the traps contain little or no tissue.
3. Amalgam contained in extracted teeth. Extracted teeth that have no amalgam would be regulated as medical waste and cannot be placed in the same container as extracted teeth with amalgam."

[Bolded words are from the FDEP pamphlet.]
These are the guidelines listed:
1. Marked Container: Place scrap amalgam from all three sources into a 'sharps type' container (as defined by OSHA) that is initially marked 'Biohazardous.' To differentiate from biomedical waste which is placed in a red bag or container, the scrap amalgam container
should be a different color (silver).
2. **Decontaminate**: When the container is full or ready for shipment, add enough 1:10 bleach: water solution to cover the scrap amalgam in the container.
3. **Label**: Cover the 'Biohazardous' marking on the container with a label reading 'Scrap amalgam decontaminated with 1:10 bleach: water solution on (month/day/year)."

The pamphlet then describes instructions for shipping, keeping of written records, and information on reclamation facilities. Apparently, the FDEP considers mixed dental amalgam to be a hazard!

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**FURTHER DILEMMA IN FLORIDA**

While the FDEP has formally declared mixed dental amalgam to be a health to health and to the environment, the Florida Board of Dentistry (FBOD) disagrees. In the preceding issue of BPNL [Vol. 17, Iss.6, Nov 2001], we presented the Proposed Rules that the FBOD is presenting to be incorporated into Law. These Rules are designed to eliminate any consideration of potential health hazards of amalgam mercury. A group of Florida IAOMT members, plus a few non-members, have banded together to combat the proposed rules. They have engaged the assistance of the group that successfully arranged for the new Florida "Patients Freedom of Choice" bill for alternative health care. The key is with the Florida Legislature, which must approve the FBOD Rules before they can become Law.

Already, the FBOD has dropped two of the Proposed Rules; the Rule forbidding dentists from advertising that they are mercury-free, and the Rule declaring that "scientifically valid" evidence is only that which is acceptable to the majority of the U. S. dental boards and dental schools. Activity, in both directions, continues on the other rules.

The attitude and posture of the FBOD is truly mind boggling. Consider the activities outlined just in this issue, including that of the Florida Department of Environmental Protection. Yet, the FBOD persists in a direction diametrically opposite. One must wonder if the FBOD will next declare the FDEP, and the Florida Legislature itself, to be quacks and frauds!

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**FLUORIDATION UPDATE**

On 3 December 2001, nine citizens filed a class action lawsuit against the City of Escondido (CA). The City's Council had reversed a city ordinance, which had prohibited adding any substance to the water that was intended to treat humans, and proceeded with fluoridation of the public water supply. The lawsuit challenges the constitutionality of mass medication, under the California Constitution and Amendments IX and XIV of the U.S. Constitution.

The City Council had voted 3-2 in favor of the action. This class action lawsuit could be an important precedent for the entire country. Congratulations for the great work to Jeff Green and his group [greenjeff@home.com].

In addition to this important lawsuit, good news comes from many locations rejecting water supply fluoridation this past election day:
* Worcester, MA: 5th rejection.
* Modesto, CA: 2nd rejection.
* Flagstaff, AZ: 3rd rejection.
* Sutherlin, OR: Rejection by 62% of voters.

Other locations rejecting fluoridation this year:
* Willamina, OR: January, by City Council.
* Norridgewock, ME: March, by voters.
* McPherson, KS: April, by voters 5-1.
* Brewster, MA: May.
* Eureka Springs, AR: June, by city officials.
* Woods Cross, UT: August, by City Council.
* Goldendale, WA: September, by City Council.
* Centerville, UT: October, by City Council.
* White Salmon, WA: October, by City Council.

And in other countries:
* Kanra-machi, Japan: March, by Assembly.
* Onehunga, New Zealand: April, by 2-1 vote.
* Kamloops, BC, Canada: October, ended 40 years of fluoridation.

Many thanks to Fluoride Action Network for this information. [www.fluoridealert.org]

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**SCIENCE**

**Genotoxicity of Mercury Used in Chromosome Aberration Tests.**


**ABSTRACT:** The purpose of this study was to investigate the genotoxic effects of Hg released from dental amalgams. The chromosome aberration test was conducted using original extracts and their diluted solutions of conventional type amalgam and high copper amalgam. The concentrations of Hg, Cu and Ag in the original extract of high copper amalgam were 17.64, 7.97 and 43.90 &mgr;M, respectively. Those in the original extract of conventional type amalgam were 20.63, 7.87 and 14.79 &mgr;M, respectively. 10 and 30 &mgr;M Hg(2+) were also used for comparison. The frequency of chromosome aberrations was below 5% with 0 &mgr;M Hg(2+) and with a triple dilution of high copper amalgam extract, containing 5.88 &mgr;M Hg, 14.63 &mgr;M Cu and 2.65 &mgr;M Ag. However, 9.5% of the cells showed chromosome aberrations with a quadruple dilution of conventional type amalgam, containing 5.15 &mgr;M Hg, 3.69 &mgr;M Cu and 1.96 &mgr;M Ag.

The amount of Hg in the quadruple dilution of conventional type amalgam was less than that in the triple dilution of high copper amalgam extract and 10 &mgr;M Hg(2+). A concentration of 30 &mgr;M Hg(2+) caused 34.5% of the cells to show chromosome aberrations while with a two-thirds dilution of high copper amalgam extract, containing 11.76 &mgr;M Hg, 29.26 &mgr;M Cu and 5.31 &mgr;M Ag, 58.5% of the cells showed chromosome aberrations. A two-thirds dilution of high copper amalgam extract induced more chromosome aberrations than 30 &mgr;M Hg(2+), although the amount of Hg was less than 30 &mgr;M Hg(2+). A triple dilution of conventional type amalgam extract, original extracts of conventional type amalgam and high copper amalgam and 100 &mgr;M Hg(2+) were induced few metaphases.

It was revealed that the conventional type amalgam induced chromosome aberrations with quadruple dilution where cell viability was about 80% and that the high copper amalgam induced a high level of chromosome aberrations with the two-thirds dilution. The effects of low level Hg on humans are not clear.

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**Combined Toxicity of Dissolved Mercury With Copper, Lead and Cadmium on Embryogenesis and Early Larval Growth of the Paracentrotus Lividus Sea-Urchin.**


**ABSTRACT:** The individual and combined toxicity of dissolved mercury, copper, lead and cadmium has been investigated by using the Paracentrotus lividus sea-urchin embryo-larval bioassay. Embryogenesis success and early larval growth have been recorded after incubation of fertilized eggs in seawater, both with single metals and binary combinations of Hg with every other metal.

For individual metals the ranking of toxicity was Hg>Cu>Pb>Cd, with EC 50 values of 21.9, 66.8, 509 and 9240 micrograms/l, respectively. Lowest observed effect concentrations (LOEC) for early larval growth were approximately three times lower than the EC50 values for Hg, Cu and Pb, and more that two orders of magnitude lower for Cd, emphasizing the danger of underestimating toxicity when only lethal effects are recorded.
Marking & Dawson’s additive indices ranged from 0.10 to 0.19, indicating additive effects with a slight trend to synergism, which was statistically significant for the Hg-Pb combination only. Hayes’ additive indices were within the margins considered acceptable to describe additive interactions.

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Metal Exposure From Amalgam Alters the Distribution of Trace Elements in Blood Cells and Plasma.


ABSTRACT: Twenty-seven consecutive patients with health problems associated with dental amalgam were recruited. In spite of thorough medical examinations, there were no diagnoses available. The patient group was dominated by women. A healthy age- and sex-matched control group with dental amalgams without symptoms was also recruited.

Metal level monitoring in plasma and nuclear microscopy of isolated individual blood cells were carried out. Significant increases of copper, iron, zinc and strontium were found in patient plasma. There was no significant difference in plasma selenium between the two groups.

Mercury was significantly increased in patient plasma, although there was overlap between the groups. In erythrocytes a significant increase in calcium and a significant decrease in magnesium, copper, manganese and zinc were found. Calcium, magnesium, manganese and copper increased in patient neutrophil granulocytes. A significant decrease was found for zinc.

A conspicuous finding was the presence of measurable mercury in a few of the cells from the patient but not in the control group. Thus, nuclear microscopy of isolated individual blood cells might provide a better diagnostic tool for metal exposure than blood plasma measurements.

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Dental Metal Allergy in Patients With Oral, Cutaneous, and Genital Lichenoid Reactions.

Scalf, LA; Fowler, JF; Morgan, KW; Looney, SW. Am J Contact Derm, 12(3):146-50, Sep 2001.

ABSTRACT: Background: The subject of lichen planus (LP) and dental metal allergy long has been debated. An overwhelming majority of the existing literature focuses on mercury and gold salts in relation to oral lichen planus.

Objective: Our objective was to expand current knowledge regarding LP and lichenoid lesions (LL) and dental metal allergy by investigating more metals and investigating cutaneous and genital disease in addition to oral disease.

Methods: Fifty-one patients with known LP or LL were patch tested to a series of dental metals. Patients chose to replace their dental metals or make no revision. A telephone survey was conducted after 1 hear to determine disease state.

Results: Thirty-eight of 51 patients (74%) had at least 1 positive reaction. Twenty-five of 51 patients (49%) showed sensitivity to at least 1 mercurial allergen. Prevalence data for patients patch tested by the North American Contact Dermatitis Group (NACDG) from 1996 to 1998 was available for chromate, cobalt, gold, nickel and thimerosal. The prevalence of positive reactions was higher in our group than in the NACDG group for all 5 of these allergens, and statistical significance was achieved for chromate (P=.028), gold (P=.041), and thimerosal (P=.005). Of patients who had a positive patch test reaction to 1 or more metals, 100% (9 of 9) reported improvement after metal replacement, whereas 62.5% (15 of 24) reported improvement without metal replacement.

Conclusion: Sensitization to dental metals is more common among LP and LL patients than in routinely tested patients, and might be an etiologic or triggering factor in the disease.

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FORUM
IAOMT 2002 MID-YEAR MEETING
Date: Friday-Saturday, 5-6 April 2002.
Site: Orlando, Florida.
Hotel: Sheraton World Resort, 10100
International Drive, Orlando, FL 32821-8095.
T: 407-352-1100; 800-327-0363. Specify
IAOMT. Room rate/night: $119/1-2; $139/3; $159/4.
Deadline for IAOMT block: 1 March 2002!
Meeting Registration: IAOMT, P.O. Box 608531,
Orlando, FL 32860-8531. T: 407-298-2450; F:
407-298-3075. Registration (U.S.$): Members:
$445, non-members: $545; spouses/staff with
registrant: $175 each. Includes continental
breakfast and lunch on Friday and Saturday.
Cancellation fee after 1 April: 10%.
Welcome Reception (Cash bar): Thursday, 4
April 2002, 7:30-10:00 pm.
Program: Stephanie F. Cave, MD: "Clinical Aspects
of Mercury Toxicity in All Ages." Richard Chanin, DMD:
"Fundamentals of Biological Dentistry." Boyd Haley,
PhD: "The Biochemistry of Mercury." William Hirzy,
PhD: "Water Fluoridation: Right or Wrong?" Fritz L.
Lorscheider, PhD: "How Mercury Causes Brain
Neuron Degeneration." Michael G. Rehme, DDS: "The
Tooth-Body Connection." Wesley E. Shankland, DDS:
"Cavitations: Diagnosis and Treatment." Sam Ziff:
"How to Find and Evaluate Research." Mark A.
Breiner, DDS: "Biological Dentistry: Beyond the
Fundamentals." David Schenik, DO & Pam Floener, PT,
RMA, CNC, CT: "Management Of a Mercury/Metal
Burdened Patient."

IAOMT 2002 ANNUAL MEETING
Date: Fri.-Sat., 27-28 September 2002.
Site: Calgary, Alberta, Canada.
Hotel: Hyatt Regency Calgary, 700 Centre Street South,
Calgary, Alberta, T2G 5P6, Canada. T: 403-717-1234;
F: 403-262-3490. Specify IAOMT. Room rate/night
(Canadian): $205-275; Suites: $400-$1000. Deadline for
IAOMT block: 26 August 2002!
Meeting Registration: IAOMT, P.O. Box 608531,
Orlando, FL 32860-8531. T: 407-298-2450; F:
407-298-3075. Registration (U.S.$) to be announced.
Program: To be announced.

Biocompatible Periodontal Therapy Seminar
Sponsored by IAOMT
Site/Date: Atlanta, GA: 8 February 2002.
Chicago, IL: 12 July 2002.
Dallas, TX: 8 November 2002.
Friday: 8 am-5 pm.
Hotel: To be announced.
Meeting Registration: Send to: BPT c/o IAOMT,
PO Box 608531, Orlando, FL 32860-8531. One
attendee: $325, Additional attendee from same
office: $125. Includes continental breakfast and
lunch on Friday.
Program: This full day seminar with Dr. Thomas
Baldwin, DDS, MAGD, Chair of the Periodontal
Committee, IAOMT and Editor of Non-Surgical
Periodontics Newsletter (NSP) takes a hands-on
approach to learning with specific emphasis on
Step-by-Step case presentations; Microbial
Assessment Techniques; Natural Herbal &
Essential Oil alternatives; Nutrition, Prevention &
Patient Management. Learn how to diagnose and
treat the actual infections that cause periodontal
disease instead of just treating the symptoms while
your patients continue to lose attachment.

Institute of Integrated Medicine
2002 Caribbean Medical Cruise
For Complimentary/Alternative Therapies
Date: 3-10 February 2002.
Site: Ft. Lauderdale, FL to Princess Cays, Grand
Cayman, Costa Maya, Cozumel.
Hotel: Princess Cruise Lines Flagship.
Meeting Registration: Pam Floener; T: 770-831-
8606; F: 770-831-8610. Meeting: $495, plus cruise
fee.
Program: Russell Blaylock, MD; Eugene Charles, DC;
Carolyn Dean, MD; Ward Dean, MD, Pam Floener,
PT, RMA, CNC, CT; Mitchell Ghin, MD; Garry
Gordon, MD; Boyd Haley, PhD; Rochelle Herdmann,
MD; Gunnar Heuser, MD; Russel Jaffe, MD; G. Blair
Lamb, MD; James LaValle, BscPhm; Alan Miller, ND;
Margaret Mullins, MD; Richard Huemer, MD; Steven
Sinatra, MD; Bern Woschlagher, MD; JoAnne
Whitaker, MD; Tony McRedmond, DDS; plus many
Elective Program presenters. [Contact Pam Floener
(above) for detailed program.]