FLORIDA DILEMMA!

In the previous issue [Vol. 17, Issue 5, Sept 2001], we reported on the passage of a new law in Florida allowing and encouraging alternative health care [Florida SB1324]. The "Patients' Freedom of Choice" bill was signed into law by Florida Governor Jeb Bush, in spite of strong opposition from the Florida Dental Association.

Now, the Florida Board of Dentistry is attempting to pass a series of Rules, under the Florida Administrative Code, that would severely restrict, if not eliminate, the practice of mercury-free dentistry. Under Florida Law, the Board of Dentistry is authorized to promulgate Rules to implement the Florida Dental Practice Act [Chapter 466] of Florida Statutes.

It is very apparent that the Florida Board of Dentistry is attempting to usurp the authority of the Florida Legislature!

PROPOSED FLORIDA BOD RULES

In an apparent attempt to eliminate the practice of mercury-free dentistry in the state, the Florida Board of Dentistry has proposed the following Rules:

• "64B5-17.014: Removal of Amalgam Fillings. (l) The Board of Dentistry has determined pursuant to Sections 466.001, 466.004, 466.019 and 466.028 (l)(d), (l), (w), (x), (y), and (ff) Florida Statutes, that removal of amalgam fillings from non-allergic patients for the alleged purpose of removing toxic substances from the body does not meet the minimum standards of performance for competent dental practice in Florida and poses an inherent danger to the public.

BP Comment: The use of the phrase "minimum standards of performance for competent dental practice in Florida" is ominous, usually referred to as "standard of care." The Florida BOD here
is defining the parameters of dental practice by declaring that one area of dentistry is forbidden. According to the most recent estimates (Dental Products Report, etc.), dentists who do not use mercury amalgam because of possible health concerns may be as much as 10-12% of the total number of general dentists. But what about "cosmetic" dentists, who also do not utilize mercury amalgam? How many of these are there in Florida? Then you also have "reconstruction" dentists, who replace "clinically serviceable" amalgam fillings with gold restorations. They also do not use mercury amalgam fillings. The point is, a substantial portion of contemporary dentists do not use mercury fillings. Does the Florida BOD have the right, and the authority, to establish the parameters of dental practice within a limited scope consistent with their philosophies? Does the Florida BOD have the right, and the authority, to force all Florida dentists to practice according to the philosophies they hold?

An additional point is that the Florida BOD is, in effect, establishing a legal policy that dentists who place mercury amalgam fillings are practicing in a manner that is superior to the practice of mercury-free dentists. This, in itself, is a clear violation of Florida Law and dental ethics.

There are other issues of this proposed rule that will have a huge impact on fundamental rights of dentists and patients.

1. Florida dental patients will no longer have the right of freedom of choice, as well as the right to know (the continuous transfer of dental amalgam mercury into their body tissues).
2. Florida dentists will be subject to restriction of trade, as well as freedom of speech.
3. Florida dentists will be obliged, by law, to expose patients to a continuous, time-release highly poisonous substance.

- (2) (b) "'Scientifically valid' means findings accepted as correct by a majority of state licensing boards or consistent with the curriculum and standards as taught in the majority of the dental schools in the United States."

**BP Comment:** Here, quite obviously the Florida BOD is trying to establish, by Law, that the State Dental Boards and dental schools (which are all accredited by the ADA) are the only authorities on mercury toxicology! Even if 100% of all mercury toxicologists scientifically determine that dental amalgam mercury is toxic, the Florida BOD would have the power to overrule them.

- (3) "There is no scientifically valid evidence that amalgam fillings cause a systemic pain, deformity, deficiency injury, or physical conditions such as multiple sclerosis. Similarly, there is no scientifically valid evidence that removing amalgam fillings will diagnose, prescribe or treat such systemic pain, deformity, deficiency, injury, or physical condition."

**BP Comment:** The position of the Florida BOD in this paragraph is establish by the preceding paragraph [(2)(b)], by establishing - under LAW - that the only acceptable authorities on mercury toxicology are the dental boards and dental schools. The Florida BOD is attempting to establish law that declares practicing dentists to be unfit to address mercury toxicity and, at the same time, establishes that other dentists (on the dental boards and in the dental schools) are the only authorities on the subject!

Further, the BOD ignores that mercury in itself is highly toxic, and that there are volumes of validly published studies demonstrating the severe toxicity of mercury vapor, at any level of exposure. The pathological condition caused by exposure to mercury is called "mercury toxicity" or "mercury intoxication" and should be evaluated exactly the same as other toxic heavy metals, such as lead.

- (4) "There is, however, scientifically valid
evidence that the removal of amalgam fillings on non-allergic patients solely at the recommendation or suggestion of a dentist who is not also duly licensed as a physician can cause severe and irreversible damage to patients and expose them to unnecessary pain, financial cost, tooth loss, delay in seeking clinically effective treatment, and increased risks of exploitation by promising false hope of cure."

**BP Comment:** We challenge the Florida BOD to produce this "scientifically valid" evidence! These horrible events can occur in patients only if recommended or suggested by a dentist? Does this mean that these horrible events cannot occur if the removal is recommended by a physician? Does this mean that these horrible events cannot occur if the removal is for cosmetic reasons? Does this mean that these horrible events cannot occur if the amalgams are removed to be replace by gold restorations?

- "64B5-4.005: No licensee may advertise the availability of 'mercury-free' dentistry or the removal of amalgam fillings to the public because such advertising appeals primarily to laypersons' fears."

**BP Comment:** The Florida BOD withdrew this proposed rule, unanimously, on 28 September 2001. Apparently, they were warned off by attorneys, possibly from the Florida government. Had they tried to install this as a Rule, the BOD would have opened themselves up to attack from numerous directions. However, the Florida BOD has clearly revealed their intentions. If left unchecked, they are likely to pursue this rule in the future.

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**FURTHER DILEMMA IN FLORIDA**

There is another section of Florida Law that presents cause for concern. Under F.S. (Florida Statute) 456.040, there is a proposal to create the "Florida Board of Dentistry Management Corporation" as a private entity answerable only to the Florida BOD. This private corporation would be empowered to "provide administrative, investigative, examinations, licensing and prosecutorial services to the Board."

The danger of having such a private corporation, directed only by the BOD, is obvious. It would establish omnipotent control over all Florida dentists by a tiny number of unassailable dentists representing a potentially self-serving interest. It is difficult to imagine how this could be acceptable under the constitution of Florida and the United States.

**BP Comment:** It should be noted that Florida mercury-free dentists, as well as consumer interest groups, are mobilizing to combat the proposed new rules of the Florida BOD. Should they not succeed, the potential results are ominous indeed. It is likely that mercury-free dentistry will be forbidden in Florida, and will also set a precedent to be followed by dental boards in all other states.

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**California Dental Board**

Two new bills affecting the function of the California Dental Board are now passed into law. Governor Gray Davis signed SB (Senate Bill) 134 on 5 October 2001. While also addressing other issues - such as licensing of graduates of foreign dental schools, the status of maxillofacial surgeons, and the regulation of dental auxiliaries - the bill states: "This bill would revise the procedures for appointment of the board and would provide that the current board would be repealed on January 1, 2002. The bill would provide that a new board, vested with the same powers as the previous board, would be created on January 1, 2002, would become inoperative on July 1, 2004."

The other California bill (SB26) was signed into law by Governor Davis on 9 October 2001. Amongst many other items related to many areas of health, it states: "The bill would also require the Director of Consumer Affairs to appoint a
dental board enforcement program monitor by March 31, 2002, whose duties would include the monitoring and evaluation of the dental disciplinary system. The bill would require the monitor to report his or her findings to the department and to the Legislature, and would require the board to pay for the costs of the monitor.”

These two bills constitute real progress in the State of California. Hopefully, Governor Davis will now appoint a new dental board with members that are more open minded and considerate of progress in dentistry. Proposition 65, the law passed in California years ago, requires the dental board to provide a fact sheet specifically addressing the toxicity of mercury, to be distributed to patients receiving mercury amalgam dental fillings. To this date, the current board has refused to do this. They are in the process of providing a fact sheet that minimizes the exposure to mercury that patients receive from amalgam fillings. Citizen groups, lead by attorney Charles Brown of Consumers For Dental Choice, are fighting to force the dental board to provide the proper warning.

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CDC ACTS ON DENTAL LEAD

The United States CDC (Centers for Disease Control and Prevention) has issued a warning entitled “Potential Risk for Lead Exposure in Dental Offices.”

This warning states: “Lead-lined boxes used to store intraoral dental film and film stored in them create an unavoidable potential exposure risk for lead and should be disposed of immediately.”

The boxes used to store radiograph film were found to contain lead powder in 18% of the dental offices surveyed. CDC said that the lead powder could be transferred to patients via the hygienist’s fingers and the film itself, and

“Dental offices still using these boxes should dispose of them, and any film in them, immediately.”

BP Comment: OK, CDC comes out with a strong warning against the lead exposure dental patients receive periodically (we wonder what is the rate of absorption of lead powder). Yet - CDC publicly claims that dental patient exposure to amalgam mercury is harmless, even though:

1. Mercury has been scientifically proven to be much more neurotoxic than lead [Sharma & Obersteiner, “Metals and Neurotoxic Effects,” J Comp Path, 91:235-44, 1981b.]

2. Patient exposure to mercury derived from amalgam dental fillings is continuous, throughout the lifetime of the fillings, whereas lead exposure from radiographs is brief and periodic.

3. Unless the absorption rate of topical exposure of lead powder is greater than 72-100% (80% average), far more of the inhaled mercury vapor actually enters the body of the patient, which is the critical aspect of exposure to toxic materials. Something is wrong here! CDC has placed itself in a hypocritical (if not biased) position.

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DENTISTS TO SUE OVER FLUORIDATION IN IRELAND

[www.examiner.ie/index_examiner.htm]

[Article by: Fionnuala Quinlan; provided by Paul Connett, Ph.D.]

A group of 20 dentists who oppose water fluoridation have announced their intention to sue Ireland’s Minister of Health. The dentists, who are breaking ranks with the Dental Association, maintain that health authorities have not fulfilled their obligation under the 1960 Health Act to conduct regular surveys into the health effects of fluoridation. The group says that the health department has never carried out a comprehensive study, even though published research has linked fluoridation to cancer, irritable bowel syndrome, hip fractures
and thyroid disorders. A study published in NeuroToxicity found that fluoride exposure could produce lower IQ levels in children. According to the anti-fluoridation dentists, up to 50% of their teenage patients have dental fluorosis. They also point out that the agent used for fluoridation, hydrofluosilic acid, is a waste product of the fertilizer industry and contains traces of chromium, mercury, arsenic and lead.

Ireland is the only European country to insist that drinking water be fluoridated, although nine county councils, two corporations and seven urban district councils have voted to end fluoridation.

The Health Ministry has set up a "Forum on Fluoridation" to provide a report, which is due by the end of October. The anti-fluoridation group believes that the report will be a rubber stamp of establishment policy.

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SCIENCE

Effects of Gallium and Mercury Ions on Transport Systems.

Moschen, I; Schweizer, K; Wagner, CA; Geisser-Gerstorfer, J; Lang, F.

ABSTRACT: Mercury was previously shown to exert toxic effects by influencing ion channels and transporters in the kidney and brain. Gallium alloys were suggested as less toxic restorative materials. To compare the toxicity of gallium ions with those of mercury ions, we applied gallium nitrate Ga(NO3)3 (0.1-100 microM) and mercuric chloride (HgCl2) (0.001-10 microM) to Xenopus oocytes expressing mammalian ion channels and transport proteins.

Mercury (10 microM) inhibited the K+ -channels ROMK and HERG, the phosphate transporter NaPi-3, the amino acid transporter rBAT, the cation transporter OCT-2, and the osmolyte transporter BGT. It activated the I(ks)-channel but did not affect the Na+ -channel ENaC. The anion channel NaPi-1, and the glucose transporter SGLT-1.

Gallium was without significant effect on the channels and on SGLT-1, NaPi-3, and rBAT, but inhibited BGT and CCT-2.

In conclusion, both Hg2+ and Ga3+ may exert toxic effects on transport systems, which may partially explain their cytotoxic effects.

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Mercury Uptake and Kinetics After Ingestion of Dental Amalgam.

Geijmersstam, E; Sandborgh-Englund, G; Jonsson, F; Ekstrand, J.
J Dental Research, 80(9):1793-6, 2001.

ABSTRACT: The aim of the present study was to investigate the G-I uptake of mercury (Hg) after intake of a single dose of amalgam-Hg, followed by pharmacokinetic analysis of the data. Eleven volunteers without amalgam fillings ingested 1.00 g amalgam powder. Hg in plasma vs. time was analyzed with a two-compartment model by means of mixed-effects modeling.

A fraction of the absorption rate of Hg to the central compartment was inversely proportional to the plasma ferritin levels. The population mean half-life of the terminal phase of Hg in plasma was 37 days, with a considerable standard deviation in the population.

The absorbed fraction of the administrered dose was estimated to be about 0.04%. It is concluded that the G-I uptake of Hg is of quantitative importance during dental treatment.

BP Comment: The authors stated (published in an esteemed dental journal): "Amalgam is the major source of inorganic mercury (Hg) exposure in the general population. Amalgam fillings release Hg vapor (Hg0), as well as Hg-containing particles and corrosion products. The daily Hg exposure from dental amalgam is estimated to be 1-29 microg (US PHS, 1993). During conventional dental procedures, the Hg exposure is considerably higher." [p. 1793]

They also stated: "The present study shows that
the G-I uptake of Hg from amalgam particles is of qualitative importance. During removal of amalgam fillings by common procedures, the major part of the observed increase of Hg in plasma may originate from absorption via the G-I tract."; and "Previous studies of the amalgam removal effect on the Hg levels in plasma are not directly comparable, since the Hg doses are difficult to estimate and the patient was exposed to both the inhalation of Hg vapor and the swallowing of amalgam debris." [p. 1796]

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ABSTRACT: The relationship between periodontitis and systemic bone mineral density in Japanese women is undetermined. We tested the hypothesis that periodontitis was more frequent in women with low metacarpal bone mineral density (m-BMD). Subjects were 190 Japanese women (89 pre-menopausal, 101 post-menopausal). Periodontal status was evaluated according to the Community Periodontal Index of Treatment Need (CPITN). M-BMD was measured by computed x-ray densitometry.

The proportion of subjects with periodontitis (CPITN > 3) increased as m-BMD decreased in pre-menopausal (18.2%, 36.9%, and 66.6% in the normal, borderline, and very low BMD groups, p< 0.02) and post-menopausal women (41.5%, 54.8%, 60%, and 68.4% in the normal, borderline, low, and very low m-BMD groups, p< 0.05). Among post-menopausal women, those with very low m-BMD had fewer teeth than women with normal m-BND (19.9 +/- 7.2 vs. 25.1 +/- 4.1, p< 0.01).

These results indicate that m-BMD loss is associated with periodontitis in Japanese women, and with tooth loss after menopause.

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Mercury Determination in Human Amniotic Fluid. Luglie, PF; Frulio, A; Campus, G; Chessa, G; Fadda, G; Dessole, S. Minerva Stomatol, 49(4):155-61, Apr 2000.

ABSTRACT: [Article in Italian] BACKGROUND: One of the components of Ag amalgam is mercury which is owing to its organic derivatives, can pass into the organs and biological fluid. One particularly interesting but worrying aspect of this transition is the possibility that mercury may pass through the placental barrier and reach the fetus. The aim of this study was to evaluate the concentration of total mercury in human amniotic fluid and compare it with the number and occlusal extension of fillings using Hg amalgam.

METHODS: A group of 56 pregnant women were selected due to undergo amniocentesis. A dental check-up was carried out in each patient to identify the number and extension of amalgam fillings. Mercury levels in the amniotic liquid were assayed using a spectrophotometer with atomic absorption and a FIAS-amalgam technique.

RESULTS: Mercury concentrations in the samples examined ranged from a minimum of 0.00 ng/ml to a maximum of 2.55 ng/ml, mean 0.44 +/- 0.53 ng/ml. The correlations between the variables examined were evaluated by calculating the coefficient of linear regression. No direct relationship was found with mercury levels. The data obtained were used to construct a mode of logistic regression showing scant statistical significance (p= 0.05) between the number of fillings and mercury levels, whereas the occlusal extension of dental repairs was significantly correlate with metal concentrations (p< 0.05).

CONCLUSIONS: The authors recommend that silver amalgam should be used with considerable
caution during pregnancy.

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New Data on Toxic Metal Intoxication (Cd, Pb, and Hg in Particular) and Mg Status During Pregnancy.
Semczuk, M; Semczuk-Sikora, A.

ABSTRACT: The technological revolution we witness today poses a threat to the homo sapiens species, and its biological results are unpredictable. Excess toxic metals in the environment and the deficiency of bio-elements are particularly harmful for developing organisms. Long-term fetal exposure during pregnancy to even lower concentrations of toxic metals, which have the ability to accumulate, often leads to irreversible developmental disorders.

On the basis of accessible literature, the paper presents transplacental transmission of cadmium, lead and mercury to the fetus. The disadvantageous effects of cadmium and lead on ionic transmission, functional potential and submicroscopic amnion structure as well as the interdependence between the unfavorable effects of these two metals on the amniotic membrane and the competitive antagonistic activity of Jg ions are emphasized.

This paper presents a hypothesis suggesting the involvement of cadmium in the etiopathogenesis of eclampsia based on the literature. It also considers the present state of knowledge of the toxic effects of Cd, Pd and Hg on the course of pregnancy and fetal development. Magnesium - an intracellular cation second in importance to potassium - plays a significant biological role, through it has not been fully explored yet.

The concentration of Mg in the placental and fetal tissues increases during pregnancy. The requirements for this element in a pregnant woman's organism generally exceed it supply; hence, pregnancy should be considered a condition of 'physiological hypomagnesemia' The accessible data concerning the content of Mg during pregnancy in the blood as well as in the uterine muscular wall in physiologic and pathological pregnancies are diverse. The prevailing opinion is that oral supplementation of magnesium during pregnancy makes up for its deficit in the organism of the pregnant woman and also positively influences fetal development.

It is recommended to administer magnesium with food in the form of magnesium salts at the dose 5 mg/kg body mass daily. In clinical obstetric practice magnesium salts therapy is necessary in cases of imminent preterm birth and preeclampsia.

This paper discusses the mechanism and therapeutic effectiveness of magnesium sulfate as used in complications of pregnancy. The contamination of the pregnant woman's organism by toxic metals - cadmium, lead and mercury - poses a serious risk of the same quantitative degree of contaminating the organism of the child developing in her womb. Qualitative changes may be much more serious in the fetus as the affect young structures, intensively developing, with no well-formed defense mechanisms. It is also worth mentioning that the complications in the course of pregnancy may result from toxic metal concentrations lower than those leading to fetal necrosis or premature termination of pregnancy.

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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."

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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.

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Biocompatible Periodontal Therapy Seminar

Sponsored by IAOMT

Site/Date: Atlanta, GA: 8-9 February 2002.
Chicago, IL: 19-20 July 2002.
Dallas, TX: 8-9 November 2002.

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 both days and lunch on Friday.

Program: This day and a half 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.

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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 Ghen, MD; Garry Gordon, MD; Boyd Haley, PhD; Rochelle Herdman, 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 Worschlagre, MD; JoAnne Whitaker, MD; Tony McRedmond, DDS; plus many Elective Program presenters. [Contact Pam Floener (above) for detailed program.]