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THE MEDICO-LEGAL QUESTION

Any controversial medical protocol presents a conceptual question in the eyes of the public and, more importantly, the judicial system. The mercury amalgam controversy now embroiling the dental profession is no exception.

Reports, real and imaginary, of mercury-free dentists being challenged by professional components and occasionally even the judicial system span the continent. The time has come for someone to define the parameters of concern and suggest the establishment of a mercury-free protocol.

Some antagonists claim that amalgam replacement will result in the death of otherwise healthy teeth. If this were true the phenomenon would also apply to anterior teeth where composites have been used for 20 years. Removal of the amalgams by carefully sectioning with a small round burr will not result in any unnecessary damage to healthy tooth structure. In this same context, the ADA position on amalgam replacement with composites brings out the point that the patient is needlessly being exposed to additional mercury vapor. I would counter this by saying that it is a responsibility of the Council on Dental Therapeutics and the Council on Dental Materials and Equipment to establish the proper protocols to limit patient exposure to mercury. It should not matter whether the replacement material is gold, composite, or another amalgam. Replacement of failed amalgam fillings with new amalgam fillings is a common everyday practice with pro-amalgam dentists. Why hasn’t the ADA published a scientifically developed protocol to insure that the patient, dentist, and staff receive minimum exposure to mercury vapor/particles during these routine operative procedures?

Within the context of contemporary scientific knowledge, mercury-free dentists should experience no trepidation over the competent placement of posterior non-metal restorations (NMR’s), but should be cautious and judicious about expounding the reasons for doing so.

Early studies comparing the efficacy of composites to amalgam in posterior stress-bearing situations invariably utilized composites intended for use only in anterior teeth. Additionally, most of these "studies" did not utilize dentin bonding or even etching procedures. We are sufficiently intelligent and competent to realize that anterior composites would not fare well under these circumstances, without having academicians and bureaucrats impugning our integrity. We were using the best alternative materials available at the time, with the complete understanding that we were trading longevity for elimination of a source of a toxic element and electrogalvanic phenomena. Dramatic advances in materials and techniques have obviated the necessity of that concession.

In March of 1981, Wilder, May and Lienfelder reported the results of their two-year clinical investigation of four first-generation light cured posterior composites to the International Association for
Dental Research (IADR Abstract No. 1096). At the end of two years all of the 120 restorations were clinically acceptable; there were no failures. Although two years is not a long time, these results represented a dramatic improvement over the anterior composites that had been previously used and evaluated.

The state of the art has progressed immeasurably since that 1981 study of first-generation posterior composites. A cornucopia of new posterior alternative materials with superior physical properties has appeared since 1983. Some have five-year clinical studies completed or in progress.

At the same time, responsible investigators have begun to seriously consider the documented (non-anecdotal) longevity of amalgam fillings. Maryniak reviewed the available literature and stated "The studies reviewed suggest that amalgam restorations have a 50% failure time between 5.5 and 11.5 years (JADA, Vol 109, Nov 1984). It would seem, therefore, that the average lifespan of amalgam fillings is about 8.5 years. If scientific documentation, as opposed to anecdotal assumption, is the criteria, the "longevity gap" as an issue is rapidly disappearing.

The American Dental Association requires two acceptable five-year clinical studies before it will extend its cherished "stamp of approval" to a non-metal filling material for use in posterior stress-bearing areas. This requirement is not necessary for approval of amalgam products, nor is it a requirement for use of non-metal materials in anterior teeth. This obvious inequity is not only inexplicable and unjustifiable but has been the source of immeasurable consternation to the mercury-free community. We have been subjected to an irrational double set of standards that cannot be scientifically substantiated.

Fortunately, a substantial percentage of the dental profession has apparently become aware of the rapidly diminishing credibility of the pro-amalgam establishment, whether out of concern for the health of their patients or an enlightened eye for the future. At the 1984 ADA Scientific Session, Dr. Karl F. Leinfelder reported "From 1981 to 1983, amalgam moved from having 72% of the market to having 49%; composites moved from 28% to 51%. I expect this trend to continue in 1984." (JADA, Vol 109, December 1984). Based on this information, the doctrine of "Usual and Customary Practice" has now risen to our defense. Scientific studies of physical properties and restoration longevity, coupled with trends in "usual and customary practice" now substantiate that the competent placement of NMR's can no longer be categorized as "non-traditional", "fringe" or "alternative" therapies.

The key word, obviously, is "competent". Optimum techniques and selection of materials is imperative. We cannot afford to be inattentive, uninformed or ill-prepared, particularly in the face of the rapid multiplication of materials, techniques and knowledge. Bio-Probe is attempting to help fill the knowledge gap by addressing the topic in the Bio-Probe Manual and with continuous updates in the "materials" and "techniques" departments of the Bio-Probe Newsletter.
The principle medico-legal hazard of mercury-free dentistry is the diagnostic and therapy protocols that are utilized. Bio-Probe always has, and will continue in the future, recommended the utilization of only those procedures and protocols that can be scientifically substantiated. According to the scientific literature, the following are documented and indisputable:

1. Mercury, particularly in the form of elemental mercury vapor and methylmercury, is highly toxic to humans.

2. Humans have no physiologic or metabolic requirement for mercury.

3. Scientific documentation reveals pathologic damage by mercury to the following human organs and systems: Immune system, central and peripheral nervous systems, lungs, heart, skeletal muscle, liver, kidneys, oral cavity, thyroid gland, pituitary gland, adrenal glands, pancreas, spleen, cell membranes, blood-brain barrier, enzymes, hormones, neurotransmitters and the developing fetus.

4. No toxic threshold for any form of mercury has ever been determined. Threshold limit values were established only on the appearance of neurological damage (i.e., tremor) as an end point in workers exposed to mercury in an industrial environment.

5. Measurements of mercury in the urine, blood or hair do not correlate with the body burden or toxic effects of mercury. No biochemical measure has yet been found that correlates with the mercury content in blood or urine.

6. Mercury is released from dental amalgam fillings during function.

7. Autopsy studies reveal that the amount of mercury found in the brain and kidneys correlates with the number and surfaces of amalgam fillings present.

8. Measurable electrical currents are established from amalgam fillings in the oral cavity.

9. No primary pathological or epidemiological studies have ever been conducted that demonstrate that dental amalgam fillings do not present a health risk to patients.

10. Preliminary primary pathological studies do indicate that dental amalgam fillings present a health risk to patients.

Based on the wealth of scientific documentation a position that amalgam fillings should not be used in dentistry and that humans are better off and at a lessened health risk without the continuous source of mercury presented by dental amalgam fillings is not only secure, but also defensible.
However, claims that amalgam fillings cause any specific disease or syndrome, or are causing specific symptoms in any one individual, are hazardous at this time. Indisputable documentation investigating dental amalgam as an etiologic agent relating to any disease, symptom or syndrome has never been attempted.

Patients presenting with specific complaints they hope are attributable to their amalgams should be referred to a physician for a thorough evaluation before proceeding with amalgam removal. Amalgam removal should be done only with the understanding that its purpose is the elimination of a source of a poisonous element that could ultimately pose a health risk to the patient. Relief from specific symptoms has been clinically noted on occasion, but cannot be guaranteed in any individual case. Additionally, the time required to eliminate body stores of mercury should be discussed.

The fact that scientific documentation has revealed that mercury is capable of causing permanent, irreversible damage to the central nervous system and thyroid gland is also worthy of note. Total remission of symptoms may not be expected in all cases of mercury poisoning. In these cases, the objective would be to avoid further damage and physical deterioration, as well as hopefully achieving a partial remission of symptoms.

The physiological effects of the electrical currents generated by metals in the oral cavity have not been scientifically documented. Although it is hardly conceivable that these currents could be totally benign, their full significance, as well as the proper protocol for their consideration, are open for debate and investigation. Unfortunately, this means that protocols for diagnosis and amalgam removal may or may not be valid. In any case, they are not scientifically defensible at this time. No scientific, physiologic or biochemical justification can be found to substantiate claims that mercury can be permanently "frozen" into a patient's body as a result of improper sequential removal of amalgams. Individual cases that do not respond favorably to amalgam removal may be due to incurred permanent, irreversible damage to the CNS or thyroid gland or may be cases where the symptomatology was not related to the amalgam fillings in the first place. To state otherwise is to place the entire mercury-free movement in jeopardy by espousing a doctrine that categorically states all problems and symptoms are caused by dental amalgam and that by replacing the amalgams the patient must get better.

The other diagnostic procedures presently utilized to determine mercury toxicity from dental amalgam fillings are also, unfortunately, as yet undocumented. Measurements of mercury levels in the urine, blood or hair do not correlate to the body burden or toxic effects of mercury. Proper utilization of the mercury patch test may give an indication of hypersensitivity (allergy) to mercury, but will not evaluate the more prevalent and important toxic effects. Unfortunately, the medical and dental establishments have elected to attack the qualifications of dentists for performing and evaluating patch tests, although they acknowledge that we are perfectly capable of evaluating blood pressure screenings.
The diagnostic future for mercury toxicity seems to depend on the development of biological tests for the influence of mercury on the immune system, blood indicators, or various promising enzymes. Hopefully these tests will be forthcoming in the not too distant future. Until then, the best course of action for mercury-free practitioners would be to follow the suggestions outlined above. Evaluate the symptoms and medical history; state the known documented facts; don't make statements or promises that you cannot substantiate; and, above all, perform your services in a competent, informed manner. Remember, the way we conduct ourselves will have a profound effect on the health of our patients and the public, as well as on the future of our profession.

The final medico-legal consideration of mercury-free dentistry is that of detoxification protocols. This subject is so diverse and complex that it will be addressed as a separate issue in a future edition of the Bio-Probe Newsletter.

REVIEWS/ABSTRACTS

Fifty-four paired, approximal amalgam fillings, extended (E) versus unextended (NE) were placed in forty-three patients and followed up to 4 years. Yearly measurements between the alveolar crest and (a) the apical margin of the fillings (E, NE), and (b) the cemento-enamel junction of the control group, were performed using bite-wing radiographs joined to a translucent grid magnified ten-fold. The rate of alveolar crest resorption was similar for the control (C) and the unextended filling (NE) and reached 0.45 mm after 4 years of follow-up. The resorption of the alveolar crest under the extended (E) filling was significantly higher and reached 0.80 mm after 4 years (P<0.001). Fisher D. et al. A 4 year follow-up study of alveolar bone height influenced by two dissimilar Class II amalgam restorations J Oral Rehab, 11 (4): 399-405, 1984.

29 patients with oral lichen planus and amalgam fillings were patch tested for contact allergy to dental materials. 18 of these patients (62%) had a contact allergy to mercury. In a control material, the frequency of mercury allergy was 3.2%. In 4 of the cases, all the amalgam restorations were removed and replaced by gold and composite material. In 3 of the patients the lesions healed completely and in the remaining case there was considerable improvement. On the basis of these findings it is recommended that all amalgam fillings be removed after a positive patch test to mercury, as a step in the treatment of oral lichen planus. Finne K. et al. Oral lichen planus and contact allergy to mercury. Int J Oral Surg, 11:236-239, 1982.

Patients with histologically verified oral lichen planus (OLP) were studied regarding allergic reactions to substances in dental materials, presence of clinical corrosion orally and factors influencing
corrosion, such as mixed gold and amalgam therapy, non-precious pin-
constructions or complete dentures. The material consisted of 48 OLP
patients (33 females, 15 males) and the results were compared with
those of a control group (40 patients) and/or general population
samples. When patch tested, 38% of the OLP patients reacted to one or
more components in dental materials. Reaction to mercury was most
common, being noted in 26%. Clinical signs of corrosion were
significantly more frequent in the OLP group (72%) than in the control
cases (28%). Patients with atrophic-erosive OLP exhibited a signifi-
cantly higher frequency of corrosion (83%) than those with reticular
type (46%). Mixed gold and amalgam therapy and screwposts were equally
present in both the OLP and control group and the frequency of
complete dentures corresponded to that reported for general
populations. A change of dental materials in 8 patients with positive
patch tests led to marked oral improvement in 6 cases, 2 of which
became completely cured. The frequencies recorded for allergic
reactions and corrosion as well as the result of treatment indicate
that substances in dental materials may be of significance in cases of
OLP. Lundstrom I.M.C. Allergy and corrosion of dental materials in

Affinity of mercury compounds to various phospholipids and fatty acids
were examined. Inorganic mercury showed a higher affinity to lipids
containing unsaturated fatty acids than to those composed of saturated
fatty acids. This suggests that inorganic mercury may easily act on
the double bonds of fatty acid residues in phospholipids which are
major components of the biomembrane. On the other hand, methylmercury
was almost inert to these lipids regardless of the presence or absence
of unsaturated bonds. Nakada S. and Imura N. Susceptibility of

At motor nerve terminals, Hg^{2+} causes (a) irreversible depolarization,
(b) increase in transmitter release, and (c) subsequent irreversible
block of transmitter release. All effects are antagonized when a Na
channel blocker (tetrodotoxin, TTX) and a Ca channel blocker (Co^{2+})
are present, but not when either blocker is used alone. The effects
are not antagonized by TTX plus Co^{2+} when the mercurial is lipid-
soluble (methylmercury). This indicates that the neurotoxic action of
Hg^{2+} is at an intracellular site and that entry is gained through both
Na and Ca channels. The results suggest that metals may inhibit
transmitter release at either the Ca channel or at the release site,
but that irreversible toxicity is due to an intracellular action, possi-
bly involving SH groups. Miyamoto M.D. Hg^{2+} causes neurotoxicity at
an intracellular site following entry through Na and Ca channels.

This study has repeatedly been used as a solid foundation for the notion that mercury-silver amalgam fillings contribute insignificantly to the body burden of Hg.

The dissertation first contains a review of earlier amalgam controversies. Frykholm relates Stock's 1928 paper where the thoughtless introduction of amalgam was considered a severe sin against humanity. Frykholm also relates that there were other critical voices but the contents of the papers are not given. Frykholm reports that Stock, during a visit to Sweden in 1941 retracted his opinion on amalgam, that he wished to disassociate himself from the undesirable publicity around the question and that the rare cases of mercury poisoning caused by the evolution of mercury vapor from amalgam restorations should or could in no way affect the further use of silver amalgam in dental practice.

Stock visited Lund, Sweden in September 1941. In the daily papers some information can be found: that Stock held two lectures; one about borohydrides (discovered by Stock) and one about mercury poisoning. The dental society of southern Sweden was also invited to the latter lecture. "Prof. A. Stock, Berlin, will this week hold two lectures at the dept. of chemistry: Borohydrides and Mercury poisoning from amalgam plombs... measurement of minimal amounts of mercury in the human body and the symptoms of poisoning they can cause... Prof. Stock... mercury from amalgam plombs which can spread in the body and possibly cause symptoms of poisoning. ... That a mercury exposed scientist as soon as possible should exchange his amalgam fillings fillings for other materials, e.g. some of the new polymerizable synthetic products, to get rid of his headache."

Further information can be obtained from Zahnartsbl, Rundschau 10, 1939, 403 where Stock writes that about 2 micrograms/m² continuous exposure (evaporation from fillings) will be equivalent to about 10 micrograms/m² occupational exposure which in time will produce symptoms of poisoning. He also states that people who are continuously exposed to low levels of Hg will become more and more sensitive and fillings which earlier caused no troubles, could in time affect the carrier. No person is born with mercury (hyper)sensitivity. It all comes from exposure. Copper amalgam is condemned by both Stock and the dental scientists. Stock: "But also the best made silver amalgams give off mercury in the form of solid or liquid small pieces and as vapor. The Hg level in respired air, necessary to cause poisoning, is fortunately not reached in most carriers of amalgam fillings. This is the reason why serious amalgam poisonings are rare in relation to the enormous number of fillings used (text emphasized). They are, however, more common than most doctors and dentists think and deserve the attention of these professions. Undoubtedly... light poisonings are far more common than serious ones... The dentist will seldom be in the position to diagnose an amalgam poisoning since that patient with symptoms will not ask him for advice. Unfortunately there is no adequate (mechanical and economic) alternative and it is thus understandable that, also where the disadvantages are known, one
pretends ignorance and also in the future will do so. Hopefully there
will soon appear a dental filling material, comparable to amalgam but
non-toxic. Perhaps the new synthetic materials will help. Meanwhile
the dental profession will continue to use silver amalgam with its
disadvantages. But every dentist must know the health risks he
exposes both himself and his patients to and, according to his
possibilities, avoid them."

Frykholm also mentions that there have been other critical voices
but does not indicate that they relate cases of poisonings. In the
final chapter, Frykholm dismisses the earlier mentioned reports as
cases of allergic reactions which were misinterpreted as mercury
poisonings. This is wishful thinking and directly false. The
reports, originating from Stock's studies, describing cases of
"allergy" (according to Frykholm's definition), are reporting symptoms
typical of chronic mercury poisoning, symptoms which are similar
irrespective of whether they occur in industry or from amalgam.
Furthermore, Stock (1936) in a paper which is in Frykholm's literature
list, specifically states that mercury allergy (as tested on the skin)
has nothing to do with mercury sensitivity. Stock himself was
ever exposed to inhaled Hg but did not react on Hg placed on
the skin. In 1939 he described cases of amalgam poisoning and
specifically stated when patients were also allergic to Hg.

Frykholm used the dithizone method to analyze non-radioactive Hg.
His detection limit was 2.5 micrograms Hg with an error of 2.5 micro-
grams. The dithizone color reaction was known at the turn of the
century but was developed by Stock 1926–1928 (Stock & Zimmerman, 1928).
Stock had a quantitative detection limit of 0.05 microgram with dithi-
zone but discontinued the use of this method because of unreliability
and interference from other compounds. Instead he developed the
micrometric method. Frykholm's chemical analyses are worthless because of
the insensitivity of his version of the dithizone method and there
were very likely severe losses because of evaporation and absorption.
The radiochemical method, when used together with the dithizone method
by Frykholm, generally shows higher values.

Urinary analyses (chemical) for Hg were undertaken after fillings
had been placed in students' teeth. The test persons were stated to
have no exposure to mercury (1st semester dental students). Frykholm
does not consider that exposure can occur anywhere at a dental school.
All the students had amalgam fillings, none younger than 1 year. One
student had gingivitis. All had 10–20 micrograms of Hg/1 urine before
the placement of fillings. None showed any increase after 4–5 new
fillings. This experiment seems quite inadequate. Apart from the
analytical aspects, the students cannot be considered unexposed.
Normal urine levels for non-exposed, non-amalgam persons, according to
Stock & Cucuel is about 0.7–1 micrograms/1.

Radioactive amalgam (Hg\textsuperscript{203} ) 1.5g (containing 50% Hg, 2mCi/g = 1.5
mCi/patient) was placed in 5 patients. Radioactivity was recovered in
the urine for a week, then for another week after the fillings had
been removed. On day 8 and 14 there was an excretion of negative
amounts of Hg (-0.1 microgram% = micrograms/11 ml)! To the best of
my knowledge this is the only observation of negative Hg excretion.

It does not need much science to understand that something must
be seriously wrong with the analyses and/or calculations. Sample
volume, specific radioactivity, counting efficiency and background
radioactivity are given by Frykholm. Calculating backwards one can
ask (and that's what you immediately ask when you are contemplating radiometric studies): What is the minimum level of radioactive Hg which can be detected? In Frykholm's studies the specific activity was 2 mCi/g = 0.5 nCi/0.25 microgram which is the amount of Hg present in a 250 ml urine sample in one of the lowest plotted values (0.1 mcg% = 0.1 microgram/100 ml), even lower values are plotted. 0.5 nCi = 1110DPM (disintegrations/min). With the claimed 4% efficiency of the gamma counter: 4% of 1110 = 44 CPM (counts/min). Background was 150-180 CPM. At least 300 CPM is needed to reliably separate the radioactivity in the sample from the background in any reasonable time.

Thus: Frykholm must have had at least 6 times as much radioactive Hg in the samples (>0.6 micrograms%) to be able to measure anything at all. If all values are multiplied with 6, the radioactive Hg excretion during the first week after amalgam placement will be about 50 micrograms. This seems to be more in line with other measurements.

Frykholm draws the illogical conclusion that approximately everything which is released from amalgam is excreted (perhaps fooled by the extremely insensitive chemical measurements of Hg deposition in various organs of dogs). More recent measurements show the real situation: Rahola et al. (1973) studied the urinary excretion of Hg after volunteers had swallowed radioactive Hg salt or protein-bound Hg. The mean absorption was 15% with a range of 8-25%. Urinary excretion was 0.17% of the swallowed dose during the first 4-5 days which is 1.5-2% of the absorbed amount. Cherian et al. (1978) studied urinary excretion after inhalation of radioactive vapor. 2.4% of the absorbed dose was excreted in urine during 1 week. In feces 10% was recovered which incidentally indicates that some of the fecal Hg in the study by Rahola et al. must have been absorbed and again excreted.

Thus: urinary Hg values after a sudden exposure must be multiplied by about 50 to obtain the absorbed dose. This gives an absorbed dose of about 2.5 mg in Frykholm's experiments. This in agreement with in vitro studies on the amount of Hg which evaporates from fresh fillings. Saliva does not stop the evaporation.

It is surprising that such fundamental mathematical errors as those in Frykholm's study could escape detection in a dissertation. One can assume that the results obtained by Frykholm were very satisfying for the dental profession and that the methods used to obtain them were not scrutinized too closely.

Cited literature:
EDITORIAL

In context with the theme put forth in the opening special article, there are other events and articles that you should all be aware of.

In the Jan-Feb, 1984 issue of Northwest Dentistry, Drs. Messer and Feigal of the University of Minnesota School of Dentistry, wrote an article titled "Incorporating Nutritional Practices into Dentistry". Some very salient points are brought forth:

"An expanded role for dentists in identifying systemic disease in their patients has attracted considerable attention. The routine measurement of blood pressure in the dental office as a means of detecting unsuspected hypertension is an obvious example of this."

"Nutrition has been an important component of dentistry for many years. The major emphasis in nutrition has been in the area of prevention, particularly the control of sugar intake to prevent dental caries. An increased interest among the general public in many aspects of nutrition has been accompanied by a broader spectrum of nutritional practices employed by a number of dentists. While this increased attention to nutrition is commendable, it is important to ensure that any procedure used is scientifically sound and falls within the responsible practice of dentistry."

"In this issue of Northwest Dentistry, the Minnesota Board of Dentistry is alerting dentists that the Board considers hair analysis and kinesiology to be beyond the scope of ethical dental practice. The board is prepared to take disciplinary action against dentists employing these procedures, as well as other procedures for which adequate evidence of efficacy is also lacking. Because of the position taken by the Board, dentists must now be aware of the legal implications of incorporating such procedures into their practices in addition to their scientific validity."

The September 1984 issue of the California Dental Association Journal contained a position paper on Holistic Dentistry that was adopted by the 1983 CDA House of Delegates. Certain aspects are quite germane and are quoted for your information:

"Dentists are trained to recognize the oral manifestations of many systemic diseases, and to recognize the systemic manifestations of oral diseases. In addition, it is recognized that certain physical and mental disorders can produce physiologic or behavioral alterations, which may require modifications of the ideal dental treatment plan. However, some practitioners of "holistic dentistry" have departed from scientifically proven dental treatment modalities, and have adopted a philosophy which goes far beyond conventional dental treatment.

The relationship of many of these techniques to the treatment of dental disease has not been scientifically established. In fact, the relationship of some practices employed by "holistic dentists" is so remote from dental treatment as to suggest that it goes beyond the definition of the practice of dentistry in the California Dental Practice Act, and therefore may exceed the scope of the dental license. The California Dental Practice Act defines the practice of dentistry as follows:
"Dentistry is the diagnosis or treatment, by surgery or other methods, of diseases and lesions and the correction of malpositions of the human teeth, alveolar process, gums, jaws, or associated structures; and such diagnosis or treatment may include all necessary related procedures, as well as the use of drugs, anesthetic agents, and physical evaluation."

The article goes on to state that applied kinesiology and hair analysis are but two of the programs employed by holistic dentists that are not proven or acceptable to the the CDA or the ADA.

The article concludes: "Although organized dentistry supports the interest of dentists in contributing to the overall systemic health of patients through the attainment of optimal oral health, any activities by dentists which cross the fine line between the treatment and prevention of dental disease and the treatment of medical disorders are in violation of both state law and the ethical standards of their profession."

John K. Char, D.D.S. of Hawaii has recently sent us material concerning his efforts to create an organization that would have as its primary goal the definition of the legal scope of dentistry that could be practiced in all 50 states. Another goal of the organization would be to provide a suitable administrative and legal structure to assist any dentist being accused of wrong-doing within the legally defined scope of dentistry. Dr. Char included a reprint out of the Honolulu Star-Bulletin of Jan 25, 1985 pertaining to an address made by William T. Jarvis professor of health education at Loma Linda University in California to the Hawaii Dental Association's annual scientific session. The article by Jeane Ambrose is quoted as follows:

"In an interview this week Jarvis said there are dentists who lean "toward faddist forms of nutrition" when counseling their patients. They may advise patients to take special vitamin or mineral supplements or alter their diets to insure holistic health."

Some of those dentists who also pose as nutrition counselors, actually are dealing in quackery, Jarvis said. When the dentist also sells the recommended supplements, patients should realize that the dentist is going beyond the realm of his or her practice.

The dentist who recommends a patient visit a health food store for the proper supplements may be receiving kickbacks from the store's owner, Jarvis said.

Older people often are the targets of quackery in health care. Because they often have chronic health problems, they tend to seek alternative remedies when conventional treatment doesn’t provide relief.

They are even more susceptible to dentists because "when a person with a dental degree and dental license makes those kinds of claims, he is more likely to be believed," Jarvis said. "Dentistry has a very definite scope of practice. And dentists should stick to it."

When they start selling nutritional supplements, "they are not treating dental disease," he said. "They're treating the patient holistically."

The Dentists involved in such practices often believe they are helping the patients. "They see themselves as being very altruistic, philosophical and self-righteous," he said. "But they never apply scientific rules to their treatment."
Dentists who dabble in quackery and fraud aren’t the only ones who may be giving inaccurate nutritional advice. Dentists in general “tend to exaggerate the harm of sugar in the diet,” Jarvis said.

The foregoing articles bring out some pertinent points that impact on everyone involved in the practice of dentistry. I personally share some of the views expressed. For example I do not think it is ethical for any health care provider to stock and sell nutritional supplements out of his office. Nor can I find sufficient scientific documentation to support the use of kinesiology or hair analysis as PRIMARY diagnostic tools. I also have a great deal of empathy for the patient who is being provided with “expert” nutritional counseling by a counselor who has not attended any nutritional courses or participated in serious self-study of the subject. Nutrient deficiencies and their effect on the oral health of their patients are essential considerations for every practicing dentist and he or she must make the effort to be informed.

However, what I feel is not the important consideration here. It is what you the Dentist feel about these aspects and individuals who have taken it upon themselves to define/and or limit the scope of your practice. There is no question that the need for definition exists.

It would appear from the statements being made by individuals such as Dr. Jarvis and the positions being adopted by the California Dental Association that there are forces espousing the belief that Dentists are “technicians” not “doctors”. It really poses a question: Should Dentistry revert to a 2 year curriculum as before and eliminate the Medical School segment of Dental Education - or - is Dentistry actually a Medical ‘specialty’ as claimed? If Dentistry is really a medical specialty, then how can you be crossing the line as Jarvis implies?

Dr. Char and his group have scheduled a meeting to be held April 27-28 at the Clarion Hotel, 401 East Millbrae, Millbrae, CA 94030. (415) 692-6363. The meeting will be sponsored by Price-Pottinger President, William Fischer, D.D.S. and other health organizations. There is a $75.00 charge to cover the cost of meeting expenses. Checks should be made payable to John K. Char D.D.S., 98-1801 Kileka Place, Aiea, HI 96701. Dr. Char’s phone number is (808) 456-1022.

Being a non-dentist and possibly a little naive I would like to pose a question to the readership: Each of you are the ADA and the local and state societies. Without your participation there would be no association or societies. If that is true, and it is, then WHY DON’T YOU HAVE MINORITY REPRESENTATION ON THE GOVERNING BOARDS OR TRUSTEES?????? What I mean is that none of the organizations involved or identified as the establishment can exist without you the dues paying members. Yet there is evidently a large percentage of you the practicing dentist who does not subscribe completely to the doctrine and policies being proscribed. Yet, nowhere do I see or hear of any concerted effort to insure that this segment of dentistry has a minority voice to insure equity consideration. Think about it!!!!!! I am not talking about the radicals. I am talking about the middle of the road moderates who have no more voice than the radicals. From what I
have observed, you are all controlled by a handful of individuals who are where they are by default (nobody else has the time) or by virtue of seniority and their ability to follow the party line. Have you ever read a report by the Council on Dental Therapeutics that gave a minority opinion? You don't even exist, because you are never heard.

CASE HISTORIES

Case #5

The following case history was provided to us by a dentist practicing in Kentucky.

On March 31, 1983 the parents of a ten year old boy presented to my office. They had seen a news item on T.V. about the possible relationship between the mercury released from amalgam fillings and seizures. They sought consultation for their son and were interested in any testing that could be done to determine if mercury was a factor in their son's seizures.

The initial examination and health history revealed the following:

Patient had never had any amalgam fillings placed until March 13, 1982 when seven amalgams were placed. On April 10, 1982 one additional amalgam was placed. This resulted in 4 permanent 1st molars and 4 deciduous molars having amalgams.

Subsequently, the patient had grand mal seizures on June 10, September 16, and December 19, 1982. After his first seizure the patient was placed on Dilantin with the dosage being increased after subsequent seizures. After his third seizure he was kept in the hospital for 2 days for testing. At the time of this consultation he had had no additional seizures. A history of dizziness and headaches was also elicited. In addition, 3 of the deciduous molars with amalgam had exfoliated in the last month.

A mercury patch test was contraindicated in this case for numerous reasons the most important being that we did not want to risk inducing a seizure.

The parents were advised that the timing of the placement of the amalgams and the onset of seizures, placed mercury high on the list of possible causes (especially since their physician could not identify any other possible cause). Amalgam removal was recommended in addition to minimizing his exposure to any other sources of mercury especially eating fish.

Three weeks later on April 23, 1983 the patient had his first seizure for 1983. This was followed by one on May 28, 1983 which is of particular interest. On Thursday, May 26, 1983 the patient ate fish for lunch at school. Shortly thereafter the school sent him home ill; he stayed home Friday and had his seizure Saturday afternoon.
after eating a tuna fish sandwich for lunch. On May 31, 1983 he was started on phenobarbital - the Dilantin was continued.

On June 24, 1983 all five remaining amalgams were removed with rubber dam in place. As of January 1985, he has not had a seizure since May 1983. Due to their physician's disbelief that mercury had anything to with the patient's seizure, the family has kept the patient on the phenobarbital and Dilantin regimen. They have also refrained from letting their son eat any kind of fish.

SPECIAL NOTE: I don't know if it will do any good, but I am soliciting the name of the attending physician so that I may send him some scientific literature on the subject of mercury toxicity. Hopefully enough data can be provided that he may elect to try removing the patient from phenobarbital and Dilantin.

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FORUM

The International Academy of Oral Medicine and Toxicology met in Atlanta, Georgia on March 2-4, 1985. Although originally intended as the first Board meeting of the new organization, several new members to the Academy were present and were permitted to participate. It was a far ranging meeting during which many major decisions were reached. One of these being to release the following information to the media:

"Press Release - Atlanta Georgia - March 2, 1985
International Academy of Oral Medicine and Toxicology Calls For Ban on "Silver" Mercury Dental Fillings

Most people do not know that 50% of a silver filling is comprised of mercury. Mercury is a poison. As early as 1957, scientific research has shown that mercury escapes from these fillings. However, the American Dental Association had not formally acknowledged this fact until July 1984.

The International Academy of Oral Medicine and Toxicology formally challenged the American Dental Association on November 30, 1984, to produce primary scientific documentation to support their position that silver-mercury fillings are safe and that the mercury released from dental fillings is not harmful.

Scientific documentation has shown that mercury can cause damage to the brain, heart, lungs, liver, kidney, pituitary, thyroid and adrenal glands; red blood cells, enzyme systems and to the immune system. It has also been shown to cross the placental barrier and effect the brain of the developing child in both animal and human studies.

Two recent European autopsy studies have revealed a relationship between the amount of mercury found in brain tissue and the number of silver-mercury fillings present in the teeth. Furthermore, there is presently a government bill put forth in the Swedish Parliament that calls for a ban on the use of silver-mercury fillings in that country.
Because of these facts, the International Academy of Oral Medicine and Toxicology calls upon the governments of the United States and Canada to declare an immediate prohibition of the further use of dental mercury-silver fillings until primary scientific documentation can be provided that the mercury released from dental fillings is not harmful to the public."

Having been elected to the position of Editor of the Academy I was honored to be present in Atlanta and to meet the Officers, Board members and other attendees. I came away from Atlanta extremely impressed with the caliber of the members in attendance. There isn't a question in my mind that the Academy is going to have a far reaching impact on the quality of services delivered by the dental profession as a whole. Perhaps more importantly, it is an organization dedicated to actions based on documented scientific proof and as such, it should have a great deal of appeal to those physicians and scientists who are aware of the potential of the oral environment to be involved in the etiology of many the current disease states or collection of symptom conditions.

The Academy has elected to initially utilize Bio-Probe and its large library of scientific literature to provide certain services for Academy members. As a start, Bio-Probe has agreed to provide its Newsletter to Academy members at an annual cost of $60.00, and to make available my book Silver Dental Fillings - The Toxic Time Bomb at reduced prices. So if you are an Academy member, please indicate so when ordering.

I would urge every subscriber (who meets the Academy's qualifications) to seriously consider joining this fine organization. In anticipation that some of you will, I have included a copies of a letter from the President of the Academy and a membership application.

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This last item is out of sequence because it just became available.

Dr. Harold Loe, Director, National Institute of Dental Research, appeared on the ABC show Good Morning America on March 13, 1985 at 7:40 A.M. and in essence stated the following: The dental profession is now using composites in posterior teeth and this means that we can get rid of gold and silver. These are synthetic materials, that are also very attractive from a cosmetic point of view, but they also stick to the tooth substance. So, a major portion of drilling that's been used in the past to prepare cavities to retain silver and gold is going to be reduced dramatically.

It wouldn't surprise me one bit to see the ADA begin to approve and add various composites to their "approved list". In another vein, it would appear that Dr Loe's statements on national television should be quoted to any insurance carrier who might still be refusing to pay for composite fillings.