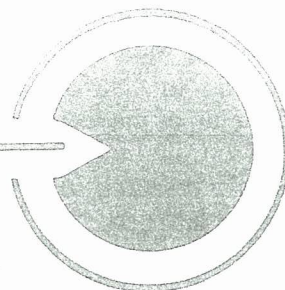


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NEWSLETTER



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VITAL NEW AMALGAM RESEARCH

Research scientists at the University of Calgary Medical School in Alberta, Canada have begun publishing the dramatic results of their research on dental amalgam. The research team consisting of Doctors Murray J. Vimy, L.J. Hahn, R. Kloiber, Y. Takahashi and F.L. Lorscheider have been conducting studies at the Departments of Medicine, Radiology and Medical Physiology at the University of Calgary.

Initial results were presented at the 32nd Annual Meeting of the Canadian Federation of Biological Societies on 14-17 June 1989 and the Second Meeting of the International Society for Trace Element Research in Humans on 28 August-1 September 1989.

Dental amalgam fillings, containing radioactive tagged mercury 203, were placed in 12 molar teeth of 5 pregnant sheep on the 112th day of pregnancy. The use of radioactive tagged mercury 203 allows specific identification of the mercury source, preventing possible misidentification with mercury from other potential sources. The fetuses received catheter implants allowing fetal blood to be drawn during the study. Radioactivity measurements were utilized to determine the presence and quantity of mercury from the dental amalgam fillings (in the mothers) in various body tissues of the mothers and fetuses.

As early as 3 days following placement of the amalgam fillings in the mothers, mercury accumulation was evident in maternal blood and fetal blood, amniotic fluid, and maternal urine and feces. By 16 days after amalgam placement maternal mercury levels were highest in kidney, liver, G.I. tract, and thyroid. The mercury levels in the fetuses were highest in the pituitary gland, liver, kidney, and placental cotyledon (a portion of the placenta).

At 33 days after amalgam placement (birthtime) most fetal tissues had higher levels of mercury than did the maternal tissues. Specifically, the fetal levels were higher in the liver, epiphysial bone (the ends of long bones, such as those in arms and legs), bile, bone marrow, blood, and brain.

During lactation, there was 8 times more mercury in the milk of the mothers than in their blood serum. With amalgams in place for 73 days the mercury tissue levels in mothers continued to rise in kidneys, liver, parotid glands, lungs, G.I. tract, adrenal glands, pancreas, pituitary glands, urine, bile, brain, and thyroid glands.

The researchers concluded that mercury vapor released from dental amalgam fillings is readily absorbed in lung, gastrointestinal tract and jaw bone and progressively accumulates in maternal and fetal tissues with exposure duration. Neonatal mercury exposure (after birth) from this dental material occurs via milk. Results indicate that dental amalgam can be a major source of chronic mercury exposure in humans.

BIO-PROBE COMMENT: This dramatic research is a major breakthrough in the amalgam controversy. It has

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been well established that the developing fetus is extremely susceptible to the invasion of harmful chemicals, including mercury. The work of Dr. Murray Vimy and his colleagues, along with the continued research of others such as Dr. Magnus Nylander at the Karolinska Institute in Sweden and Dr. David Eggleston in California, is changing the world scientific community's opinion of dental amalgam. Opponents of the use of dental amalgam can no longer be labeled 'quacks' or 'frauds'. Actually, the shoe is now on the other foot; advocates of the use of dental amalgam, totally devoid of any valid published scientific research to defend their position, must now alter their position or face the prospect of being similarly labelled.

SPECIAL ARTICLE

WHO IS RESPONSIBLE FOR AMALGAM USE???

Michael F. Ziff, D.D.S. & Sam Ziff

The controversy over the use of mercury-containing dental amalgam fillings continues to unfold. New developments continue to appear in the scientific area, the professional area, the public area, the governmental area, and.....the medico-legal area.

Scientifically, beliefs that were once widely espoused and passionately defended are crumbling one by one. It has now been clearly established that dental amalgam, once considered to be an admirably stable mixture, constantly releases its mercury which is then absorbed into the patient's body where, with time, it slowly accumulates. It has also been established that this mercury, proven to be extremely toxic, probably has no threshold to guarantee against harmful effects. The dental profession now acknowledges that patients are chronically exposed to mercury from dental amalgam fillings, but claims that the exposure is so small that no harm is derived from it. There is absolutely no scientific data to justify such a conclusion. Scientists around the world have now begun investigating the pathological effects of chronic mercury exposure from amalgam fillings.

As more and more patients experience physical benefit from the elimination of chronic mercury exposure from dental amalgam fillings, the public has become increasingly aware of the potential problem. The news media and governmental entities are also showing increased awareness and interest.

Ultimately, the question of responsibility for the use of dental amalgam will be encountered. The average dental practitioner feels that so long as the positions of the leadership of the profession are followed, personal safety and security are ensured. Although this feeling has certainly been justified in the past, it is highly unlikely that it will continue in the future. The actual formal positions of dental associations and governmental agencies on dental amalgam have been well concealed and insulated from the profession. They are certainly not what the average practitioners think they are, public statements by employees of the professional organizations and governmental agencies notwithstanding. Eventually, the vital difference between public statements of poorly informed individuals and the actual formal positions will be exposed. When that occurs, the true responsibility for the use of dental amalgam will be revealed.

On November 4, 1985 a chilling article appeared in the ADA News (Page 6, Column 4). The article stated "the Swedish Supreme Court held that the individual dentist, not the government, is responsible for the materials used". It seems that a patient had sued the Swedish government and the Swedish dental association for alleged health damage incurred from dental amalgam fillings. The lower court had ruled against her and the Swedish Supreme Court had refused to hear her appeal based on the above stated position. So, in Sweden, the individual practitioner bears all responsibility for any damage from mercury from dental amalgam.

What about the United States? Manufacturers and suppliers are not legally or scientifically valid authorities for medical treatment; they cannot dictate treatment to doctors and therefore cannot be held wholly responsible for treatment. Obviously, dental practitioners cannot transfer their responsibility to dental manufacturers or dental suppliers, although that responsibility could be shared with those entities. That leaves only four possible entities, other than the dental practitioner, to bear the legal responsibility for