



Amalgam Fillings - Special Waste-Sites in our Mouths

An Insidious Poisoning and its Fateful Outcome

by Gerda Otten, Germany



The argument which flares up from time to time as to the value or otherwise of silver amalgam dental fillings is little more than an emotionally charged exchange of opinions. Therefore what is called for here, as a contribution to this important topic, are scientifically grounded facts, which may help some people to reach an informed decision to request their dentist to remove their amalgam fillings.

For many years now a succession of dentists and naturopathic doctors have expressed their conviction that amalgam fillings with their mercury content may constitute a danger to the whole organism. This is because of their gradual electrolytic decomposition in the mouth, resulting in the addition of poisonous mercury compounds to the organism's toxic load. It has already been established that even the enamel of untreated teeth in the near vicinity of such fillings contains an amount of mercury ranging from 2-3 ppm., whereas a mercury content of 150-1600 ppm. has been found in the enamel of teeth which actually contain amalgam fillings. [1]

Among the heavy metals, mercury occupies an unusual position, since even at room temperature it shows a relatively high vapour pressure. Its boiling point is as low as 357°C. So, once mercury enters the biosphere, it can only be removed with great difficulty. For some time, dentists have used a special container for the disposal of the removed amalgam fillings. This should provide food for thought for all those who have been carrying this substance around in their mouths day and night for many years.

Mercury which has vaporised in the warmth of the mouth causes food to taste bitter. It forms compounds with the saliva and is swallowed. It is then up to the organism to recognise it as toxic "special waste", storing it in various "waste sites". Mercury is therefore found in the blood and the urine, as well as in the saliva. Professor Stock demonstrated the presence of significant quantities of mercury from a single dental filling in the stools, urine and saliva. In the blood serum of amalgam carriers he found 0.004 - 0.1 mg. of mercury (atomic vapour), i.e. highly toxic quantities. What quantities of mercury might we find in ground-water, increasing daily?

The mercury levels in unfilled teeth clearly show that they too accumulate mercury that is released in their vicinity. In selecting tooth-donors for this study, care was taken to exclude any who might be exposed to mercury from other additional sources - e.g. nutritional. This research also established unequivocally that the amount of the mercury deposit in the root of the tooth varies according to the size of the amalgam filling in the tooth in question. [2]

On the toxic effects of mercury

As is well-known, the toxicity of mercury compounds is heavily dependent on the type of compound, with the organic compounds being the most dangerous. Subacute mercury poisoning finds expression above all in neurological symptoms, such as tremor, vertigo and depression. However, inflammation of the gastric mucosa and vomiting may occur.

Poisoning from alkaline mercury compounds can lead to loss of vision, to disturbances of co-ordination and further symptoms of CNS disease (neuro-encephalopathy). In most cases of damage the toxic action is primarily on the CNS, since this reacts with particular sensitivity to damage from methyl mercury. In pregnant women, however, organic mercury compounds cross the placental barrier and accumulate in the foetus. Following the poisoning disaster in Japan (Minemata Bay), mental disturbances were found to be present in almost all infants born to mothers from that area. [3]

Risk assessment and established limits

The World Health Organisation (WHO) has temporarily established a maximum permitted weekly intake of mercury per person: this is 300 µm for complete mercury and 200 µm for organic mercury [4]. In setting this limit, they were thinking primarily of the uptake from food. If on the other hand mercury is released from dental fillings in the form of vapour, then quite different considerations arise. The readings from the vaporisation alone are very difficult to check.

Dental nurses constitute a special high-risk group. An investigation revealed that 14.4% of them were infertile, compared with a general average of 3.5%. Another investigation showed that the placental tissue of dental nurses contained a high degree of inorganic mercury, although the mercury content in the air was below the professed level [5]. This too sheds light on how seriously we should



take the risks and limits contained in official announcements.

Silver amalgam fillings depress our level of immunity

The work of *David Eggleston* - University of Southern California (Los Angeles) - should receive special attention in this regard. The task of this research project was to ascertain the effect on human T-lymphocytes of amalgam and nickel alloys. As we know, these so-called T-helper cells have the ability to identify cancer cells, for instance, pathogenic micro-organisms and other alien cells and to mark them out, so that they can be rendered harmless by other cells, such as macrophages. A decrease in the T-lymphocyte count therefore leads to a depression in the immune system's performance with regard to antigens in general, often with fatal results. An extreme example of this is AIDS, with an exceedingly high occurrence of Kaposi's sarcoma and microbial infections, because of the shortage of T-lymphocytes.

The percentage of T-lymphocytes as compared with the total of all lymphocytes, measured over a period of eight weeks, does not vary more than 10%, and seldom more than 5%. It is therefore possible to measure the percentage of T-lymphocytes before and after the insertion of silver amalgam and nickel alloy fillings, and to compare the data from the measurements in order to ascertain the tolerance of these materials. The investigations carried out by the above-named researcher showed that, in the presence of amalgam, the percentage of T-lymphocytes changed, not by 10% as might

normally be the case, but by 57-64%. Even after removal of the amalgam, this percentage remained at 55%. This means that the influence of amalgam entails a dangerous weakening of the immune system^[6].

Amalgam must share the blame for a great deal.

We cannot dismiss the possibility of anaetiological contribution from mercury allergy symptoms to multiple sclerosis and certain types of cancer. There are also weighty grounds for the assumption that neurodermitis in neonates is caused by mercury poisoning of the mother from silver amalgam fillings. My observations suggest that this is less the case in firstborn offspring but clearly more the case in second-born offspring. This thesis is supported by - inter alia - therapeutic success in skin treatments following the elimination of mercury. Certainly observations of this kind cannot be regarded as proof of the thesis. But should not observations carry some weight in the face of such serious events?

The whole possible extent of the amalgam problem becomes clear on reading a treatise by the ophthalmological specialist, *E. Raue*, entitled "Resistance to Treatment: think of Amalgam Fillings". This appeared in the "Deutsche Medizinische Wochenschrift" [= German Medical Weekly] of 16.9.1980. Based on contributions from patients whose eye complaints had become curable following the removal of amalgam fillings, the author estimated that, within a two-year period, around 200,000 people in the German

Federal Republic had had to visit eye clinics because of amalgam-related problems. This then raises the question: What are the effects of this unsolved problem, quite apart from the enormous costs involved?

Bibliography

[Translation of these titles into English does not imply that the articles themselves are available in English.]

[1] Mineral and Trace Element Report: Wolfgang Bayer D.Sc. Laboratory for Spectral Analysis and Biological Investigation, Bopserwaldstraße 26, 70184 Stuttgart

[2] Investigation by Davoud Karimian Teherani, D.Eng., Selbersdorf Research Centre, A-2444 Selbersdorf, Austria, and Prof. Dr. Thomas Till, Expert in Dentistry and Oral Microbiology, Riemergasse 14, A-1010 Vienna.

[3] See [1] above.

[4] See [1] above.

[5] Mats Hanson, Lecturer in Neurobiology, Dept. of Zoophysiology, University of Lund, Sweden. Article published in "Integral" 5/1982, reproduced in "Wohnung und Gesundheit" [= Home and Health], 10/1982.

[6] Paper read by David Eggleston to the American Prosthodontic Society, Newport Beach, Ca.

First published in the German language in the SANUM-POST magazine (5/1988)

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