

The case against amalgam*

Max C. Engl

"If you want to be a good dentist, ...
don't use amalgam."
Charles Stuart. 1900-1982.¹

For over a hundred years dentists have used gold and amalgam for restoring carious teeth. It is an accepted fact that gold restorations are superior in respect of durability and biocompatibility. Amalgam restorations are used extensively because they are cheaper in the short run. Also, many dentists still think that mercury, a highly toxic element which constitutes half of an amalgam filling, does not seep out and is therefore harmless. Amalgam allergies, which are well known, are considered extremely rare; early warnings of acute and chronic mercury poisoning are ignored even by most teachers of restorative dentistry. With the advent of refined analytical methods there is much new evidence to prove that mercury seeps out of amalgam fillings and that it causes harm to our patients and to dental personnel. We are well advised to take a new critical look at amalgam.

Literature

Although a practicing dentist cannot possibly know all the literature on amalgam, at least the key facts should be known.

Negative effects of amalgam were reported as early as 1840.²

In 1926 Stock published articles warning of the hazards of dental amalgam.³

Cases of allergy are generally acknowledged, but considered to be very rare.⁴

Biopsies prove that mercury accumulates in the brain, kidneys, etc., in relation to the number of amalgam fillings.⁵

Mercury levels in blood, urine, and exhaled air (particularly after chewing gum) corresponds to the number of fillings.⁶

Galvanic currents in the mouth flowing from restoration to restoration are considered highly harmful by some authors, insignificant by others.⁷

Amalgam fillings raise the Hg-concentration in the brain, kidneys, etc., significantly in dental pulps irrespective of a cavity lining up to 40-fold.⁸ Intravenous application of Dimaval-Heyl (sodium-(2,3) dimercapto propane(1-)sulphonate) can be used both as a mercury indicator and a detoxifying agent.⁹

Numerous illnesses including severe neurological disorders were attributed to mercury intoxication.¹⁰

Food may contribute to Hg intake.¹¹ German federal law requires dentists to extract amalgam residue from the waste water of their offices, discourages the use of gamma2-amalgam, but allows further use of non-gamma2-amalgams, except for small children, expectant and nursing mothers, and people with reduced kidney function.¹² Pregnant women transfer amalgam intoxication to their babies.¹³

After removal of amalgam fillings 68% of alopecia patients grew hair again.¹⁴

* This paper is dedicated to my uncle Herbert Turnauer

Personal observations

I am a dentist who has been making gold restorations ever since starting in practice. But I have also been making amalgam restorations of above-average durability. To learn that mercury constantly seeps out of these fillings and may cause intoxication was a great shock to me. About 5 years ago I decided not to use amalgam any longer. I carefully record the development of my patients general and oral health after amalgam removal. This is my preliminary report of some cases under current treatment.

Case 1

Mrs H. B., 40, presented with a list of 24 complaints, ranging from the feeling that her legs could no longer support her, headaches, restlessness, fear, tachycardia, pain in the joints, and stomachaches, to the feeling of "not being really present." After undergoing several medical examinations she was admitted to a psychiatric daycare unit at which she took one look and decided "that this was not where she belonged." As a last resort she consulted me. In the course of her treatment I removed about 16 amalgam fillings (some under gold crowns) and eventually replaced them with cast gold restorations. General detoxification was administered by her general physician. After initial slight worsening of her condition Mrs B. got progressively better, and 6 months later she felt more optimistic. A further year later she entered my office for a checkup completely recovered, radiantly happy, and reporting that she could now cope with her daily problems well.

Case 2

Mr G. M., 45, presented for a routine inspection. He had 12 mainly occlusal amalgam fillings, which needed replacing because of marginal deficiencies. When the patient rose from the dental chair I remarked about the various efflorescences on his face. Only then did the patient tell me the whole

story: At the age of 20 he had his first amalgam fillings. Some time later spots appeared on his face and various parts of his body. A hospital examination could neither reveal the cause nor find an effective therapy. G. M. had to give up his occupation as master-baker and received a pension for 3 years before he trained for another job. This was 20 years ago and he had these spots all the time. Two months after amalgam removal (detoxification with selenium, zinc, and vitamin C) the spots were gone, new spots only appearing sporadically and clearing up quickly.

Case 3

Mrs B. K., 24, had numerous efflorescences on her face and neck that had afflicted her ever since the age of 9 years. Her 13 amalgam fillings were removed and detoxification was carried out by her own doctor (after DMPS iv. Cu was 2228 and Hg 359 mg/g Kreat. the accepted levels being 500 and 50, respectively). The condition of the patient improved steadily, and after 18 months her skin is largely free from efflorescences.

Case 4

M. K., 15, suffered since age 11 from tonsillitis about five times a year and also had circulatory problems. His amalgam fillings were removed at the request of his physician. This was about two years ago, the boy has not been ill since, and his school performance has improved as has his general behavior.

Case 5

Mrs V. C., 22, had numerous efflorescences on her face and neck which completely disappeared about 3 months after her 11 amalgam fillings were removed. The patient is very happy and feels that the money for gold restorations was well spent.

Case 6

Girl W., 17.1.78, reported for routine removal of six faulty amalgam fillings. When she came for a check-up 2 months later, I remarked: "Well your spots have gone," to which she replied "What spots?" Only when I showed her the slides, which I had taken prior to treatment did she remember that she had had several spots on her face for a long time.

I could add many cases to this list, which all follow a similar pattern: headaches, general health, also the psychological condition, the skin condition, the condition of the oral mucosa and gingivae (changing from swollen bluish red to firm and pink!) all improve after removal of amalgam fillings. Of course these cases are not scientific proof of the toxicity of amalgam fillings. Spontaneous remission and the placebo effect do exist. I don't ask anybody to believe me. But if practitioners choose to observe their own patients after amalgam removal they may find their own results very convincing.

Description of efflorescences caused by amalgam intoxication

Having seen so many efflorescences (spots) clearing up I do not doubt that many - but not all - of these skin conditions are caused by amalgam fillings. Typically, red, round (diameter of 1 to 2 mm), itching, and wet surface efflorescences appear on the face and various other places of the body. They may clear up at one site and may appear at another. Possibly they are a sign of the body getting rid of toxins, which of course is one of the functions of the skin. The shorter the exposure to amalgam has been, the quicker they seem to disappear.

The best solution to the problem. People should not allow caries to rot their teeth!
We practicing dentists should follow Dr Stuart's advice and not use amalgam, if we want to be good dentists!

Acknowledgments

I wish to thank Axel Bauer for his encouragement to

- 6 VIMY MJ and LORSCHIEDER FL: Intra-oral air mercury released from dental amalgam. *J Dent Res* 1985a; 64: 1069-1071.
- 7 HUGGINS H: Oral galvanic impact of dissimilar metals in the mouth (including amalgam) is a serious health concern. Applications textbook. Colorado Springs, Huggins Diagnostic Center 1988; 278.
- 8 NYLANDER M, et al.: Mercury concentration in the human brain and kidneys in relation to exposure from dental amalgam fillings. *Swed Dent J* 1987; 11.
- 9 DAUNDERER M: Handbuch der Umweltgifte. III-3. 2. Landsberg. Germany; Ecomed Verlagsgesellschaft: 1990.
- 10 HUGGINS HA; An Application Textbook Colorado Springs: 1988; 225.
- 11 ELEY BM and Cox SW: Mercury poisoning from dental amalgam - an evaluation of the evidence. *J Dent* 1988; 16: 90-95.
- 12 Amalgam in der zahnärztlichen Therapie. Bundesgesundheitsamt; 1991.
- 13 BONNET E and BONNET M: Z für Erfahrungsheilkunde. 1992; 10a: 744.
- 14 KLOBUSCH I, et al.: Das ärztliche Laboratorium. Oct. 1992
- 15 LOTZMANN U: Personal communication.
- 16 MOTSCH A: Quoted from KOCH W and WEITZ M: Amalgam - Wissenschaft und Wirklichkeit. Freiburg, Germany; Oeko-Institut 1991.

References

- 1 McCOLLUM BB and STUART CE: A Research Report. Ventura, Calif: Scientific-Press 1955.
- 2 DAUNDERER M: Handbuch der Umweltgifte, III-3, Landsberg. Germany: Ecomed Verlagsgesellschaft 1990.
- 3 STOCK A: Z. für angewandte Chemie 1926; 39: 461-488.
- 4 KNOLLE G Amalgam Pro und Contra. Cologne, Germany: Deutscher Ärzte-verlag; 1987; 10.
- 5 SCHIELE R: Amalgam Pro und Contra Cologne, Germany Deutscher Ärzte-verlag 1990.

Address:

Max C. Engl, Dr.
Hauptstraße 5,
D-71272 Renningen, Germany