

DOES MERCURY INCREASE AFTER AMALGAM REMOVAL?

Bjorkman L, Sandborgh-Englund G, Ekstrand J. Mercury in saliva and feces after removal of amalgam fillings. *Toxicol Appl Pharmacol* 144(1):156-162 (1997)

ABSTRACT: "The toxicological consequences of exposure to mercury (Hg) from dental amalgam fillings is a matter of debate in several countries. The purpose of this study was to obtain data on Hg concentrations in saliva and feces before and after removal of dental amalgam fillings. In addition Hg concentrations in urine, blood, and plasma were determined. Ten subjects had all amalgam fillings removed at one dental session. Before removal, the median Hg concentration in feces was more than 10 times higher than in samples from an amalgam free reference group consisting of 10 individuals (2.7 vs 0.23 $\mu\text{mol Hg/kg dry weight}$, $p < 0.001$). A considerable increase of the Hg concentration in feces 2 days after amalgam removal (median 280 $\mu\text{mol Hg/kg dry weight}$) was followed by a significant decrease. Sixty days after removal the median Hg concentration was still slightly higher than in samples from the reference group. In plasma, the median Hg concentration was 4 nmol/liter at baseline. Two days after removal the median Hg concentration in plasma was increased to 5 nmol/liter and declined subsequently to 1.3 nmol/liter by Day 60. In saliva, there was an exponential decline in the Hg concentration during the first 2 weeks after amalgam removal ($t_{1/2} = 1.8$ days). It was concluded that amalgam fillings are a significant source of Hg in saliva and feces. Hg levels in all media decrease considerably after amalgam removal. The uptake of amalgam mercury in the GI tract in conjunction with removal of amalgam fillings seems to be low."