Toxicity of Mercury

Dr. Boyd Haley, professor of Chemistry/Biochemistry emeritus at the University of Kentucky, recently gave a lecture at a dental convention. His lecture was titled, the *Toxicity of Mercury and its Relationship to Neurological Illness and Oxidation Stress*.

In a series of short articles I would like to summarize and simplify what he presented. He rightfully stated that without degrees in chemistry, most of us would not understand all that he presented. We did understand most of the conclusions following the scientific articles and it is my hope that you will also understand and benefit. A pro-amalgam spokesperson recently stated that it is “estimated” that only 0.03 mcg. (Micrograms) Of mercury is given off in a single day. On that basis, he said, it would take several hundred amalgams to provide a toxic dose.

First, why would someone representing a science-based organization, have to estimate something as toxic as mercury is to humans? A recent study, funded by the *International Academy of Oral Medicine and Toxicology*, shows that different types of amalgam emits more mercury than others and that a single spill (very small amalgam) emits between 4.0 and 20.0 mcg of mercury a day at room temperature and without abrasion (it would have been much greater at body temperature, or after chewing or brushing). 4.0 to 20.0 mcg/day is about 133 to 666 times more than was estimated by this “scientist.” This is a sad example of perverting or ignoring science to support erroneous claims.

A study done in *Stockholm, Sweden published in 1997 by L. Bjorkman, et.al. evaluated the mercury concentration in saliva and feces before and after removal of dental amalgam fillings.* Ten subjects had all their mercury fillings removed at one appointment.

*Before removal the mercury concentration in their feces was more than ten times higher than the samples from an amalgam free reference group of ten individuals.* A considerable increase of mercury concentration in feces two days after removal was followed by a significant decrease. *The decrease continued until checked at 60 days after removal when it was just slightly higher than the non amalgam reference group figure.*

*In saliva, there was an exponential decline in the mercury concentration during the first two weeks after removal.* It was concluded that, 1) amalgam fillings are significant sources of mercury in saliva and feces, and, 2) the uptake of amalgam mercury in the GI tract in conjunction with proper removal of amalgam fillings appears to be low.
Coming Soon: Mercury as a source of Oxidative Stress.