

David Kennedy, DDS – Response to WebMD

The original article by WebMD can be found at <http://my.webmd.com/content/article/98/104695.htm>

Dear WebMD,

The ***Mercury Fillings: They're Not Risky*** article is so full of misinformation and false statements it is hard to know where to begin. To simplify matters I've decided to start with the headline. Even the bogus report acknowledges that the (16.1%) portion of the population who are allergic to the components in amalgam will react to implanted mercury/silver fillings.[i] That makes them at least somewhat risky.

The second sentence of the headline is a totally false statement, ***Mercury Vapors Not Easily Absorbed by Body.***

All forms of mercury are toxic. Mercury vapor is one of the most toxic forms of mercury because it is highly absorbed from the lung. At low dose it is almost 100% absorbed. At higher levels of exposure it is 74% absorbed.[ii] The rate of absorption is the critical factor in toxicity because, once mercury is inside the human body, the results are devastating.[iii] It accumulates in critical organs like the brain and kidney and transfers across the placental membrane into the fetus.[iv] [v]

The report claims, "However, about 95% of people in the studies had mercury levels at or lower than the level deemed harmful by the WHO." It would be good to know what levels of mercury that the WHO now considers safe as the most recent documentation I've seen stated that no "SAFE" level of exposure has been determined.[vi] To help you better understand the importance of the reports first statement, I have simply reword the negative statement into a positive one.

Recent studies of humans found that 1 in 20 of the people examined with mercury/silver amalgam fillings had exposure to mercury from their dental amalgams at a level that is known to cause harm. In addition, the studies found that the amount of mercury excreted in the urine was proportional to the number and size of fillings in the victim's mouth. Moreover, many common oral habits such as chewing gum, clenching or grinding greatly increased the amount of mercury released and absorbed.

I have not changed the fundamental statement. I merely took away the positive spin from a very damning finding.

Lastly, it most unfortunate that you chose to quote a dentist on the fundamental principals of chemistry, **Why Mercury Fillings Are Safe.**

Cynthia Trajtenberg, DDS has misstated the chemical composition of dental amalgam. Amalgam is a mixture of 50% mercury plus silver copper zinc and tin and does not form covalent bonds as are found in common table salt. If you smash salt with a hammer, you get smaller salt. If you just chew on dental fillings, you get elemental mercury vapor coming off the filling.[vii] If you were to smash it with a hammer, you would immediately create an enormous cloud of mercury that continued to come off the amalgam particles for 90 minutes and longer.

Furthermore, mercury/silver fillings corrode, the mercury byproducts form on the surface and are abraded away with food and chewing.[viii]

Dr. Cynthia Trajtenberg, DDS claimed that, "Eating salmon and deep sea fish more than twice a week gives more mercury than a single amalgam." Autopsies of more than 100 humans have established that the amount of mercury in kidney or brain is proportional to the number and size of amalgam fillings in the teeth.[ix] Moreover, the amount of mercury in the brain is much greater for people with mercury/silver amalgams than for the controls that were people with 32 unrestored teeth. Either Dr. Trajtenberg is wrong or people in Los Angeles who have no mercury/silver fillings almost never eat fish.

Trajtenberg is correct in stating that the safety "all depends on how molecules are combined," If her statements were true, amalgam would be a much safer restoration. Since the statements are incorrect, the opposite is the case. *"It is a fallacy that mercury is neutralized when it is combined with other components of silver dental amalgam. The laws of physical chemistry are followed. Mercury is diluted by the other components of amalgam in what may be considered a solid solution. Although the vapor pressure of mercury is reduced, mercury vapor is still released. An identical situation arises when alcohol is diluted by water."* [x] As a result dental amalgam is the predominant source of human exposure to mercury.[xi]

In the future the public would be better served when critical health issues of toxicology and heavy metal exposure are considered if the responsible news agencies will seek advice from experts in the field of chemistry and toxicology rather than relying upon trade associations and the people who merely use the products.

Sincerely,

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References

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[iii] Leong CCW, Syed NI, Lorscheider FL Retrograde Degeneration of Neurite Membrane Structural Integrity of Nerve Growth Cones Following in vitro Exposure to Mercury NeuroReport Vol. 12 #4, 2001

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from dental fillings, 32nd Annual Meeting of the Canadian Federation of Biological Societies 14-17 June 1989 and 2nd Meeting of the International Society for Trace Element Research in Humans 8/89

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[vi] WHO Environmental Health Criteria 118 (1991), section 5.1. General population exposure, Table 2, <http://www.inchem.org/documents/ehc/ehc/ehc118.htm>.

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[xi] Op Cit. WHO 118.