Dental Amalgams – Dealing with Old Silver Fillings

Dental amalgams, commonly known as "silver fillings", have been used to replace decay in teeth since the 1830's. Like all things in science and medicine, materials and techniques in dentistry are constantly improving and changing. Undoubtedly, the ability of amalgam to replace missing tooth structure and wear well has been proven, but the safety of dental amalgams is still a controversial issue.

Dental amalgams can contain up to a 50% mercury content, and the pathophysiologic effects of mercury's slow release into the body is the issue at hand. The World Health Organization reports, "Amalgam restorations are safe and cost-effective…Components in dental restorative materials, including amalgam, may, in rare instances, result in local side-effects or allergic reactions." The FDA and U.S. Public Health Service reached similar conclusions. However, several countries, including Canada, Sweden, and New Zealand have decided to ban the placement of dental amalgams due to its potential risks. Studies on this issue are ongoing. Currently, the National Institute of Health are trying to detect any subtle and long-range health effects of dental amalgams placed in children.

Amalgam use in dentistry is on the decline. Newer, resin-based, tooth-colored filling materials have been developed that release fluoride, are bonded to tooth structure, and are mercury free. Fluoride is an element, that when included in a restorative filling, has the ability to continuously release ions into the tooth and help prevent decay.

Another common problem I see with older amalgam fillings is their tendency to cause tooth fracture. The expansion of amalgam with heat and cold compared to natural tooth structure is different. So, long-term, this typically results in minor cracks in teeth. The cracks sometimes become so large that part of the tooth breaks. This is usually seen with larger amalgams, where the majority of the tooth has been lost to decay. These circumstances often indicate taking out the

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