

Dental Material Considerations For Biologic Dentistry

I've always tried to explain to my patients; *"the best dentistry in your mouth, is no dentistry at all."* Even with all the knowledge, education and research that has been provided to our dental profession, our best efforts will never be able to restore your teeth to their natural structure and beauty that mother nature has provided for us all.

The purpose of this article is to enlighten our patients and educate them in order to understand more clearly what dentistry has to offer in regards to restorative materials. The materials *most popularly used* in dentistry today consist of: mercury, gold, silver, nickel, chromium, cadmium, aluminum, palladium, platinum, titanium, copper, tin, plastics and porcelains. To be quite honest, I never gave much thought to the materials I was using in the early part of my dental career, but suddenly my curiosity got the best of me and finally after 13 years of practicing dentistry, I became acutely aware of these materials that were being placed in my patient's mouths and decided I needed to compile more information and research in order to form and educated opinion for myself.

Some of these materials that we commonly use in the oral cavity are considered to be heavy metals: mercury, nickel, cadmium, aluminum, palladium, silver and copper. What's the concern about these heavy metals? Well, they are referred to as any metallic chemical element that has a relatively high density and is toxic or poisonous at low concentrations. Heavy metals are a natural component of the Earth's crust. They cannot be degraded or destroyed to a small extent. They can enter our bodies via inhalation, skin, eye contact and ingestion. As trace elements, some heavy metals (e.g., copper, selenium and zinc) are essential to maintain the metabolism of the human body; however, at higher concentrations they can lead to poisoning. Heavy metals are dangerous because they tend to *bio-accumulate*. Bioaccumulation means an increase in the concentration of a chemical in a biological organism over time, compared to the chemical's concentrations within the environment. Compounds accumulate in living things any time they are taken up and stored faster than they are broken down (metabolized) or excreted.

Symptoms of heavy metal toxicity include mental confusion, pain in muscle joints, headaches, short term memory loss, gastrointestinal upsets, food intolerance/allergies, vision problems, chronic fatigue and others. The symptoms are so vague that it is difficult to diagnose based on symptoms alone; therefore, discovering the *cause* is the real mystery that may actually plague our present health and wellness.

The worst part about heavy metals is that once they build up in your body they can cause irreversible damage. Further damage may be prevented by removing these metals, but this process should be carefully planned by dentists who are specifically trained in following designed protocols to assist you in this procedure. PREVENTION is the best defense for your body and this is the biological concept that our office wants to offer all of our patients.

So, basically that leaves us with: gold and its alloys (non heavy metals), plastics and porcelains. Now what you have to ask yourself is... *how to use this information?* Well, you need to have a perspective... *nothing is perfect!* Alternative filling materials like gold alloys, or porcelains, or bonded composites and resins (plastics), all have their possible links to cancer one way or another, too. But you need to think of toxicity like a "bell curve" where mercury, nickel, aluminum, chrome, and cadmium, are way near the top peak indicating high toxicity. While every other dental material may be on the way down

the tails of the bell curve. To keep your perspective, understand that the water you drink and the air you breathe, are also somewhere on that curve.

Although no dental product is perfect, our office has carefully searched for specific dental materials that I believe can provide a safer alternative to some of our traditional products that dental patients have been exposed to for many, many years. *It is my commitment to each and everyone of our patients to help eliminate these heavy metals from our practice to the best of our ability.* Even though the scientific community can debate the pro's and con's of this topic for decades to come, my immediate and personal opinion is simply this - "Why take a chance, if you don't have to?" Prevention and protection is your best solution to promote a healthy lifestyle for yourself and this is what our office wants to project to all our patients. Therefore; whatever I can possibly do to provide a safe environment, not only for my patients but for my staff members as well, I will continue to do so for as long as I am able. Let's keep it simple and get back to basics.

If you have any questions regarding the use of specific dental products, please feel free to call our office and I will try to assist you in any way possible. Thank you for your concern and interest.

To your good health,

Michael G. Rehme, DDS.,CCN.