



Dr. Willock with some of the essential instruments he uses in the process of removing mercury amalgam fillings.

Dental DNA Is *Marker for Health*

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If you have health issues, Dr. C. Michael Willock, one of the area’s leading holistic dentists, may encourage you to explore the potential link between root canals and a host of potentially serious health problems.

“We’re working with a lab in Colorado Springs, possibly the only one of its kind, which is providing us with dental DNA information based on the toxicology of root canals,” he reports. “Typically, we may extract a tooth, or provide a swab, and put it in a special container and send it off for DNA analysis.

“Often, the results are remarkable and sometimes disturbing—the kind of information a person will want to share with their physician. This work confirms the growing awareness of the strong, direct links that exist between oral health and the general health of the body.

“The DNA report identifies the bugs that exist in the mouth and their relationship to the health of bodily systems, including the

heart, nerves, lungs, kidneys, the white and red blood cells, the sinuses, liver and spleen, oral cancer, the prostate and stomach ulcers, and more.

“I want to emphasize that this lab is not supplying diagnostic information, but simply reporting on the presence of bugs that have known links to health conditions. *Staphylococcus aureus*, for example, may be present in a root canal and is known to kill white blood cells. It is drug resistant, and produces a variety of other toxins.

“Experts tell us we have 1500 billion bacteria in the mouth, made up of 300 different species of microbes living under the gums, along the roots of the teeth, and in root canals. Identifying the presence of significant bacteria can be an important step along the path to good oral and general health.”

PASSIONATE STUDENT

Dr. Willock—traditionally trained as a dentist at UNC-Chapel Hill—is relentless in his pursuit of knowledge on behalf of his patients.

He is an accredited member of the International Academy of Oral Medicine and Toxicology (IAOMT), and completed an 83-hour post-graduate course in environmental medicine at the Southwest College of Naturopathic Medicine, in Scottsdale, Arizona.

“We studied environmental illnesses, chemical sensitivities, and the impact on our bodies of such heavy metals as mercury and nickel and cadmium—metals commonly used in dentistry,” he says. “There was also emphasis on neurotoxicity, endocrine toxicity, the effect of specific compounds on

the immune system, and—of great importance—effective methods to detoxify the body.”

Later, Dr. Willock went to Irving, Texas, to study with Jerry Tennant, MD, ND, at the Tennant Institute for Integrative Medicine, whom he describes as “one of the great pioneering thinkers in the evolving field of integrative medicine.

“Dr. Tennant was among the first researchers to make links between the health of the teeth and the health of other organs in the body,” notes Dr. Willock. “Now all of medicine is beginning to recognize the effects of dental materials and infections on the rest of the body.

“There are,” he points out, “critical issues about dental health and whole body health. Infections in teeth—which we call decay—cause canals and the bone around teeth to develop poisons called *gliotoxins* and *thioethers* that affect the meridian of the infection and can affect other bodily organs on the same meridian.

“Further, some dental materials are often toxic. Mercury, for example, is one of the most poisonous substances known. Nickel, common in crowns and braces, is toxic to the brain and other organs.”

Today, Dr. Willock points out, “we have superior materials to place in teeth, such as composite resins and ceramics that bond to the tooth and seal it much better, and are less toxic than many traditional materials. Every person is different, however, and people often react differently to various materials.”

REMOVING MERCURY FILLINGS

As a health measure, Dr. Willock is increasingly asked to remove mercury fillings, and he emphasizes that to do so “is a significant process.” He scrupulously follows guidelines and training from the IAOMT as he removes amalgam fillings.

“IAOMT guidelines require that we keep mercury fillings cool during removal. Drilling out an amalgam filling generates a great deal of heat, which in turn causes an increase in the release of mercury, both as vapor and amalgam particles. So we use copious amounts of cool water to maintain a safe temperature level.

“Cutting the amalgam into chunks is also greatly preferred to drilling out the old filling. The choices are to grind up the filling and splatter particles everywhere, or—much preferred—drill only around the edges of the filling and remove it in chunks, a process safer both for the patient and dental staff.

“We also use a high-volume evacuator—a powerful suction system—to minimize the patient’s exposure to mercury vapor and amalgam particles, and use a rubber dam to isolate the tooth we’re working on. Further protection is provided by a very effective air-filtration system.

“I encourage people who are considering removal of amalgam fillings as a good health measure to be certain there dentist undertakes this task with the proper equipment available, and in full compliance of the IAOMT guidelines.”

PROBLEMS WITH MERCURY

He notes that “one of the main problems with amalgam fillings is that mercury amalgam cracks and splits teeth as it heats up and cools down from eating hot and cold foods. When it gets hot from eating hot foods, it expands nearly three times as fast as natural tooth structure and places great stress on a tooth, acting like a wedge, and cracks it.”

When the tooth cools down or is chilled by a cold drink “it contracts faster than the natural tooth structure and a small gap opens up at the margins of the restoration and leakage occurs. Bacteria enter between the tooth and the restoration. When the tooth warms back up to body temperature, the gap closes and ‘seals in’ whatever happened to be in the patient’s mouth and saliva at the time.”

A basic problem is that amalgam fillings do not bond to the tooth, Dr. Willock explains. “When mercury amalgam is first placed, it is packed into the cavity preparation in a flexible plastic form and soon turns very hard. And while it is hard and adds strength to the tooth, it begins to leak shortly afterward—due to thermal expansion and contraction—because it is not bonded to the tooth and does not seal it. In essence it is just a tight ‘press fit.’” There are a host of new, safe composite materials now available for the restoration of teeth in need, he says.

He notes that dental amalgam is typically a 50-50 mix of mercury and silver with various amounts of tin, copper, and zinc added to give different properties to the mix.

“And of course, mercury is the second most toxic element on the planet, after plutonium. It is considered a dangerous material by both government agencies and the medical community, and we must take special precautions to both store it and use it.” **h&h**

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