

## **BioBites: Dental Care for Whole-Body Health**

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### **Discussion**

**Biological Dentistry.** Biological medicine aims to treat the root cause of chronic disease. Many dental diseases begin with regulation disturbance (inflammation, toxins, hyperacidity, etc.); treating this disturbance is the goal of the biological dentist. Regulation disturbance gives way to functional disturbances in the mouth (impaired cell division, inability to compensate, etc.). Finally, structural disturbances materialize (cavity, symptoms, tumor growth, etc.). Allopathic practitioners tend to treat symptoms as they arise, whereas biological practitioners are motivated to uncover the root cause(s) underlying symptoms of disease.

**What distinguishes Biological Dentistry from allopathic dentistry?** First, many people think of the dentist as a place to get things fixed. The biological dentist is inclined to take a more proactive approach, to prevent dysregulation. Biological dentistry also involves a highly individualized approach to patient care. Dentists spend a great deal of time with patients, including a 2-hour new patient exam. During this initial visit, dentists get a thorough health history from the patient and try to discover the root causes of ailments in the mouth.

Biological dentistry also incorporates various tests less common in allopathic dentistry, such as dental materials allergy testing. About 17% of the population is allergic to nickel and nickel is common in dental materials (older crowns, titanium implants, etc.). Other tests include saliva testing and Vitamin D testing, which is important. Having Vitamin D at the optimal level before any surgeries is important to the quantity and quality of healing.

Procedurally, biological dentistry is different from conventional dentistry, as well. Biological dentists, like Well Rooted Dentistry utilize ozone, laser, platelet rich fibrin (PRF), and cone beam testing - an advanced form of imagery - to enhance the diagnostic and therapeutic aspects of patient care. Biological dentists also use the most biocompatible composite on the market and refrain from using fluoride, prolonged exposure to which can contribute to long-term illness.

**Why might patients seek out a biological dentist?** Many patients visited a biological practice to have their mercury fillings evaluated. During this process, the dentist will evaluate the patient's ability to detox, which is an important aspect of safe mercury removal. Detox pathways must be open. We often frequently perform root canal evaluations. There are a range of perspectives on root canal removals within biological dentistry. Well Rooted Dentistry takes a middling approach, evaluating each patient's unique circumstances before deciding on the best approach to patient care. Well Rooted Dentistry also sees many patients who require dental material testing, who wish are seeking ceramic implants, and/or who have unexplained inflammation for which they are seeking to learn the root cause.

**What is SMART?** SMART stands for Safe Mercury Amalgam Technique. This technique allows for the safe removal of mercury. It involves special filtration, the use of a rubber dam to minimize the risk of inhalation of vapors and particles, and a checklist of steps to undertake safe mercury amalgam filling removal. SMART was developed by the International Academy of Oral Medicine and Toxicology (IAOMT).

**X-Rays versus Cone Beam X-Ray (CBCT).** X-rays are part of the comprehensive biological evaluation process. A bite-wing x-ray is typically taken annually by the dentist and provides 2-D imaging. A panoramic X-Ray is good at providing general information but is lacking in detail. A Cone Beam X-Ray shows the inner workings of the teeth and jawbone and any inflammation. Cone Beam testing is good for identifying hidden infections and diagnosing the extent of inflammation in the bone.

**What is Ozone and how is it used?** Well Rooted Dentistry makes fresh ozone water every day. Ozone is 3 atoms of Oxygen. The extra oxygen is very unstable so it binds and knocks out any free radicals; it's oxidative and has a cumulative effect. Ozone is anti-bacterial, anti-viral, and antifungal. Because it's oxygen, there are virtually no side effects when used properly. Well Rooted dentistry uses ozone in water form, in gas form, and in oil form. Ozone helps with tooth sensitivity and can be used to create a clean environment during procedures, such as fillings. Ozone can also be used in small demineralized areas of enamel to remineralize the enamel.

**What is Salivary Testing?** Salivary testing provides an indication of the quantity and types of bacteria in the mouth. This is a very personalized procedure and can be done chair-side. Periodontal disease is systemic; sometimes the body needs more than a localized treatment. Salivary testing can suggest which forms of treatment are likely to be most effective.

**What is Platelet Rich Fibrin?** PRF (Platelet Rich Fibrin) is another therapy offered at the Center. A patient's blood is drawn, spun down in a centrifuge and used during surgery. When a tooth is removed or if there is a cavitation, PRF is used to improve the quantity and quality of healing. PRF includes stem cells; this is considered to be liquid gold and can be used in many ways, including to reduce inflammation and the risk of post-op infection.

**The Fantastic 4 Supplements.** Vitamin C is the ultimate antioxidant and helps with collagen. Magnesium with Calcium is also important to oral health; Magnesium deficiency can lead to bone loss over time. Vitamin D regulates Calcium. Vitamin D and K should be taken together. Patients are encouraged to work with naturopaths and/or functional doctors to determine the proper quantity of vitamin and mineral supplements required by their individual body.

**Oral health at home.** It is important to have a great topical toothpaste. Diet and supplements are important, as well. There is a lot of information to suggest that fluoride can impair cognitive development in children and affect endocrine function, so it advised that fluoride in toothpaste be avoided. Boka toothpaste includes hydroxyapatite, which can remineralize enamel without fluoride. When it comes to mouthwash, it's best to avoid alcohol; Well Rooted Dentistry recommends StellaLife. Proper use of an electric toothbrush is important, too. Gums can be worn away and recede if an electric toothbrush is used in an overly aggressive manner. For this reason, a toothbrush with a pressure sensor can be helpful; Well Rooted Dentistry recommends Sonicare brand electric toothbrushes. Flossing is an important part of oral home care. CocoFloss traps plaque on the floss; wax flosses slide easily but are less likely to trap plaque. Tongue scraping first thing in the morning (stainless steel) helps reduce bacteria and morning breath. A water pick can be useful, especially if teeth are missing or in the event of recession. Another therapy recommended by Well Rooted Dentistry in the event of sinus infection or cysts in the sinus is nebulizing with hydrogen peroxide, a concept written about by Dr. Thomas Levy, author of *Hidden Epidemic*.

**What do I do if I'm not currently at a biological practice?** Have a respectful conversation. Ask about the materials the practice is using, including fluoride. You might consider having a Cone Beam Test performed to rule out hidden infection or an evaluation of root canals.

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### **Q&A Synopsis**

**What's the best thing to do if you have irritated or inflamed gums?** It depends. If there is generalized irritation, bleeding everywhere, it is best to start with a professional cleaning. If this is accompanied by bone loss - something that's been chronic and ongoing - the patient may want to take a saliva test to suggest the pathogens at play. If this is happening in a specific area, this may be something localized, like a deep filling or crown material the body is not dealing well with. If it's a specific area, dentists can likely get to the bottom of that and treat that area. If it's generalized, start with a professional cleaning, preferably with ozone.

**My son had periodontal disease for 20 years and recently required a bone graft to his gums. Is there anything you can suggest that might help him overcome this disease?** If there's a point where a graft (bone, soft tissue) needs to be done, the question is: why did this need to be done? This could have been needed because of aggressive home care, malocclusion (crowding, misalignment), or high muscle attachments on the teeth that can cause problems for your mouth health. Alignment would be the first thing to look at. Using ozone to treat or testing to understand the pathogens that are contributing to disease are other options for care, moving forward.

**Why does my tongue burn when I eat certain foods?** This can result from a few different circumstances. Does the tongue have a deep groove or fissure? This can trap more bacteria and make the tongue more sensitive. A fissured tongue can also suggest GI issues. Does this happen with acidic foods? Sodium lauryl sulfate can lead to sensitivity in the mouth. Vitamin deficiencies like B vitamins, folic acid, or zinc deficiencies can lead to a burning tongue or burning mouth.

**In the case of a root canal where the tooth is extracted, is there anything to be done to the jawbone or will the body kill remnant infection naturally now that the source of the infection is gone?** When we have a root canaled tooth, we remove the ligament surrounding that tooth because a lot of bacteria hang out in that ligament. Any ligament left behind will tell the bone that it cannot fill in there because this is a ligament; this must be cleaned out so that it can heal. We use PRF to help with healing, as well. If the tooth was taken out a while ago, it depends on what it looks like on the x-rays. If it looks like the bone has filled in really well, you can do something like ozone injections to clear out remnants. If the bone does not look like it's filled in, the body may not be able to heal and may trap bacteria. There are very different opinions on ligament removal in the wider field. In biological dentistry, this is standard.

**Does insurance cover these procedures?** Well Rooted Dentistry is out-of-network with insurance providers, but will submit any work completed to insurance. Payment is due at time at visit, but insurance may send a reimbursement check for work performed out-of-network. Well Rooted Dentistry also works with patients, creating a phased approach, as desired.

**Exactly what kind of testing is done to determine material compatibility? Is it performed on site and do you use Clifford Labs for this?** Well Rooted Dentistry utilizes Clifford Testing and

Melisa Testing; and these are done on site. Testing involves a blood draw, and the office usually gets the results in 3-4 weeks.

**I have a failed implant. My dentist has agreed to replace it at no charge; but I am concerned because the dentist doesn't use ceramic implants.** It's likely that this was a titanium implant. You can have a materials reactivity test to titanium, which is a great place to start. Zirconia is metal-free and doesn't have any free ions to interact; tissue adheres to it similar to tooth structure, which causes less inflammation. Our recommendation would always be to go with a ceramic implant. We've taken out titanium implants and we have to do a very thorough job cleaning out the bone because metal particles can get into the bone and gum tissue and continue to affect the area long-term. There was also a study that found that cell phone use heats up the bone around the titanium implant (conductor for EMFs).

**What would an ongoing sore on the upper palate indicate? Cavitations around root canals?** It depends on where it is, whether it's ulcerated, red, raised. A sore could be caused by an irritation in that area. If it's close to a tooth, it could be closely associated with that tooth or it may be a fistula, which is the body's way of letting inflammation out. The diagnosis would also take into consideration past history of smoking or alcohol use, as well.

**I always have extreme plaque buildup despite brushing twice a day and regular dental cleanings. What could be the problem?** Calculus build up, particularly on the backs of the lower teeth, suggests that there is a lot of calcium in the saliva. If teeth are mis-aligned or crowded, plaque will sit there and build up. In this case, it's recommended the patient work with a functional doctor to dive deeper into the combination of vitamins that can affect this.

**You mentioned antibiotics. What antibiotics do you use or prescribe?** This depends on the type of bacteria that we're treating. The universal antibiotic for dentistry is penicillin. It's broad spectrum and treats a lot of oral microbes. Salivary testing suggests specifically which antibiotic will correlate with pathogens in the patient's body. Patients' allergies are also taken into consideration.

**How can you stop bruxism/teeth grinding?** Nowadays, medical practitioners are learning that teeth grinding isn't just the result of stress; airways have a lot to do with this. Having a full evaluation of the tongue, palate, and sleep patterns can suggest more about why this is happening. Bruxism may be the result of an airway issue; the patient would need to be evaluated to be properly diagnosed.

**Could a metal crown or implant be affecting my health, with regard to POTS?** Absolutely that can have an effect. A dentist would want to undertake materials testing, x-rays, evaluate whether there's been bone loss in the area or whether there's something acute going on - have you lost bone in the area? It's recommended that a practitioner build a case before turning to surgery to address the situation.

**How do you protect patients' health in light of COVID?** We use PPE, and we use a specific room with ionizers in the room to improve air quality when treating patients. We have special vacuums very close to patients, as well; and we use forced oxygen and this will help so the patient is not breathing everything back in through their nose.

**How do you ensure high fillings are a good match for the opposing tooth?** It depends on the filling material. The material we use at Well Rooted Dentistry flexes similar to the tooth structure and is as close as possible to tooth material. When metal opposes natural tooth, natural tooth wears away a lot quicker.

**What other daily habits do you recommend for optimal oral health?** Tongue scraping is recommended. I would recommend oil pulling with coconut oil twice a week; too much oil pulling can create imbalance in the bacteria in the mouth. Mouth taping is a technique you can use to assess how you're breathing at night. It's also recommended that patients take note of the frequency with which they're snacking. Snacking can have a negative impact on the mouth; as the bacteria in our mouth break down food particles, they produce acid. Chronic acid exposure is what breaks down enamel and demineralizes tooth structure. Don't graze!

**Is a root canal out of the question?** It is recommended that the dentist and patient look at the whole system and the patient's health history before making a recommendation.