

Gum Disease and Nutrient-Dense Food Supplements: *Results of my In-Office Study*

Today there is a 47% prevalence of periodontitis among adults in the United States. Periodontitis is the advanced stage of gum disease where not only the gums are infected, but also the bone surrounding the roots of the teeth are infected and breaking down. For those who are over 65 years old, the prevalence of periodontitis jumps to 70%.¹ This is the disease I treat in my offices in South Carolina.

I have been a periodontist (a dentist who specializes in gum disease) for 40 years. For the first 35 years, I treated advanced gum diseases like most periodontists by performing traditional gum surgery, which was somewhat successful but relatively uncomfortable for patients. Several years ago I learned a better way for my patients. In 2010, I became licensed in a laser procedure called LANAP® (Laser Assisted New Attachment Procedure) that kills bad bacteria, helps grow new bone, and creates overall better results without using a scalpel and without using sutures. Most importantly, patients don't experience the pain or swelling that was part of traditional gum surgery. They generally can go about their normal routines the following day. Unfortunately, I still did not have the knowledge of nutrition – specifically ancestral nutrition as it related to nutrient-dense foods – and how it affected the mouth and overall health.

In 2013, I started my journey to become educated about the importance of nutrient-dense foods starting with a 5-day nutrition course designed for health professionals at Kripalu Center for Yoga and Health and several months later a different 4-day “Food as Medicine” conference.² This education was life changing for me, and has been life changing for many of my patients. I personally became reenergized, and my periodontal practice became reengineered.

With all this new lifestyle information, I also wanted to know what science had to say about nutrient-dense, unprocessed foods specifically for gum disease. I researched Pub Med, which is the Internet source³ for all published medical research from around the world on anything medical. I could find one study regarding gum disease and Paleolithic nutrition⁴ and several recent studies involving nutrition and gum disease.^{5,6} However, I could find no studies relating how specific nutrient-dense foods affected the progress of gum disease. So, in March of 2014, I decided to create a study using my own patients who wished to be a part of my research. I enlisted the help of Ramiel Nagel⁷ to design the study with me. Now my research is completed, and the results are in.

Selection of Patients

The specific criteria for patient selection were:

- The patient could not have been on any antibiotic for the last 3 months.
- The patient was not undergoing active gum treatment (including deep cleaning or a general cleaning by the hygienist) in the last 3 months.

- Infected gum pockets (the spaces between the gum and tooth) were bleeding when a gum-pocket measuring instrument (periodontal probe) was gently inserted into the gum space.
- The gum pockets measured a depth of at least 4mm (normal is 1-3 mm without any bleeding while measuring with a periodontal probe).
- No more than 4 individual teeth in the mouth that met the criteria were selected for the study.

In addition to the criteria for selection, participants were instructed not to change any habits, lifestyle activities, diet, or medicines they were taking during the course of the 30-day study.

Results

Thirteen patients who met the criteria above were selected for the study. They agreed to take a variety of nutrient-dense real food supplements for 30 days to find out if these supplements were effective in reducing some of their manifestations of gum disease. I examined and measured 41 teeth within this group of 13 patients. I gave these patients three different nutrient-dense food supplements^{8,9,10}, which contained various micronutrients in capsule form that they ate almost every day. You can read the various micronutrients in the websites referenced in the endnotes.^{11,12} A synergistic effect exists from taking a combination of vitamins and minerals in their natural states.¹³

Here are the doses for each of the supplements:

- 8 capsules of Green Pasture's blend of fermented cod liver oil with high vitamin butter oil
- 2 capsules of Green Pasture's fermented skate liver oil
- 2 capsules of Oregon's Wild Harvest's organic kelp powder

My patients took these capsules along with their normal foods for 30 days. For the first five days of the study, they gradually transitioned into taking the full doses I just described to help their bodies get used to these nutrient-dense foods. If they had taken all the suggested capsules on day "one", they might have had nausea or diarrhea since their bodies were not used to these supplements. Also, they did not take any capsules every 7th day, which was a rest day for their guts. As I mentioned, they did not change anything else in their diets or in their daily routines. They followed their normal schedules and lifestyles as they did before the study – the only difference was that they took these capsule supplements.

At the start of the 30-day study, all participants had moderate to severe gum disease with bleeding gums and deep pockets. After 30 days of taking these supplements, 66% of the bleeding pockets stopped bleeding, and the measurements of the depths of their infected pockets shrank from an average of 6.5 mm to an average of 5.0 mm. In my opinion, these results, which were statistically significant, were directly improved by the nutrient-dense food supplements.

Patients' Anecdotal Comments

Although not based on science, several participants described very interesting experiences. Here are the ones that stood out the most:

- One person who had irritable bowel disease for many years with no relief phoned me only after 2 weeks into the study to say that she has had no stomach issues at all, and that was life-changing for her. For years she had to deal with the discomfort of gut problems, but now she felt like a new woman.
- Another participant told me that she thought she had more energy while taking the capsules. She only noticed the change after the 30-day trial when she stopped taking the capsules and then had a significant drop in energy. She said she would purchase the capsules at her health food store so that she could regain that energy level she enjoyed while in the study.
- Yet another subject prior to the trial was having foot pain for months that was progressing to the point that it was painful for her to stand in the morning. She was getting ready to make an appointment with her physician to check out what was going on. However, halfway through her trial, she told me that most of her foot pain was gone.
- An elderly individual did not notice any changes in the way she felt, but she told me she did notice her fingernails started growing faster than she could remember by the end of the 30 days of taking the supplements.

My Thoughts

I am not suggesting that taking these supplements can cure gum disease. Most patients with gum disease need at least a deep cleaning below the gum line to remove deep tartar that acts like a splinter under the gum. However, I believe that these supplements reduced swelling and inflammation in my patients with gum disease, and these supplements might be beneficial for people who have gum disease and want to improve their healing potential and their overall health.

Today, I teach all of my periodontal patients about primal nutrition and primal lifestyles. I encourage my patients to eat a nutrient-dense diet and avoid all processed foods among other things. I suggest my patients consider these supplements as an adjunct to a healthy diet. With appropriate, patient friendly gum treatment (that may include laser treatment) along with nutrient-dense unprocessed food choices, I believe I can treat gum disease better than I have ever been able to do in the past. I am not going to change the world, but I believe I can change one patient at a time.

¹ Eke, P.I.; Dye, B.A.; Wei, L.; Thornton-Evans, G.O.; Genco, R.J. Prevalence of Periodontitis in Adults in the United States: 2009 and 2010. *JDR* **2012**, 10, 914-920.

² In gratitude to: Kripalu Nutrition Intensive (www.kripalu.org) and Food As Medicine Professional Training Program (www.cmbm.org/fam) and my nutrition teachers (John Bagnulo, Kathie Swift, Annie Kay, Jennifer Young, Susan Lord, Lisa Nelson, Mel Sotos, Patrick Hanaway,

Jay Lombard, Jim Gordon, Cindy Geyer, Jeanne Wallace, Coco Newton, Mark Hyman, and Brenda Davis) who have enlightened me on this journey to wellness.

³ www.pubmed.gov

⁴ Baumgartner, S.; Imfeld, T.; Schicht, O.; Rath, C.; Persson, R.E.; Persson, G.R.. The impact of the stone age diet on gingival conditions in the absence of oral hygiene. *J Periodontol* **2009**, 5, 759-68.

⁵ Mapare, S.A.; Rao, P.K.; Reddy, R.V.; Kumar, M.G.M.; Gorthi, V.S.S.C.; Raju, P.V.K. A Comparative Clinical Evaluation of Diet Intake and Effect of Various Nutritions on Aggressive Periodontitis Patients. *J Contemp Dent Pract* **2013**, 5, 930-938.

⁶ Van der Velden, U.; Kuzmanova, D.; Chapple, I.L. Micronutritional approaches to periodontal therapy. *J Clin Periodontol* **2011**, 38 Suppl 11, 142-58.

⁷ Ramiel Nagel is a researcher and author of **Cure Tooth Decay**. Golden Child Publishing, OR 2010.

⁸ <http://www.greenpasture.org/public/Products/ButterCodLiverBlend/index.cfm>

⁹ <http://www.greenpasture.org/public/Products/SkateLiverOil/index.cfm>

¹⁰ <http://www.oregonwildharvest.com/owh/browse/product/kelp>

¹¹ Green Pasture for nutrients in cod liver oil/butter blend and skate liver oil.

<http://www.greenpasture.org/public/Products/TestData/index.cfm> (accessed on September 15, 2014)

¹² Nutrition Value for nutrients in kelp seaweed.

http://www.nutritionvalue.org/Seaweed_raw_kelp_nutritional_value.html (accessed on September 15, 2014).

¹³ Shenkin, A. Micronutrients in health and disease. *Postgrad Med J*. Sep 2006; 82(971): 559–567.