

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

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

I have been a periodontist (a dentist who specializes in gum disease) for forty years. For the first thirty-five years, I treated advanced gum diseases the way most periodontists do: 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 harmful bacteria, helps grow new bone, and creates overall better results without the use of a scalpel or sutures. Most important, patients don't experience the pain or swelling that has been part of traditional gum surgery.

In 2013, I started to become educated about the importance of ancestral nutrition and nutrient-dense foods, and how they affect dental and overall health. I attended a five-day nutrition course for health professionals, held at Kripalu Center for Yoga and Health, and, several months later, a four-day Food As Medicine conference¹. This education was life changing for me and has been life changing for many of my patients. I personally became reenergized, and I reengineered my periodontal practice.

With all this new information pertaining to lifestyle, 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 U.S. National Library of Medicine's database of published medical research from around the world.² I found one study regarding gum disease and Paleolithic nutrition³ and several recent studies involving nutrition and gum disease.^{4,5} However, I could find no studies on 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 Nagel, researcher and author of *Cure Tooth Decay*⁶, who designed the study with me. Now my research is completed, and the results are in.

Selection of Patients

¹ 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.

The specific criteria for patient selection were:

- The patient could not have been on any antibiotic during the last three months.
- The patient had not undergone active gum treatment (including deep cleaning or a general cleaning by the hygienist) in the last three months.
- Infected gum pockets (the spaces between the gum and tooth) bled when a periodontal probe (a gum-pocket measuring instrument) was gently inserted into the gum space.
- The gum pockets had a depth of at least 4 mm (1-3 mm without any bleeding while being measured with a periodontal probe is considered healthy).

No more than four individual teeth per patient who met the criteria were selected for the study.

Participants were instructed not to change any habits, lifestyle activities, dietary regimens, or medications during the course of the thirty-day study.

Results

We selected thirteen patients who met the criteria above for the study. They agreed to take a variety of nutrient-dense real food supplements for thirty days to find out if these supplements would be effective in reducing some of their manifestations of gum disease. I examined and measured 41 teeth within this group of thirteen patients.

I gave these patients three different nutrient-dense food supplements in capsule form, containing various micronutrients, which they took almost every day.^{7,8,9} The micronutrients are identified in websites referenced below.^{10,11} A synergistic effect exists from taking this combination of supplements.¹²

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 organic kelp powder

My patients took these nutrient-dense supplement capsules along with their normal foods for thirty days. For the first five days of the study, they gradually transitioned into taking the full doses, in order to help their bodies acclimate to these nutrient-dense foods. If they had taken the full doses 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 on every seventh day, which was a rest day for their guts. As I mentioned, they did not change anything else in their diets or daily routines. They followed the same schedules and lifestyles as they had before the study—the only difference was that they took these nutrient-dense supplements.

At the start of the study, all participants had moderate to severe gum disease with bleeding gums and deep pockets. After thirty days of taking these supplements, 66 percent of the bleeding pockets had stopped bleeding, and the infected pockets had shrunk in depth by 24 percent. These

results were statistically significant², and the improvement was directly caused by the nutrient-dense food supplements.

Patients' Anecdotal Comments

Although not based on science, several participants described interesting experiences after taking the nutrient-dense supplements. Here are the ones that stood out the most:

- One person who had irritable bowel disease for many years with no relief phoned me two weeks into the study to say that she now had no stomach issues at all. 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 end of the 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 the energy level she had enjoyed while in the study.
- Yet another subject had been having foot pain for months prior to the trial, and it 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 find out what was going on. However, halfway through the 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 that, by the end of the trial, she did notice her fingernails had started growing faster than at any other time she could remember.

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 deeply embedded tartar, which acts like a splinter under the gum. However, I believe that these supplements reduced swelling and inflammation in my patients with gum disease, and that they 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 them to eat a nutrient-dense diet and avoid all processed foods. I suggest they consider taking these supplements as an adjunct to a healthy diet. With appropriate, patient-friendly gum treatment (which may include laser treatment), along with nutrient-dense, unprocessed food

² Of the 41 sites examined, all of which demonstrated bleeding-on-probing at the start of the study, 66% demonstrated no bleeding-on-probing at the end of the study ($P < 0.0005$). Also, the average (mean) pocket depth that measured 6.5mm at the beginning of the study was reduced to 5.0mm when measured at the end of the study. The average percent reduction of pocket depths was 24.1% ($P < 0.0005$).

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 www.pubmed.gov

³ 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.

⁴ 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.

⁵ Van der Velden, U.; Kuzmanova, D.; Chapple, I.L. Micronutritional approaches to periodontal therapy. *J Clin Periodontol* **2011**, 38 Suppl 11, 142-58.

⁶ Nagel, Ramiel. *Cure Tooth Decay*; Golden Child Publishing: Los Gatos, CA, 2011.

⁷ <http://www.greenpasture.org/public/Products/ButterCodLiverBlend/index.cfm>

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

⁹ <http://www.oregonwildharvest.com/owh/browse/product/kelp>

¹⁰ 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)

¹¹ Nutrition Value for nutrients in kelp seaweed.

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

¹² Shenkin, A. Micronutrients in health and disease. *Postgrad Med J*. Sep 2006; 82(971): 559–567.