Nutrition in Dentistry

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Note: to have optimal response, all protocols begin with Opti-Vites (without Iron), Opti-PUFA, Calcium 280 and D, and Opti-Magnesium Plus. (see A Basic protocol).

Nutrient	Product	Q/Day
A good Multi vitamin mineral formula	Opti-Vites*	2
Essential Fatty Acids	Opti-PUFA or	4-8
	Opti-Black Currant**	4-8
NSAIDs alternative for pain relief	Yucca	2-6
Calcium and Magnesium 2:1 or 1:1 ratio	Calcium 280 and D	1-2
	Opti-Magnesium Plus	1-2
Vitamin D3	Vitamin D3 (5000 IU)	1
Vitamin E mixed tocopherols	Vitamin E 400	1
Vitamin C	Vitamin C-500	2
Monolaurin action against virus, bacteria and fungi	Cinnamint Toothpaste with Monolaurin	
	Opti-Monolaurin	2 scoops
Coenzyme Q10	Opti-CoQ10 100	1
Vitamin A 20,000 IU	Vitamin A	2
Anti inflammatory	Inflamease	2, 4xday
Strontium	Opti-Strontium	3

* Use a multi without Iron unless there is a known need for Iron
**Use Opti-Black Currant if you are a vegetarian, or presently taking only fish oil.

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Medical professionals agree that most adults benefit from a good multi vitamin/mineral preparation.

According to the Surgeon General, two nationwide food consumption studies conducted by the USDA found that approximately 60% of the individuals surveyed were consuming only 70% of the daily minimum requirements of six essential nutrients. Those surveyed were people who made an effort to eat (and thought they were eating) a balanced diet. Individual requirements vary considerably. Unfortunately, as a result of these variables, as well as problems such as poverty, ignorance in matters of food selection and preparation, dietary fads and confusion regarding the nutritive value of processed foods, total nutritional needs are often unmet. This means that at least 60 % of your patients have nutritional deficiencies. In fact this number is likely to be higher, since dental problems are not conducive to eating. Yet it is in the patient's best interest to be in optimal nutritional balance when undergoing dental procedures.

A quote from Patten, JA. Nutrition and Wound healing: "Tissue repair after oral surgical procedures is adversely impacted by patient malnutrition. Protein, carbohydrates, fat, vitamins, and minerals play key roles in the different phases of the wound-healing process. Appropriate nutritional assessment and intervention can enhance the potential for optimal wound healing after dental surgery".

PERIODONTAL DISEASE:
According to Park "Virtually all unbiased reviews of nutrition in periodontal disease conclude that although periodontal disease is not a nutritional deficiency disease, inadequate nutrition may either predispose the host to the disease, or modify the progress of a pre-existing disease" Coenzyme Q-10 has been reported to be deficient in 65% to 96% of patients with gingivitis. Since the amount of CoQ-10 decreases as we age it is usually deficient in older patients. CoQ10 is further depleted when the patient is on a statin drug. Gum tissue, because of its rapid growth, can be adversely effected if there is

insufficient quantity of Co Q-10. Opti-CoQ10 100 at 1 per day is usually adequate.

Vitamin A is essential in the repair and maintenance of mucus membranes. Use 20,000 IU per day in addition to the 4500 IU in Opti-Vites.

Opti-Monolaurin has been shown to be effective against viruses, bacteria and fungi. Using an Inside-Out approach, our Cinnamint Toothpaste with Monolaurin will not only whiten teeth, but when combined with Opti-Monolaurin at 2 scoops per day it is very effective against dental infections.

A recent study reported that gingival bleeding increased significantly after a period of ascorbic acid depletion and returned to baseline values after repletion. One or two Vitamin C-500 can be used for this deficiency.

Another study reported that subjects with high levels of vitamin D were less likely to bleed on gingival probing. The association appeared to be lineal over the entire 25-hydroxy vitamin D range. It was consistent across racial or ethnic groups, and was similar among men and women. The author attributed this response to the anti inflammatory effects of vitamin D, however, we know that vitamin D is very important to normal cell function as well as bone health. By spring, people who do not take at least 1000 IU vitamin D per day become vitamin D deficient. (*The UV Advantage* by Michael Holick, Ph.D, MD)

Stop bisphosphates like Boniva. Consider Opti-Strontium for bone strength.

SURGERY

The use of non-steroidal anti inflammatory drugs (NSAID's) prior to and after maxillofacial surgery is well established. There are, however, many instances where their use is either contraindicated or the patient simple refuses to take them. Opti-PUFA, a mixture of Ω3 from Salmon and other fish oil and Ω6 from black currant seed oil, is a very good alternative that has no side effects. 8 per day should be started about 1 week before surgery.

Consider starting Inflamease the day of surgery to further control swelling and tissue damage. Inflamease, used at two, three times per day on the day of surgery, and for a few days postoperatively, further reduces the inflammation. It must be given away from meals (1 hour before or two hours after) since is a proteolytic enzyme.

Yucca can be used at 2, 4 times per day as needed. It is as effective as NSAIDs for pain.

MECHANISM OF INFLAMMATION

There is a tremendous amount of current literature on the anti-inflammatory effects of the Ω3 and Ω6 fatty acids. The arachidonic acid cascade produces highly inflammatory prostaglandins of the 2 series (PG2).

The PG3 prostaglandins decrease the inflammatory response by preferentially competing for the enzymes that produce both the cyclooxygenase and lipoxygenase pathways. The PG3's are much less inflammatory than the PG-2's. NSAID's block only the cyclooxygenase pathway. Fish oil does increase the bleeding time but not out of normal range. Patients treated with fish oil two weeks prior to angioplasty in addition to the usual routine had no increase in bleeding at surgery and a decrease in restenosis. The gamma linolenic acid in black current seed oil leads to PG1 production which is an anti-inflammatory prostaglandin. It also contains stearidonic acid, which is converted to EPA, further activating the prostaglandin 3 series.

Consider Opti-Monolaurin to control pre and post operative infection. 1 scoop 4 times per day should be adequate. Much larger amounts can be used at the discretion of the surgeon.

All of the required nutrients and minerals should be present in adequate amounts. I suggest this be well in excess of the RDI's as is provided in Opti-Vites..