“Cure Tooth Decay: Remineralize Cavities and Repair Your Teeth Naturally With Good Food”
by Ramiel Nagel

DENTAL ANATOMY, HORMONES AND PHOSPHORUS

- The teeth and bones are built of a matrix of calcium and phosphorus in an optimum 5:2 ratio
- A+D = osteocalcin, the protein responsible for depositing calcium and phosphorus into our bones
- Excess blood calcium results in plaque/calculus
- Excess blood phosphorus causes gum disease/pyorrhea
- Vitamin D lowers phosphorus and raises calcium levels
- The hypothalamus activates the parotid glands/saliva glands which circulate remineralizing fluid
- Cholesterol + D are the vital building blocks of proper hormone production and function
- The posterior pituitary works with the pancreas to regulate blood sugars; if this is disrupted (the #1 cause is eating white sugar), phosphorus is pulled out of your bones and teeth
- The anterior pituitary regulates thyroid and produces growth hormones which are balanced by testosterone/estrogen; low HGH production is connected to gum disease; excess testosterone/estrogen also causes gum inflammation
- The two parts of tooth decay: odontoporosis, decreased tooth density; odontoclasia, destruction and reabsorption of enamel, dentin, etc.
- Because of their specific vitamin content, healthy fats support smooth hormonal function
MINERALS & FAT SOLUBLE VITAMINS

- Phosphorus is high in fresh milk, grass-fed cheese, organ meats, muscle meat, free-range eggs, grains, nuts and beans
- Eating tomatoes, goji and others in the nightshade family should be balanced by high phosphorus foods since they contain the hormone calcitrol which raises blood calcium and can easily unbalance the 5:2 ratio
- Second tier of dental importance minerals are magnesium, copper, iron and manganese
- Copper, C, B12 and folic acid support iron utilization
- Mollusks and organ meats are high in iron and copper
- Cocoa powder is high in iron and copper but also in phytic acid and tannis
- Phytic acid from beans, seeds, nuts & grains blocks absorption especially of manganese & zinc
- “Absence of fat soluble vitamins is the primary cause of tooth cavities in modern civilization.”
- Animal fats contain specific vitamins that remineralize teeth, that vegetable fats do not have
- Vitamin A (retinol, not carotenes) is only found in animal fats (#1 liver, #2 eel, #3 goat cheese)
- Vitamin A controls the development of gum tissues; A for soft tissues, D for hard tissues
- Seafood is among the best dietary sources of vitamin D (also duck eggs), also important iodine
- Consume minerals liberally (particularly phosphorus) and fat soluble vitamins (A, D, E & K)
- Foods of greatest importance to both general and dental health are grass-fed (and fermented) dairy, organ meats (i.e. liver), free range eggs, whole shellfish, organs & head meat from fish, and broth made from marrow bones; just add 4+ oz of freshly made orange or tomato juice for C
- Consume 1-1.5 tsp of a 1:1 mixture of cold-processed TG cod liver oil and grass-fed butter daily
- Traditional fermented drinks include kefir, rejuvelac and beet kvass
CONTROLLING BLOOD SUGAR

- “The longer your blood sugar is out of control, the longer and more significantly the calcium and phosphorus ratios are altered, the higher the likelihood of tooth decay.”
- White sugar causes large blood sugar fluctuations for 5 hours; fruit sugars cause lesser fluctuation but still lasting 5 hours; raw honey is lesser still fluctuations and only for 3 hours
- Having a small bit of protein with every meal balances your blood sugar
- To prepare proteins, grill only over wood coals, eat raw or rare meats or fully cooked in a gelatin-rich broth, or no-heat cooking (i.e. seviche)
- 1/15th in oz of body weight is the minimum daily protein intake (e.g. 150 lbs → 10 oz)
- Packaged lunch meats are no help; use caution even with “organics”
- If you choose to supplement, never use protein powder “isolate,” only “concentrate”
- Too much coffee without enough protein can decrease bone density; eat high quality fats such as butter and coconut oil and grass-fed animal fats for energy instead
- Caffeine causes the liver to release sugar into the blood
PHYTIC ACID, LECTINS & OTHER ANTI-NUTRIENTS

- Phytic acid in whole grains and seeds robs the body of vitamin C, calcium, iron, zinc and magnesium
- C, D, and folic acid in adequate amounts block many of the effects from grains, nuts and beans
- D increases utilization of phosphorus and calcium in diets with or without phytic acid
- “Oatmeal interferes more than any other grain with tooth remineralization”
- Corn, rye, barley and rice have an intermediate interference
- White flour interferes the least but often replaces nutrient dense foods; do not get bleached flour
- Only when corn and oats are sprouted, then bran removed, then soured for two days and there is plenty of available D in the body, can these grains contribute to bone growth
- Phytic acid also blocks iron absorption, pepsin & trypsin protein enzymes, and amlyase (saliva)
- Tannins and saponins may also inhibit growth
- Lectins and other nerve toxins are also documented in whole grains
- Quinoa and buckwheat are pseudo-cereals and may be lower in phytic acid
- Breakfast cereals have killed lab rats faster than those eating either nothing or only the cardboard box
- Nuts are powerful inhibitors of iron absorption and must be combined with C
- Nuts in moderation should not be a problem for most people
- Consume nuts that are soaked and dried; most nut butters not recommended
- Be careful to always blanch almonds
- Artisan-made nut oils are very healthy; safflower, corn and soy oils are not
- Canola is not an actual plant, it is short for “Canadian Oil” and is generally high in trans fats
- MSG is a disruptor of endocrine signals and can prevent proper function of the parotid glands
- Pasteurized vegetable and fruit juices are skeletonized foods
- Alcohol consumption often equals bone loss; artisan (unpasteurized) beers and ciders are better
- Make sure all soy products are fermented (soy, rice or commercial nut milks not recommended either)
- Health food and energy bars are often culprits for tooth decay
- OTC and prescription meds often alter the 2:5 ratio and wreck enzymes
THE LOWEST PHYTIC ACID SOLUTIONS

- Sourdough bread with unbleached white flour that is soured 16 hours (sour in taste) is the #1 best grain product available
- Semolina (bran-free) pasta and couscous are good but pasta dough soured as per tradition is best
- If you must have cereal, try hot rye cereal
- Jasmine and basmati rice are good but better when aged one year before milling to remove most of the hull
- Lentils are the safest bean to eat, eat beans with cheese and seafood
- Soured beans such as dosas are an advanced preparation
- Sweet potatoes contain no phytic acid and make an excellent dental health staple
REMOVING PHYTIC ACID FROM GRAINS

- To make grains healthy, remove as much phytic acid and lectins as possible
- Indigenous traditional grain prep includes carefully aging grains dried in the sun and stored in their hulls, only to be removed before preparation, and uses starters for low-phytase grains
- Sprouting removes 20-30 percent of phytic acid after 2-3 days for beans, seeds and grains
- 50 percent is removed by sprouting rye, rice, millet and mung beans
- Only 5-10 percent is removed for beans and seeds soaked 16 hours
- None is removed by soaking oats, wheat, corn, sorghum, amaranth or quinoa
- Rye, wheat, spelt, kamut and barley are safer when gently stone ground and the bran sifted out, then eaten with calcium and C-rich foods
- Rice and millet are best partially milled with most of the hull/bran removed
- Corn should be soaked in an alkaline solution and then hulled
- Phytase is the enzyme needed to convert phytic acid back to phosphorus through fermentation
- Fermentation or souring only removes phytic acid if phytase is substantially present along with warmth, moisture and a bit of calcium (e.g. whey or yogurt)
- Rye, buckwheat, barley and rye all have fairly high amounts of phytase
- Amaranth and quinoa have moderate amounts
- Mung beans, lentils, millet, peas, rice, corn, sorghum and oats are all low in phytase; phytic acid cannot be removed by soaking or souring without a starter
- 3 days of sprouting substantially increases phytase for mung beans, lentils, millet and corn
- No commercially available whole grains are low in phytic acid
- Combine any cereal products with protein, calcium and fat
- Ideal sourdough recipe is sprouting rye grains for 2-3 days, then drying it and grinding, then sifting out the 25% volume largest particles. Knead dough and sour for 16 hours at >75º.
- Raw oats are best germinated for 5 days at ~52ºF, then fermented for 16 hours at 120ºF, otherwise sprout them, then crush them and sour for two days
- Soaking quinoa for 14 hours with added calcium before cooking removes ~80% of phytic acid
- Soaking brown rice in fresh water for 16-24 hours before cooking breaks down ~50% of the phytic acid; reserving some soaking water to act as 10% of the water used for the next batch of rice breaks down even more; the 4th cycle of repeating this method builds up enough phytase to break down >95% of phytic acid over 24 hours
PHYSICAL DENTAL CARE, ROOT CANALS & BITE

- Brushing and flossing may cause periodontal disease because brushing concentrates tartar at the gum line unless the teeth are then blotted or shot with warm salt water using a Waterpik®
- White oak bark or myrrh gum powder can each heal infected gums
- Oil pulling (swishing with 1 tbsp of organic oil) for 10-20 minutes draws out toxins and debris
- A root canal is the complete removal of the guts of your tooth then it's cleaned with chemicals
- 60-70% of root canals have serious side effects or are total failures within a 5-10 year period
- “A high percentage of chronic degenerative disease can originate from root filled teeth. The most frequent were heart and circulatory diseases. The next most common diseases were those of the joints: arthritis and rheumatism.” – Dr. George Meinig
- If you have severe headaches, arthritis, heart disease or some degenerative condition, a root canal may be contributing or even to blame by destroying the microscopic tubules throughout the damaged tooth that channel the natural dentinal fluids that clean out toxins
- A TOPAS, electrical or muscle test can help identify root canals that are harming your health
- Rather than removing a root canaled tooth, EndoCal 10 can resterilize persistent infections
- Tooth infections rarely occur in people who are generally healthy or who have good bite because correct bite evens the stress on the teeth
- One's bite, or how the mandible jaw fits against the upper teeth, can be a significant contributing factor to one's overall health and physical stress
- For many who are considering or who have had orthodontic work done in the past on crowded teeth or incorrect bite, dental orthopedics are a harder-to-find but a generally better solution
METAL FILLINGS AND ALTERNATIVES

- Any metal, especially a mix of metal fillings, can produce electrical currents that can be exponentially stronger than those in your body which is bad since they are connected to the trigeminal nerve, the largest sensory nerve in the body
- Although gold is relatively safe, it is too soft to use alone so it's generally mixed with palladium which can compromise the immune system; gold also accumulates and stores mercury vapors from other fillings until extra heat from tea or coffee, etc. will release the vapors
- Stainless steel contains nickel, also used in braces, bridges, partials and crowns, which is highly toxic to the body and the nervous system, creates a negative electrical current, and can cause arthritis as well as lung or breast cancer
- Porcelain contains aluminum oxide which is also highly toxic to the body and these crowns are often reinforced with stainless steel which contains nickel
- Dr. Hal Huggins developed a database of filling materials that is cross-checked with a blood sample to determine a match for immune system biocompatibility
- Dr. Douglas Cook advocates slow-speed drilling and has selected Holistore by Den-Mat for small fillings and Premise Indirect unshaded for large cavities
- Dr. Robert Marshall advocates low-fusing ceramics and ceramic-resin hybrids laser bonded to the teeth to mimic the function and the slight electrical current of natural tooth; generally higher cost and materials include Degussa Ceramic, Vitablock, Luminesse, Cercon, Procera Zirconium and Esthet-X composite
- Resources for finding better dentists: holisticdental.org, hugginsappliedhealing.org, iaomt.org, naturaldentistry.org, iabdm.org, toxicteeth.org, toothconservingdentistry.com, dams.cc
- Don't be afraid to ask questions such as, “Does Dr. X perform blood serum compatibility testing, electrical or muscle testing?” or “I want minimally invasive treatments; is that something you can do?”