

## ***Mouth Full of Evidence***

**By E. Griffin Cole, DDS**

A horse enthusiast will tell you to check the horse's teeth to gauge his overall health. The same can be said for humans. Where else can you see your skeleton? Your mouth is the most accessible place to see what is happening, not only to your teeth and gums, but also to your health in general. The gummy junction formed around your teeth is very sensitive to changes in blood-sugar levels, immune responses, stress and hormonal alterations, to name a few.

If your diet deviates 10% or more from your biologic norm, it may show up first as dental disease in the form of inflamed gums or dental decay. High deviations can lead to arthritis, heart attacks, or cancer. These problems often develop as a result of a lifestyle and diet your body is unable to process properly.

### ***Primary prevention***

In dentistry, as in medicine, there is very little primary prevention. The American Dental Association's position on dental disease is that it is primarily caused in the mouth by bacterial plaque. Diet barely receives lip service. Standards of care dictate that most people have their teeth checked twice a year with scrapings by the hygienist. Like pap smears, mammograms, and PSA's, this routine assessment amounts to early detection of disease, not true primary prevention.

Susceptibility to dental problems, cancer, heart disease, and a host of other chronic disorders can often be seen well in advance. Calcified build-up (tartar) in the mouth can also mean build-up in the cardiac arteries. This connection between gum disease and heart disease has been known for years, yet is just now getting some press.

### ***Blood sugar stability - the key to dental health***

Bacteria that cause decay, gum disease, root canal infections, cavitations, and virtually all other infective ailments do so in an anaerobic mode (lack of oxygen). Diminishing blood sugar regulation, along with a sedentary lifestyle, hamper the healthful aerobic burning of fuel. Anaerobic burning of sugar, the kind not associated with energy-producing mitochondria, results in chronic lactic acid production and decrease energy output. Over time, your body transforms itself into an acidic, anaerobic culture medium which encourages disease to form. As anaerobic bacteria naturally inhabit the mouth, dental diseases are the first of the degenerative processes to take hold.

The secret to avoiding this situation is to eat adequate protein with moderate carbohydrate and fat. This combination helps stabilize blood sugar. Rapid fluctuations in blood sugar levels potentiates both anaerobic and acid conditions. Hypoglycemic and diabetic individuals are very susceptible to tooth and gum disease for this reason. Additionally, tooth decay originates from demineralization caused by carbohydrates affecting the overall hormone balance. This is why adolescents, pregnant women, and the elderly suffer the highest rates of decay. Contrary to

popular belief, tooth decay has much less to do with how often one brushes and flosses than it does with what one eats.

### ***Free calcium: friend or foe***

Ninety-nine percent of your calcium is tied up in your bones and teeth. The remaining one percent influences if one ages with vitality or degradation. Free calcium, easily calculated with a standard blood test, is hormonally displaced calcium used by your body to buffer excess acid. Virtually all chronic diseases involve an inappropriate shift in free calcium. Tooth decay involves a loss of calcium, leading to cavity formations. Gum disease often involves bone loss with calcium displacements called tartar. Calcifying, or “hardening” of the arteries which leads to heart attacks, strokes, kidney and gall stones, all involve free calcium. Arthritis, cataracts, and osteoporosis also involve displaced calcium.

Cancer and free calcium form an ominous partnership. Cancer cells can be differentiated from healthy cells by the large build-up of free calcium in their membranes. This is actually how mammograms work. The calcium-clogged cancer cells “block” the x-rays, revealing the tumor.

In the mouth, this free calcium shows up as tartar on the teeth. Tartar is the result of a gum disease process, not the cause. It has become so common in our culture that it is actually considered a normal process. Patients are encouraged to see their dental hygienists twice a year to have this crustaceous mass scraped from their teeth. Too bad they can’t scrape it off their arthritic joints, clogged arteries, or pre-cancerous cells.

### ***What you can do now***

Your preventive dentist or physician can help. With oral examination, interview and blood work, most problems can be identified and managed with appropriate dietary and lifestyle changes. You can also help by doing the following three things:

- 1) Eat a solid breakfast with adequate protein. If this is not part of your routine, your blood sugar is suffering. I have noticed that those patients who suffer from seriously stressed gums and teeth do not eat breakfast.
- 2) Drink plenty of water. Being properly hydrated not only nourishes your cells, but also keeps your bowels moving.
- 3) Exercise. Aerobic activity will definitely improve your health. Walking helps greatly to stabilize your insulin levels and control your blood sugar. Walking in full sunlight gives you plenty of ultraviolet light to reset your biologic time-clock for a better night’s sleep and more positive attitude. So, what are you waiting for? Get with it!

*Note: This article is an edited version of compilations from Dan Rosen.*