

Chewing Gum May Help Reduce Cavities

Has gum chewing been an issue in your family? You would probably be interested in what the National Institute of Health has to say on this topic. In March of 2001, the NIH, during a three-day meeting, discussed the best methods for diagnosis and management of dental caries throughout life. The NIH states that one of the best methods to prevent dental caries is to use products containing noncariogenic sweeteners, which are sweeteners that do not increase the incidence of tooth decay. Noncariogenic sweeteners have been delivered to teeth as constituents of chewing gum, hard candy, and dentifrices. The evidence for both sorbitol and xylitol is positive, with xylitol proving to be more effective.

Xylitol is a naturally occurring five-carbon sugar found in many fruits and vegetables. Discovered in the late 19th century, it became a popular substitute for sugar when the Finns faced a shortage during WWII. Since then, xylitol has become a sweetener for diabetics because it is independent of insulin.

Unique among the polyols, xylitol alone actually inhibits the growth of *Streptococcus Mutans*, thereby reducing susceptibility to caries. Furthermore, continued use of xylitol helps to select for less virulent strains of bacteria and results in a less damaging oral microflora.

Plaque is a major cause of tooth decay and gum disease, and xylitol can reduce its presence. By reducing the proportion of insoluble polysaccharides and increasing the proportion of soluble polysaccharides, the plaque is also less adhesive and more easily removed when brushing teeth.

Xylitol's pleasant sweet taste stimulates salivary flow, which in turn increases plaque pH and neutralizes acids produced from other fermentable carbohydrates. The increased flow of saliva creates a further advantage in that saliva contains minerals, in particular calcium and phosphate, which help promote remineralization or reversal of early carious lesions. The Belize study indicated that xylitol gum promotes remineralization to a greater extent than sorbitol gum.

Given this information, I believe we all should be trying to substitute xylitol for sweeteners whenever we can, and we should be cautious about using synthetic sweeteners and taste enhancers. If you are not a gum chewer, or if you have TMJ problems or many large resin restorations, I would not recommend that you try to get xylitol from gum.

Continuing Education

The first half of 2002 has been very stimulating, for I have taken a variety of continuing education courses. In late January of this year, the Hawaii Dental Association held its Annual Scientific Session. On January 24, I took an all day course from Dr. Jeff Brucia. He talked about dental materials, specifically adhesives. The information was very important, since in our practice we use a variety of adhesives with many different applications.

On January 26, I attended a session by John Molinari, Professor and Chairman of the Department of Biomedical Sciences at the University of Detroit Mercy School of Dentistry. Dr. Molinari feels that one in five people have multiple allergies. He went over the many possible chemicals in the dental office that could cause allergies and how to recognize a life-threatening reaction versus an irritating one. My staff and I enjoyed him a lot, for we pride ourselves in having

a relatively allergy-free dental practice, being one of the first offices to eliminate the use of latex gloves.

Within the year, an implant study club was formed by the Kona Center of Facial Surgery. So far, we have had three one-day meetings. The group is very fortunate to have dental school instructors fly out to impart very valuable knowledge about dental implants and difficult cases. I have been impressed with Dr. Israel Finger, a prosthodontist from the University of Louisiana, who shared his expertise in two sessions.

On March 23 and 24, I flew to Oahu to attend a two-day seminar by Dr. Walter Crinnion, a naturopathic physician. Dr. Crinnion is on the faculty of a number of universities and specializes in detoxifying patients who have either knowingly or unknowingly been contaminated with environmental toxins, whether they are solvent or heavy metal. Since dentistry does at times deal with some of these toxins, I wanted to learn how to diagnose these patients and what alternative therapies can be applied.

On April 13, my staff and I were in for a treat. Dr. Helyn Luechauer, an 83-year-old dentist gave a very informative lecture that was action-packed and drew on her many years as a clinician. What I found to be very helpful were the hints she shared on how to easily recognize systemic illness. We are still looking at tongues, nails, and ears to see if we can see the correlation between clinical signs and diets. Dr. Luechauer also made a case for a restricted carbohydrate diet based on biochemistry and ancestral diets.

The craniosacral system consists of the membranes and cerebrospinal fluid that surround and protect the brain and spinal cord. Since this vital system influences the development and performance of the brain and spinal cord, an imbalance or restriction in it could potentially cause any number of sensory, motor or neurological disabilities. The Upledger Institute teaches a series of courses aimed to help practitioners diagnose and treat patients with such problems. I attended a course in Kona from April 18 to 24 and found the information to be eye opening and helpful. It renewed my commitment to the importance and necessity of practicing dentistry based on a holistic philosophy.

The annual Holistic Dental Association meeting was held in San Diego on May 16-18. The title of the conference was the Malleable Cranium. Many of the principles I had learned from the Upledger Institute were discussed at this workshop. The five speakers discussed how dentistry can have far-reaching effects on the whole body.

The most recent course was obviously for die-hard dentists, with a mission to learn as much as possible. Sponsored by the American Academy of General Dentistry it was held in Honolulu on July 4-7. There were only seven of us in the class, so we received a lot of attention from the two instructors, Dr. Bruce Crispin, Professor Emeritus from UCLA, and Dr. Jeff Brucia, DDS, from whom I had taken a course earlier this year. This hands-on class covered how to avoid the many pitfalls of comprehensive dentistry.

I value the skill and knowledge of the experts who add to my learning, and I plan to participate in continuing education to better our practice.