

Getting to the Heart of Dental Disease

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Before the discovery of penicillin, Rheumatic Fever was quite often a fatal disease. Those who contracted it and survived most often were left with a valvular heart defect which was caused by bacteria in the blood stream (bacteremia) that colonized on the heart valves causing the damage.

During this pre-penicillin era, Dr. Charles Bass* was the dean of Tulane University Medical School. Knowing the role of bacteria in this disease, he was at a loss to know how bacteria were introduced into the blood stream, as upon inspection of those children who had succumbed to the disease, he noted no cuts or bruises anywhere on their skin. Upon further inspection, he made an amazing discovery - without exception, each victim had inflamed gums. He saw that there was no "skin" or lining in the inner crevice between the gums and teeth, called a "sulcus."

This discovery led him to conspire with Dr. Sumpter Arnum from the University of Texas Dental School to learn as much as he could about the "habits" of oral bacteria. Together, they discovered that colonies of bacteria "glue" onto the teeth and eventually grow into the crevices ("sulci") between the gums and teeth. Their waste products dissolve the epithelium (skin) lining next to the teeth. The bacteria then have an entry point into the blood stream. They also found out that if the bacterial colonies are broken up and removed from these areas, the gum lining grows back. They also discovered that after the colonies are removed, they re-appear in approximately 24 hours. This research led to the "Bass," or sulcus brushing technique of introducing the toothbrush bristles into the sulcus around the teeth, and to this day is taught to dental and hygienist students. It is interesting to realize how one person's searching for an answer to a serious problem led him to discover a relatively simple preventive measure which is used routinely today.

Tragedy in Dental Education

It is our experience at the Dental Wellness Center and in my lectures, that when patients or attendees are asked if a dentist or hygienist has ever had them demonstrate their self-care technique, only about 1 in 30 answers affirmatively. Similar to it being OK for a 16 year-old to take a drive on the freeway after just having read the driver's manual. This is a blight within the dental education system itself, where dentists and hygienists are primarily taught treatment techniques - not how to teach.

At the Dental Wellness Center, we take gum disease seriously because we understand the significance of this mouth/body connection. Research shows that 80 - 85% of the U.S. population either has or will develop some form of gum disease during their lifetime. We are able to help people get healthy with the latest in diagnostic equipment, such as phase contrast microscopes and other bacterial type assessments that let us offer our patients individually prescribed and monitored, effective preventive and treatment protocols. The main reason people get healthy at the Dental Wellness Center is the passion of its team members that drives the time they take in coaching our patients to health, not through just demonstration and lip service, but involving the patient in optimizing their self-care through skill learning. They form relationships. They extend information about their individualized problems and how to handle them so that they can become participants in their own health. This gives them more confidence about the state of their oral health than ever before as they not only learn the "whys" behind their protocols, but actually have a hand in it.

* Charles C. Bass, M.D. American Heart Journal, St. Louis, Vol.69, pages 718-719, May 1965 excerpts:
....."In almost all ailments of the heart caused by bacteria, the source of infection is known to be the pathologic and infected environment of the teeth."

".....the health, welfare and, even life itself, of persons who have heart conditions which predispose to infection may depend on prevention and control of dental disease."

".....bacteria in the periodontal pocket and in diseased periodontal tissues are the source of almost all bacteremia from the environment of the teeth."

".....I believe that, some time in the future, leading cardiologists will wonder, in retrospect, how information so needed by their patients could have been overlooked or neglected for so long."

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