

Prevention past, present, and future.

When we look back at the history of dentistry it is clear that until recent times the focus has been on treatment, rather than prevention. That attitude has been changing for both dentists and patients, however, and the results are promising. Here is a quick look at preventative dentistry over the years.

Cavities are largely a by-product of modern man. When anthropologists study the human remains of previous societies, one thing that really stands out is the relative lack of dental decay. Although cavities existed here and there, most of our ancestors really did not have a problem with many cavities! It is not until the popularity of refined sugar, that the cavity rate went through the roof. Ever since that time we have been trying to find a way to satisfy our sweet tooth, while keeping our pearly whites in good shape. We are literally trying to have our cake and eat it too.

High sugar intake remains the leading cause of tooth decay. Recently, we have seen an increase in tooth decay, especially in younger patients. One reason could be the popularity of energy drinks. Just like soda and apple juice, these energy drinks often have lots of sugar and that leads to cavities. The key to healthy teeth is not unlike that to a healthy body. Eat a well-balanced diet, but limit the number of between-meal snacks and sweets.

Early attempts to clean teeth consisted of chewing on sticks, wiping the teeth with rags, or using pointed toothpicks. Although the first modern toothbrush was invented in the late 1700's in Europe, *most* Americans didn't brush their teeth until after World War II, when Army soldiers brought the practice back as part of their daily routine! It was also during the post-war era that fluoride began to become a standard ingredient in toothpastes, and began to be added to municipal water supplies.

The last few decades has also brought about an increased awareness of periodontal (gum) disease. In fact, most tooth loss is a result of gum disease and not cavities at all. The good news is that the method for preventing gum disease is similar to preventing tooth decay. That is . . . daily brushing AND flossing. While daily brushing is practiced by almost all Americans, most still do not floss their teeth daily. Will flossing eventually catch on like brushing did after WWII?

The good news is that we now have many tools that have made prevention easier. Electric toothbrushes, special floss holders, and high fluoride gels and toothpastes are now commonly used. A few anti-cavity products that show promise and could become more commonplace include xylitol and amorphous calcium phosphate (ACP). Xylitol is a natural sugar, found in such plants as birch trees. Unlike sucrose, which has the effect of increasing tooth decay, xylitol actually DECREASES cavity rates. Special gums, hard candies, toothpastes and mouth washes are becoming available with this promising sugar substitute. As an additional benefit, xylitol has 1/3 fewer calories. ACP is showing promise with its ability to actually remineralize tooth structure. In other words, reversing the cavity process, what a concept!

The first step in taking care of one's teeth and setting up an effective preventative program still has to start with completing a comprehensive exam. New products and treatments are allowing dentists to customize their treatment of patients and target those with higher rates of tooth and gum problems more effectively. This will save patients time and money in the long run by keeping their teeth healthy and strong. Now that is a result that we can all sink our teeth into.