

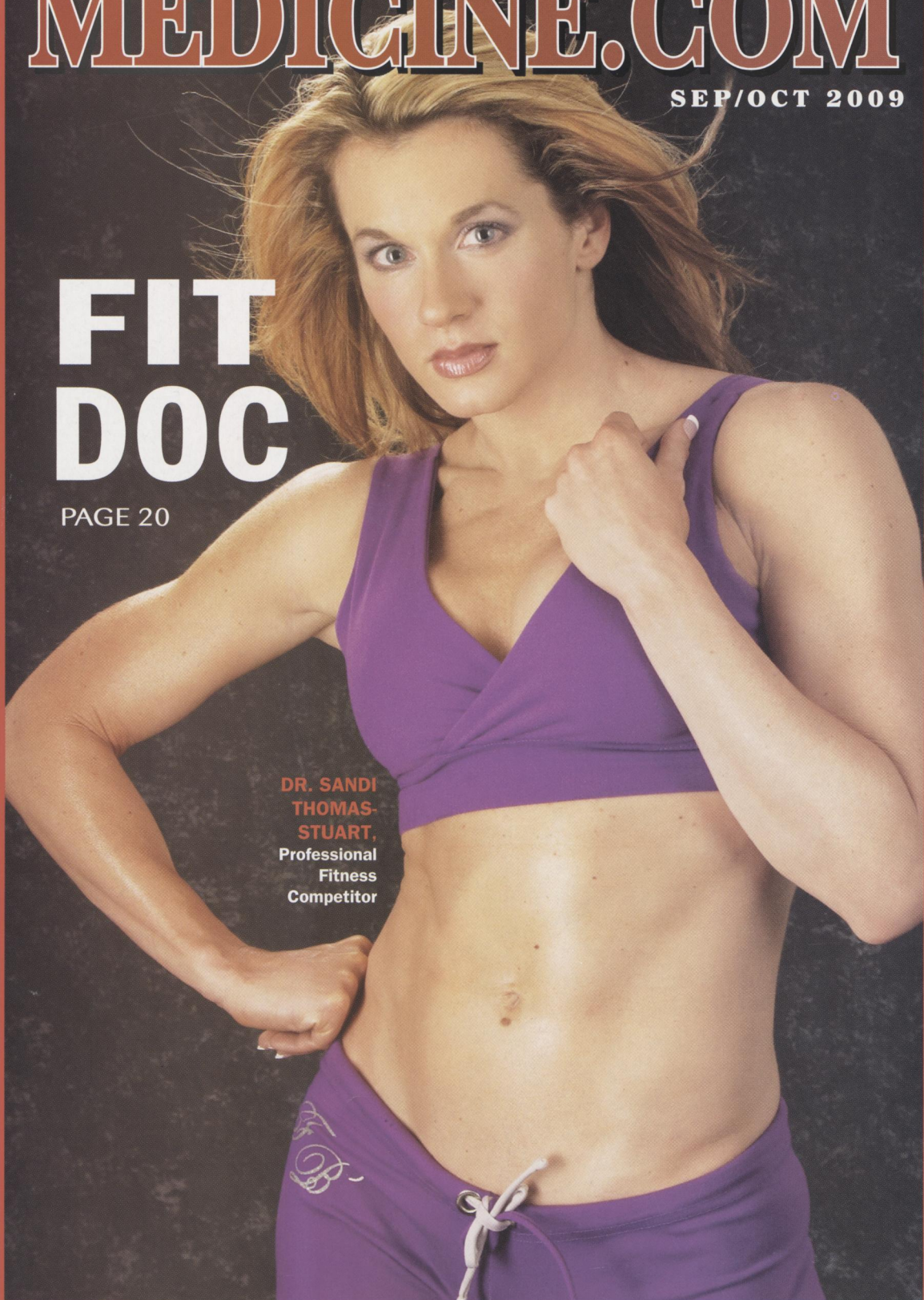
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AN UNHEALTHY MOUTH or one whose teeth are improperly brushed and flossed, leads to a build up of plaque, a sticky biofilm that enables the bacteria, particularly Strep Mutans to reproduce. These bacteria process the food and drink we consume and secrete acid which demineralizes and decays the tooth.

It's All About the pH

Acids in the mouth are culprit in dental disease

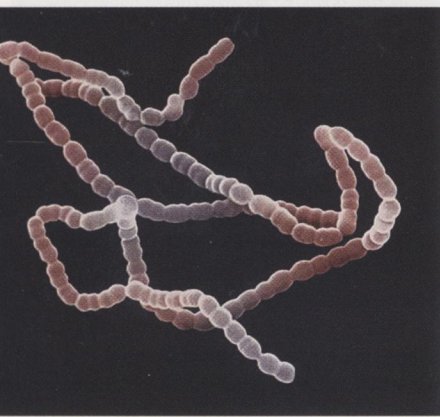
Most people are aware that if you eat good food, brush and floss regularly and visit your dentist periodically, your teeth should be in good shape. You may be doing all this, but still getting cavities.

Maybe you've thought that there must be something more to the story. Well, you're right, there is. One often overlooked and seldom discussed factor in your oral health is acidity. Acids in the mouth are a significant culprit in dental disease. Acids in food and drink directly erode teeth.

pH Facts and Numbers to Ponder

pH is the measure of the acidity or alkalinity of a solution:

- Pure water is said to be neutral, pH 7.0, on a scale of 1 to 14
- Solutions with a pH less than 7.0 are acidic, more than 7.0 they are alkaline
- In a healthy mouth, resting saliva has a pH 6.5 or greater
- Battery acid has a pH 1.0
- Lemon juice pH 2.0
- Coke and Pepsi have a pH 2.5, Diet Coke's pH is 3.3 (regular Coke is 10,000 times more acidic than water) and Florida orange juice is pH 3.4



- Human blood is slightly alkaline, pH 7.3.

Keep in mind that because the pH scale is logarithmic, a one-unit change in pH is associated with a 10-fold change in acidity.

Your mouth can also become acidic from the inside out. Dramatic examples are acid reflux or bulimia both of which pull stomach acids into the mouth, where they do not belong. Stomach acids are pH 2 and are 100,000 times more acidic than water. Some medications create 'xerostomia' or dry mouth. This condition inhibits the natural saliva washing of your teeth. Saliva brings calcium and minerals to the teeth and helps repair any damage.

It takes about 20-30 minutes for your saliva to dilute and to neutralize damaging acids from your mouth. Problems occur when you drink more acidic beverages before your mouth has recovered.

Strep Mutans Loves Sucrose

As your mouth is the first stop in food digestion, there are hundreds of different kinds of bacteria in your mouth. Strep mutans is the main culprit in tooth decay. In a healthy mouth, it's not a problem. An unhealthy mouth or one whose teeth are improperly brushed and flossed, lead to a build up of plaque, a sticky biofilm that enables the

"STREP MUTANS" a shortened term for Mutans Streptococci, is an acid-producing bacterium that attacks tooth enamel minerals which in turn causes tooth decay. Of the hundreds of different types of bacteria living in your mouth, only a handful are thought to cause gum disease, but only Strep Mutans is implicated as the main cause of dental decay.



bacteria, particularly strep Mutans to reproduce. These bacteria process the food and drink we eat and secrete acid which demineralizes and decays the tooth.

Strep mutans loves snacks and finds no difference between a soda cracker and a candy. It loves sucrose, as in candy and cookies, fructose, as in fruits and juices, lactose, as in milk products, and starches, as in breads, crackers, chips and processed foods. Strep mutans love refined foods!

Important points to remember when contemplating dietary acidity and harm to your teeth:

- **First:** The lower the pH the worse it is for your teeth; coke is worse than water.
- **Second:** We're not concerned about the occasional soft drink. It's what you drink all the time that matters.

- **Third:** It's how you drink it, that's important. The longer it takes you to drink a soda the more time it has to attack your teeth. If you want to drink a soda, it's better to drink it, than sip it all day long.

- **Fourth:** The more plaque on your teeth the more likely the bacteria will produce acid to decalcify and decay the tooth.

In the next article, we will discuss the strategies to create an oral environment favorable to health and even reverse early decay with excellent hygiene, and remineralization techniques like Xylitol Therapy. ■

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