

## **What Your Dentist Knows About Your Health**

**From predicting heart disease, diabetes, and premature birth to revealing leukemia, eating disorders, and vitamin deficiencies, your teeth and gums say a mouthful about your health.**

The eyes may be the window to your soul, but for a look into your physical health, open wide: Your teeth and gums say a mouthful.

Receding or inflamed gums, cavities, tooth loss, gingivitis, and other dental dilemmas in adults can indicate the presence of serious health problems -- including heart disease, diabetes, cancer, vitamin deficiencies, and even the risk of having a premature or low-birth-weight baby. Usually, these dental problems result from poor dental hygiene such as not brushing well or not flossing regularly. But even by following your dentist's golden rule, you may still be hurting your overall health.

"Every time you brush your teeth, especially if there's any inflammation in the mouth, it puts some bacteria into your bloodstream," says Honolulu periodontist Michael P. Rethman, DDS, president of the American Academy of Periodontology. "This isn't good, but it is normal."

That may explain a recent jaw-dropping study in the journal *Circulation* that links any of five common dental problems with an increased risk of heart disease. The kicker: Dental problems proved to be *stronger* predictors of heart disease than more traditionally used risks factors such as low "good" cholesterol, high triglycerides, or high levels a clotting factor called fibrinogen.

And it doesn't end there.

### **Dental Detectives and What They Find**

"Often, it's a dentist or periodontist who is the first to identify a systemic health problem because of what they see in the patient's mouth," says Col. Brian Mealey, DDS, chairman of periodontics (the treatment of gum diseases) at Wilford Hall Medical Center in San Antonio, the nation's largest Air Force hospital. "And as more evidence accumulates, I think you'll see more dentists looking at oral health specifically to search for possible problems affecting the rest of the body. They're now teaching this stuff in dental schools, which wasn't the case 10 years ago."

So what can these dental detectives detect in those twice-yearly exams?

### **Diabetes**

Undiagnosed diabetes, or poor blood sugar control in those already diagnosed with the disease, can be identified by several dental woes, says Sally Cram, DDS, a periodontist in Washington, D.C., and spokeswoman for the American Dental Association.

"Diabetics tend to get periodontal disease at a rate three to four times higher than people without diabetes, but when their condition is controlled with medication, diet, or other treatments, their periodontal condition will usually stabilize and return to health," she states. "If I see a lot of inflammation in someone who brushes and flosses regularly, or they have an abscessed tooth (an infection-caused pocket of pus in the tissue next to a tooth), I ask, 'Have you checked your blood sugar lately?'"

That's because uncontrolled diabetes impairs white blood cells, the main defense against bacterial infection -- and periodontal disease results from bacterial infection. Besides gum

problems, diabetes also can produce dry mouth, thrush, a burning of the mouth or tongue, or a distinct, telltale breath odor. "It's called 'acetone breath' and produces a sweet smell that's associated only with diabetes," adds Rethman. "Breath that really smells bad, meanwhile, could indicate infection of the nose, mouth, lungs, or stomach."

## **Osteoporosis**

Osteoporosis and tooth loss often go hand-in-hand because the same decrease in bone mineral density that boosts risk of hip and other fractures affects the jawbone and teeth. That's one reason why women are especially vulnerable to tooth loss following menopause -- and why despite its other health risks, estrogen replacement therapy has been found to reduce their rates of tooth loss and gingivitis.

"Actually, there are four times in a female's life when she's more vulnerable to oral problems," says Cram. "Besides menopause, during puberty, during pregnancy, and around the time of her monthly period, certain hormones levels are elevated that stimulate inflammatory mediators that make them more susceptible and responsive to bacteria in the mouth." So mark your calendar, ladies: It's during these times when a dental exam is especially useful.

## **Heart Disease**

In the recent *Circulation* study, after comparing the oral health of 256 adult heart patients with that of 250 others with no heart disease, researchers did some math. Their calculations showed that the strongest predictor of heart disease was pericoronitis, a gum infection around the molars, usually the third molars or wisdom teeth; followed by root remnants, in which teeth decay to the point that only the tip of the root remains; gingivitis, an inflammation of gums around the teeth due to improper cleaning; cavities; and missing teeth.

The possible connection: "It seems that bacteria often found in the mouth can appear as the same atherosclerotic plaque associated with cardiovascular disease," Rethman states.

## **Premature and Low-Weight Births**

Research shows that women who have gum disease during pregnancy are seven times more likely to have a baby that is born too early and too small than other expecting mothers -- and the risk increases with the severity of their gum problems. "That's because when you have periodontal disease, the inflammation causes certain chemicals to be released in your bloodstream that could affect the baby's birth weight and delivery," says Cram

So if you're pregnant, head to the dentist or periodontist. A study last year in the *Journal of Periodontology* suggests that performing a common procedure to remove plaque and tartar from teeth that cause gum problems could reduce risk of premature delivery.

## **Other Conditions**

- **Leukemia** causes gums to be fiery red, very inflamed, and spongy.
- **Bulimia.** "When you binge and purge, it creates acid in the mouth that eats away at tooth enamel, especially on the insides of teeth," says Cram. "Bulimics also have a lot more gum recession and higher rates of cavities."
- **Kidney problems** can cause inflamed gums.
- **Gastroesophageal reflux disease (GERD)** can also cause tooth erosion from digestive acids entering the mouth.

- **Vitamin deficiencies.** Not getting enough iron can cause sores at the corners of the mouth, the taste buds to become small, or can lead to a sore tongue. In some cases, advanced iron deficiency can lead to anemia and may cause scarring in the throat and esophagus, making swallowing difficult. While vitamin C deficiency causes gums to easily bruise and bleed, deficiency can lead to tooth loss. Vitamin D deficiency boosts risk of jaw fracture and gum disease.

### **Drugs Do Damage, Too**

As you age, there's a natural decline in the amount of saliva you produce. But to add insult to injury, hundreds of drugs -- including antidepressants, high blood pressure medications, and allergy remedies such as antihistamines and decongestants -- can cause dry mouth.

"When the mouth dries out, you don't have the protective enzymes in saliva that help kill bacteria," says Cram. "Not only that, but gum tissue dries, which causes cells to die on the surface, allowing it to proliferate." Dry mouth can be avoided by drinking plenty of water or using over-the-counter toothpastes, mouthwashes, and chewing gums, such as Biotene, that are especially formulated to replace these protective enzymes.

Still, the mouth-body connection stresses the importance that long preached advice: See your dentist regularly, especially during those vulnerable times of womanhood -- or if you're about to be hospitalized.

"If you're going in to the hospital for an extended stay, having an oral exam and good cleaning is a great idea because you're going to decrease the risk of hospital-acquired problems such as pneumonia," says Mealey. "It's also advised to have a cleaning before getting joint replacement surgery, because the mouth can be a source of bacteria that, if it seeds, can cause an infection that could destroy tissue around the joint."

But even if you're feeling perfectly fine, there's good reason for opening wide and staring at the ceiling as your mouth is picked and probed. "Today, more dentists aren't just looking at teeth and gums," says Cram. "They're giving you a good medical exam."