

- Oral infections can have an effect on the health of the rest of your body
- Oral infections have been linked to diabetes and heart disease
- To maintain whole body health, eliminate any oral infections



**Because the mouth bone is connected to the body bone!**

**Teeth and gums reveal the inside story of your overall health. Find out what your dentist knows about you.**

You may have heard of the mind-body connection, but what about the mouth-body connection?

To many people, a dental visit is about getting their teeth cleaned, having a tooth pulled or having a filling placed. However, a dental visit is not just about teeth. It is also about your overall health. What goes on in your mouth can affect the rest of your body, and what goes on in the rest of your body can have an effect on your mouth.

Many diseases and conditions can affect your oral health. For example, people with weakened immune systems may be more likely to get fungal and viral infections in the mouth. The immune system (the system that protects the body from illness and infection) can be weakened by disease or as a side effect of cancer chemotherapy drugs or by drugs that are taken to prevent the rejection of transplanted organs or bone marrow.

Opening your mouth is somewhat like cracking open the bonnet of your car. An expert taking a quick look can get a good sense of what's working, what's not, and what should be tuned up regularly to keep your body's systems up and running at their best. Your teeth and gums, it seems, speak volumes about your well-being. For starters, cavities and gum disease may point to diabetes or heart disease, and loose teeth could be a sign of osteoporosis.

When there's an underlying condition at play -- more than 90% of systemic conditions such as heart disease are linked to symptoms in the mouth -- your dentist can draw an important connection between your oral health and your overall health, and you can start getting everything from your teeth down to your toes back on track. So sit back, relax, and open wide. Here's what you need to know about the mouth-body connection.

### Oral Health & Diabetes

Bleeding gums, dry mouth, fungal infections, cavities -- these oral signs might clue your dentist into a serious health issue: diabetes. And these symptoms also might suggest other serious conditions, such as HIV and leukemia. "Diabetes is the one disease that we know can have a direct impact on infections in the bones and gums around the teeth," says Sally Cram, DDS, consumer adviser for the American Dental Association.

Diabetes and your mouth have blood sugar in common. If blood sugar levels are out of control in your body because you don't know you have diabetes, they're out of control in your mouth. With sugar to feed on, bacteria find a happy home in which to grow and thrive.

The bacteria then attack the protective enamel layer on your teeth, and over time as the enamel breaks down, cavities develop -- one of the dental signs of diabetes. A person with diabetes has more mouth woes to worry about: uncontrolled diabetes reduces the body's first line of defense against infection -- white blood cells -- which can then put a person's oral health at risk.

With bacteria teeming around the gums from high blood sugar levels, periodontal or gum disease is an easy next step. Unfortunately, because diabetes lowers a person's resistance to infection, managing periodontal disease isn't easy. "If you have diabetes, and periodontal disease, you have to get your blood sugar levels under control, for both the sake of your body

and your mouth," says Cram.

Your dentist should be one of your best friends if you are among the millions living with diabetes. Frequent professional cleanings are important in helping prevent or control periodontal disease, and homecare requires flossing and brushing after every meal.

### Oral Health & Heart Disease

If on your last visit to the dentist you were told you had gingivitis or gum inflammation, cavities, missing teeth, molar infections, and/or decay so severe it's left only the roots of a tooth, your dentist may say your mouth isn't the only thing being attacked. The jury is still out, but according to research from the American Heart Association, poor oral health could increase your chances of developing heart disease -- more so than the usual suspects of cholesterol and triglyceride levels. In fact, the American Academy of Periodontology reports that, among five oral diseases, pericoronitis is the strongest predictor of coronary disease.

Pericoronitis is an infection in the gum tissue around a tooth; gums recede and teeth can loosen as their support weakens. "We think it's the bacteria, or the inflammatory response from the bacteria, that might cause inflammation of the heart and more plaque buildup in the blood vessels," says Rick Kellerman, MD, president of the American Academy of Family Physicians. Unfortunately, neither your dentist nor your doctor fully understands how your mouth is connected to your heart.

So while you wait for more research related to the impact of oral health on heart health, your dentist will recommend you do two things: brush and floss. "The few minutes you need to spend a day brushing and flossing is a small price to pay to not have bypass surgery when you are older if there does turn out to be a connection," Cram tells WebMD.

### Oral Health & Osteoporosis

Has the tooth fairy recently paid you a visit? That's a problem, since you stopped believing in mythical characters decades ago. Your dentist may tell you that osteoporosis, a disease that causes the bones to become less dense over time as the body loses calcium, could be at the root of tooth loss. "Bones are bones, and that includes the jaw," says Kellerman. "As the anchor point for the teeth, if your jaw becomes less dense and weakens, losing teeth becomes more and more likely."

Osteoporosis that weakens the jaw may lower a person's defense against bacteria that affect the gums, which can lead to periodontal disease. Though more research is needed to establish a link, osteoporosis and gum disease could turn out to pack a one-two punch, leaving you with some holes to fill in what used to be a picture-perfect smile.

"You want to be very conscientious about brushing and flossing if you have osteoporosis, because if you get periodontal disease, and you are already losing bone mass, you're at a higher risk of losing teeth," says Cram. The risk of tooth loss is three times greater for women with osteoporosis than for women who do not have the disease. "Women in particular should take calcium and vitamin D, exercise, eat right, and do all of the things necessary to help prevent osteoporosis, which down the road could help prevent losing teeth," Kellerman tells WebMD. "Every time you lose a tooth it's like losing a pearl."

One other note: To detect osteoporosis early, screenings may be helped by a special software

that checks routine dental x-rays for warning signs of the bone-thinning disease, a recent British study suggests.

### Oral Health & Women: The Female Factor

About half of all British people, no matter how healthy they are, are more likely to develop oral health problems: women. "Women need to be aware that they are at higher risk for periodontal disease and gum disease during puberty, pregnancy, their menstrual cycle each month, and then menopause," says Cram. "We know there is a correlation between high hormone levels in the body and inflammation in the gums surrounding the teeth."

When hormone levels are very high, explains Cram, women can be more sensitive to a small amount of plaque or bacteria. "For example, if you weren't pregnant, and you forgot to floss for a couple of days, it probably wouldn't be an issue," says Cram. "But if you are pregnant and forget to floss, and plaque collects, you can get these swollen, painful growths in your gums that you otherwise probably wouldn't have."

Being pregnant and having periodontal disease may also put your baby at risk: "Studies show that pregnant women with periodontal disease have higher risk of premature labour." Another risk is possible low birth weight. "It could be due to the inflammation and bacteria in the mouth that makes its way into the bloodstream," she says.

### Oral Health & Smoking

If you smoke, your dentist knows it. Along with tinted-yellow teeth, smokers are at greater risk for a long list of unpleasant oral issues, with tooth loss leading the pack. A smile-killing 41% of daily smokers over age 65 are toothless. If that's not enough to make you snuff out the habit, smoking can also raise your chances of calculus -- plaque that hardens on the teeth and can only be removed during a professional cleaning; deep pockets between the teeth and gums; loss of the bone and tissue that support your teeth; mouth sores; and oral cancer.

#### **The Bottom line?**

**The risk of not caring for your teeth far outweighs the effort required to keep your mouth clean -- so get brushing!**

