

Healthy Mouth, Healthy Body

Drs. Todd & Amy
Kinney, DDS

From childhood on, you've heard plenty about the importance of good dental care. You know that regular brushing and flossing combined with regular checkups and teeth cleaning are the route to an attractive smile, sweet breath, and teeth that last for a lifetime.

But good dental care is a gateway to much more. A growing body of science shows a correlation between dental disease and serious and chronic health issues from diabetes and respiratory illness to pregnancy complications, Alzheimer's, and heart disease. Dental health and overall health, it seems, are inseparable.

ORAL BACTERIA

When home dental care falls short, millions of tiny bacteria in the mouth set to work, initiating oral disease. Present in numbers exceeding the number of cells in the entire human body, the bacteria settle on the teeth in sticky, coral-like colonies of plaque. The colonies build up between the teeth and at the gum line.

Plaque can be easily removed at home by brushing and flossing, but it forms again in just 4–6 hours. Within 24–48 hours, if brushing and flossing aren't repeated, calcium salts in the saliva harden the plaque into cement-like tartar or calculus. Home removal isn't possible.

At this point, acidic bacterial wastes from the tartar eat away the protective surface of the gums and erode tooth enamel.

Tartar buildup enlarges the pockets around the teeth, making them difficult to clean with a toothbrush and leading to further buildup. As the gums pull away and bone dissolves, infection develops, resulting in localized inflammation and bleeding of the gums (gingivitis). Untreated, the condition can progress into full-blown periodontitis (gum disease).

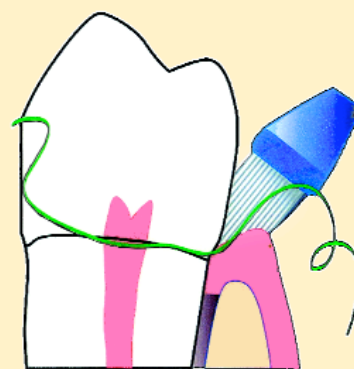
Through damaged gums, bacteria (some innocuous, some pathogenic) and inflammatory substances from the mouth escape into the bloodstream for transport to the rest of the body.

SYSTEMIC LINKS

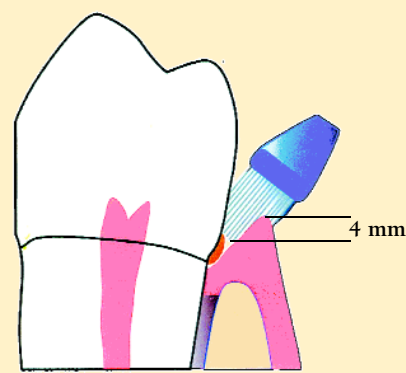
In the body, the bacteria can wreak havoc. For example, oral bacteria:

- Have been identified in the coronary arteries of patients with coronary artery disease, and are associated with c-reactive proteins, which are considered a risk factor for heart disease
- Have been found in atherosclerotic plaque, which damages the cells lining the artery walls
- Have been shown to move through the arteries to the uterus and the amniotic fluid, where they are suspected as a factor in infertility, low birth weight, and preeclampsia (a condition characterized by an abrupt rise in blood pressure in the pregnant woman)

Links to oral inflammation seem equally sinister. Inflam-



Measuring 1–3 mm, a healthy pocket allows effective removal of plaque with a toothbrush, floss, and proper technique.



In early periodontitis, enlargement of the pocket around the teeth to 4–5 mm makes cleaning difficult, resulting in infection and tartar buildup. The gums pull away, bone starts to dissolve, and bacteria and inflammatory substances enter the bloodstream. Treatment is effective until pockets reach a size of about 9 mm.

matory substances, researchers say, may be the engine driving an ever-growing list of feared chronic illnesses with an inflammatory factor—among them, clogged arteries, heart disease, diabetes, stroke, arthritis, and cancer. Inflammation is one of six subclinical defects in the body (all associated with periodontal disease) shown to be necessary for systemic diseases of all kinds.

Large numbers of us may be

adversely affected. One in three adults has untreated tooth decay. Almost one in two has gingivitis. More than one in five has advanced periodontitis.

And consider this: diabetics tend to develop periodontal disease at three to four times the rate of nondiabetics. An estimated 21 million Americans have diabetes, and another 41 million people have the prediabetic condition of high blood sugar, putting them at high risk for developing the disease in the near future.

A NEW MODEL

Implications for healthcare are significant. The dominant U.S. healthcare model—with dentists and doctors minding separate domains—lags behind the science, shortchanging individual patients and overall public health. A new model of coordinated care is in order to better prevent, diagnose, and treat systemic conditions linked to oral disease. Such a model is in use by a growing number of health-centered and holistic healthcare professionals.

In health-centered practices, doctors and dentists work in partnership, closing the great dental-medical divide with communication and cooperation founded upon solid science. Dentists assume a larger role on the front lines of care, bringing to the attention of patients and their doctors systemic health problems suggested by evidence found in the patient's mouth.

Seeing gum inflammation in someone who brushes and flosses regularly, for example, the health-centered dentist (understanding the diabetes-oral infection link) asks, "Has your doctor checked your blood sugar lately?" The health-centered doctor caring for a patient with uncontrolled blood sugar refers the patient to a dental professional.

UNDER YOUR CONTROL

The connection between oral health and overall health should neither be overstated nor ignored. Rather, standards of dental and medical practice should evolve in response to objective, credible

research and analysis. Cooperation between dentist and doctors should grow as the dental-medical health links become better understood.

In the meantime, dentists and doctors should never lose sight of the fact that periodontal disease significantly contributes to disability and lack of well-being in the general population. And all of us concerned about our general health should practice what we learned early on in the dentist's office: brush and floss regularly to remove plaque (more important than ever if your gums are bleeding!), and see your dentist at the first signs of infection and tartar buildup.

Periodontal disease is entirely preventable. Regardless of genetic predisposition or other factors, you can prevent oral decay and reduce associated health risks with an investment of just a few minutes every day. ■

Drs. Todd & Amy Kinney have provided integrative dental care in Bozeman since 1997. Their health-centered practice focuses on biological, mercury-free dentistry, TMJ disorders, and holistic preventive care.

Today's dominant healthcare model—with dentists and doctors minding separate domains—lags behind current science.

When you take time to see your dentist does your dentist take time for you?

 **We do.**

Our integrative approach to oral health makes time to consider the whole you.

We invite you to experience the difference.

TODD A. KINNEY, D05
AMY C. MADDEN KINNEY, D05

health centered dentistry—guided by nature.

406.582.8500 • 3502 Laramie Drive • Bozeman
1/4 mile west of the Gallatin Valley Mall