

## Is the key to overall health in the mouth?

### The connection between Oral Care and Overall Health

The long-held belief that dental disease is a localized, minor disease of the gums has been proven wrong. Poor oral health can and does contribute to serious health problems. It can also interfere with successful medical treatment and healing and can actually shorten life expectancy.

While we all know the more obvious consequences of poor oral health, which are Cosmetic (bad breath, missing teeth and poor self-image) and maybe even Economic (missing work due to tooth related problems, increased dental health expenditures), most of us don't realize that good oral health is imperative to our overall well-being.

*More and more studies are confirming the association between gum disease and serious health risks that seemed unrelated even a decade ago like Heart disease, Blood disease, Stroke, Diabetes, Liver diseases and Low Birth Weight for Newborns.*

#### **40 percent of the surfaces of your teeth are never clean**

While most people brush their teeth on a regular basis, few realize that brushing alone cleans only 60% of the teeth's surface leaving 40% of the surfaces a breeding ground for plaque. Most gum disease starts between the teeth where your brush doesn't reach.

#### **Gum disease affects Three out of Four adults**

Gum disease is a form of inflammation and infection that occurs in the mouth caused by the accumulation of plaque. It is considered today's silent epidemic because it affects three out of four adults over the age of 35.

Gum disease has two categories: gingivitis, (milder form) and periodontitis (more advanced form that has infected both the soft tissue and the surrounding bone).

If you have gum disease, the bacteria present in the pockets are pumped into the bloodstream every time you chew.

## ***The Mouth - Body Association***

Researchers are still sorting out the relationships involved between periodontal disease and other serious health problems. *While there are many theories, there is one fact: Periodontal or gum disease is a bacterial infection. Bacteria from plaque can travel from the mouth into the bloodstream and can spread these harmful bacterial components to other organs in the body.*

### **Link to Heart Disease:**

Researchers have found that people with periodontal disease are almost twice as likely to suffer from coronary artery disease as those without periodontal disease.

Coronary artery disease is characterized by a thickening of the walls of the coronary arteries due to the buildup of fatty proteins.

Bacteria from severe gum disease may enter the bloodstream through the mouth and can affect the heart by attaching to fatty plaques in the coronary arteries (heart blood vessels) and contributing to clot formation. Blood clots can obstruct normal blood flow, which may lead to heart attacks.

### **Link to Stroke:**

The possible relationship of stroke and severe gum disease has been demonstrated in a number of recent studies, which examined the presence of artery plaques (fatty deposits) in subjects with and without severe chronic gum disease. Those with severe periodontal disease (gum disease) had a 4.3 times greater risk of stroke than those with either mild or no periodontal disease. Scientists believe that infection in the mouth increases level of inflammation in the blood, which can help create blood clots that lead to strokes.

If your doctor tells you your CRP levels are high, you might want to call your dentist before seeing a cardiologist.

### **Link to Low Birth Weight**

According to several studies, up to 75 percent of all pregnant women have gingivitis, which puts them at high risk of developing severe gum disease.

How periodontal disease affects pregnancy is not completely understood but it is speculated that the bacteria that cause inflammation in the gums also can trigger the immune system to produce inflammation in the cervix and uterus. Such inflammation can cause premature labor.

Women with severe gum disease are up to eight times more likely to give birth to premature low-birth weight babies and have pre-term delivery, which in turn elevates the risk for later problems, including developmental complications, asthma, behavioral difficulties, and a higher risk of infant death.

## **Link to Diabetes**

Periodontal disease may make it more difficult for people who have diabetes to control their blood sugar. It appears that severe periodontal disease increases blood sugar. This lengthens the time when a person with diabetes experiences a high blood sugar level, which, in turn, increases the risk for diabetic complications.

## **Link to Respiratory disease**

Bacteria from the mouth can be carried by the bloodstream into the airways of the throat and lungs, increasing the risk for respiratory diseases and worsening chronic lung conditions like emphysema.

## **Link to Rheumatoid Arthritis**

Periodontal disease and rheumatoid arthritis are very similar in that both are inflammatory in nature and result in tissue damage and loss. It has been hypothesized that these similarities may provide an association between the two diseases; in that Periodontal disease may influence rheumatoid arthritis and vice-versa.

## **Link to Pancreatic Cancer**

A puffy bleeding gum could increase the risk of pancreatic cancer, according to a new study published in the *Journal of the National Cancer Institute*. Researchers from the Harvard School of Public Health in Boston surveyed more than 50,000 male health professionals (about half of them dentists) to determine who had periodontal disease, then followed them for 16 years; 216 eventually developed pancreatic cancer. After controlling for known risk factors like smoking, alcohol intake, and body weight, the researchers found that those with gum disease were 64 percent more likely to develop the cancer than those with healthy gums.

## **The Surgeon General's report on oral health**

As we have seen, there are compelling reasons to start realizing that poor oral health is not localized only to our mouth.

Even the first-ever Surgeon General's report on oral health identifies a "silent epidemic" of dental and oral diseases and calls for a national effort to improve oral health among all Americans. The report, commissioned by Health and Human Services Secretary Donna E. Shalala focuses on the relationship between oral health and overall good health throughout life, the mouth as a mirror for general health and well-being and the association between oral health problems and other health problems.

The Surgeon General's Report on Oral Health provides important reminders that oral health means more than sound teeth. Oral health is integral to overall health," Shalala said. "Furthermore, safe and effective disease prevention measures exist that everyone can adopt to improve oral health and prevent disease."

The report calls for a national partnership to maintain and improve the nation's oral health and urges broadened awareness and regular use of common preventive practices, like flossing daily.

## **People who floss on a regular basis can potentially add several years to their life expectancy.**

Gum disease increases the risk of many diseases and is devastating to the immune system. When looked at in this way it isn't so difficult to see the connection: the ultimate effect of moderate to severe gum disease is that it will reduce the length of your life!

Harvard Medical School researchers studied longevity and researched people who reached to live 100. They found that an important contributing factor to longevity was daily flossing because of the clear link between inflammation of gum disease and heart disease. They published the study in the best selling book *"Living to 100: Lessons in Living to your Maximum Potential at Any Age"* and recommend to make daily flossing part of your daily regimen as a means to add to your life expectancy.

Dr. Roizen and his team evaluated over 25,000 medical studies, learning what they tell us about aging and the prevention of aging. They came to the conclusion that flossing daily and seeing a dentist and dental hygienist every six months can reduce your Real Age by 6.4 years. Dr. Michael Roizen is one of the countries foremost preventive gerontologist and author of the bestseller *"RealAge: Are You as Young as You Can Be?"*

Dr. Roizen also cited one study that showed people with gingivitis and periodontitis have a 23% to 46% higher mortality rate. Another study indicated that men under age 50, who have advanced periodontal disease, are 2.6 times more likely to die prematurely and three times more likely to die from heart disease than those who have healthy teeth and gums. Both studies considered other pertinent factors, such as smoking, alcohol, and overeating.

## **Fighting Gum Disease**

Flossing is cheap and painless and takes only a few minutes a day. Why is it then that despite the fact that 65 percent of American households purchase dental floss only a little over 10 percent actually floss on a regular basis? Many people avoid the task because they consider it painful and so time consuming that it outweighs the vital importance to overall oral health.

The list of excuses for not flossing is endless, but according to a new study published in the *Journal of Periodontology*, flossing needs to become part of our daily hygiene routine. Researchers compared the effects of twice daily flossing and toothbrushing vs. brushing alone in sets of twins (who shared the same environmental factors, such as diet, health, and life practices) The results were astonishing: The group that flossed had 38% fewer bleeding gum sites than before the intervention, and overall gum bleeding improved by an average of 42%.

## Bibliography

- "Medical News: Flossing to longevity" New York Life  
"The relationship of Oral Health to Overall Health and Longevity" Tom McGuire, DDS  
"Searching for Ways to Live longer? Flossing is the Fountain of Youth" PR Newswire, June 8, 2000  
"Regular flossing can head off host of health problems" Spitz, Katherine, Knight Ridder Newspapers  
"Oral Health; Overview" National Women's Resource Center, June 13, 2005  
"Ontario Dentists Working to increase Awareness of Proper Oral health for Aging Population" Canadian Corporate News, October 11, 2000  
"Dental Health." MedlinePlus. National Library of Medicine. National Institutes of Health  
"Successful Organ Transplants Linked to Sound Oral Health" Medical News Today  
"Special Care in Oral Health." National Institute of Dental and Craniofacial Research. National Institutes of Health.  
"Caring for Your Mouth: Tips for Health Teeth and Gums." Mayo Foundation for Medical Education and Research  
"Down in the Mouth: Many Health Problems have their start with poor oral hygiene" Karen Uhlenhut, The Kansas City Star  
"Oral and Medical Health Connections" Delta Dental, Quarterly Research Briefings for Employers, Dentists, Health Plans and Physicians.  
March through June 2006, July through December 2006, 1<sup>st</sup> Qtr 2007 and 2<sup>nd</sup> Qtr 2007  
"Oral health as a Reflection of Overall Health" American Medical Student Association  
"A premium for pearly whites: Elena Hayasaka, Boston University  
"Do Women Need to be More Careful with their Oral Health?" Academy of General Dentistry.  
"Oral Health Topics A to Z." American Dental Association  
"Oral health Initiative" West Virginia Chamber of Commerce  
"The effect of Periodontal Disease on Health Care Costs", Medical News Today  
"Living To 100: Lessons in Living to Your Maximum Potential at Any Age" Thomas T. Perls, MD, MPH  
"Real Age: Are You as Young as You Can Be?" Michael F. Roizen, MD  
"New Study Confirms Periodontal Disease Linked to Heart disease" American Academy of Periodontology  
"Could your oral health be affecting something other than your mouth?" Crest.com  
"Deep Periodontal Pockets Increase Risk for ECG Abnormalities, American Academy of Periodontology  
"Study Shows Relationship Between Oral health and Cardiovascular Health" Science Daily, Your source for the latest research news  
"Heart Disease and Stroke" American Academy of Periodontology  
"Healthy Mouth, Healthy Body. Inflammation and Gum Disease" Colgate.com  
"Pregnant? With Gum Disease? Your Baby could arrive early!" American Association for Dental Research  
"Your Oral Health and Overall Health." American Dental Association.  
U.S. Department of Health and Human Services. "Oral Health in America: A Report of the Surgeon General". Washington, DC: USDHHS, Office of the Surgeon General, May 2000.  
"Study finds relationship between Periodontal (Gum) Treatment and the overall cost and care for several diseases, including diabetes, Coronary Heart disease and Cerebrovascular Disease" American Association for Dental Research  
"Association between Gum Disease and Heart Attack" American Association for Dental Research  
"Gum Disease: More than just poor oral health" American Association for Dental Research  
"Study of Twins confirms benefits of flossing" *Dental News, Dental.org*  
"Flossing needed to fight Gum Disease" *Jennifer Warner, WebMD News*  
"Court enjoins Listerine Advertising Campaign" *Jeffery Edelstein, Manatt, Phelps and Phillips, LLC*  
"Flossing" *Rich Maloof, MSN Health and Fitness*  
"Flossing once a day helps fight gum disease and tooth decay", *Delta Dental CA*  
"There's Simply no substitution for flossing" *Medical News today*