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ITEM # BROC-MOU

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DIABETES

HEART DISEASE

STROKE

YOUR MOUTH CAN
MAKE YOU SICK.

HOW CONDITIONS IN
THE BODY ARE RELATED
TO CONDITIONS IN
THE MOUTH.

INFLAMMATION



Inflammation and bacterial infections in the mouth and diseases like diabetes, heart disease, and stroke are related!

Infection and Inflammation

For many years dentists have observed that illnesses and conditions of the mouth, gums, and teeth are directly related to illnesses and conditions in the rest of the body. Research is now providing ample evidence to back this up.

As it turns out, inflammation and bacterial infections in the mouth and diseases like diabetes, heart disease, stroke, and even pregnancy issues, such as low birth-weight infants, are related!

Studies show that bacterial infection and tissue inflammation are important causative factors in periodontal (gum and bone) disease. Bacterial byproducts and inflammation in the body can also be a major factor in the development of diseases such as diabetes, heart disease, stroke, and other serious problems. Inflammation appears to be a significant link between systemic (body) disease and oral disease.¹

What is inflammation and what is its purpose?

The literature defines inflammation as the first response of the immune system to injury, infection or irritation. It is usually characterized by redness, heat, swelling, and pain. Anyone who has had a twisted ankle or mosquito bite knows that the body quickly responds to injury with inflammation.

Inflammation is also how the body *fights* against infection. When an infection occurs, a series of automatic reactions begins which are designed to protect the body as a whole. Blood vessels dilate around the site of an infection, causing redness and heat. Blood vessels may also constrict some distance away from the site, causing swelling and pressure on nerve endings. Pressure and swelling often result in pain. All of this blood vessel activity causes white blood cells to move to the affected area, *surrounding bacteria and preventing their spread*. Stated simply: the purpose of inflammation is to isolate and eliminate infection.

Is the entire body affected by the process of inflammation?

Yes. The activity of the blood vessels and cells in the area around an infection or injury causes a reaction in the rest of the body. A person may feel achy, feverish, chilled, tired, or generally “flu-like”. However, it is possible to have an infection and an immune system actively involved in the inflammatory process without a person noticing general body symptoms.

If the cause of the inflammation goes away, the situation may resolve on its’ own without widespread damage. If the cause of the inflammation does not go away or becomes worse, harm may occur to organs, such as the pancreas, liver, and heart, as well as blood vessels, joints, and nerves.

What does this have to do with my mouth?

Periodontal (gum and bone) disease typically begins from bacteria growing around the teeth, causing infection and triggering the body’s inflammatory response. The combined bacterial onslaught and inflammatory reaction can result in the destruction of the gum and bone around teeth. Left untreated, periodontal disease can cause loose teeth, exposed roots, “long” looking teeth, bad breath, sensitivity, bleeding, swelling, and pain. It is a major factor in tooth loss for adults. Amazingly, periodontal disease can also exist in the **absence of any symptoms at all**.

The bacteria may not stop in the mouth, but travel throughout the body. As the inflammatory system continues to ignite, susceptible organs, arteries and tissues can be damaged. If the bacteria and inflammation in the mouth are not controlled, as in the case of chronic periodontal disease, the body can never shut down the inflammatory system in the rest of the body. Why? **Because the cause of the inflammatory response, the bacteria and inflammation in the mouth, never goes away.**²

How are periodontal disease and inflammation related to diabetes, heart disease and stroke?

They appear to be closely connected. In 1993 the Centers for Disease Control checked the medical records of 10,000 patients, and found a connection between oral disease and the risk of heart disease. In 1996 researchers at the University of North Carolina looked through 18 years worth of medical records for over 1000 male patients. They discovered that those with gum disease had twice the risk of suffering a heart attack, and three times the risk of stroke. In the October 2003 issue of the Journal of the American Dental Association a study revealed that when diabetic patients' periodontal infections were treated, they experienced a "marked improvement" in their ability to manage blood sugar. In 2006 the Journal of Periodontology reported that insulin resistance leading to diabetes was higher in persons with periodontal disease. (It has long been known that persons with diabetes suffer from a higher incidence of dental decay and periodontal disease and now we know the reverse is also true.)³

What about pre-term, low-birth-weight babies?

Problems in pregnancy outcomes have been associated with C-Reactive Protein (CRP). This protein is present in gum and bone disease as well as in heart disease and other conditions. Controlling or eliminating periodontal disease lowers the instance of C-Reactive Protein and possibly lowers the risk of premature, low weight infants. According to a research project involving over 1,000 pregnant women at the University of Alabama in 2001, women with severe periodontal disease tended to give birth anywhere from three to eight weeks before their due dates. In 2003, a study reported in the Journal of Periodontology followed 366 women with advanced gum disease. Those who received treatment in the form of scaling and root planing in the second trimester, showed an 84% reduction in premature births.

If the health of my mouth is so important, why doesn't my medical plan cover dentistry? How did the mouth get "separated" from the rest of the body?

Dentists and physicians have long accepted that mouth conditions and body conditions are intimately related; not separated!

Even so, benefits for oral treatment have traditionally been restricted to "dental only" plans.

A few insurers are beginning to acknowledge the obvious connection between a person's oral health and their general physical wellness. While dental or "tooth" related treatments are often still only payable by dental plans, a few carriers have begun to cover some services under their medical plans. It is possible that gum and bone treatments, such as periodontal scaling and root planing, may eventually be covered by more medical plans. Until that happens, dental plans must be tapped for periodontal services.

If I am diagnosed with periodontal (gum and bone) disease, will my dental insurance cover my treatment?

Dental insurance is not really "insurance" (a payment to cover the cost of a loss) at all. It is a money benefit typically provided by an employer to help employees pay for routine dental treatment. Most benefit plans are only designed to cover a portion of the total cost. A person's plan specifies how many of certain types of procedures it will consider annually. Most plans limit the number of x-rays, cleanings, and gum treatments they will cover because these are the types of treatments that many people frequently require. It is likely that a good portion of the cost of any periodontal treatment you might need will be your own responsibility.

What treatment is usually recommended for periodontal disease?

Periodontal disease may be treated with root planing and scaling of the teeth, or surgical interventions by a dentist may be required. Scaling and root planing may be done by either a dentist or a hygienist using hand, laser, or ultrasonic instruments. Soft, bacterial plaque, hard calculus (tartar), diseased cementum and/or dentin are scraped away, removing a focus for infection and inflammation. (Cementum is the hard tissue that covers the tooth root. Dentin is that part of the tooth underneath the cementum.) In some cases medicine is also placed around the teeth to further reduce bacteria. With the diseased tissues and bacteria removed, infection and inflammation are reduced or eliminated. The body's immune system can begin the healing process.

Scaling and root planing may be a complete treatment in some stages of periodontal disease, or as a part of preparing the mouth for surgery in others. A general dentist or specialist may perform periodontal surgery.

What can I do to stay healthy?

It is more important than ever to maintain good oral health.

- Visit your dentist as frequently as he/she recommends.
- Follow your dentist's instructions regarding procedures or services you need. Keep in mind that if you have insurance, it may not cover everything.
- Maintain good home care. At a minimum, this means daily flossing and brushing. If you are not sure about the proper techniques, ask your dentist or hygienist to show you. He/she may also recommend other devices to help your mouth stay healthy.
- Accept more frequent "cleanings" if recommended. The old standard of "twice a year 'cleanings' " for everyone just doesn't make sense anymore.
- Accept scaling and root planing of the teeth if they have been recommended; even if no dentist has ever advocated these treatments to you in the past. New information and new treatments go hand and hand. Also, carefully consider any specialty (periodontist) referrals your dentist makes.
- Follow up with periodontal maintenance visits. Your oral health is too important to scrimp on.
- Try to maintain a healthy balance of adequate exercise, proper diet, and sufficient rest.
- Visit your medical doctor for appropriate check-ups.
- Let your dentist know about any changes or issues with your general health!

If I control the health of my mouth, can I stop worrying about diabetes, heart disease, stroke, or other problems mentioned in this brochure?

Unfortunately the answer is no. Periodontal care and treatment alone will not cure these problems. Diabetes, heart disease, and other health issues have many components. For example, being overweight, smoking, family history, diet, exercise, and the effect of medications, all have an impact. However, by maintaining a healthy mouth and reducing oral inflammation, you will greatly contribute to reducing these common and very harmful health problems. A healthy mouth will make you a healthier person.

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