



DISEASE PREVENTION BEGINS IN THE MOUTH

Gum disease affects 80% of people as they age. There are important links between gum disease and serious diseases elsewhere in the body. Looking after your teeth and gums through healthy diet, lifestyle and brushing and flossing will help to prevent serious conditions such as heart disease, stroke and cancer.

The mouth has 450 species of bacteria in it and billions of organisms in total. Most are necessary for good oral health, with less than 5% of them associated with periodontal (gum) infections.

The typical precursor to gum disease is the formation of plaque. Plaque is an invisible, sticky film of organisms that covers teeth when starches and sugars in the diet interact with the bacteria normally found in the mouth. Much of it is removed when you brush. But any of it that remains for two to three days will form tartar, which is harder to remove and gets under the gum line. If this is untreated, it develops into gingivitis (gum inflammation) and that may progress to full-blown periodontitis, a more serious condition.

Periodontitis occurs when pockets form between gums and teeth that get filled with plaque, tartar and bacteria. With time, these pockets enlarge and fill up with more bacteria, causing teeth to fall out and even causing disease elsewhere in the body.

Diseases related to gum conditions

Numerous diseases are thought to be related to periodontal disease because of the increased inflammation in the mouth. The inflamed gum tissues produce inflammatory messengers that travel around the body and cause increased inflammation in other tissues. As a result, there is increased risk of heart disease, stroke and cancer.

Heart disease

People with gum disease are more likely to suffer from heart attacks and angina. Inflammation attacks the lining of the blood vessel walls and causes atherosclerosis. Gum bacteria have been found in atherosclerotic plaques.

Stroke

The severity of gum disease correlates with the risk of stroke.

Diabetes

Gum disease is a common complication of diabetes. In turn, the gum disease, by increasing inflammation, makes diabetes more difficult to control. So controlling gum disease helps control diabetes.

Premature and low-weight births

Pregnant women with gum disease have a higher risk of having babies with low birth weight. The inflammation can also increase the risk of pre-term labour.

Lung disease

Pneumonia and emphysema can be worsened by the bad gum bacteria going into the airways.

Cancer

Gum disease has also been associated with a small increase in cancer, an observation that is still being investigated further.

Other threats to dental health

Apart from deficient oral hygiene routines, gum disease can be caused by other factors.

For instance, smoking causes over 50% of adult gum disease.

Drugs can interfere with normal saliva production. These can include over-the-counter cold remedies such as antihistamines, as well as antidepressants, anti-epileptic and immune suppressing drugs. Saliva has an important role in cleansing the teeth and in suppressing growth of bad bacteria that cause plaque.

Nutritional deficiencies that influences gum health include deficiencies of calcium and Vitamin C. Calcium helps to build the density of the bone that supports the gums, the alveolar bone. Vitamin C is an antioxidant that helps maintain and repair connective tissues such as skin, gums and bone. In fact, bleeding gums is a symptom of Vitamin C deficiency (scurvy).

Genetic influences cause 50% of the population to be susceptible to periodontal disease.

Obesity along with diabetes increase the risk of gum disease by increasing inflammation. Abdominal fat produces inflammatory messengers that influence the gums and the rest of the body.

Prevention of gum disease

Brushing twice daily, flossing and visiting your dentist every six months is a good start to preventing gum disease. Doing this along with regular exercise and including fruits and vegetables in your diet can reduce your risk of periodontal disease by 40%. Supplements may help further. Mouth rinses with some of the substances noted below may be helpful. It is also possible to obtain toothpastes with some of the bioactive compounds mentioned here.

Special supplements generally work by reducing inflammation and attacking or reducing bad gum bacteria.

Co-enzyme Q10 is a molecule the body can make itself, given the right ingredients and good gut bacteria. This antioxidant has been found to be deficient in those with gum disease. Co-enzyme Q10 helps give the cell the energy it needs to repair tissues, including gum tissues. It is depleted by statin drugs. The dose starts at 50mg daily and may be higher if there are other health concerns such as hypertension or statin medication.

Xylitol is a white crystalline substance that resembles and tastes like sugar and which is naturally found in plums, strawberries and raspberries. It prevents gum cavities by suppressing the growth of streptococcus mutans.

Hydrogen peroxide is commonly found in dental products and toothpastes. The percentages found in these products are safe and are useful to whiten teeth. Its foaming action carries away food particles and bacteria caused by gum disease.

Lactoferrin is a naturally occurring antimicrobial substance found in saliva as well as in breast milk, tears and other body fluids. It is thought to bind to the bad bacteria and slow their growth.

Folic acid is found in green leafy vegetables and is important for the body to be able to make new tissues. Folic acid deficiency can increase the risk of gingivitis, tongue inflammation and periodontitis.

Tea tree oil has anti-inflammatory and antimicrobial properties.

Vitamin C and D may promote health gums and teeth.

Green tea acts against the bacteria streptococcus mutans which is a key microbe that contributes to tooth decay. Green tea also inhibits a bacterial enzyme and thus prevents bacteria from sticking to the teeth to form plaque. It also causes oral cancer cells to die.

Pomegranate mouth washes have been found to suppress the bacteria that cause plaque, and their ability to bind to the teeth to form plaque. It is also anti-inflammatory.

Good lifestyle choices

In summary, good lifestyle choices such as diet and exercise added to good dental hygiene and regular visits to your dentist is a great start to combating gum disease. If you have increased risk or already have periodontal disease, you can consider using toothpastes and mouthwashes with special ingredients, or even taking supplements such as co-enzyme Q10.