

Gum disease

[Health & Medicine](#), [Disease](#)



Sodaly Chhun Prof. Linda Mallen Due Date: 4/17/13 Research Paper The Effect of Gum Disease on Human Health. People think the way to have a charming smile is to have white teeth. However, that is not all there is to have good oral health. Healthy gum tissue also is an important part of tooth structure which enables our healthy bright smile. Healthy gums aren't just important for your oral health, but they can also be important for your overall health. Numerous research studies suggest that other long-term, chronic health conditions can be associated with periodontal diseases, a gum disease.

Most studies suggest a possible link between periodontal diseases to other more serious chronic health conditions including heart disease, diabetes, and pregnancy complications. The most common type of gum diseases is gingivitis which is a mild form of infection of gum. According to Marian Mehegan, DDS, a regional women's health coordinator, gingivitis causes red, swollen gums, and it can also make the gums bleed easily. This form of gum disease does not lead to loss of bone or tissue around the teeth. However, in a prolonged untreated period, it can become a periodontitis (Womenshealth. ov). Based on PubMed Health, the US National Library of Medicine, periodontitis is defined as an inflammation and an infection of the ligaments and bones that support the teeth (Ncbi. nlm. nih. gov/pubmedhealth). Periodontitis occurs when resulting inflammation or infection of the gums is untreated or treatment is delayed. Infection and inflammation spreads from the gums to the ligaments and bone that support the teeth. As a result, the teeth become loose and eventually fall out. One of the most chronic health conditions like to problem with healthy gum is heart disease.

For a century the idea of a link between oral health and the heart has been around. But it's only been in the last 20 years that some health professionals have taken this link seriously enough to recommend dental care as a way of reducing the risk of heart disease. They believe that there is a connection between serious gum disease and cardiovascular condition. According to Dr. Kevin Marzo, Chief of Cardiology at Winthrop University Hospital in Mineola, New York, " The bacteria that cause dental plaque may promote inflammation in the body beyond the mouth including the lining of the blood vessels, increasing the risk for cardiovascular disease including heart attacks,"(Cbsnews. com). In the same way, the scientists believe there is a connection between gum disease and atherosclerosis which causes heart disease. Atherosclerosis is a hardening of arteries due to the buildup of fatty deposits on the lining of artery walls. It causes high blood pressure, stroke, and coronary thrombosis (Dictionary of Medicine 24). According to the Fox news interviewed with Dr.

Peter Lockhart, a professor of oral medicine at the Carolinas Medical Center in Charlotte, N. C, there are two main theories are thought to explain how gum disease could contribute to coronary heart disease. One proposes that bacteria, which grow between your teeth and cause plaque to build-up, can enter the bloodstream when your gum starts bleeding, which happens easily if you have gum disease. For example, mouth bacteria can enter the bloodstream during dental procedure and by tooth brushing.

Once in the blood stream, these organisms attach to pre-existing fatty deposits in coronary arteries (those that supply blood to the heart). This leads to inflammation, which may cause blood clots that can decrease blood

flow to the heart and cause a heart attack. The second theory proposes these oral bacteria of gum disease cause the body to develop antibodies that attack receptors on the cells lining the blood vessels and cause an inflammatory reaction. This inflammation may play a role in the further development of fatty deposits lining the artery walls that can cause blockages (Foxnews. om/health). However, the evidence supporting the idea that links gum disease to heart disease has always been controversial. Hence, the American Heart Association reviewed 500 journal articles and studies and then concluded that there was no clear evidence that gum disease causes heart disease, or that treating gum disease would have any effect on those with a heart condition. Nevertheless, the review did find gaps in the understanding of the interaction between gum disease and heart disease and called for more research. Scientists have identified the same risk factors for both heart and gum disease.

As Lockhart said, “ Individuals who do not pay attention to the very powerful and well-proven risk factors likesmoking, diabetes or high blood pressure may not pay close attention to their overall health, either,”(Foxnews. com/health). In short, if you smoke, have poor nutrition, diabetes, or are from a lower socio-economic background, then you are at higher risk of developing gum disease, but these factors also contribute to heart disease. Next, the scientists believe that there is a two way relationship between gum disease and diabetes.

First, people with diabetes are at special risk for gum disease. There is a clear relationship between degree of blood sugar and severity of periodontitis. In the article, People with Diabetes at High Risk for Developing

Gum Disease, by the Academy of General Dentistry, it claimed that diabetes reduces the body's resistance to infection, so the gums are at risk for gingivitis (Knowyourteeth. com). Studies have shown that those with diabetes are more susceptible to the development of oral infections and periodontal (gum) disease than those who do not have diabetes.

For example, dry mouth, often a symptom of undetected diabetes, can cause soreness, ulcers, infections, gum disease, and tooth decay. According to Preshaw PM et al, “ The mechanisms that underpin the links between these two conditions are not completely understood, but involve aspects of immune functioning, neutrophil activity, and cytokine biology” (Ncbi. nlm. nih. gov). In addition, there's a suggestion that if a person gum disease, it might predispose them to increase their risk of developing diabetes, because of the persistent infection in their body.

While inflammation plays an obvious role in periodontal diseases, evidence in the medical literature also supports the role of inflammation as a major component in the cause of diabetes and diabetic complications. According Preshaw PM et al. , “ Incidences of macroalbuminuria, which is a high levels of albumin in the urine related to kidney disorder, and end-stage renal disease are increased twofold and threefold, respectively, in diabetic individuals who also have severe periodontitis compared to diabetic individuals without severe periodontitis” (Ncbi. Im. nih. gov). Therefore, by controlling your blood sugar, brushing and flossing every day, and visiting a dentist regularly, you can help prevent gum disease. Also, by maintaining good oral hygiene habits, it means you can reduce the risk of infection and inflammation which are the factors in the pathogenesis of diabetes and

diabetes complications. Finally, gum disease has been linked to premature birth and low birth weight. Until now, it was thought that having gum disease could raise your risk of having a low-birth-weight baby.

Researchers have not been able to confirm this link, but studies are still under way to learn more. Pregnant women may have the craving for salty and sweet food and develop red, swollen gums that bleed easily. This condition is called pregnancy gingivitis. Pregnancy gingivitis commonly becomes apparent later in the second month of gestation and worsens as the pregnancy progresses before reaching a peak in the eighth month. In the last month of gestation, gingivitis usually decreases and following post-partum the gingival tissues are found to be comparable to those seen during the second month of gestation.

Doctor Meghan stated that, pregnancy gingivitis is due to both poor oral hygiene and higher hormone levels (Women health. gov). According to a research called Pregnancy Gingivitis and Periodontitis and Its Systemic Effect by Kaur, Kharb and Rai, pregnant women are likely to have swollen gums and bleeding during brushing because the inflammatory response to dental plaque is increased. With the hormonal changes of pregnancy, also termed as pregnancy gingivitis, both estrogen and progesterone increase gingival inflammation.

However, it is not known if the pregnancy related gingival changes might be explained by increased vascularity and vascular flow alongside alterations in the immune system and/or changes in connective tissue metabolism. Nevertheless, the anatomy structure of tissue of pregnancy gingivitis is not different from that of the gingivitis in non-pregnancy state (Ispub. com).

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More recently, in the article, Periodontal Disease and Pregnancy by the Academy of General Dentistry suggested that periodontitis may also pose a challenge to the developing fetus.

The excessive bacteria can enter the bloodstream through the pregnancy women's gums; the bacteria can travel to the uterus, triggering the production of chemicals called prostaglandins, which are suspected to induce premature labor (Knowyourteeth. com). All in all, there is no scientific data, thus far, to support the belief that getting regular dental treatment, particularly regarding scenarios of pregnancy-related periodontal disease, helps reduce the risk of preterm low-birth-weight babies. However, there are other overall health advantages to the mother, not to mention the more obvious oral health advantages.

In conclusion, there is a potential link between gum diseases to chronic health conditions including heart disease, diabetes, and pregnancy complications. The scientists strongly believe in connection between gum diseases and heart disease based on two theories. One theory claimed that certain oral bacteria, which cause heart problems, get into the heart through the bloodstream when there is a cut in the gum. Another theory emphasized that the bacteria of gum disease causes an inflammation reaction in the blood vessel which may resulting in development of fatty deposits that block the artery blood vessel.

Regarding the connection between gum disease and diabetes, the health experts believe that diabetes patients are at high risk for gum diseases, and it is vice versa a serious gum disease could make diabetes patients difficult in control blood sugar. Finally, gum disease might link to preterm labor and <https://assignbuster.com/gum-disease/>

low birth weight. Pregnancy women are at risk to pregnancy gingivitis due to the change in hormones, which could change the volume of gum tissues, and the combination of dental plaque. Moreover, if the pregnancy gingivitis delayed untreated, it leads to serious gum disease.

The scientists believe that the bacteria which cause serious gum disease could reach the uterus and cause premature which results in low birth weight. However, there is no clear evidence to proof the connection between the gum diseases to heart disease, diabetes and pregnancy complications due to the same risk factors. Gum disease and heart disease share many common risk factors, including cigarette smoking, age and diabetes, and these factors are more likely to explain why diseases of the blood vessels and mouth occur in conjunction with each other.

Although the scientists have inconclusive evidence to support their beliefs and are working on further research to support their hypothesis, it is known that good oral hygiene is still important for overall health. Hence, individuals should take care of their oral health as follows: brush your teeth at least twice each day with fluoride toothpaste and floss your teeth, have a healthy life styles, and get regular checkups with your dentist. If you follow the suggestions, you possibly be able to prevent chronic systemic diseases. 1. What does your mouth have to say about your health?

Dr. Kevin Marzo, Chief of Cardiology at Winthrop University Hospital in Mineola, New York. http://www.cbsnews.com/8301-504763_162-57353192-10391704/what-does-your-mouth-have-to-say-about-your-health/ 2. Gum disease doesn't cause heart attacks, experts say Dr. Peter Lockhart, a professor of oral medicine at the Carolinas Medical Center in Charlott <https://assignbuster.com/gum-disease/>

Published April 19, 2012 MyHealthNewsDaily Read more: <http://www.foxnews.com/health/2012/04/19/gum-disease-doesnt-cause-heart-attacks-experts-say/#ixzz2Pk3DMbvk> 3. Periodontitis and diabetes: a two-way relationship.

Preshaw PM, Alba AL, Herrera D, Jepsen S, Konstantinidis A, Makrilakis K, Taylor R. Source School of Dental Sciences and Institute of Cellular Medicine, Newcastle University, Framlington Place, Newcastle upon Tyne, NE2 4BW, UK. p. m.ac. uk <http://www.ncbi.nlm.nih.gov/pubmed/22057194> Diabetologia. 2012 Jan; 55(1): 21-31. doi: 10.1007/s00125-011-2342-y. Epub 2011 Nov 6. 4. People with Diabetes at Higher Risk for Developing Gum Disease The Academy of General Dentistry (AGD <http://www.knowyourteeth.com/infobites/abc/article/?abc=p&iid=324&aid=8530> 5.

Periodontal Disease Causes Preterm Labor and Low Birth weight Infants
Posted on April 28, 2011 ThomasJ. Peltzer, DMD

<http://www.connecticutsedationdentist.com>
<http://connecticutsedationdentist.wordpress.com/2011/04/28/can-gum-disease-actually-affect-your-unborn-child/> 6. Research Pregnancy gingivitis and periodontitis and its systemic effect Author(s): Jasdeep Kaur , Simmi Kharb and Balwant Rai Source: The Internet Journal of DentalScience. (Dec. 10, 2008): Document Type: Report

Full Text: COPYRIGHT 2008 Internet Scientific Publications LLC <http://www.ispub.com/ostia/index.php?xmlFilePath=ejournals.xml> 7. Periodontal Disease and Preterm Low Birth Weight Babies According to Cannadian Dental Associstion, Studies are still being done to find out exactly how and why <https://assignbuster.com/gum-disease/>

periodontal bacteria appears to have the effect it does. Researchers suspect that the prevalence of bacteria may affect the release of hormones responsible for starting contractions or rupturing membranes, though there has been no direct causal link found to date.

The only thing for sure is the definite increased risk to those pregnant mothers who have the disease. Darlene Oakley is a freelance writer for EmpowHER. com How might problems in my mouth be linked to health problems in other parts of my body? Heart disease. Before some dental treatments, patients who have certain heart conditions or joint replacements may take antibiotics. These people may be at risk of getting an infection when bacteria that lives in the mouth goes into the bloodstream during treatment. Antibiotics lower this risk.

Talk to your doctor or dentist if you are not sure whether you should take antibiotics before dental treatment. <http://www.womenshealth.gov/publications/our-publications/fact-sheet/oral-health.cfm#g> Oral health fact sheet was reviewed by: Marian Mehegan, D. D. S. , M. P. H. CAPT, USPHS Regional Women's Health Coordinator USDHHS Office on Women's Health Healthy teeth for a healthy heart? <http://www.abc.net.au/health/thepulse/stories/2012/06/19/3528574.htm#>. UWOHEpOG2So: But could keeping your gums healthy also help to reduce your risk of having a heart attack?

But to date the evidence supporting this idea has always been controversial. So the American Heart Association (AHA) decided to review the existing research to see what the data suggests. The Association's review concluded while a link was "biologically plausible", there was no clear evidence that <https://assignbuster.com/gum-disease/>

gum disease causes heart disease, or that treating gum disease would have any effect on those with a heart condition. However, the review did find gaps in the understanding of the interaction between gum disease and heart disease, and called for more research.

Professor Malcolm West, professor of medicine at the University of Queensland and consultant cardiologist at Brisbane's Prince Charles Hospital, agrees there needs to be more research before we have a definitive answer. The potential link between the two hasn't been clarified as much as people would like and we're left with this question mark," West says. One of the problems with linking the two conditions is that they have many of the same risk factors, West says. " So when trying to say one thing causes another, to try to eliminate how those other risk factors are interfering is quite difficult," West says.

Example: If you smoke, have poor nutrition, diabetes, or are from a lower socio-economic background then you are at higher risk of developing gum disease, but these factors also contribute to heart disease. Two main theories are thought to explain how gum disease could contribute to coronary heart disease, West says. One proposes that organisms, which grow between your teeth and cause plaque to build-up, can enter the bloodstream when your gum starts bleeding, which happens easily if you have gum disease.

Once in the blood stream, these organisms attach to pre-existing fatty deposits in coronary arteries (those that supply blood to the heart). This leads to inflammation, which may cause blood clots that can decrease blood flow to the heart and cause a heart attack. The second theory proposes

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these bacteria cause the body to develop antibodies that attack receptors on the cells lining blood vessels and cause an inflammatory reaction. This inflammation may play a role in the further development of fatty deposits lining the artery walls that can cause blockages.

Diabetes. <http://www.womenshealth.gov/publications/our-publications/fact-sheet/oral-health.cfm#g> People with diabetes are at special risk for gum disease. Gum disease can lead to painful chewing and even tooth loss. Dry mouth, often a symptom of undetected diabetes, can cause soreness, ulcers, infections, and tooth decay. People with diabetes can also get thrush. Smoking makes these problems worse. By controlling your blood glucose, brushing and flossing every day, and visiting a dentist regularly, you can help prevent gum disease.

If your diabetes is not under control, you are more likely to develop problems in your mouth. <http://www.abc.net.au/health/thepulse/stories/2012/06/19/3528574.htm#>. UWOHEpOG2So: ----- " There's an ever expanding list of conditions that have been investigated in relation to gum disease," says Associate Professor Ivan Darby, head of Population Oral Health and Periodontics at the University of Melbourne. For example, there's a suggestion that if you've got gum disease it might predispose you or increase your risk of developing diabetes, because of the persistent infection in your body. Pregnancy. <http://www.womenshealth.gov/publications/our-publications/fact-sheet/oral-health.cfm#g> Use good oral hygiene to control your risk of gum diseases. Pregnant women may have changes in taste and develop red, swollen gums that bleed easily. This condition is called

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pregnancy gingivitis. Both poor oral hygiene and higher hormone levels can cause pregnancy gingivitis. Until now, it was thought that having gum disease could raise your risk of having a low-birth-weight baby.

Researchers have not been able to confirm this link, but studies are still under way to learn more. <http://www.abc.net.au/health/thepulse/stories/2012/06/19/3528574.htm#>. UWOHEpOG2So: Another is the link between preterm birth or low birth weight and gum disease, Darby says. " The original suggestion was that women that had preterm birth had more gum disease than those who went to full term. Some studies say yes and some say no, so it really is inconclusive. But probably like heart disease, having gum disease in addition to other factors adds to your risk," he says.

Definition of Gumdiseases ----- <http://www.womenshealth.gov/publications/our-publications/fact-sheet/oral-health.cfm#g> Gum diseases are infections caused by bacteria, along with mucus and other particles that form a sticky plaque on your teeth. Plaque that is left on teeth hardens and forms tartar. Gingivitis (jin-juh-VEYE-tuhss) is a mild form of gum disease. It causes red, swollen gums. It can also make the gums bleed easily. Gingivitis can be caused by plaque buildup. And the longer plaque and tartar stay on teeth, the more harm they do.

Most gingivitis can be treated with daily brushing and flossing and regular cleanings at the dentist's office. This form of gum disease does not lead to loss of bone or tissue around the teeth. But if it is not treated, it can advance to periodontitis (pair-ee-oh-don-TEYE-tuhss). Then the gums pull away from the teeth and form infected " pockets. " You may also lose supporting bone. <https://assignbuster.com/gum-disease/>

If you have periodontitis, see your dentist for treatment. Otherwise your teeth may loosen over time and need to be removed. Oral health: A window to your overall health What conditions may be linked to oral health?