

# Oral Health and Cardiovascular Disease

## 2015 Fact Sheet



### Introduction

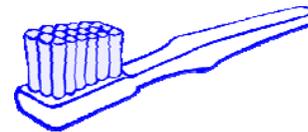
- ◆ Oral health not only refers to healthy teeth but being free of gum disease, oral cancers, oral birth defects as well as other diseases and disorders that affect the oral tissues.
- ◆ According to Healthy People 2020, oral health is integral to general health and a growing body of evidence has linked oral health, particularly gum disease, to several chronic diseases including diabetes, heart disease and stroke. In a report from the Surgeon General, studies suggest that there is a potential for oral microorganisms to be linked with heart disease.
- ◆ According to the Centers for Disease Control and Prevention, in 2012, only 67.2% of adults in the United States reported having seen a dentist in the past 12 months. Cardiovascular disease is the number one cause of death in the country, indicating a crucial need to provide oral health care to those most at risk for heart disease.
- ◆ Gum disease has not been viewed as a traditional risk factor for heart disease. However, in 2012, the American Heart Association published a statement on their support of the association between gum disease and heart disease, but a causal association has not yet been proven.

### Studies and Associations

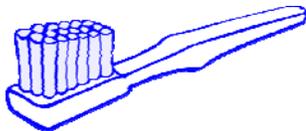


Increasing prevalence of tooth loss may be associated with higher fasting glucose levels, LDL cholesterol levels, systolic blood pressure, and waist circumference.

Chronic infection from gum diseases can trigger an inflammatory response that may lead to heart disease.



Chronic periodontitis, an inflammatory gum disease associated with gradual teeth loss, may be related to the severity of a heart attack.



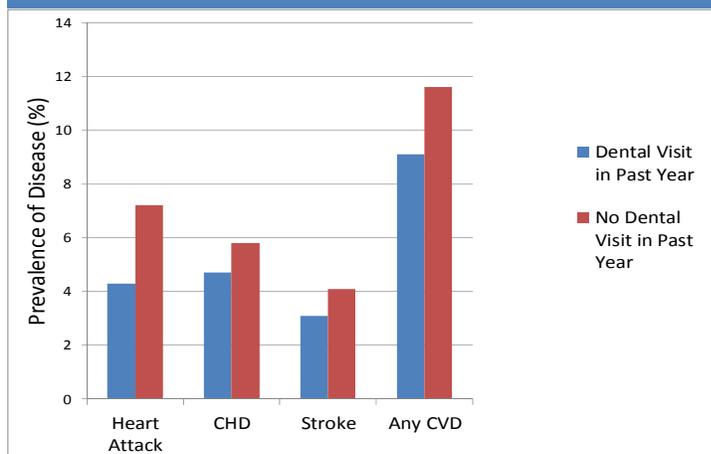
Periodontal diseases, such as gum bleeding, may be common in populations who also have numerous cardiovascular and socioeconomic risk factors.



## Michigan Statistics

- ◆ In 2012, Michigan adults without a dental visit in the past year were more likely to have a heart attack (7.2%) than adults with a dental visit in past year (4.3%), Figure 1.
- ◆ Prevalence of heart attack increased with number of teeth lost from 2.2% among Michigan adults with no teeth missing to 16.1% among those with 6 or more teeth missing.
- ◆ The rates of other cardiovascular diseases were higher among Michigan adults with no dental visit in the past year compared to those with a visit; total coronary heart disease (5.8% vs 4.7%), total stroke (4.1% vs 3.1%) and any cardiovascular disease (11.6% vs 9.1%).

Figure 1. Cardiovascular Disease Prevalence among Michigan Adults by Dental Visit in Last 12 Months, 2012



Source: Michigan Behavioral Risk Factor Survey, 2012

## Prevention



- ◆ Closer collaboration between primary care dental and medical services
- ◆ Reducing junk food and sugar from diets
- ◆ Increased access for treating dental problems and encouraging prevention visits
- ◆ Enhancing salivary flow if heart medications limit saliva production
- ◆ Improved oral health home care for reducing disease causing bacteria
- ◆ Eliminating tobacco use
- ◆ Increased physical exercise
- ◆ Reduction of stress factors

## More Information and References

Bains, M. A. Rashid. Junk food and heart disease: the missing tooth. *Journal of the Royal Society of Medicine*, 2013; 106 (12): 472 DOI: 10.1177/0141076813512297

Fussman C, Anderson B, Deming S. Oral Health Among Michigan Adults. Michigan BRFS Surveillance Brief. Vol. 7, No. 4. Lansing, MI: Michigan Department of Community Health, Lifecourse Epidemiology and Genomics Division, Surveillance and Program Evaluation Section, Chronic Disease Epidemiology Unit, September 2013.

O. Vedin, E. Hagstrom, D. Gallup, M. L. Neely, R. Stewart, W. Koenig, A. Budaj, P. Sritara, L. Wallentin, H. D. White, C. Held. Periodontal disease in patients with chronic coronary heart disease: Prevalence and association with cardiovascular risk factors. *European Journal of Preventive Cardiology*, 2014; DOI: 10.1177/2047487314530660

Oral Health. Oral Health. Web. <<https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Oral-Health>>.

"Periodontal Disease and Atherosclerotic Vascular Disease: Does the Evidence Support an Independent Association?" *Periodontal Disease and Atherosclerotic Vascular Disease: Does the Evidence Support an Independent Association?* 15 May 2012. Web. <<http://newsroom.heart.org/news/periodontal-disease-and-atherosclerotic-234243>>.

"QuickStats." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, 19 Dec. 2014. Web. <<http://www.cdc.gov/nchs/pressroom/quickstats.htm>>.

R. Marfil-Alvarez, F. Mesa, A. Arrebola-Moreno, J. A. Ramirez-Hernandez, A. Magan-Fernandez, F. O'Valle, P. Galindo-Moreno, A. Catena. Acute Myocardial Infarct Size Is Related to Periodontitis Extent and Severity. *Journal of Dental Research*, 2014; 93 (10): 993 DOI: 10.1177/0022034514548223