



Oral Health IS Health





Poor Oral Health

- Dental Caries
- Periodontal Disease



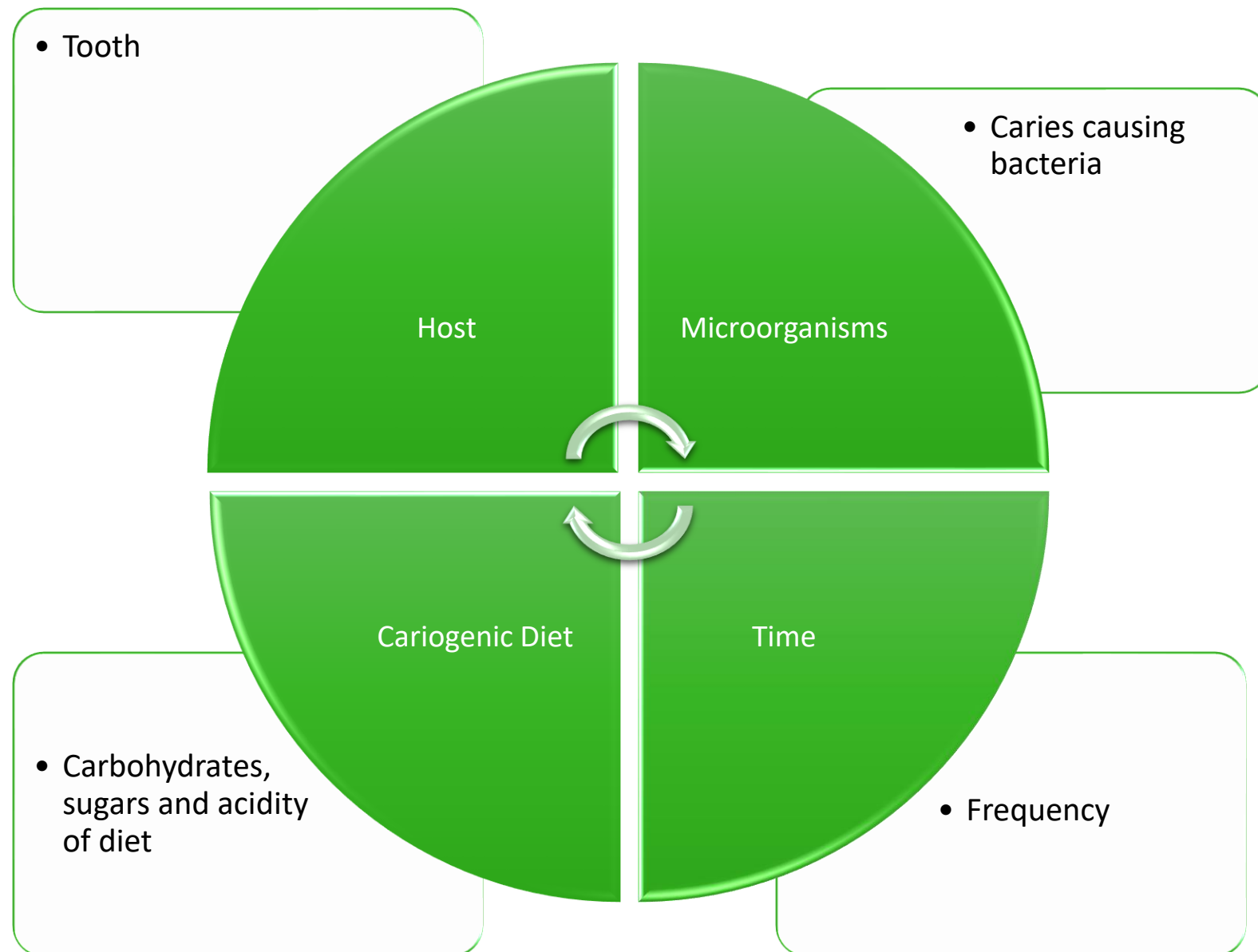
It's Chronic

- Dental caries is a chronic disease.
- Periodontal disease is a chronic disease.





Cause of Decay





Dental Caries

- #1 Chronic Childhood Disease
- More than 90% of US adults have had a cavity and 1 in 4 have untreated decay.



**Caries impacts all
races, ages,
socioeconomic
statuses and
genders.**

46% of adults have some form
of periodontal disease

The relationship between oral health and **diabetes mellitus**

Ira B. Lamster, DDS, MMSc; Evanthia Lalla, DDS, MS; Wenche S. Borgnakke, DMD, DrPH
George W. Taylor, DMD, DrPH

The term "diabetes mellitus" is used to identify a

February 20, 2019

Periodontal Health Should Be Monitored Closely in Patients With **Psoriasis**

Sheila Jacobs

RESEARCH ARTICLE

Gingival Inflammation Associates with **Stroke** – A Role for Oral Health Personnel in Prevention: A Database Study

Birgitta Söder¹*, Jukka H. Meurman², Per-Östen Söder¹

¹ Department of Dental Medicine, Karolinska Institutet, Box 4064, 141 04 Huddinge, Sweden
of Oral and Maxillofacial Diseases, University of Helsinki and Helsinki University Hospital, PB
Helsinki, Finland

RESEARCH ARTICLE | HEALTH AND MEDICINE

Porphyromonas gingivalis in **Alzheimer's disease** brains: Evidence for disease causation and treatment with small-molecule inhibitors

iny^{1,*†}, Casey Lynch^{1,*}, Florian Ermini¹, Malgorzata Benedyk^{2,3}, Agata Marczyk², Andrei Konradi¹, Mai M
and affiliations

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How A Common Oral Bacteria Makes **Colon Cancer** More Deadly

gs may help predict aggressive colon
er and identify new treatment targets

New Evidence Shows Connection Between Oral Health, **Heart Health**

By ANN KENDA • APR 8, 2019

PROGRAM
Ozarks At Large



MOUTH connection BODY

 DELTA DENTAL[®]

BRAIN

Oral diseases are associated with stroke. Harmful bacteria in your mouth can make you more susceptible to developing blood clots, thus increasing the chance of a stroke.¹

LUNGS

Once dental plaque is established in the mouth, it can spread to the lungs and cause pneumonia and bronchitis. Maintaining good oral health can decrease the incidence of respiratory infections.²

HEART

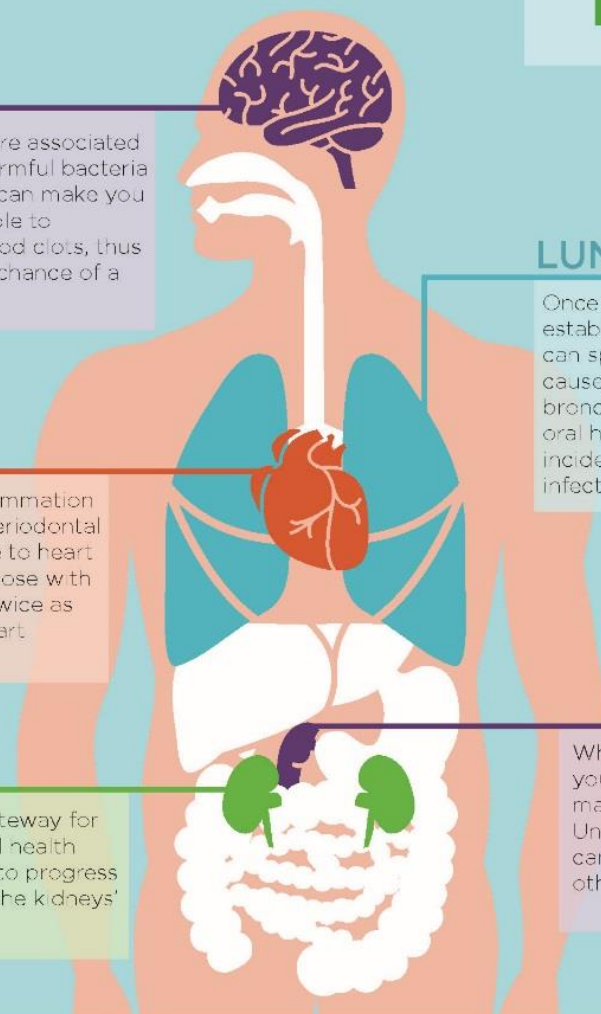
High levels of inflammation associated with periodontal disease contribute to heart conditions. And those with gum disease are twice as likely to have a heart attack.³

PANCREAS

When you're diabetic, your pancreas doesn't make enough insulin. Uncontrolled diabetes can lead to gingivitis and other oral manifestations.⁴

KIDNEYS

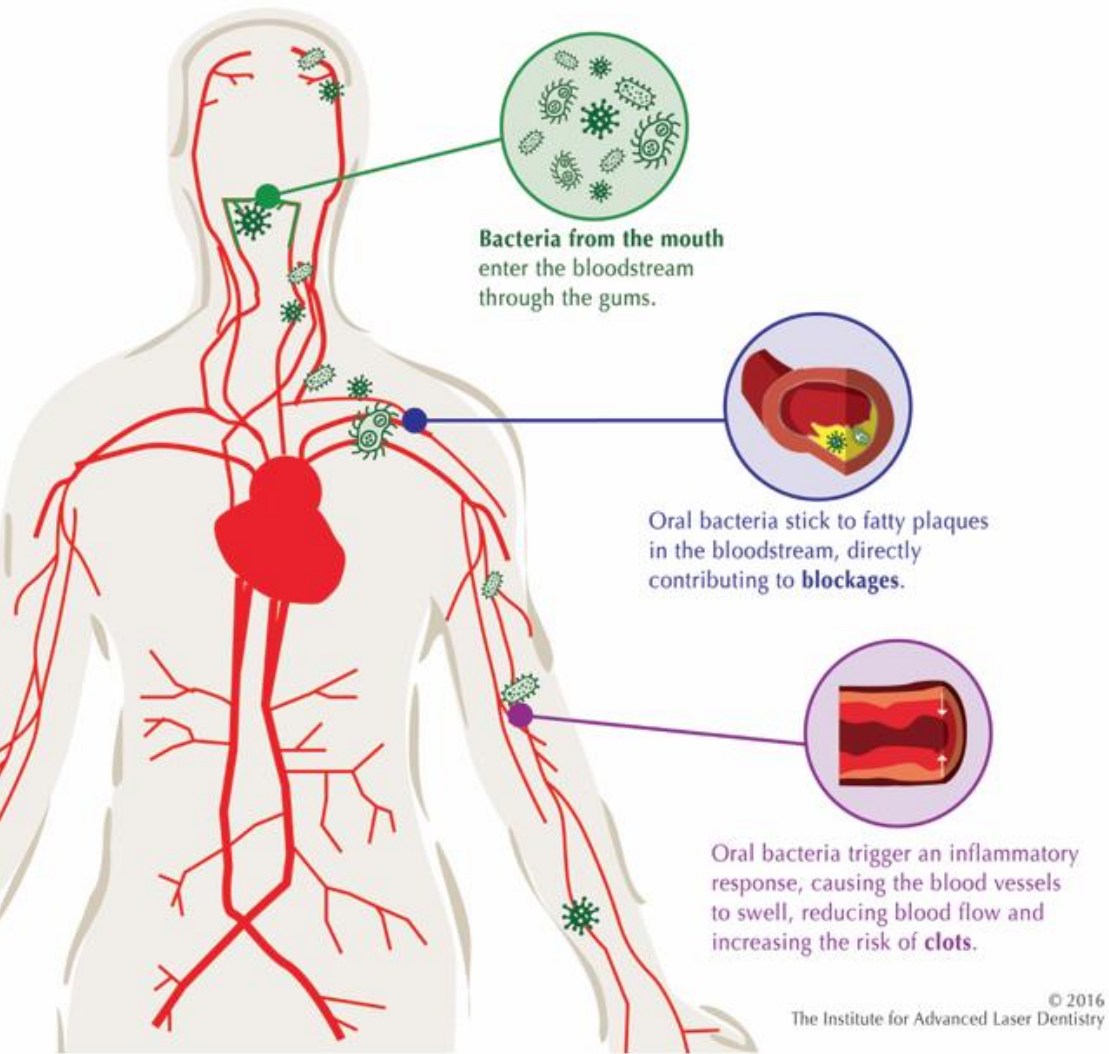
The mouth is a gateway for bacteria. Poor oral health causes infections to progress faster, increasing the kidneys' workload.⁵





Diabetes





Gum Disease and Heart Disease

The Bacteria Connection







Rheumatoid Arthritis





Pneumonia

The bacteria in your mouth are inhaled into your lungs.





Chronic Kidney Disease



Pregnancy





Pregnancy and Beyond





“Oral health care may only be four percent of overall health care, but based upon what we’ve learned so far and the work that is coming out now on the importance of oral health, it probably represents 15 to 20 percent of health care value. That’s why oral health deserves attention.”

Dr. R. Bruce Donoff, Dean
Harvard School of Dental Medicine





Recent Studies on Perio Treatment Savings

	United Concordia / Highmark	Cigna	Aetna	UnitedHealth	National Assoc. Dental Plans
Condition	Type 2 diabetes, CAD, CVD, Rheumatoid arthritis, pregnancy	Diabetes, heart disease, stroke	Diabetes, cardiovascular disease, pregnancy	Diabetes, asthma, CHF, CAD, DOPD, chronic kidney/renal failure	Diabetes, high blood pressure, heart disease, cancer, high cholesterol
Data Source	Claims data from 338,891 individuals	Claims data from 10,634 patients	Dental Medical Integration Program	130,546 members	15,483 non-elderly adult Medicaid patient health expenditures
Time Period	2005-2009	2009-2011	2010-2012	2008-2011	2014
Medical Cost Reduction with perio treatment	Diabetes: 40% CAD: 11% CVD: 41% Arthritis: 6%	Diabetes: 28% Heart disease: 25% Stroke: 35%	Average: 17%	Diabetes: \$3,239 Asthma: \$963 CHF: \$11,663 CAD: \$5,743 COPD: \$2,171 Kidney: \$14,034 (annual / compliant)	Diabetes: 36% High blood pressure: 31% Heart disease: 67% Cancer: 67% High cholesterol: 43%

The eyes may be the window to the soul, but the mouth is a window to your overall wellness.

Author unknown