# Hey! Watch Your Mouth...



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#### **Disclosure**



- Speaker: Heather A. Brown RDH, MPH- No financial relationships to report.
- Disclosure and Mitigation of Relevant Conflicts of Interest- None.
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#### **Objectives**

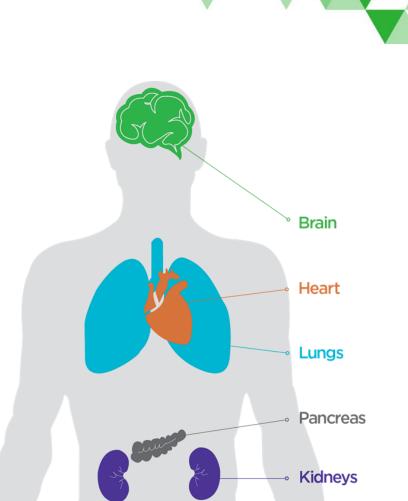


- Describe the impact of diabetes on oral health.
- Describe how oral pathology can affect glycemic control and how dental treatment affects hyperglycemia.
- Recognize the criteria for a dental referral.

#### **Oral Health Affects Overall Physical Health**

Poor oral health affects the body in many negative ways:

- O1. Gum disease, tooth decay, dental infections, pain and even death
- O2. Tooth loss can lead to poor nutrition, difficulty speaking and poor self image
- 03. Increases risk of heart disease, stroke, rheumatoid arthritis, Alzheimer's disease, and problem pregnanciesjust to name a few
- (04.) Contributes to uncontrolled diabetes



#### **Dental Decay**



Cavities are the single most chronic childhood disease





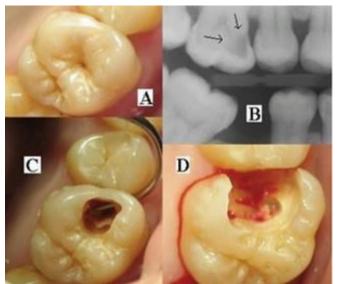
Also, 100% preventable!

#### Dental Decay—Not Just A Childhood Disease

#### Adults are keeping their teeth longer:

- Tooth decay, especially root decay is increasing among adults
- Reduced saliva or dry mouth due to prescription medications
- Exposed root surfaces due to receding gums, poor diet, smoking and poor oral hygiene
- Adults lose >164 million hours of work each year due to oral health problems





#### **Gum Disease—Gingivitis**



Gingivitis



**Healthy Gums** 



Gingivitis to Healthy

#### **Gum Disease—Periodontitis**









Advanced Periodontitis

- If left undisturbed, can cause the breakdown of gums, teeth, and bone
- Causes chronic inflammation linked to other physical diseases
- Can be treated and maintained

#### **Diabetes & Oral Health**



Strongest scientific case for medical dental relationship is diabetes

1 in 5 cases of total tooth loss is linked to diabetes.

The link? High blood sugar.

Hyperglycemia presents as sugary saliva- acidic environment, microorganisms thrive.

Nonsurgical therapy with antibiotics leads to significant reduction in HbA1c by up to 10%.

Grossi SG, Skrepcinski FB, DeCaro T, Robertson DC, Ho AW, Dunford RG, Genco RJ. Treatment of periodontal disease in diabetics reduces glycated hemoglobin. J Periodontol. 1997 Aug;68(8):713-9. doi: 10.1902/jop.1997.68.8.713. PMID: 9287060.

Wang X, Han X, Guo X, Luo X, Wang D (2014) The Effect of Periodontal Treatment on Hemoglobin A1c Levels of Diabetic Patients: A Systematic Review and Meta-Analysis. PLoS ONE 9(9): e108412. https://doi.org/10.1371/journal.pone.0108412

https://my.clevelandclinic.org/health/diseases/11263-oral-health-problems-and-diabetes



#### **Uncontrolled Diabetes Takes a Toll**

Dry mouth—saliva is the vehicle that helps clean the mouth

Tooth decay

Gum inflammation— gums bleed easily

Poor healing of oral tissues

Prone to infection—Thrush

Burning mouth or tongue

Problems tasting food

#### **Facts**



Periodontal disease in the most common dental disease affecting those living with diabetes- 22% of those diagnosed with diabetes.

HbA1c equal  $\geq$  9%, 3X more likely to have periodontal disease then those without diabetes.

60% of children with DM, age 6-11, 2X more likely to have early stages of gingivitis.

Casanova, L., Hughes, F. & Preshaw, P. Diabetes and periodontal disease. BDJ Team 1, 15007 (2015). https://doi.org/10.1038/bdjteam.2015.7SOURCE

Columbia University Medical Center, news release, Feb. 8, 2006

#### **Assessment (What to Ask Your Client)**



#### Do you have any of the following:

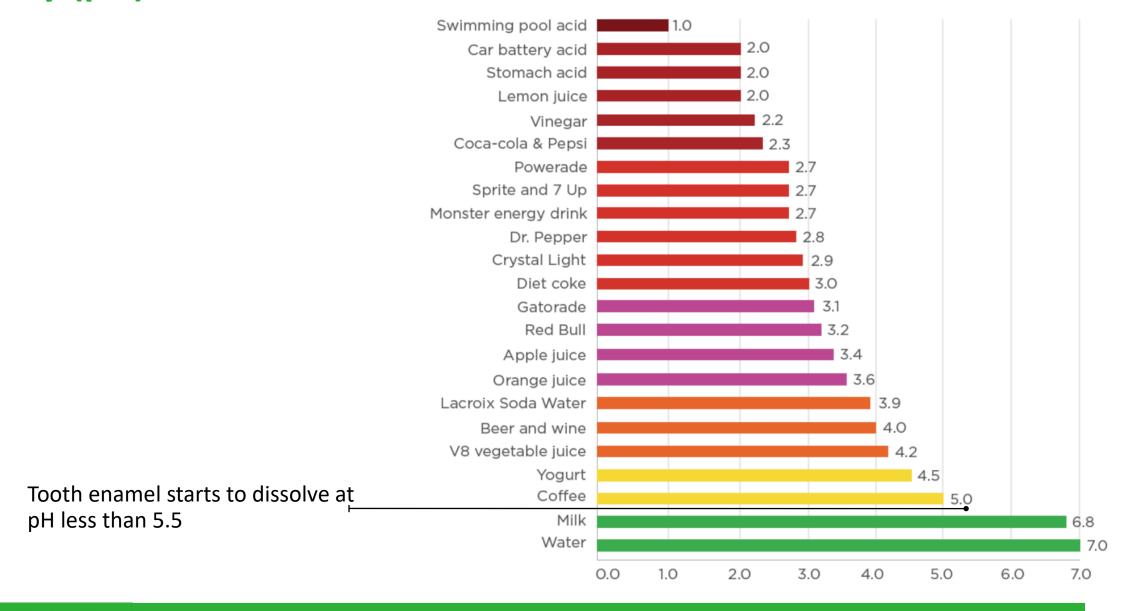
- Red, swollen, tender, bleeding gums?
- Dry mouth?
- A persistent discharge (pus) coming from the gums?
- Gums that have pulled away from your teeth?
- Burning feeling?
- A bad taste or bad breath that won't go away?

- Loose teeth?
- Sensitive teeth?
- Painful chewing?
- Any change in the way your teeth fit together?
- Any change in the fit of partial dentures?



Preventive measures defend against the onset of disease

#### **Acidity (pH) of Common Drinks**



#### What Can You Control?

Acid + Sugar = Decay of Teeth

Regular soda contains both sugar and acid that can cause cavities

- Diet soda and flavored waters are sugar free, BUT they still contain harmful acid
- The lower the pH, the worse it is for teeth.
- 7 pH is neutral and best for teeth



#### Diabetes and Proper Dental Care

Commit to managing diabetes/blood sugar

Brush 2X daily for 2 minutes each time.

Floss at least **1X** per day

Schedule regular dental visits (2-4 X annually)

Make sure your dentist knows you have diabetes

Look for early signs of gum disease

Don't smoke



#### A Healthy Mouth Means Healthy Savings

Coronary Artery Disease: \$1,090

Hospital admissions: 28.6% decrease

Stroke: \$5,681

Hospital admissions: 21.2% decrease

**Diabetes: \$2,840** 

Hospital admissions: 39.4%

Outpatient drug costs: \$1,477

Pregnancy: \$2,433



Isn't it time
we start to
acknowledge
the importance
of oral health?

# SMAILE

## Questions?





### Thank You!

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