

Healthy Smiles: Bridging the gap between the science of oral health and healthy families

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Dignity Health[™]



FIRST THINGS FIRST

Ready for School. Set for Life.

Dignity Health



40+ hospitals and care centers in California, Nevada and Arizona



Chandler Regional
Mercy Gilbert
St. Joseph's
St. Joseph's Westgate
Barrow Neurological
Institute.

Dignity Health Mission and Values

- Mission

We are committed to furthering the healing ministry of Jesus. We dedicate our resources to:

- Delivering compassionate, high-quality, affordable health services;
- Serving and advocating for our sisters and brothers who are poor and disenfranchised; and
- Partnering with others in the community to improve the quality of life.

- Values

- Dignity – Collaboration – Justice – Stewardship
- Excellence

- Hello Humankindness

The logo consists of an orange speech bubble shape pointing downwards. Inside the bubble, the text "Hello humankindness™" is written in white, with "Hello" on the top line and "humankindness™" on the bottom line.

Hello
humankindness™

Dignity Health, Chandler Regional Medical Center

Why is a hospital involved in oral health?

Connection to overall health
Including chronic disease

“Hospital”
Infection reduction and improved healing

“Identified Need”
Community Request

“Mission “
compassion
quality
advocacy
partnership

Integration with existing outreach services

Committed school partner
Education and Health

“Timing”
Affiliated Practice Model

Right thing to do

Oral Health Services at Dignity Health

- 2006 Oral health screenings and fluoride varnish added to existing clinics
- 2008 Affiliated Practice dental hygiene model
Prevention services
- 2009 First Things First Oral Health Initiative
- 2012 St. Joseph's Hospital and Medical Center
Virginia Prendergast
From research to practice and improved
patient oral health protocol

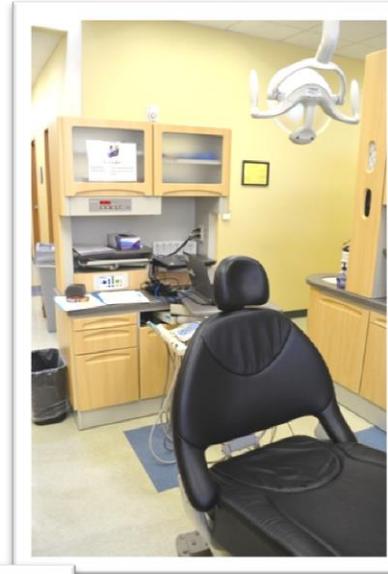
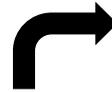
Oral Health Services at Dignity Health



**Immunization
Clinics**



**San Marcos
Elementary School**



**Chandler CARE
Center**



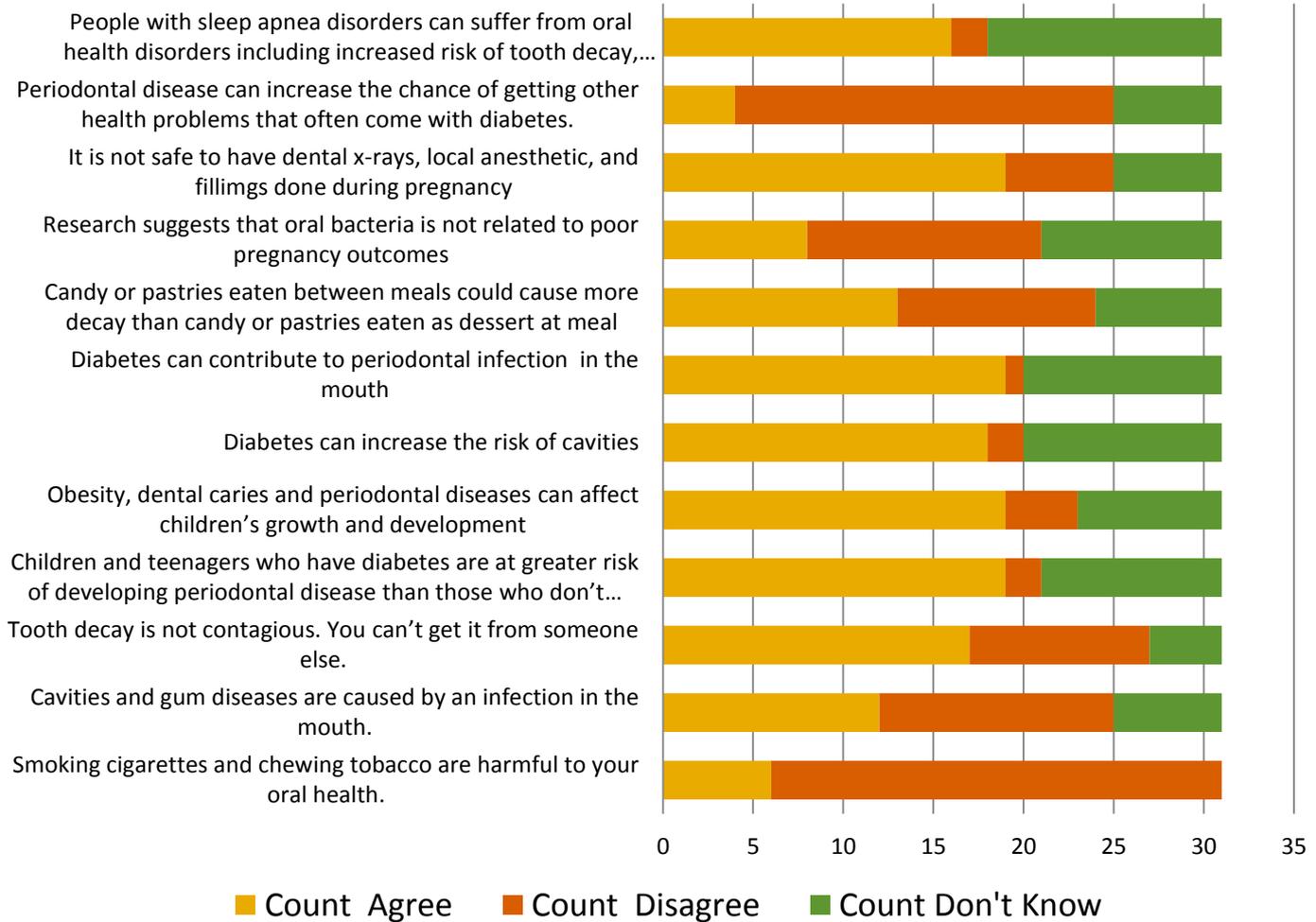
**Early
Childhood
Oral Health
Program**



Our Community Health Programs



Where are the gaps?



First Teeth First

First Things First Oral Health Strategy in Maricopa County

- Multi-Regional Strategy to
 - Coordinate service delivery across regions
 - Leverage funding, infrastructure, capacity
 - Decrease duplication of services
- Single Administrative Home - Maricopa County Department of Public Health, Office of Oral Health
- Sub-Grantees
 - Dignity Health – services
 - Arizona State Department of Health- billing

Instructions to take the Survey

- Must have a smart phone / tablet
- Must have internet access
- Go to the internet site and then enter the code www.surveymonkey.com/r/LKS7FGT (capital letters & numbers)
- Answer the questions
- When complete enter “done”
- Thank you

PERIODONTAL DISEASE

&

INFLAMMATION

CONNECTION TO OVERALL HEALTH

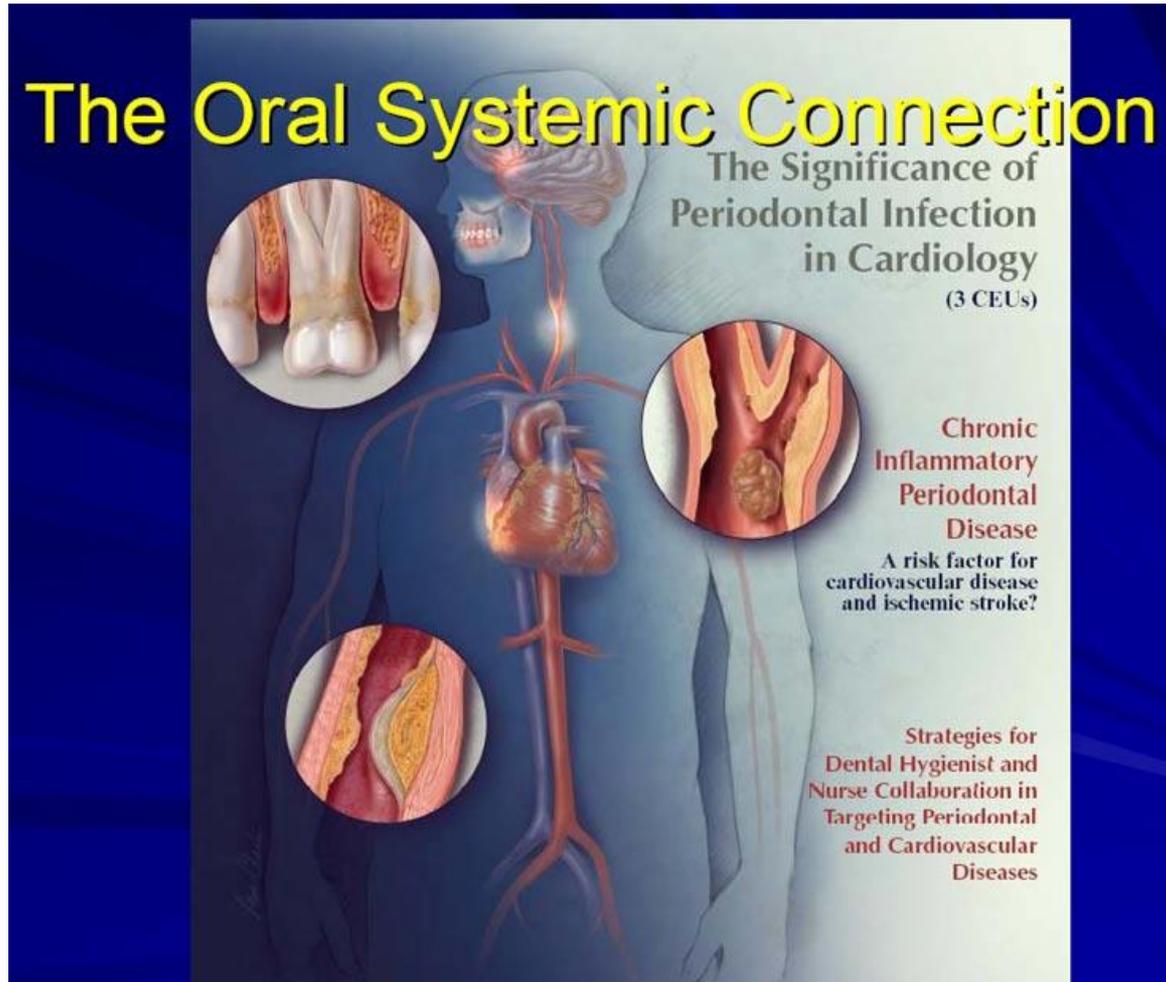
Karen Felty RDH, BS, AP



Dignity Health™

- <https://www.surveymonkey.com/r/LKS7FGT>

Your mouth is the gateway to your body



Studies Related to Gum Disease

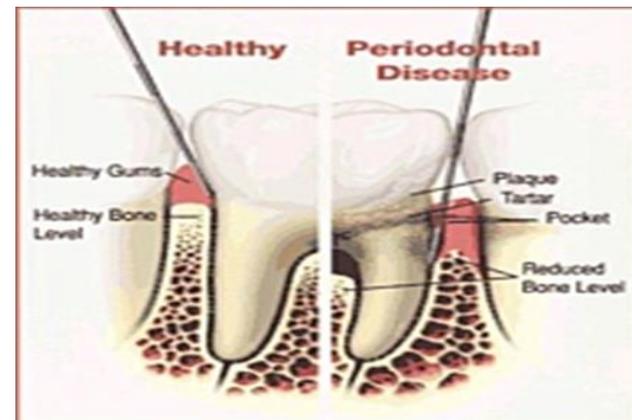
- It has been reported that 3 out of every 4 Americans have signs of mild periodontal disease or gingivitis.
- Research shows that more than 90 percent of all systemic diseases are detectable in the mouth.
- One recent study people with serious gum disease were 40% more likely to have another chronic illness.
- www.academygeneraldentistry.org



Significance of periodontal infection



- Oral disease and overall health
- Around the tooth
- Gum disease, known as periodontal disease
- Serious bacterial infection
- Destroy the bone around the teeth



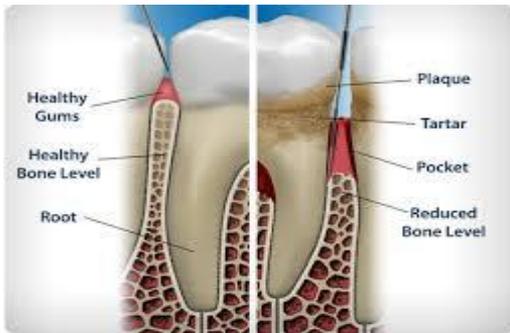
Does this look like a healthy mouth?

To understand how the mouth can affect the body



- Bacteria
- Immune System
- Inflammation

Do You See Your Dentist Every 6 Months?

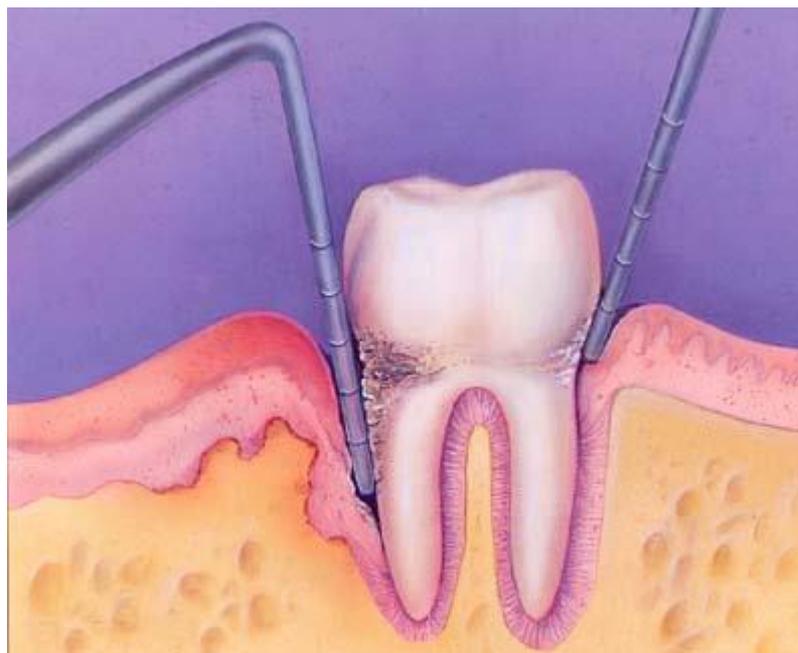


Inflammation

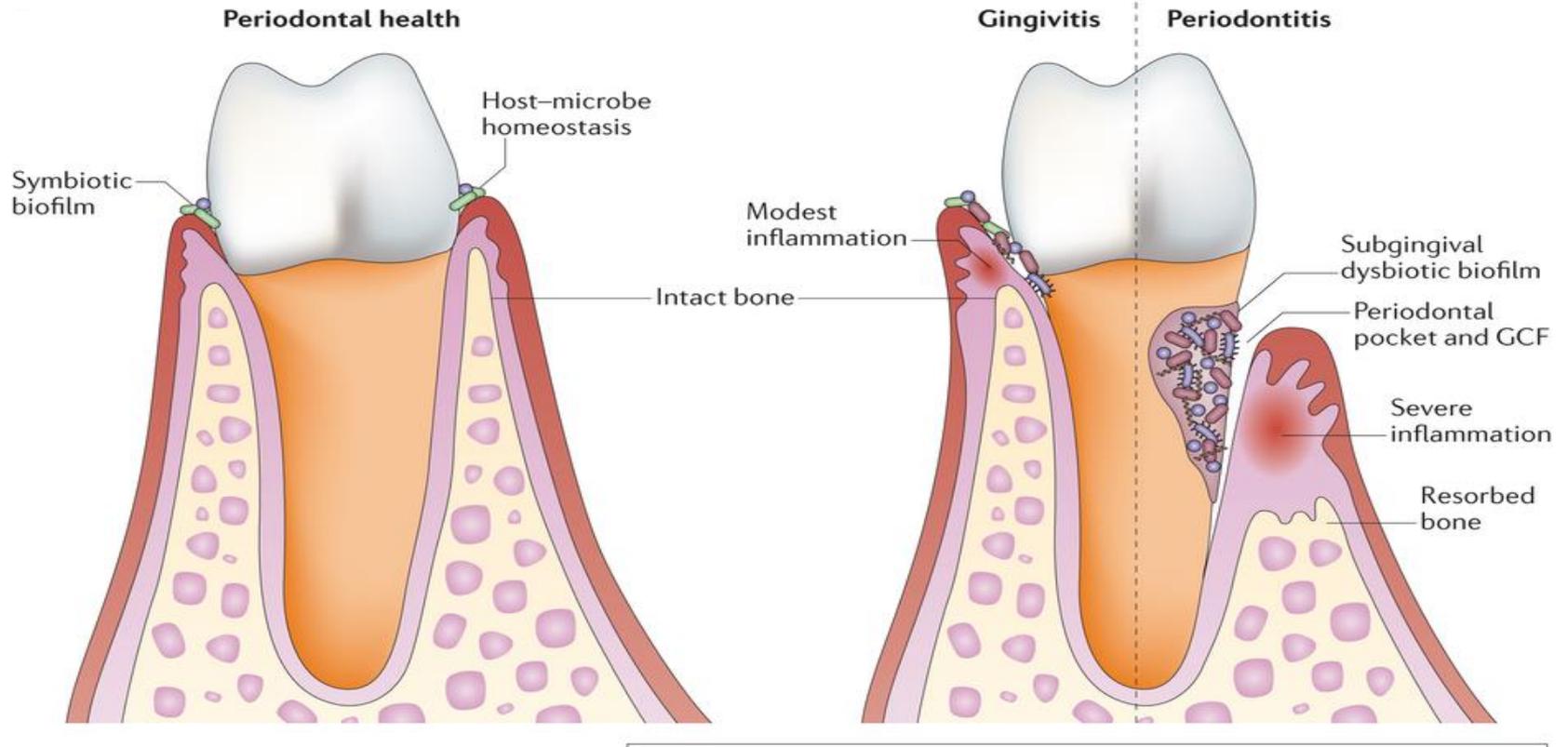


3 ways oral disease may affect your overall health.

- Bacteria from your gums enter the **saliva**
- Bacteria can enter the body's **circulatory system** and travel to all parts of the body
- **Inflammation** associated with periodontal disease may stimulate a second systemic inflammatory response
- Periodontal Probing (pockets)



Progression to Periodontitis



Straight to the Heart

Periodontal Disease Can Affect Your Heart & Body

Emerging evidence shows a relationship between periodontal disease, cardiovascular disease and other chronic diseases — the common link is **inflammation**.

The presence of periodontal diseases may be associated with heart attacks, strokes, kidney disease, diabetes, preterm births and prosthetic joint complications.

Brain

Heart

Lungs

Liver

Kidney

Fetus

Prosthetic Joint

Biofilm (Bacterial Plaque)

Periodontal (Gum) Disease

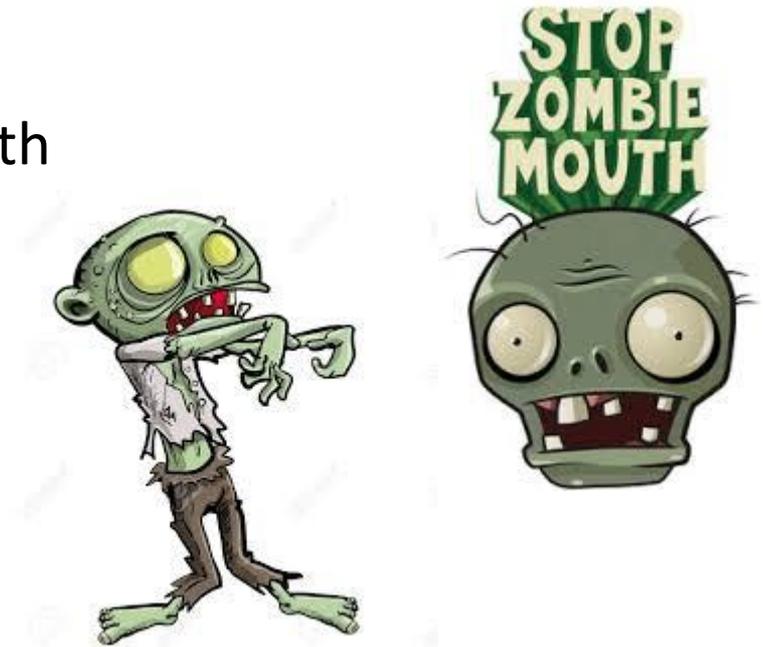
Bacteria

Blood Vessel

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Signs and Symptoms of Periodontal Disease

- Red, swollen or tender gums or other pain in your mouth
- Bleeding while brushing, flossing, or eating hard food
- Gums that are receding or pulling away from the teeth.
- Loose or separating teeth
- Pus between your gums and teeth
- Sores in your mouth
- Persistent bad breath



Preventing Periodontal Disease

- Brush your teeth
- Tongue
- Floss
- Swish with mouth wash
- Know your risk
- See your Dentist or Hygienist at least twice a year



Tobacco (Smoking) and Oral Health

- Nearly 40% of the pediatric population is exposed to second hand smoke.
- Estimated 80-90% of adult smokers began smoking during adolescence.
- Impact on oral health



Smoking and the Risk of Oral Cancer

- Approximately 40,000 peoples will be diagnosed with oral cancer each year.
- 7,800 will die from the disease.
- Importance of early detection.
- Warning signs.



Instructions to take the Survey for Nancy's section

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- Answer the questions
- When complete enter “done”
- Thank you

OBESITY & DIABETES

THEIR CONNECTION TO ORAL
HEALTH

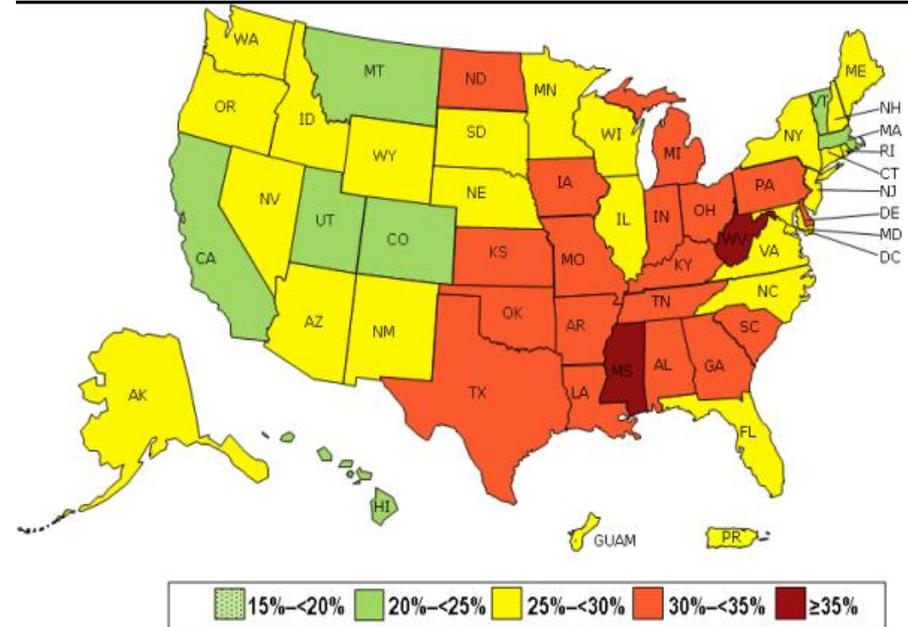
Nancy Tolman, RN,BSN, CDE



Dignity Health™

OBESITY COMMON, SERIOUS, AND COSTLY

- More than one-third (34.9% or **78.6 million**) of U.S. adults are obese.
- Obesity related conditions: heart disease, stroke, type 2 diabetes, certain types of cancer, gum disease
- In 2008, the estimated annual medical cost of obesity in the U.S. was \$147 billion.



Body Mass Index

- Body mass index, or BMI, is a way to help you figure out if you are at a healthy weight for your height.
- The higher the number, the more body fat a person has.
- BMI is often used as a screening tool to decide if your weight might be putting you at risk for health problems such as heart disease, diabetes, and cancer.

BMI calculator for adults

Divide weight by height squared, then multiply by 703. An example of a 150-pound person who is 5 ft. 5 in. tall:

$$\frac{150 \text{ pounds}}{65 \text{ inches} \times 65 \text{ inches}} \times 703 = 24.96$$

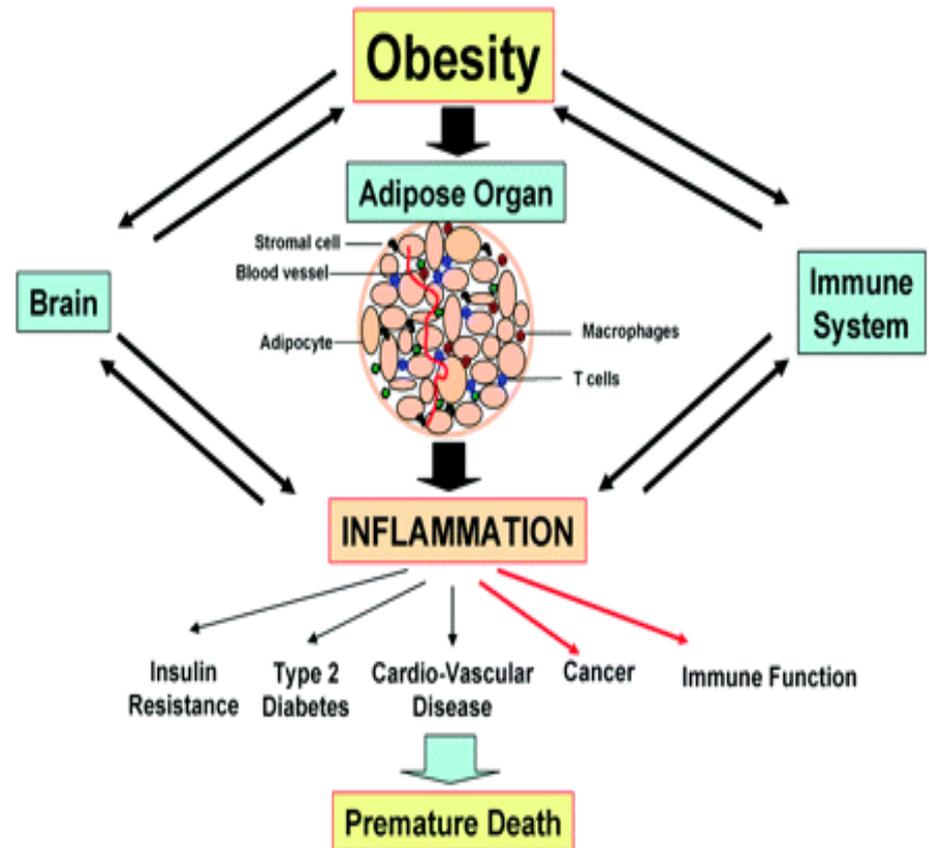
BMI	WEIGHT STATUS
Below 18.5	Underweight
18.5 to 24.9	Normal
25.0 to 29.9	Overweight
30.0 or over	Obese

Source: U.S. Centers for Disease Control and Prevention

THE COLUMBUS DISPATCH

FAT CELLS – PASSIVE TO ACTIVE

- Biologically active
- Thought to increase overall inflammation in the body
- Inflammation raises susceptibility for disease including gum disease.



FORMER SURGEON GENERAL



General Richard Carmona, who characterized the threat as follows:

“Because of the increasing rates of obesity, unhealthy eating habits and physical inactivity, we may see the first generation that will be less healthy and have a shorter life expectancy than their parents.”

CHILDREN'S GROWTH AND DEVELOPMENT OBESITY AND GUM DISEASE

Nearly 1 in 3 children (ages 2-19) in the U.S. is overweight or obese

Childhood obesity contributes to the early development of several illnesses such as:

- Type 2 diabetes
- Atherosclerotic heart disease
- High blood pressure
- Gingivitis and higher rates of tooth decay



CHILDHOOD OBESITY

SOLUTIONS

- 1 in 3 CHILDREN OVER WEIGHT
- 33% WATCH 3 HOURS TV
- EAT 50% VEGETABLES
- 1 MEALS 3 FAST FOOD
- 30% HEALTH COST
- PORCTIONS 2 TO 5 BIGGER
- SNACK GROWN
- LESS POP WATER
- HEALTHIER CHOICES
- INCREASE PLAY 60 MINUTES



INCREASED RISK OF
Heart Disease
Diabetes
Stroke
Cancer

Children 8 to 18 years old spend an average of **3 Hrs. Per Day** in front of the television.

2/3
of high school kids consume soda or sports drinks 1+ times a day.

NEGATIVELY IMPACTS:
Learning
Sleep
Self Esteem

LIMIT THE JUNK!

Love Them Unconditionally and be Supportive!

Sit down for **HEALTHY** family meals as often as possible.

GET MOVING! 60 mins. DAILY

“Americans need to understand that overweight & obesity are literally killing us”

—SECRETARY TOMMY G. THOMPSON
Department of Health and Human Services

Parents and kids should eat more fruits, veggies and whole grains.

EAT BREAKFAST DAILY!

1/3 of all children and adolescents are overweight or obese.

Overweight adolescents have a **70 PERCENT** chance of becoming overweight adults.

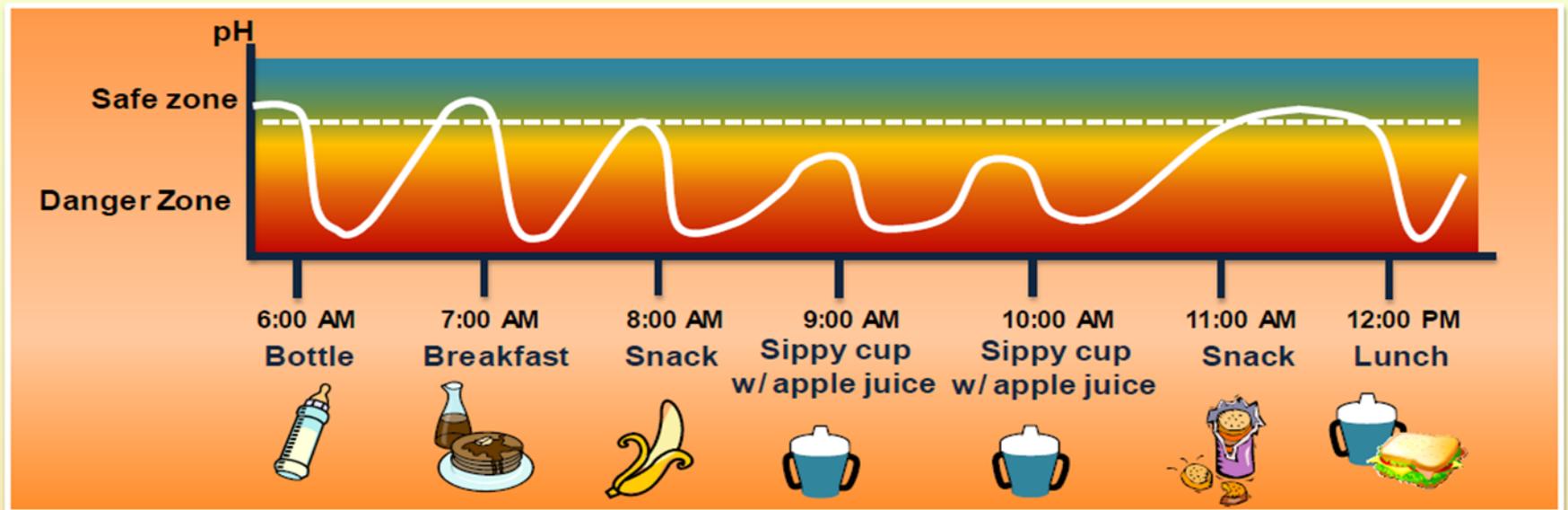
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Why Do Cavities Form?

It's not just **WHAT**, but **HOW**, and **HOW OFTEN** !



After a starchy or sugary snack, **bacteria** in our mouth make **acids** that last for **20-40 minutes** after.

The more often we eat or drink sugars or starches, the **greater the risk** for **cavities** to form (danger zone).

Saliva has substances that can decrease the acid made by the bacteria. It also helps wash away food and plaque from teeth and decrease the chance of cavities forming.

SOLUTIONS: REVERSING THE OBESITY EPIDEMIC

The Obesity Society supports the following areas:

- Fight a “war on obesity, not the obese.”
- Change public perception and understanding of obesity from a “character flaw” to a complex disease that involves genes, behavior, and environment.
- Build environments that encourage healthier behaviors.
- Educate the public on the complex nature of obesity, its causes and consequences.

Oral Health

We cannot be completely healthy without addressing oral health too.

Chronic infections are associated with

- Heart Disease
- Lung Disease
- Stroke
- **Diabetes**
- Low birth weight and premature babies



Diabetes Statistics

- 1/3 of people with diabetes have severe periodontal disease
- 1 in every 5 cases of tooth loss is due to diabetes
- 18% of cases of complete tooth loss in the US are attributable to diabetes.
- The total estimated cost of diagnosed diabetes in 2012 is \$245 billion



Types of Diabetes

Type 1

- Pancreas makes no insulin
- Treated with insulin
- Average age 14-40 at onset
- Less than 10% of people with diabetes

Type 2

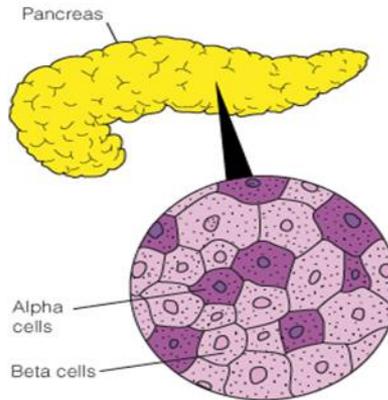
- Insulin resistance
- Treated with healthier nutritional choices, exercise, medications that may include insulin
- Average age 30-50
- 90% of people with diabetes

Understanding Type 2 Diabetes



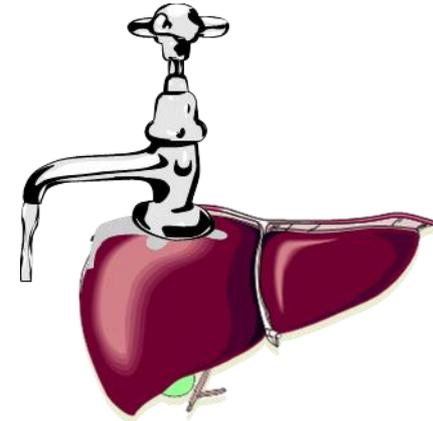
A “Rusty Lock”

Insulin resistance



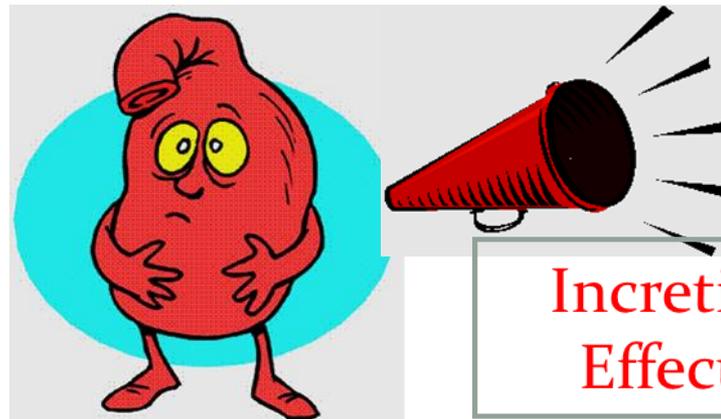
“Pooped Out Pancreas”

Insulin deficiency



A Leaky Liver

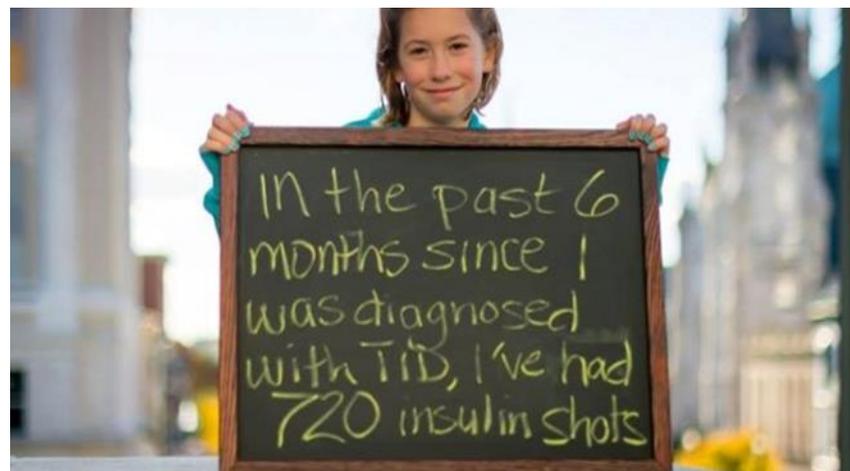
Excessive hepatic glucose release



Incretin Effect

Gum disease and Diabetes

- Research suggest that people with diabetes are at higher risk of oral health problems, such as gingivitis and periodontitis.
- Serious gum disease may have the potential to affect blood sugar control and contribute to the progression of diabetes.

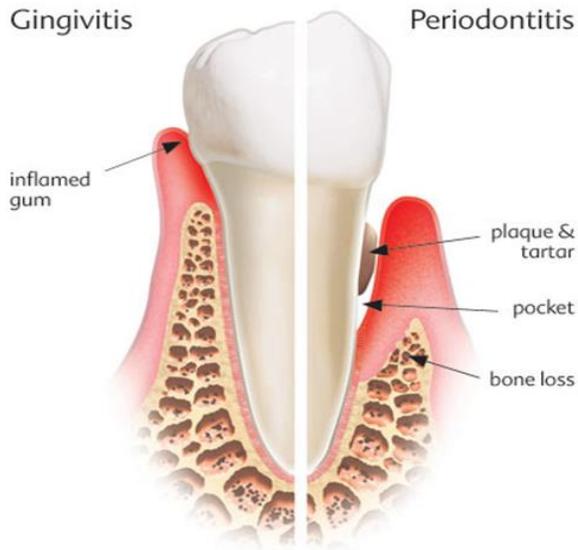


Oral Health Problems Associated with Gum Disease

- High risk for tooth decay
- Periodontitis (gum disease)
- Salivary gland obstruction
- Fungal infections
- Infection and delayed healing
- Taste impairment



Gum Disease – Least Recognized in Diabetes



Gum disease is one of the most common yet least recognized complications of diabetes.





PREVENTION is the Key

A comprehensive periodontal evaluation at least twice a year for people at high risk, such as smokers, aging population, and people with diabetes is essential!

More frequent dental cleanings are recommended.

It is important for all of us to understand and recognize the link between oral health and diabetes.



Integration of Medicine, Family, and Dentistry



- **MEDICAL PROVIDER**

- Oral health screening questions
- Discuss oral health
- Refer to dentist



- **FAMILIES**

- Share health related information with both Doctor & Dentist
- Awareness of mouth body connection



- **DENTAL PROVIDER**

- Diabetes check
- Blood pressure screening
- Oral cancer screening
- Refer to Doctor, annual well check

Instructions to take the Survey for Laurie's Section

- Must have a smart phone / tablet
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- Go to the internet site and then enter the code www.surveymonkey.com/r/L8NF638 (capital letters & numbers)
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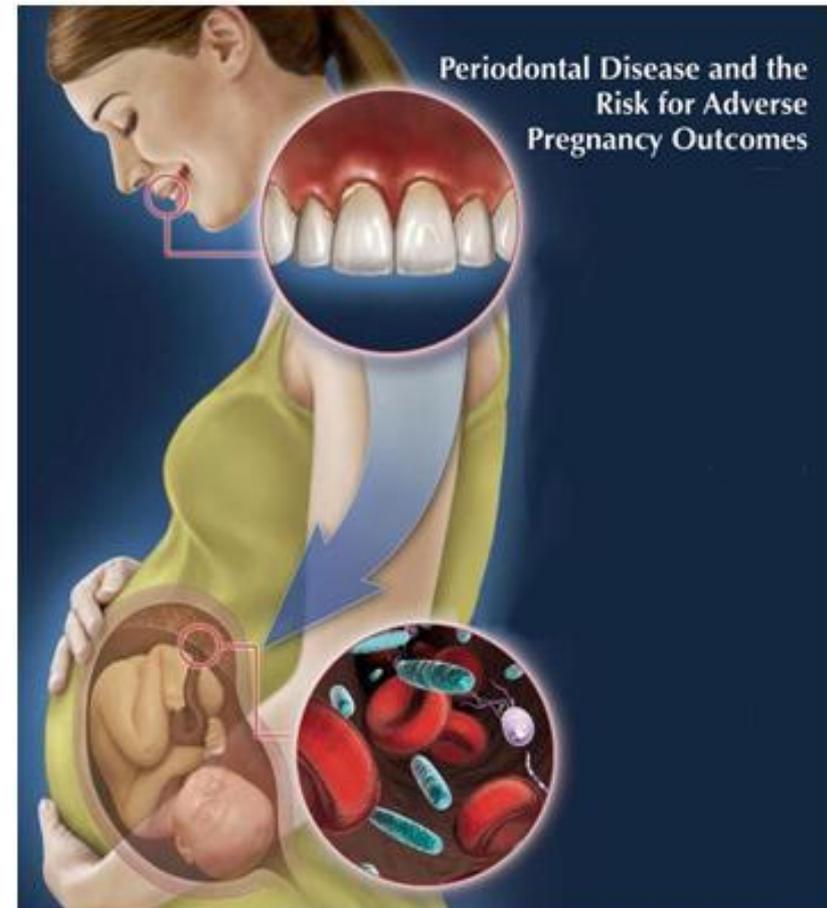
PREGNANCY & SLEEP APNEA

THEIR CONNECTION TO
ORAL HEALTH

Laurie Clark RDH, BA, AP

Pregnancy and Oral Health

- Approximately 40% of pregnant women have periodontal disease.
- Pre-term labor 7x more likely in mothers with periodontal disease.
- Caregivers *transmit cavity bacteria* to children.
- Mom's untreated cavities almost doubles risk of their children having severe cavities.
- Folic acid before & during pregnancy may reduce risks of cleft lip & palate.



CDC Oral Health During Pregnancy & Early Childhood

University of North Carolina at Chapel Hill, Baby Oral Health Program

Oral Health and Low Birth Weight Babies

- New research suggests a possible link between gum disease and pre-term, low-birth weight babies. Further research is needed.
- Excessive bacteria can enter the bloodstream through your gums.
- Bacteria can travel to the uterus, triggering chemicals which are suspected to induce premature labor.



What is at stake with Preterm Babies?

- Premature birth is the #1 killer of children under 5.
- More likely to have long term medical, learning, and behavior problems.
- 26.2 Billion in medical and health care cost each year.
- 1.1 billion for special education services ages 3-21.
- *What if improved oral health made an impact to reduce these statistics?*



15 countries account for two-thirds of the world's preterm births

1. India	5. Indonesia	9. Dem. Rep. of Congo	13. Uganda
2. China	6. United States of America	10. Brazil	14. Sudan
3. Nigeria	7. Bangladesh	11. Ethiopia	15. Kenya
4. Pakistan	8. Philippines	12. United Republic of Tanzania	

• Source: March of Dimes

Is Your Obstetricians and Gynecologists talking to you about Teeth?

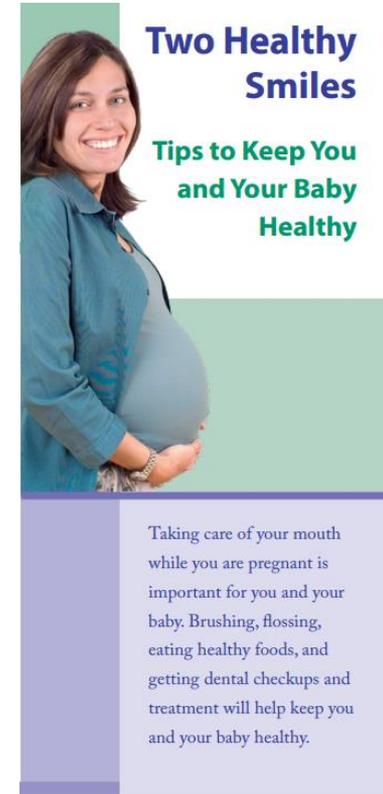
- **Discuss** oral health with all pregnant patients.
- **Conduct** an oral health assessment during the first prenatal visit.
- **Reassure**: prevention, diagnosis, and treatment of oral conditions, including dental X-rays (with shielding of the abdomen and thyroid) and local anesthesia (lidocaine with or without epinephrine), are safe during pregnancy.
- **Inform women conditions** that require immediate treatment. Extractions, root canals, and restoration (amalgam or composite) of untreated cavities, may be managed at any time during pregnancy. **Delaying treatment may result in more complex problems.**
- **Develop** working relationships with local dentists.

- The American College of Obstetricians and Gynecologists



Bridge the gap.... You can make a difference!

- Pregnancy provides teachable moments.
- Inform women of the impact of oral health as it relates to pregnancy.
- Develop relationships with oral health professionals.
- Guide Pregnant women to oral health resources.



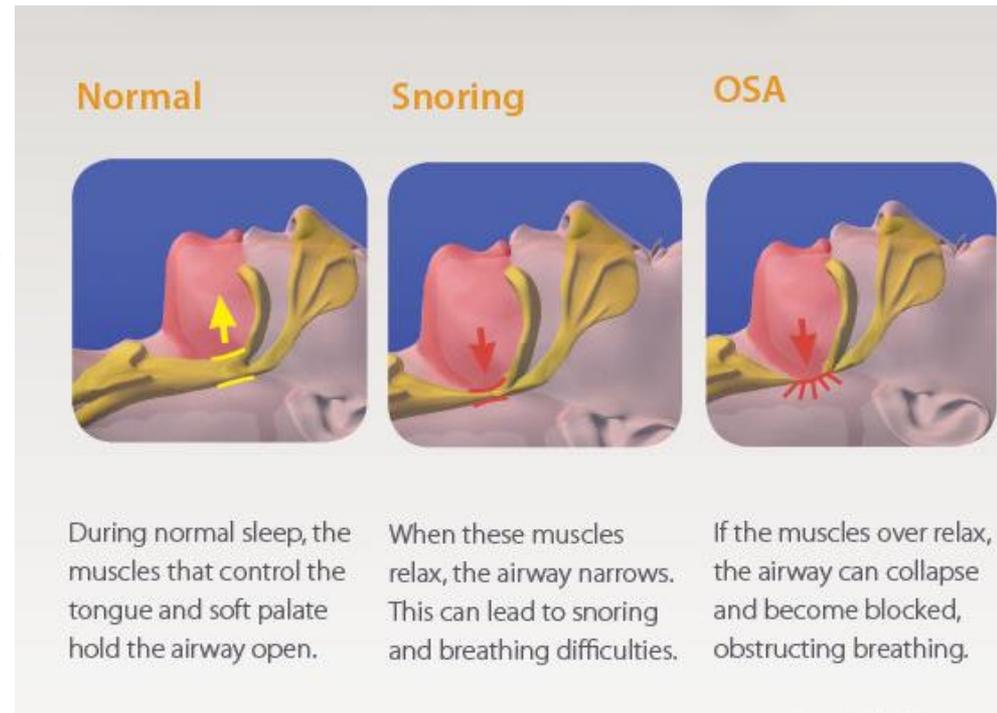
Sleep and Oral Health

- 18 million Americans suffer from sleep apnea. Many cases go undiagnosed. 1 in every 5 people.
- Lack of [sleep](#) was the second most important lifestyle factor affecting periodontal disease, second only to smoking.
- Those who received seven to eight hours of sleep per night show less progression of periodontal (gum) disease.



Obstructive sleep apnea may cause periodontitis/gum disease

- Sleep apnea occurs when a person's throat relaxes and tissue obstructs the airway.
- Breathing through the mouth and having a dry mouth encourage the growth of bacteria in a person's mouth while they sleep.
- Sleep deprivation increases production of inflammatory hormones.
- Left untreated can shorten life span by 18 years.



Symptoms Obstructive Sleep Apnea

- Gasps of breathe or lapses in breathing
- Loud snoring
- Grinding or clenching teeth
- Morning headaches
- Awakening with dry mouth
- Excessive daytime sleepiness



The Easy Steps to Healthy, Restful Sleep

Sleep Hygiene

- Establish a routine
- Wind down: read, yoga, meditation, sipping hot tea (decaffeinated), or bath
- Read books to children or have them read to you.
- **No electronics 1 hour before bed**
- Bedrooms: cool temperature, quiet, and dark

Life Style

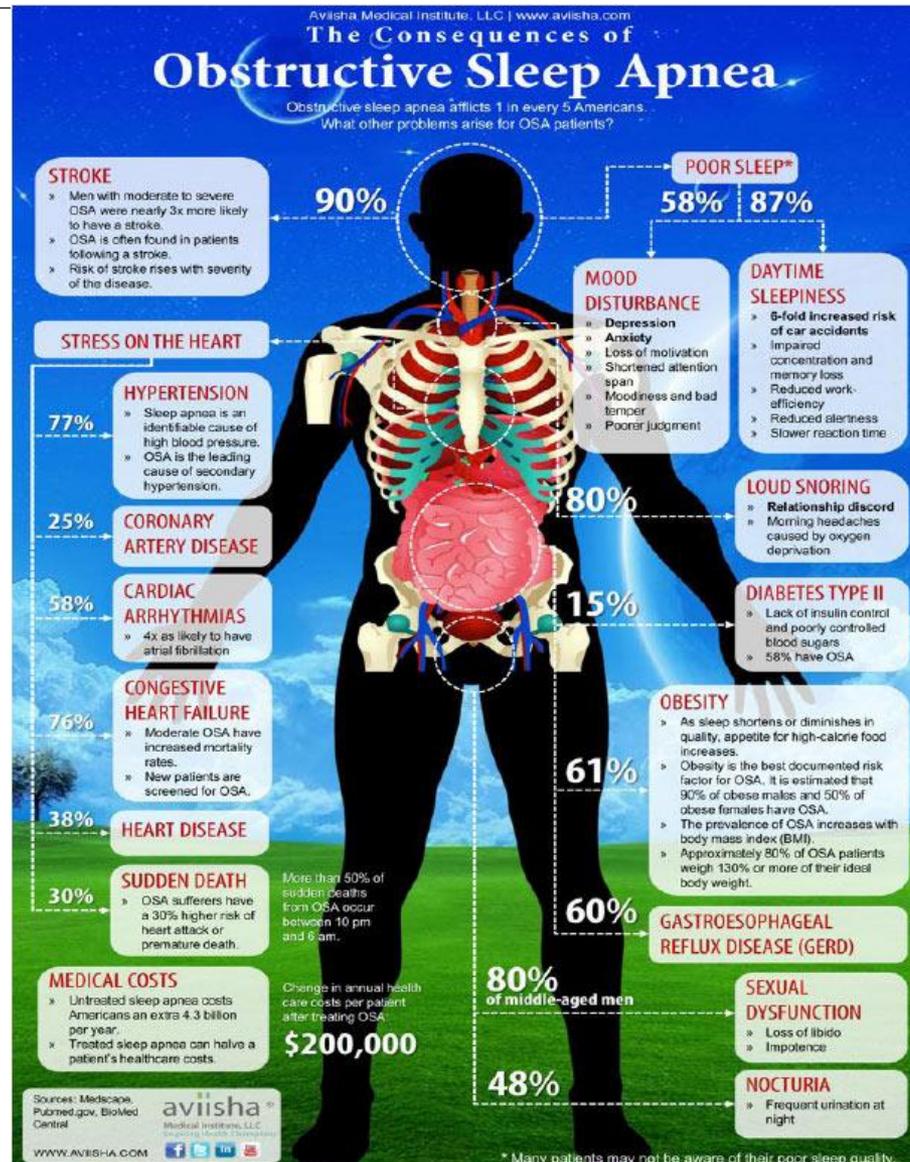
- Make a sleep a family priority
- Lose weight
- Exercise
- Quit smoking
- Eat healthy

More advanced treatments

- Breath training
- Facial muscle and posture training
- Appliances and CPAP machines
- Orthodontic Treatment, widen jaws
- Surgery
- **Prevention** Children 5-10 years

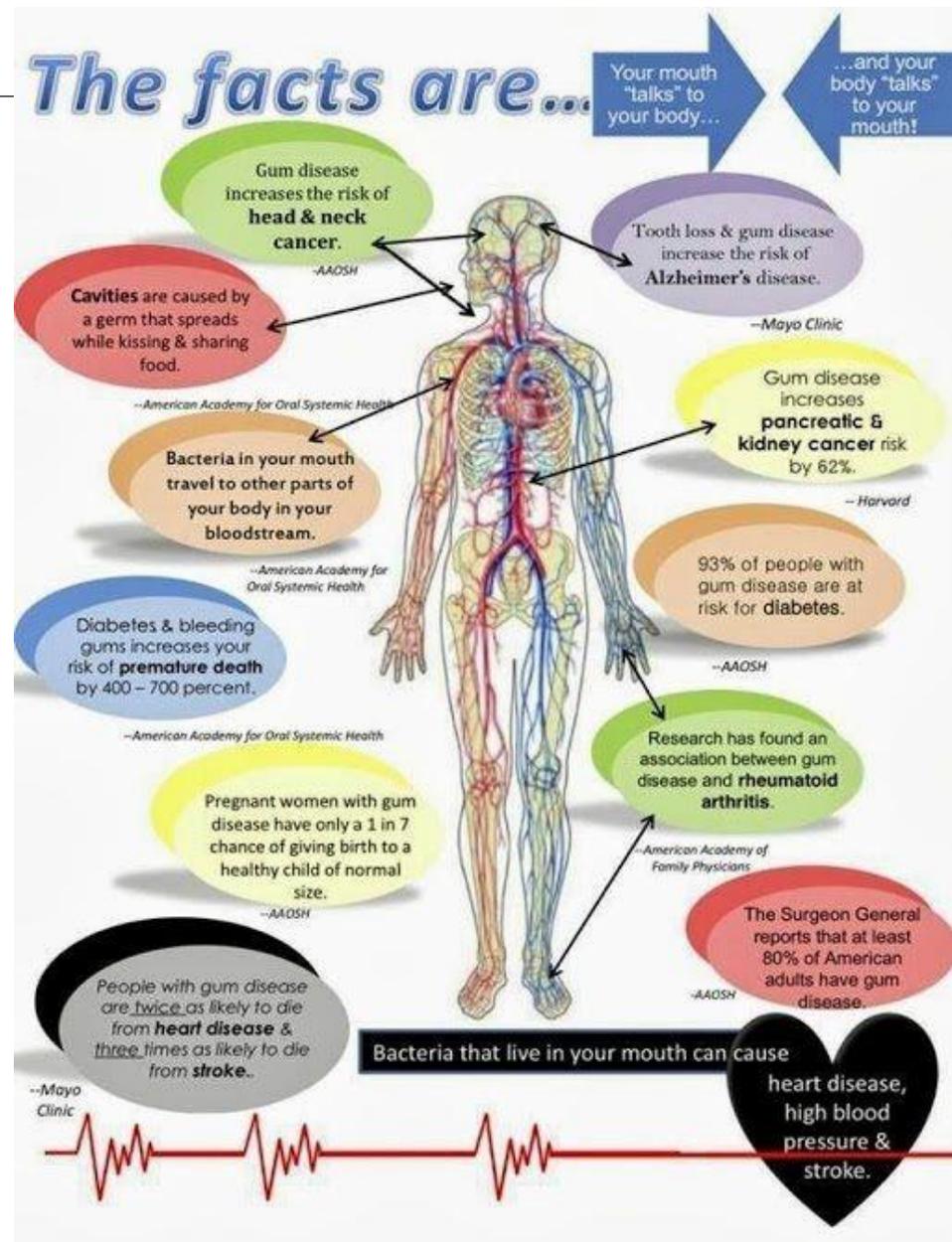


Sleep Apnea: It Doesn't Just Affect Oral Health



Become a champion for oral health.

- Know where your local resources are.
- Develop relationships with local Doctors and Dentists.
- Include basic oral health education in your curriculums.
- Have oral health providers visit and provide in-service education to staff.
- FTF oral health programs reach out to your FTF partners.



WE BELIEVE

Every family is worthy of the opportunity to benefit from contemporary knowledge and measures that will improve their oral health, overall health, and health trajectory. With oral health as the window to the entire body, early evaluation and education are key to preventing the acquisition and development of oral disease.

Prenatal Oral Health Program (POHP), University of North Carolina at Chapel Hill



Questions and Answers