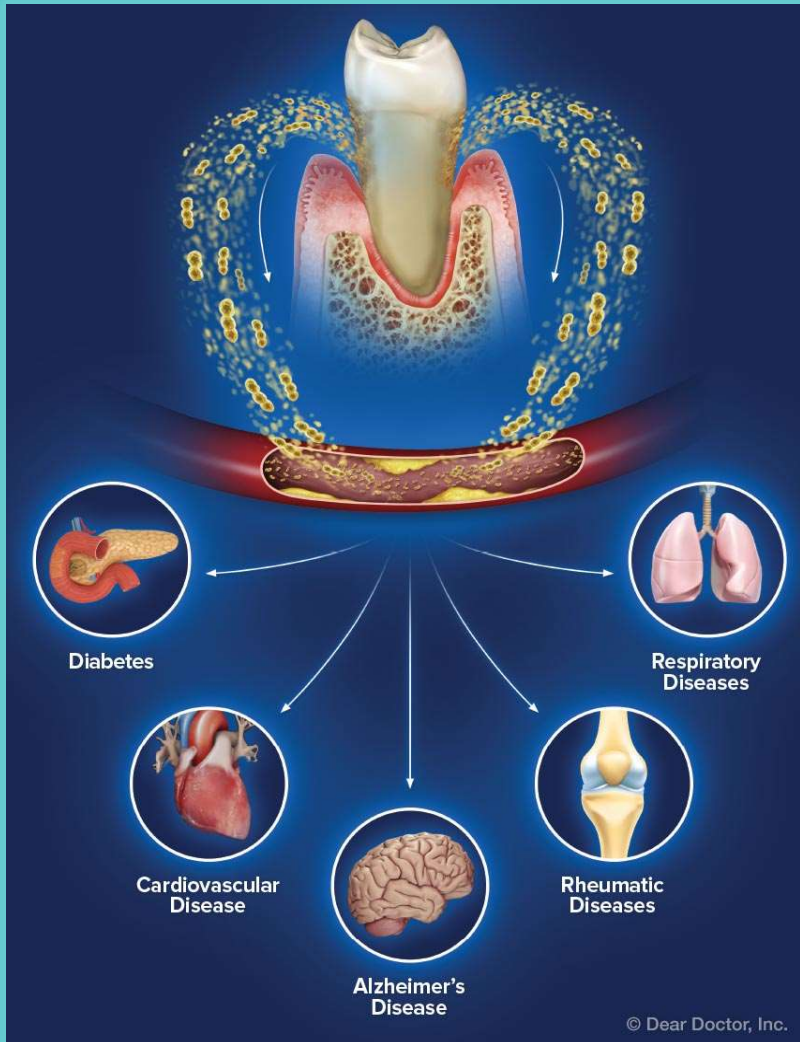


Health Harmony: Where Medical Meets Dental in Oral Systemic Health





TIFFANY WUEBBEN, RDH

- Founder and CEO of The Hygienepreneur
- Author of "*Hygienepreneur: The Dental Hygienist's Guide to Achieving Career Success & Personal Transformation*"
- Renowned dental industry speaker across the U.S.
- 30 years in the Dental Industry, Practice Administrator, Lead Hygienist & Practice Building Specialist



“If a person can take care of their teeth and gums they can extend their life by at least 10 years.”

Dr Charles Mayo
Co-Founder Mayo Clinic

Objectives



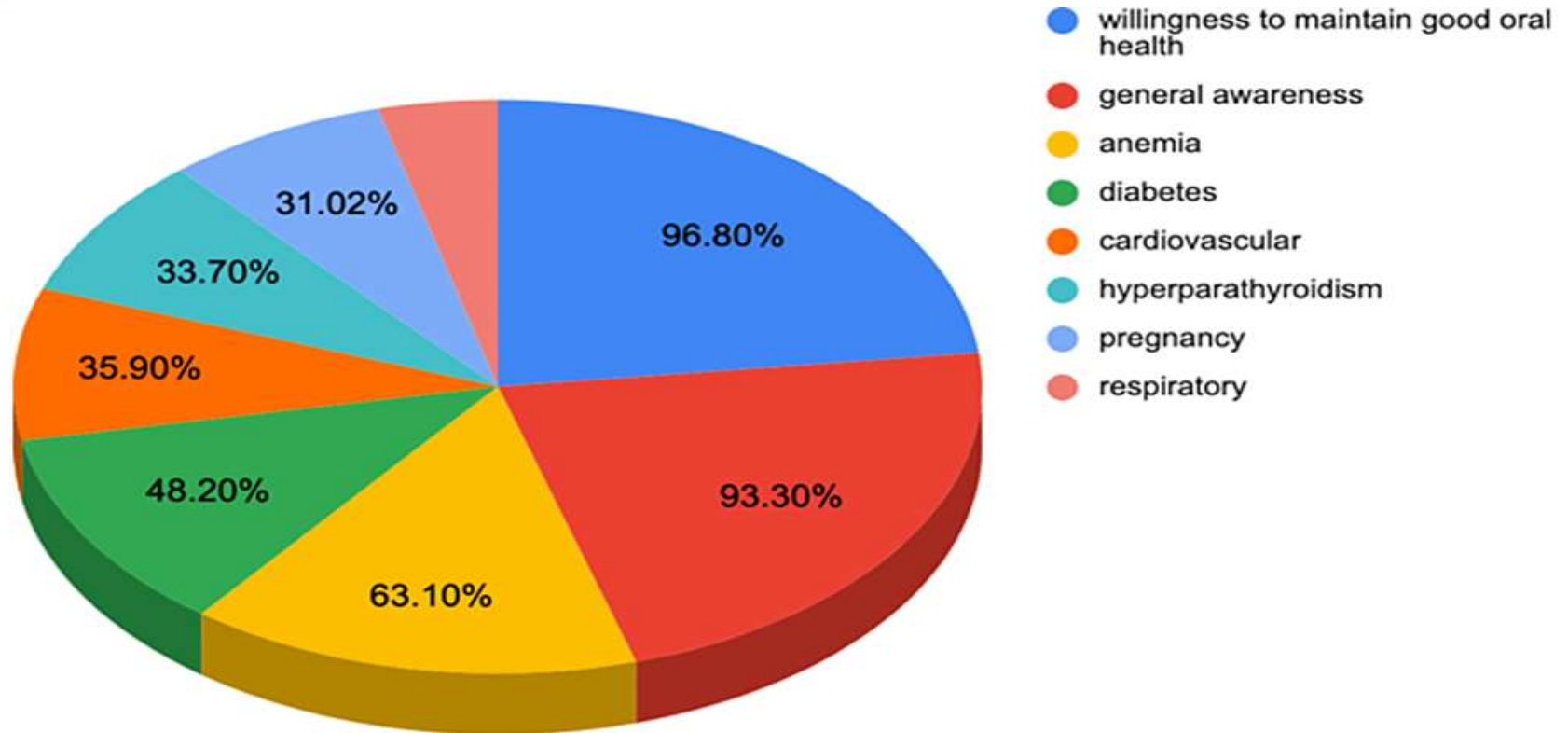
1 Holistic Health Perspective: Understand the link between oral health and overall well-being.

2 Systemic Connections: Recognize how oral health impacts various medical conditions.

3 Gateway to General Health: Learn how oral health reflects overall body health.

4 Preventive Role: Discover how oral health maintenance can prevent systemic diseases.

Do People Know About The Connection?



Medical Doctors Point of View



Robert W. Steves III, MD
The Town Doctor
Lebanon, TN

“As a young student of medicine, I quickly learned, from the numerous pearls given to us from Sir William Osler, that the oral cavity is a mirror to the rest of the body.”



Dentist's Point of View

“By now, I believe **the dental community**, as a whole, **has adopted** the findings from current research and **accepted the strong oral systemic health connection**. I don't know of any place else in the body where chronic inflammation and infection is ignored and assumed to have no effect on the overall health of a person.”

K. Pat Brown, DDS



What is Oral Health?

The condition of the teeth, gums, tongue, and other oral structures that enable functions such as chewing, speaking, and swallowing



Teeth
Gums
Jawbone
Salivary Glands
Hard Palate



Soft Palate
Tongue
Oral Mucosa
Periodontal Ligament
Oral Microbiome

Common Oral Health Issues

Pulpitis



Tooth Decay



Bad Breath



Gum Disease



Tooth Decay



Definition: Breakdown of tooth enamel caused by acids produced from bacteria



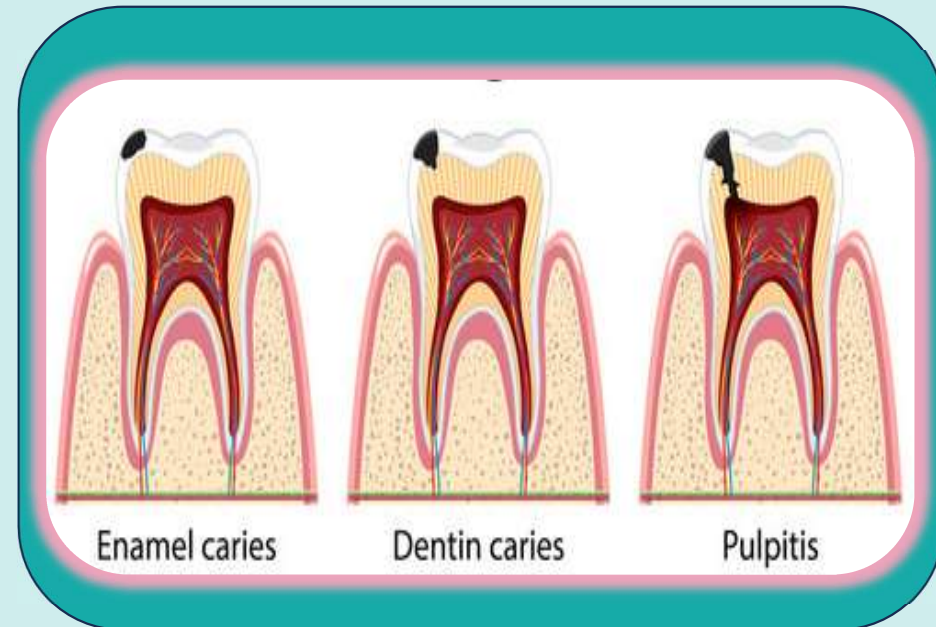
Cause: Poor Oral Hygiene, Poor food choices, bacteria



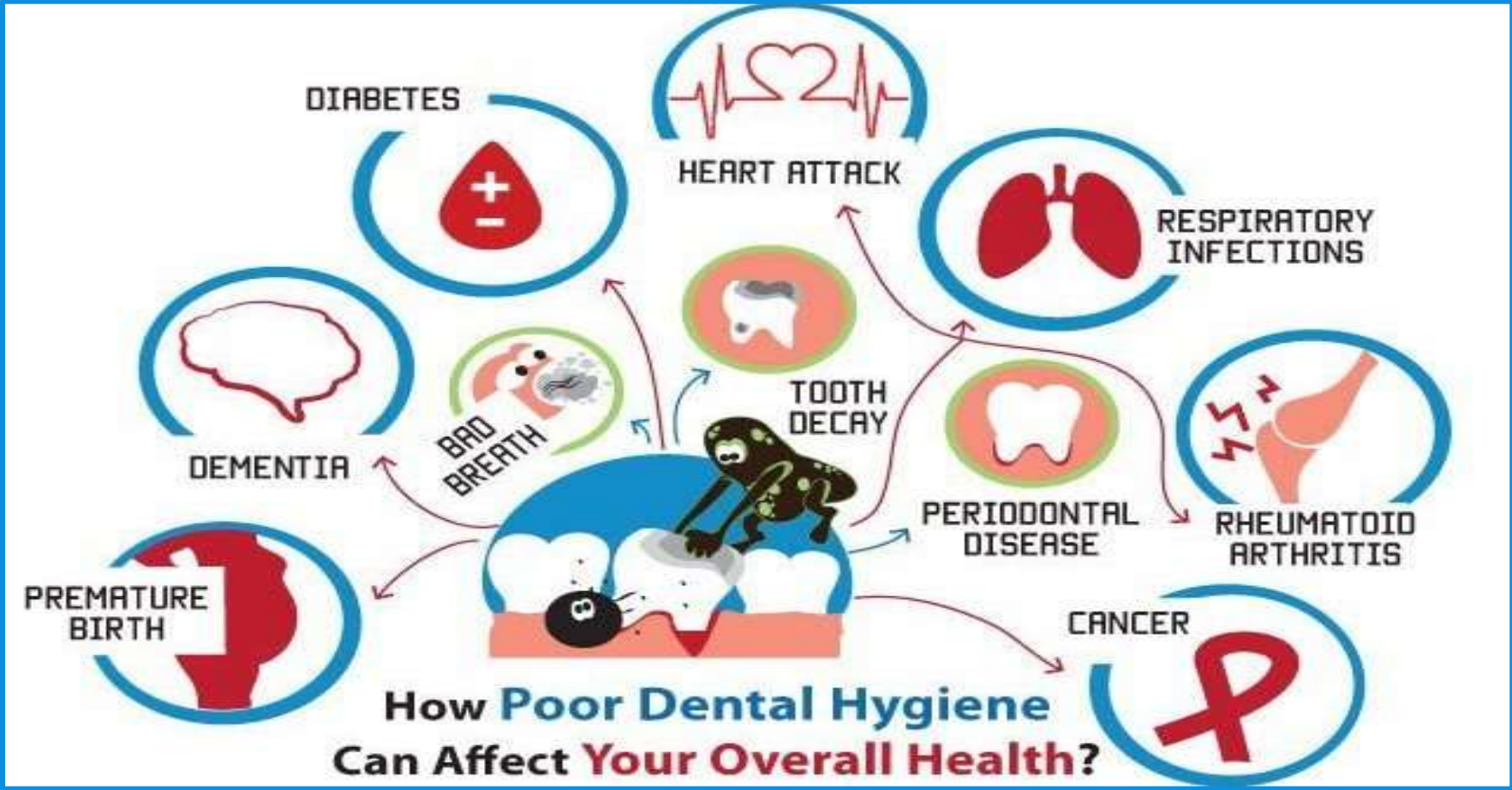
Symptoms: Toothache, sensitivity to hot or cold, visible holes or pits in the teeth



Prevention: Brush & floss regular, limit sugary snacks & drinks, fluoride care, regular dental check-ups



Tooth Decay Systemic Connection



1950's Bucky Beaver Promoted 6 Month Cleaning Schedule

“Brush twice daily
and visit the
dentist twice a year.”
~ Bucky Beaver



Brusha, brusha, brusha. Get the New Ipana—it's dandy for your teeth!

Mr. Decay Germ

Gum Disease

Inflammation and infection of the gums & supporting structures



1

Mechanisms

Poor oral hygiene
plaque buildup
smoking & genetics

Stages

Gingivitis
Periodontitis

2

Symptoms

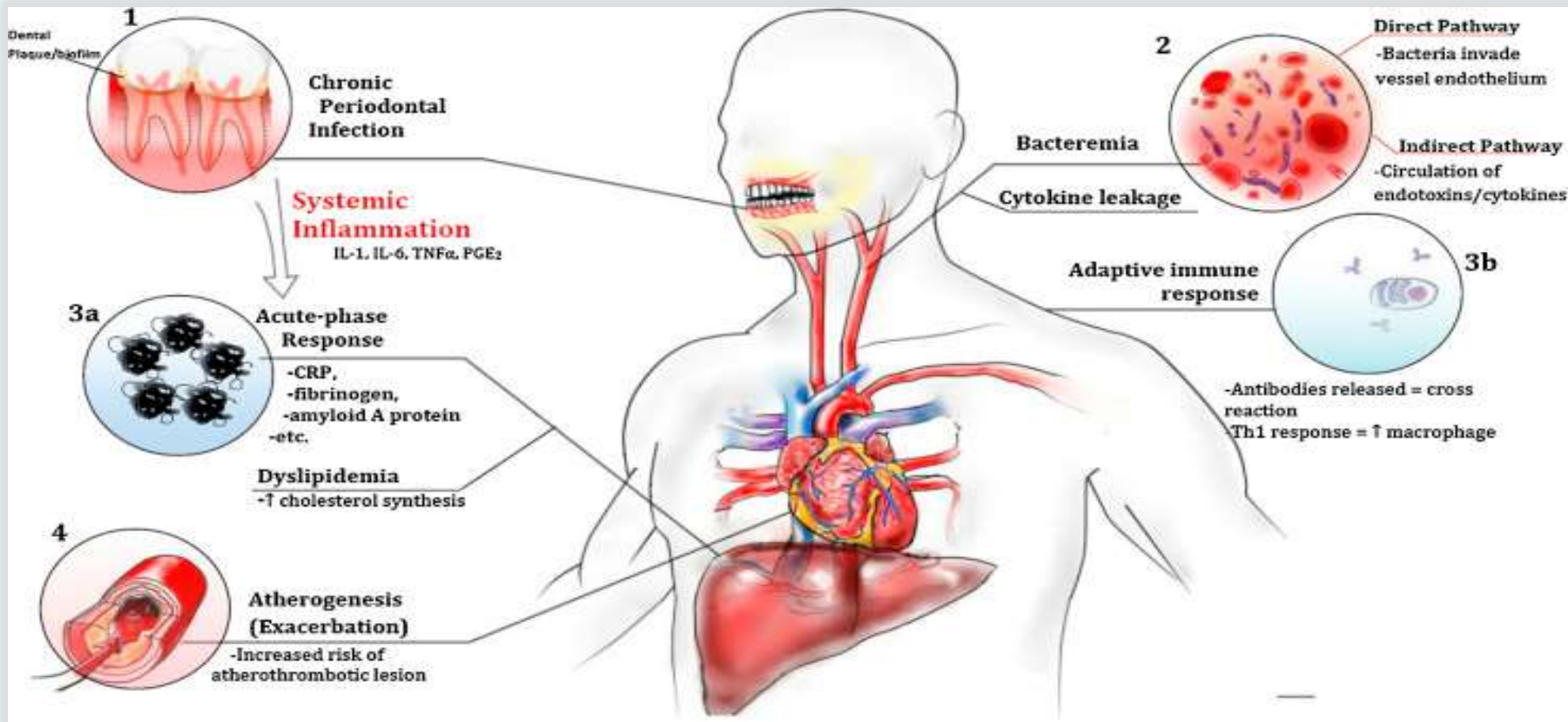
Swollen
Red
Bleeding Gums
Loose Teeth
Puss
Bad Breath
Receding Gums
Bone loss

3

Prevention

Proper Brushing
Flossing
Quitting Smoking
Chronic Disease Mgmt
Regular Hygiene Appts

Gum Disease Systemic Connection



Systemic Health Overview



✓ Systemic Health refers to the overall health of the entire body and its systems

✓ It includes all the various bodily systems and their influence on each other

✓ All the systems are interconnected

The Oral Health & Systemic Health Connection



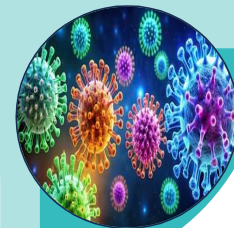
Bidirectional Relationship

- The Health of one systems affects the other
- Interconnected systems



Oral Health Systemic Conditions

- Cardiovascular Disease
- Diabetes
- Respiratory Infections
- Pregnancy Complications

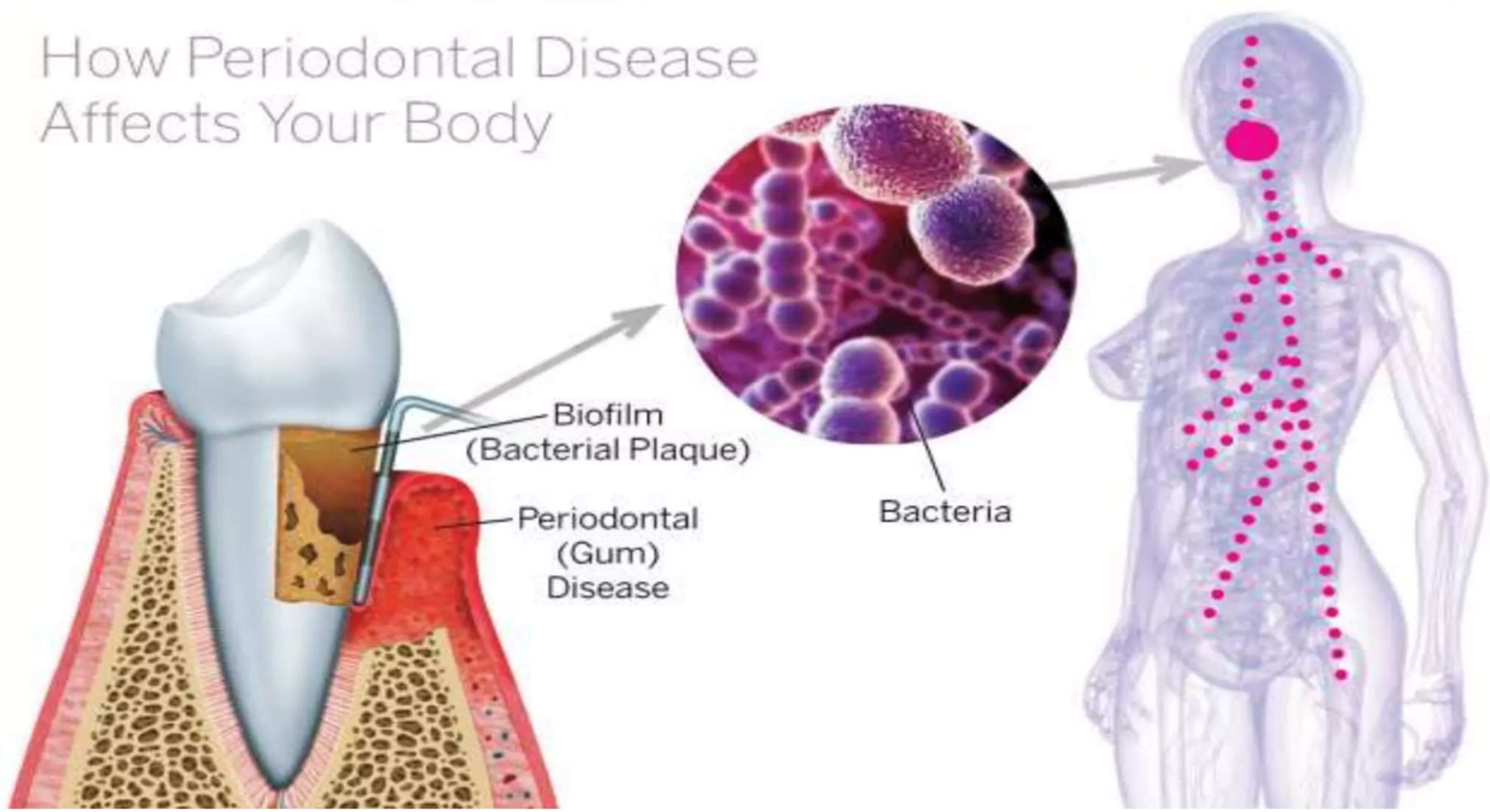


Contributing Factors

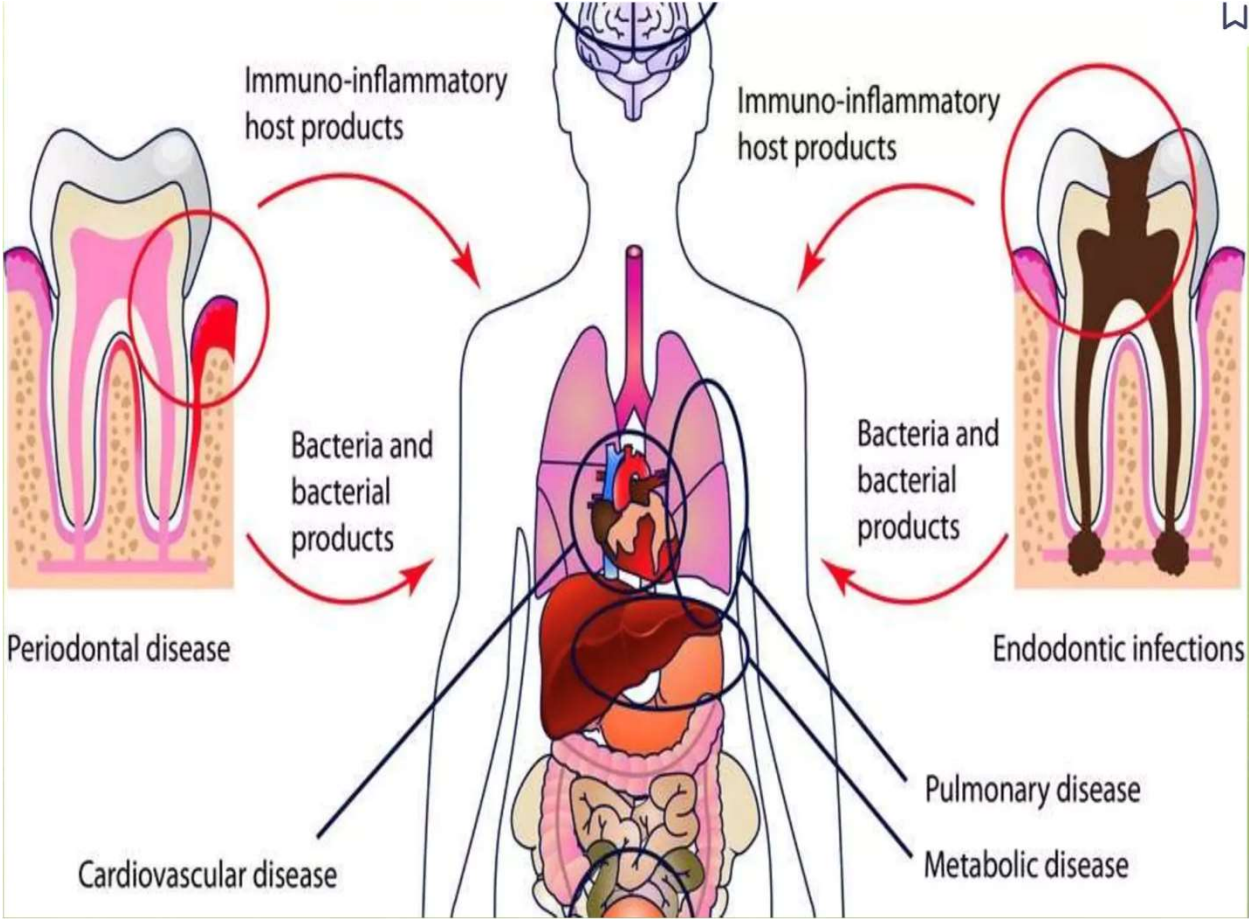
- Inflammation
- Bacteria & Toxins
- Immune Response

The Oral Health & Systemic Health Connection

How Periodontal Disease Affects Your Body



The Oral Health & Systemic Health Connection



The Disconnect

- 111 million people visit primary care annually, but do not see a dentist
- 27 million people visit a dentist annually, but not a primary care provider
- Medical providers lack comfort with performing oral exams and don't have dental referrals available
- Dentists are often less comfortable with young children, pregnant women, or adults with special needs



These are opportunities:
Better Collaboration
Learning
Management

Healthcare Provider Challenges

Medical Providers Are Overwhelmed

Other Health Issues Come First

When Is It Time To Address & Refer

Lack Of Training In Oral Health

Insurance Coverage Barriers

Cost & Lack of Funds



Oral Health & Nutrition

Affects On Nutrition

- Chewing Function
- Impact on Nutrition- Tooth Decay/Missing Teeth
- Diet Quality

Importance in Chewing & Digestion

- Mechanical Digestion
- Nutrient Absorption
- Digestive Efficiency



Habits To Promote Proper Nutrition

- Regular Dental Checkups
- Healthy Diet & Good Oral Hygiene



Aging and Oral Health



Common Issues

Tooth Loss
Gum Disease
Dry Mouth
Oral Cancer



Impact: Quality Life

Chewing
Speech
Pain
Self-Esteem

Solvers- Regular Dental Visits, Denture Care & Maintaining Oral Hygiene

Direct Bacterial Affect

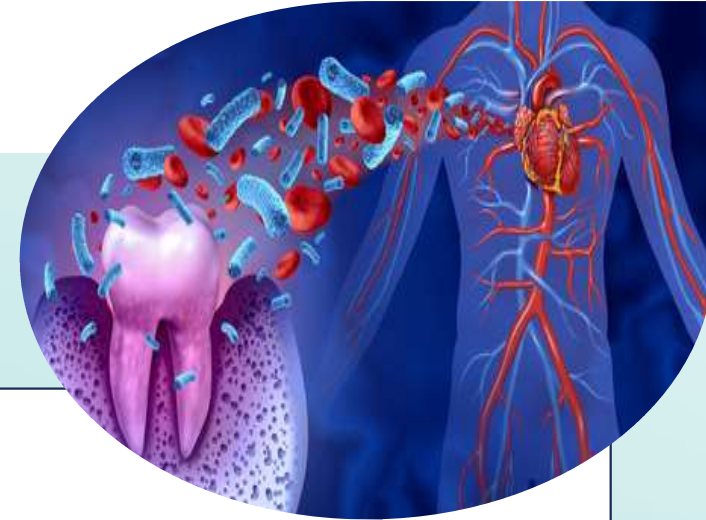
Untreated Oral Disease Can Spread & Cause...

- Intraoral abscesses
- Sinusitis
- Facial cellulitis
- Brain abscesses
- Bacteremia and sepsis



Cardiovascular Health

*Research links gum disease & heart disease
Oral bacteria can affect the heart & risks of stroke*



Evidence

Numerous studies have shown the association

Statistics

Periodontal disease linked to higher heart disease risk

Mechanisms

Inflammation, bacteria and blood clots, immune response

Oral Bacteria's Impact On The Heart



Endothelial Dysfunction

Oral bacteria harm blood vessel cells, causing inflammation

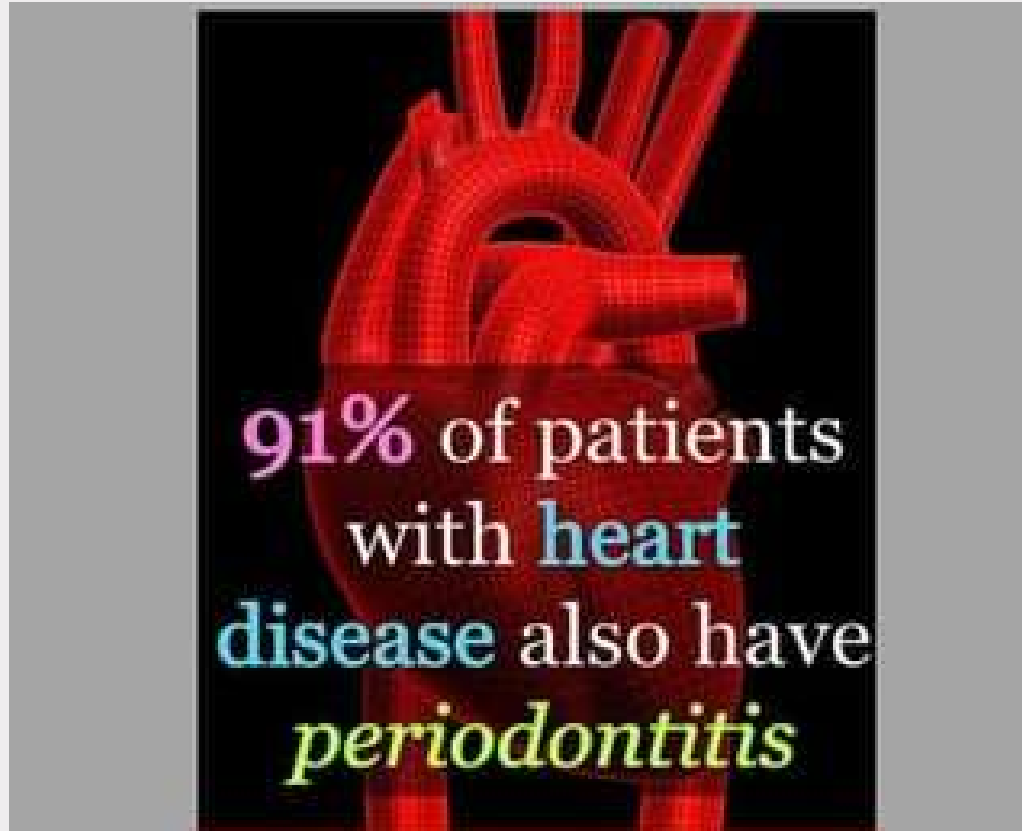
Direct Effects on Heart Tissue

Oral bacteria toxins harm heart tissue and function

Impact on Blood Pressure

Gum disease inflammation raises blood pressure, straining the heart

Connection Statistics



Diabetes:

What is the impact of Diabetes on Oral health?

Dry Mouth

- Diabetes reduces saliva production
- Heightened risks of decay
- Increase cases of gum disease, and infections

Periodontal Disease

- Impaired blood sugar control
- Promotes bacterial growth
- Increase risk of inflammation & Infection

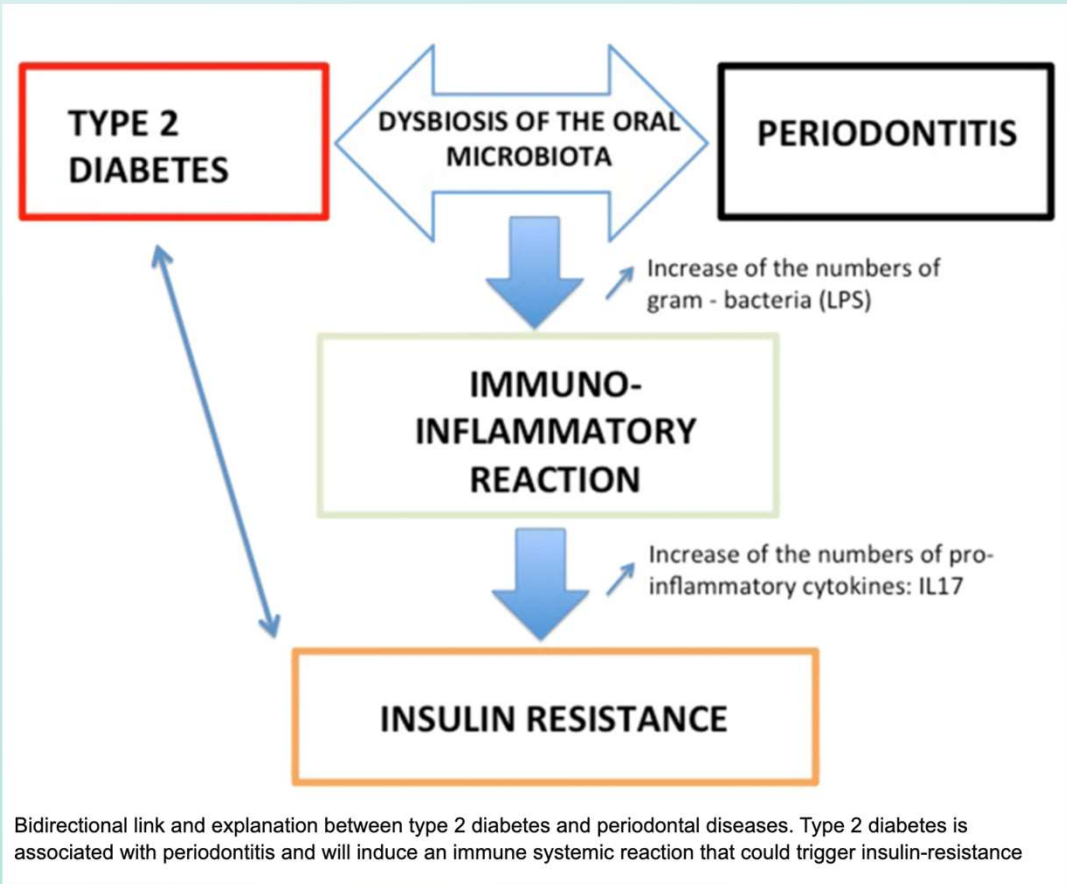
Delayed Wound Healing

- Reduces healing ability
- Oral wounds
- Injuries to the gums

Oral Health & Blood Sugar Control

- 1 Bi-Directional Relationship-** health of the mouth can affect blood sugar
- 2 Periodontal Disease and Insulin Resistance-** severe gum disease may contribute to insulin resistance
- 3 Inflammation and Blood Sugar-** Oral inflammation → Systemic inflammation → Worsen insulin resistance & Blood sugar control
- 4 Importance of Dental Care-** Maintaining good oral health is essential to managing blood sugar levels

The Bi-directional Relationship: Oral Health & Blood Sugar Control



Respiratory Health

What is the connection between oral bacteria & respiratory infections?

Linked To



Oral Bacteria
Aspirated

Biofilm Contains
Pathogens



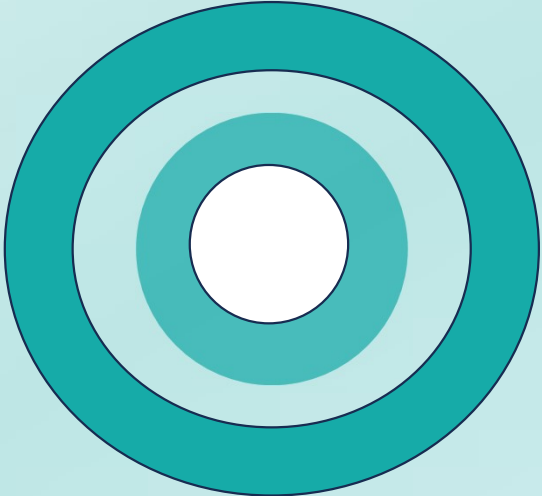
Chronic Bronchitis

Pneumonia

Respiratory Infections Prevention

Emphasize Oral Care

3
Special
Populations



1
Reduce Bacterial
Load



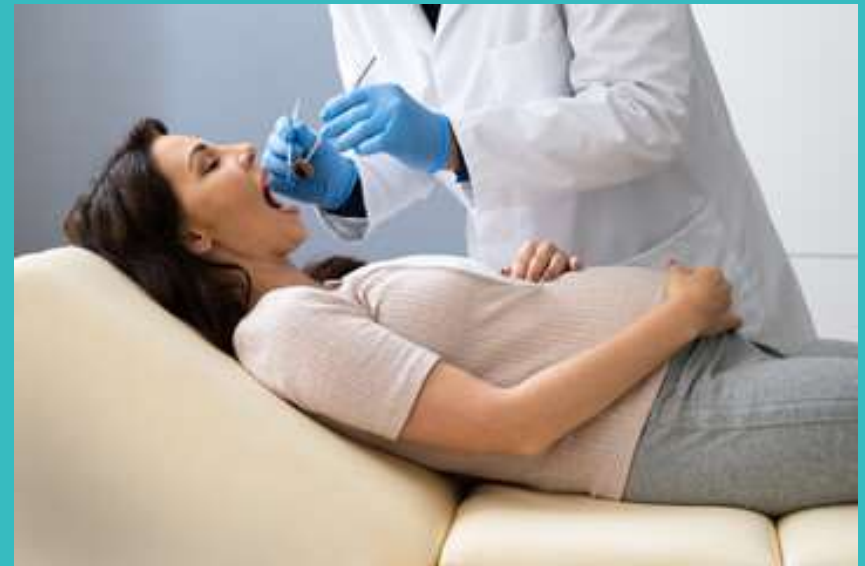
2

Promote Routine
Dental Visits

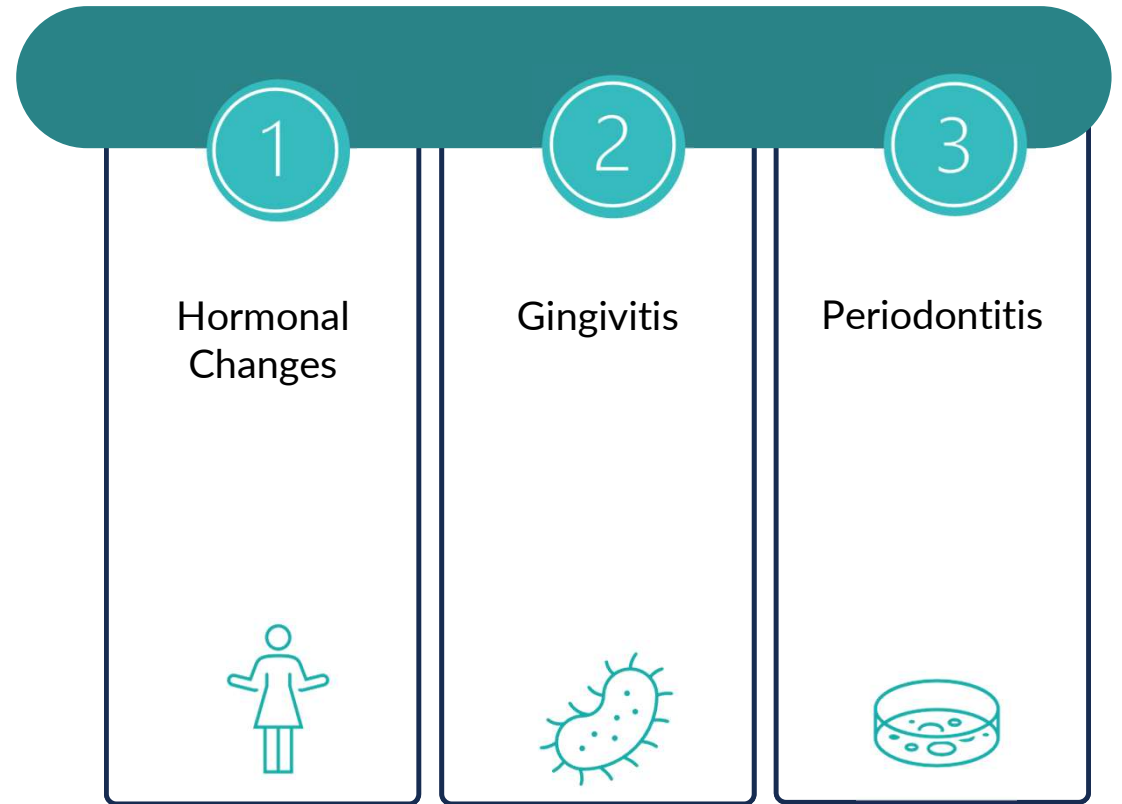
Pregnancy Outcomes

Effect of Oral health on Pregnancy

- **Preterm Birth/Low Birth Weight**
- **Gestational Diabetes**
- **Preeclampsia- HBP**



Risks of Gum Disease During Pregnancy



Reduce The Risk of Adverse Pregnancy Outcomes

Preventive Measures



Regular Dental Visits



Home Care



Multi Doctor
Consultation

Mental Health

Link Between Oral Health and Mental Health

Negative Affects



- Impact of Stress
- Psychological Impact
- Bi-Directional Relationship

Can Escalate To:



- Depression
- Anxiety
- Social Isolation

Problem Solving Strategies



- Integrated Care
- Behavioral Intervention
- Patient Education

Oral Health and Immune Response



What Role Does It Play?

- Barrier Function
- Immune Surveillance
- Inflammatory Response



Oral Infections Weaken the Immune System

- Systemic Impact
- Bacteremia
- Compromised Immunity



For A Strong Immune Function

- Regular Dental Care
- Effective Oral Hygiene
- Healthy Lifestyle

Oral Health and Cancer

Oral Cancer

Poor Oral Hygiene
Alcohol & Smoking

Pancreatic Cancer

Certain Oral Bacteria
Associated with
Periodontal Disease



Esophageal Cancer

Linked to Poor Oral
Hygiene & Gum
Disease

Importance of Oral Hygiene in Cancer Patients



—● **Prevention of Infections**
(Chemo & Radiation)

—● **Management of Side Effects**
(Dry Mouth, Mouth Sores)

—● **Early Detection**
(Maintain Routine Dental Visits)

—● **Promote Oral Health in Cancer Care**
(MD/DDS Collaborate, Educate & Support)

Some Facts About Oral Cancer


10 Facts about Oral Cancer

Oral Cancer is **2x** as common in men as in women.


1

About 95% of oral cancer cases occur for people over the age of 40. However, this cancer can affect all ages.

2

 One in four of those diagnosed with Oral Cancer did not have any risk factors.

3

 All forms of tobacco and alcohol are major risk factors for oral cancer.

4




10

5

Close to **53,000** Americans will be diagnosed with oral or oropharyngeal cancer this year.


6

 Oral cancer kills roughly 1 person per hour, 24 hours per day.


7

Regular dental checkups can provide early detection of oral cancer.

8

Ulcers + lumps  in your mouth are two symptoms of oral cancer.

9

Early diagnosis can double your chance of survival. 

Screening for oral cancer takes less than 10 minutes.

Oral Health and Neurological Disorders

Alzheimer's Disease & Neurodegenerative Diseases



Oral Bacteria from
Gum Disease Can
Migrate to the Brain
Contributing to
Neuroinflammation



Shared Risk Factors
& Mechanisms
Are Age, Genetics,
Inflammatory Processes



Observational Studies
Show That Individuals
with Poor Hygiene
May Be At Increased
Risk of
Cognitive Decline

Importance of Oral Hygiene In Neurodegenerative Diseases

Impact on Disease Progression- Reduce the Risk of Neuroinflammation

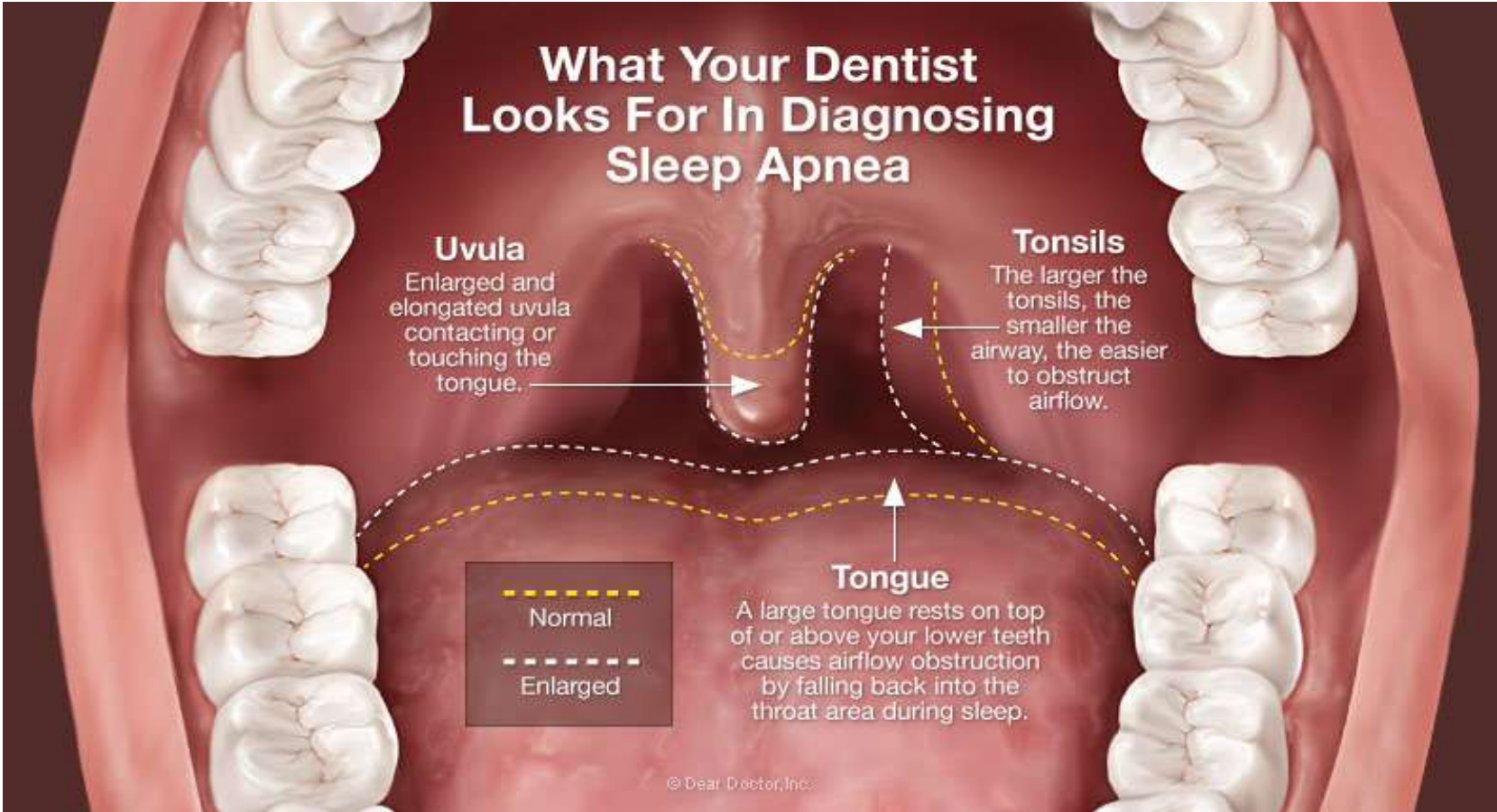
Quality of Life- Can Affect Nutrition & Enjoyment

Management Strategies- Integrated Healthcare Approaches Improves Overall Wellbeing

The link between oral health and your brain



Oral Health and Sleep Disorders



Oral Health & More Systemic Diseases



Diseases linked to Chronic Inflammation

When you have chronic inflammation, your body is in a constant state of high alert. The release of inflammatory chemicals can affect many different systems in your body and be a cause or consequence of multiple diseases.

- EYES:** Macular degeneration, retinal degeneration, uveitis
- HEART AND BLOOD VESSELS:** Atherosclerosis (hardening of the arteries), heart disease
- LUNGS:** Asthma, emphysema, COPD, lung cancer
- LIVER:** Chronic hepatitis
- DIGESTIVE SYSTEM:** Inflammatory bowel disease, Crohn's disease, and ulcerative colitis
- SKIN:** Acne, psoriasis, skin cancer
- BRAIN AND SPINAL CORD:** Alzheimer's disease, Parkinson's disease
- THYROID:** Thyroiditis
- PANCREAS:** Type 1 diabetes
- KIDNEYS:** Chronic kidney disease, kidney failure, nephritis
- JOINTS:** Some forms of arthritis, including rheumatoid arthritis and psoriatic arthritis
- IMMUNE SYSTEM:** Autoimmune disorders such as lupus

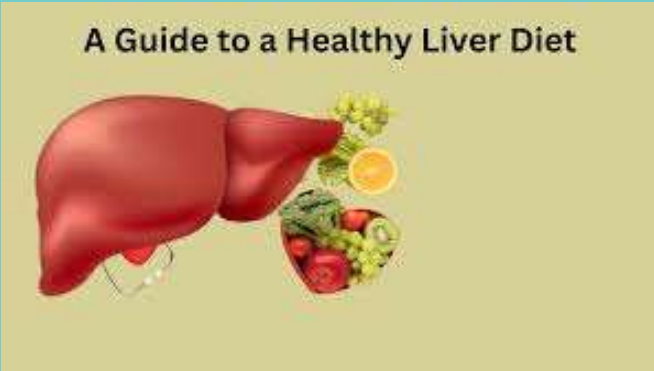
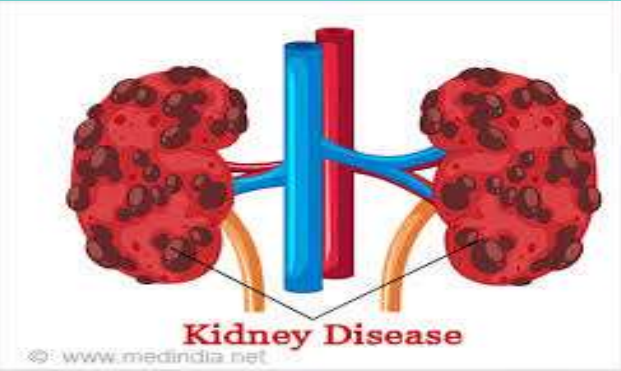
HARVARD MEDICAL SCHOOL

STROKE SYMPTOMS

LEARN THE WARNING SIGNS!

B E F A S T

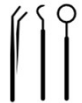
- B:** BALANCE - Loss of Balance, Headache or Dizziness
- E:** EYES - Blurred Vision
- F:** FACE - One Side of the Face Drooping
- A:** ARMS - Arm or Leg Weakness
- S:** SPEECH - Speech Difficulty
- T:** TIME - Time to Call for Assistance Immediately



Oral Health Promotion Strategies



Importance of Regular Dental Visits Tips For Maintaining Good Oral Hygiene



Preventive Care

Early Detection of Cavities
Gum Disease & Oral Cancer



Professional Cleaning

Removes Plaque &
Tarter



Brushing & Flossing

Healthy Diet
Avoid Tobacco

Medical Provider Oral Health Training



Screening For Disease

Risk Assessments



Oral Health Maintenance

Anticipatory Care

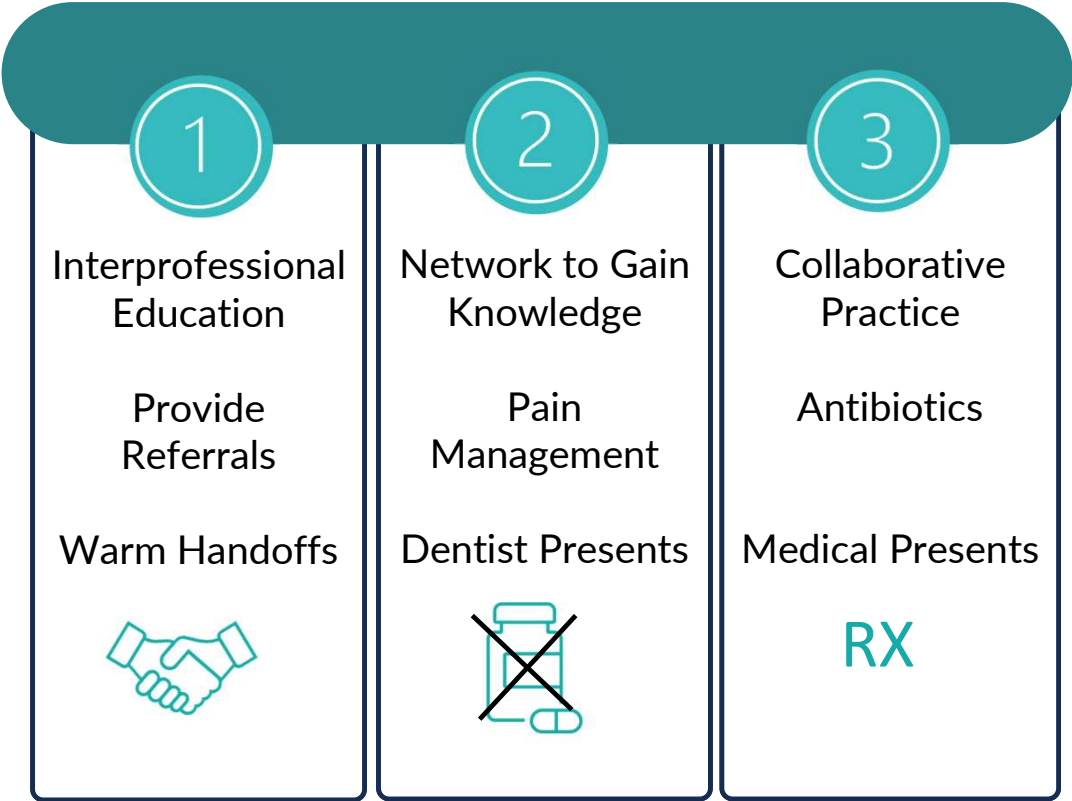
Early Referral



Fluoride

Oral Health Tools

Medical/Dental Collaboration



Added Roles & Skills For Primary Care



Counsel Patients

- Oral Health Promotion
- Perform Screenings & Learn Clinical Dental Emergency Skills
- Facilitate Referrals



Oral Health Assessment

- Prenatal
- Infants & Children
- Elderly

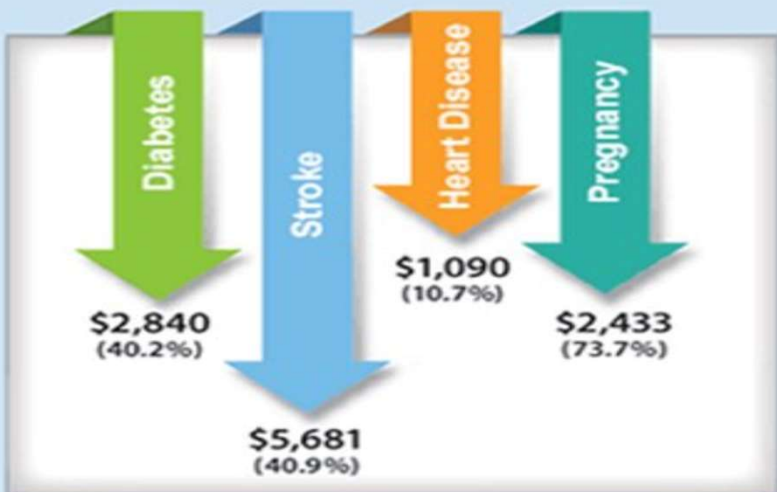


Develop Programs

- Fluoride
- Collaborate w/Schools
- Promote Community Oral Health

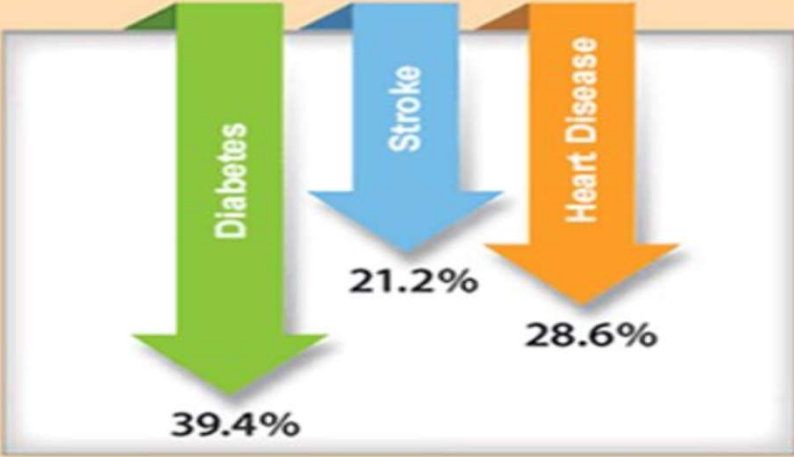
Treating Gum Disease Reduces Medical Costs

Treating Gum Disease Means Lower Annual Medical Costs



Significant annual cost savings are possible when individuals with certain chronic diseases (diabetes, cerebral vascular disease, or coronary heart disease), or who were pregnant, received dental treatment for their gum disease, after accounting for the effect of diabetes.

Treating Gum Disease Reduces Hospital Admissions



Significant decreases in annual hospitalizations are possible when individuals with certain chronic diseases received dental treatment for their gum disease, after accounting for the effect of diabetes.

Jeffcoat MK, et al. Impact of periodontal therapy on general health: evidence from insurance data for five systemic conditions. Am J Prev Med 2014; 47(2):166-74.

Treating Gum Disease Promotes Overall Body Health



Periodontal Disease Is Preventable & Treatable



Practice Good Oral Hygiene Habits



Schedule Regular Dental Visits



Discuss Risk Factors with Your Medical & Dental Providers

THANK YOU
FOR COMING!

