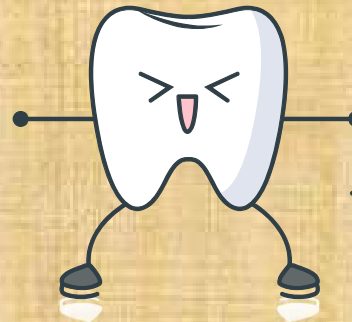


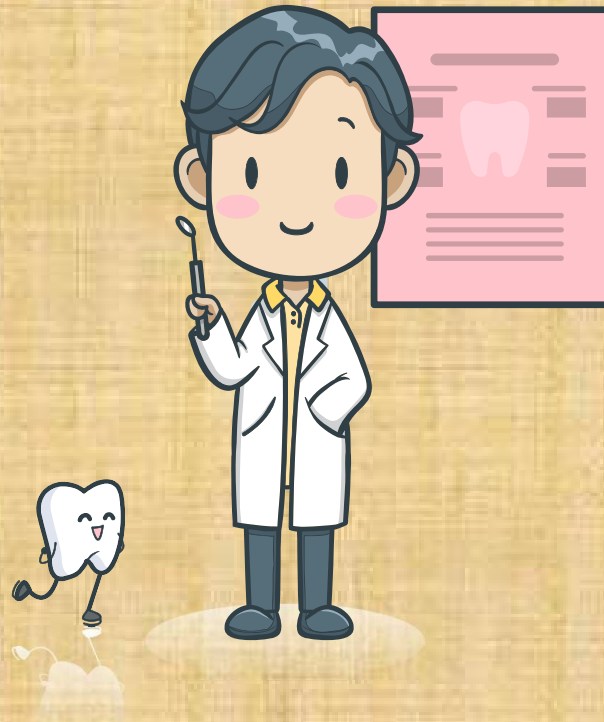
# Smile Bright: Nurturing Oral Health in Primary Care



Chasity Falls, DMSc, MS, PA-C  
Co-Author: Shane Langolf, DMD

# DISCLOSURES

Non-Declaration Statement: I have no relevant relationships with ineligible companies to disclose within the past 24 months.  
(Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.)



“Teeth! They are very much in style.  
They must be very much worthwhile”

—Dr. Seuss



# OBJECTIVES

By the end of this presentation, participants will be able to:

## 01

### **Introduction**

Discuss the current state of oral health in the U.S.

## 02

### **Oral Health and Anatomy**

Define oral health and describe oral anatomy.

## 03

### **Oral Health Needs**

Discuss dental care across the lifespan and for special populations

## 04

### **Oral Health Problems**

Identify and explain common oral health problems (risk factors, consequences).

## 05

### **Access to Care**

Describe difficulties with access in rural vs. Urban areas

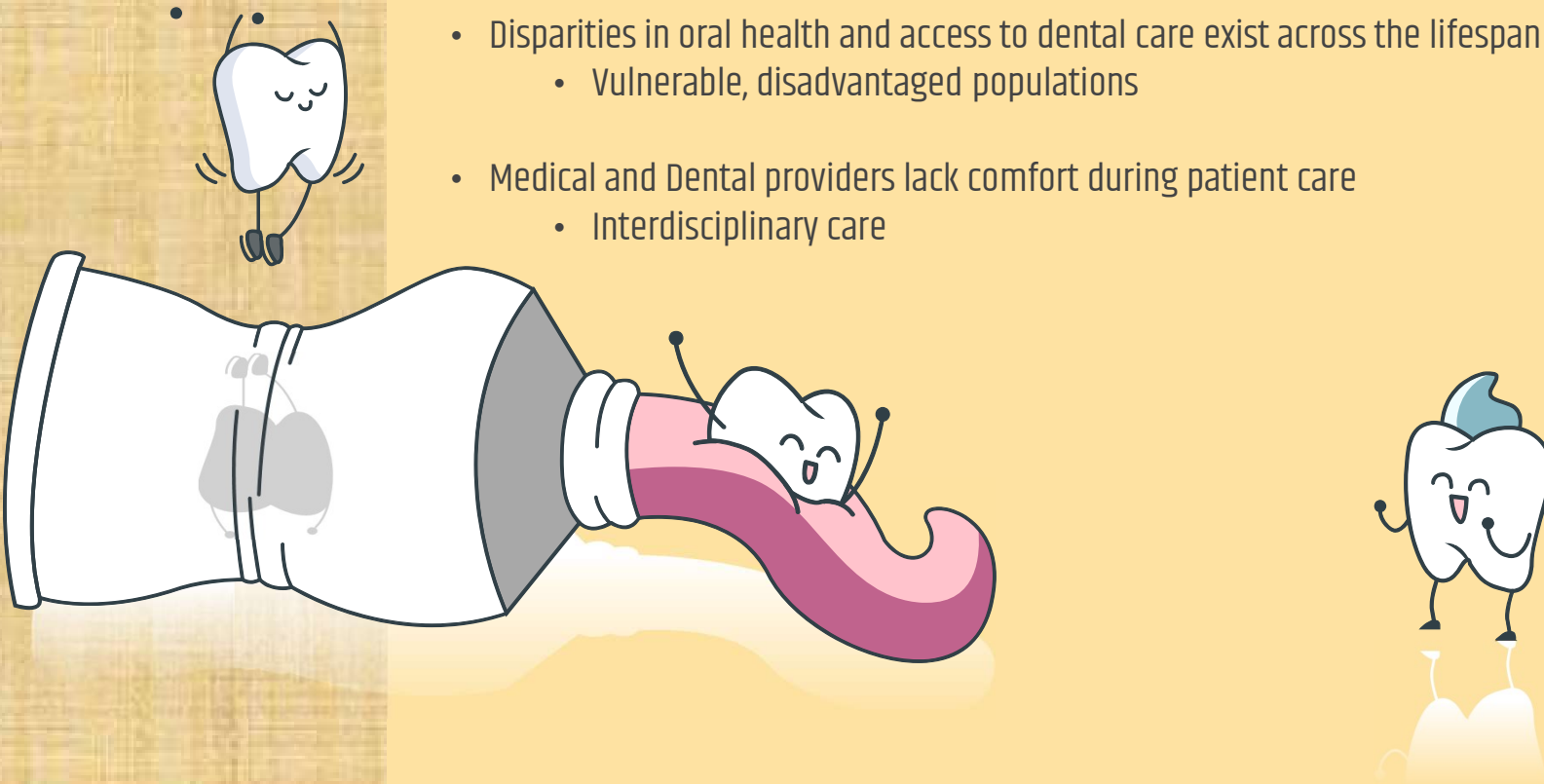
## 06

### **Promotion**

Discuss strategies for promoting oral health

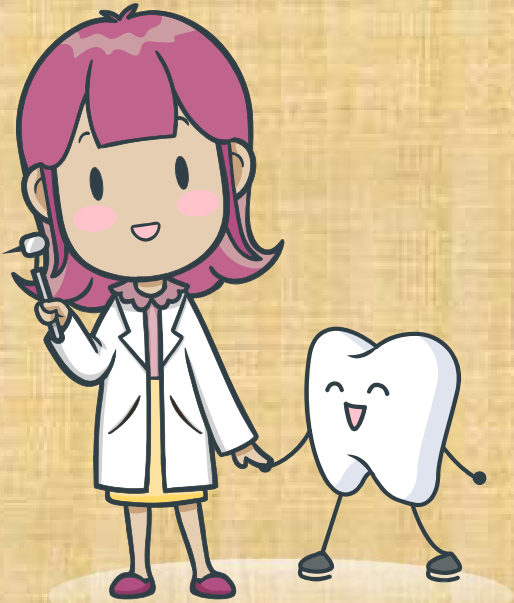
# INTRODUCTION

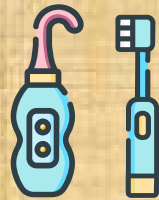
- Dental care is the most common unmet health need in the U.S.
- Oral disease affects systemic health
  - Preventable
- Disparities in oral health and access to dental care exist across the lifespan
  - Vulnerable, disadvantaged populations
- Medical and Dental providers lack comfort during patient care
  - Interdisciplinary care



## Current State of Oral Health in the U.S.

- Dental caries are the most common chronic disease in children ***and*** Periodontitis affects ~50% of U.S. adults
- 50,000 oral cancers are diagnosed annually
- 111 million patients see PCPs but not a dentist ***and*** 27 million patients see a dentist but not a PCP
- Americans: 63% aged 18+ and 80% aged 1-17 had a dental exam/cleaning
- Lack of systems in place for dental referrals
- \$143.2 billion in dental expenditures = 4% of total health care spending





## ORAL HEALTH

- Presence of oral wellness
- Absence of disease
- Oral wellness affects patients
- Oral pain has linkages for patients



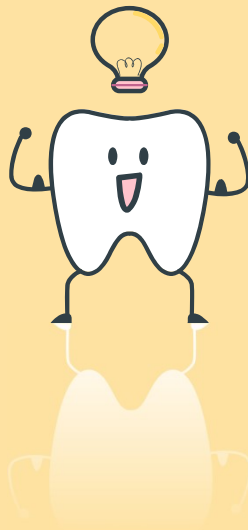
## ANATOMY

- Face and neck
- Temporomandibular joint
- Gums
- Teeth (surfaces and sequencing)
- Tongue
- Palate and posterior pharynx
- Floor of the mouth

# EQUIPMENT for EXAMINATION

## Examination

- Lighting
- Gloves
- Tongue blade
- Gauze
- Mouth mirror





# ANATOMY and EXAMINATION

## Face/Neck/TMJ

- Symmetry
- Lesions
- Adenopathy
- Mobility



## Gums

- Lift the lips to view
- Color
- Plaque and tartar build-up



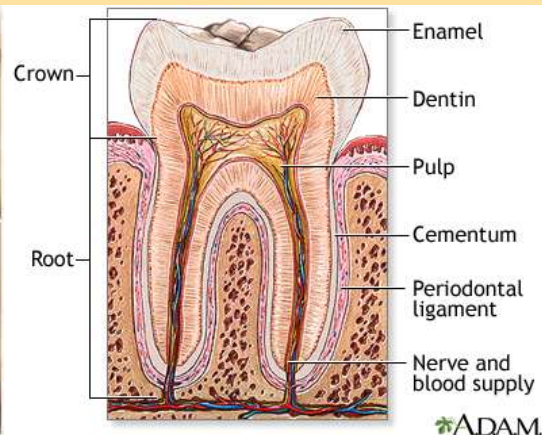
# ANATOMY and EXAMINATION

## Teeth

- All surfaces
- Sequencing

## Tongue

- Lesions
- Length of the frenulum
- Mobility



# ANATOMY and EXAMINATION

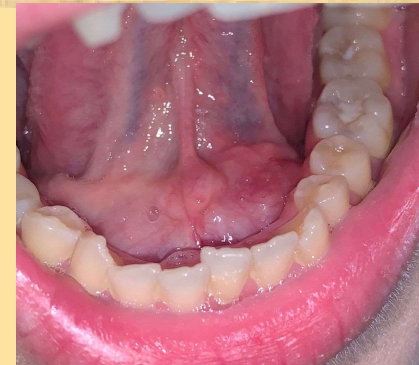
## Palate/Posterior Pharynx

- Contours of palate



## Floor of the mouth

- Masses



# ORAL HEALTH NEEDS and PROBLEMS

**Child Oral  
Health**

**Adult Oral  
Health**

**Pregnancy Oral  
Health**

**Geriatric Oral  
Health**

# CHILD

- **Caries**

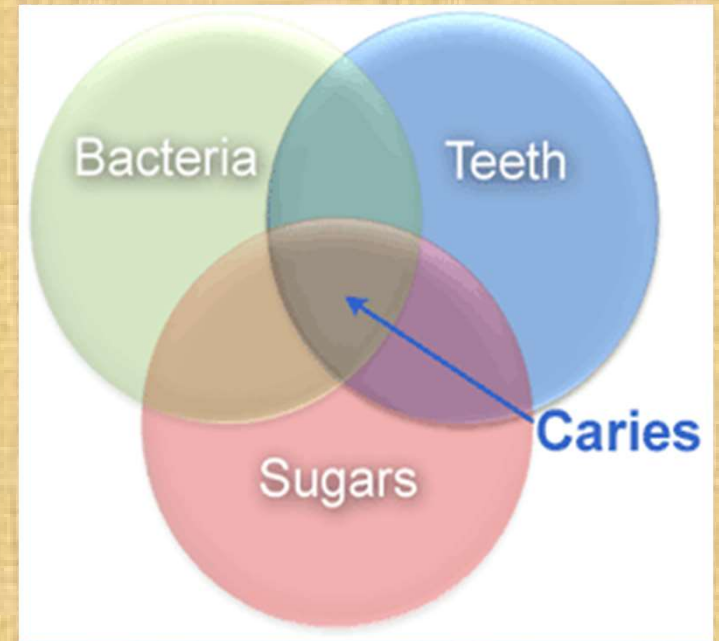
- Most common chronic dx of ages 6-19
- Preventable
- Destroy tooth structure
- ECC = early childhood caries (baby bottle decay)
- Develops from multifactorial process
- Consequences
- **Public health crisis**

- **Prevention**

- Assess teeth and oral health risk factors at all routine health appts
- Discuss caries prevention – oral hygiene, fluoride use, diet, dentist
  - Anticipatory guidance
    - Teething
    - Non-nutritive sucking
    - Injury prevention
    - Oral piercings/grills
    - Substance Use

- **Child neglect/abuse**

- Craniofacial, head, face, and neck are noted in more than 50% of cases





# ADULT

- **Caries**
  - RF: aging, comorbidities, bacteria, family hx, diet, lack of fluoride use, poor oral hygiene, physical disabilities, existing appliances or restorations, xerostomia, medications
- **Root caries**
  - Exposure to root - diet high in sugars - roots do not have enamel like the crown of the tooth = rapid progression of caries
- **Gingivitis**
  - Gingiva inflammation w/o bone or periodontal destruction
  - Gum edema, tenderness, redness, bleeding with brushing, bad taste/breath
  - RF: plaque stuck to teeth at gumline, hormonal level changes, oral foreign bodies
- **Periodontitis**
  - ***Leading cause of tooth loss in adults***
  - Chronic exposure of periodontal tissue to plaque leading to chronic inflammation = loss of supporting bone, periodontal ligament, tooth loosening, tooth loss
    - ***Bone loss cannot be reversed, only stopped***
  - RF: smoking, DM, HIV, pregnancy, poor oral hygiene, genetics
- **Tooth changes**
  - Normal aging process
    - Yellow color: Thinning enamel = dentin showing through
    - Attrition: Stained color with wear down



Healthy Gingiva



Gingivitis



Periodontitis



ROOT  
CARIES





# ADULT

- **Tooth loss**

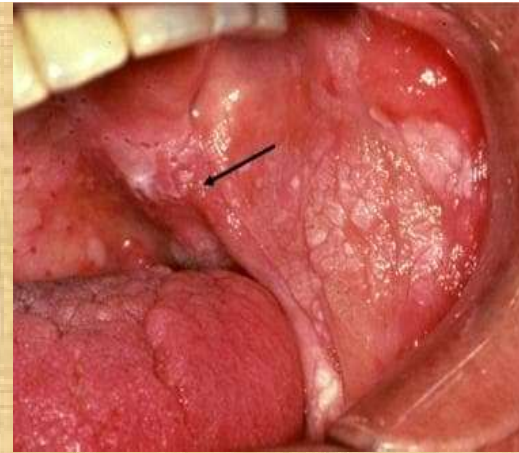
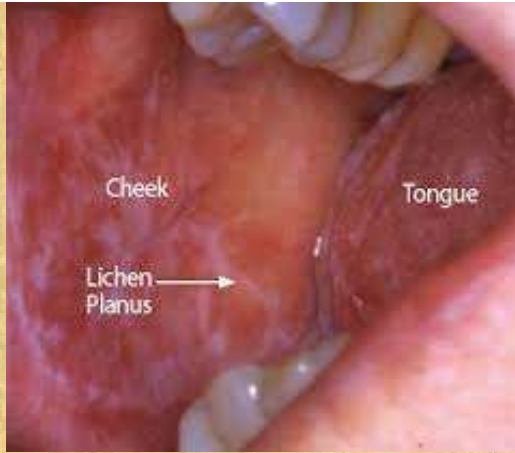
- Common in the elderly, but not adults
- Impacts: difficulty eating – decreased nutritional intake, negative feelings with appearance
  - Dentures

- **Common oral lesions**

- Candidiasis, lichen planus, leukoplakia, erythroplakia, geographical/fissured tongue, herpes labialis, aphthous stomatitis, oral cancers

- **Prevention**

- Oral hygiene
- Diet
- Fluoride toothpaste
- Minimize medications with oral effects
  - Gingival hyperplasia: anticonvulsants, methotrexate, cyclosporin, calcium channel blockers
  - Dental erosions from gastric reflux: progesterone, nitrates, beta-blockers, calcium channel blockers
  - Caries: sugar-containing preparations, xerostomia from anticholinergic effects of meds
- Substance use
  - ETOH, Tobacco, Cannabis, Methamphetamines
- Collaboratively manage patients requiring antibiotic prophylaxis or anticoagulants.
- Regular and routine dental visits



# PREGNANCY (Women)

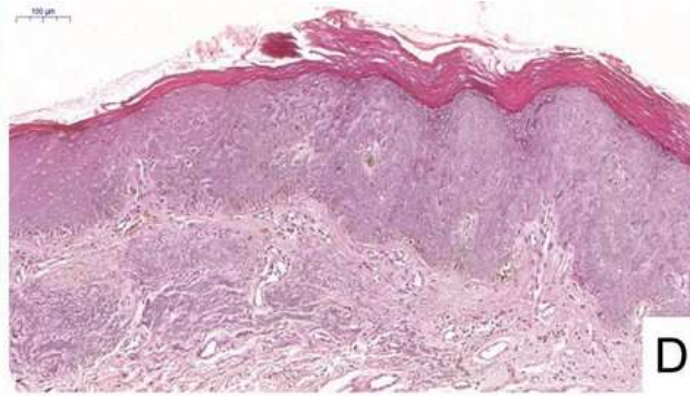
- **Gingivitis**
  - Affects 25-75% of pregnant women
    - Immunosuppression, hormonal changes
    - Identified during the 2<sup>nd</sup> trimester
- **Periodontitis**
  - Affects 15% of pregnant women
    - Associated with preterm birth and low birth weight
- **Caries**
  - Pregnancy increases the risk
  - Transmissible dx
    - Streptococcus mutans via saliva
- **Prevention**
  - Promote breastfeeding
  - Promote use of xylitol or chlorhexidine rinse
  - Educate on bottles at night
  - Clean infant's gums
  - Encourage 1<sup>st</sup> dental visit at 12 mo.
  - Promote oral health in pregnant women and newborn children
  - Diet

# GERIATRICS

- **Geriatric oral health is interconnected with systemic health**
  - Poor oral hygiene is associated with increased risk of pneumonia
  - Medications that can lead to dry mouth and increase the incidence of caries
  - Poor diabetes control worsens periodontal disease
  - Poor oral health can lead to failure to thrive and weight loss
- **Stats**
  - 50% of elderly patients note their dental health as poor
  - 1/5 have untreated dental decay
  - Aged 65 and older: 96% have had at least 1 cavity, 68 % have gum disease, 1/5 have lost all their teeth
  - Oral and pharyngeal cancers are most common in older adults (median 62 y/o)
  - Only 43% of elderly visit the dentist
    - 70% have no dental insurance – Medicare no longer covers preventative/outpt. dental treatment
  - 70-90% of nursing home residents cannot care for their dentures or brush their own teeth
- **Oral pain**
  - Gum swelling, broken or decayed teeth, ulcers, or abscesses
- **Squamous cell carcinoma**
  - Lips: dry, scaly lesions
- **Neglect/Abuse**
  - Malnutrition, facial injuries, broken teeth/dentures, poor hygiene



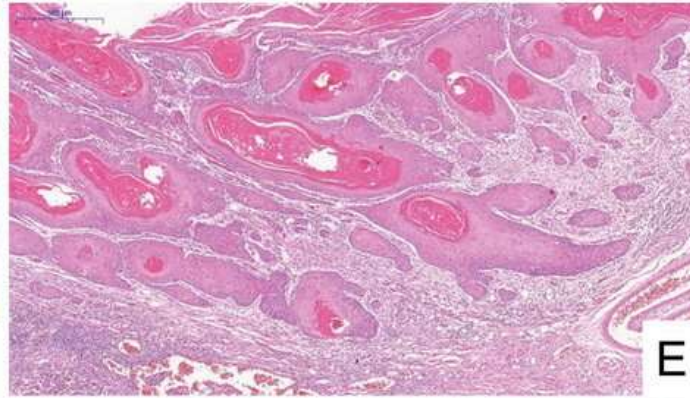
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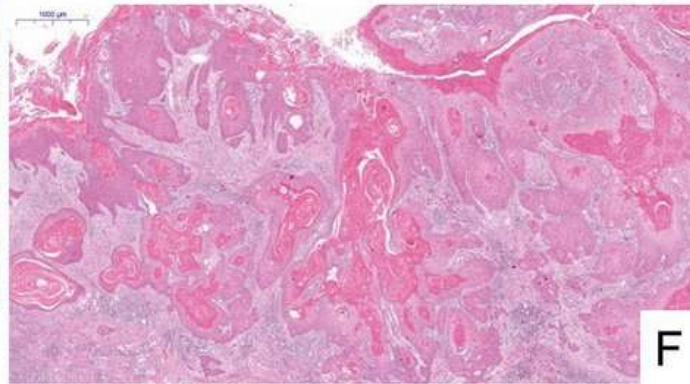
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E



C



F

# GERIATRICS

- **Common oral lesions**
  - Caries, Gingivitis, Periodontitis, Leukoplakia and erythroplakia, oral cancers
- **Commonly seen dental abnormalities and age-related changes**
  - Exams: must remove dentures, bridges, and partials if present
  - Cracked or missing teeth
  - Tooth decay
  - Signs of gum disease
  - Staining/discolored teeth
  - Attrition
  - Thinning and decreased elasticity of oral mucosa
  - Dry mucosa
  - Fissured tongue
  - Sublingual varicosities
- **Dentures**
  - Ulcer formation on the mucosa: Poor fitting, poor hygiene, left in too long
  - Angular cheilitis: common with old dentures with diminished height
  - Stomatitis: erythema and cobblestoning on the palate
  - Care: remove at night, clean and soak over night

# GERIATRICS

- **Prevention**

- Oral hygiene
- Diet
- Fluoride toothpaste
- Minimize medications with oral effects
  - Gingival hyperplasia: anticonvulsants, methotrexate, cyclosporin, calcium channel blockers
  - Dental erosions from gastric reflux: progesterone, nitrates, beta-blockers, calcium channel blockers
  - Caries: sugar-containing preparations, xerostomia from anticholinergic effects of meds
- Avoid ETOH and Tobacco
- Keep dentures clean
- Encourage regular dental visits
- Recommend assistive devices for caregivers/patients with dementia, stroke, arthritis
- Advocate for patients in dependent care facilities

**ACCESS to  
CARE**

**URBAN**

**ORAL HEALTH  
DISPARITIES**

**RURAL**



**URBAN  
VS  
RURAL**

**DENTISTS**

**POOR ORAL  
HEALTH**

**INSURANCE**

**ACCESS**

**URBAN  
and  
RURAL**

**Health  
Literacy**

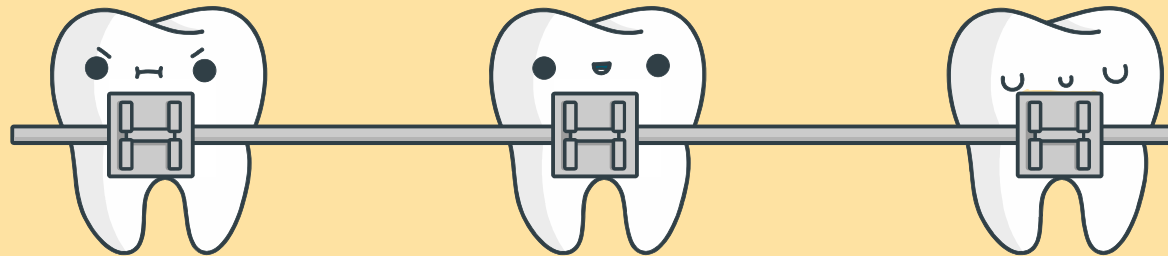
**Other Risk  
Factors**

**OUTCOMES**

# OUR ROLE: Promotion

## Screening

History, Risk Assessment,  
and Examination



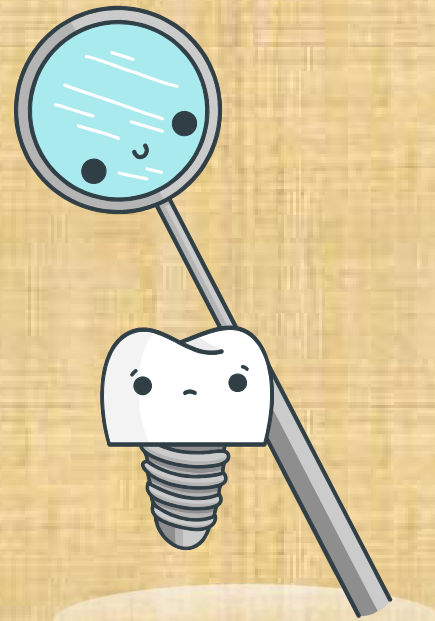
## Anticipatory Guidance

Caries, Oral health maintenance,  
Referral, Fluoride

Dental Professionals, Patient and  
Community Advocacy

## Collaboration and Advocacy

# THANKS!



**QUESTIONS?**

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# REFERENCES

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