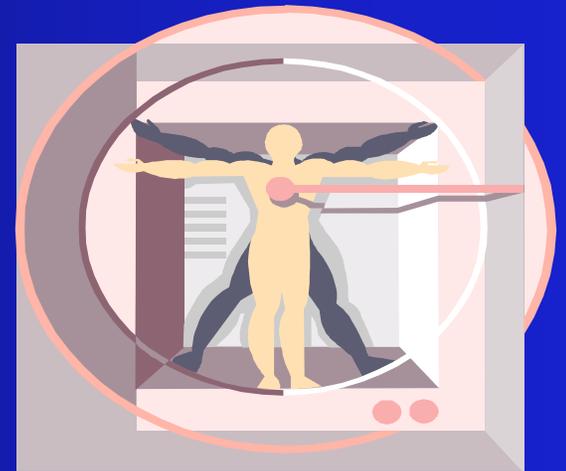


HIV Oral Health and Systemic Health



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Links Between Oral Health and Systemic Health:
developing a causal link between oral conditions and morbidity and mortality



The Importance of Oral Health

- Diabetes
- Heart Disease
- Stroke
- Pregnancy Issues
- Osteoporosis
- Respiratory Infections



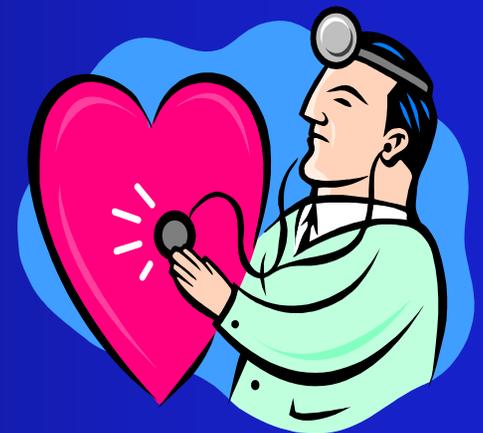
Oral Health Links to Systemic Diseases

- Periodontal Oral Health and Diabetes
 - Persons with noninsulin–dependent diabetes mellitus are three times more likely to develop periodontal disease than non diabetics
 - Evidence exists that a history of chronic periodontal disease can disrupt diabetic control



Oral Health Links to Systemic Diseases

- Periodontal Disease and Heart Disease:
 - Oral bacteria can affect the heart when entering blood stream, attaching to fatty plaques in the coronary arteries contributing to clot formation



Oral Health Links to Systemic Diseases

- Strokes
 - Studies do suggest that a relationship between periodontal disease and stroke.
 - One study showed people diagnosed with acute cerebrovascular ischemia were found more likely to have an oral infection



Oral Health and Systemic Disease

- Preterm Low Birth Weight Babies
 - Severe periodontal disease in pregnant women can lead to significant increase in the risk of delivering preterm low birth weight babies
 - Theorize that oral pathogens release toxins that reach the human placenta via mother's blood and affect fetal growth



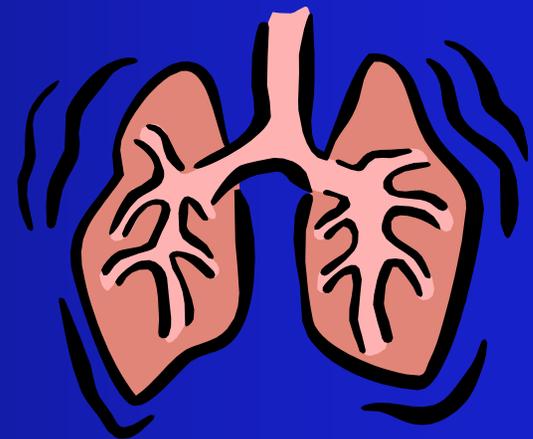
Oral Health Links to Systemic Disease

- Osteoporosis
 - Studies suggest that osteoporosis may lead to tooth loss because the density of supporting tooth bone may be decreased



Oral Health Links to Systemic Diseases

- Respiratory Diseases
 - Scientists have found that oral bacteria can be aspirated into the lung to cause respiratory diseases (pneumonia) or exacerbate existing respiratory diseases (COPD)



Oral Infections and Chemotherapy

- Oral mucositis can be a major problem during chemotherapy with some anticancer drugs
 - Estimates that approximately 400,000 patients will experience oral complications from chemotherapy
 - Ulcerated mucosa is susceptible to infection by microbial flora that normally inhabit the oral cavity



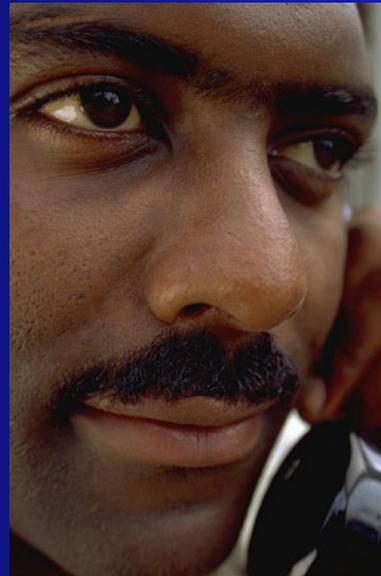
Xerostomia

- Causes
 - Dry mouth may be brought about through medications (antihypertensives, antidepressants), chemotherapy or radiation, Sjorgen's syndrome or HIV-associated salivary gland disease
- Treatments
 - OTC or prescription (pilocarpine)



Facial Signs and Symptoms of Systemic Disease

A number of signs and symptoms of disease can be detected in or around the head and neck



Diseases and Conditions causing lesions of oral mucosa: viral

Disease	Usual Location	Clinical Features	Course
Herpes Simplex	Palate and gingiva	Small vesicles that can rupture then coalesce	Heals spontaneous in approx. 7d
Herpes Zoster	Cheek, tongue, palate	Gingiva, palate and pharynx	Gradual healing post neuralgia
Primary HIV infection	Gingiva, palate and pharynx	Acute gingivitis and oral pharynx ulcers	Followed by HIV sero-conversion

Diseases and conditions causing lesions of oral mucosa: bacterial and fungal

Disease	Usual Location	Clinical Features	Course
Primary syphilis (chancre)	Lip, tongue, tonsils	Small papule developing into ulcers	Chancre heals in 1 – 2 weeks
Gonorrhoea	At site of inoculation	Dryness or heat in month; intense pain	Resolves with antibiotic therapy
Candidiasis	Any area of oral mucosa	White patches or red patches	Resolves with antifungal

Oral Health-Related Quality of Life Dimensions

- Physical well-being
- Mental well-being
- Social well-being



Oral Health-Related Quality of Life Dimensions

- Nutrition: Oral dysfunction can seriously impact nutritional status
- Patients who are edentulous (full or partial) favor diets higher in carbohydrates and lower in protein content
 - Maintaining muscle mass



Oral Health-Related Quality of Life Dimensions

- Eating and Chewing
 - Missing teeth are qualitatively linked to a poorer diet
 - Chewing ability declines as tooth loss increases, regardless of denture replacement



Oral Health-Related Quality of Life Dimensions

- Sleep Issues
 - 3 to 5% percent of the population reported trouble sleeping because of pain or discomfort from dental problems



Oral Health-Related Quality of Life Dimensions

- Psychosocial Dimensions
 - Avoidance of social contact due to facial appearance
 - Depressive effects of persistent oral pain



Drug Regimen Compliance and Oral Health

HIV treatment compliance may be impacted by oral pain, xerostomia, dysphagia



The Special Importance of Oral Health in HIV Patients

Oral lesions in patients with HIV may be particularly large, painful or aggressive



Aphthous Ulcerations

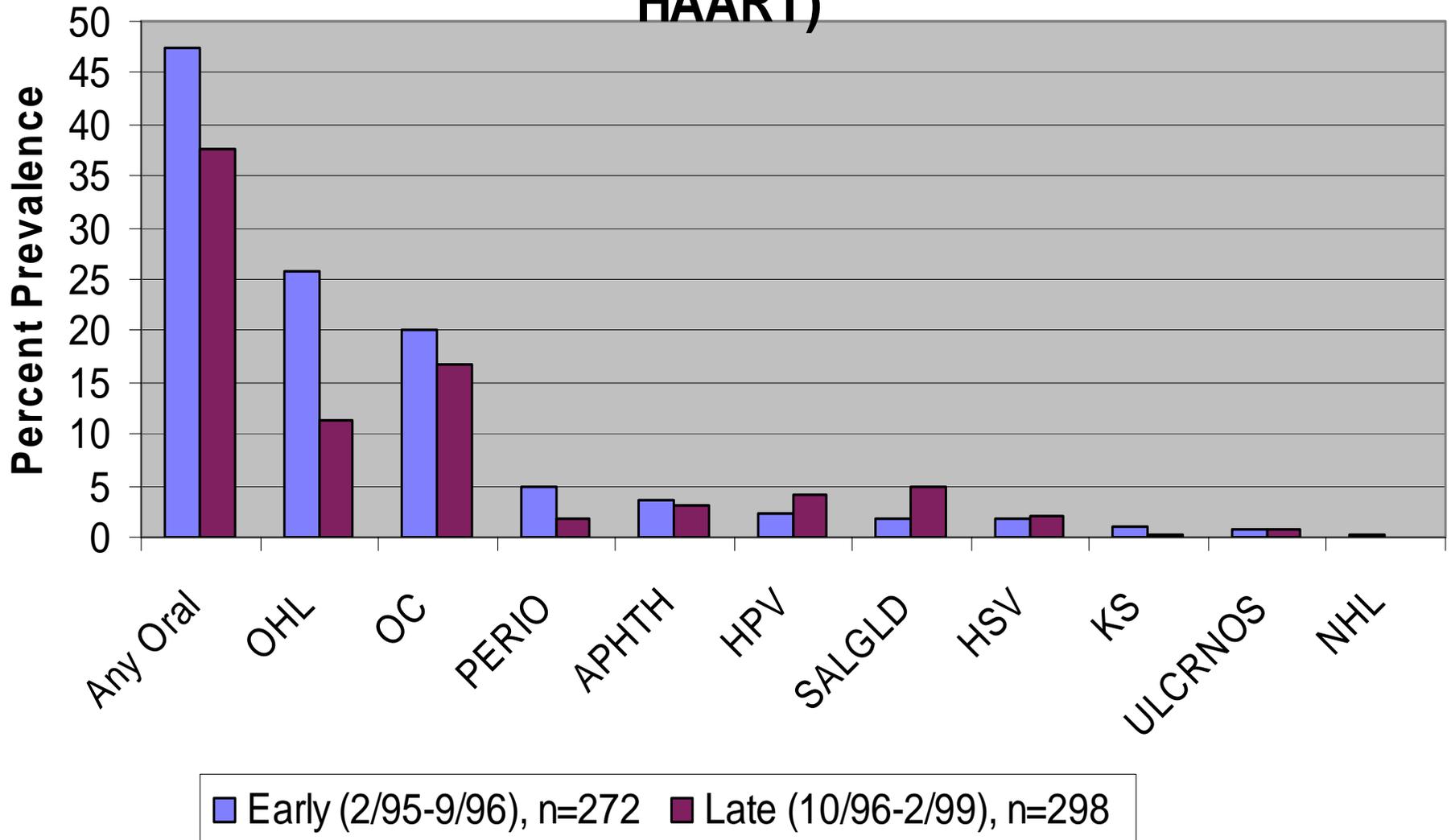


Necrotizing Ulcerative Periodontitis

HIV-associated oral lesions

- Early studies reported that approximately 90% of HIV+ patients will present with at least one oral lesion in the course of their illness.
- Current studies report the prevalence of oral lesions has significantly declined

Comparative Prevalence of Oral Manifestations of HIV at UNC Early (preHAART) vs. Late (post HAART)



The Special Importance of Oral Health in HIV Patients: Oral Lesions

- Oral lesions may act as markers for seroconversion
- Oral Lesions may herald decline in immune function

- Pseudomembraneous candidiasis



Additional References

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- Website of the American Academy of Periodontology <<http://www.perio.org>>.
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