The Ventura County
Dental Hygienists' Association
presents:

Cracking Perio Codes with Class

Diagnostic Decisions



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Cracking Periodontal Codes with Class

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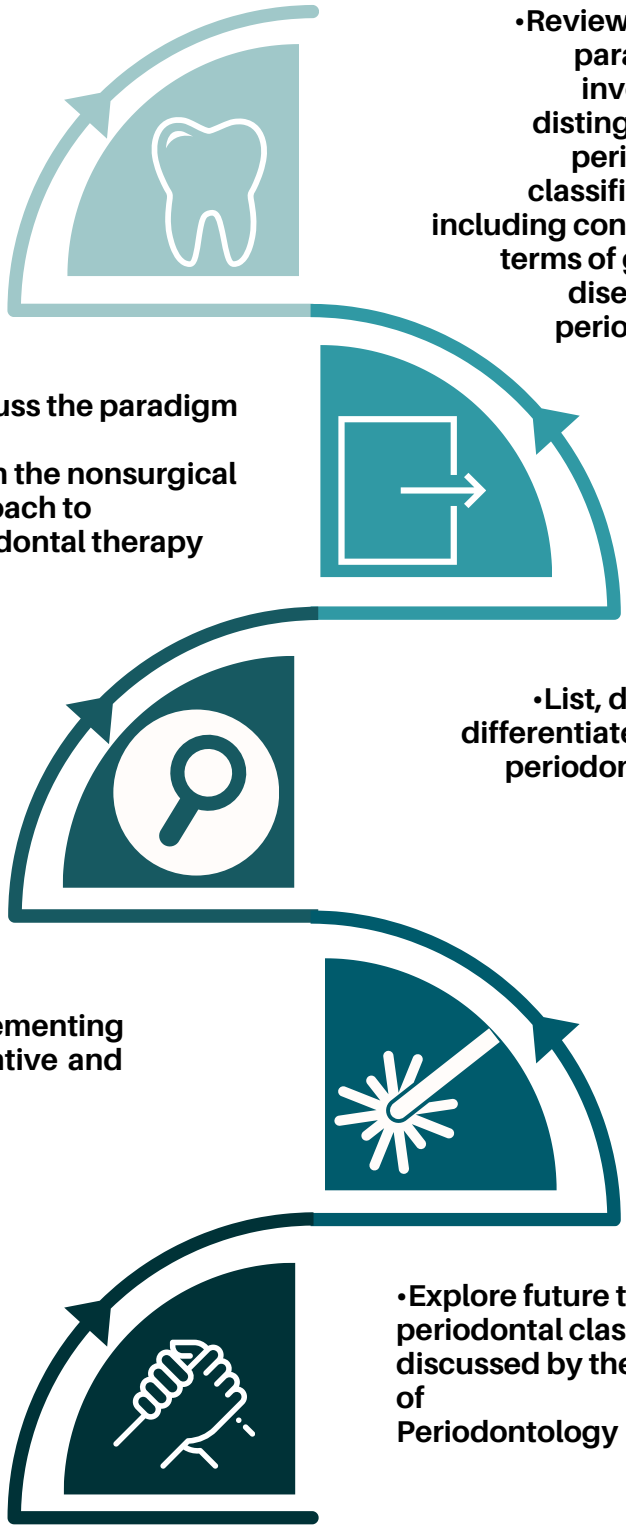
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Implant Diseases

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CDT Coding | Clinical Decision Making

Course Objectives:



•Review clinical parameters involved in distinguishing periodontal classifications, including contrasting terms of gingival disease and periodontitis

•Discuss the paradigm shift
within the nonsurgical approach to periodontal therapy

•List, describe, and differentiate the various periodontal diseases

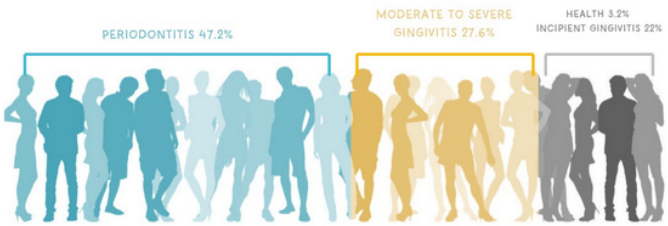
•Analyze effective protocols for implementing diagnostic, preventive and periodontal codes

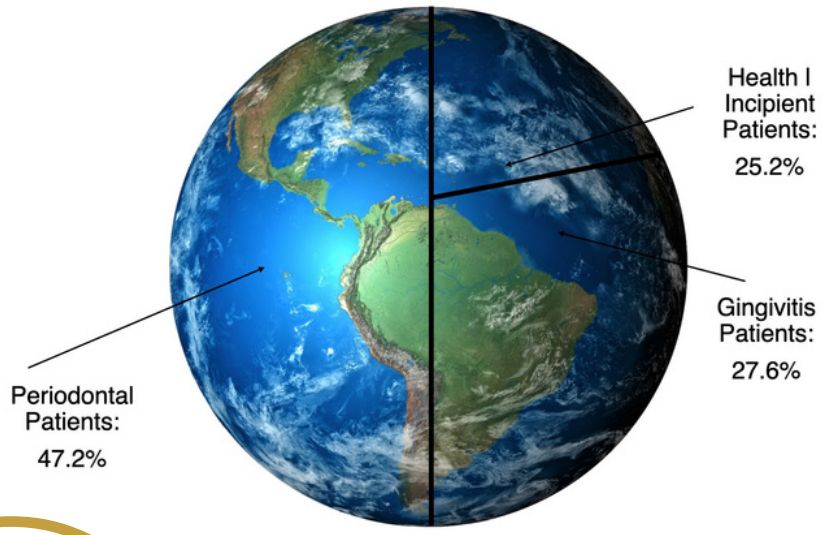
•Explore future trends of periodontal classifications as discussed by the American Academy of
Periodontology

What is the National Prevalence of Gingivitis?

- 93.9% of subjects ranging age 18-90 years old without attachment loss had a GI above .50.
- 55.7% of subjects had a GI at 1.0 or higher

The ADA estimates a 47.2% prevalence of periodontitis among U.S. adults [in patients age 30-79] by the Journal of Dental Research





NOTES

Periodontal Classifications

As described by the American Academy of Periodontology



1999 AAP Classifications

- CLASSIFICATION 0: HEALTHY
- CLASSIFICATION I : GINGIVITIS
- CLASSIFICATION II: CHRONIC PERIODONTITIS
- CLASSIFICATION III: AGGRESSIVE PERIODONTITIS
- CLASSIFICATION IV: PERIODONTITIS AS A MANIFESTATION OF SYSTEMIC DISEASE
- CLASSIFICATION V: NECROTIZING DISEASES
- CLASSIFICATION VI: ABSCESSES OF THE PERIODONTIUM
- CLASSIFICATION VII: PERIODONTITIS ASSOCIATED WITH ENDODONTIC LESIONS
- CLASSIFICATION VIII: DEVELOPMENTAL OR ACQUIRED DEFORMITIES AND CONDITIONS

2017 AAP Classifications

Periodontal Health, Gingival Diseases & Conditions			Periodontitis		
Periodontal Health & Gingival Health	Gingivitis: Dental Biofilm-Induced	Gingival Diseases: Non-Dental Biofilm-induced	Necrotizing Periodontal Diseases	Periodontitis	Periodontitis as a manifestation of Systemic Disease

Other Conditions Affecting the Periodontium				
Systemic diseases or conditions affecting the periodontal supporting tissues	Periodontal abscesses and endodontic-periodontal lesions	Mucogingival deformities and conditions	Traumatic occlusal forces	Tooth and prosthesis related factors

Periodontal Health & Gingival Health



Spectrum of Clinical Health

- Clinical gingival health on an intact periodontium
- Clinical gingival health on a reduced periodontium
  - Stable periodontitis patient
  - Non-periodontitis patient
  - Recession, crown lengthening

Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84



Intact Periodontium	Health	Gingivitis
Probing Attachment Loss	No	No
Probing Pocket Depths	3mm or less	3mm or less
Bleeding on probing	Less than 10%	Yes
Radiological Bone Loss	No	No

Longitudinal studies have demonstrated that sites that progress to attachment loss have persistently greater levels of gingival inflammation

Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

NOTES

Periodontal Health on a Reduced Periodontium

Reduced Periodontium NON PERIODONTITIS	Health	Gingivitis
Probing Attachment Loss	Yes	Yes
Probing Pocket Depths	3mm or less	3mm or less
Bleeding on probing	Less than 10%	Yes
Radiological Bone Loss	Possible	Possible

- Example: recession, crown lengthening
- No current evidence for increased risk of periodontitis

Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

Reduced Periodontium Successfully Treated Periodontitis	Health	Gingivitis
Probing Attachment Loss	Yes	Yes
Probing Pocket Depths	4mm or less w no site 4mm with BOP	3mm or less
Bleeding on probing	Less than 10%	Yes
Radiological Bone Loss	Yes	Yes



Characterized by an absence of bleeding on probing, erythema, edema and patient symptoms in the presence of reduced clinical attachment and bone levels.

Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

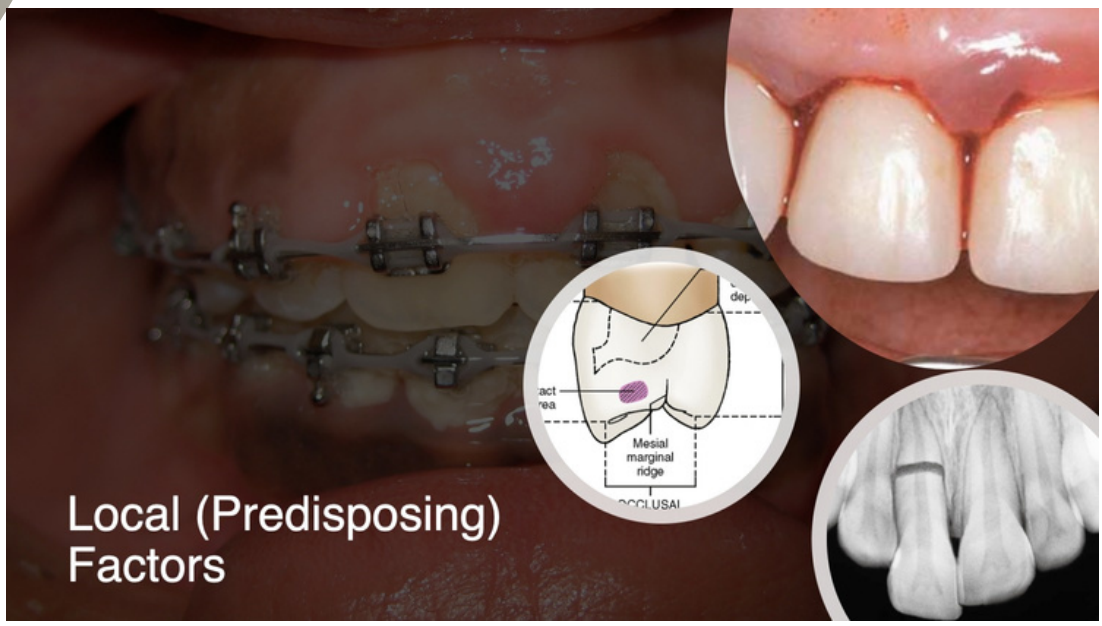
NOTES

Gingivitis



A nonspecific inflammatory condition •Dental biofilm-induced •Non-dental biofilm induced

Incipient Gingivitis I Periodontal Health	<10% of the mouth is affected Mild erythema Broken line of bleeding Can progress to localized gingivitis (10-30% BOP)
Mild Gingivitis	BOP scores greater than 30% Minor tissue changes
Moderate Gingivitis	BOP scores greater than 30% Erythema, edema and enlargement
Severe Gingivitis	Bleeding scores greater than 30% Overt erythema and edema Bleeding when touched rather than probing



Systemic (Modifying): Smoking





Systemic (Modifying): Metabolic

- Excess glucose is toxic and directly induces mitochondrial stress and enhanced respiratory burst in inflammatory cells that activate proinflammatory mediator cascades





Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

Modified by Nutrition







Pharmacological Agents

- Drug-influenced gingival enlargements
- Anticonvulsants
- Immunosuppresants
- Calcium Channel Blockers
- Antihistamines
- Antidepressants
- Anticoagulants

- Severity of overgrowth is affected by level of self-care.



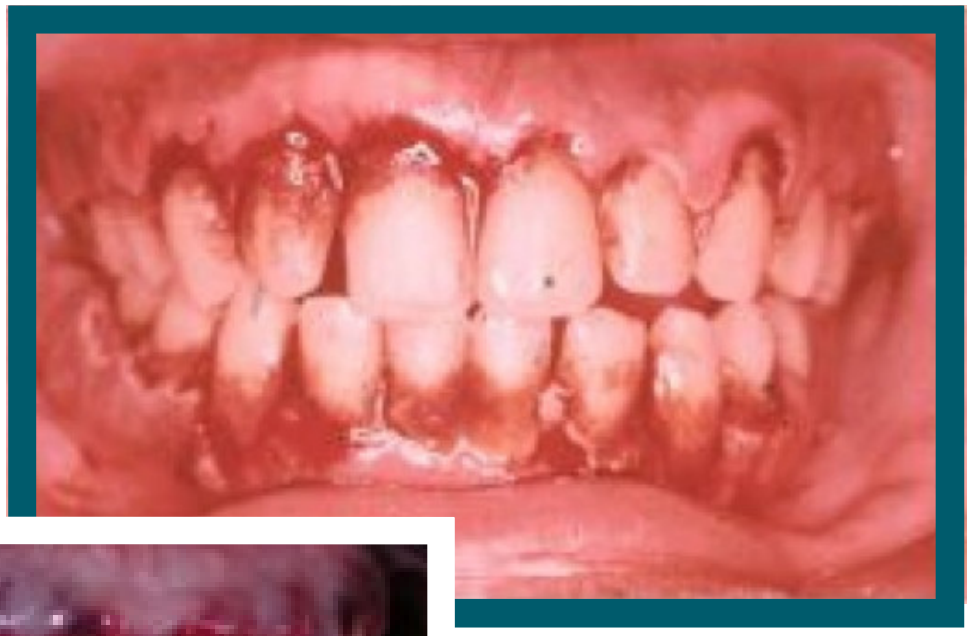
Systemic (Modifying): Hormones





Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

Systemic Factors: Hematological







Non-Dental Plaque-Induced



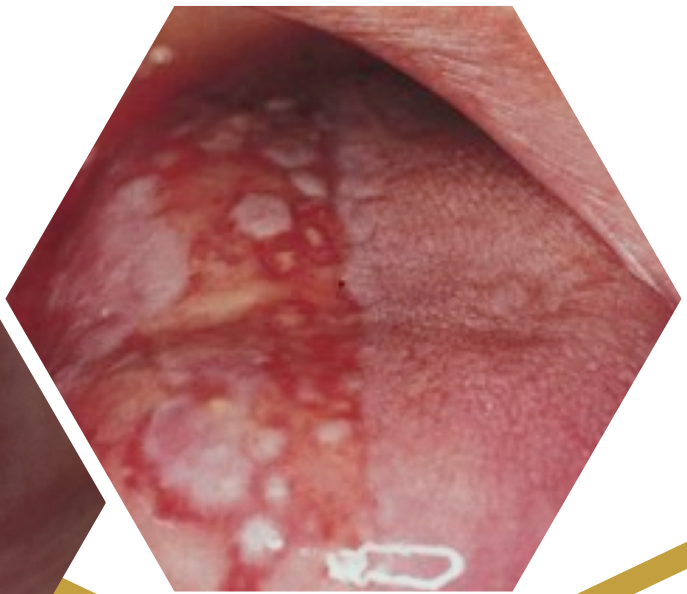
Bacterial Origin

- Neisseria gonnorrhoeae
- treponema pallidum
- Mycobacterium
  - Primary lesion: ulcer with painless regional lymph enlargement.
  - Secondary: painful induration w exudate
- Streptococcal
  - Group A: Strep throat, scarlet fever, impetigo, TSS, cellulitis



Chapple ILC, Mealey BL, et al. Periodontal health and gingival diseases and conditions on an intact and a reduced periodontium: Consensus report of workgroup 1 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Periodontol. 2018;89 (Suppl 1): S74-S84

Viral Origin





Primary Herpetic Gingivostomatitis (HSV1)

Clinical manifestations: widespread inflammation, intense pain of the gingiva, small clusters of vesicles which later burst forming yellowish ulcers that are surrounded by a red halo, headache, fever, swollen lymph nodes, sore throat, malaise.





Kaposi's Sarcoma

- Cancer that develops from the cells that line lymph or blood vessels, appears as tumors on mucosal surfaces/skin surfaces
- Most common: epidemic or AIDS-related KS.

Oral Infections of Fungal Origin

Candida species infections
Histoplasmosis





Linear Gingival Erythema

- Previously termed HIV-associated gingivitis (HIV-G)
- Characterized by a 2-3mm marginal band of intense erythema in the free gingiva
  Criterion: lack of response to conventional self-care and periodontal therapy
- Standard protocol should include .12% chlorhexidine gluconate, consideration of antibiotics.
  - Antiretroviral therapies with antifungal therapy



Mucocutaneous Disorders

Erythema multiformesle





Lichen Planus



BEFORE (Lichen Planus)





AFTER 4 wks w/CloSYS





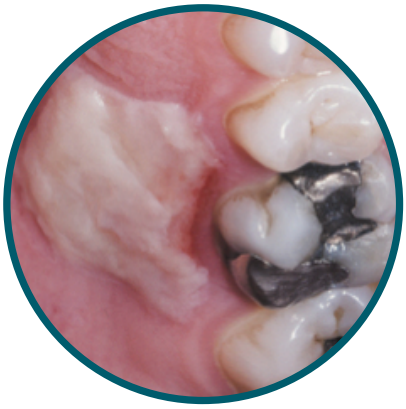
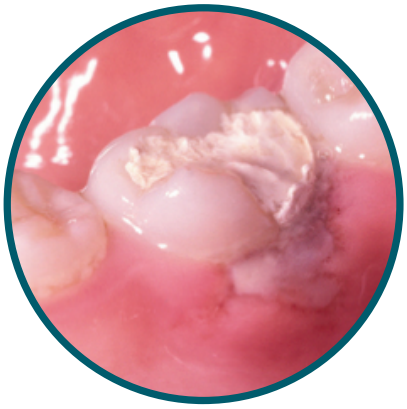
Mucocutaneous Disorders

Mucous Membrane Pemphigoid
Oral Pemphigus Vulgaris





Non-Plaque Traumatic Lesions

NECROTIZING Disease



- Primary sign: punched out papilla (NOT hyperplasia)
- Pseudomembrane
- Fetid odor
- Pain
- Severe inflammation

•NUP can be a sequelae of a single or multiple episodes of NUG or may be the result of the occurrence of necrotizing disease at a previously periodontically involved site.

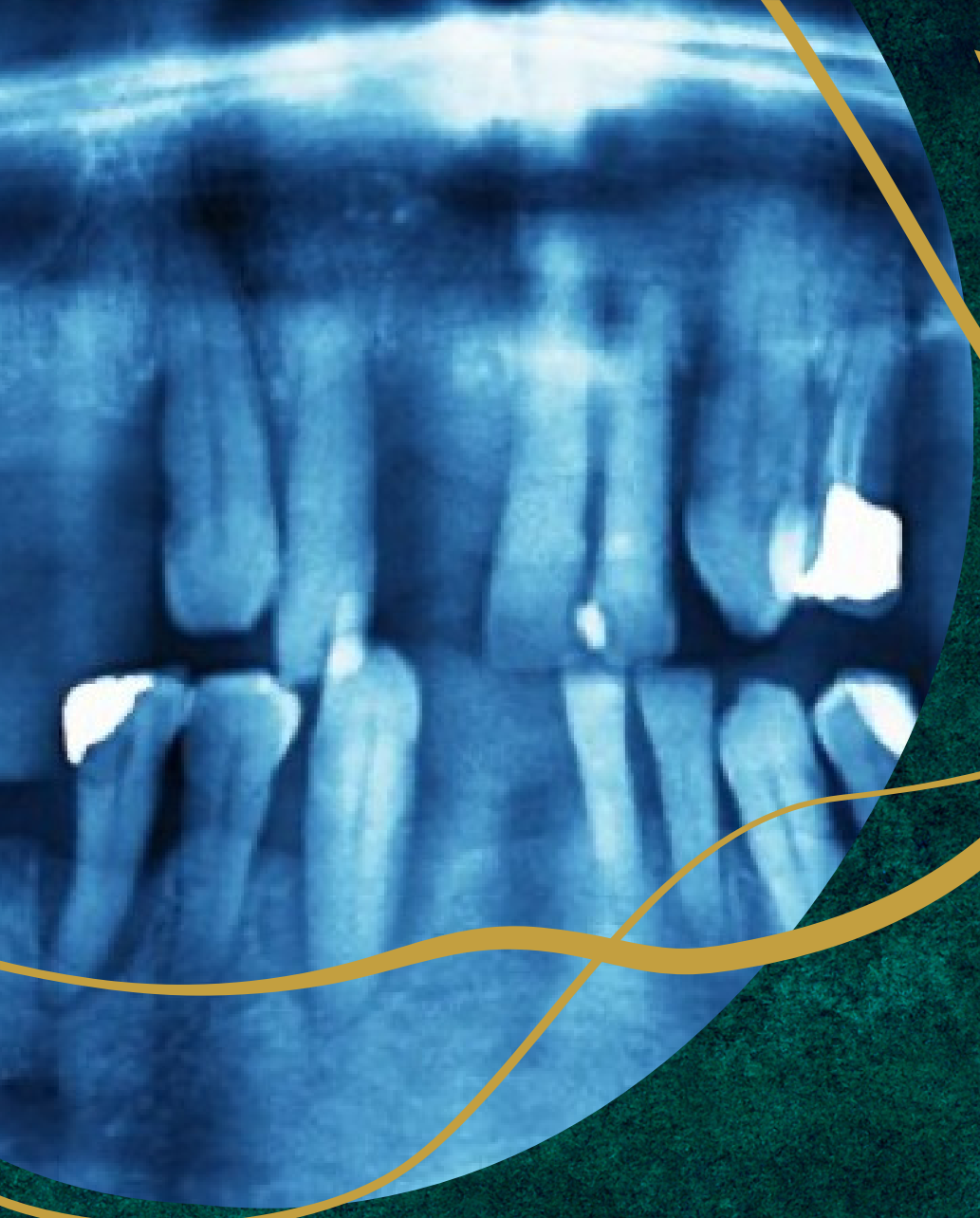
PERIODONTITIS

Step 1: Initial Case Overview to Assess Disease	Screen: • Full mouth probing depths • Full mouth radiographs • Missing teeth Mild to moderate periodontitis will typically be either Stage I or Stage II Severe to very severe periodontitis will typically be either Stage III or Stage IV
Step 2: Establish Stage	For mild to moderate periodontitis (typically Stage I or Stage II): • Confirm clinical attachment loss (CAL) • Rule out non-periodontitis causes of CAL (e.g., cervical restorations or caries, root fractures, CAL due to traumatic causes) • Determine maximum CAL or radiographic bone loss (RBL) • Confirm RBL patterns For moderate to severe periodontitis (typically Stage III or Stage IV): • Determine maximum CAL or RBL • Confirm RBL patterns • Assess tooth loss due to periodontitis • Evaluate case complexity factors (e.g., severe CAL frequency, surgical challenges)
Step 3: Establish Grade	• Calculate RBL (% of root length x 100) divided by age • Assess risk factors (e.g., smoking, diabetes) • Measure response to scaling and root planing and plaque control • Assess expected rate of bone loss • Conduct detailed risk assessment • Account for medical and systemic inflammatory considerations

Stage descriptions drawn from Tonetti, Greenwell, Kornman. *J Periodontol* 2018;89 (Suppl 1): S159-S172.

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NOTES:



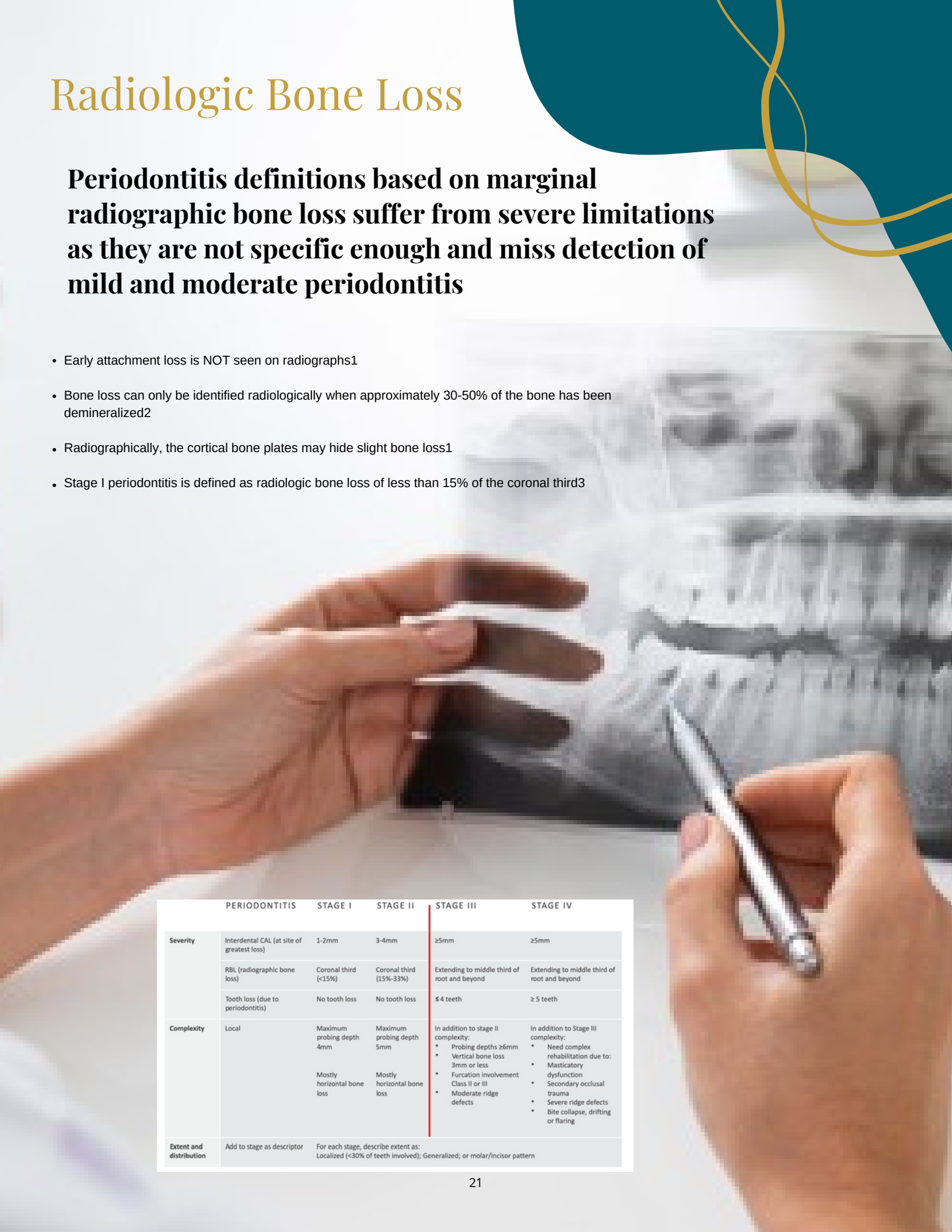
Radiographic Assessment

A comprehensive overview

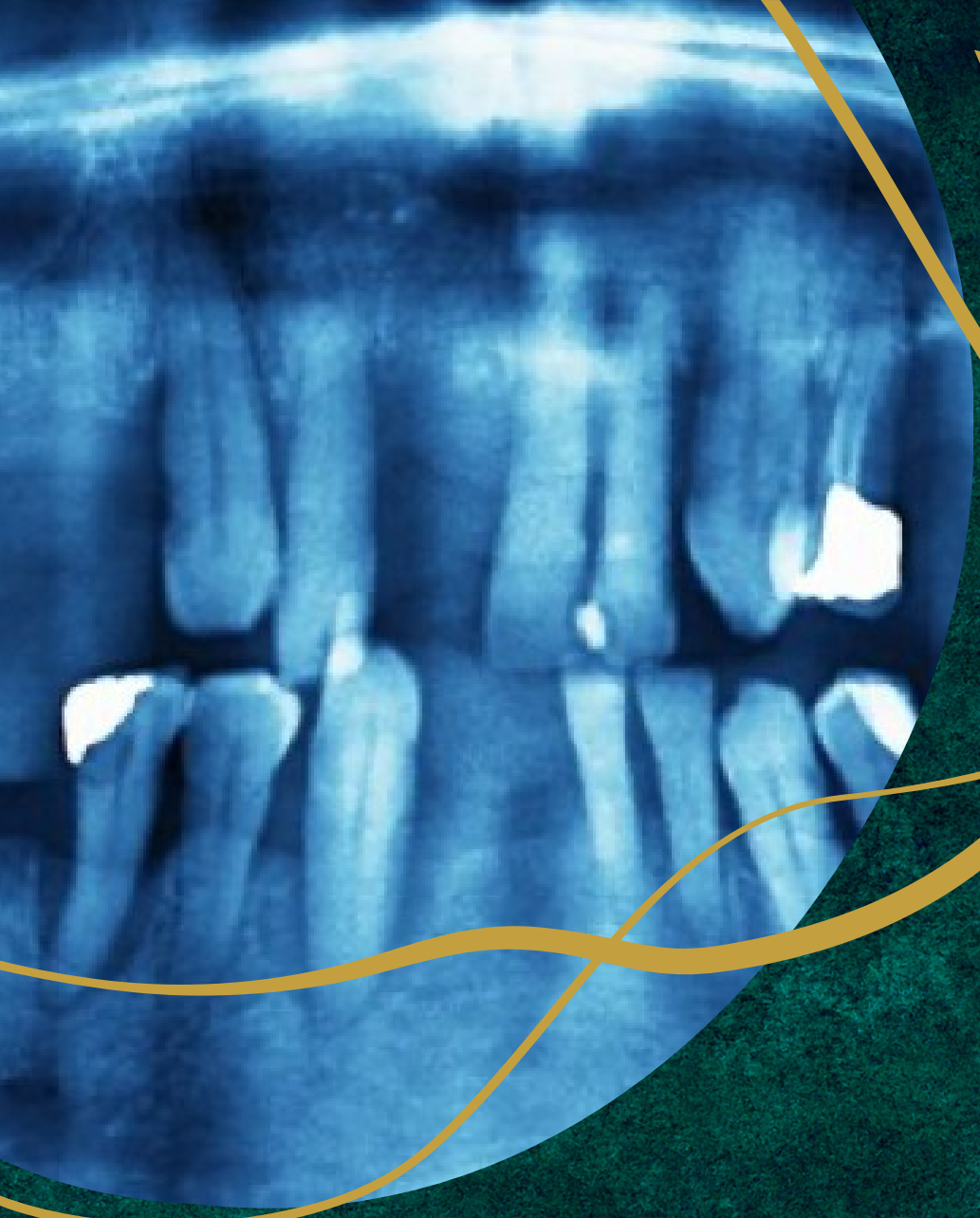
Radiologic Bone Loss

Periodontitis definitions based on marginal radiographic bone loss suffer from severe limitations as they are not specific enough and miss detection of mild and moderate periodontitis

- Early attachment loss is NOT seen on radiographs1
- Bone loss can only be identified radiologically when approximately 30-50% of the bone has been demineralized2
- Radiographically, the cortical bone plates may hide slight bone loss1
- Stage I periodontitis is defined as radiologic bone loss of less than 15% of the coronal third3



	PERIODONTITIS	STAGE I	STAGE II	STAGE III	STAGE IV
Severity	Interdental CAL (at site of greatest loss)	1-2mm	3-4mm	≥5mm	≥5mm
	RBL (radiographic bone loss)	Coronal third (<15%)	Coronal third (15%-33%)	Extending to middle third of root and beyond	Extending to middle third of root and beyond
	Tooth loss (due to periodontitis)	No tooth loss	No tooth loss	≤ 4 teeth	≥ 5 teeth
Complexity	Local	Maximum probing depth 4mm Mostly horizontal bone loss	Maximum probing depth 5mm Mostly horizontal bone loss	In addition to stage II complexity: • Probing depths ≥6mm • Vertical bone loss 3mm or less • Furcation involvement Class II or III • Moderate ridge defects	In addition to Stage III complexity: • Need complex rehabilitation due to: • Masticatory dysfunction • Secondary occlusal trauma • Severe ridge defects • Bite collapse, drifting or flaring
Extent and distribution	Add to stage as descriptor	For each stage, describe extent as: Localized (<30% of teeth involved); Generalized; or molar/incisor pattern			



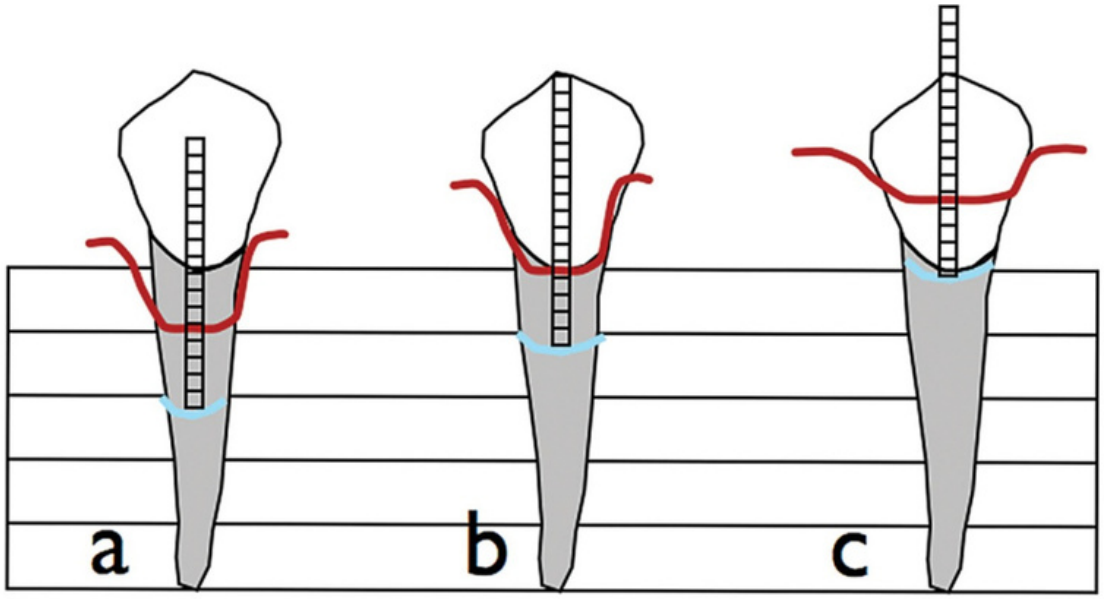
Clinical Assessment

"The very earliest signs of periodontitis must be detected clinically, not radiographically"
~Gehrig

REFERENCE: 1. Gehrig JS, Willmann DE, eds. Foundations of Periodontics for the Dental Hygienist. 3rd ed. Philadelphia, PA: Wolters Kluwer; 2011.

Gingival Disease vs. Periodontal Disease

Gingival Disease	Periodontal
• Bulbous papilla, intact	• Bulbous, blunted papilla or cratered papillae
• Position of the margin: above the CEJ	• Position of the margin: above or below the CEJ
• Pseudopocketing	• Apical Migration of the Junctional Epithelium



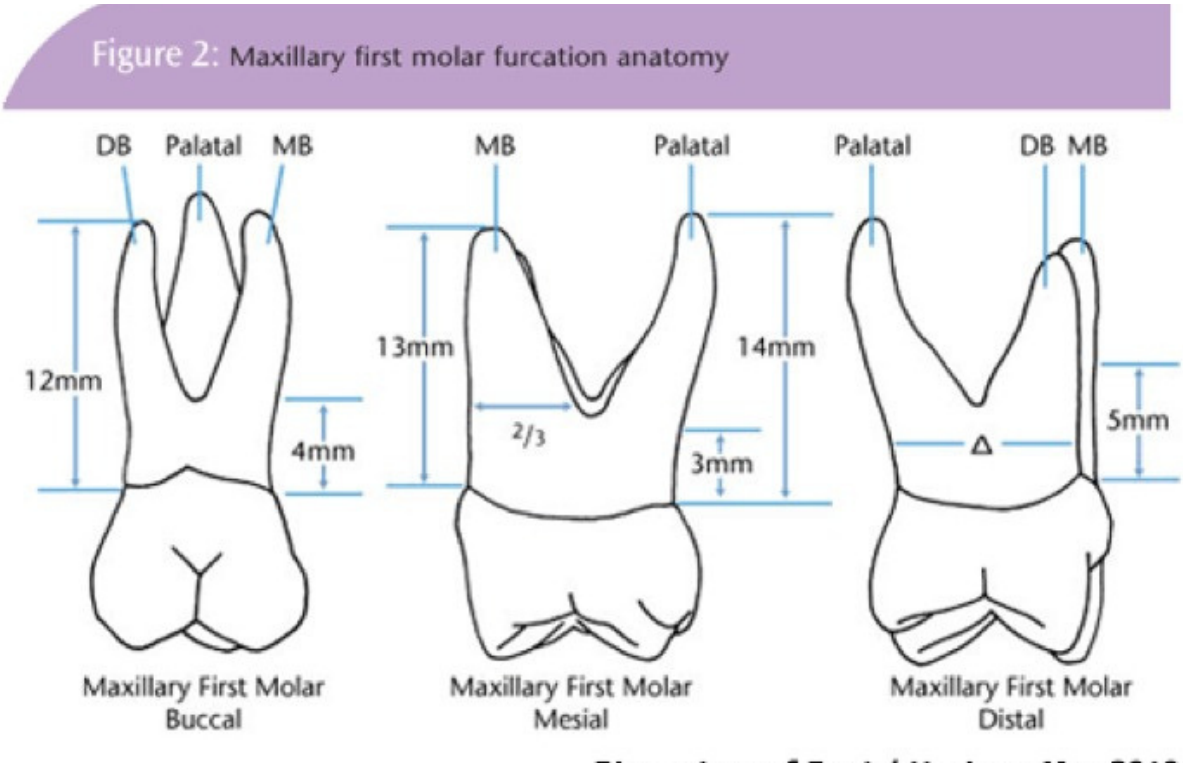
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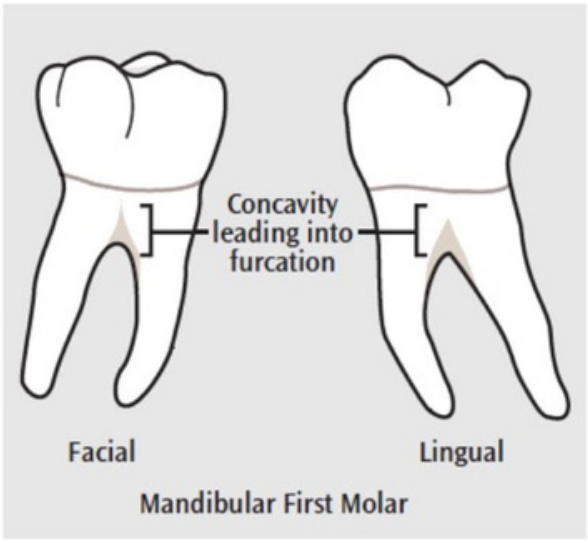
Comprehensive Periodontal Assessments

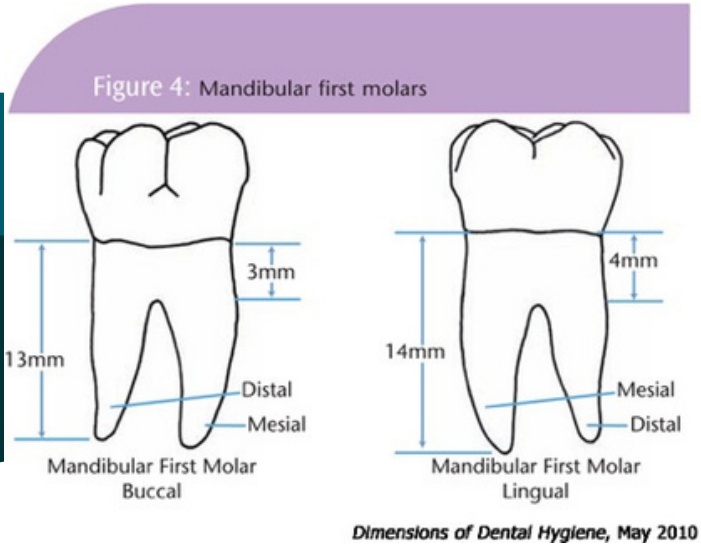
- **Periodontal Charting**
  - Pocket depth
  - Bleeding points
  - Recession Points
  - Furcation Involvement
  - Mobility
- **Gingival Assessments**
  - Color, contour, consistency, texture
  - Enlargement
  - Malodor, pain
- **Deposit Assessment**
  - Calculus, plaque, materia alba, food impaction, stain

- 20.5% of patients had routine periodontal charting done
- 13% of charts included gingival bleeding notation
- 16.3% of clinical notes recorded a periodontal diagnosis
- “The data suggest that, except for radiographs, the majority of patient records do not contain sufficient diagnostic information to describe patients’ periodontal health.”

1. McFall, W. et al. Presence of Periodontal Data in Patient Records of General Practitioners. J Periodontol. https://doi.org/10.1902/jop.1988.59.7.445 59(7): 445-449
2. Nathan L Brown, Victoria EL Jephcote, James N Morrison and Jessye E Sutton, Inaccurate dental charting in an audit of 1128 general dental practice records, Dental Update, 10.12968/denu.2017.44.3.254, 44, 3, (254-260), (2017)

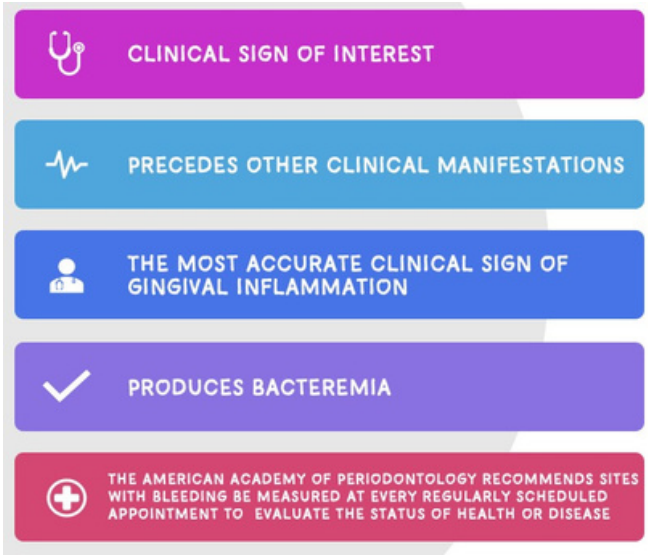

Figure 2: Maxillary first molar furcation anatomy
DB
Palatal
MB
12mm
4mm
Maxillary First Molar
Buccal
MB
Palatal
13mm
2/3
14mm
3mm
Maxillary First Molar
Mesial
Palatal
DB MB
5mm
Maxillary First Molar
Distal


Concavity
leading into
furcation
Facial
Lingual
Mandibular First Molar


Figure 4: Mandibular first molars
3mm
13mm
Distal
Mesial
Mandibular First Molar
Buccal
4mm
14mm
Mesial
Distal
Mandibular First Molar
Lingual
Dimensions of Dental Hygiene, May 2010

NOTES

Gingival Bleeding



re·cur·rent
/rəkə̇rənt/

Implies that the periodontitis was indeed brought under control during nonsurgical periodontal therapy, but that at some later time the periodontitis is once again resulting in progressive attachment loss.

Patients who have been treated for periodontitis are at risk for recurrence of periodontitis for as long as tooth (or implants) are present.

Clinical Recognition of Disease Recurrence

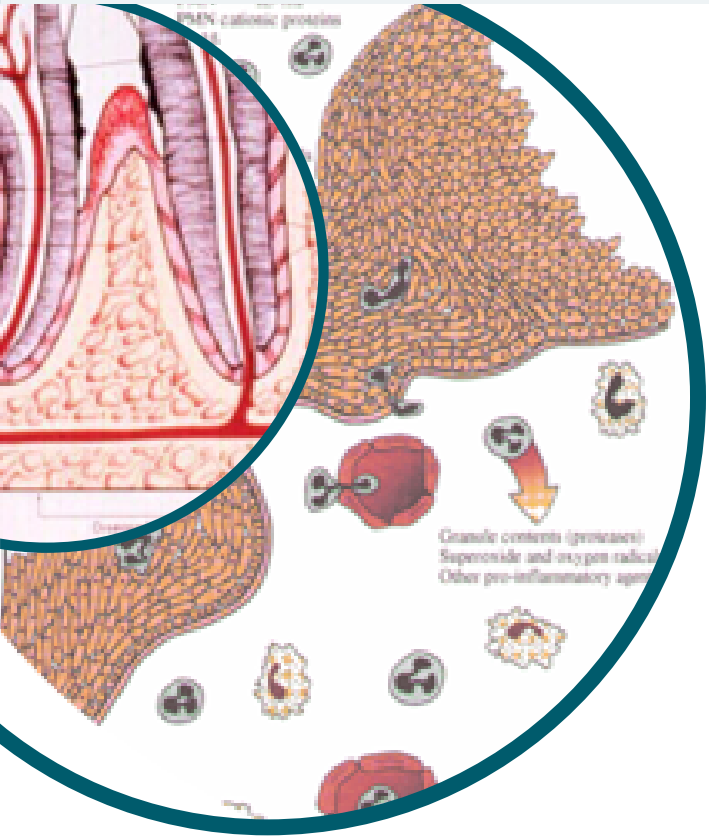
- Progressive clinical attachment loss
- Pockets that get deeper over time
- Pockets that bleed upon probing
- Pockets that exhibit exudate
- Radiographic evidence of progressing bone
- loss Increasing tooth mobility

Activity of Periodontitis

Almost two thirds (62.3%) ofpatients exhibit one or more sites with at least 5mm of clinical attachment loss, and almost half present with one or more sites with periodontal pockets.

NOTES:

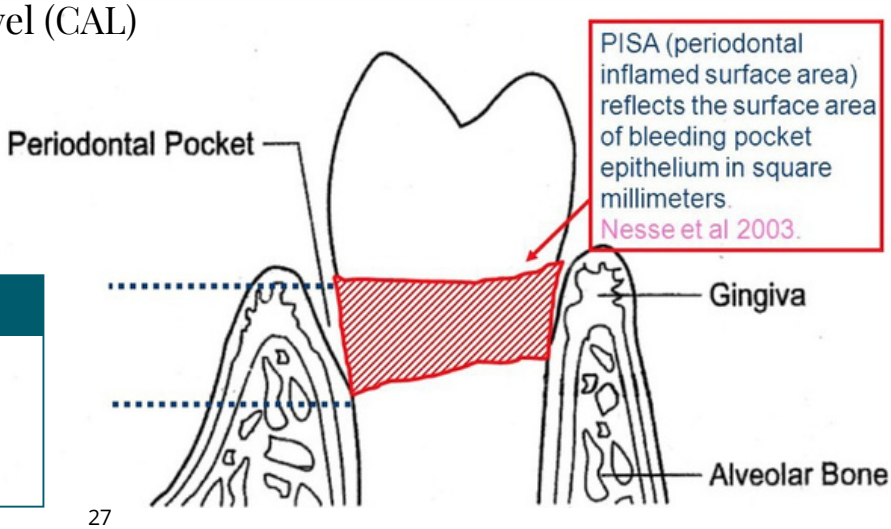
INSIDE the Periodontal Pocket





Periodontal Inflamed Surface Area (PISA)

- Full mouth Clinical Attachment Level (CAL)
- Recession
- Bleeding On Probing (BOP)
- Six sites per tooth



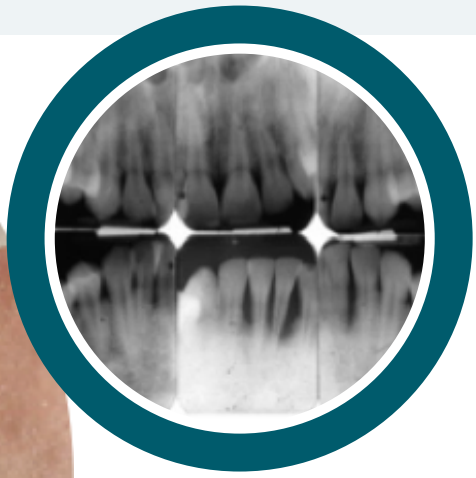
NOTES

PISA: Gingival Health

- Periodontal Inflamed Surface Area (PISA)
- Ulcerated area within the gingival sulcus/pocket
- PISA = 0.3 cm2 (approximately 0.05 inches2)

PISA: Localized Severe Chronic Periodontitis







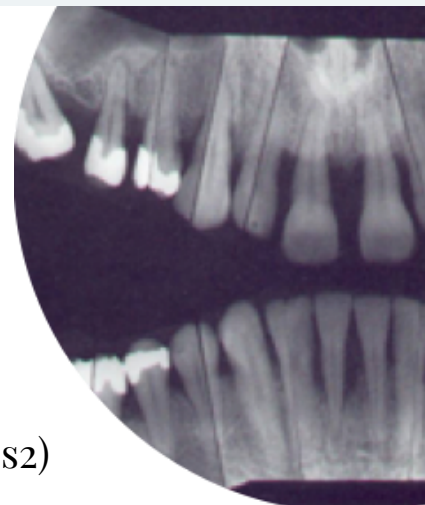
Periodontitis Stage 3,
Grade B/C,
Localized Distribution

PISA: Generalized Severe Chronic Periodontitis

Periodontitis Stage 3/4, Grade B/C, Generalized Distribution







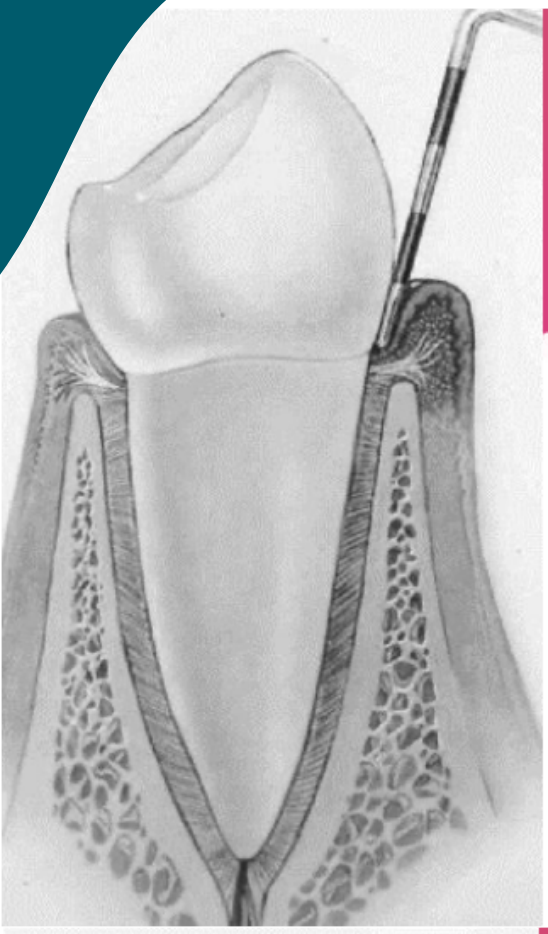
PISA = 37 cm2 (approximately 5.7 inches2)

Staging

- Permits moving beyond a one-dimensional approach of using past destruction alone
- Permits assessing of prognosis and complexity
- Relies on standard dimensions of severity and extent of periodontitis at present
    - Introduces the dimension of complexity for managing the individual patient

1.Rate of periodontitis progression
2.Recognized risk factors for periodontitis progression
3.Risk of an individual's case affecting the systemic health of the subject

Notes



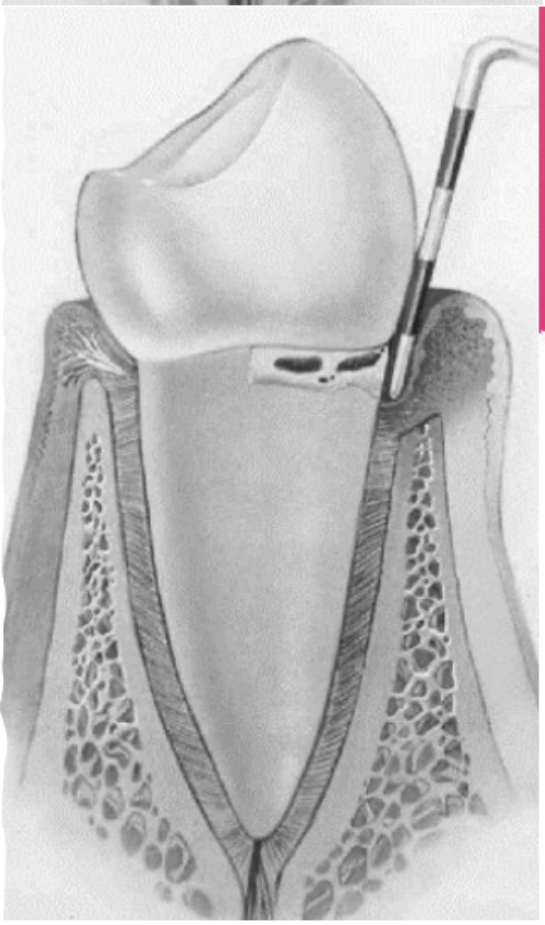
Stage I

"The borderland between gingivitis and periodontitis"

Earliest stages of attachment loss

Opportunity for early intervention and monitoring

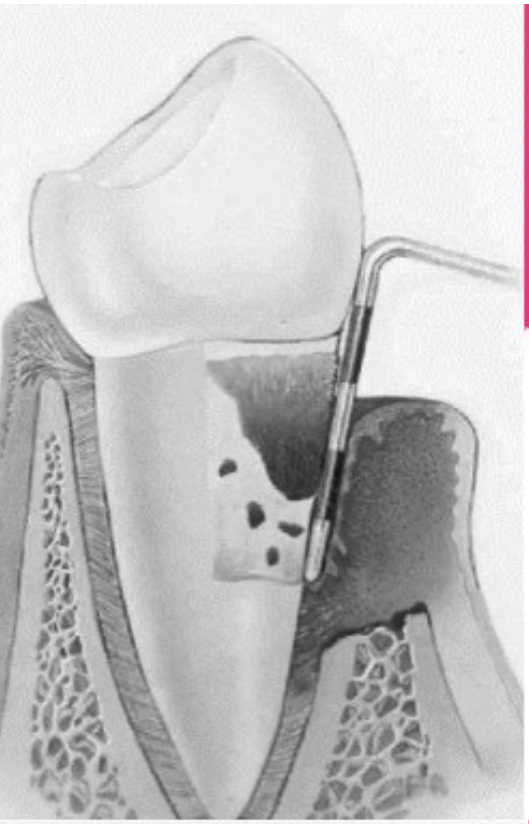
		Stage I
Severity	Interdental CAL	1-2mm
	RBL	Coronal third (<15%)
	Tooth loss	None
Complexity	Local	Max probing depth 4mm Mostly horizontal bone loss



Stage II

Opportunity for clear intervention and subsequent monitoring

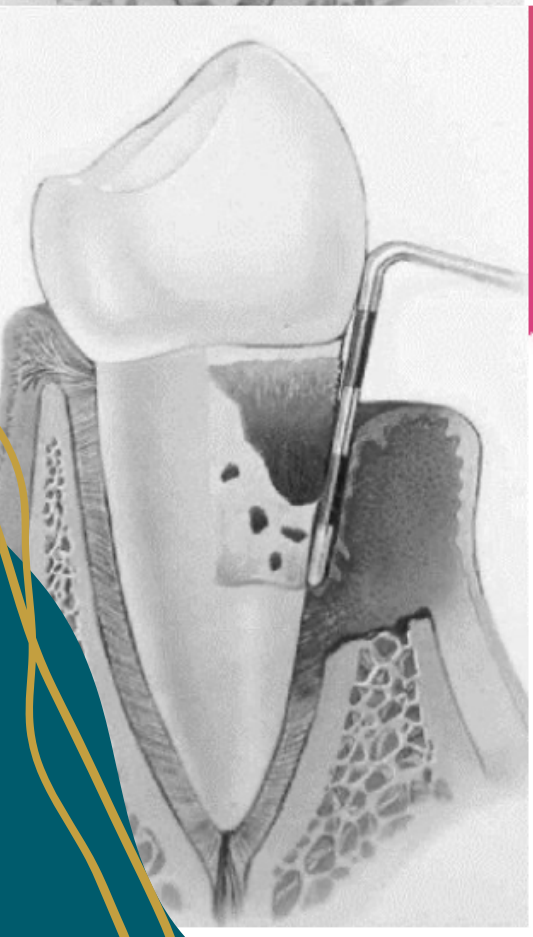
		Stage II
Severity	Interdental CAL	3-4 mm
	RBL	Coronal third (15-33%)
	Tooth loss	None
Complexity	Local	Max probing depth 5mm Mostly horizontal bone loss



Stage III

Characterized by deep lesions that extend into the middle portion of the root and whose management is complicated

		Stage III
Severity	Interdental CAL	5 mm or less
	RBL	Extending to mid-third of root and beyond
	Tooth loss	Less than or equal to 4 teeth
Complexity	Local	In addition to Stage II: Probing depth 6mm+ Vertical bone loss Furcation involvement cls II or III Moderate ridge defect



Stage IV

Considerable damage to periodontal support

Translates to loss of masticatory function

		Stage III
Severity	Interdental CAL	5 mm or more
	RBL	Extending to mid-third of root and beyond
	Tooth loss	5 or more teeth
Complexity	Local	In addition to stage III: Need complex rehabilitation due to: Masticatory dysfunction Secondary occlusal trauma Severe ridge defect Bite collapse, drifting, flaring Less than 20 remaining teeth

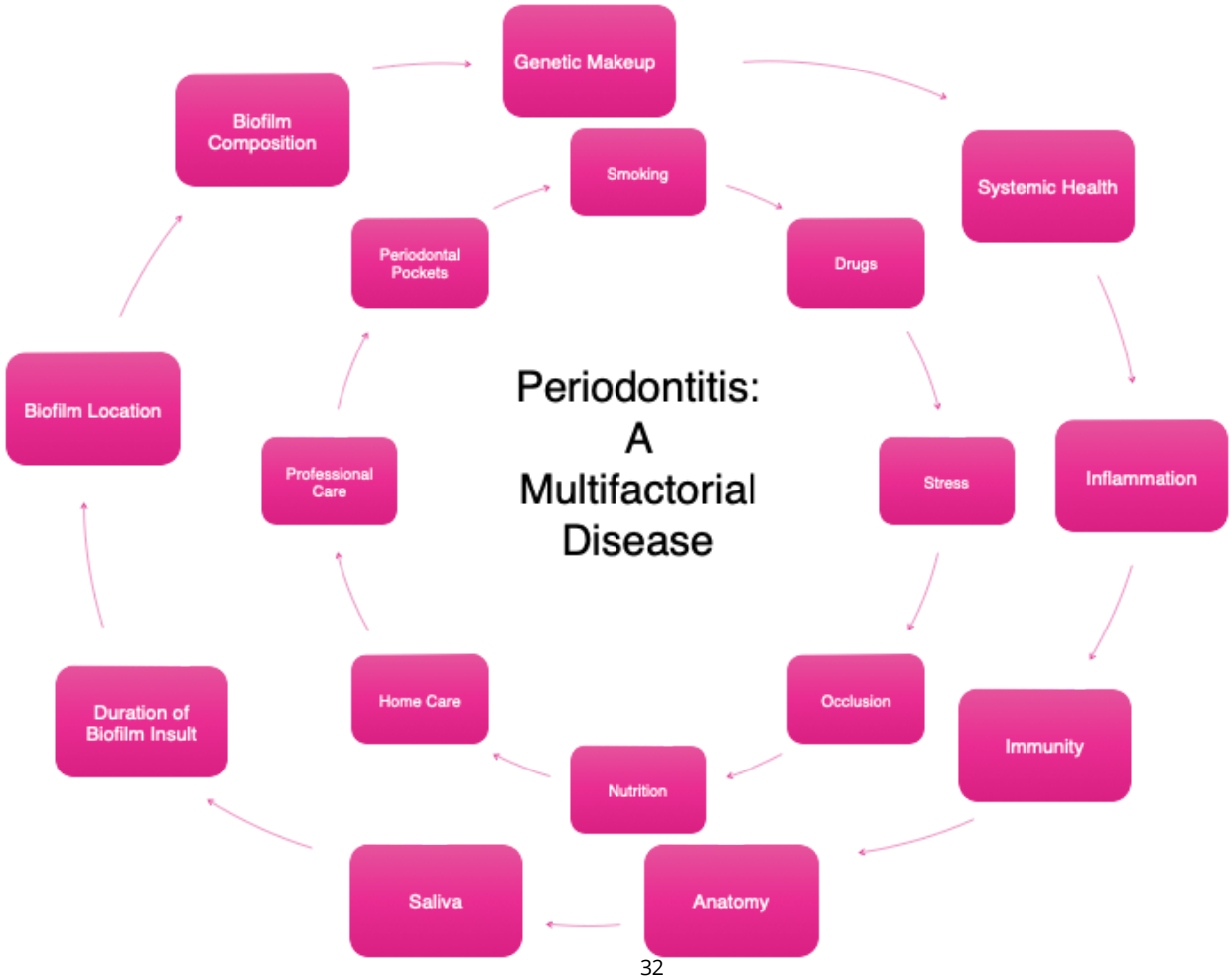
Grading

- “The identification of individual patients who are more likely to require greater effort to prevent or control their chronic disease long-term” (AAP, 2018)

- Permits estimation of future risk of periodontitis progression, responsiveness to standard therapeutic principles and potential health impact of periodontitis on systemic disease requiring potential co-therapy with medical colleagues

- Integrate risk factors

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Grading Periodontitis

	Progression		Grade A Slow	Grade B Moderate	Grade C Rapid
Primary Criteria	Direct evidence	RBL or CAL	No loss over 5 years	<2mm over 5 years	2+mm over 5 years
	Indirect evidence	%bone loss/age	<.25	.25 to 1.0	>1.0
		Case Phenotype	Heavy biofilm, low destruction	Destruction commensurate with deposit	Destruction exceeds expectations. Rapid progression or early onset
Grade modifier	Risk factors	Smoking	Non-smoker	<10 cigarettes/day	10+ cigarettes/day
		Diabetes	Normal	HbA1c <7.0%	HbA1c 7.0+%
Risk of Systemic Impact	Inflammatory Burden	High Sensitivity CRP	<1 mg/L	1-3 mg/L	>3 mg/L
Biomarkers	Indicators of CAL/Bone Loss	Saliva, GCF, Serum	?	?	?

NOTES:

Tonetti MS, Greenwell H, Kornman KS. Staging and grading of periodontitis: Framework and proposal of a new classification and case definition. J Periodontol. 2018; 89 (Suppl 1): S159-S172.

Periodontitis as a manifestation of systemic disease

Familial and cyclic neutropenia	TRISOMY 21	Leukocyte adhesion deficiency syndrome	Papillon-LeFevre syndrome
Chediak-Higashi syndrome	Histiocytosis syndromes	Glycogen storage disease	Infantile genetic agranulocytosis
Cohen syndrome	Ehlers-Danlos syndrome	Hypophosphatasia	Associated with hematological disorders: Acquired neutropenia

Systemic diseases or conditions affecting the periodontal supporting tissues

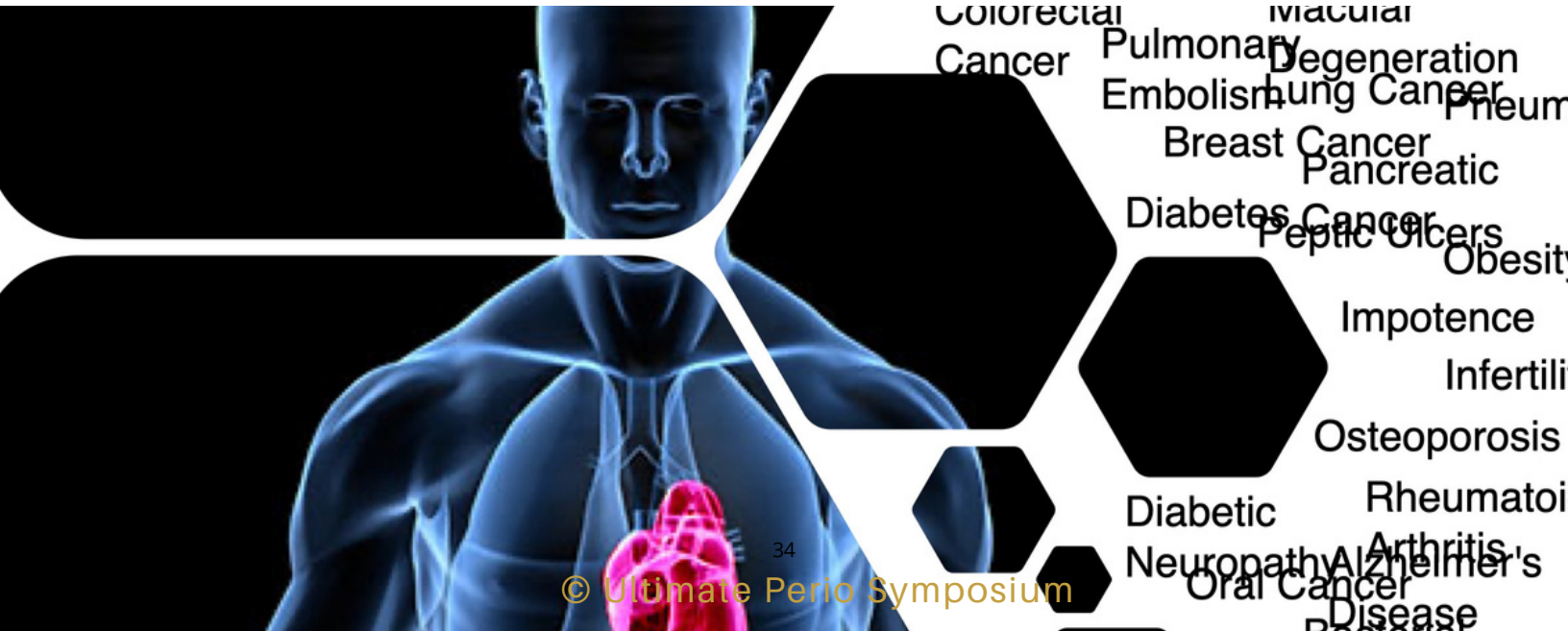
Periodontal infection and inflammation, as well as common genetic and acquired risk factors, are the scientific basis that explains the biological plausibility of the associations between periodontitis and systemic diseases.

Currently, up to 57 diseases and conditions have been studied with regards to their connection with periodontitis

Conditions with at least minimal evidence of an association with periodontitis include:

COPD, pneumonia, chronic kidney disease, rheumatoid arthritis, cognitive impairment, obesity, metabolic syndrome and cancer

There are many diseases and conditions that can affect periodontal tissues to include: Mainly rare diseases Common diseases such as: Down Syndrome, Systemic Lupus Erythematosus, HIV infection, inflammatory bowel disease, Diabetes Mellitus, Osteoporosis, Osteoarthritis, Emotional stress & depression, Smoking, Medication



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Systemic Diseases



Diabetes

- Diabetic patients are more susceptible to oral disease.
- Uncontrolled diabetes elevates blood glucose.
- Periodontal scaling and root planing could control HbA1c readings.



Cardiovascular Disease

- Connection between myocardial infarction and oral disease.
- 50% increased risk for heart disease.
- 30% increased risk of stroke.



Adverse Pregnancy outcomes

- Oral disease elevates risk of premature, low-birth-weight delivery.
- Occurs in approximately 1 in 10 deliveries.
- Peridontal scaling reduced risk.



Respiratory Disease

- Oral bacteria is easily aspirated.
- P. gingivalis, F. nucleatum and B. oralis
- Contribute to diseases: bronchitis, pneumonia and emphysema.



Alzheimer's Disease

- Early exposure to inflammation poses a risk.
- May be related to elevation of c-reactive proteins



Cancer

- P. gingivalis as a two-fold risk of pancreatic cancer.
- F. nucleatum linked to colorectal cancer.
- Oral cancer linked to patients with greater than 1.5mm attachment loss.

Periodontal Abscesses and Endodontic-Periodontal Lesions

- Gingival
- Periodontal
- Pericoronal
- Endodontic

Notes

Mucogingival Deformities and Conditions



- gingival/soft tissue recession
  - facial or lingual surfaces
  - interproximal (papillary)
- lack of keratinized gingiva
- decreased vestibular depth
- aberrant frenum/muscle position
- gingival excess
  - pseudo-pocket
  - inconsistent gingival margin
  - excessive gingival display
  - gingival enlargement
  - abnormal color

Traumatic Occlusal Forces

- Primary Occlusal Trauma
- Secondary Occlusal Trauma
- Non-carious cervical lesions
- "There is lack of evidence from human studies implicating occlusal trauma in the progression of attachment loss in periodontitis"
- ~AAP, 2018

Tooth and Prosthesis Related Factors

- Enamel Pearl
- Palatolingual groove
- Root fractures
- Cemental tears
- The term biologic width was replaced by supracrestal attached tissues.

Notes

AAP Updates | Periodontal Patients

a Periodontitis patient is a periodontitis patient for life

A patient who has periodontitis remains at risk for further periodontal destruction even with treatment. It is important to define a periodontitis patient as an ‘at risk’ individual because this patient requires am ore intensive level of maintenance and evaluation than a patient who has not had periodontitis.

A periodontitis patient who has been treated and is now stable should not return to a level of evaluation and maintenance identical to a patient who has never had periodontitis [example: annual or semi-annual exam/prophylaxis]

American Academy of Periodontology. Acquired from: https://www.ada.org/~/media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en. Accessed on: September 2021.

AAP Updates | Applying Extend & Distribution

Once the stage is determined, then the percentage of teeth affected by periodontitis is assessed. This provides information about how many teeth are affected by periodontitis which is expressed as localized or generalized.

Distribution refers to the affected teeth, such as first molars and/or incisors, which is a totally different type of clinical presentation that should be noted and may have treatment implications.

American Academy of Periodontology. Acquired from: https://www.ada.org/~/media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en. Accessed on: September 21, 2021

AAP Updates | Severity- Based Diagnosis

- Using a stage for each quadrant is not permitted.
- Staging is designed to give information about the whole mouth, relative to the severity and complexity. The stage will also inform the clinician of the initial difficulty and complexity of required treatment as well as expected prognosis since It provides some perspective on the individual patient's response to the disease challenge at the time of examination



AAP Updates: Determining Stage

The area with the most severe destruction determines the stage.

The staging system is designed to highlight the patient's most severe areas of destruction, which usually require more complex case management.

AAP Updates | Missing Teeth

- If a patient is missing teeth due to periodontitis and the clinician must extract additional teeth due to periodontitis, these teeth count as being lost due to periodontitis.
- In the staging table, tooth loss is defined as 'tooth loss due to periodontitis'.
- Tooth loss should include those teeth planned for extraction due to periodontitis as part of active therapy.

American Academy of Periodontology. Acquired from: https://www.ada.org/~/media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en. Accessed on: September 2 2021.

AAP Updates | Changing the Stage

- The stage does not typically regress or move to a lower stage.
- If a patient has been treated and is now clinically stable, he/she is now described as having periodontal stability.
- If sites demonstrate further clinical attachment loss, radiographic bone loss and deeper probing depths, it becomes an unstable case of recurrent periodontitis; in this case, the stage could change to a higher level depending on criteria.

AAP Updates | Grading for Treatment Planning

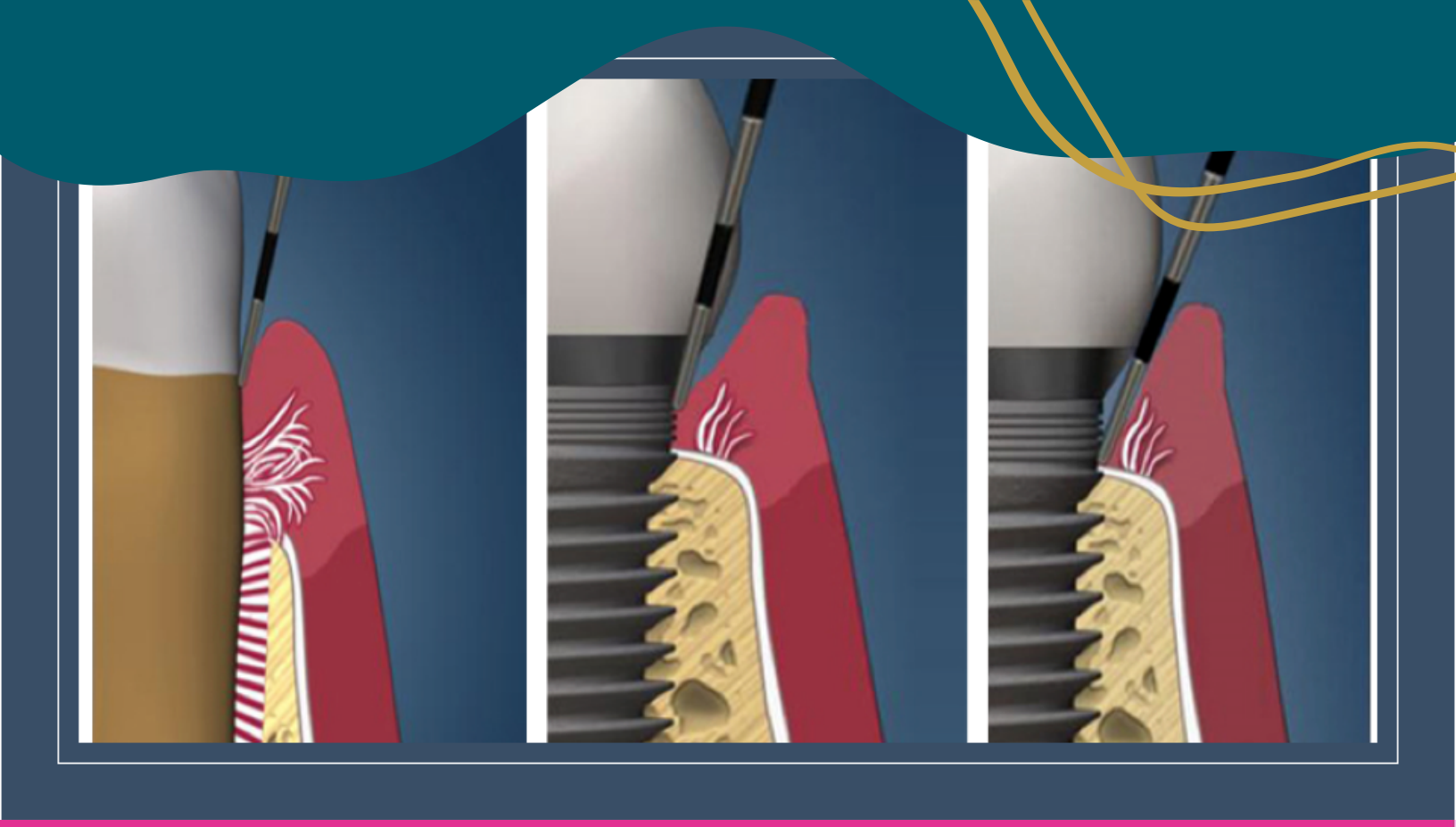
Using the modifiers as consideration in the progression of disease, it is noted that if control is not improved, there is a risk for future progression of periodontal disease.

Patients may need to be referred to their physician with a request to evaluate the level of control and make adjustments for better control.

The treatment plan going forward will directly be influenced by patient compliance.

More intensive maintenance therapy may be recommended as part of the treatment if necessary.

American Academy of Periodontology. Acquired from: https://www.ada.org/~/media/JCNDE/pdfs/Perio_Disease_Classification_FAQ.pdf?la=en. Accessed on: September 21, 2021.



PERI-IMPLANT DISEASES AND CONDITIONS

PERI-IMPLANT HEALTH	PERI-IMPLANT MUCOSITIS	PERI-IMPLANTITIS	PERI-IMPLANT SOFT AND HARD TISSUE DEFICIENCIES

NOTES:

Peri-Implant Health



Peri-Implant Mucositis

- Inflammatory lesion of the soft tissue surrounds implant
- Bleeding on probing & visual signs of inflammation.
- Reversible with plaque elimination

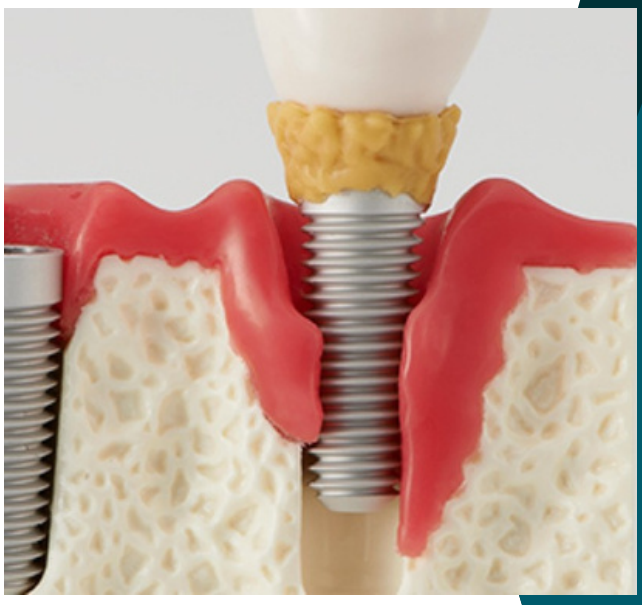


Peri-Implantitis

Pathological condition characterized by plaque-induced inflammation of the peri-implant connective tissue and subsequent progressive loss of supporting bone

Peri-Implantitis
Peri-Implant Soft and Hard Tissue Deficiencies

Contributed by etiological factors: systemic disease, medications, tissue turnover, trauma, local disease, biochemical factors, tissue morphology



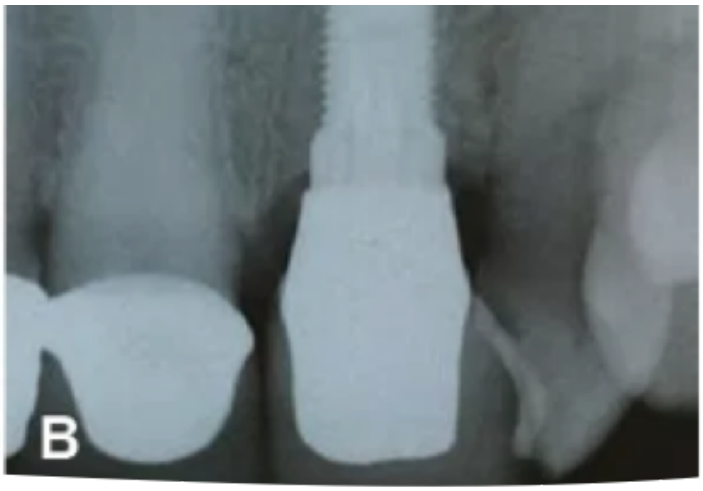
D6080

Implant maintenance procedures
Including removal of prosthesis, cleansing of prosthesis and abutments and reinsertion of prosthesis.

This procedure includes a prophylaxis to provide active debriding of the implant and examination of all aspects of the implant system including occlusion and stability of the superstructure. The patient is also instructed in thorough daily cleansing of the implant.

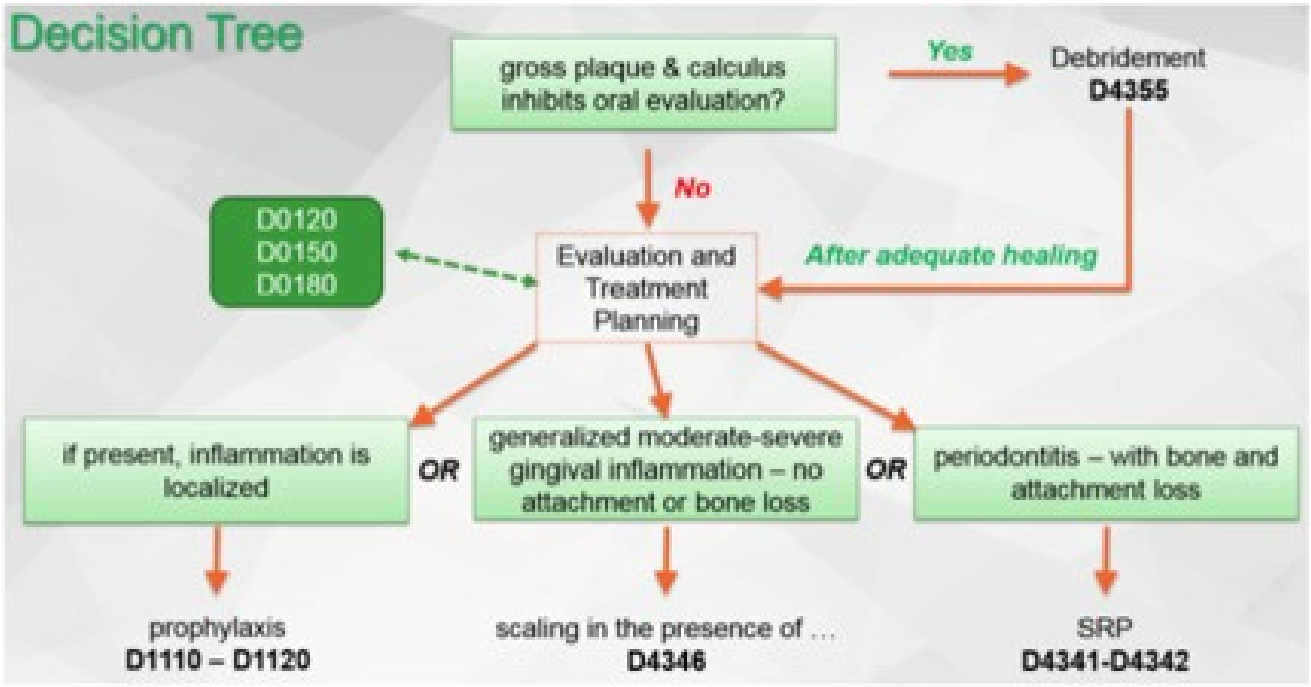






D6081

Scaling and debridement in the presence of inflammation or mucositis of a single implant
Including cleaning of the implant surfaces, without flap entry and closure.
This procedure is not performed in conjunction with d1110, d4910 or d4346



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D4355

- Full mouth debridement involves the preliminary removal of plaque and calculus that interferes with the ability of the dentist to perform a comprehensive oral evaluation. Not to be completed on the same day as D0150, D0160, or D0180.

- Verbiage should include inability to acquire appropriate assessments

NOTES:

Illustrations of situations where gross debridement may be applicable

D4355 full mouth debridement to enable comprehensive evaluation and diagnosis

The gross removal of plaque and calculus that interfere with the ability of the dentist to perform a comprehensive oral evaluation. This preliminary procedure does not preclude the need for additional procedures.

Note the generalized nature of deposits. Periodontal probing and charting may be difficult in such a case, and debridement could facilitate the comprehensive oral evaluation.





NOTES:



Healthy Periodontium

Clinical Gingival Health on an Intact Periodontium/Incipient Gingivitis



Gingival observations: coral pink, may have localized erythema & edema



Probing Depths: 1-3mm



Bleeding: Healthy includes less than 10%. 10%-30% of sites notes incipient gingivitis



Gingival Margin: stable. NO recession noted.



Furcations: none.



Mobility: none



Radiographic Bone: stable; no defects

Stable on a Reduced Periodontium [Non-Periodontitis Patient]



Gingival observations: coral pink, may have localized erythema & edema



Probing Depths: 1-3mm



Bleeding: LessGingival Margin:Furcations: than 10% of sitesstable withPossible. localized areas of possible recession.







Mobility: none



Radiographic Bone: may demonstrate signs of loss

No Patient Report of Periodontitis/Periodontal Therapy

NOTES:

Illustrations of situations where oral prophylaxis may be applicable

D1110 prophylaxis – adult

Removal of plaque, calculus and stains from the tooth structures in the permanent and transitional dentition. It is intended to control local irritational factors.

D1120 prophylaxis – child

Removal of plaque, calculus and stains from the tooth structures in the primary and transitional dentition. It is intended to control local irritational factors.

Note localized inflammation. Generally healthy periodontium with no loss of attachment.





NOTES:

Gingivitis



Moderate/Severe Gingivitis on an Intact Periodontium



Gingival observations: coral pink, may have localized erythema & edema. Possible hyperplasia



Probing Depths: 1-3mm. Possibly 4mm.



Bleeding: 30% of sites or more.



Gingival Margin: stable or inflammation. NO recession noted.



Furcations: none.



Mobility: none



Radiographic Bone: stable; no defects

Gingivitis on a Reduced Periodontium [Non-Periodontitis Patient]



Gingival observations: coral pink, may have localized erythema & edema. Possible hyperplasia



Probing Depths: 1-3mm.



Bleeding: 10% or more.



Gingival Margin: stable or inflammation. Recession is possible.



Furcations: possible.



Mobility: none



Radiographic Bone: May demonstrate some signs of loss

No patient report of periodontitis or periodontal therapy. Notation of source of attachment loss is encouraged to clarify a non-periodontal diagnosis.

NOTES:

D4346

- Scaling in presence of generalized moderate or severe gingival inflammation – full mouth, after oral evaluation

  - The removal of plaque, calculus and stains from supra- and sub-gingival tooth surfaces when there is generalized moderate or severe gingival inflammation in the absence of periodontitis. It is indicated for patients who have swollen, inflamed gingiva, generalized suprabony pockets, and moderate to severe bleeding on probing. Should not be reported in conjunction with prophylaxis, scaling and root planing, or debridement procedures.

D4346 scaling in presence of generalized moderate or severe gingival inflammation – full mouth, after oral evaluation

The removal of plaque, calculus and stains from supra- and sub-gingival tooth surfaces when there is generalized moderate or severe gingival inflammation in the absence of periodontitis. It is indicated for patients who have swollen, inflamed gingiva, generalized suprabony pockets, and moderate to severe bleeding on probing. Should not be reported in conjunction with prophylaxis, scaling and root planing, or debridement procedures.

(Effective: **January 1, 2017**)

Note generalized inflammation with some pseudo-pockets. No apparent attachment loss.









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Stage I Periodontitis

GINGIVAL OBSERVATIONS: FROM CORAL PINK TO ERYTHEMA & EDEMA. EITHER BLUNTED OR ENLARGED PAPILLA.

PROBING DEPTHS: 1-4MM.

BLEEDING: YES

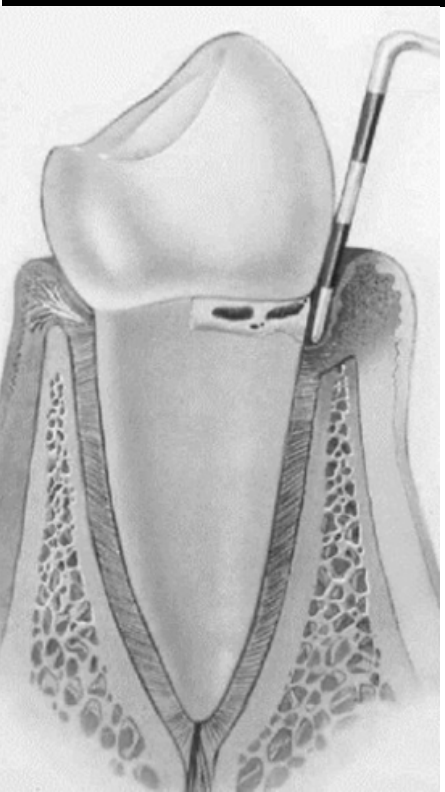
GINGIVAL MARGIN: RECESSION IS POSSIBLE. MAY BE ENLARGED.

FURCATIONS: NO.

MOBILITY: POSSIBLE.

RADIOGRAPHIC BONE: LESS THAN 15% [NOT SEEN RADIOGRAPHICALLY]

TOOTH LOSS DUE TO PERIODONTITIS: NO.



NOTES:

Stage II Periodontitis

GINGIVAL OBSERVATIONS: FROM CORAL PINK TO ERYTHEMA & EDEMA. EITHER BLUNTED OR ENLARGED PAPILLA.

PROBING DEPTHS: 1-5MM.

BLEEDING: YES

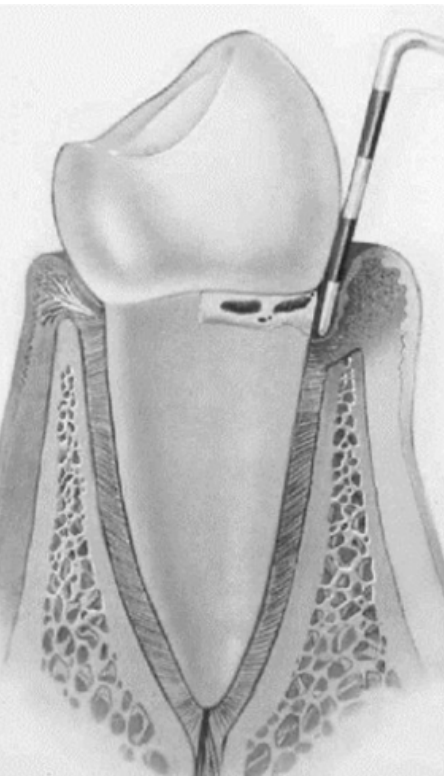
GINGIVAL MARGIN: RECESSION IS POSSIBLE. MAY BE ENLARGED.

FURCATIONS: POSSIBLE.

MOBILITY: POSSIBLE.

RADIOGRAPHIC BONE: 15%-33% [LIKELY NOT SEEN RADIOGRAPHICALLY]

TOOTH LOSS DUE TO PERIODONTITIS: NO.



NOTES:

D4341 | D4342

- This procedure involves instrumentation of the crown and root surfaces of the teeth to remove plaque and calculus from these surfaces. It is indicated for patients with periodontal disease and is therapeutic, not prophylactic, in nature. Root planing is the definitive procedure designed for the removal of cementum and dentin that is rough, and/or permeated by calculus or contaminated with toxins or microorganisms. Some soft tissue removal occurs. This procedure may be used as a definitive treatment in some stages of periodontal disease and/or as a part of pre-surgical procedures in others.

D4921

- Gingival Irrigation - Per Quadrant
- Irrigation of gingival pockets with medicinal agent. Not to be used to report use of mouth rinse or non-invasive chemical debridement

NOTES:

Stage III Periodontitis

GINGIVAL OBSERVATIONS: FROM CORAL PINK TO ERYTHEMA & EDEMA. EITHER BLUNTED OR ENLARGED PAPILLA.

PROBING DEPTHS: 1-6MM+.

BLEEDING: YES

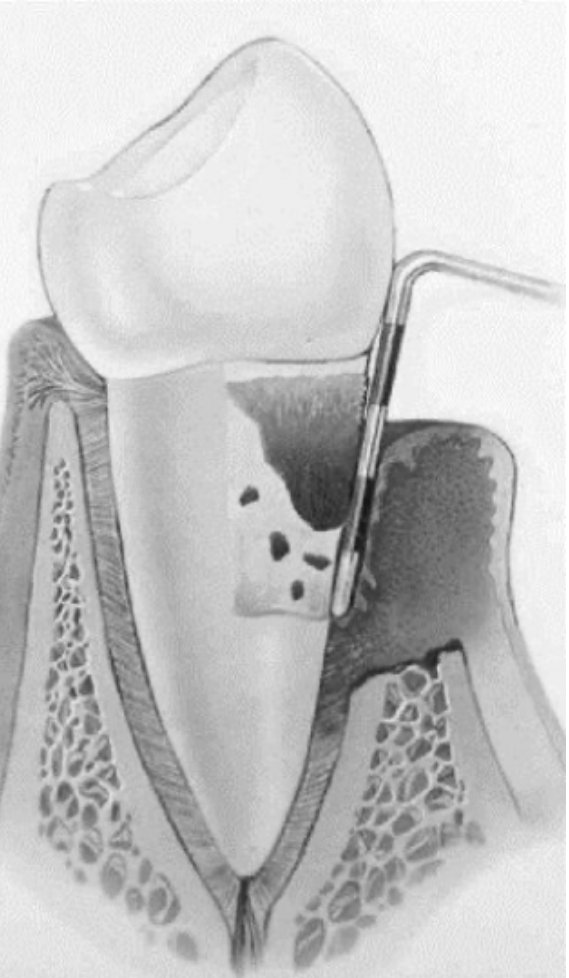
GINGIVAL MARGIN: RECESSION IS POSSIBLE.

FURCATIONS: II OR III

MOBILITY: POSSIBLE.

RADIOGRAPHIC BONE: 33% OR GREATER. MODERATE RIDGE DEFECTS. VERTICAL BONE LOSS.

TOOTH LOSS DUE TO PERIODONTITIS: LESS THAN OR EQUAL TO 4 TEETH.



NOTES:

Stage IV Periodontitis

GINGIVAL OBSERVATIONS: FROM CORAL PINK TO ERYTHEMA & EDEMA. EITHER BLUNTED OR ENLARGED PAPILLA.

PROBING DEPTHS: 1-6MM+.

BLEEDING: YES

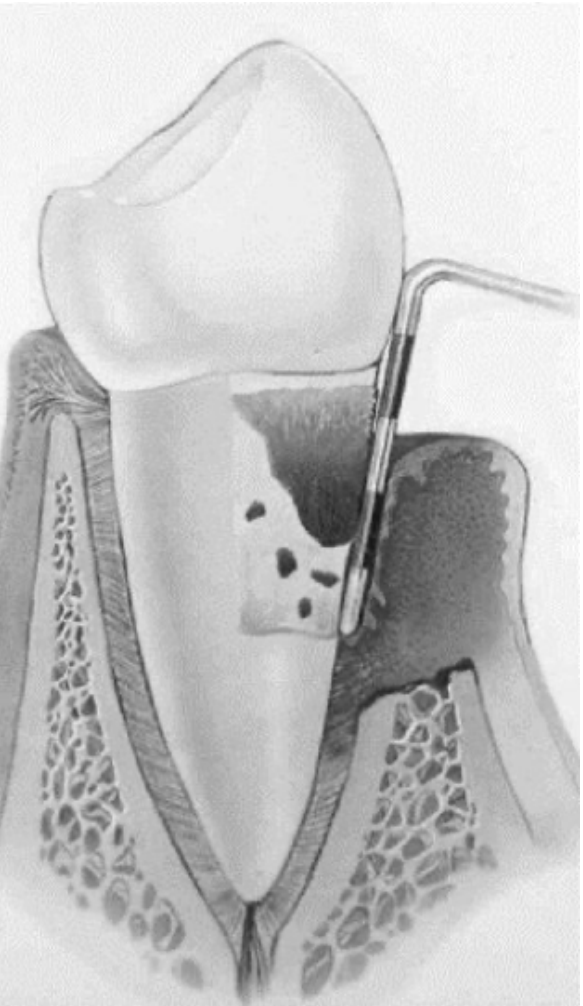
GINGIVAL MARGIN: RECESSION IS POSSIBLE.

FURCATIONS: II OR III

MOBILITY: POSSIBLE.

RADIOGRAPHIC BONE: 33% OR GREATER. MODERATE RIDGE DEFECTS. VERTICAL BONE LOSS.

TOOTH LOSS DUE TO PERIODONTITIS: 5 OR MORE TEETH REQUIRING REHABILITATION DUE TO LOSS OF MASTICATORY FUNCTION.



NOTES:

Previous Paradigm in Instrumentation

- Achieve hard, glassy smooth root surfaces
- Promote effective daily plaque control by patient
- Use of hand-activated instrumentation is preferred over powered instruments
- Belief: endotoxins are firmly bound and absorbed into the cementum, removal of cementum is an essential component of nonsurgical therapy
- Evaluate success of therapy immediately following instrumentation

New Paradigm in Instrumentation

- Mechanically remove all detectable plaque and plaque-retentive factors. Remove endotoxins from root surfaces (specifically complex lipopolysaccharides {LPS} found in cell walls of gram-negative bacteria.
- Facilitate shift in oral flora from disease-related to health-related organisms
- Stimulate patient's immune response
- Stop progress of disease and allow for tissue healing & institute maintenance program
- Does NOT include purposeful and aggressive cementum removal
- Assessment of host response (smoking, diabetes, medications, etc.)



This work has shown that cavitation does occur around the free end of ultrasonic scaler tips. The area of cavitation near the free end of the tips increases with power as well as with the amplitudes of displacement at the tips.

Nonsurgical Success

- On average, 39% of patients treated with nonsurgical scaling & root planing achieve successful healing
- Anterior teeth have an 85% success rate
- Molar teeth have a 47% success rate

- When a pocket depth is equal to 5mm or less, it is likely met with a successful outcome



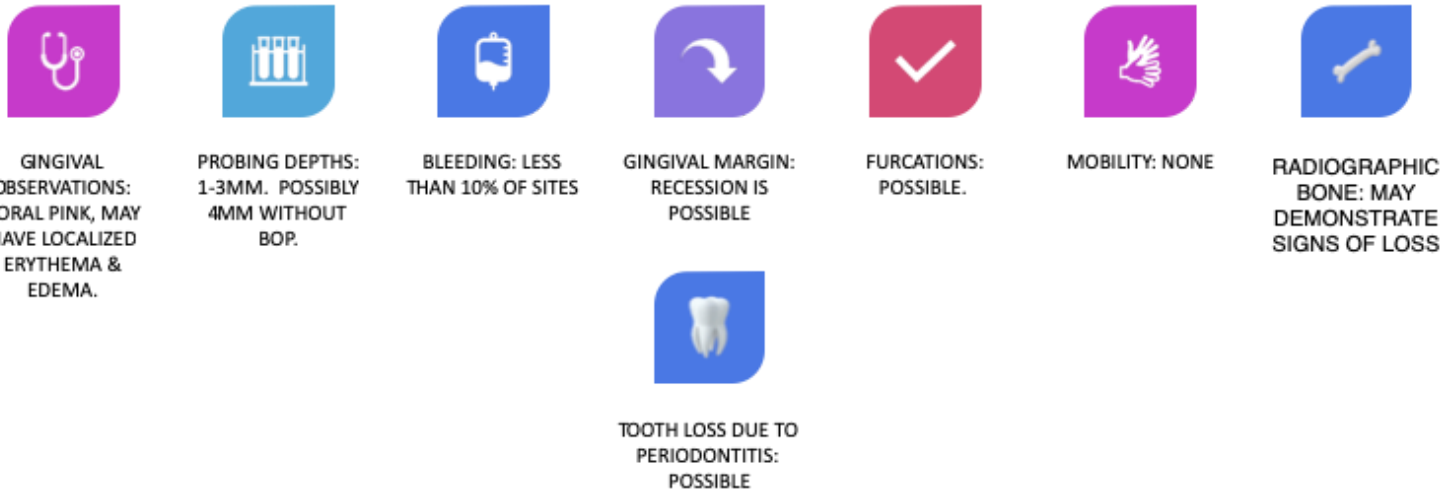
Evaluation

D0171: re-evaluation – post-operative office visit
"Some dental insurance companies have started imposing a little known and undisclosed six-week waiting period between treatment codes"
D1110 and D4341 or D4342
D4355 and D4341 or D4342
D4910 and D43410r D4342

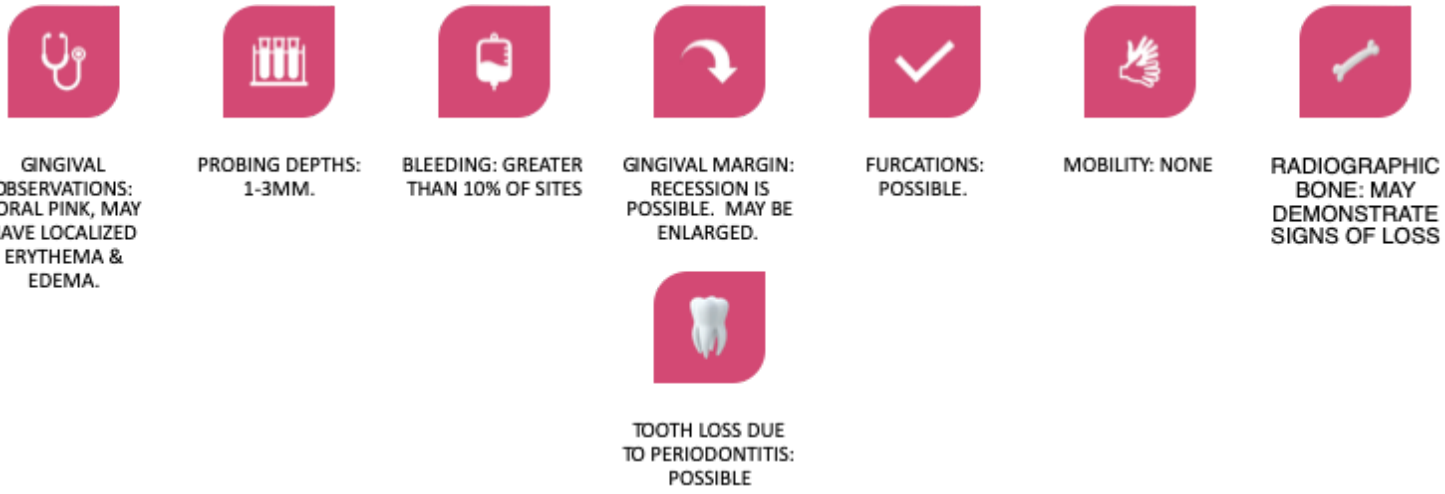
NOTES:

Stable on a Reduced Periodontium [Successfully Treated Periodontal Case]

There is a history of active [not restorative] periodontal therapy



Gingivitis on a Reduced Periodontium [Successfully Treated Periodontal Case]



D4910

- This procedure is instituted following periodontal therapy and continues at varying intervals, determined by the clinical evaluation of the dentist, for the life of the dentition or any implant replacements. It includes removal of the bacterial plaque and calculus from supragingival and subgingival regions, site specific scaling and root planing where indicated, and polishing the teeth. If new or recurring periodontal disease appears, additional diagnostic and treatment procedures must be considered.

D4381

- Localized delivery of antimicrobial agents via a controlled release vehicle into diseased crevicular tissue, per tooth
- FDA approved subgingival delivery devices containing antimicrobial medication(s) are inserted into periodontal pockets to suppress the pathogenic microbiota. These devices slowly release the pharmacological agents so they can remain at the intended site of action in a therapeutic concentration for a sufficient length of time.









Katrina M Sanders RDH, BSDH, M.Ed, RF

The Dental WINEgenist

A clinical dental hygienist, author and international speaker, Katrina is a vibrant, passionate and charismatic award-winning educator with a unique approach to delivering continuing dental education. A distinguished speaker with many dental hygiene study clubs, Katrina's lectures incorporate a caring, comedic and supportive style. She is passionate about educating, empowering and instilling compassion within the dental hygiene industry. Katrina's zest for dental hygiene is infused throughout her content as she lectures on provocative topics while leaving participants with a call to action and an abundantly renewed sense of pride for their industry.Katrina is the founder, CEO and keynote speaker for Sanders Board Preparatory, a comprehensive program designed to supplement student learning and enhance understanding of concepts, terminology and procedures commonly discussed in preparation for the National Board Dental Hygiene Examination. She is also the co-founder, co-owner and Executive of Dental Hygiene Programs with The Core Group, a consulting firm dedicated to a customized approach to elevating standards within the dental practice. Known as "The Dental Resultant", Katrina integrates a unique approach to dental consulting through effective communication, unwavering standards, inspiration and empowerment.Katrina is the Clinical Liaison, Hygiene Excellence and Innovation for AZPerio the country's largest periodontal practice. She works alongside Diplomates to the American Board of Periodontology to instruct on collaborative professionalism and standard of care protocols while delivering education through hygiene boot camps and study clubs. Katrina is the co-host of Tooth or Dare Podcast and is a published author with DentalTown, Today'sRDH, a columnist and advisory board member for Modern Hygienist and brand ambassador for Dimensions of Dental Hygiene. Her philanthropic efforts include dental humanitarian work in developing countries, supporting abused and homeless animals and spreading awareness about the benefits of organ and tissue donation.

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