

UCLA Hawaii Symposium
July 5, 2019

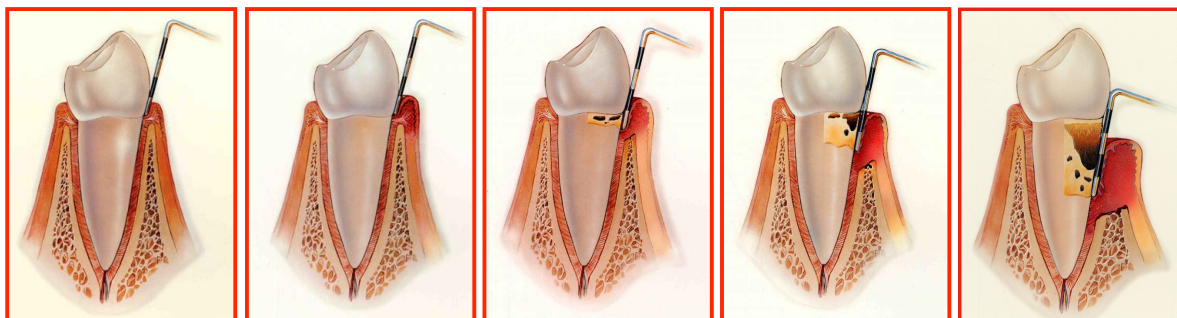
The Updated American Academy of Periodontology Classification of Periodontal and Peri-Implant Diseases and Conditions

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Preface

- World workshop in November, 2017
- Proceedings published in June, 2018
- Content effective since June, 2018
- AAP has a current task force working on clarifying content and controversies
- New territory – no experts
- Challenges
 - Change in “culture and language”

Biofilm-Induced Gingivitis and Periodontitis



Biofilm-Induced Gingivitis and Periodontitis



Previous Classification

Periodontal Diseases and Conditions

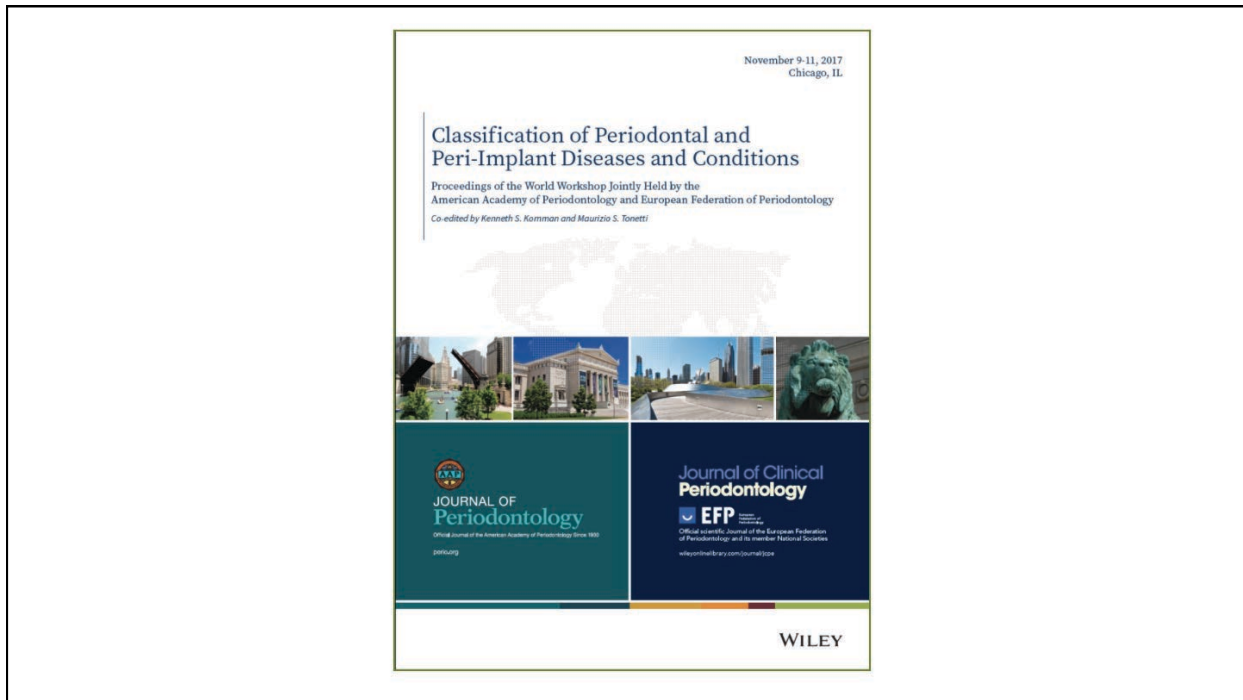
American Academy of Periodontology - Armitage, 1999

- Gingival and periodontal health
- Gingival diseases
- Chronic periodontitis
- Aggressive periodontitis
- Periodontitis as a manifestation of systemic diseases
- Necrotizing periodontal diseases
- Abscesses of the periodontium
- Periodontitis associated with endodontic lesions
- Development or acquired deformities and conditions

Periodontal Diseases and Conditions

American Academy of Periodontology - Armitage, 1999

<p>I. Gingival Diseases</p> <p>A. Dental plaque-induced gingival diseases*</p> <ol style="list-style-type: none"> 1. Gingivitis associated with dental plaque only <ol style="list-style-type: none"> a. without other local contributing factors b. with local contributing factors (See VIII A) 2. Gingival diseases modified by systemic factors <ol style="list-style-type: none"> a. associated with the endocrine system <ol style="list-style-type: none"> 1) puberty-associated gingivitis 2) menstrual cycle-associated gingivitis 3) pregnancy-associated <ol style="list-style-type: none"> a) gingivitis b) pyogenic granuloma 4) diabetes mellitus-associated gingivitis b. associated with blood dyscrasias <ol style="list-style-type: none"> 1) leukemia-associated gingivitis 2) other 3. Gingival diseases modified by medications <ol style="list-style-type: none"> a. drug-influenced gingival enlargements <ol style="list-style-type: none"> 1) drug-influenced gingival enlargements 2) drug-influenced gingivitis b. other 4. Gingival diseases modified by malnutrition <ol style="list-style-type: none"> a. ascorbic acid-deficiency gingivitis b. other <p>B. Non-plaque-induced gingival lesions</p> <ol style="list-style-type: none"> 1. Gingival diseases of specific bacterial origin <ol style="list-style-type: none"> a. <i>Nisseria gonorrhoea</i>-associated lesions b. <i>Treponema pallidum</i>-associated lesions c. streptococcal species-associated lesions d. other 2. Gingival diseases of viral origin <ol style="list-style-type: none"> a. herpesvirus infections <ol style="list-style-type: none"> 1) primary herpetic gingivostomatitis 2) recurrent oral herpes 3) varicella-zoster infections b. other 	<p>3. Gingival diseases of fungal origin</p> <ol style="list-style-type: none"> a. <i>Candida</i>-species infections <ol style="list-style-type: none"> 1) generalized gingival candidosis b. linear gingival erythema c. histoplasmosis d. other 4. Gingival lesions of genetic origin <ol style="list-style-type: none"> a. hereditary gingival fibromatosis b. other 5. Gingival manifestations of systemic conditions <ol style="list-style-type: none"> a. mucocutaneous disorders <ol style="list-style-type: none"> 1) lichen planus 2) pemphigoid 3) pemphigus vulgaris 4) erythema multiforme 5) lupus erythematosus 6) drug-induced 7) other b. allergic reactions <ol style="list-style-type: none"> 1) dental restorative materials <ol style="list-style-type: none"> a) mercury b) nickel c) acrylic d) other 2) reactions attributable to <ol style="list-style-type: none"> a) toothpastes/dentifrices b) mouthrinses/mouthwashes c) chewing gum additives d) foods and additives 3) other 6. Traumatic lesions (factitious, iatrogenic, accidental) <ol style="list-style-type: none"> a. chemical injury b. physical injury c. thermal injury 7. Foreign body reactions 8. Not otherwise specified (NOS) 	<p>II. Chronic Periodontitis[†]</p> <ol style="list-style-type: none"> A. Localized B. Generalized <p>III. Aggressive Periodontitis[†]</p> <ol style="list-style-type: none"> A. Localized B. Generalized <p>IV. Periodontitis as a Manifestation of Systemic Diseases</p> <ol style="list-style-type: none"> A. Associated with hematological disorders <ol style="list-style-type: none"> 1. Acquired neutropenia <ol style="list-style-type: none"> 1. Leukemias 2. Other 2. Leukemias 3. Other B. Associated with genetic disorders <ol style="list-style-type: none"> 1. Familial and cyclic neutropenia 2. Down syndrome 3. Leukocyte adhesion deficiency syndromes 4. Papillon-Lefevre syndrome 5. Chediak-Higashi syndrome 6. Histiocytosis syndromes 7. Glycogen storage disease 8. Infantile genetic agranulocytosis 9. Cohen syndrome 10. Ehlers-Danlos syndrome (Types IV and VIII) 11. Hypophosphatasia 12. Other C. Not otherwise specified (NOS) <p>V. Necrotizing Periodontal Diseases</p> <ol style="list-style-type: none"> A. Necrotizing ulcerative gingivitis (NUG) B. Necrotizing ulcerative periodontitis (NUP) <p>VI. Abscesses of the Periodontium</p> <ol style="list-style-type: none"> A. Gingival abscess B. Periodontal abscess C. Pericoronal abscess 	<p>VII. Periodontitis Associated With Endodontic Lesions</p> <ol style="list-style-type: none"> A. Combined periodontic-endodontic lesions <p>VIII. Developmental or Acquired Deformities and Conditions</p> <ol style="list-style-type: none"> A. Localized tooth-related factors that modify or predispose to plaque-induced gingival diseases/periodontitis <ol style="list-style-type: none"> 1. Tooth anatomic factors 2. Dental restorations/appliances 3. Root fractures 4. Cervical root resorption and cemental tears B. Mucogingival deformities and conditions around teeth <ol style="list-style-type: none"> 1. Gingival/soft tissue recession <ol style="list-style-type: none"> a. facial or lingual surfaces b. interproximal (papillary) 2. Lack of keratinized gingiva 3. Decreased vestibular depth 4. Aberrant frenum/muscle position 5. Gingival excess <ol style="list-style-type: none"> a. pseudopocket b. inconsistent gingival margin c. excessive gingival display d. gingival enlargement (See I.A.3. and I.B.4.) 6. Abnormal color C. Mucogingival deformities and conditions on edentulous ridges <ol style="list-style-type: none"> 1. Vertical and/or horizontal ridge deficiency 2. Lack of gingiva/keratinized tissue 3. Gingival/soft tissue enlargement 4. Aberrant frenum/muscle position 5. Decreased vestibular depth 6. Abnormal color <p>D. Occlusal trauma</p> <ol style="list-style-type: none"> 1. Primary occlusal trauma 2. Secondary occlusal trauma
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New Vocabulary

- Periodontal Biotype → **Periodontal Phenotype**
- Excessive Occlusal Force → **Traumatic Occlusal Force**
- Biologic Width → **Supracrestal Tissue Attachment**
- Chronic Periodontitis, Aggressive Periodontitis → **Periodontitis**
- Classification of Peri-Implant Health/Diseases → **Did not exist**

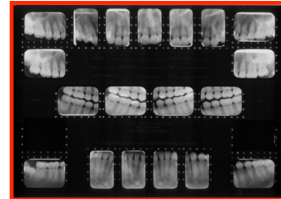
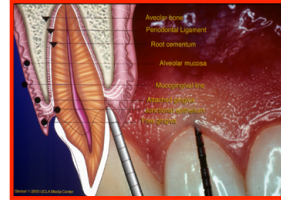
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Periodontal Health and Gingival Health	Gingivitis: Dental Biofilm-Induced	Gingival Diseases: Non-Dental Biofilm-Induced	Necrotizing Periodontal Diseases	Periodontitis	Periodontitis as a Manifestation of Systemic Disease	Systemic diseases or conditions affecting the periodontal supporting tissues	Periodontal Abscesses and Endodontic-Periodontal Lesions	Mucogingival Deformities and Conditions	Traumatic Occlusal Forces	Tooth and Prosthesis Related Factors
Peri-Implant Diseases and Conditions Berglundh, Armitage et al. 2018 Consensus Rept link										
Peri-Implant Health	Peri-Implant Mucositis			Peri-Implantitis			Peri-Implant Soft and Hard Tissue Deficiencies			

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- Periodontal health and gingival health
 - **Clinical gingival health on an intact periodontium**
 - Clinical gingival health on a reduced periodontium



- Periodontal health and gingival health
 - Clinical gingival health on an intact periodontium
 - **Clinical gingival health on a reduced periodontium**

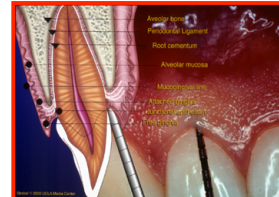


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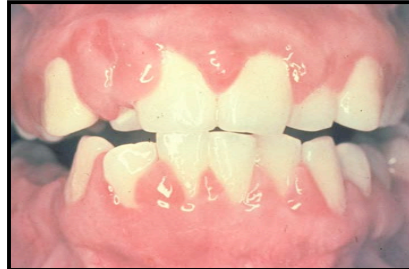
Gingival Diseases

- **Gingivitis**
 - **Dental plaque (biofilm) alone**
 - **Localized: $\leq 30\%$ BOP sites**
 - **Generalized: $> 30\%$ BOP sites**
 - **Reduced periodontium**
 - **Pocket depth ≤ 3 mm with BOP**
- Mediated by systemic factors or local risk factors
- Drug-influenced gingival enlargement



Gingival Diseases

- Gingivitis
 - Dental plaque (biofilm) alone
 - **Mediated by systemic factors or local risk factors**
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Gingival Diseases

- Gingivitis
 - Dental plaque (biofilm) alone
 - Mediated by systemic factors or local risk factors
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Gingival Diseases

- Non-dental biofilm (plaque) induced
 - **Genetic/developmental disorders**
 - **Hereditary gingival fibromatosis**
 - Specific infections
 - Bacterial
 - Viral origin
 - Primary and recurrent herpetic gingivostomatitis
 - Fungal origin
 - Inflammatory and immune conditions
 - Reactive processes
 - Neoplasms
 - Endocrine, nutritional and metabolic diseases
 - Traumatic lesions
 - Gingival pigmentation



Gingival Diseases

- Non-dental biofilm (plaque) induced
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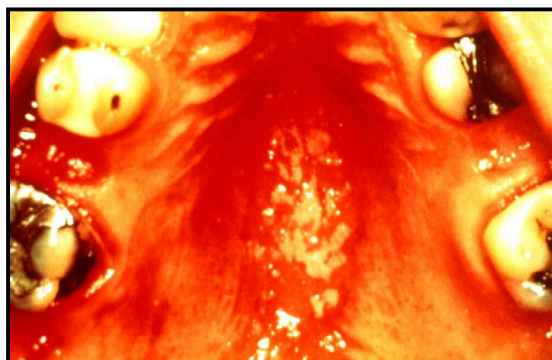
Gingival Diseases

- Non-dental biofilm (plaque) induced
 - Genetic/developmental disorders
 - Specific infections
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 - **Viral origin**
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Gingival Diseases

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Gingival Diseases

- Non-dental biofilm (plaque) induced
 - Genetic/developmental disorders
 - Specific infections
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 - Fungal origin
 - **Inflammatory and immune conditions**
 - **Lichen planus**
 - Pemphigoid
 - Pemphigus vulgaris
 - Lupus erythematosus
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Gingival Diseases

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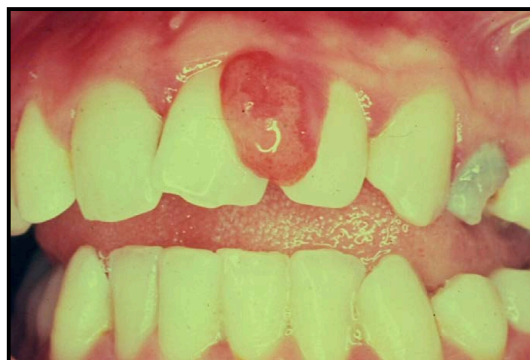
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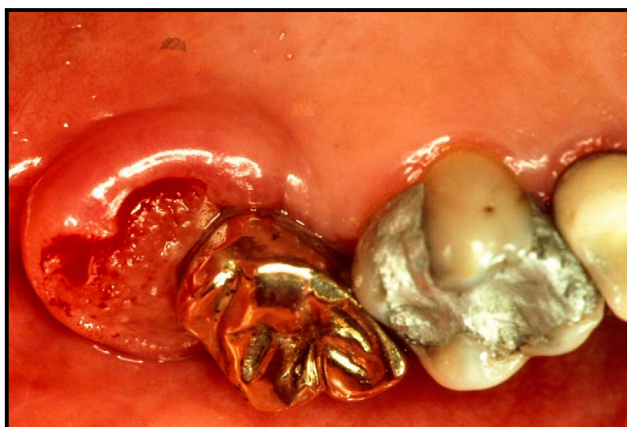
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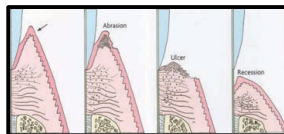
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Necrotizing Periodontal Diseases

- Necrotizing periodontal diseases
 - **Necrotizing gingivitis**
 - **Necrotizing periodontitis**
 - Necrotizing stomatitis



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Periodontitis

Classification Parameters

- Severity and Complexity of Management
 - How much destruction?
- Extent and Distribution
 - How many teeth are affected?
- Evidence of Risk of Rapid Progression, Anticipated Treatment Response
 - How fast the destruction occurred or is likely to occur?

Periodontitis

Severity and Complexity of Management

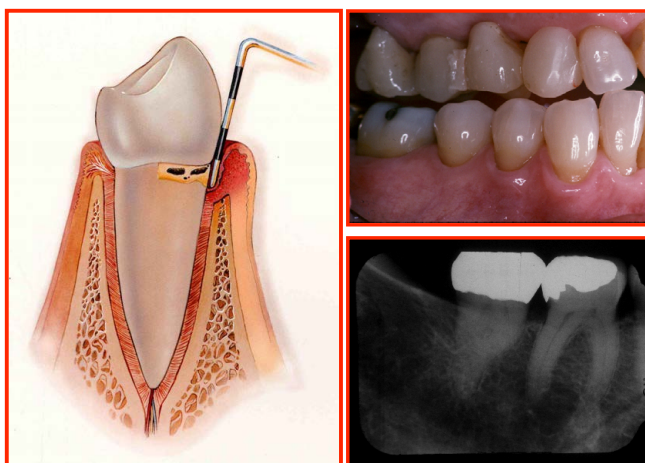
- Stage I: initial periodontitis
- Stage II: moderate periodontitis
- Stage III: severe periodontitis with potential for additional bone loss and tooth loss
- Stage IV: severe periodontitis with potential for additional bone loss and loss of dentition

How Much Difference?

Armitage 1999		Slight	Moderate	Severe	
Severity	CAL	1-2 mm	3-4 mm	≥ 5 mm	
Workshop 2018		Stage 1	Stage 2	Stage 3	Stage 4
Severity	CAL IP	1-2 mm	3-4 mm	≥ 5 mm	≥ 5 mm

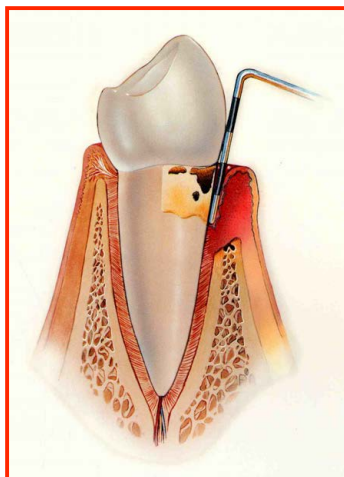
Stage I Periodontitis

- Clinical attachment loss: interproximal ≤ 2 mm
- Radiographic bone loss: $< 15\%$, mostly horizontal
- Tooth loss: None due to periodontitis
- Pocket depth: ≤ 4 mm
- Furcation involvement: Maximum class I



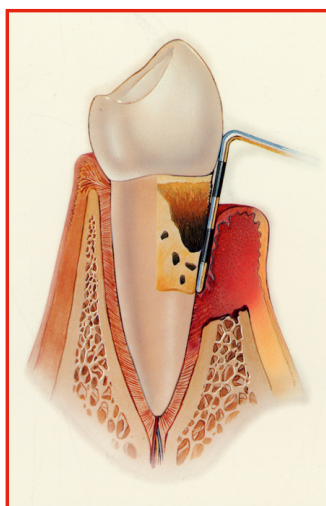
Stage II Periodontitis

- Clinical attachment loss: interproximal 3-4 mm
- Radiographic bone loss: 15% to 33%, mostly horizontal
- Tooth loss: None due to periodontitis
- Pocket depth: ≤ 5 mm
- Furcation involvement: Maximum class I



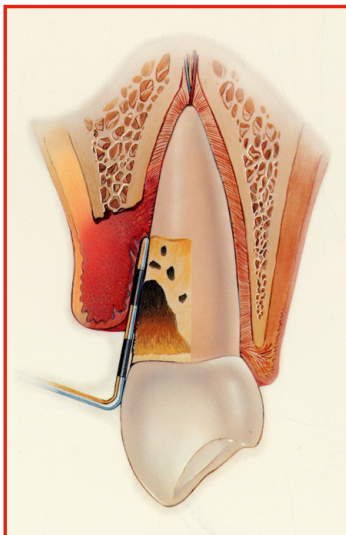
Stage III Periodontitis

- Clinical attachment loss: interproximal ≥ 5 mm
- Radiographic bone loss: $>33\%$, including vertical
- Tooth loss: ≤ 4 teeth due to periodontitis
- Pocket depth: ≥ 6 mm
- Furcation involvement: Class II or III



Stage IV Periodontitis

- Clinical attachment loss: interproximal ≥ 5 mm
- Radiographic bone loss: $>33\%$, including vertical
- Tooth loss: ≥ 5 teeth due to periodontitis
Less than 20 remaining teeth
- Pocket depth: ≥ 6 mm
- Furcation involvement: Class II or III
- Plus:
Tooth mobility ≥ 2
Tooth flaring and/or drifting



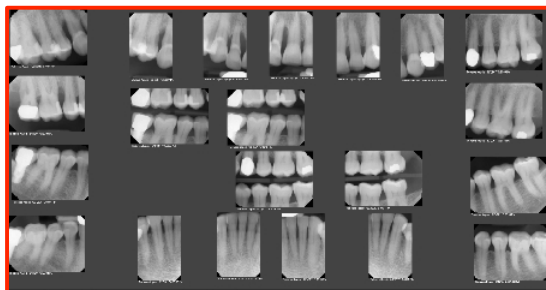
Stage Trump Cards

- Vertical Bone Loss ≥ 3 mm: Automatic Stage 3 or 4
- Furcation Involvement Class II or III: Automatic Stage 3 or 4
- Up to 4 teeth lost because of periodontitis: Automatic Stage 3
- 5 or more teeth lost because of periodontitis: Automatic Stage 4
- < 20 teeth remaining: Automatic Stage 4
 - WHO suggests ≥ 20 TEETH PRESENT represents satisfactory oral function

Periodontitis

Extent and Distribution

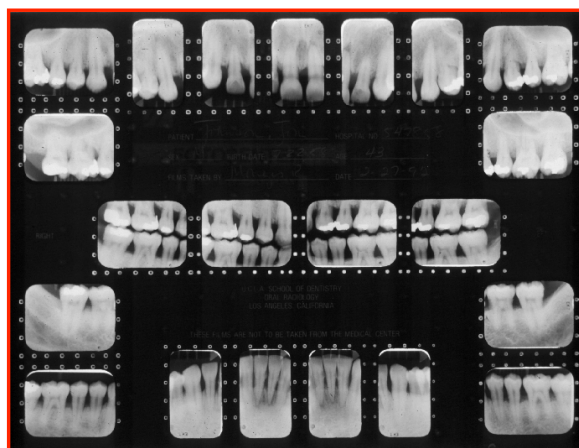
- **Localized: <30% of teeth involved**
- Generalized: $\geq 30\%$ of teeth involved
- Molar/incisor patient



Periodontitis

Extent and Distribution

- Localized: <30% of teeth involved
- **Generalized: $\geq 30\%$ of teeth involved**
- Molar/incisor patient



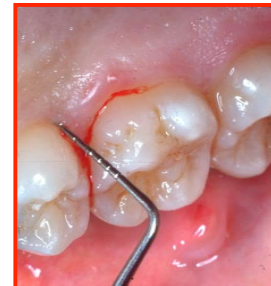
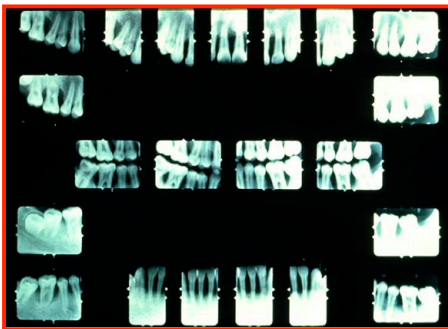
Periodontitis

Extent and Distribution

- Localized: <30% of teeth involved
- Generalized: $\geq 30\%$ of teeth involved
- **Molar/incisor patient**

- **MOLAR INCISOR PATIENT**

- Aggressive periodontitis (previous classification 2)
- Juvenile periodontitis (previous classification 1)
- Periodontosis (original terminology)

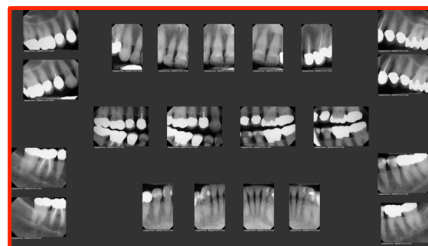


Staging and Grading Periodontitis					
<p>The 2017 World Workshop on the Classification of Periodontal and Periimplant Diseases and Conditions resulted in a new classification of periodontitis characterized by a multidimensional staging and grading system. The charts below provide an overview. Please visit perio.org/2017wwdc for the complete suite of reviews, case definition papers, and consensus reports.</p>					
<p>PERIODONTITIS: STAGING</p> <p>Staging intends to classify the severity and extent of a patient's disease based on the measurable amount of destroyed and/or damaged tissue as a result of periodontitis and to assess the specific factors that may attribute to the complexity of long-term case management.</p> <p>Initial stage should be determined using clinical attachment loss (CAL). If CAL is not available, radiographic bone loss (RBL) should be used. Tooth loss due to periodontitis may modify stage definition. One or more complexity factors may shift the stage to a higher level. See perio.org/2017wwdc for additional information.</p>					
	Periodontitis	Stage I	Stage II	Stage III	Stage IV
Severity	Interdental CAL (at site of greatest loss)	1-2 mm	3-4 mm	≥5 mm	≥5 mm
	RBL	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		≤4 teeth	≥5 teeth
Complexity	Local	<ul style="list-style-type: none"> ☐ Max. probing depth ≤4 mm ☐ Mostly horizontal bone loss 	<ul style="list-style-type: none"> ☐ Max. probing depth ≤5 mm ☐ Mostly horizontal bone loss 	<ul style="list-style-type: none"> ☐ In addition to Stage II complexity: ☐ Probing depths ≥6 mm ☐ Vertical bone loss ≥3 mm ☐ Furcation involvement Class II or III ☐ Moderate ridge defects 	<ul style="list-style-type: none"> ☐ In addition to Stage III complexity: ☐ Need for complex rehabilitation due to: ☐ Masticatory dysfunction ☐ Secondary occlusal trauma (tooth mobility degree ≥2) ☐ Severe ridge defects ☐ Bite collapse, drifting, flaring ☐ <20 remaining teeth (10 opposing pairs)
	Extent and distribution	Add to stage as descriptor	For each stage, describe extent as:		
		<ul style="list-style-type: none"> ☐ Localized (<30% of teeth involved); ☐ Generalized; or ☐ Molar/incisor pattern 			

Periodontitis

Evidence or Risk of Rapid Progression, Anticipated Treatment Response

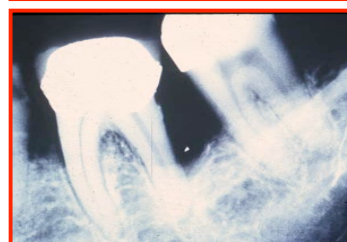
- **Grade A: slow rate of progression**
 - **No CAL and/or bone loss over 5 years**
 - Non-smoker
 - Normoglycemic
- **Grade B: moderate rate of progression**
 - <2 mm CAL and/or bone loss over 5 years
 - Smoker <10 cigs./day
 - HbA1c <7%
- **Grade C: rapid rate of progression**
 - ≥2 mm CAL and/or bone loss over 5 years
 - Smoker ≥10 cigs./day
 - HbA1c ≥7%



Periodontitis

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 - HbA1c ≥7%



Periodontitis

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 - **≥2 mm CAL and/or bone loss over 5 years**
 - **Smoker ≥10 cigs./day**
 - **HbA1c ≥7%**



% Bone Loss	Age	% Bone Loss/Age	Grade
25	25	1.00	C
50	25	2.00	C
75	25	3.00	C
25	30	0.83	B
50	30	1.67	C
75	30	2.50	C
25	35	0.71	B
50	35	1.43	C
75	35	2.14	C
25	40	0.63	B
50	40	1.25	C
75	40	1.88	C
25	45	0.56	B
50	45	1.11	C
75	45	1.67	C
25	50	0.50	B
50	50	1.00	C
75	50	1.50	C
25	55	0.45	B
50	55	0.91	B
75	55	1.36	C

% Bone Loss	Age	% Bone Loss/Age	Grade
25	60	0.42	B
50	60	0.83	B
75	60	1.25	C
25	65	0.38	B
50	65	0.77	B
75	65	1.15	C
25	70	0.36	B
50	70	0.71	B
75	70	1.07	C
25	75	0.33	B
50	75	0.67	B
75	75	1.00	C
25	80	0.31	B
50	80	0.63	B
75	80	0.94	B
25	85	0.29	B
50	85	0.59	B
75	85	0.88	B
25	90	0.28	B
50	90	0.56	B
75	90	0.83	B

Percent Bone Loss Divided by Age

Ratio	≥ 0.5 Rapid	≥0.25<0.50 Mod	< 0.25 Slow
Age	% BL	% BL	% BL
30	30	15	7.5
40	40	20	10
50	50	25	12.5
60	60	30	15

Grade Trump Card

- Highest Grade for any individual item = Grade assignment for patient
- Only one grade per patient

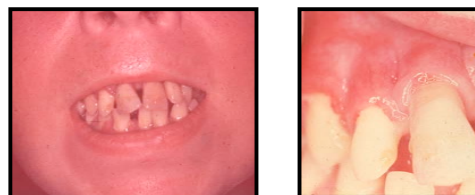
Workshop Suggested Application of the Classification System

- Only one **Stage** per patient
 - Keyed to the worst tooth (interdental CAL at site of greatest loss)
- Only one **Grade** per patient
 - Keyed to the worst grade assignment (progression is 1st, then risk factors)

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Peri-Implant Diseases and Conditions Berglundh, Armitage et al. 2018 Consensus Rept link										
Peri-Implant Health		Peri-Implant Mucositis		Peri-Implantitis		Peri-Implant Soft and Hard Tissue Deficiencies				

- Periodontitis as a manifestation of systemic diseases
 - **I.e., Papillon-Lefevre syndrome**
 - Metastatic squamous cell carcinoma



- Periodontitis as a manifestation of systemic diseases
 - I.e., Papillon-Lefevre syndrome
 - **Metastatic squamous cell carcinoma**

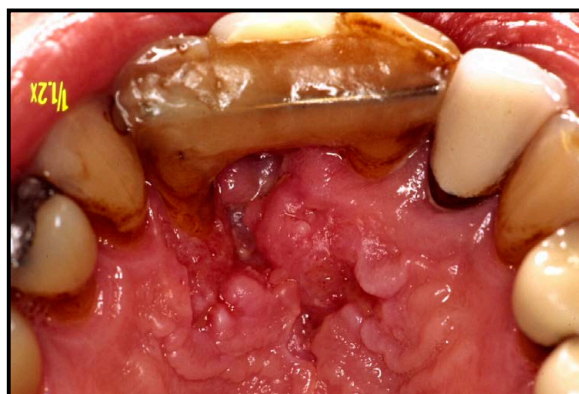


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- **Systemic disorders that can have a major impact in the loss of periodontal tissues**
 - **Neutropenia**
- Other systemic disorders that influence the pathogenesis of periodontal diseases
 - Diabetes
- Systemic disorders that can result in the loss of periodontal tissues independent of periodontitis
 - Squamous cell carcinoma



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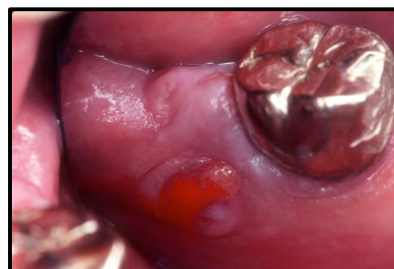


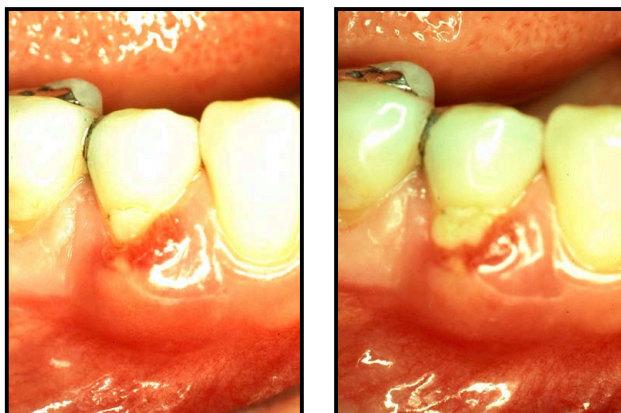
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Other Conditions Affecting the Periodontium

- **Periodontal abscess**
- Endodontic-periodontal lesions



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- Periodontal abscess
- **Endodontic-periodontal lesions**

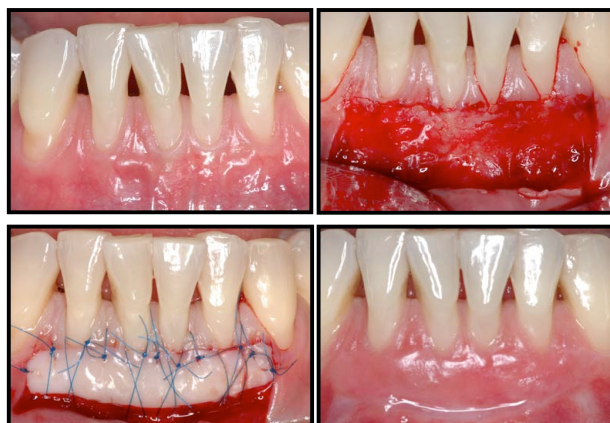


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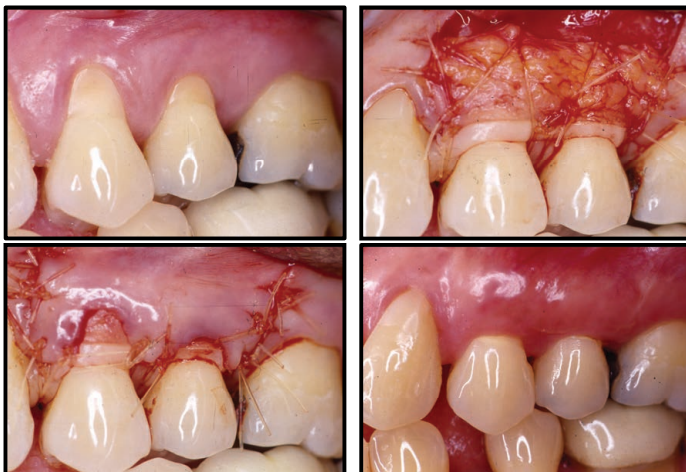
Mucogingival Deformities and Conditions Around Teeth

- **Gingival phenotype**
- **Lack of gingiva**
- Gingival/soft tissue recession
- Decreased vestibular depth
- Aberrant frenum/muscle position
- Gingival excess
- Abnormal color
- Condition of the exposed root surface



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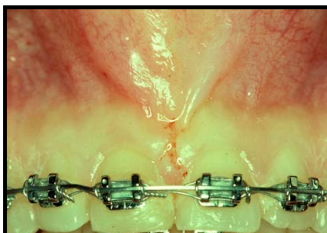
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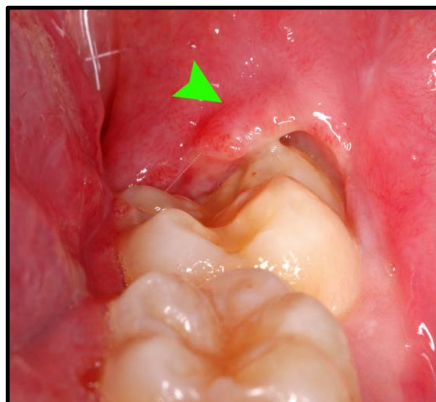
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Traumatic Occlusal Forces

- Primary occlusal trauma
- Secondary occlusal trauma
- Orthodontics forces

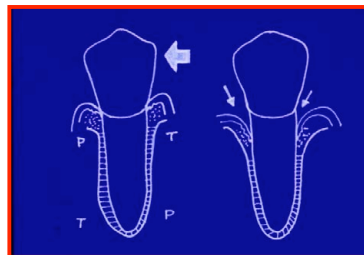
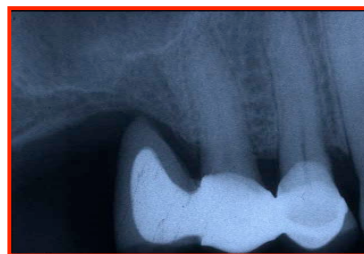
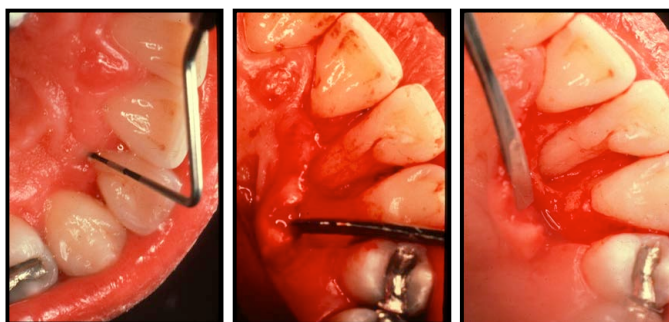


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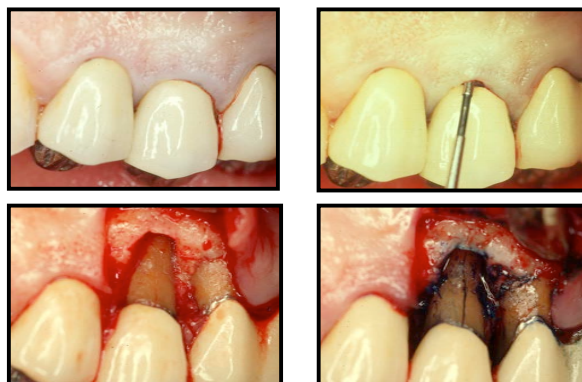
Tooth-Related Factors that Modify or Pre-Dispose to Plaque-Induced Gingival Diseases and Periodontitis

- Development or acquired deformities and conditions
 - **Tooth anatomic factors**
 - Root fractures
 - Cervical root resorption, cemental tears
 - Root proximity
 - Altered passive eruption



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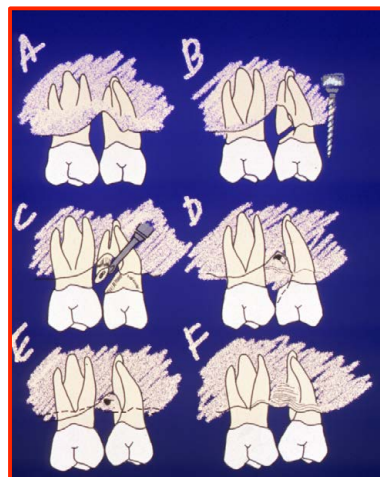
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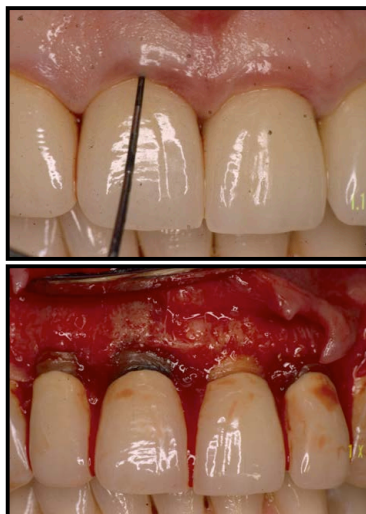
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- Localized dental prosthesis-related factors
 - **Restoration margins placed within the supracrestal attached tissues**
 - Clinical procedures related to the fabrication of indirect restorations
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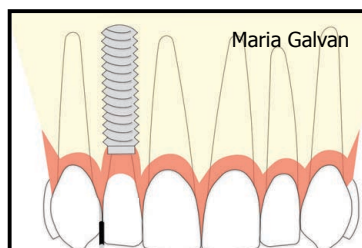
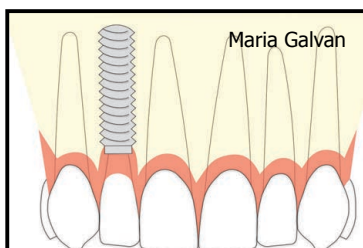


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Peri-Implant Health



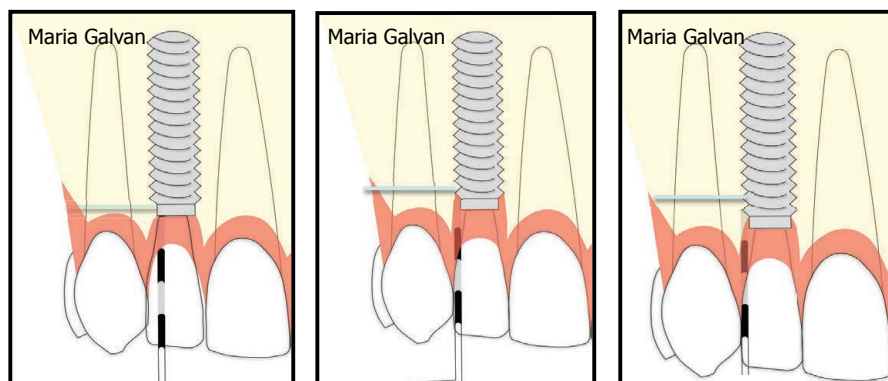
- Absence of soft tissue inflammation
 - No redness, no swelling and no bleeding on probing (dot bleeding on probing may occur)
- Pocket depth is usually $\leq 5\text{mm}$

Peri-Implant Health



- Absence of additional bone loss following initial healing

Peri-Implant Health



- Initial bone remodeling should not exceed 2mm

Steps to Determine Peri-Implant Health

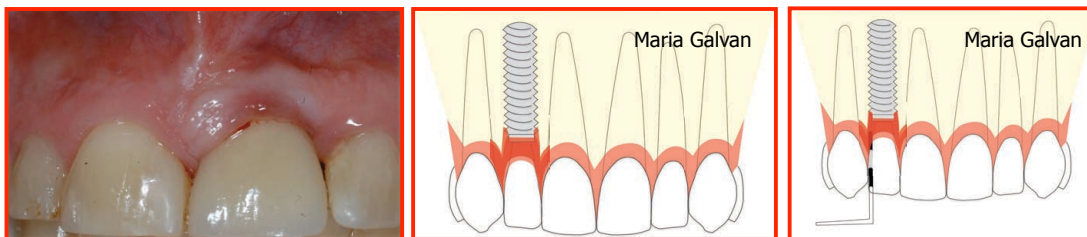


- Oral hygiene
 - No/minimal biofilm on implants and their restorations
- Visually evaluate peri-implant tissues
- Probe implants at least once a year
 - PD should be ≤ 5 mm (in general)
 - Increase in PD overtime is not consistent with health
 - Care should be taken not to excessively traumatize tissues when probing
 - No bleeding on probing or a dot of bleeding present

TABLE 1

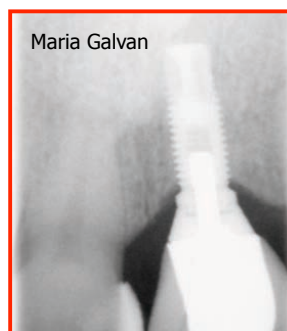
CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017										
Periodontal Diseases and Conditions										
Periodontal Health, Gingival Diseases and Conditions Chapple, Mealey, et al. 2018 Consensus Rept link Trombelli et al. 2018 Case Definitions link			Periodontitis Papapanou, Sanz et al. 2018 Consensus Rept link Jepsen, Caton et al. 2018 Consensus Rept link Tonetti, Greenwell, Kornman. 2018 Case Definitions link			Other Conditions Affecting the Periodontium Jepsen, Caton et al. 2018 Consensus Rept link Papapanou, Sanz et al. 2018 Consensus Rept link				
Periodontal Health and Gingival Health	Gingivitis: Dental Biofilm-Induced	Gingival Diseases: Non-Dental Biofilm-Induced	Necrotizing Periodontal Diseases	Periodontitis	Periodontitis as a Manifestation of Systemic Disease	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
Peri-Implant Diseases and Conditions Berglundh, Armitage et al. 2018 Consensus Rept link										
Peri-Implant Health		Peri-Implant Mucositis		Peri-Implantitis			Peri-Implant Soft and Hard Tissue Deficiencies			

Peri-Implant Mucositis



- Presence of soft tissue inflammation
 - Redness, swelling, shininess
 - Bleeding on probing
 - Possible suppuration
- Pocket depth is usually ≤ 5 mm

Peri-Implant Mucositis

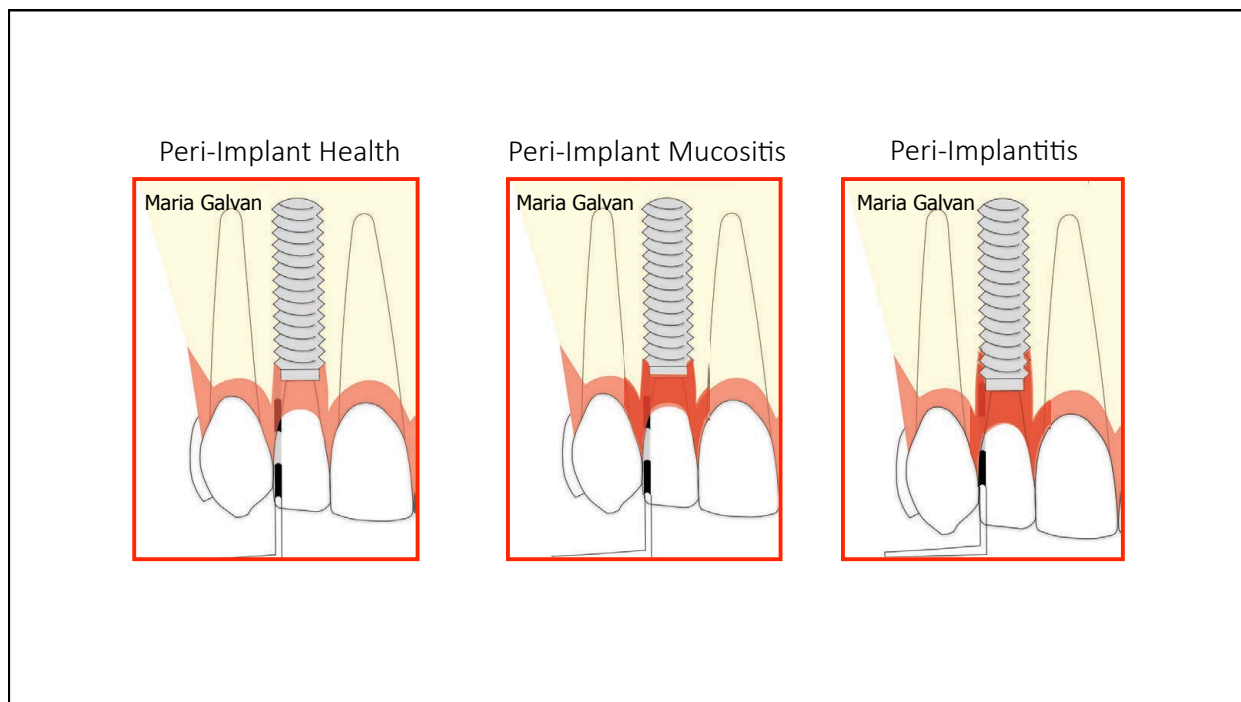


- No evidence of radiographic bone loss beyond initial bone remodeling ($\leq 2\text{mm}$)

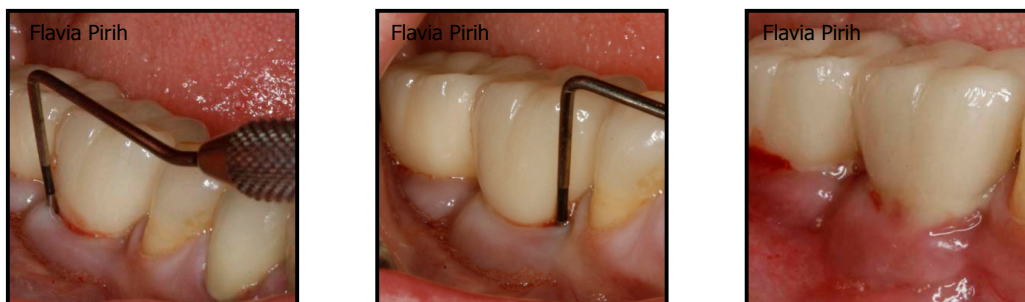
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CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017

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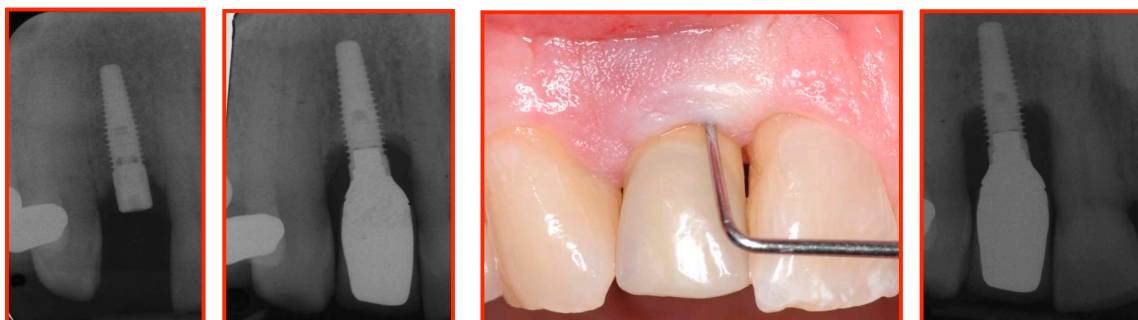


Peri-Implantitis



- Presence of soft tissue inflammation
 - Redness, swelling, shininess
 - Bleeding and/or suppuration
 - Increase in PD overtime

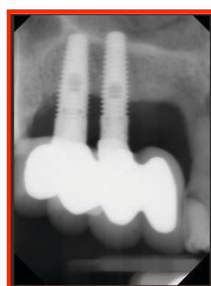
Peri-Implantitis



Radiographs taken 2 years apart Clinical photo/radiograph 4 years post-insertion

- Progressive radiographic bone loss in addition to initial bone remodeling

Peri-Implantitis



	5	6
Mobility	0	0
Implant	■	■
Furcation		
Bleeding on Probing	■	■
Plaque		
Gingival Margin	-1 -1 -1 -1	-1 -2 -1
Probing Depth	6 5 5 4	2 5

Buccal

	0	0	0	0
Gingival Margin	0	0	0	0
Probing Depth	10	4	8	6
Plaque				
Bleeding on Probing	■	■	■	■

Lingual

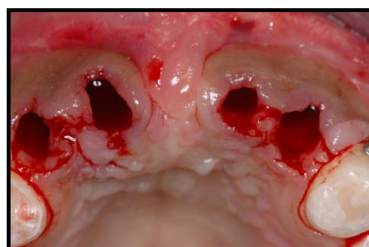
- Diagnosis in the absence of previous radiographs
 - Clinical signs of inflammation
 - PD \geq 6mm
 - Bone loss of \geq 3mm

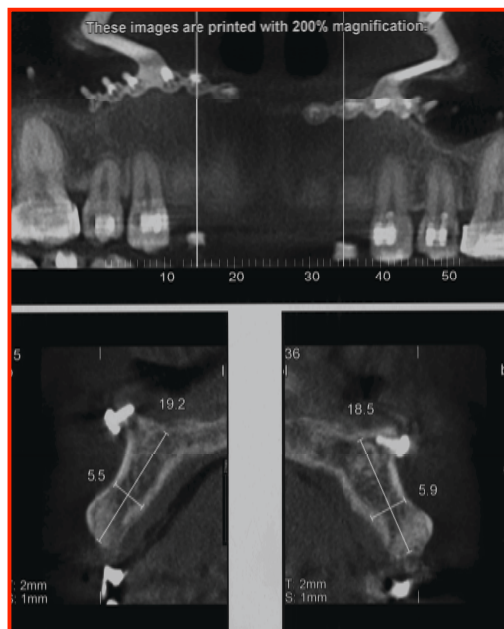
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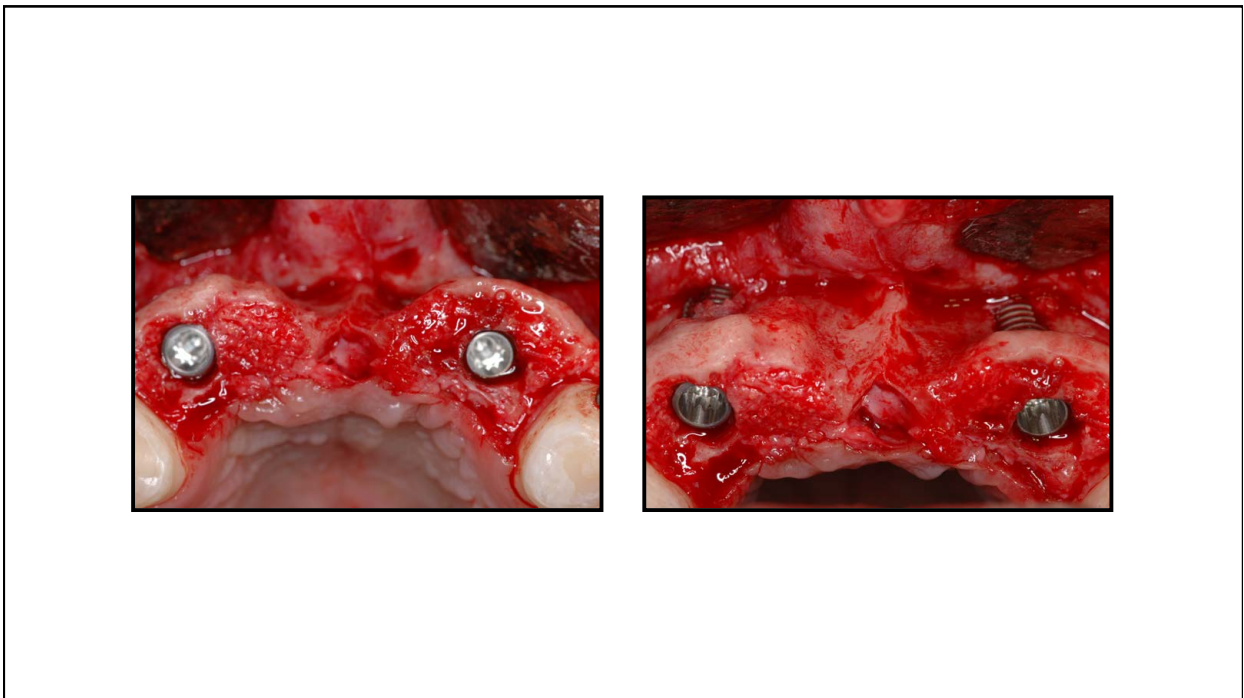
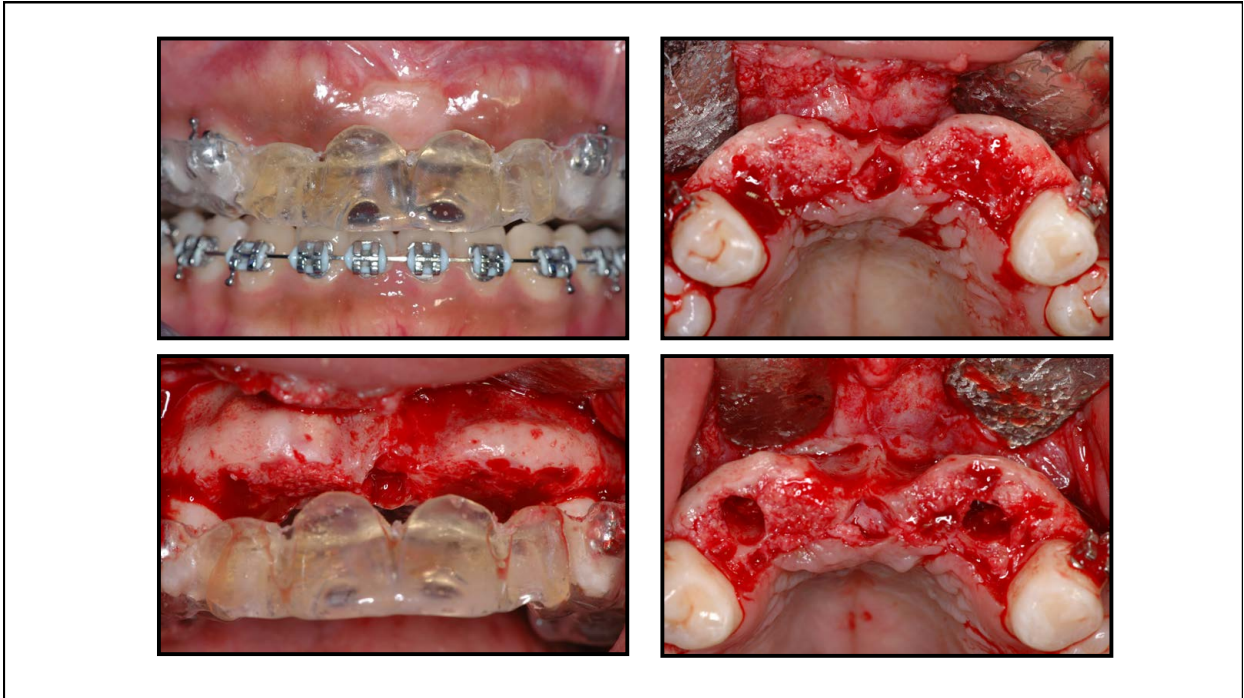
CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017

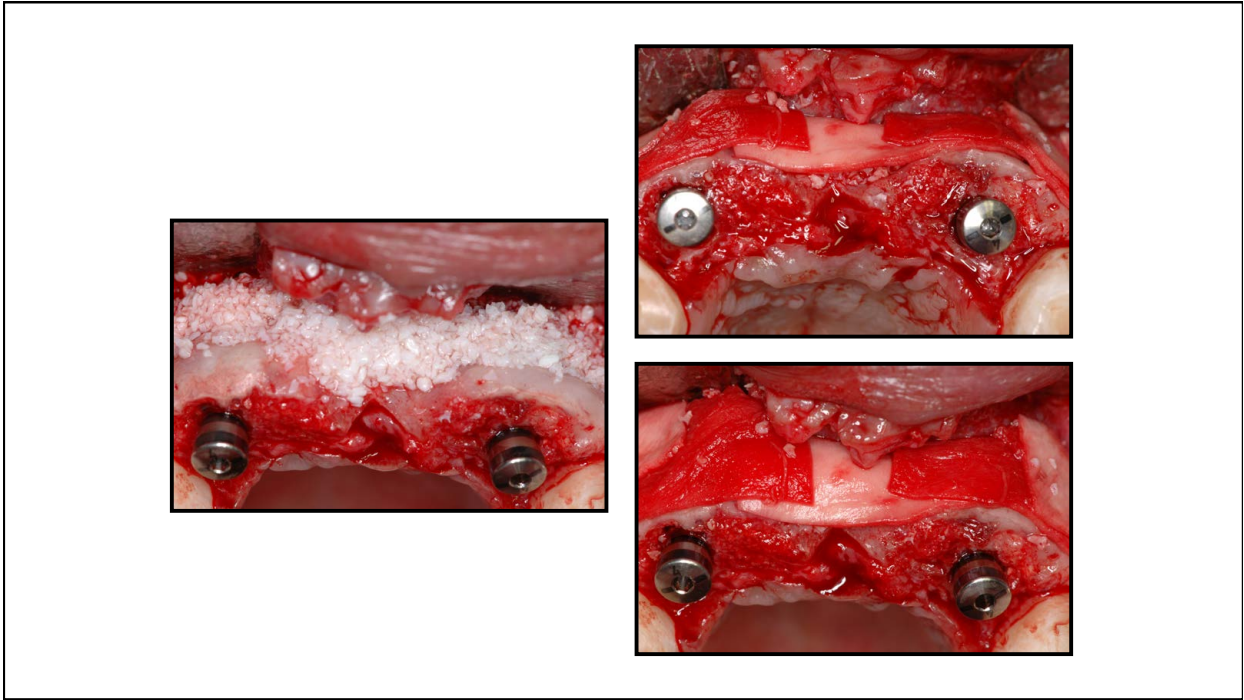
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Peri-Implant Hard Tissue Deficiencies

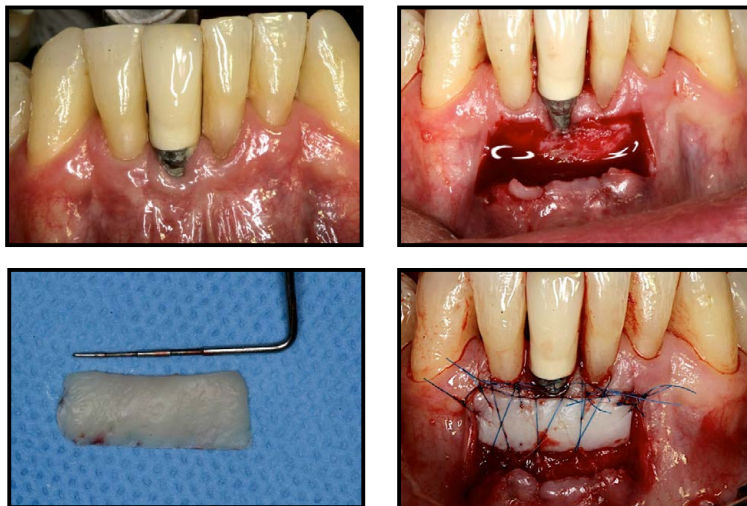








Peri-Implant Soft Tissue Deficiencies



Thank you