

## Successfully Applying, Implementing and Documenting the Classifications of Periodontal and Peri-implant Disease and Conditions



Anna Louise Tolan, RDH, FADIA  
Empowering Clients and Colleagues

Anna Louise Tolan RDH, FADIA

2021

### Clinical Attachment Level Review

- First diagnostic tool used to establish a periodontal diagnosis
- Relative probing depth corresponding to the distance from the cementoenamel junction (CEJ) to the location of a periodontal probe tip at the epithelial junction Darby & Walsh
- CAL are made from a fixed point (CEJ) that does not change.
- Overlap 65% Touch 25% Gap 10%

### 2017 World Workshop of AAP and EFP

#### Goals:

- Proper diagnosis and treatment of clients
- Scientists to investigate etiology, pathogenesis, natural history and treatment of diseases and conditions
- Develop case definitions and diagnostic criteria

#### CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017

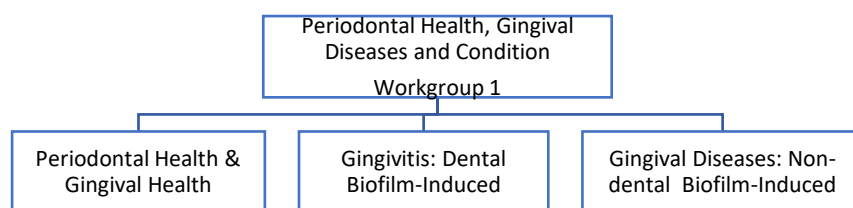
##### Periodontal Diseases and Conditions

Periodontal Health, Gingival Diseases and Conditions			Periodontitis			Other Conditions Affecting the Periodontium				
Chapple, Mealey, et al. 2018 Consensus Rept <a href="#">link</a>			Papapanou, Sanz et al. 2018 Consensus Rept <a href="#">link</a>			Jepsen, Caton et al. 2018 Consensus Rept <a href="#">link</a>				
Trombelli et al. 2018 Case Definitions <a href="#">link</a>			Jepsen, Caton et al. 2018 Consensus Rept <a href="#">link</a>			Papapanou, Sanz et al. 2018 Consensus Rept <a href="#">link</a>				
Tonetti, Greenwell, Kornman. 2018 Case Definitions <a href="#">link</a>										
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

Peri-Implant Diseases and Conditions			
Berglundh, Armitage et al. 2018 Consensus Rept <a href="#">link</a>			
Peri-Implant Health	Peri-Implant Mucositis	Peri-Implantitis	Peri-Implant Soft and Hard Tissue Deficiencies

A new classification scheme for periodontal and peri-implant diseases and conditions -Introduction and key changes form 1999 classification <https://onlinelibrary.wiley.com/doi/epdf/10.1002/JPER.18-0157>



Consensus Report Workgroup 1 <https://doi.org/10.1002/JPER.17-0719>

**Intact Periodontium**-no apical movement of gingiva.

**Reduced Periodontium**-Non-periodontitis (with recession, crown lengthening)  
-Stable periodontitis

#### Gingiva Health:

**Intact Periodontium:** Absence of: Bleeding, Erythema, Edema, Client symptoms, Attachment loss, Bone loss Pocket range 1.0-3.0 mm.

### Learning Objectives

- Review assessment skills required to collect the essential data to apply the classification system
- Implement the classification system to identify Health, Gingivitis and Periodontal Disease by incorporating staging and grading
- Identify, classify and document Peri-implant Health, Peri-implant Mucositis and Peri-implantitis
- Build confidence in the application of the system by incorporating it into the ADPIE process
- Create and document Dental Hygiene Diagnosis statements

All Links are Active

### Clinical Attachment Level

<http://webstore.lexi.com/sample-pages/pdf/IHCD-6.pdf>

Fritz, P. C. (2013, October 1). Clinical Attachment Level - How to Calculate and Interpret this Important Measurement. Retrieved from <https://www.oralhealthgroup.com/features/clinical-attachment-level-how-to-calculate-and-interpret-this-important-measurement/>

**Clinical Attachment Level:** an estimate of periodontal support around a tooth ☺

**Clinical Attachment Loss:** an estimate of the extent of tooth-supporting structure that have been destroyed ☹

**Reduced Periodontium:** Absence of: Bleeding Erythema, Edema, Client symptoms in the presence of reduce clinical attachment and bone levels.

**Periodontal Health in an Intact Periodontium:** Absence of disease assessed clinically (Absence or minimal amount: Bleeding on probing, Erythema, Edema, Client symptoms, Attachment loss, Bone loss, Periodontal evaluation reveals range from 1.0 to 3.0 mm apical to the CEJ).

**Periodontal Health in a Reduced Periodontium:** Absence or minimal amount: Bleeding on probing, Erythema, Edema, Client symptoms, In the presence of reduced: Clinical attachment, Bone loss

- Treated & stable periodontitis clients are at risk for recurrent periodontitis

**Gingivitis Dental Plaque-induced:** inflammation remains confined to the gingiva and does not extend beyond the mucogingival junction and is reversible by reducing levels of dental plaque at the apical to the gingival margin. Defined at the site.

### Gingivitis:

Clinical signs of inflammation: Erythema, Edema, Pain, Heat and loss of function

### Gingivitis:

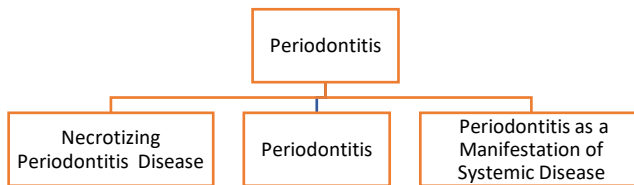
- **Incipient gingivitis:** only a few sites (less than 10%)
- Localized BOP scores 10-30%
- Generalized BOP scores >30%

### Defining Severity of Plaque-induced Gingivitis

Mild <10%. Moderate=10-30%. Severe=>30%

### Gingival Diseases Non-Dental Biofilm-Induced

- Non-dental plaque-induced gingival conditions include a wide variety of conditions that are NOT caused by plaque.
- Does not resolve following plaque removal
- The severity of the clinical manifestation is influenced by accumulation and gingival inflammation



### Periodontitis

- Chronic multi-factorial inflammatory disease
- Associated with bacterial dysbiosis
- Progressively destructs supporting structures of the dentition
- Clinical features
  - Loss periodontal support evidence by: CAL, RBL, PPD, BOP

**Necrotizing Periodontal Disease:** is an inflammatory process characterized by a aggressive bacterial invasion and ulcerated tissues.

- Presence of necrosis of the interdental papilla, gingival bleeding, ulcers, halitosis pain and rapid bone loss
- Impairment of the host immune system

### Periodontal Clinical Case

Interdental CAL is detectable at  $\geq 2$  non-adjacent teeth  
OR

Buccal or oral CAL  $\geq 3$ mm with PPD  $\geq 3$ mm is detectable at  $\geq 2$  teeth

The CAL cannot be as a result of

- Gingival recession from trauma

Notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Resources New Classifications

American Academy of Periodontology. (2018). Retrieved from <https://www.perio.org/2017wwdc>

Caton J, Armitage G, Berglundh T, et al. A new classification scheme for periodontal and peri-implant diseases and conditions– Introduction and key changes from the 1999classification. J Periodontol . 2018;89(Suppl 1):S1–S8. <https://doi.org/10.1002/JPER.18-0157>

Chapple, I. L., Mealey, B. L., Dyke, T. E., Bartold, P. M., Dommisch, H., Eickholz, P., . . . Yoshie, H. (2018, June 21). 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. Retrieved from <https://onlinelibrary.wiley.com/doi/full/10.1002/JPER.17-0719>

Dietrich, T., Ower, P., Tank, M., West, N. X., Walter, C., Needleman, I., . . . Chapple, I. L. (2019). Periodontal diagnosis in the context of the 2017 classification system of periodontal diseases and conditions – implementation in clinical practice. *Bdj*,226(1), 16-22. doi:10.1038/sj.bdj.2019.3

Lang, N. P., & Bartold, P. M. (2018, June 20). Periodontal health. Retrieved from <https://www.onlinelibrary.wiley.com/doi/full/10.1111/jcpe.12936>

### Assessment Skills Required

**Gingiva Inflammation Index** (Loe and Silness 1963) Darby and Walsh

0=**Absence of inflammation**

1=**Mild inflammation** characterized by slight colour change, little change in texture and no bleeding on probing

2=**Moderate inflammation** characterized by redness and swelling of the gingival and accompanied by bleeding on probing

3=**Severe inflammation** characterized by significant redness and hypertrophy, a tendency to bleed spontaneously, and ulceration

**Best Practice**

- Dental caries extending in the cervical area of the tooth
- The presence of CAL on the distal of a 7 and associated with the malposition for extraction of the 8
- Endodontic lesion draining through the marginal periodontium
- Vertical root fracture

**Classification of Periodontal Disease using Staging and Grading**

**Staging**

- Number and distribution of teeth
- Degree of periodontal breakdown
- Evidence of rate of destruction of the periodontium
- Complexity of management
- Causal factors

**Grading**

- Rate of progression
- Assessment of further risk
- Analysis of possible poor outcomes of treatment
- Assessment of the risk of PD to negatively impact overall health

**Periodontal Disease Stability**

---



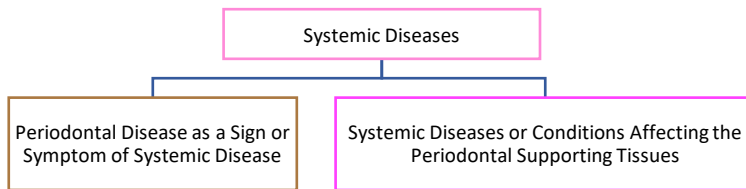
---

**Periodontal Disease Remission and Control**

---

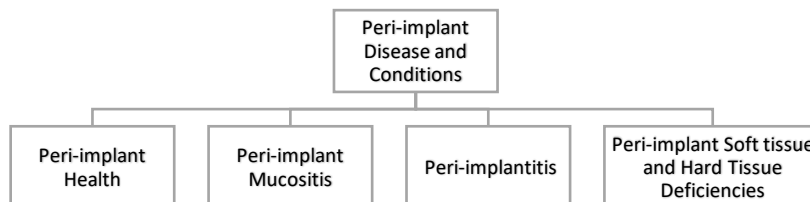
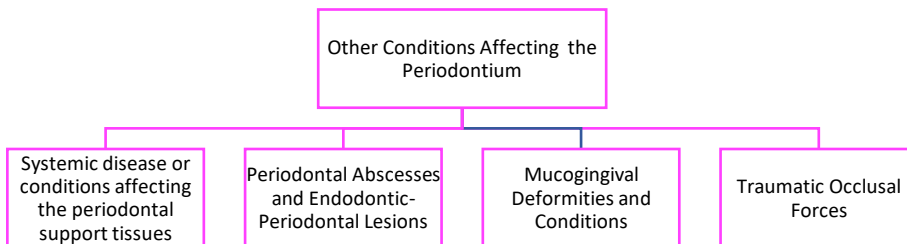


---

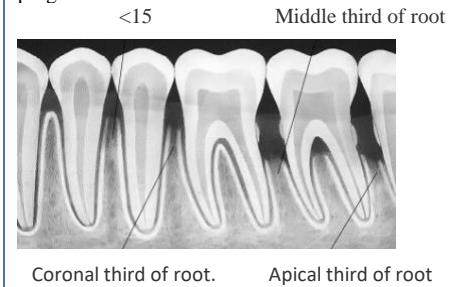


**Periodontal disease as a manifestation of systemic disease** Diseases that are related to periodontal disease because they can lead to decreased infection resistance, or dysfunction that increases susceptibility to inflammation and destruction

**Systemic disorders that impact periodontal tissues** can be grouped into categories like genetic disorders that affect the host immune response or affect the connective tissues, metabolic and endocrine disorders, and inflammatory conditions.



**Periodontal Evaluation** should be done on a client every 12 months or as indicated by client condition  
**Radiographic Bone Loss:** Using your perio probe or measurement application on digital radiograph program



**AAP Staging and Grading Resources**

PLEASE PRINT OFF 3 pages to complete your notes AAP Staging and Grading Resources

**Periodontal Disease Resources**

Crest+Oral B Patient Consultation Guide  
 Chairside 2018 Classifications Periodontal and Peri-implant Disease Guide  
<http://www.dentalcare.ca/en-ca/perioguide>

**Probing the Depths to Enhance Your Clinical Results** <https://www.hufriedy.com/education/continuing-education-classes>

Papapanou, P. N., Sanz, M., Buduneli, N., Dietrich, T., Feres, M., Fine, D. H., . . . Tonetti, M. S. (2018, June 21). Periodontitis: Consensus report of workgroup 2 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/JPER.17-0721>

Tonetti, M. S., Greenwell, H., & Kornman, K. S. (2018, June 20). Staging and grading of periodontitis: Framework and proposal of a new classification and case definition. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/jcpe.12945>

Berglundh, T., Armitage, G., Araujo, M. G., Avila-Ortiz, G., Blanco, J., Camargo, P. M., . . . Zitzmann, N. (2018, June 20). Peri-implant diseases and conditions: Consensus report of workgroup 4 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. Retrieved from <https://www.onlinelibrary.wiley.com/doi/full/10.1111/jcpe.12957>

**Resources**

<https://www.oralhealthgroup.com/features/the-new-global-classification-system-for-periodontal-and-peri-implant-diseases-an-executive-summary-for-the-busy-dental-professional/>

