SIMPLIFYING THE 2018 CLASSIFICATION OF PERIODONTITIS

UDA 2025 Convention
January 24, 2025

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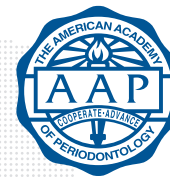
Staging and Grading Periodontitis

The 2017 World Workshop on the Classification of Periodontal and Peri-Implant 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.

PERIODONTITIS: STAGING

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.

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.

	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**	• Max. probing depth ≤4 mm
		• Mostly horizontal bone loss
			• Max. probing depth ≤5 mm
			• Mostly horizontal bone loss
				In addition to Stage II complexity:
				• Probing depths ≥6 mm
				• Vertical bone loss ≥3 mm
				• Furcation involvement Class II or III
				• Moderate ridge defects
					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: • Localized (<30% of teeth involved); • Generalized; or • Molar/incisor pattern			

PERIODONTITIS: GRADING

Grading aims to indicate the rate of periodontitis progression, responsiveness to standard therapy, and potential impact on systemic health.

Clinicians should initially assume grade B disease and seek specific evidence to shift to grade A or C.
See **perio.org/2017wwdc** for additional information.

	Progression		Grade A: Slow rate	Grade B: Moderate rate	Grade C: Rapid rate
Primary criteria *Whenever available, direct evidence should be used.*	Direct evidence of progression	Radiographic bone loss or CAL	No loss over 5 years	<2 mm over 5 years	≥2 mm over 5 years
	Indirect evidence of progression	% bone loss / age	<0.25	0.25 to 1.0	>1.0
		Case phenotype	Heavy biofilm deposits with low levels of destruction	Destruction commensurate with biofilm deposits	Destruction exceeds expectations given biofilm deposits; specific clinical patterns suggestive of periods of rapid progression and/or early onset disease
Grade modifiers	Risk factors	Smoking	Non-smoker	<10 cigarettes/day	≥10 cigarettes/day
		Diabetes	Normoglycemic/no diagnosis of diabetes	HbA1c <7.0% in patients with diabetes	HbA1c ≥7.0% in patients with diabetes

The 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions was co-presented by the American Academy of Periodontology (AAP) and the European Federation of Periodontology (EFP).

2018 CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT CONDITIONS

2018 CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS

Key Considerations for Periodontitis

- The uniqueness of each individual's periodontitis must be understood

- The patient's *risk* for developing periodontitis is a critical consideration

- The management of the periodontitis through treatment and maintenance is very important

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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. https://doi.org/10.1002/JPER.18-0006

MEDICAL MODEL OF STAGING AND GRADING

Staging

- Describes the size and severity of the disease

- Usually uses a numerical system (eg. I-IV)

Grading

- Usually graded on a scale of low, intermediate, high grade

- Other factors may be considered

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AAP PERIODONTAL DISEASE CLASSIFICATION ANIMATION

https://www.youtube.com/watch?v=RUz1LJpTpeI&list=PL1vLZvwuC77ql0ggcDRMfqQmz1-RSwJIj&index=13&t=3s

Three Steps to Staging and Grading a Patient

Step 1:
Initial Case Overview to Assess Disease

Screen:
- Full mouth probing depths
- Full mouth radiographs
- Missing teeth
- Rule out non-periodontitis causes of CAL (e.g., cervical restorations or caries, root fractures, CAL due to traumatic causes)

Mild to moderate periodontitis will be either Stage I or Stage II
Severe periodontitis will be either Stage III or Stage IV

Step 2:
Establish Stage

For mild to moderate periodontitis (Stage I or Stage II):
- Determine maximum CAL or radiographic bone loss (RBL)
- Confirm RBL patterns

For moderate to severe periodontitis (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

- Assess progression rate of periodontitis
  - Based on existing data
  - Based on calculated RBL (% of root length x 100) divided by age
- Assess risk factors (e.g., smoking, diabetes, other)
- Account for medical and systemic inflammatory considerations

2018 CLASSIFICATION OF PERIODONTITIS

Based on the <u>worst</u> site of involvement or systemic/environmental consideration

- This allow for a simplified determination of the classification

- Bottom lines can be more easily identified

STAGING AND GRADING OF PERIODONTITIS
BOTTOM LINES

==Staging== of the disease <u>usually</u> remains the same for the duration of an individual's life

- *Possibly: if the condition worsens, the stage worsens*
- *Rarely: can improve if the bone graft treatment is effective*
  - *Some say you keep the same stage even if the graft was successful*

==Grading== <u>may</u> change over a lifetime

- It may worsen (eg. Develop diabetes)
- It may improve (eg. Discontinue smoking, diabetes improves)

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