

# Periodontal Diseases

## Prevention and patient management



**Periodontal diseases** are chronic inflammatory diseases of bacterial aetiology that affect the tooth-supporting soft and hard tissues:

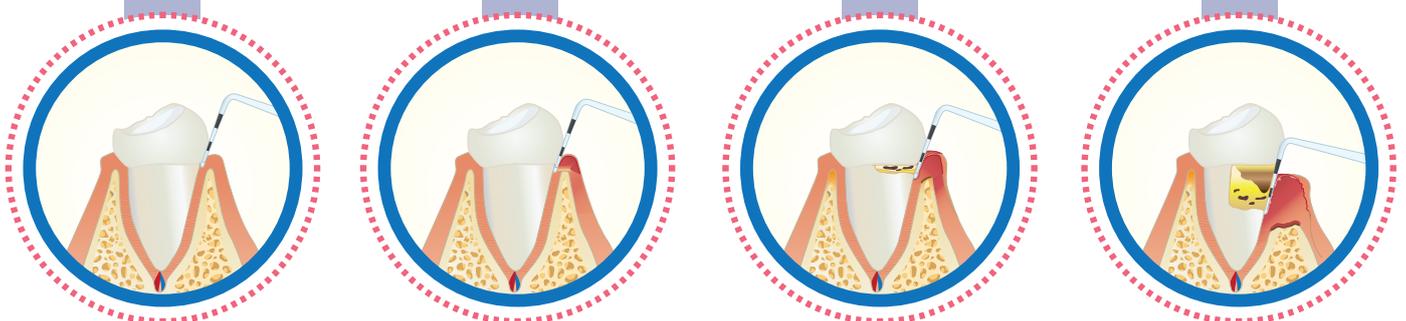
- **Plaque-induced gingivitis** is a gingival inflammation without attachment loss and bone loss.
- **Periodontitis** is an inflammatory lesion of periodontal tissues resulting in loss of attachment and alveolar bone.

**TABLE 1 PROGRESSION OF PERIODONTAL DISEASES**

**Table 1** is a diagnostic tool used to determine the individual's periodontal status as **gingival/periodontal health**, **gingivitis** or **periodontitis**, using common signs/symptoms that can be easily identified using only a **periodontal probe** and an **x-ray**. Early detection of the disease enables general practitioners and/or dental hygienists to prevent disease progression and help patients improve and maintain their oral/periodontal health.

GINGIVAL/ PERIODONTAL HEALTH	GINGIVITIS	Initial to Moderate PERIODONTITIS STAGES 1-2	Severe PERIODONTITIS STAGES 3-4
			
<p>Healthy gums</p> <p>Good oral hygiene</p> <p>Minimal bleeding on probing (&lt; 10% of sites)</p> <p><b>No periodontal pockets (≤ 3 mm)</b></p> <p>No bone loss on radiograph</p>	<p>Red and swollen gums</p> <p>Plaque and/or calculus</p> <p>Bleeding on probing (≥ 10% of sites)</p> <p><b>Shallow periodontal pockets (≤ 4 mm)</b></p> <p>No bone loss on radiograph</p>	<p>Red and swollen gums</p> <p>Plaque and/or calculus</p> <p>Generalized bleeding on probing</p> <p><b>Periodontal pockets (4-5 mm)</b></p> <p>Bone loss ≤ 1/3 of root length on radiograph</p>	<p>Red and swollen gums</p> <p>Plaque and/or calculus</p> <p>Generalized bleeding on probing</p> <p><b>Deep periodontal pockets (≥ 6 mm)</b></p> <p>Bone loss &gt; 1/3 of root length on radiograph</p>

### MEASURING POCKET DEPTH USING A PROBE



*\*Please consult national guidelines and recommendations on the management and prevention of periodontal diseases*

TABLE 2 PERIODONTAL DISEASES: PREVENTION AND MANAGEMENT OF PATIENTS

Table 2 below provides a patient disease profile and practical guidance to effectively manage patients. It should be used together with Table 1, which helps assess the severity of periodontal diseases. To determine the patient's disease profile, please refer to the **disease profile assessment** on the reverse side of this page.

PATIENT'S DISEASE PROFILE		MILD TOTAL SCORE ≤ 5	MODERATE TOTAL SCORE = 6–10	SEVERE TOTAL SCORE > 10
TREATING YOUR PATIENTS	TREATMENT GOALS	<ul style="list-style-type: none"> <li>Enhance plaque control for good oral hygiene</li> <li>Eliminate clinical signs of inflammation</li> </ul>	<ul style="list-style-type: none"> <li>Avoid progression to periodontitis</li> </ul>	<ul style="list-style-type: none"> <li>Arrest disease progression</li> <li>Regeneration of lost structures as appropriate</li> <li>Surgical intervention as appropriate</li> <li>Further interventions to restore oral function and aesthetics</li> </ul>
	ANTI-INFECTIVE THERAPY	<ul style="list-style-type: none"> <li><b>Professional Mechanical Plaque Removal (PMPR):</b> <ul style="list-style-type: none"> <li>Effective control of plaque and removal of the calculus through supra- and sub-gingival scaling and root debridement</li> <li>Perform scaling and root debridement using sonic/ultrasonic scalers and hand instruments (scalers and curettes) with effective management of pain/discomfort</li> <li>Removal of stains/colorations on tooth surfaces and newly formed calculus through prophylaxis and air polishing if appropriate</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Subgingival debridement using hand and/or ultrasonic instruments</li> <li>Evaluate the need for adjunctive antimicrobial therapies</li> </ul>	
	<ul style="list-style-type: none"> <li><b>Provide Oral Hygiene Instructions (OHI) to patient:</b> <ul style="list-style-type: none"> <li>2 minutes twice-daily brushing with up to 1500ppm fluoride toothpaste</li> <li>Use manual or powered toothbrush for an effective reduction of plaque and gingival inflammation</li> <li>Use soft, small-headed brushes with end-rounded bristles</li> <li>Daily interproximal cleaning with interdental brushes and/or dental floss in sites with narrow interdental spaces</li> <li>Additional approach to be adapted to patient as appropriate, with adjunctive use of dentifrices and/or mouth rinses with scientifically proven antiplaque/anti-inflammation effects</li> </ul> </li> </ul>			
	CORRECTIVE THERAPY		<ul style="list-style-type: none"> <li>Re-evaluate initial treatment response</li> <li>Consider surgical interventions or referral to a periodontist if inflammation persists despite good oral hygiene</li> <li>Advise behavioural change and engagement in practical actions</li> </ul>	<ul style="list-style-type: none"> <li>Consider surgical interventions or referral to a periodontist if inflammation persists and residual pockets are above 5 mm despite good oral hygiene</li> </ul>
PREVENTION AND LONG-TERM MAINTENANCE/ FOLLOW-UPS		<ul style="list-style-type: none"> <li>Recall for supportive periodontal therapy (SPT) <b>once or twice per year</b></li> <li>Polish tooth surfaces (bristle brush, rubber cup and air polisher to be adapted to the patient) to prevent plaque re-accumulation</li> <li>Oral Hygiene Instructions (OHI) and professional homecare recommendation</li> </ul>	<ul style="list-style-type: none"> <li>Recall for supportive periodontal therapy (SPT) <b>twice per year</b> upon professional recommendation</li> <li>Continuous risk assessment and risk factor control</li> </ul>	<ul style="list-style-type: none"> <li>Recall for supportive periodontal therapy (SPT) <b>more than twice per year</b> upon professional recommendation</li> </ul>
		PRIMARY CARE AND PREVENTION, DELIVERED MAINLY BY A DENTAL HYGIENIST	PRIMARY CARE AND PREVENTION, DELIVERED MAINLY BY A DENTAL HYGIENIST AND/OR DENTIST	CONSULTATION AND CONSIDERATION FOR REFERRAL TO A PERIODONTIST



# Disease profile assessment

The following **scoring system** can help categorize the patient's periodontal disease profile as **MILD**, **MODERATE** or **SEVERE**. The disease profile should be used together with the diagnostic tool shown in **Table 1**.

Based on the findings, score each item and calculate the total score of disease profile.

Q	Item	Score = 0	Score = 1	Score = 2	Score = 3
1	Age	< 35 years old <input type="checkbox"/>	35–44 years old <input type="checkbox"/>	45–64 years old <input type="checkbox"/>	> 64 years old <input type="checkbox"/>
2	Smoking	No <input type="checkbox"/>	< 10 cigarettes per day <input type="checkbox"/>	10–15 cigarettes per day <input type="checkbox"/>	> 15 cigarettes per day <input type="checkbox"/>
3	Diabetes	No <input type="checkbox"/>	Well controlled (HbA1c < 7%) <input type="checkbox"/>	Poorly controlled/uncontrolled (≥ 7%) <input type="checkbox"/>	
4	Tooth loss due to periodontal diseases	No tooth loss <input type="checkbox"/>			Tooth loss due to periodontitis <input type="checkbox"/>
5	Heavy plaque deposits covering	< 10% of tooth sites <input type="checkbox"/>	10–50% of tooth sites <input type="checkbox"/>	> 50% of tooth sites <input type="checkbox"/>	
6	Bleeding on probing	< 10% of tooth sites <input type="checkbox"/>	10–50% of tooth sites <input type="checkbox"/>	> 50% of tooth sites <input type="checkbox"/>	
7	Probing depth	< 4mm <input type="checkbox"/>	4–5mm <input type="checkbox"/>	Localized tooth sites > 5 mm <input type="checkbox"/>	Generalized tooth sites > 5mm <input type="checkbox"/>
		CATEGORY TOTAL <input type="checkbox"/>	CATEGORY TOTAL <input type="checkbox"/>	CATEGORY TOTAL <input type="checkbox"/>	CATEGORY TOTAL <input type="checkbox"/>
					TOTAL SCORE <input type="checkbox"/>

## DISEASE PROFILE ASSESSMENT

**MILD FINAL SCORE ≤ 5 \***

**MODERATE FINAL SCORE = 6–10**

**SEVERE FINAL SCORE > 10**

## ABBREVIATED ASSESSMENT

An abbreviated assessment can be completed if it is not feasible to complete the full questionnaire. If the patient has any of the listed items, he/she should be considered at risk, and necessary professional advice should be given.

**NOTE** This scorecard uses the main risk factors, but other risk factors could influence periodontal health, such as excessive alcohol and sugar consumption. In case of a high bone loss/age rate, smoking habit and/or diabetes, consider a high risk case (grades B or C), independently of the severity of the disease.

\*Score other than age only

## EXAMPLE Patient risk profiles using the disease profile scoring system



**MILD**  
TOTAL SCORE = 3

Q1	Younger than 35 years old	0
Q2	Non-smoker	0
Q3	No diabetes	0
Q4	No tooth loss due to periodontitis	0
Q5	Inadequate oral hygiene with visible/detectable plaque covering 10–50% of tooth sites	1
Q6	Bleeding on probing: 10–50% of tooth sites	1
Q7	Probing depth: 4–5 mm	1

TOTAL SCORE **3**



**MODERATE**  
TOTAL SCORE = 6

Q1	Aged between 46 and 65 years old	2
Q2	Smoker: < 10 cigarettes per day	1
Q3	No diabetes	0
Q4	No tooth loss due to periodontitis	0
Q5	Inadequate oral hygiene with visible/detectable plaque covering 10–50% of tooth sites	1
Q6	Bleeding on probing: 10–50% of the tooth sites	1
Q7	Probing depth: 4–5 mm	1

TOTAL SCORE **6**



**SEVERE**  
TOTAL SCORE = 16

Q1	Older than 65 years old	3
Q2	Smoker: 10–15 cigarettes per day	2
Q3	Diabetes: well controlled (HbA1c < 7%)	1
Q4	Tooth loss due to periodontitis	3
Q5	Poor oral hygiene with visible/detectable plaque covering > 50% of tooth sites	2
Q6	Bleeding on probing: > 50% of tooth sites	2
Q7	Probing depth: generalized tooth sites > 5 mm	3

TOTAL SCORE **16**

## PATIENT WITH

Plaque-induced gingivitis

Initial to moderate periodontitis

Severe periodontitis