

# Periodontal Diseases

## Prevention and patient management







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

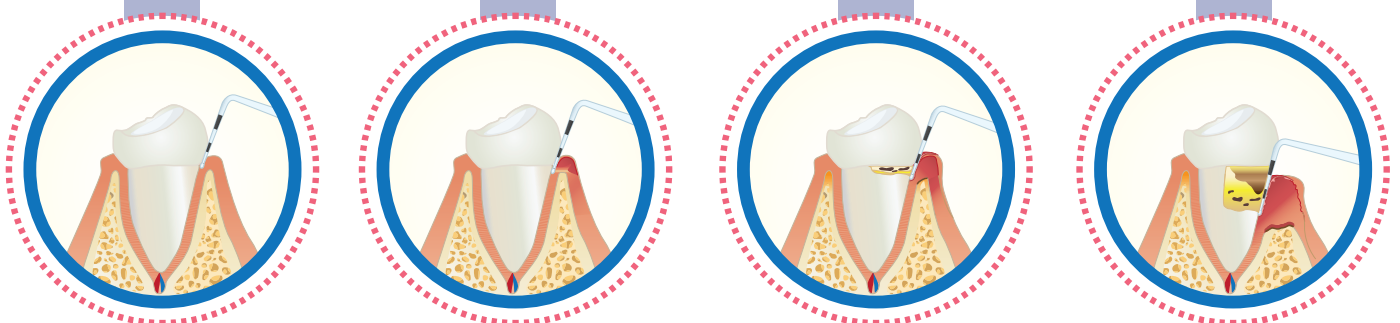
- **Plaque-induced gingivitis** is a gingival inflammation without attachment loss and bone loss.
- **Periodontitis** is an inflammatory lesion of periodontal tissues resulting in loss of attachment and alveolar bone.

**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> </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>
			<ul style="list-style-type: none"> <li>Continuous risk assessment and risk factor control</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