

# Recommendations for the prevention of peri-implant diseases

## Where does the need for this guideline come from?

- Implementation of the 2018 classification of peri-implant diseases as well as the availability of defined clinical diagnostic criteria/parameters should facilitate the use of appropriate preventive and therapeutic interventions to prevent and treat peri-implant diseases. The application of this S3-level clinical practice guideline for "Prevention and treatment of peri-implant diseases" will allow a homogeneous and evidence-based approach to maintain peri-implant health, to prevent and treat peri-implant mucositis and peri-implantitis.

## What do patients need to know?

- An essential prerequisite to prevention and therapy of peri-implant diseases is to inform the patient of the diagnosis, including causes of the condition, risk factors, treatment alternatives and expected risks and benefits including explanations regarding consequences of refused treatment.
- This discussion should be followed by agreement on a personalized care plan.
- The plan might need to be modified during the treatment journey, depending on patient preferences, clinical findings and changes to overall health.

## How do we interpret these infographics?

- Blue colour:** Recommendations in favor of a particular strategy of treatment or specific procedure.
- Orange colour:** Open recommendation in which the clinician is responsible for the final choice of a particular strategy of treatment or specific procedure based on specific patient characteristics.
- Uncertain recommendation for whose clarification further research is needed.**
- Red colour:** Recommendations against a particular strategy of treatment or specific procedure.

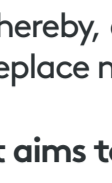

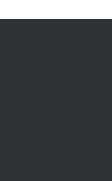
Grade of recommendation <sup>a</sup>	Description	Syntax
 A	Strong recommendation	We recommend We recommend not to
 B	Recommendation	We suggest We suggest not to
 O	Open recommendation	May be considered

TABLE  
Strength of recommendations:  
grading scheme (German Association of the Scientific Medical Societies (AWMF) and Standing Guidelines Commission, 2012)

<sup>a</sup> If the group felt that evidence was not clear enough to support a recommendation, statements were formulated, including the need (or not) of additional research.

## Aim:

This infographic presents recommendations for individual interventions used in the prevention and treatment of peri-implant diseases for preserving the health of peri-implant tissues and, thereby, extending the longevity of complication-free survival of dental implants when used to replace missing teeth.


## It aims to:

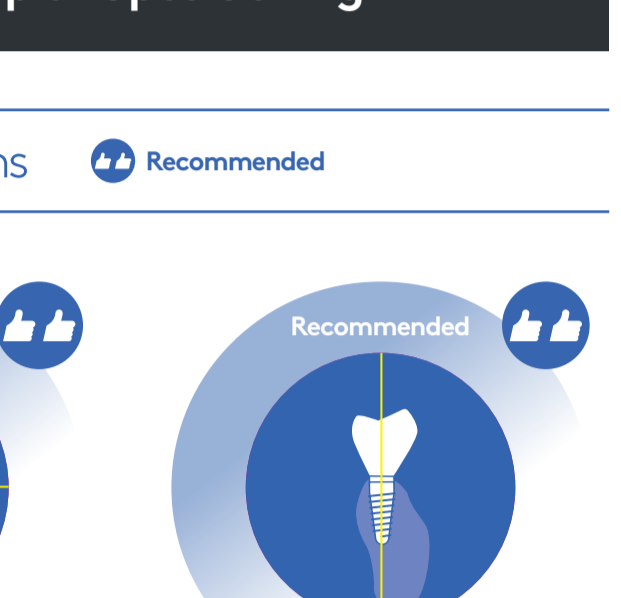
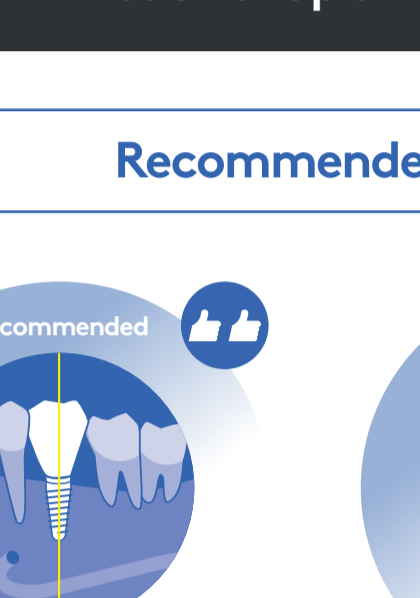
- inform sound preventive approaches peri-implant diseases, and thereby improve the overall quality of peri-implant interventions undertaken in Europe and worldwide;
- reduce dental implant loss arising due to peri-implantitis;
- reduce medical and dental costs and improve the quality of life of patients.

# Primordial prevention of peri-implantitis

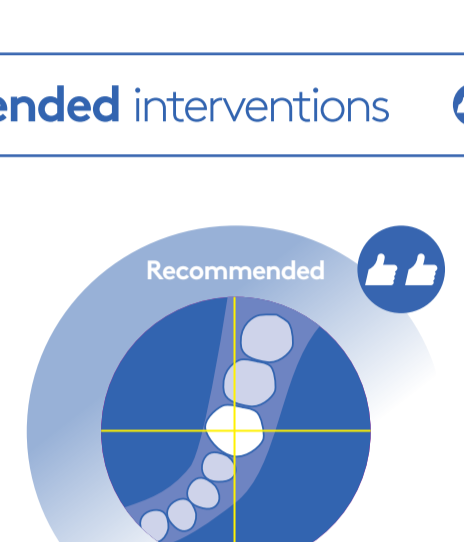
## Recommendations for patients awaiting implant placement

### Recommended interventions

 Recommended



**Thorough assessment of the patient's risk profile** (i.e., glycaemic control in people with diabetes, smoking cessation, adherence to regular supportive periodontal and/or peri-implant care programs, oral hygiene, reducing bruxing and/or parafunctional habits) to identify and manage modifiable risk factors/indicators for peri-implant diseases is recommended.



**Guideline conformed treatment of gingivitis and periodontitis to a stable endpoint** (PD ≤ 4 mm and no bleeding on probing (BOP)) and **adherence to a supportive care programme** prior to implant placement is recommended.

## Treatment planning for 3D implant positioning

### Recommended interventions

 Recommended



Adequate mesio-distal distance between an implant and adjacent tooth/implant to allow for prosthetic components and access for oral hygiene.

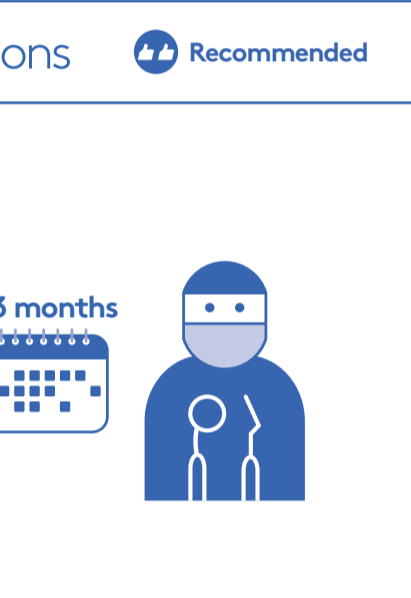
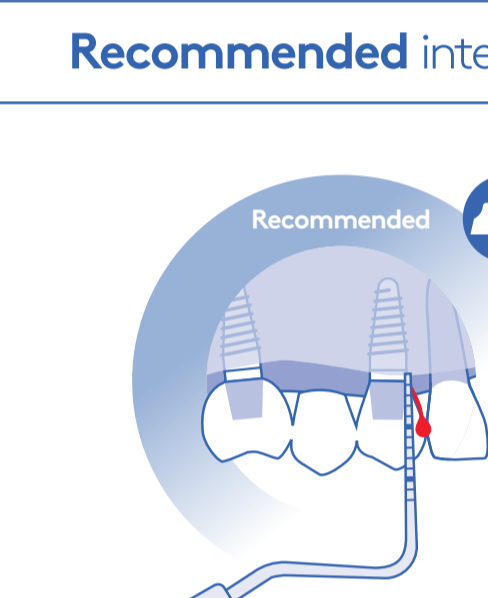
Adequate buccal/lingual bone thickness to allow the implant to be placed in a prosthetically guided position with good primary stability.

Appropriate apical-coronal position of the implant platform (shoulder) to avoid a deep mucosal sulcus ('tunnel').

## Prosthetic treatment planning

### Recommended interventions

 Recommended



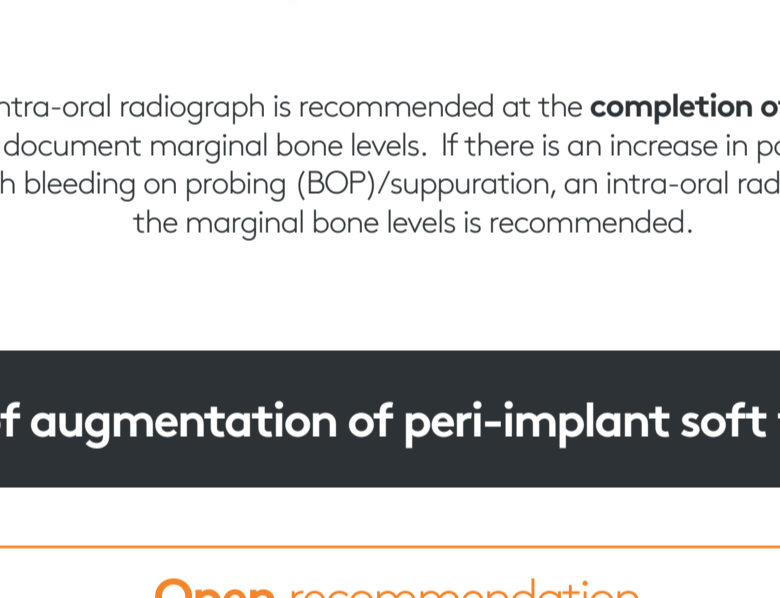
- good access for oral hygiene;
- good access for peri-implant probing and professional mechanical plaque removal;
- a prosthesis contour with a favourable emergence angle and profile.

# Primary prevention of peri-implant diseases

## Assessment of peri-implant health status

### Recommended interventions

 Recommended

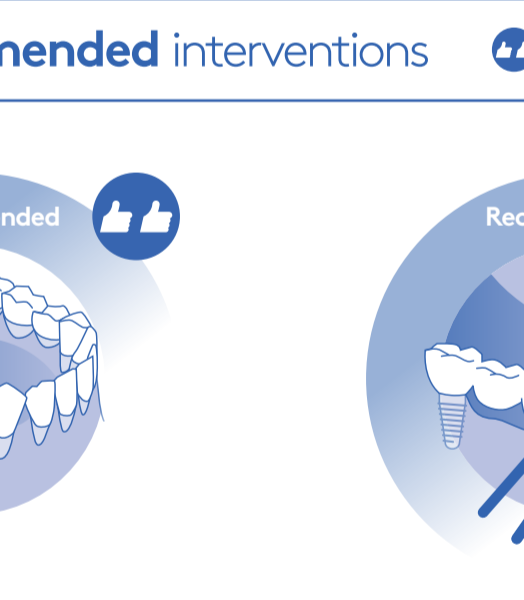


**Peri-implant probing to assess** the presence of **bleeding on probing (BOP)**, and to monitor changes in **pocket depth (PD)**, and changes in the mucosal margin level is recommended.

The following are advised:

1. **Baseline probing** (6 times) and **recording of keratinized/attached mucosal width** within 3 months of prosthesis delivery;
2. **Re-probe at every clinical examination.**

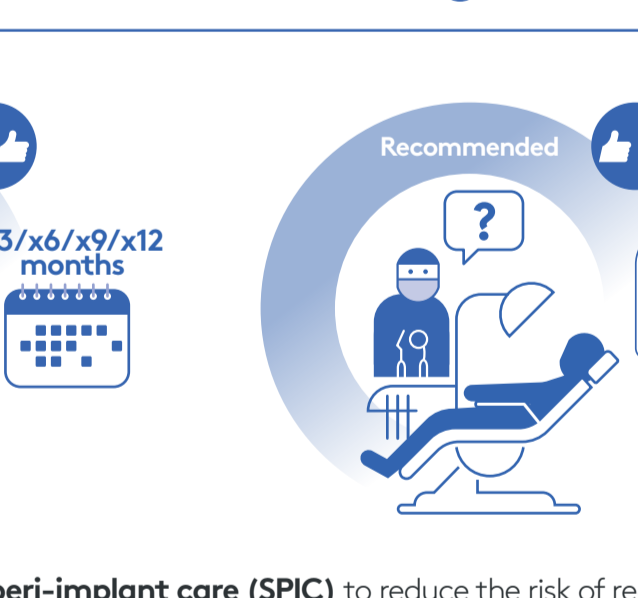
A **regular supportive peri-implant** care in patients who have healthy peri-implant tissues is recommended.



3. A baseline intra-oral radiograph is recommended at the **completion of physiological remodelling** to document marginal bone levels. If there is an increase in pocket depth (PD) in conjunction with bleeding on probing (BOP)/suppuration, an intra-oral radiograph to evaluate the marginal bone levels is recommended.

## Role of augmentation of peri-implant soft tissues

### Open recommendation

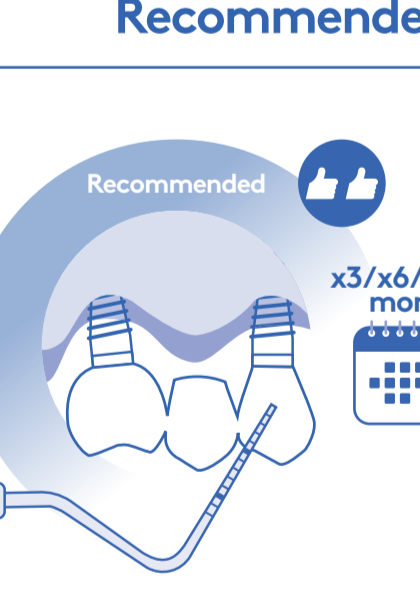


In cases with an absence of keratinized/attached mucosa with discomfort on brushing, **increasing peri-implant keratinized/attached mucosal width**, may be considered.

## Oral hygiene instructions in patients with dental implants

### Recommended interventions

 Recommended



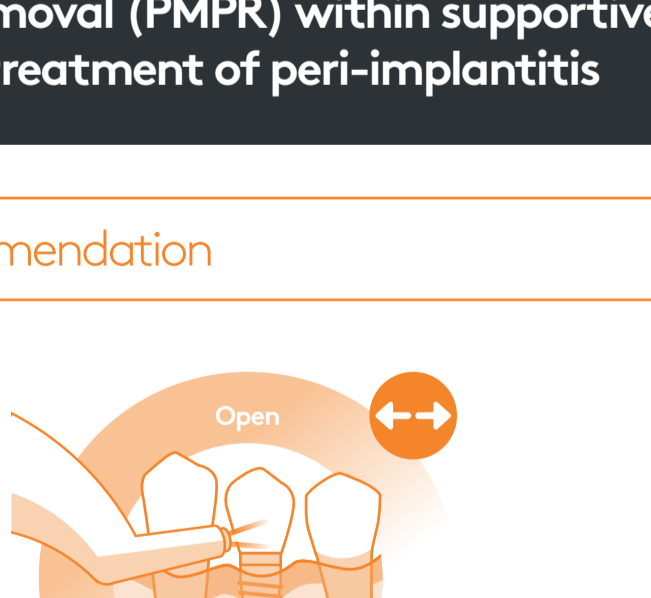
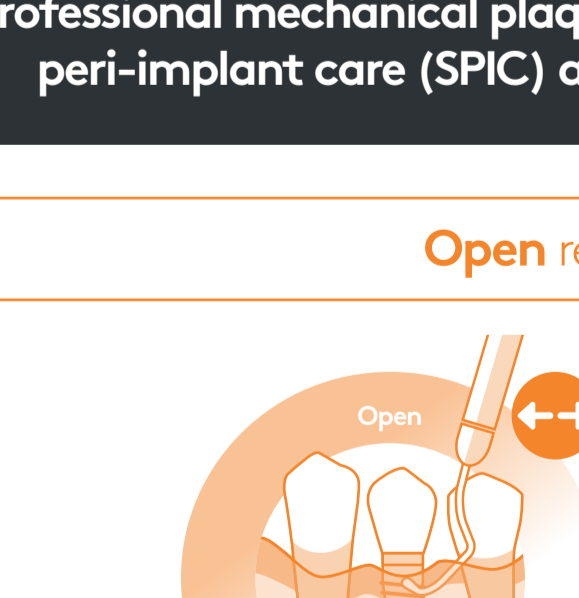
**Individually tailored oral oral hygiene (OH) instructions** are recommended

## Secondary and tertiary prevention of peri-implant diseases

## Supportive peri-implant care (SPIC) after treatment of peri-implantitis

### Recommended interventions

 Recommended



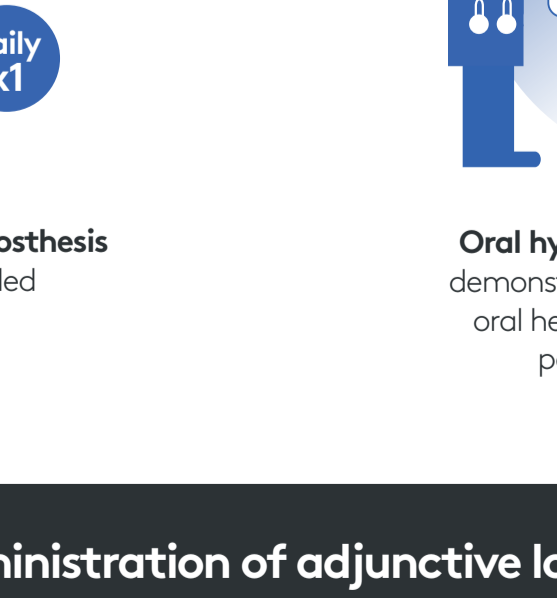
**Provision of supportive peri-implant care (SPIC)** to reduce the risk of recurrence of peri-implantitis and consequent implant loss is recommended.

A patient-centered SPIC protocol should be provided and emphasized to the patient.

## Frequency of supportive peri-implant care (SPIC) after treatment of peri-implantitis

### Recommended interventions

 Suggested



Following peri-implantitis treatment, **supportive peri-implant care (SPIC) is suggested every 3–4 months** for the first 12 months, and thereafter individually tailored.

## Professional mechanical plaque removal (PMPR) within supportive peri-implant care (SPIC) after treatment of peri-implantitis

### Open recommendation



Following approaches for **dental implant biofilm removal** can be used alone or in combination:

- Titanium or stainless steel area-specific curettes
- Ultrasonic/sonic instruments
- Rubber cup or brushes
- Air-polishing devices.

## Oral hygiene after treatment of peri-implantitis

### Recommended interventions

 Recommended



**Individually tailored prosthesis care** is recommended

**Oral hygiene methods** should be demonstrated by the patient to the oral healthcare professional and periodically reinforced.

## Professional administration of adjunctive local antimicrobial agents in supportive peri-implant care (SPIC)

### Not suggested



The professional application of adjunctive local antimicrobial agents in supportive peri-implant care (SPIC) to reduce the risk of recurrent peri-implantitis is not suggested.