EFP Clinical Guideline

Treatment of stage I-III periodontitis

The EFP S3-level clinical practice guideline

Where does the need for this guideline come from?

- Implementation of the new classification of periodontitis should facilitate the use of appropriate preventive and therapeutic interventions, depending on the stage and grade of the disease. The application of this S3-level clinical practice guideline will allow a homogeneous and evidence-based approach to the management of stage I–III periodontitis.

What do patients need to know?

- An essential prerequisite to therapy 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 grade[a]	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
Strengh of recommendations: grading scheme (German Association of the Scientific Medical Societies (AWMF) and Standing Guidelines Commision, 2012)

[a] If the group felt that evidence was not clear enought to support a recommendation, statements were formulated, including the need (or not) of additional research.

STEP 1

Aim: guiding behaviour change by motivating the patient to undertake:

· Successful removal of supragingival dental biofilm.
· Risk factor control.

It should be implemented in all periodontitis patients, irrespective of the stage of their disease.

It should be frequently re-evaluated in order to:

· Continue to build motivation and adherence, or explore other alternatives to overcome the barriers.
· Develop skills in dental biofilm removal and modify as required.
· Allow for the appropriate response of the ensuing steps of therapy.

Patient supragingival dental biofilm control

Recommended interventions

Recommended Suggested

Oral hygiene practices are crucial throughout all steps of treatment and achieved through **patient engagement in behavioural changes** (see specific recommendations in the section 'Supportive periodontal care').

Unclear

Motivational interviewing or cognitive behavioural therapy have not shown a significant impact.

Professional supragingival dental biofilm control

Recommended interventions

Recommended Suggested

Professional mechanical plaque removal (PMPR) and control of plaque retentive factors is a fundamental part of the first step of therapy.

Risk factor control

Recommended interventions

Recommended Suggested

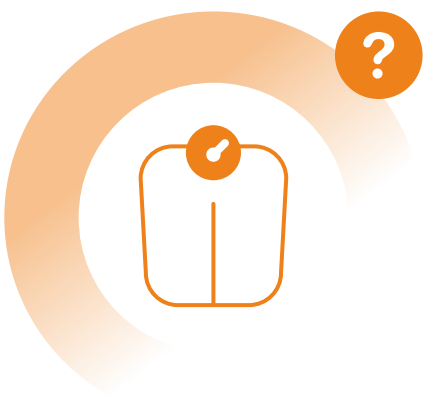
Control of risk factors is recommeded as part of the first step of treatment.

Tobacco smoking cessation interventions are recommeded as part of the first step of treatment.

Diabetes control interventions are necessary.

Unclear

It is not known if **increasing the physical activity** has an impact.



It is not known if **reducing weight through dietary and lifestyle** has an impact.

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STEP 2

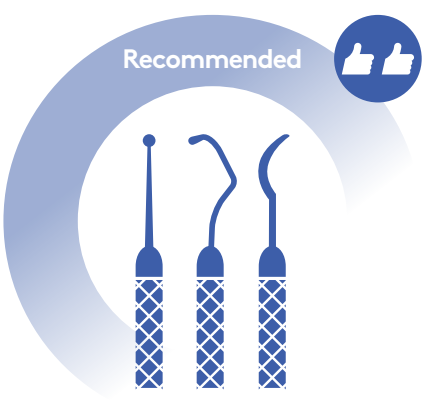
Aim:

- Controlling (reducing/eliminating) the subgingival biofilm and calculus (subgingival instrumentation) with possible removal of root surface (cementum).
- Subgingival instrumentation may be supplemented with the following adjunctive interventions: physical or chemical agents, host-modulating agents (local or systemic), topical antimicrobials, subgingival locally delivered or systemic antimicrobials.
- It should be implemented in all periodontitis patients, irrespective of the stage of their disease and it should be re-evaluated after an adequate healing period.

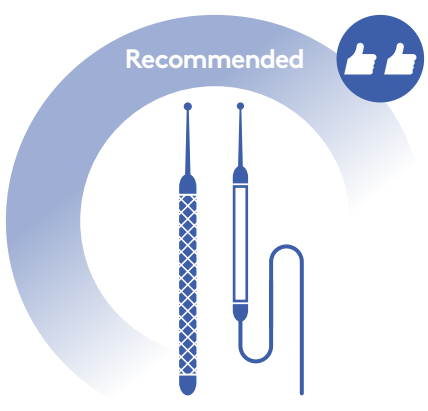
Subgingival instrumentation

Recommended interventions

Recommended · Suggested



Subgingival instrumentation is recommended to treat periodontitis with reduction of pocket dephts, gingival inflammation and the number of diseased sites.



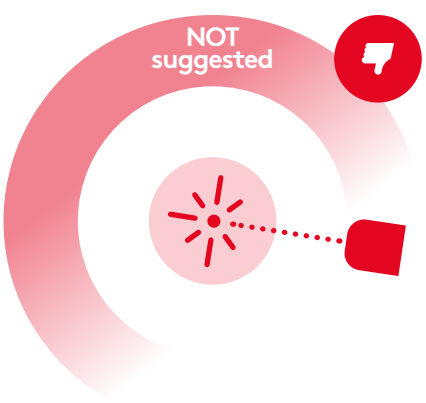
Subgingival periodontal instrumentation is performed with **hand or powered (sonic/ultrasonic)** instruments, either alone or in combination.

Subgingival periodontal instrumentation can be performed with either **traditional quadrant-wise or full mouth delivery** within 24 hours.

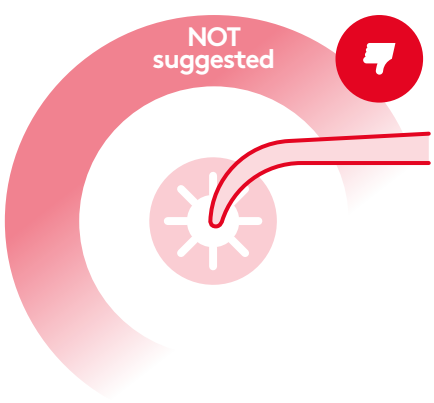
Use of adjunctive physical agents to subgingival instrumentation

Not recommended

NOT recommended · NOT suggested



Lasers as adjunct to subgingival instrumentation are not suggested.



Adjunctive **photo-dynamic therapy** at wavelength ranges of either 660-670 nm or 800-900 nm is not suggested as adjunct to subgingival instrumentation.

Use of adjunctive antiseptics/antibiotics (local or systemic) to subgingival instrumentation

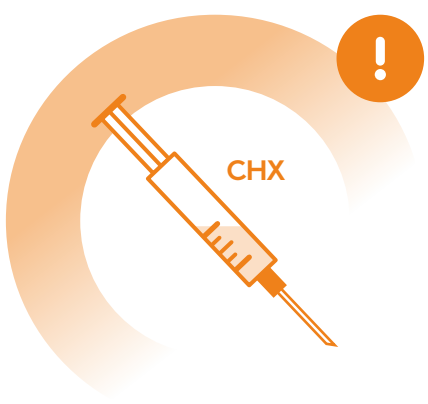
Not recommended

NOT recommended · NOT suggested

Routine use of **systemic antibiotics** as adjunct to subgingival instrumentation in patients with periodontitis is not recommended.

Open recommendation

Chlorhexidine mouth rinses for a limited period of time may be considered as adjuncts to subgingival instrumentation.



Locally administered sustained-release chlorhexidine may be considered as an adjunct to subgingival instrumentation.

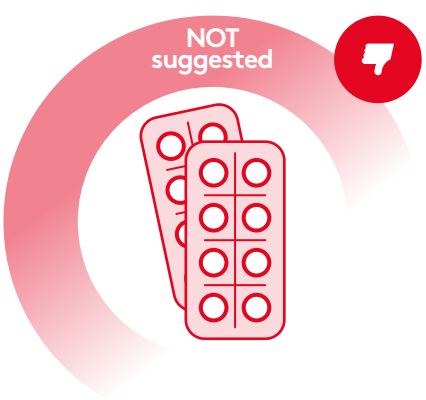
Specific **locally administered sustained-release antibiotics** may be considered as an adjunct to subgingival instrumentation.

The adjunctive use of specific **systemic antibiotics** may be considered for specific patient categories (e.g. generalized stage III periodontitis in young adults).

Use of adjunctive host-modulating agents (local or systemic) to subgingival instrumentation

Not recommended

NOT recommended · NOT suggested

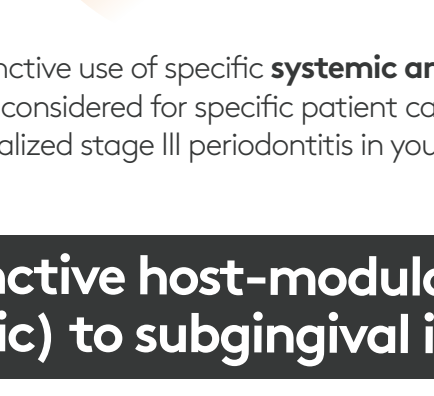


Systemic administration of **sub-antimicrobial dose doxycycline** is not suggested.

Administration of **statin gels / systemic or local bisphosphonates / systemic or local nonsteroidal anti-inflammatory drug / omega-3 polyunsaturated fatty acids and metformin gel** are not recommended to be added to subgingival instrumentation.

Probiotics are not suggested as an adjunct to subgingival instrumentation.

Re-evaluation after step 2



Endpoints:

- **No periodontal pockets ≥ 5 mm with bleeding on probing.**
- **No deep pockets [≥ 6 mm].**

If these endpoints are achieved, the patient should join a SPC program.

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STEP 3

Aim:

Treating those sites non-responding adequately to the second step of therapy with the purpose of getting access to deep pocket sites, or aiming at regenerating or resecting those lesions, that add complexity in the management of periodontitis (infrabony and furcation lesions).

If periodontal pockets > 4 mm with bleeding on probing and/or deep pockets [≥ 6 mm] are still present at re-evaluation, different options for step 3 can be considered:

- Repeated subgingival instrumentation with or without adjunctive therapies.
- Access flap periodontal surgery.
- Resective periodontal surgery.
- Regenerative periodontal surgery.

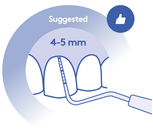
General aspects of step 3

Recommended interventions

Recommended Suggested

Surgery should be performed by dentists with additional specific training or by specialists.

As a minimum requirement, **repeated subgingival instrumentation, with or without access flap** of the area, in the context of high-quality step 1 and 2 treatment, and a frequent program of supportive periodontal care including subgingival instrumentation, are recommended.



In presence of moderately deep residual pockets (4-5 mm), **non-surgical subgingival instrumentation** should be repeated.

Not recommended

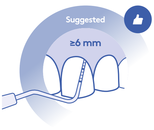
NOT recommended NOT suggested

Surgery should not perfomed in patients not achieving adequate levels of self-performed oral hygiene.

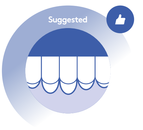
Access and resective surgery

Recommended interventions

Recommended Suggested



In presence of deep residual pockets (PPD ≥ 6 mm) **access flap surgery** should be performed.



Different **flap desing** can be used.

Resective periodontal surgery is recommended but increase of gingival recession is possible.

Management of intrabony defects

Recommended interventions

Recommended Suggested

Teeth with residual deep pockets associated with intrabony defects 3 mm or deeper should be treated with **periodontal regenerative surgery.**

When doing regeneration either **barrier membranes or enamel matrix derivative with or without the addition of bone-derived grafts** should be used.

Papilla preservation flaps should be used. Under some specific circumstances, we also recommend **limiting flap elevation** to optimize wound stability and reduce morbidity.

Management of furcation lesions

Recommended interventions

Recommended Suggested

Periodontal therapy is recommended in molars with class II and III furcation involvement and residual pockets. Furcation involvement is no reason for **extraction**.

Class II furcation on mandibular teeth and class II buccal furcation on maxillary teeth should be treated with **periodontal regenerative surgery.**

Regeneration of furcation can be performed with **enamel matrix derivative alone or bone-derived graft with or without resorbable membranes.**

Open recommendation

In class III furcation defects and maxillary interdental class II or multiple class II defects, **nonsurgical instrumentation, open flap debridement, tunneling, root separation or root resection** may be considered.

Re-evaluation after step 3

Endpoints:

- **No periodontal pockets ≥ 5 mm with bleeding on probing.**
- **No deep pockets [≥ 6 mm].**

If these endpoints are achieved, the patient should join a SPC program.

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EFP European Federation of Periodontology

www.efp.org

STEP 4:
Supportive periodontal care (SPC)

Aim:

Preventing periodontitis recurrence/progression after successful completion of active treatment. It must be performed in all patients, regarding their condition of being at high risk for periodontitis recurrence/progression. This step comprises specifically designed supportive periodontal care (SPC), consisting on a combination of preventive and therapeutic interventions rendered at different intervals:

- NO presence of pockets > 4 mm with bleeding on probing.
- NO presence of deep periodontal pockets (≥ 6 mm).

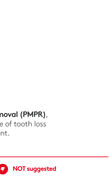
Professional care

Recommended interventions

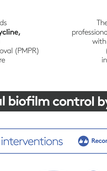
Recommended Suggested

Supportive periodontal care visits should be scheduled at intervals of 3 to a maximum of 12 months, and ought to be tailored according to patient's risk profile and periodontal conditions after active therapy.

Adherence to supportive periodontal care is crucial for long-term periodontal stability and potential further improvements in periodontal status.



Repeated individually tailored instructions in mechanical oral hygiene, including interdental cleaning, in order to control inflammation and avoid potential damage for patients in supportive periodontal care.



Performing **routine professional mechanical plaque removal (PMPR)**, as a part of supportive periodontal care, to limit the rate of tooth loss and provide periodontal stability/improvement.

Not recommended

NOT recommended NOT suggested

The use of adjunctive methods (**sub-antimicrobial dosedoxycycline, photodynamic therapy**) to professional mechanical plaque removal (PMPR) in supportive periodontal care is not suggested.

The replacement of conventional professional mechanical plaque removal (PMPR) with the use of alternative methods (**Er: YAG laser treatment**) in supportive periodontal care is not suggested.

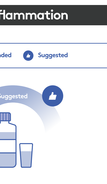
Supragingival biofilm control by the patient

Recommended interventions

Recommended Suggested

Taking into account patients needs and preferences when choosing a **toothbrush and interdental brush design**.

Tooth brushing should be supplemented by the use of **interdental brushes**.



In interdental areas not reachable by toothbrushes, supplementing tooth brushing with the use of **other interdental cleaning devices** in periodontal maintenance patients is suggested.

Open recommendation

Powered toothbrush may be considered as an alternative to manual tooth brushing.

Not recommended

NOT recommended NOT suggested

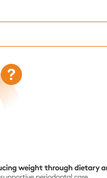
Flossing is not suggested as a first choice of interdental cleaning in periodontal maintenance patients.

Adjunctive measures for gingival inflammation

Recommended interventions

Recommended Suggested

If an **antiseptic dentifrice** formulation is going to be adjunctively used, products containing **chlorhexidine, triclosan-copolymer and stannous fluoride-sodium hexametaphosphate** are suggested.



If an **antiseptic mouth rinse** formulation is going to be adjunctively used, products containing **chlorhexidine, essential oils and cetylpyridinium chloride** are suggested.

Open recommendation

The use of **adjunctive antiseptics** may be considered in periodontitis patients in supportive periodontal care in helping to control gingival inflammation, in specific cases.

Unclear

It is unknown if other adjunctive agents (such as **probiotics, prebiotics, anti-inflammatory agents, antioxidant micronutrients**) are effective in controlling gingival inflammation in patients in supportive periodontal care.

Risk factor control

Recommended interventions

Recommended Suggested

Tobacco smoking cessation interventions needs to be implemented.

Diabetes control interventions are necessary.

Unclear

It is not known if **increasing the physical activity and reducing weight through dietary and lifestyle modification** has an impact in patients in supportive periodontal care.

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