

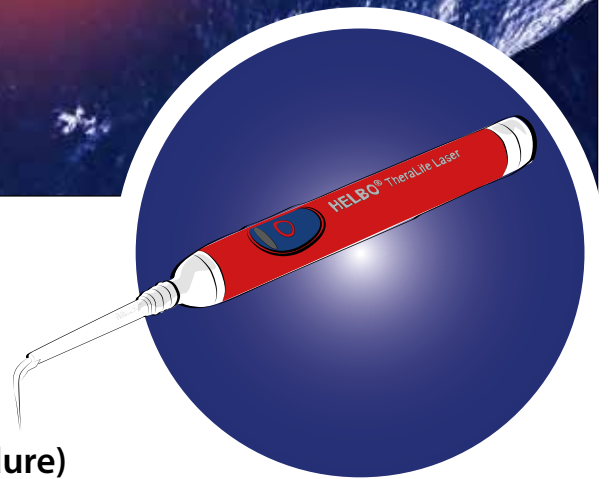
HELBO

PHOTODYNAMIC THERAPY

Controls bacterial infections

„Success scientifically proven for more than 20 years“

HELBO Manual



Periodontitis/peri-implantitis (closed procedure)

APDT Therapy Concept – Periodontitis/peri-implantitis

Periodontitis/peri-implantitis (surgical procedure)

Endodontics (orthograde)

Endodontics (retrograde)

Disinfection of the alveoli

Bone necroses

Skin/mucosal diseases (e.g. aphthae, herpes, candida, suture dehiscence)

Caries

Photobiological laser effect:

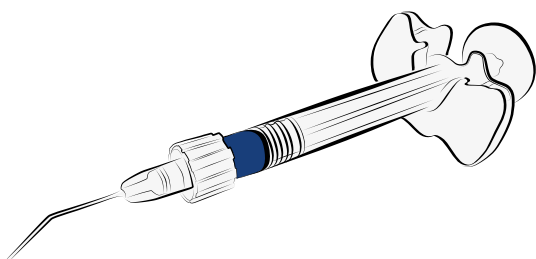
promotes wound healing, reduces pain and reduces inflammation

Periodontitis/ peri-implantitis (closed procedure)

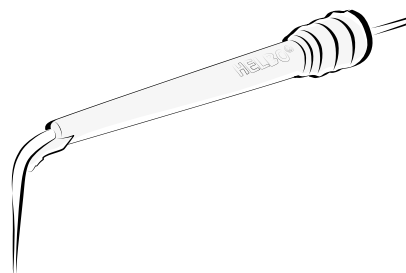


Treatment materials

HELBO Biofilm Marker 0,5 ml



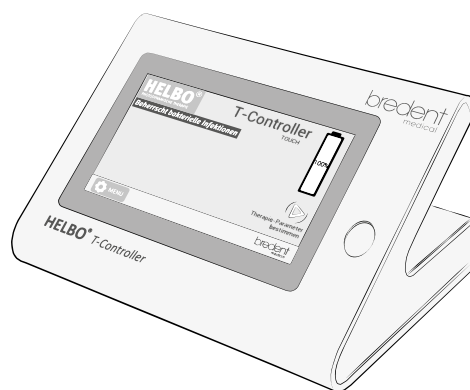
HELBO 3D Pocket Probe



HELBO TheraLite Laser



HELBO T-Controller



Step 1:

Carry out professional cleaning of the teeth/implant.

Important: the less dental calculus remaining on the tooth/root surface, the better the access to the biofilm. The aPDT is commenced immediately or a maximum of 1-2 days after cleaning.



Step 2:

Apply HELBO *Biofilm Marker* from the base of the pocket.

Important: a possible air bubble deep in the pocket prevents HELBO *Biofilm Marker* from reaching all bacteria.



Step 3:

Allow the HELBO *Biofilm Marker* to take effect for at least 1 minute - for pockets > 6 mm or persistent, refractory infections and in the case of implants, leave for 3 minutes.

Important: only bacteria stained blue will be killed.



Step 4:

Rinse the pockets thoroughly with H₂O - remove any excess dye, as well as from the base of the pocket (use a suitable rinsing cannula).

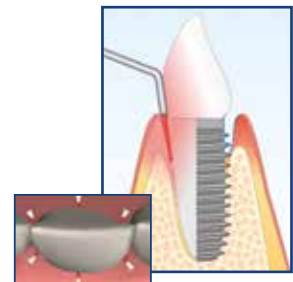
Important: HELBO *Biofilm Marker* must be applied in a very thin layer thickness so that the laser light can have a full effect and to avoid excessive absorption of light.



Step 5:

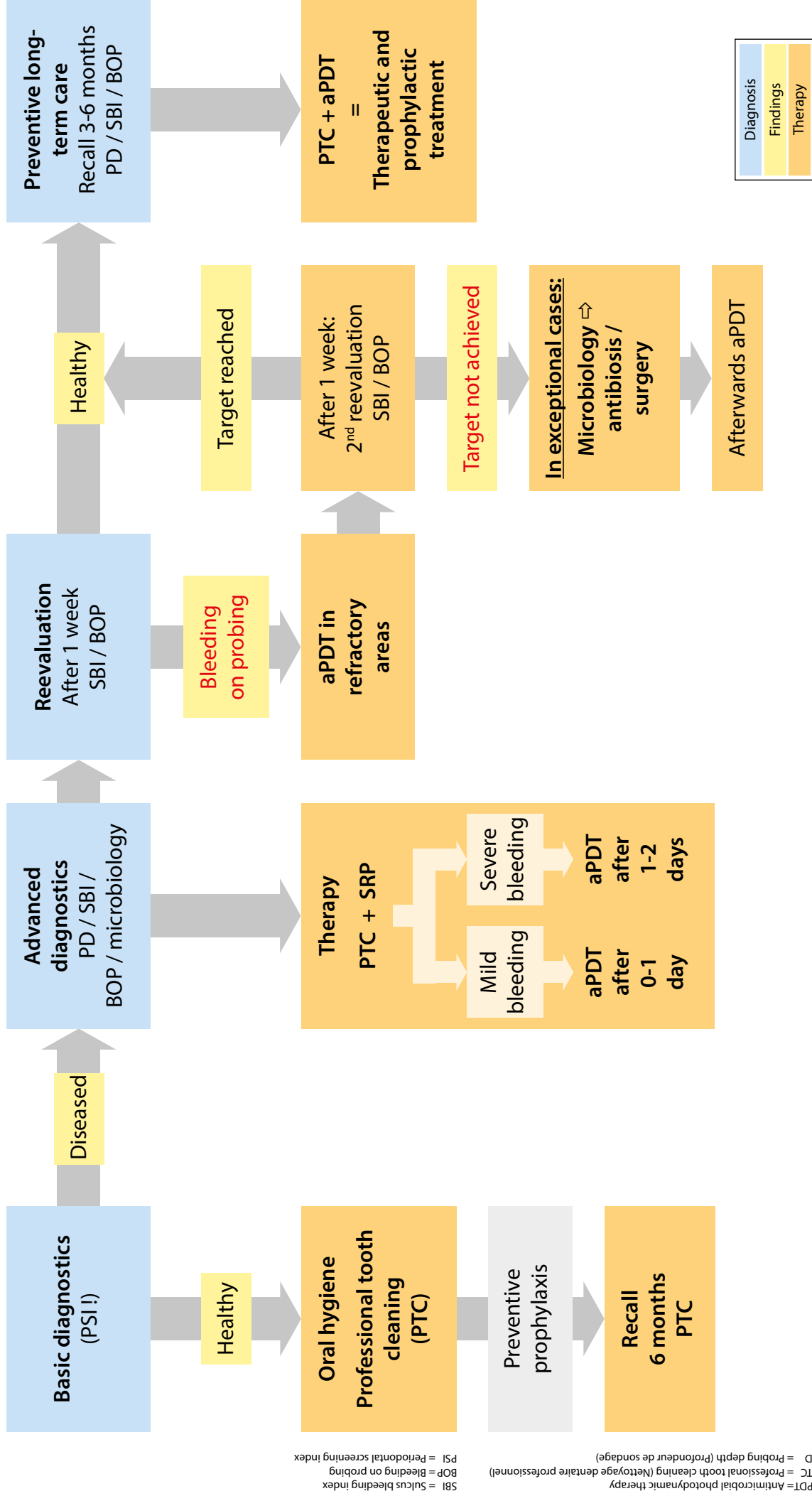
Expose the area in a circular manner for approx. 1 min. per tooth/implant: Aim for contact exposure - as close as possible to the stained bacteria = the biofilm - 10 seconds for each of the 6 sites.

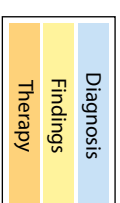
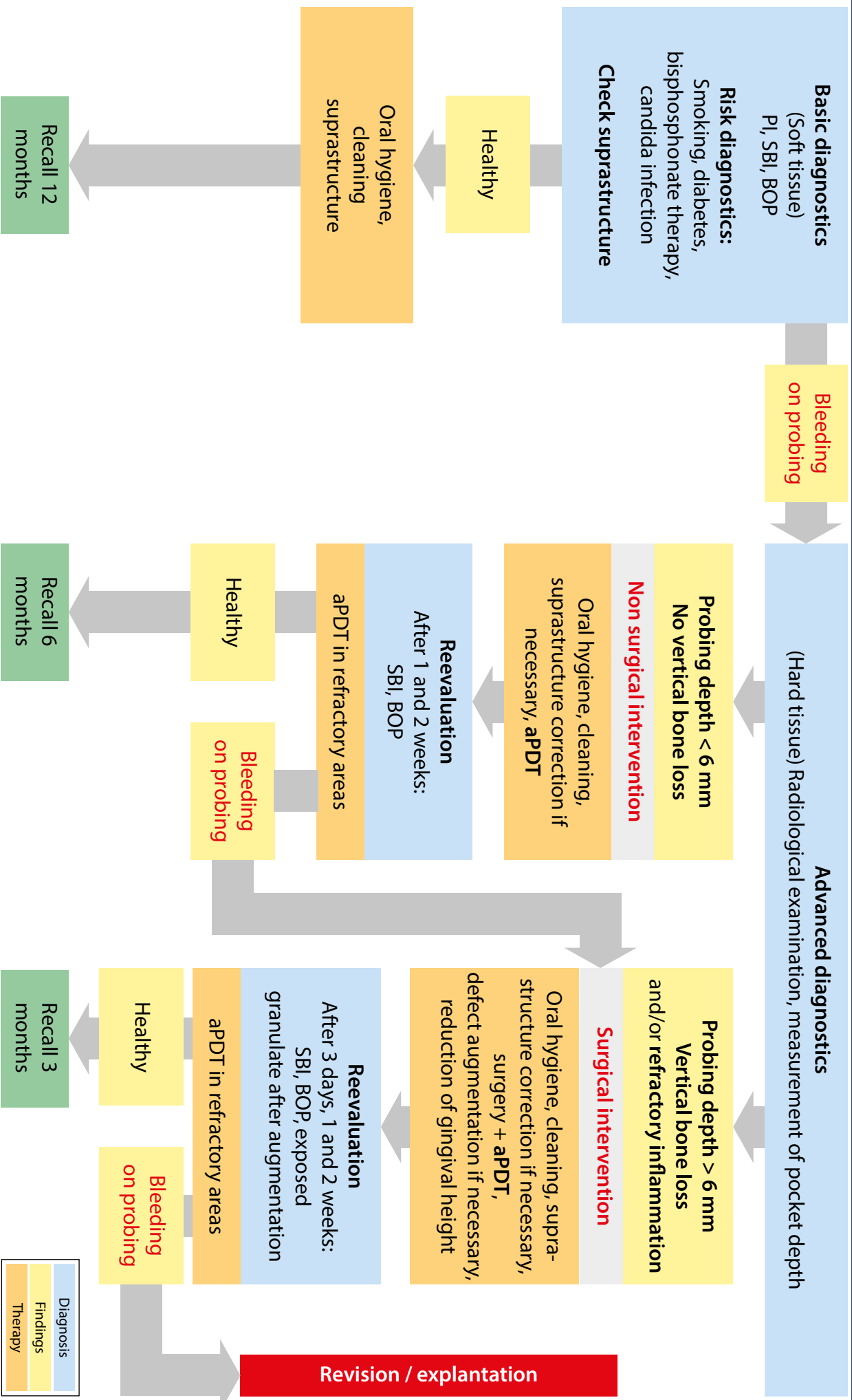
Important: only bacteria that are sufficiently exposed will be killed.
⇒ Ensure that the optic condition is perfect and change batteries daily for optimum results.



How often must this treatment be carried out?

- If used correctly (incl. correct preceding professional tooth cleaning), you will achieve a very good result with only **one application**.
- Application should be repeated after approx. **1 week in the case of persistent**, refractory infections; **professional tooth cleaning** should be checked and optimised if necessary; the **HELBO Biofilm Marker** takes **3 minutes to take effect** and this should be observed.



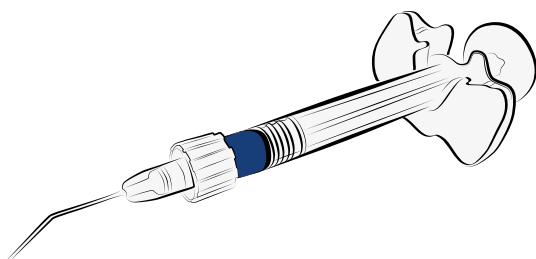


Periodontitis/ peri-implantitis (surgical procedure)

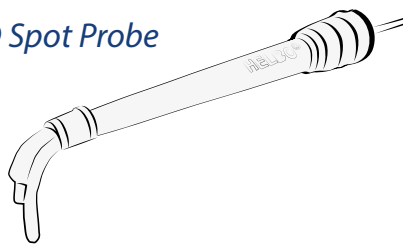


Treatment materials

HELBO Biofilm Marker 0,5 ml



HELBO 2D Spot Probe



HELBO TheraLite Laser



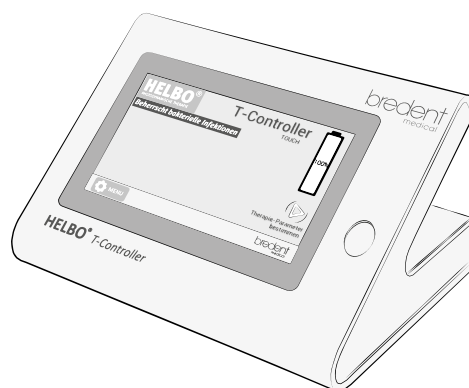
HELBO 3D Pocket Probe



HELBO Cover Sleeve



HELBO T-Controller



Step 1:

Surgical intervention: Expose, remove the granulation tissue and, where necessary, the necrotic bone (in the case of peri-implantitis).

Important: access to the periodontal/peri-implantar pockets must be ensured.



Step 2:

Cleaning of the tooth/implant surface.

Important: Coatings and biofilm should be removed as much as possible, e.g. with curette, powder jet suitable for the subgingiva, Piezo technology.



Step 3:

Application of the HELBO *Biofilm Marker* on the implant and soft tissue, if necessary by means of compression with a soaked gauze strip.

Important: stain entire area, including the surrounding soft tissue/hard tissue.



Step 4:

Staining of the micro-organisms: 3 minutes to take effect.

Important: the time for the product to take effect ensures the penetration of the dye solution into the biofilm.



Step 5:

Prior to exposure with the HELBO *TheraLite Laser*: Rinse (saline solution) to reduce the layer thickness.

Important: excess dye absorbs too much and prevents correct light application in some circumstances.



Step 6:

Extensive exposure using the HELBO *TheraLite Laser* for at least 1 minute per cm² = 30 seconds for each site.

Important: in the event of deep vertical defects, additional use of the HELBO *3D Pocket Probe* is recommended.



Step 7:

If necessary, defect augmentation; closure with sutures; further exposure of the surface to the photobiological laser effect.

Important: dye remaining in the operation area temporarily does not have any negative effects.

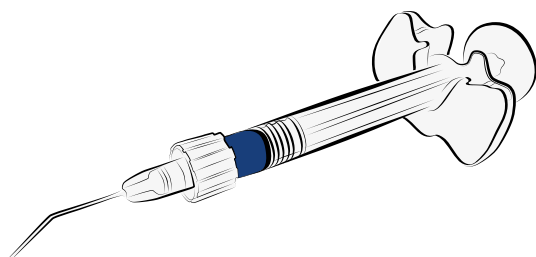


Endodontics (orthograde)



Treatment materials

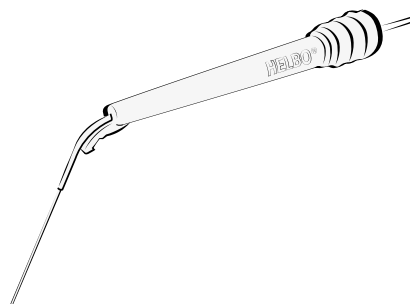
HELBO Biofilm Marker 0,5 ml



HELBO Endo Seal



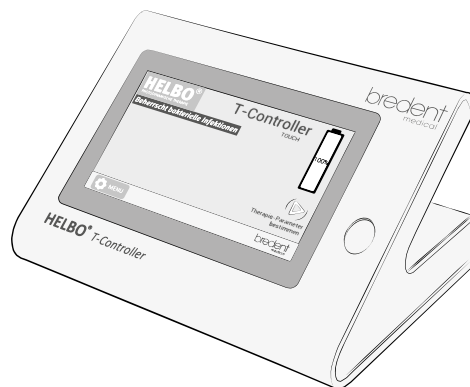
HELBO 3D Endo Probe



HELBO TheraLite Laser



HELBO T-Controller



Step 1:

Prepare the tooth in a conventional endodontic manner.

Important: Dental dam recommended; prepare optimally to ISO 45 (manually or by machine), then rinse (H_2O) and dry with paper points, then leave these in the canals.



Step 2:

Apply HELBO *Endo Seal* in the crown region to cover the surface.

Important: Diffused dye can lead to permanent staining, therefore this area must be protected.



Step 3:

Remove paper points and apply HELBO *Biofilm Marker* from an apical to a coronal direction.

Important: Prepare optimally to ISO 45 – in the case of smaller preparation sizes, apply HELBO *Biofilm Marker* into the apical region by mechanical means (file, Lentulo, Gutta-percha points...), so that the dye reaches all of the bacteria.



Step 4:

Allow HELBO *Biofilm Marker* to take effect for at least 1 minute.

Important: only bacteria stained blue will be killed.
 - Diffusion into the tubules guarantees a deep treatment action.



Step 5:

Remove HELBO *Biofilm Marker* excess - rinse with H_2O for best results and dry completely with paper points.

Important: excess dye absorbs too much and prevents correct light application in some circumstances; the root canals must be dried completely.



Step 6:

Expose for 1 minute per canal: Aim for contact exposure – as close as possible to the stained bacteria, also in an apical direction.

Important: only bacteria that are sufficiently exposed will be killed.
 ⇒ Ensure that the optic condition is perfect and change batteries daily for optimum results.



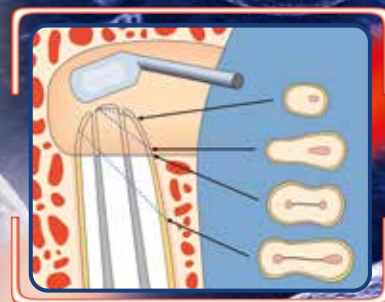
Step 7:

Seal the canals and remove any dye residues in the crown region mechanically (finishing bur!).

Important: Immediate definitive obturation is possible thanks to the significant reduction in bacteria



Endodontics (retrograde)

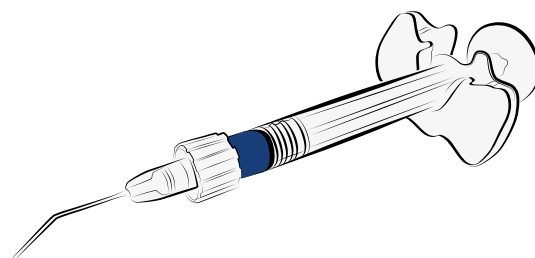


Treatment materials

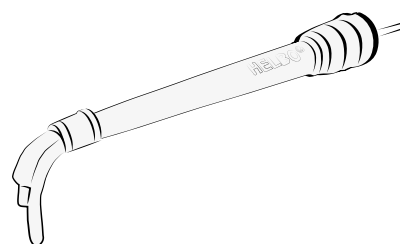
HELBO TheraLite Laser



HELBO Biofilm Marker 0,5 ml



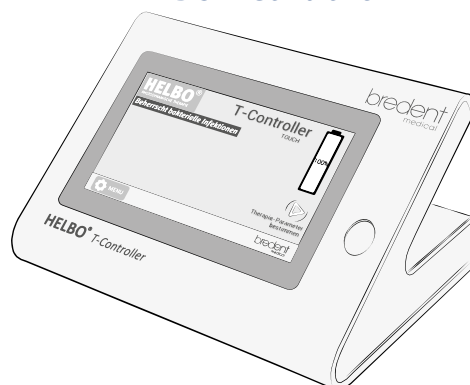
HELBO 2D Spot Probe



HELBO Cover Sleeve

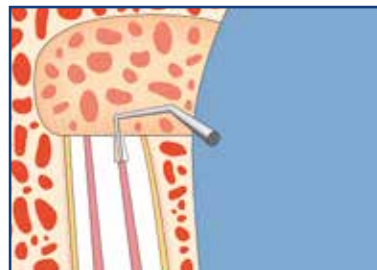


HELBO T-Controller



Step 1:

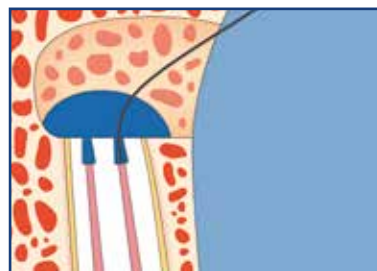
Retrograde preparation following root tip resection.



Step 2:

Application of the HELBOBiofilm Marker.

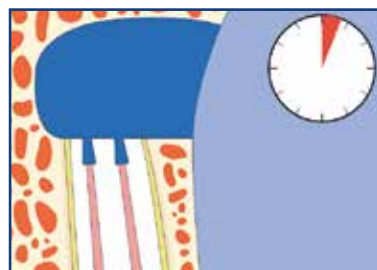
Important: stain the entire area, including the surrounding soft tissue/hard tissue, which has been infected by the apical process.



Step 3:

Staining of the micro-organisms, whole area, including the surrounding tissue: 3 minutes to take effect.

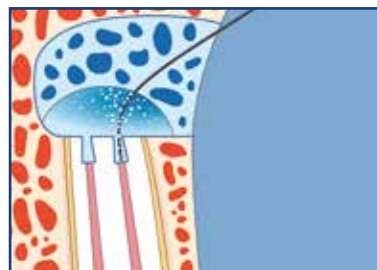
Important: the time for the product to take effect ensures the penetration of the dye solution into the biofilm.



Step 4:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (saline solution) to reduce the layer thickness.

Important: excess dye absorbs too much and prevents correct light application in some circumstances.



Step 5:

Expose the root tip and the surrounding tissue.

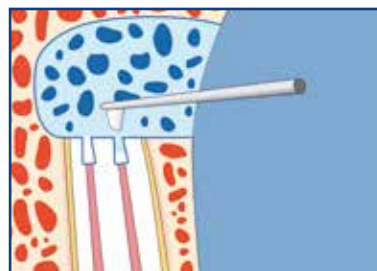
Important: Exposure with the HELBO *2D Spot Probe* (extensive exposure) for approx. 30 seconds for each site.



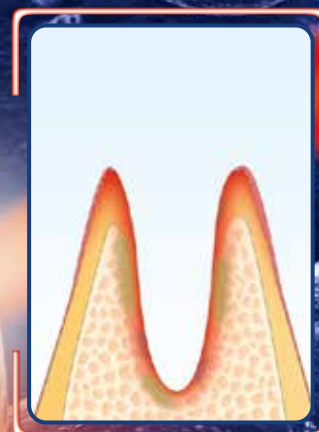
Step 6:

Seal root canals and wound.

Important: dye remaining in the operation area temporarily does not have any negative effects on wound healing.

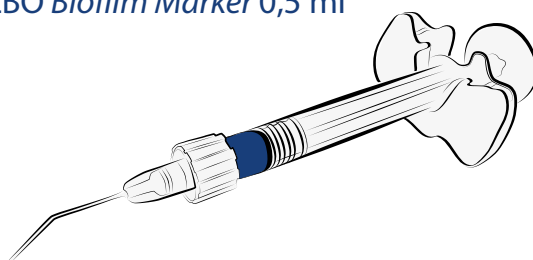


Disinfection of the alveoli



Treatment materials

HELBO Biofilm Marker 0,5 ml



HELBO 3D Pocket Probe



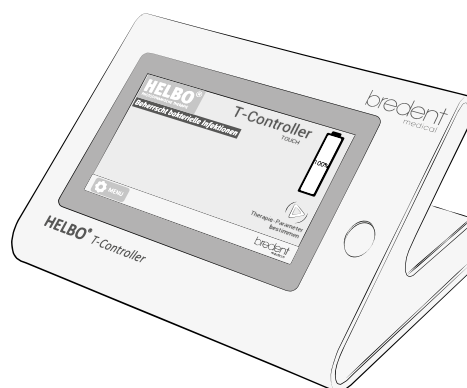
HELBO Cover Sleeve



HELBO TheraLite Laser



HELBO T-Controller



Step 1:

Careful tooth extraction, where possible.

Important: the apical and periodontal granulation tissue must be curetted carefully but completely.

Step 2:

Soak a gauze strip with HELBO *Biofilm Marker* and pack the alveoli with it.

Important: stain the entire area, the gauze strip absorbs the blood at the same time.

Step 3:

The time for the product to take effect in the alveoli is 3 min.

Important: the time for the product to take effect ensures the penetration of the dye solution into the biofilm.

Step 4:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (saline solution) to reduce the layer thickness.

Important: excess dye absorbs too much and prevents correct light application in some circumstances.

Step 5:

Expose the area in a circular manner for 1 min. per alveolus, as close to the alveolar walls as possible, in 6 places for 10 seconds each.

Important: in the event of severe bleeding from the alveolus, aspirate the blood and occasionally clean the optical fibre with a damp cloth.

Step 6 (Option 1):

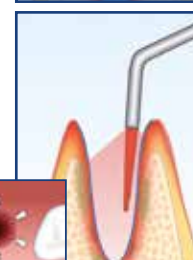
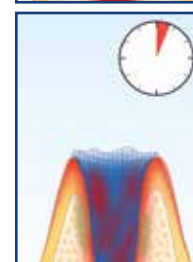
Immediate implantation.

Important: dye remaining in the operation area temporarily does not impair the healing process of the implant/bone grafting material.

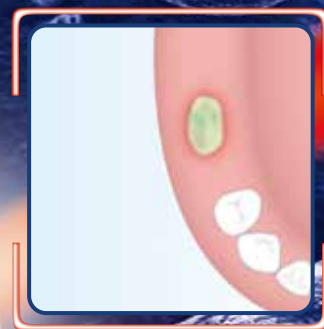
Step 6 (Option 2):

Application of bone grafting material for "socket preservation", wound closure.

Important: dye remaining in the operation area temporarily does not impair the healing process of the implant/bone grafting material.

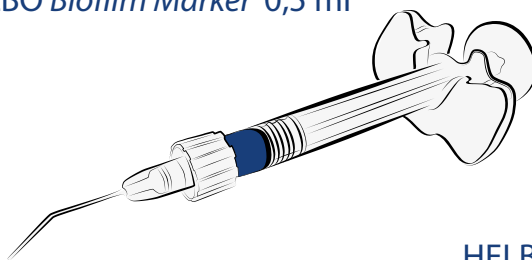


Bone necroses

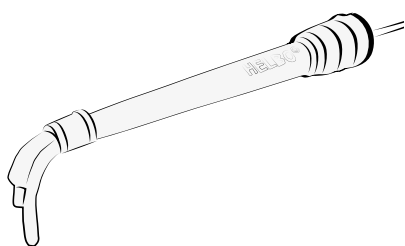


Treatment materials

HELBO Biofilm Marker 0,5 ml



HELBO 2D Spot Probe



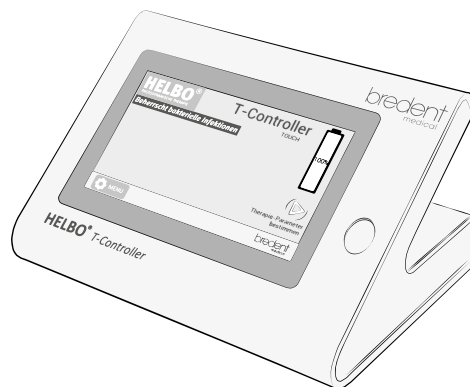
HELBO Cover Sleeve



HELBO TheraLite Laser



HELBO T-Controller



Step 1:

Division of the gingiva and subperiosteal preparation. Surgical removal of the necrotic and infected bone, smoothing of sharp bone edges (modeling osteotomy).



Step 2:

Application of the HELBO *Biofilm Marker* on bone and soft tissue, if necessary by means of compression with a soaked gauze strip.

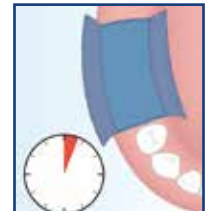
Important: stain the entire area, including the surrounding bone/soft tissue (including the periostium in particular).



Step 3:

Staining of the micro-organisms: 3 minutes to take effect.

Important: the time to take effect ensures that the bacteria that are still present are stained by the dye solution.



Step 4:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (sterile H₂O) to ensure sufficient exposure to the light.

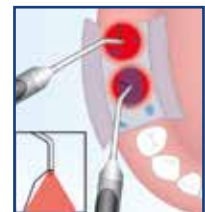
Important: excess dye absorbs too much and prevents correct light application in some circumstances. The bone and soft tissue areas still stained after rinsing may be populated with bacteria and should be exposed.



Step 5:

Extensive exposure of the infected area.

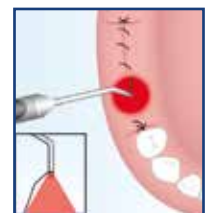
Important: Exposure with the HELBO *2D Spot Probe* (extensive exposure) for approx. 30 seconds for each site.



Step 6:

Wound closure

Important: further exposure of the closed operation wound to activate the photobiological laser effect (promotion of wound healing and pain reduction).



Skin/mucosal diseases

(e.g. aphthae, herpes, candida, suture dehiscence)

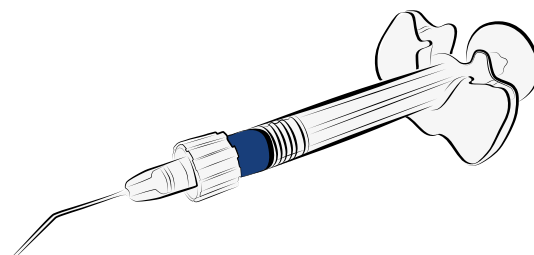


Treatment materials

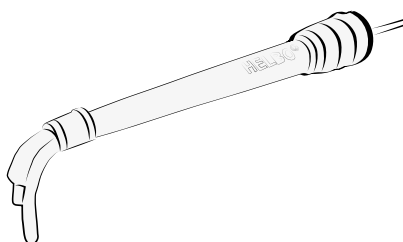
HELBO TheraLite Laser



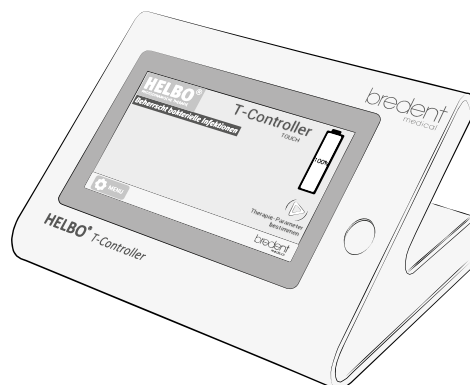
HELBO Biofilm Marker 0,5 ml



HELBO 2D Spot Probe



HELBO T-Controller



Step 1:

Application of the HELBO *Biofilm Marker* with a cannula or soaked gauze strips, staining of the infected area.

Important: where possible, remove loose, coarse coatings and biofilm by means of rinsing before commencing treatment (H_2O_2 , NaCl).



Step 2:

Time for the HELBO *Biofilm Marker* to take effect:
3 minutes.

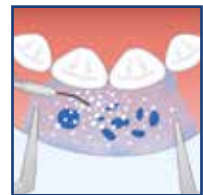
Important: the time for the product to take effect ensures the penetration of the dye solution into the biofilm.



Step 3:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (H_2O) to reduce the layer thickness.

Important: excess dye absorbs too much and prevents correct light application in some circumstances.



Step 4:

Extensive exposure of the infected area.

Important: Exposure with the HELBO *2D Spot Probe* (extensive exposure) for approx. 30 seconds for each light point.



Step 5:

Repeat the use of the HELBO treatment as required depending on the indication, severity, healing progress and treatment options.

Important: a maximum of 3 applications is generally sufficient. If this is not the case, a further investigation of the causes should take place, if necessary.



Caries

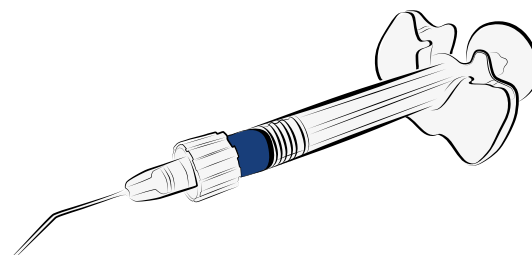


Treatment materials

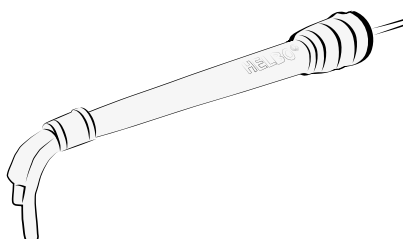
HELBO TheraLite Laser



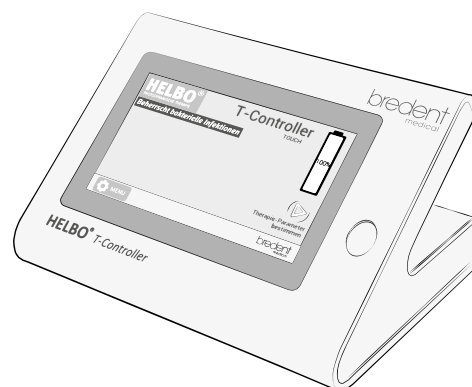
HELBO Biofilm Marker 0,5 ml



HELBO 2D Spot Probe



HELBO T-Controller



Step 1:

Mechanical removal of caries.

Important: removal of the infected tissue as much as possible, however with concomitant protection of the pulpa.



Step 2:

Timely application of the HELBO *Biofilm Marker* on the base of the cavity.



Staining of the micro-organisms: 3 minutes to take effect.

Important: the time for the product to take effect ensures the penetration of the dye solution into the infected areas.



Step 3:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (H_2O) to reduce the layer thickness.

Important: excess dye absorbs too much and prevents correct light application in some circumstances.



Step 4:

Extensive exposure with the HELBO *TheraLite Laser* and the HELBO *2D Spot Probe* (extensive exposure) for approx. 30 seconds for each site.



Step 5:

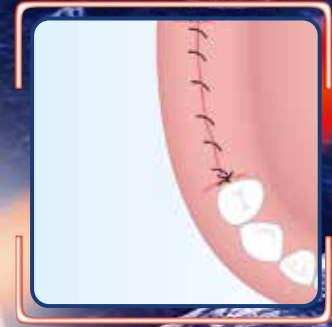
If necessary, removal of dye particles on the side walls of the cavity. Sealing of the cavity.

Important: dye residues temporarily remaining on the base of the cavity pose no risk to the outcome of treatment.



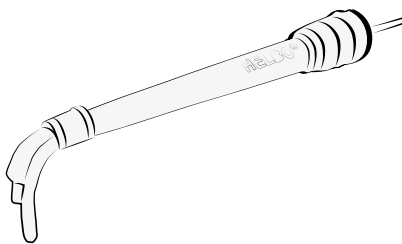
Photobiological laser effect

(promotes wound healing,
reduces pain and reduces inflammation)

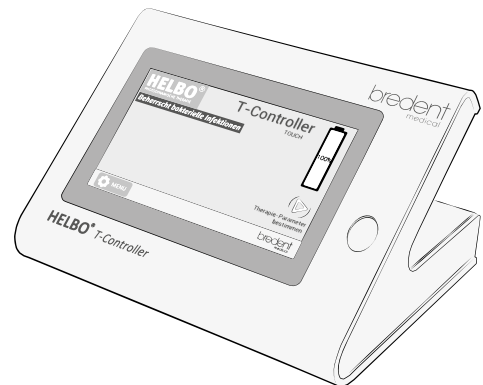


Treatment materials

HELBO 2D Spot Probe



HELBO T-Controller



HELBO TheraLite Laser



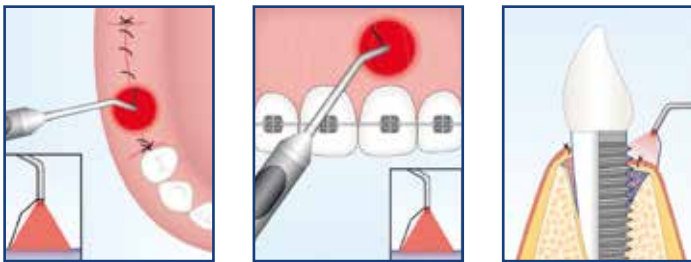
Aim:

Stimulation of the body's own repair process (ATP synthesis, mitochondria activity) for improved wound healing, pain reduction and reduction of inflammation through the use of the low-energy laser light. Use of the laser light alone (without dye solution) is expedient in all situations that do not involve an infection, e.g. in the field of orthodontics (tooth bands) and in operation wounds following surgical procedures.

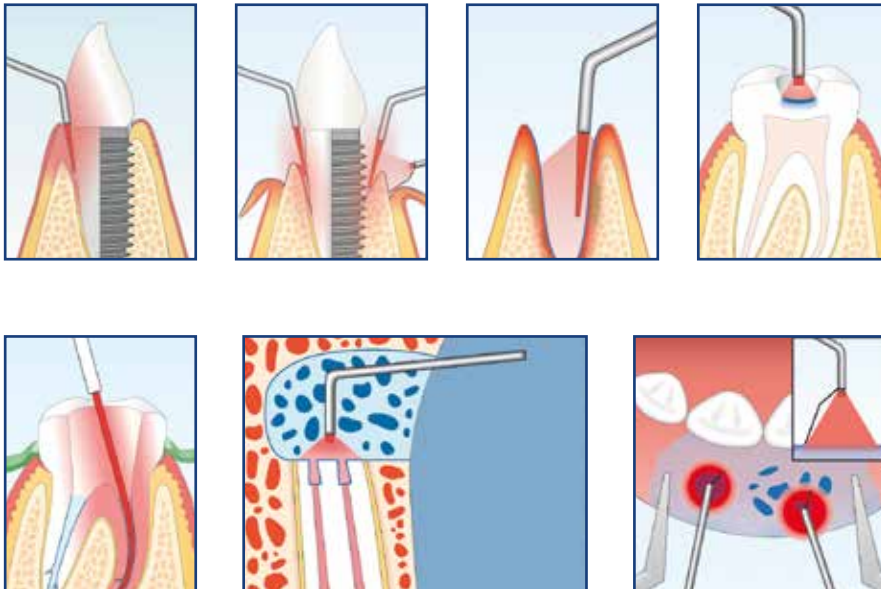
Procedure:

Extensive exposure of the affected areas.

Important: Exposure with the *HELBO 2D Spot Probe* (extensive exposure)
for approx. 30 seconds for each site.



When using antimicrobial photodynamic therapy (dye solution and laser light) to treat infections, the photobiological effect has a positive concomitant effect.

**Note:**

Repeat the photobiological effect of the *HELBO TheraLite Laser* as many times as you like, if necessary, depending on the indication, severity, healing progress and treatment options.

HELBO Manual



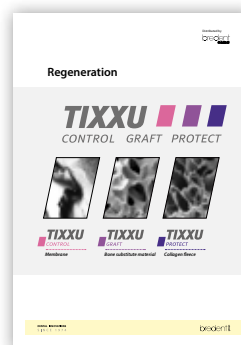
Other offers that may be of interest to you



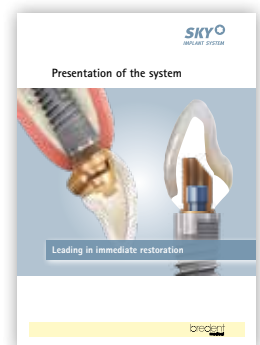
REF 000429GB



REF 000461GB



REF 009959GB



REF 000250GB



000567GB-20211122 Mistake and subject to change reserved Protective charge : 19,90 e plus VAT

DENTAL INNOVATIONS
SINCE 1974

bredent group

bredent medical GmbH & Co. KG · Weissenhorner Str. 2 · 89250 Senden · Germany · T: +49 7309 872-441 · F: +49 7309 872-444 · www.bredent-medical.com · @: info-medical@bredent.com