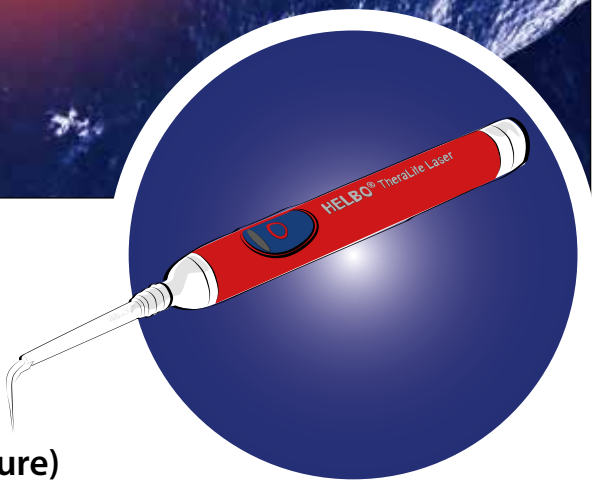
HELBO Manual



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

DENTAL INNOVATIONS
SINCE 1974

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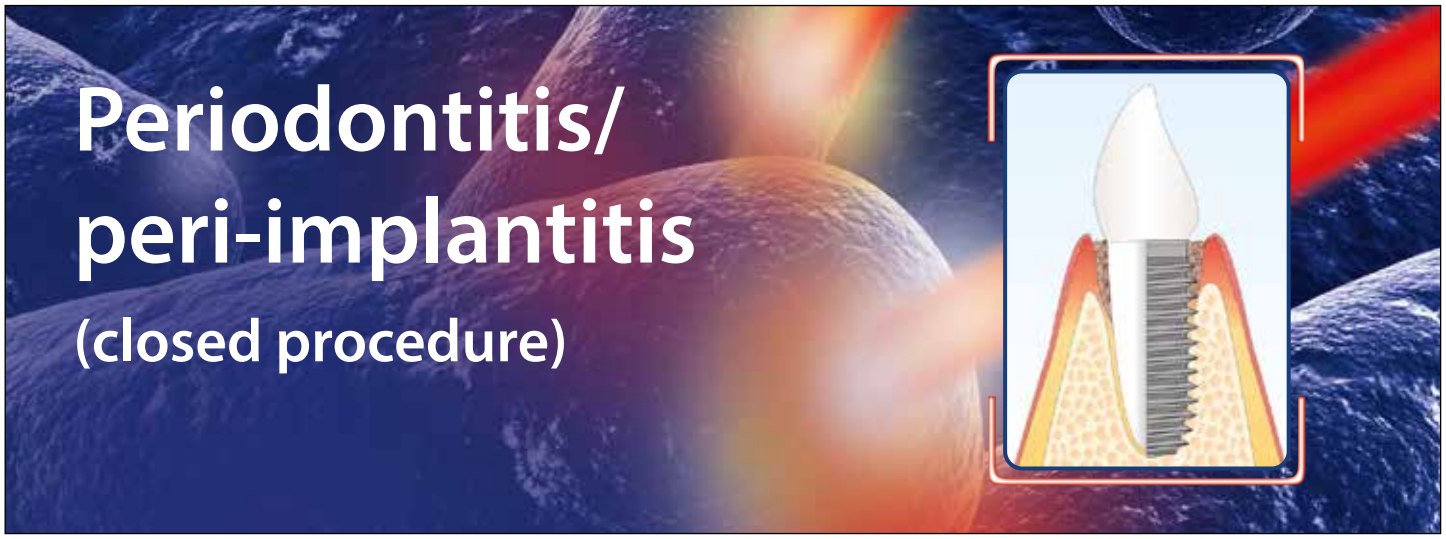
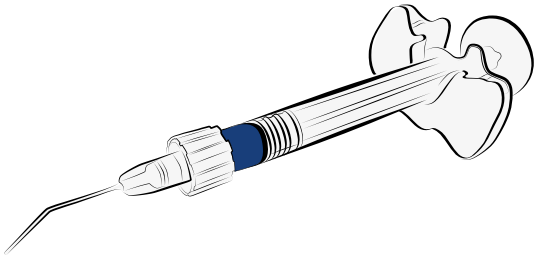
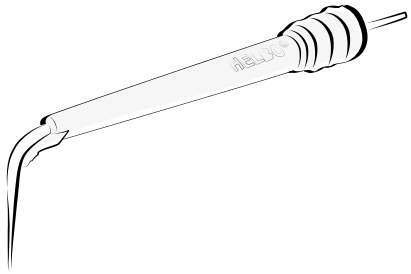


Treatment materials

HELBO *Biofilm Marker* 0,5 ml

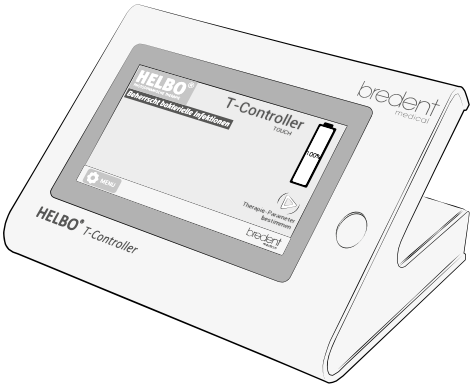


HELBO *3D Pocket Probe*



HELBO *TheraLite Laser*

HELBO *T-Controller*



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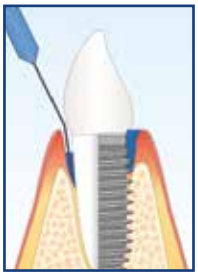
Periodontitis/peri-implantitis
(closed procedure)

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.

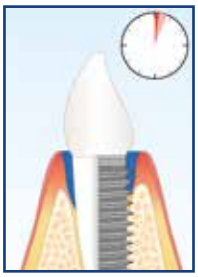
Step 2:

Apply HELBO *Biofilm Marke*r from the base of the pocket.
Important: a possible air bubble deep in the pocket prevents HELBO *Biofilm Marke*r 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.

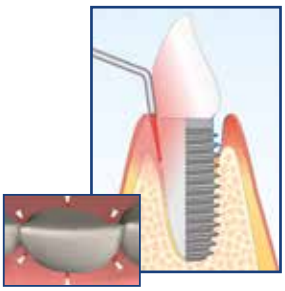


Step 4:

Rinse the pockets thoroughly with H_2O - remove any excess dye, as well as from the base of the pocket (use a suitable rinsing cannula).
Important: HELBO *Biofilm Marke*r 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 Marke*r takes **3 minutes to take effect** and this should be observed.

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HELBO
PHOTODYNAMIC THERAPY

Controls bacterial infections

„Success scientifically proven for more than 20 years“

aPDT Therapy Concept – Periodontitis

Basic diagnostics
(PSI !)

Diseased

Advanced diagnostics
PD / SBI /
BOP / microbiology

Reevaluation
After 1 week
SBI / BOP

Healthy

Preventive long-term care
Recall 3-6 months
PD / SBI / BOP

Healthy

Oral hygiene
Professional tooth cleaning (PTC)

Preventive prophylaxis

Recall 6 months PTC

Therapy
PTC + SRP

Mild bleeding

Severe bleeding

aPDT after 0-1 day

aPDT after 1-2 days

Bleeding on probing

aPDT in refractory areas

Target reached

After 1 week:
2nd reevaluation
SBI / BOP

Target not achieved

In exceptional cases:
Microbiology ⇨ antibiosis / surgery

Afterwards aPDT

PTC + aPDT = Therapeutic and prophylactic treatment

Diagnosis
Findings
Therapy

SBI = Sulcus bleeding index
BOP = Bleeding on probing
PSI = Periodontal screening index

aPDT= Antimicrobial photodynamic therapy
PTC = Professional tooth cleaning (Nettoyage dentaire professionnel)
PD = Probing depth (Profondeur de sondage)

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HELBO
PHOTODYNAMIC THERAPY

Controls bacterial infections

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aPDT Therapy Concept – Periimplantitis

Basic diagnostics
(Soft tissue)
PI, SBI, BOP

Risk diagnostics:
Smoking, diabetes, bisphosphonate therapy, candida infection

Check suprastructure

Healthy

Oral hygiene, cleaning suprastructure

Recall 12 months

Bleeding on probing

Advanced diagnostics
(Hard tissue) Radiological examination, measurement of pocket depth

Probing depth < 6 mm
No vertical bone loss

Non surgical intervention

Oral hygiene, cleaning, suprastructure correction if necessary, **aPDT**

Reevaluation
After 1 and 2 weeks:
SBI, BOP

aPDT in refractory areas

Healthy

Recall 6 months

Bleeding on probing

Probing depth > 6 mm
Vertical bone loss
and/or **refractory inflammation**

Surgical intervention

Oral hygiene, cleaning, supra-structure correction if necessary, surgery + **aPDT**, defect augmentation if necessary, reduction of gingival height

Reevaluation
After 3 days, 1 and 2 weeks:
SBI, BOP, exposed granulate after augmentation

aPDT in refractory areas

Healthy

Recall 3 months

Bleeding on probing

Revision / explantation

Diagnosis
Findings
Therapy

aPDT = Antimicrobial photodynamic therapy
SBI = Sulcus bleeding index
BOP = Bleeding on probing
PI = Plaque index

Equals EuCC European Consensus Conference; Feb.2008, Cologne

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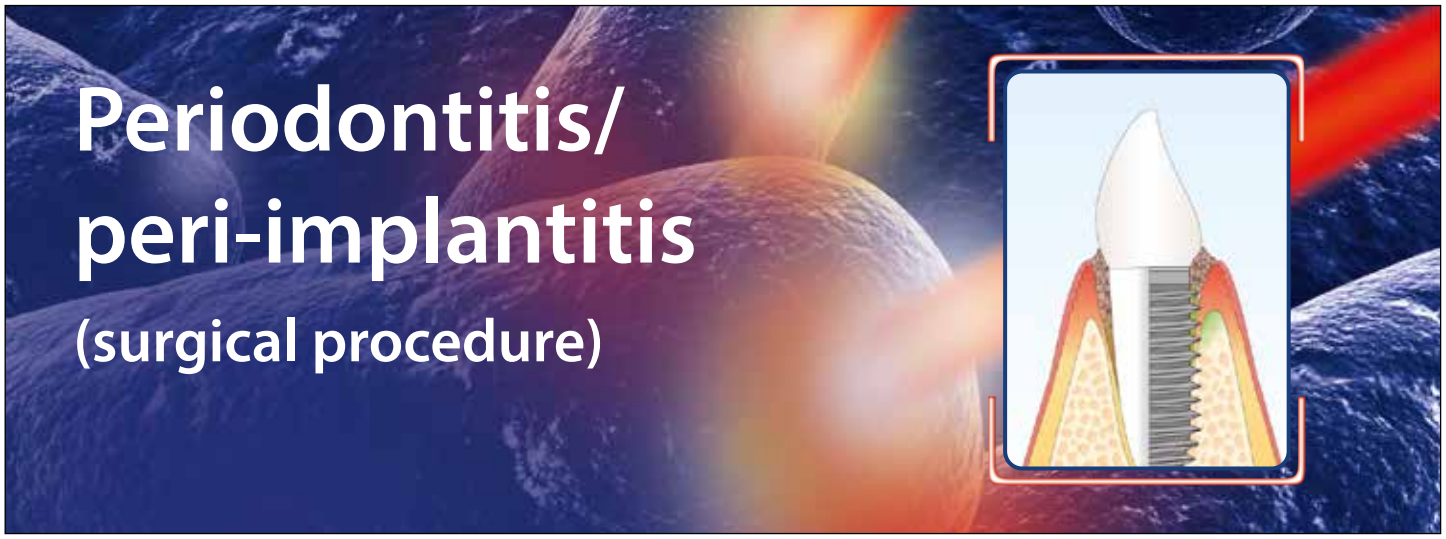
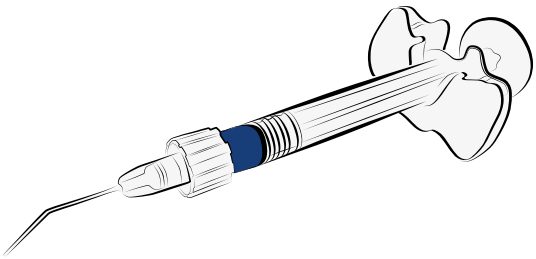


Periodontitis/ peri-implantitis
(surgical procedure)

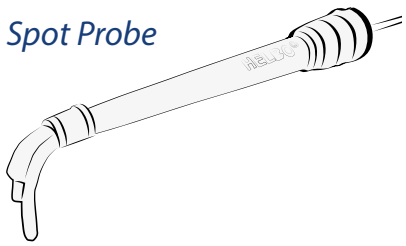
Treatment materials

HELBO *Biofilm Marker* 0,5 ml



HELBO *3D Pocket Probe*

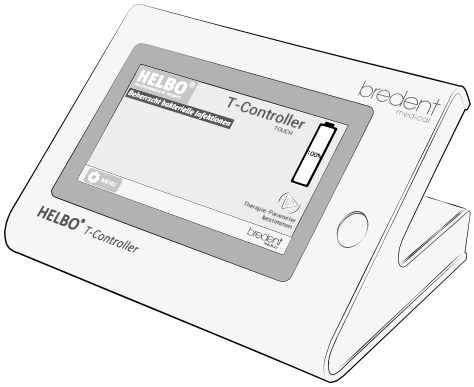
HELBO *2D Spot Probe*



HELBO *Cover Sleeve*

HELBO *TheraLite Laser*

HELBO *T-Controller*



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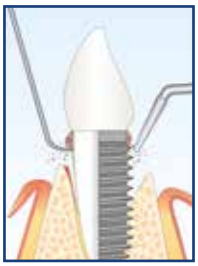
Periodontitis/peri-implantitis
(surgical procedure)

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.

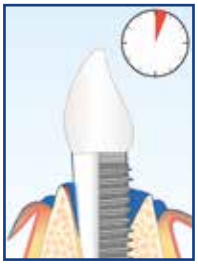


Step 3:

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.

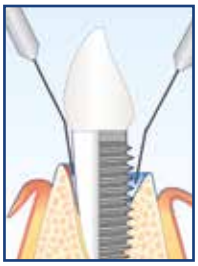
Step 4:

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.

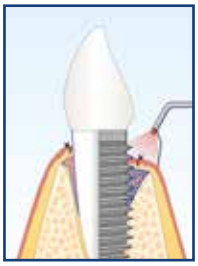


Step 6:

Extensive exposure using the HELBO *TheraLite Laser* for at least 1 minute per cm^2 = 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.



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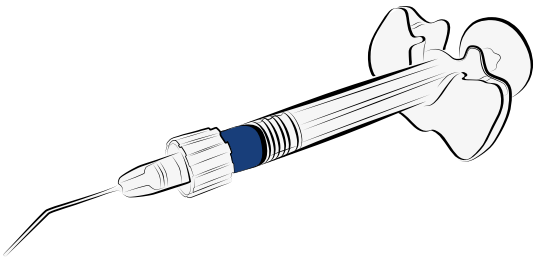
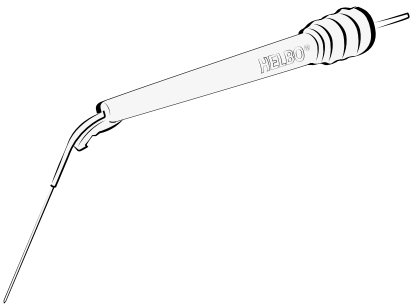
Treatment materials

HELBO *Biofilm Marker* 0,5 ml



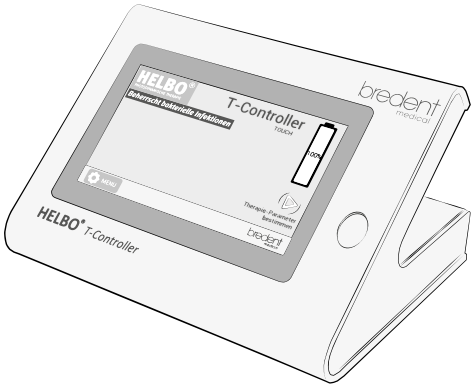
HELBO *3D Endo Probe*



HELBO *Endo Seal*

HELBO *TheraLite Laser*

HELBO *T-Controller*



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Endodontics (orthograde)

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

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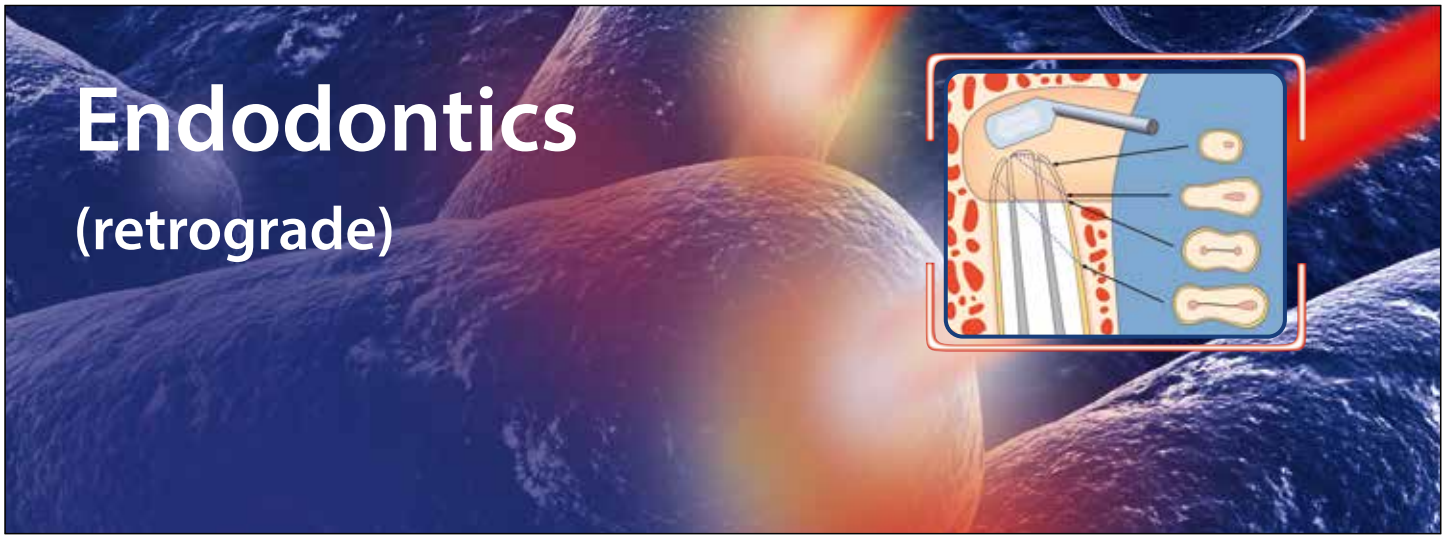
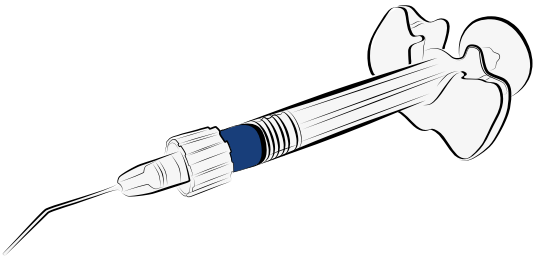


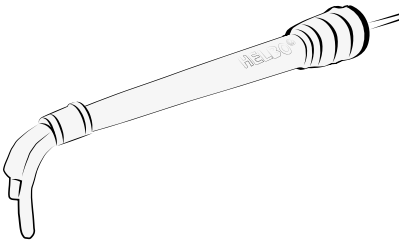
Treatment materials

HELBO *TheraLite Laser*

HELBO *Biofilm Marker* 0,5 ml

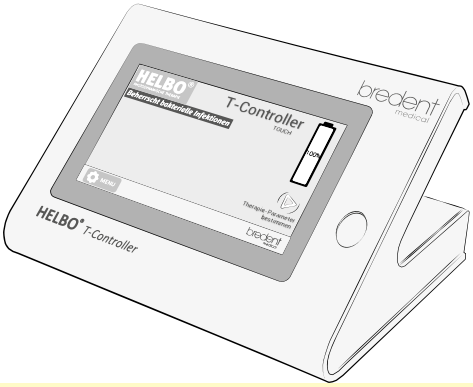


HELBO *2D Spot Probe*



HELBO *Cover Sleeve*

HELBO *T-Controller*



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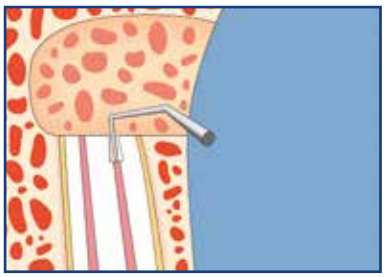
Endodontics (retrograde)

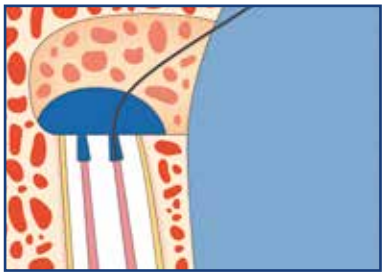
Step 1:

Retrograde preparation following root tip resection.



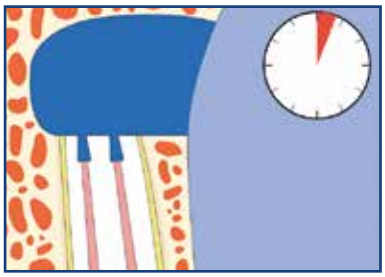
Step 2:

Application of the HELBO*Biofilm Marker*.
Important: stain the entire area, including the surrounding soft tissue/hard tissue, which has been infected by the apical process.



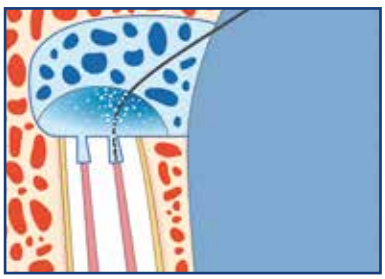
Step 3:

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.



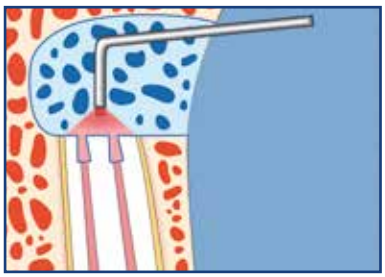
Step 4:

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.



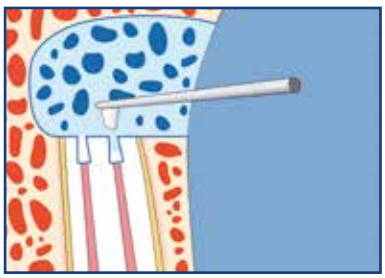
Step 5:

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.



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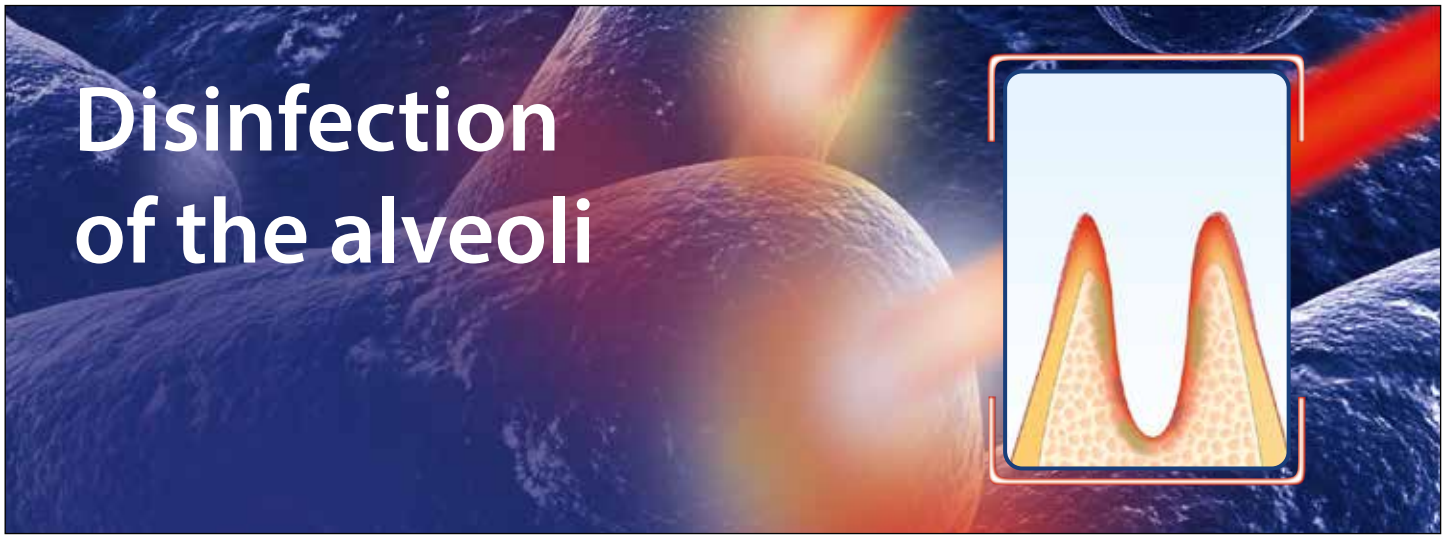
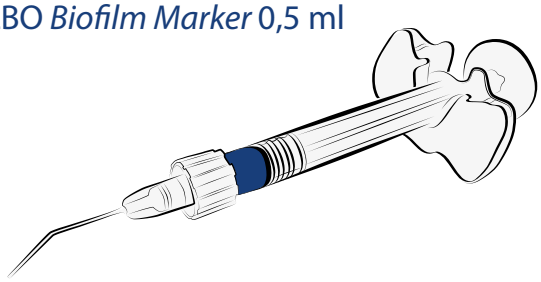


Treatment materials

HELBO *Biofilm Marker* 0,5 ml

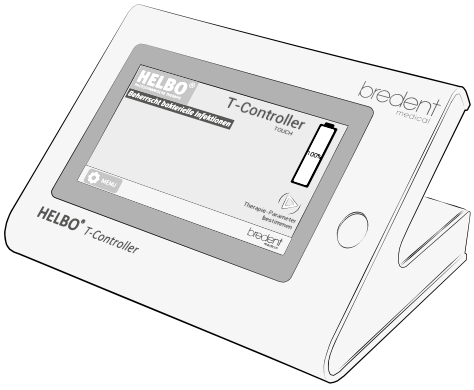


HELBO *3D Pocket Probe*

HELBO *Cover Sleeve*

HELBO *TheraLite Laser*

HELBO *T-Controller*



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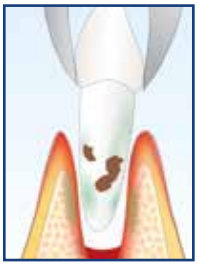
Disinfection of the alveoli

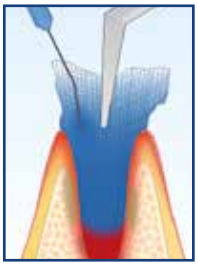
Step 1:

Careful tooth extraction, where possible.
Important: the apical and periodontal granulation tissue must be curetted carefully but completely.



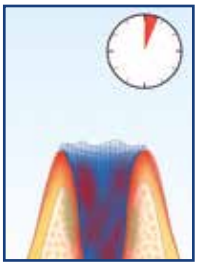
Step 2:

Soak a gauze strip with HELBO *Biofilm Marke*r 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.

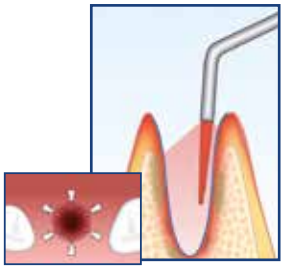


Step 4:

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.

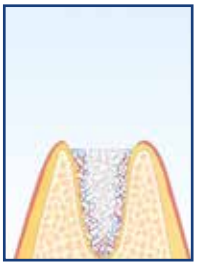


Step 6 (Option 1)**:**

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.



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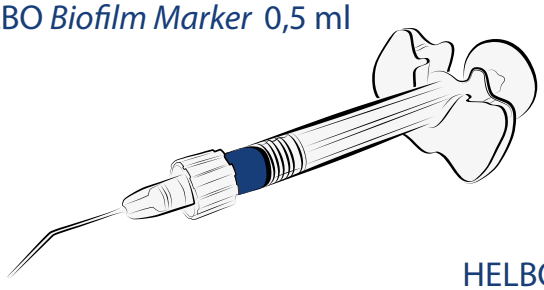
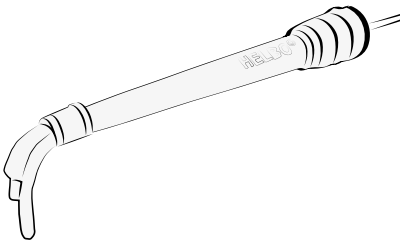
Treatment materials

HELBO *Biofilm Marker* 0,5 ml



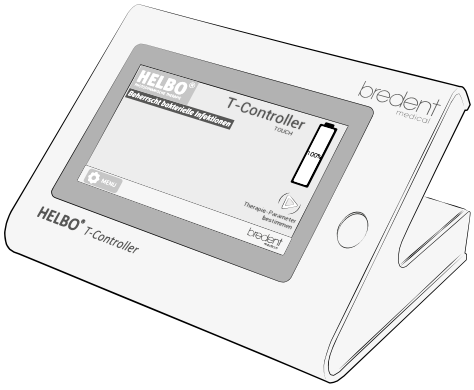
HELBO *2D Spot Probe*



HELBO *Cover Sleeve*

HELBO *TheraLite Laser*

HELBO *T-Controller*



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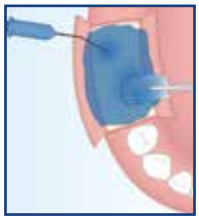
Bone necroses

Step 1:

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

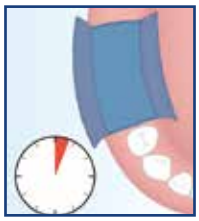
Step 2:

Application of the HELBO *Biofilm Marke*r 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.

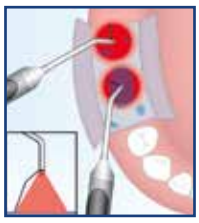


Step 4:

Prior to exposure with the HELBO *TheraLite Laser*, rinse (sterile H_2O) 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.

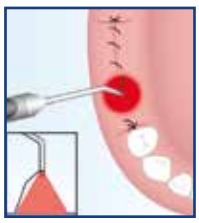
Step 5:

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).



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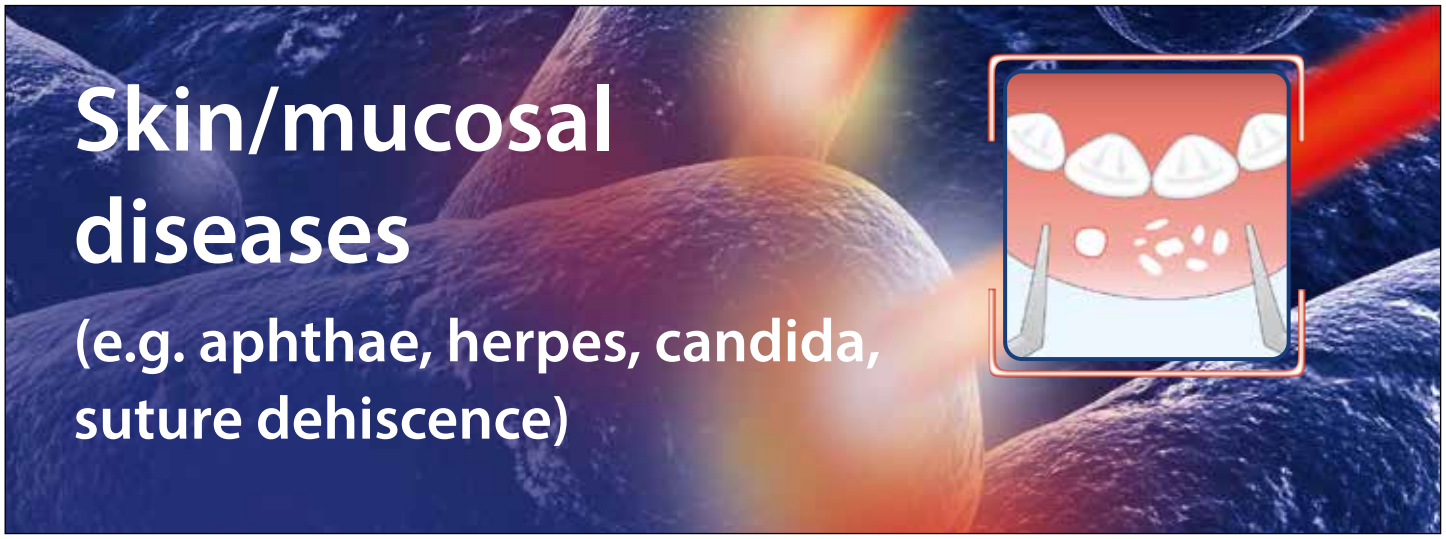
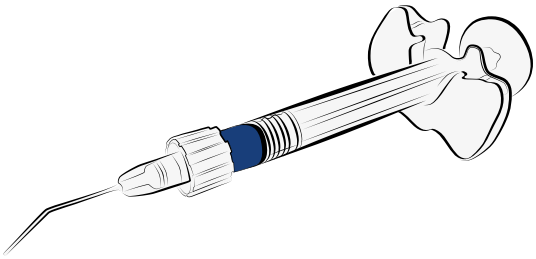


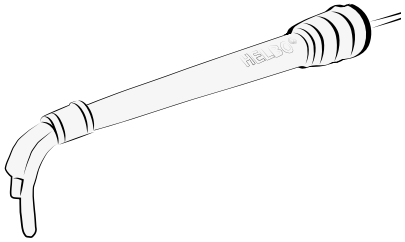
Treatment materials

HELBO *TheraLite Laser*

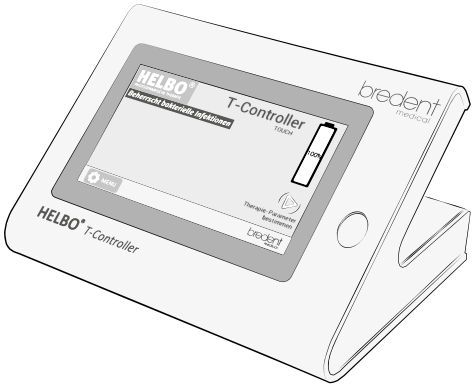
HELBO *Biofilm Marker* 0,5 ml



HELBO *2D Spot Probe*



HELBO *T-Controller*



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Skin/mucosal diseases

Step 1:

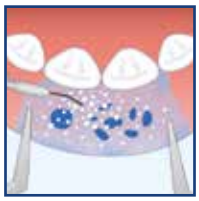
Application of the HELBO *Biofilm Marker* with a cannula or soaked gauze strips, staining of the infected area.
Important: where possible, remove loose, coarse coatings and biofilm by means of rinsing before commencing treatment (H_2O_2, NaCl).

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.

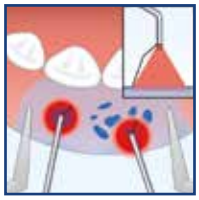
Step 3:

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.

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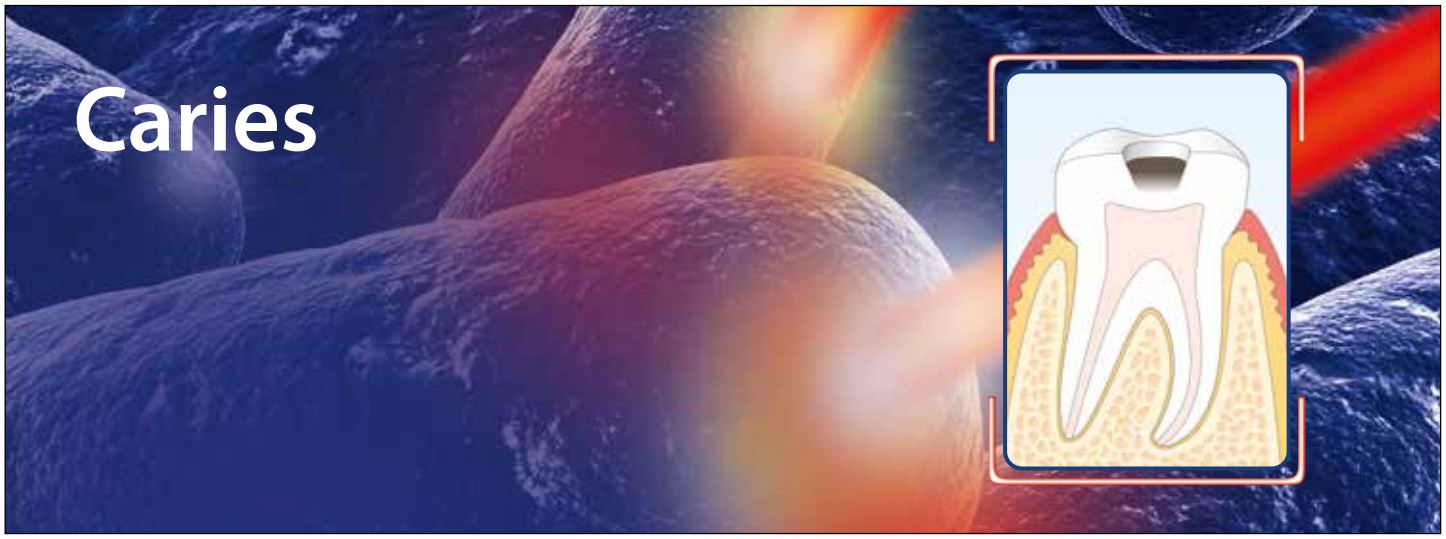
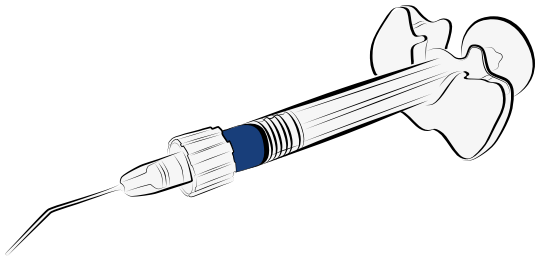


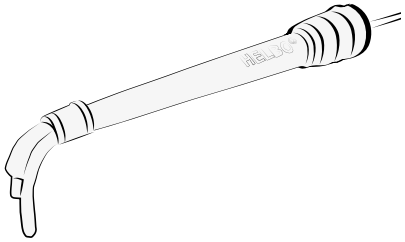
Treatment materials

HELBO *TheraLite Laser*

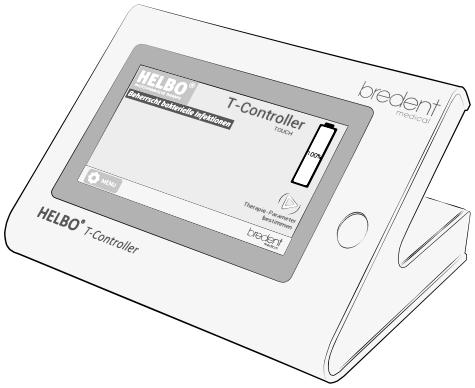
HELBO *Biofilm Marker* 0,5 ml



HELBO *2D Spot Probe*



HELBO *T-Controller*



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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.

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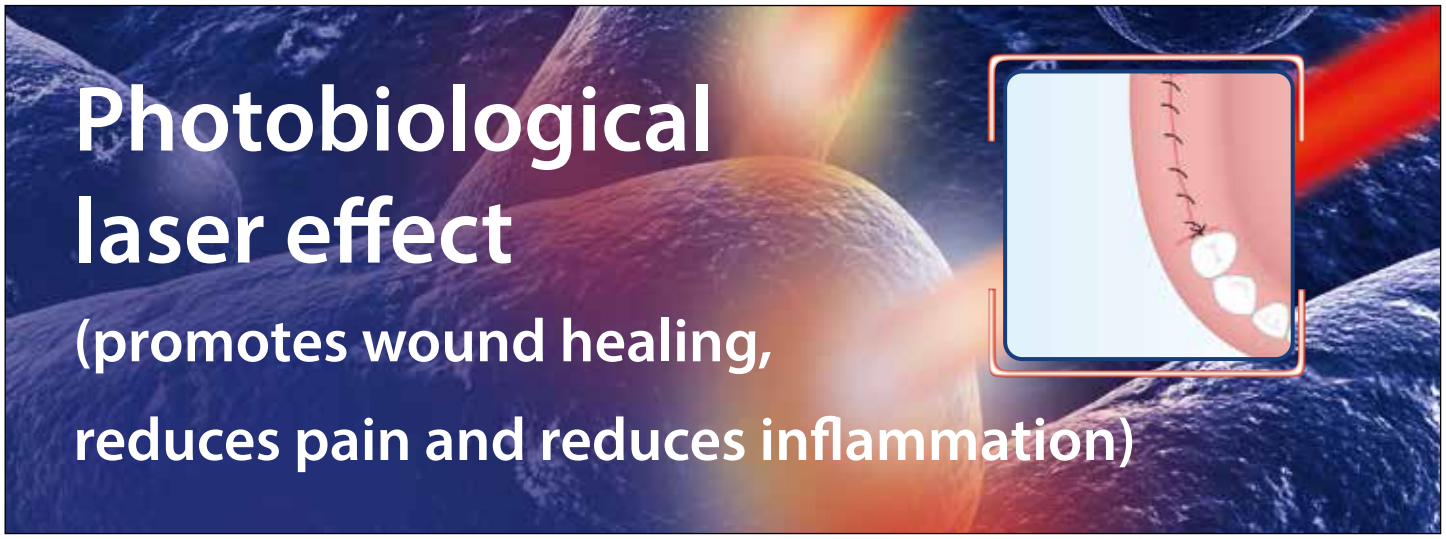
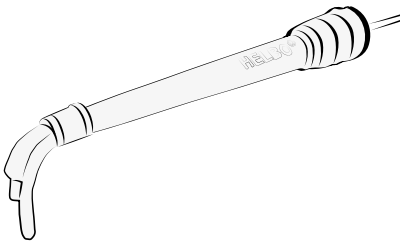
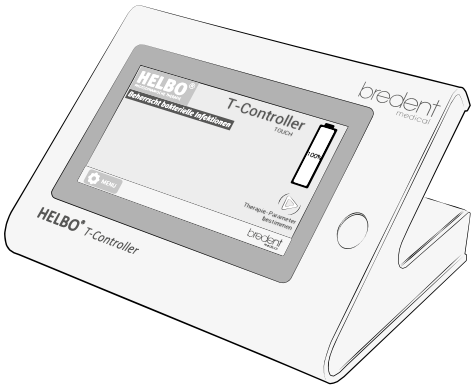


Treatment materials

HELBO *2D Spot Probe*



HELBO *T-Controller*



HELBO *TheraLite Laser*

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Photobiological laser effect

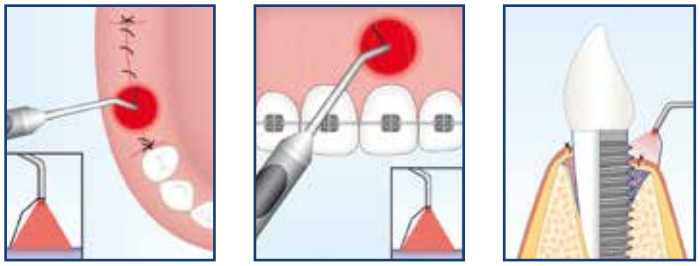
promotes wound healing, reduces pain and reduces inflammation

Aim:

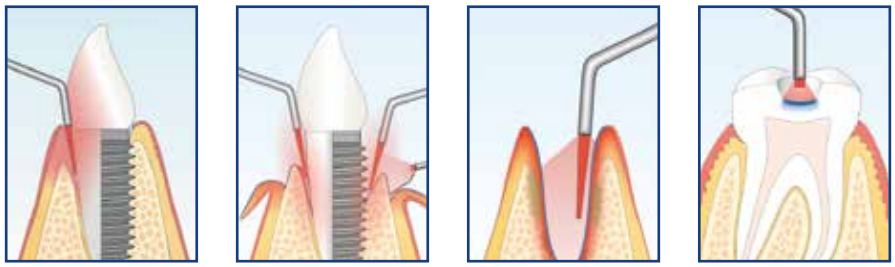
Stimulation of the body's own repair process (ATP synthesis, mitochondria activity) for improved wound healing, pain reduction and reduction of inflammation through the use of the low-energy laser light. Use of the laser light alone (without dye solution) is expedient in all situations that do not involve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

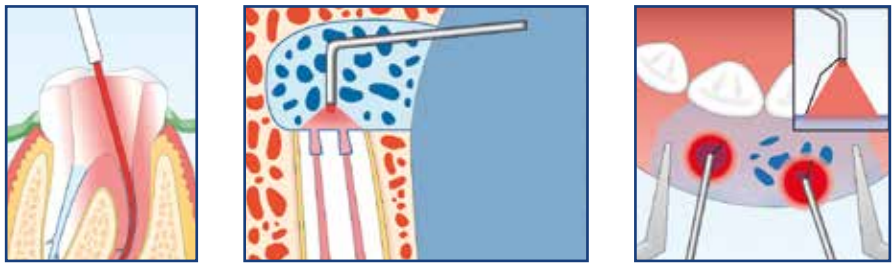
Procedure:

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.

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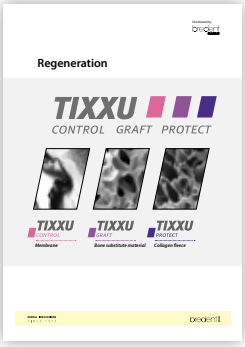
HELBO Manual

Other offers that may be of interest to you

REF 000429GB

REF 000461GB



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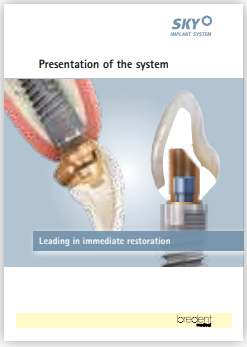

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