HELBO Treatment
Infection control

Treatment success – scientifically documented

Periodontitis  Periimplantitis  Infection of the soft tissue and bone  Endodontitis  Caries
Pathogenic bacteria are the main cause of failure in dentistry! Studies have shown that the biofilm provides a safe habitat for them. A phenomenon called „Quorum Sensing“ enables bacteria to communicate with one another and coordinate their activities. The more mature the biofilm, the more resistant the bacteria within it become.

Mechanical cleaning and rinsing solutions do not adequately destroy the bacteria in the biofilm. Even strong antibiotics seldom provide sustainable success. There are, however, side effects, interactions with other medications and the risk of resistance when using antibiotics.

Periodontal pathogenic bacteria increase the risk of numerous diseases:
- Periodontitis and periimplantitis
- Endodontitis
- Caries
- Alveolar osteitis following tooth extraction
- Bone necrosis, for example following administration of bisphosphonates
- Inadequate healing following apicoectomy
- Residual osteitis (disturbed healing of an implant, in particular in the case of immediate implantation)
With **HELBO Treatment** you can quickly relieve your patients from these inflammations/infections or prevent disturbances to wound healing. The light also accelerates the healing process and has a proven analgesic effect. The treatment can easily be integrated into the bredent medical **treatment concepts of „gapless“, „attractive“, „in the thick of it“ and „regeneration“.** The HELBO treatment can be assigned to adequately trained assistants to reduce the workload for the dentist.

**Singlet oxygen destroys pathogenic bacteria.**

The proposed treatment is based upon the marking of the bacterial wall using light-sensitive dye molecules, which diffuse into the biofilm from the **HELBO® Blue Photosensitizer.** The dye molecules are then activated using laser light and transfer their energy into local oxygen. This creates highly-aggressive singlet oxygen, which destroys more than 99 percent of the bacteria in the biofilm. An efficacy rate as high as this would be unthinkable using conventional treatment methods.

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**How it works**

1. Accumulation of light-sensitive photosensitizers on the bacterial membrane
2. Exposure and stimulation of the photosensitizers with the **HELBO® TheraLite Laser**
3. Reaction with oxygen, image of aggressive singlet oxygen
4. Damage to bacterial membrane: destruction of the micro-organisms
**Indications**

HELBO treatment can be applied in initial and maintenance treatment. Studies have shown that the treatment stops inflammation, promotes healing and reduces the probing depth.

Contamination on bones, soft tissue, teeth and implant surfaces is made visible by the intra-operative staining of the biofilm with the sterile HELBO photosensitizer and is eliminated by laser radiation. The results are successful regeneration and healing.

Despite mechanical cleaning and chemical disinfection prior to obturation, bacteria remain in the channel, in the tubuli and in the apical delta. Pathogens can also be reduced deep in the dentine channels and in the apical bone region (apicoectomy) with HELBO treatment.

During treatment for caries profunda, the bases of the cavities near the pulp are decontaminated in a point shape, to halt progression of the carious processes and to avoid inflammation in the pulp. This is an advantage together with the analgesic effect of the laser light, particularly in the area of paediatric treatment. It can also be used in the case of incipient caries.
The use and effects of HELBO treatment are this simple:

**Step 1:** Professional cleaning or preparation using conventional methods.
- Removal of calculus and plaque or infected tissue.

**Step 2:** Application of the light-sensitive HELBO® Blue photosensitizer.
- Staining, diffusion of the dye molecules in the biofilm and sensitising of the micro-organisms.
- Dye molecules attach themselves to the bacterial membrane.

**Step 3:** Rinsing and aspirating of excess HELBO® Blue.
- Checking of the residual contamination, possible secondary cleaning and rinsing.
- Excess light-inhibiting dye is removed, accumulated active molecules of dye solution remain in the biofilm.

**Step 4:** Exposure with the HELBO® TheraLite Laser and the HELBO® 3D Pocket / Endo Probe or the HELBO® 2D Spot Probe.
- Transfer of the light energy and stimulation of the molecules; imaging of local singlet oxygen, which lead to the destruction of the micro-organisms by means of lipid oxidation on the bacteria membrane. Healthy tissue is not stained or damaged.
Components required for successful treatment with HELBO

HELBO® Blue Photosensitizer / HELBO® Endo Blue

- Ready-to-use solution in an applicator with special atraumatic soft-touch cannula – packaged in a sterile environment!
- Easy to apply, safe and non-drip, with efficient moistening and rapid diffusion into the biofilm.

HELBO® Blue Photosensitizer
Set with 15 syringes
(3 packs of 5 pieces)
REF HE101007

HELBO® Blue Photosensitizer
Set with 30 syringes
(6 packs of 5 pieces)
REF HE101008

HELBO® Blue Photosensitizer
(0.1 ml)
Sterile single-use syringes
(1 pack of 5 pieces)
1 syringe is sufficient for
at least 4 teeth/implants
REF HE101006

HELBO® Blue Photosensitizer
(0.5 ml)
Sterile single-use syringes
1 syringe is sufficient for
maxilla and mandible
Set with 5 syringes
(1 pack of 5 pieces)
REF HE101005

Sterimex Soft Touch
Cannulas for HELBO® Blue Photosensitizer
(1 pack of 10 pieces)
REF HE100122

HELBO® Endo Blue
Sterile single use applicators
(1 pack of 5 pieces)
Sufficient for 4-5 root canals
REF HE101025

HELBO® Endo Seal
Light curing dentine sealant that protects crowns.

HELBO® TheraLite Laser including complete battery set
- Ultra-light diode laser with integrated power control, short treatment time due to optimum light output.
- Mobile as can be used independently from the mains supply (changing battery operation), ergonomically perfect, small and light at 80 grams, therefore effortless use.
- Treatment-oriented sterile fibre optics:
  HELBO® 3D Pocket Probe for secure 3D exposure of the periodontal/periimplantar pocket,
  HELBO® 3D Endo Probe for 3D channel exposure and HELBO® 2D Spot Probe for exposure of two dimensional areas.

HELBO® TheraLite Laser
REF HE103206

Silver
REF HE103208

Red
REF HE103207

Blue

HELBO® battery set
1 charger including 3 x 2 batteries for the HELBO® TheraLite Laser
REF HE100200

3 sets Replacement batteries for the HELBO® TheraLite Laser
REF HE100201

Replacement components for the Helbo® TheraLite Laser

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HELBO® Endo Blue Sterile single use applicators
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HELBO® Endo Seal
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HELBO® Endo Seal
Light curing dentine sealant that protects crowns.
Trust the market leader:
- Diffusion: biofilm is visible
- Sterile products enable use in the case of haemorrhaging lesions and during surgery
- Academia: more than 50 publications
We support your treatment success through continued research and implementation of clinical studies:

- More than 50 publications are available regarding the efficiency of HELBO treatment.
- Clinical treatment experience of more than 10 years and consistent further development ensure the foundation of the partnership between users and research companies.
- All products bear CE certification in accordance with the Medizinproduktegesetz [German Medical Devices Act].

Stop inflammation using HELBO treatment in the case of various forms of periodontitis:

  “In patients with chronic periodontitis, clinical outcomes of conventional subgingival debridement can be improved by adjunctive aPDT.”

  “Repeated PDT adjunctive to debridement yielded improved clinical outcomes in residual pockets in main tenance patients.”

Treatment options for HELBO treatment in the case of periimplantitis:

- **Dr. J. Neugebauer:** Poster presentation ADI 2007, May 3–5.
  “The initial treatment of periimplantitis with aPDT allows a nearly complete regression at an early stage. In late cases a recovery is possible for over 80% of the infected implants.”

- **Dr. T. Eberhard:** ZBW [Dentistry Journal Baden-Württemberg] 2009; 2.
  (3 years’ results with 70 patients)
  “This treatment seems to open up new treatment options, particularly in the field of periimplantitis treat- ment and prophylaxis”

Treatment of infections of the soft tissue/bone without antibiotics:

  “HELBO treatment represents an alternative method to known pharmacological and chemical decon- tamination procedures for prophylaxis and treatment of orally-manifested infections (periimplantitis, disturbances to wound healing, bisphosphonate-induced necrosis of the maxilla, alveolar ostitis, orthograde and retrograde endodontics).”
Examples of use of HELBO treatment for the treatment of caries:

- **Dr. Volker Scholz**: Dental Barometer 2007; 3.
  “Certainly with the increasing problem of root caries in the paramarginal region, use of the HELBO system for tooth preservation has become accepted in any dental practice that focuses on tooth preservation with mild methods. As the treatment is completely painless and has no side effects, patient acceptance is also very high, despite additional charges, and patients who have heard about it are also actively enquiring about it.”

Comparison of various treatment types with systems based on photodynamics:

- **Dr. J. Gustmann**: ZP [Dentist and Practice] 2010; 1 & 2.
  Photodynamic therapy - comparative examinations of various photodynamic systems:
  “On the basis of all these considerations, we have decided to purchase the HELBO system for our dental practice. Many of the treatments listed above could be carried out very effectively using the HELBO system and with great benefit to the patients. There are a multitude of academic reports by well-known authors with regard to this and for this reason, only the most tried and tested system is good enough for our patients.”

Does HELBO treatment also work against pathogens in the biofilm?

- **Dr. A. Braun et al.**: SPIE BiOS: Lasers in Dentistry XVI 2010; 01.
  “The present study indicates that antimicrobial photodynamic therapy can reduce live bacteria within a layer of 10 μm in an artificial biofilm model.”

All publications can be found in the bibliography and at www.helbo.de/Wissenschaft!

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**Patient information**
**English literature**

**Sigusch B.**
Full-mouth Antimicrobial Photodynamic Therapy (PDT) in F. nucleatum infected periodontitis patients
Used Photodynamic System: HELBO

**Romano G.E., Brink B.**
Photodynamic therapy in periodontal disease: microbiological observations from a private practice.
Used Photodynamic System: HELBO

**Al-Waeli Hayder**
Review of Photodynamic Therapy of Periodontal Diseases
Poster presentation AEEDC Dubai 2010, March 9–11.
Used Photodynamic System: HELBO

**Schaeer M., Neugebauer J., Rothamel D., Fienitz T., Ritter L., Zöller J.**
Effect of Antimicrobial Photodynamic Therapy (aPDT) on Osteoblast Adherence and Growth in Vitro
Poster presentation AO 2010, March 4–6.
Used Photodynamic System: HELBO

**Schneider M., Kirfel G., Krause F., Berthold M., Brede O., Frentzen M., Braun A.**
The impact of antimicrobial photodynamic therapy on Streptococcus mutans in an artificial biofilm model
SPIE BIOS: Lasers in Dentistry XVI 2010: 01.
Used Photodynamic System: HELBO

**Lulic M., Leiggener G., Salvi G.E., Mattheos N., Lang N.P.**
One-year outcomes of repeated adjunctive photodynamic therapy during periodontal maintenance: a proof-of-principle randomized-controlled clinical trial.
Used Photodynamic System: HELBO

**Petelin Milan, Gaspari Boris, Skalerie Eva**
The Comparison of Photodynamic and Antibiotic Therapy in Patients with Aggressive Periodontitis: Preliminary Results
Poster presentation ISOLA 2009, June 4–5.
Used Photodynamic System: HELBO

**Stein E., Koehn J., Sutter W., Schmidli C., Lewia D.V., Wendlandt G., Watzinger F., Turhani D.**
Phenothiazone Chloride and Soft Laser Light Have a Biostimulatory Effect on Human Osteoblastic Cells
Used Photodynamic System: HELBO

**De Oliveira Rafael R., Schwartz-Filho Humberto O., Novaes Arthur B. Jr., Taba Maria J.**
Antimicrobial Photodynamic Therapy in the Non-Surgical Treatment of Aggressive Periodontitis: A Preliminary Randomized Controlled Clinical Study
Used Photodynamic System: HELBO

**Eberhard Tilman, Neugebauer Jörg, Zöller Joachim E., Vizethum Freimuth**
The Effect of Antimicrobial Photodynamic Therapy in the Treatment of Chronic Periodontitis: A Prospective, Long-Term In Vivo Study
Implants 2007; 3.
Used Photodynamic System: HELBO

**Turhani D., Scheriau M., Kapral D., Benesch T., Jonke E., Bantleon H.P.**
Pain relief by single low-level laser irradiation in orthodontic patients undergoing fixed appliance therapy
Used System: HELBO

**Karapetian Viktor E., Neugebauer Jörg, Clausnitzer Claudia E., Zöller Joachim E.**
Comparison of Different Periimplantitis Treatment Methods
Used Photodynamic System: HELBO

**Dörrbudak O., Haas R., Malliah-Pokorny G.**
Effect of low-power laser irradiation on bony implant sites
Used System: HELBO

**Dörrbudak O., Haas R., Bernhart T., Malliah-Pokorny G.**
Lethal photosensitization for decontamination of implant surfaces in the treatment of periimplantitis
Used Photodynamic System: HELBO

**Dörrbudak O., Haas R., Malliah-Pokorny G.**
Biostimulation of bone marrow cells with a diode soft laser
Used System: HELBO
German literature

Braun A.
Antimicrobial photodynamic therapy in the context of endodontics and periodontitis treatment.
Zahnmedizin [Dentistry] up2date 2010; 6.
Used photodynamic system: HELBO

Bergmann F.
A new concept for periimplantitis
Used photodynamic system: HELBO

Sohn N., Schwarz F., Aoki A., Becker J.
Antimicrobial photodynamic therapy – use in periodontitis and periimplantitis treatment
Used photodynamic system: HELBO

Gustmann Jörg
Photodynamic therapy part 1 & 2
ZP [Dentist and Practice] 2010; 1 & 2.
Used photodynamic system: HELBO

Schütze-Gölner Margit
Chronic PA – BoP, the most important indicator
Dental Barometer 2010; 1.
Used photodynamic system: HELBO

Conrad Torsten, Rössler Ralf
Periimplantitis risk factor – aPDT as an approach
Used photodynamic system: HELBO

Mettau G.
aPDT – The Blue Wonder
Dentalworld 2009; 6.
Used photodynamic system: HELBO

Hafner S., Otto S.
Low Level Laser Treatment (LLLT). A new approach in the case of chronic disturbances to wound healing and bisphosphonate-associated osteonecrosis in the region of the maxilla
wissen kompakt 2009 [Knowledge – compact]; 3; Book 2; June.
Used photodynamic system: HELBO

Krause F., Braun A.
Antimicrobial photodynamic therapy
wissen kompakt 2009 [Knowledge – compact]; 3; Book 2; June.
Used photodynamic system: HELBO

Neugebauer J., Müller F., Müller J., Herrera M., Duddeck D., Kenter-Berg J., Zöller J.
Infection management in the course of implantology treatment
Used photodynamic system: HELBO

Fürst Christina
Are we running out of antibiotics?
Dental Barometer 2009; 3.
Used photodynamic system: HELBO

Eberhard Tilman
Antibacterial photodynamic therapy - results from a two-year study
Used photodynamic system: HELBO

Neugebauer J., Karapetian V. E., Lingohr T., Herrera J. M., Schnickmann M., Scheer M., Zöller J. E.
Successful decontamination – even in the case of chronic orally-manifested infections with antimicrobial photodynamic therapy (aPDT) following the HELBO procedure
Used photodynamic system: HELBO

Braun Andreas
Periodontal treatment using adjunctive antimicrobial photodynamic therapy (aPDT)
Used photodynamic system: HELBO

Michel Herbert
Using mild laser light against bacteria
ZWP spezial [Dental Marketing Practice Special] 2007; 11.
Used photodynamic system: HELBO

Lingohr Thea, Neugebauer Jörg, Rosenbohm Jakob, Zöller Joochim E.
Apicoectomy amongst selected treatments
Used photodynamic system: HELBO

Hopp Michael, Biffar Reiner
aPDT following the HELBO procedure – The innovative and efficient variant of low-energy laser treatment in dentistry
Dental Barometer 2008; 7.
Used photodynamic system: HELBO

Fürst Ulrich
Tooth preservation as a last resort – Is apicoectomy still wise in the age of implantology?
Dental Barometer 2008; 6.
Used photodynamic system: HELBO

Eckl Matthias
Use of aPDT following the HELBO procedure in endodontics
ZP 2008 [Dentist and Practice]; 11, 4: 310–313.
Used photodynamic system: HELBO

Turhani D., Scheriau M., Kopral D., Benesch T., Jonke E., Bantleon H.–P.
Alleviation of pain using individual radiation with a low-level laser light in the context of maxillo-orthopaedic multi–band treatment
Used system: HELBO

Schulz Udo, Bornebusch Max
Antimicrobial photodynamic therapy in oral surgical practice
Used photodynamic system: HELBO

Brink Birgit, Romanos Georgios E.
Adjuvant laser treatment procedures in periodontology – a clinical controlled randomised study
Used photodynamic system: HELBO

Eberhard Tilman
Antimicrobial photodynamic therapy in the context of endodontics and periodontitis treatment
Zahnmedizin [Dentistry] up2date 2010; 6.
Used photodynamic system: HELBO

Gessner Thorsten
The 6 mm pocket, the HELBO system ... and I – current definition of the position for practitioners
Dental Barometer 2009; 1.
Used photodynamic system: HELBO

Mettau G.
aPDT – The Blue Wonder
Dentalworld 2009; 6.
Used photodynamic system: HELBO

Hafner S., Otto S.
Low Level Laser Treatment (LLLT). A new approach in the case of chronic disturbances to wound healing and bisphosphonate-associated osteonecrosis in the region of the maxilla
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Sigusch B. W., Völpel A., Engelbrecht M., Pfister W., Glockmann E.
The efficiency of photodynamic therapy with the HELBO procedure
ZWR – Das deutsche Zahnärzteblatt (ZWR [Dentistry World/Dentistry Review])
Used photodynamic system: HELBO

Neugebauer J., Karapetian V. E., Zöller J. E.
Early periimplantitis treatment to ensure long-term success
Used photodynamic system: HELBO

Sigusch Bernd W., Völpe Andrea, Pfister Wolfgang
Efficacy of photodynamic therapy in the case of clinical signs of inflammation
of the periodontium and evidence of periodontal pathogenic bacteria species
– A case report
Used photodynamic system: HELBO

Neugebauer Jörg
Photodynamic therapy of periimplantar mucositis
Dental Barometer 2007; 3.
Used photodynamic system: HELBO

Scholz Volker
Antimicrobial photodynamic therapy (aPDT) - from practice for practice
PLAQUE N CARE 2007; 3.
Used photodynamic system: HELBO

Braun A., Jepsen S., Krause F.
Laser fluorescence influenced by antimicrobial photodynamic therapy (aPDT)
Poster presentation DGP 2007.
Used photodynamic system: HELBO

Vock Michel
Antimicrobial photodynamic therapy (aPDT) – Non-invasive treatment of
periimplantitis marginalis
Laser Journal 2006; 3.
Used photodynamic system: HELBO

Schütze-Gößner Margit
Using mild laser light against periodontitis
Used photodynamic system: HELBO

Neugebauer Jörg, Füst Ulrich
Antimicrobial photodynamic therapy in the case of periimplantitis
BDIZ Konkret [European Association of Dental Implantologists (BDIZ EDI)
Used photodynamic system: HELBO

Schütze-Gößner Margit, Vizethum Freimut
Periimplantitis – Antimicrobial photodynamic therapy as an innovative approach
to treatment
Used photodynamic system: HELBO

Neugebauer J., Karapetian V.E., Kübler A., Zöller J.E.
Antimicrobial photodynamic periimplantitis therapy
Used photodynamic system: HELBO

Neugebauer J., Jozsa M., Kübler A.
Antimicrobial photodynamic therapy for prevention of alveolar ostitis and post
extraction pain
Used photodynamic system: HELBO

Mettraux G., Dörtbudak O.
Antimicrobial photodynamic therapy
msdental 2004.
Used photodynamic system: HELBO

Dörtbudak-Kneissl E., Dörtbudak O., Bernhart D., Haas R.,
Mailath-Pokorny G.
Photodynamic therapy to reduce pathogens in the case of periodontal diseases
Used photodynamic system: HELBO

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