The device for successful Haemo-Laser® therapy

The therapy device used is a therapy laser HILARIS® TL or HILARIS® HAEMO. The Haemo-Laser® single-use optical waveguide is coupled over the Haemo-Laser® patient adapter on the patient's forearm.

The Haemo-Laser® single-use optical waveguides are sterile disposable products for the simple and safe use of Haemo-Laser® therapy. The cannula is already attached to ensure maximum possible safety and simple handling.

Therapy laser HILARIS® HAEMO incl. Haemo-Laser® patient adapter

Therapy laser HILARIS® TL incl. Haemo-Laser® patient adapter

References:

- **Evaluating the Efficiency of Low Level Laser Therapy (LLLT) in Combination With Intravenous Laser Therapy (IVL) on Diabetic Foot Ulcer, Added to Conventional Therapy**
  Soheila Mokmeli MD, Mahrokh Daemi MD, Zahra Ayatollahzadeh Shirazi MD, Fatemah Ayatollahzadeh Shirazi PhD, Mitra Hajizadeh MD
  Journal of Lasers in Medical Sciences, 1:8-13

- **The Influence of Laser Blood Photomodification on Dynamic Characteristics of Surgical Stress**
  I. E. Golub, A. N. Malov, A. V. Neupokoeva, L. V. Sorokina, and Yu. N. Vygovsky
  Laser Physics, Vol. 13, No. 1, 2003, pp. 106–111.

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Haemo-Laser®

Intravenous laser therapy

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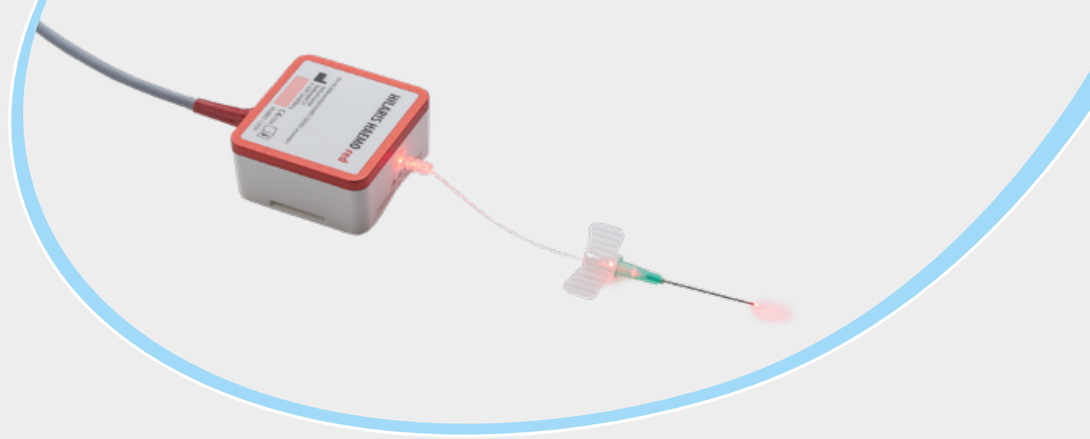
Mode of action:

Haemo-Laser® therapy uses the energy of red laser light for direct irradiation of the blood. By means of a special single-use optical wave guide, the laser light is led into the cubital vein where it directly affects the individual constituents of the blood.

The following effects can be achieved using Haemo-Laser® therapy:

- increased erythrocyte deformability
- reduced erythrocyte and thrombocyte aggregation
- increased deformability of the extracellular „cloud“ (boundary layer between cell and blood plasma)
- reduced blood viscosity

Haemo-Laser® therapy improves the metabolism and increases the circulation of the blood, thereby improving the supply of oxygen. This can be clearly demonstrated by laboratory analyses.

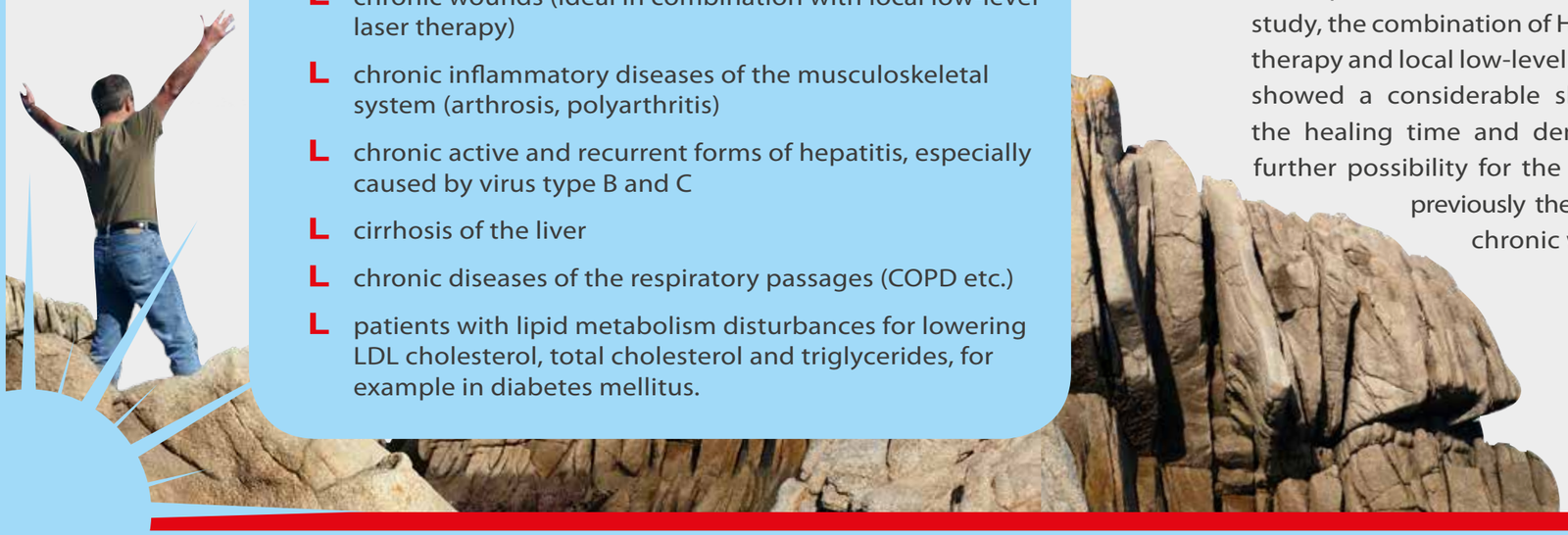


Benefits of Haemo-Laser® therapy:

- The consistent use of Haemo-Laser® therapy in pain patients can in many cases achieve rapid reduction in the severity of the pain.
- Haemo-Laser® often enables faster healing of chronic wounds and therefore an improvement in the patient’s quality of life.
- Haemo-Laser® therapy is a form of therapy free of side-effects, which is well tolerated by patients and which does not burden them.
- Haemo-Laser® provides the user with an innovative method of treatment that can be paid privately by the patient.

Area of application:

- circulatory disturbances (e.g. PAOD)
- chronic wounds (ideal in combination with local low-level laser therapy)
- chronic inflammatory diseases of the musculoskeletal system (arthrosis, polyarthritis)
- chronic active and recurrent forms of hepatitis, especially caused by virus type B and C
- cirrhosis of the liver
- chronic diseases of the respiratory passages (COPD etc.)
- patients with lipid metabolism disturbances for lowering LDL cholesterol, total cholesterol and triglycerides, for example in diabetes mellitus.



Successful treatment of diabetic wounds:

In a study involving 74 patients with therapy-resistant diabetic ulcers, Haemo-Laser® therapy was used in combination with local low-level laser therapy. It proved possible to achieve complete healing in 62.2% of the cases. In 12.2% the wound area was reduced by more than 50%, in 8.1% by less than 50% and in 5.4% there was no improvement. 12.2% of the patients did not complete the therapy in accordance with the study protocol. In this study, the combination of Haemo-Laser® therapy and local low-level laser therapy showed a considerable shortening of the healing time and demonstrates a further possibility for the treatment of previously therapy-resistant chronic wounds.