

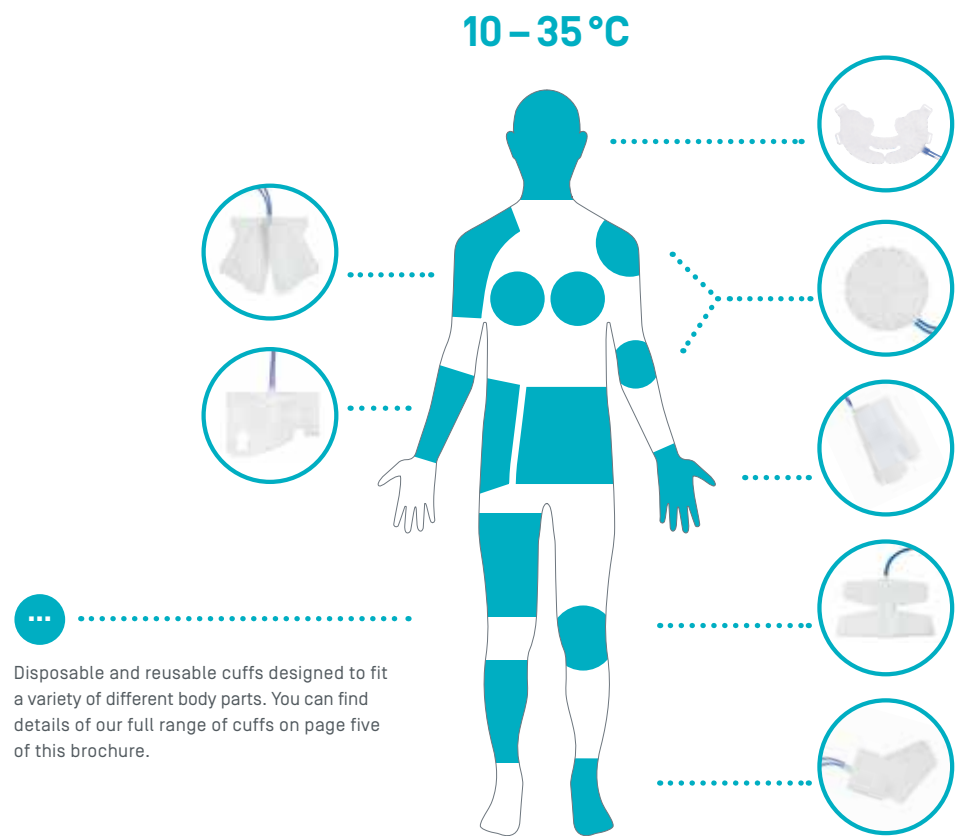
10 – 35 °C
HILOTHERAPY®
**for the prevention of swellings,
haematomas, inflammations
and pain**

10 – 35 °C

HILOTHERAPY® Clinic + HomeCare

The controllable thermo therapy

Edemas and internal bleedings disrupt the supply of oxygen and nutrients to the injured or rather traumatised tissue which leads to disturbances of the blood circulation and an overheating due to inflammations. HILOTHERAPY® helps to reduce or prevent these symptoms.



HILOTHERM Clinic and HILOTHERM HomeCare are the two devices that have been developed for the implementation of HILOTHERAPY®.

10 – 35 °C

The therapy device HILOTHERM Clinic

- Particularily suitable for the clinical field of application, pre- and postoperative
- allows two cuffs to be attached that means the treatment of two patiens or two diffrent body parts at the same time is possible
- long-term usage at a constant temperature [sensores keep the adjusted temperature constant]
- Coolant: distilled water
- Weight: empty weight: 10 kg ; operating weight: 12 kg
- Dimensions: 430 x 275 x 268 mm



15 – 22 °C

HILOTHERM HomeCare Device

- Ideal for use on the move e.g. in a practice, sports club, at home or in hospital.
- Accelerates recovery from injury, surgery, chronic in flammation and pain.
- Allows 1 cuff to be connected
- Long term operation at a constant temperature [sensors maintain the configured temperature]
- Coolant: Distilled water
- Weight [Empty]: 2.9 kg; Weight [Full]: Max 3.4 kg
- Dimensions: 240 x 260 x 260 mm



Benefits

- +** Accelerates the healing process.
- +** Lowers pain intensity, meaning less medication is required.
- +** Reduces inflammation and diminishes its symptoms.
- +** Adjustable temperature which can be tailored to the patient's needs.

How it works

The thermal effect is produced by cooling distilled water to a specific temperature in state-of-the-art therapy devices. Sensors routinely scan the relevant figures to ensure temperature consistency and devices can be used for hours, or even days, at a time without any deviation. The cooled water flows through a closed-loop system and pumps around anatomically-formed, cuffs that have been designed to fit a variety of different body parts. All cuffs are available in disposal or reusable (only for orthopedics) form.



Information



HILO THERAPY® is intended for traumatic pre and postoperativ indications
Medical sectors

- Traumatology / orthopedics
 - Oral and Maxillofacial Surgery
 - Otolaryngology
 - Plastic / Aesthetic Surgery
 - Implantology
 - Rheumatology
 - Oncology
 - Vascular and Microsurgery
 - Dermatology
 - Urology
 - Sports Medicine
- Emergency Medicine
 - General post-operative wound healing
 - Physiotherapy / Rehabilitative medicine

Treatment areas

- Oedemas
 - Haematomas
 - Pain relief
 - Sprains
 - Pulled muscles
 - Muscle ruptures
 - Dislocations
 - Tendinitis
 - Inflammatory Rheumatism
 - Hand-Foot Syndrome
 - Sciatica
- Fever
 - Migraine
 - Functional rehabilitation,e.g. improvement of mobility and loosening of the muscles

HILO THERAPY® – a thermal healing treatment
to promote the healing process of damaged tissue

Swelling, inflammation, oedemas, haematomas and internal bleeding are common after surgery or injury. Not only does HILO THERAPY® accelerate the healing process but it also relieves pain, meaning less medication is required.

Findings about the role of oxygen and nutrient supply

Due to surgical interventions or injuries the supply of oxygen and nutrients to the tissue gets massively disturbed. The accelerated metabolic rate causes hyperthermia due to inflammation of the affected tissue combined with disturbances of the blood circulation. The need of oxygen increases dramatically.

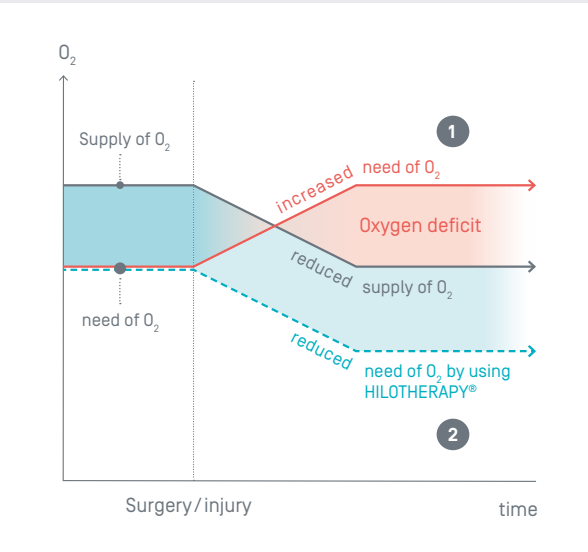
Consequences:

The damaged area is no longer supplied with the necessary amount of oxygen needed for maintenance and regeneration. Due to this lack of oxygen, further cells die off and liquid-binding proteins become free which causes additional oedemas to form. This starts a vicious cycle which can lead to hypoxic damage.

Medical Requirement:
The oxygen requirement of the damaged tissue needs to be reduced.

The Effect of HILO THERAPY® on the Oxygen Requirement

Dropping the temperature of the affected tissue by 10°C reduces the metabolic rate by 50 %. It also reduces the oxygen requirement so that the amount of oxygen that reaches the injury is sufficient for regeneration



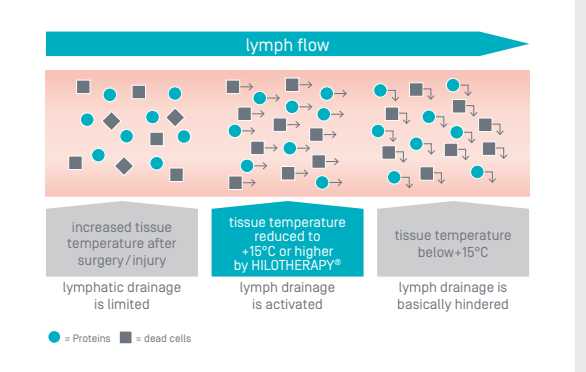
- 1

Oxygen deficit: With a reduced supply and an increasing need a deficit occurs which leads to additional damage of the tissue.
- 2

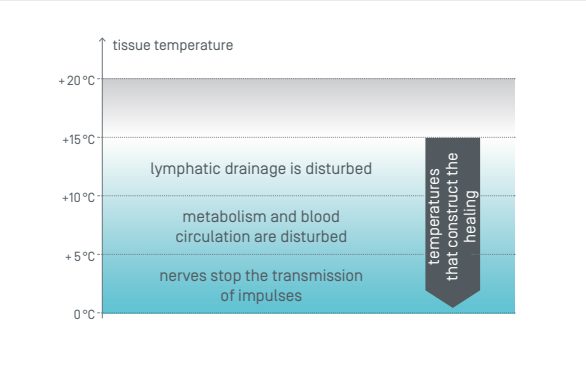
Oxygen adjustment: HILO THERAPY® reduces the oxygen requirement and enables the way for regeneration.

The Effect Of HILO THERAPY® on the Removal of Pollutants

In order to guarantee the transportation of pollutants through lymphatic drainage, the temperature of the tissue must also be reduced. It is of particular importance, however, that it is not reduced below 15°C, otherwise lymphatic drainage is hampered.



Oxygen deficit: With a reduced supply and an increasing need a deficit occurs which leads to additional damage of the tissue.

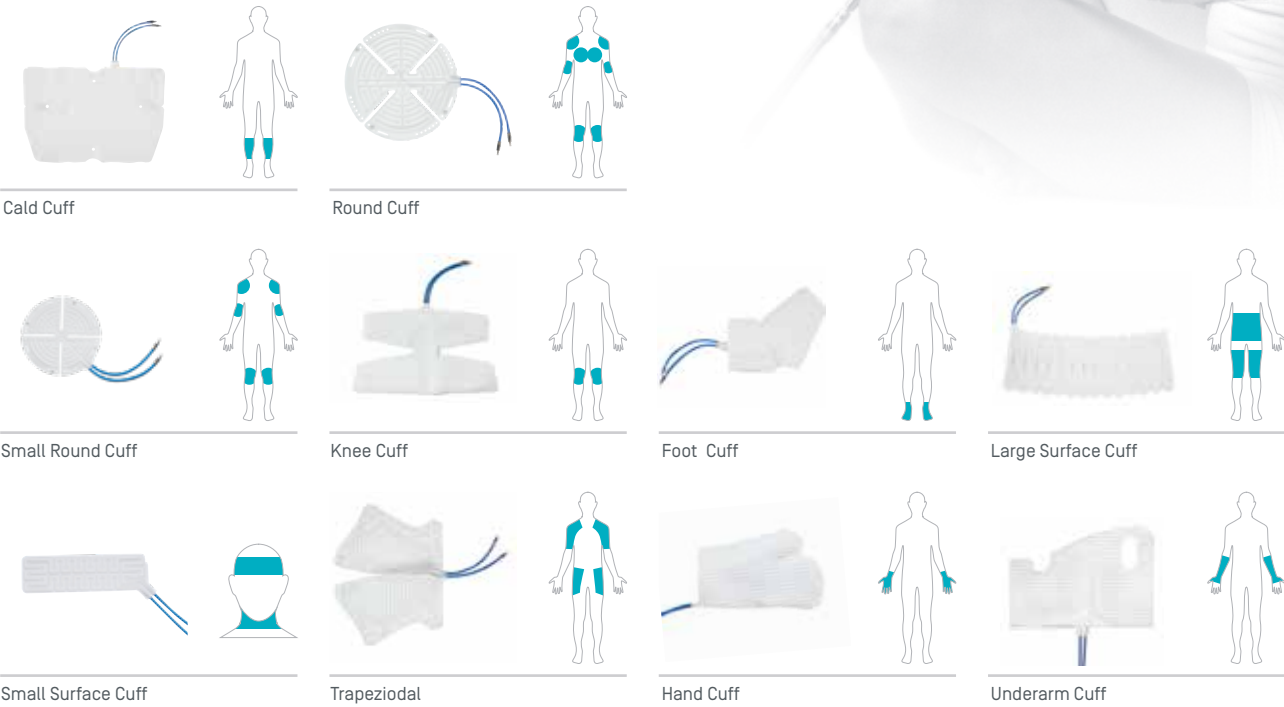


Risks of incorrect tissue temperature

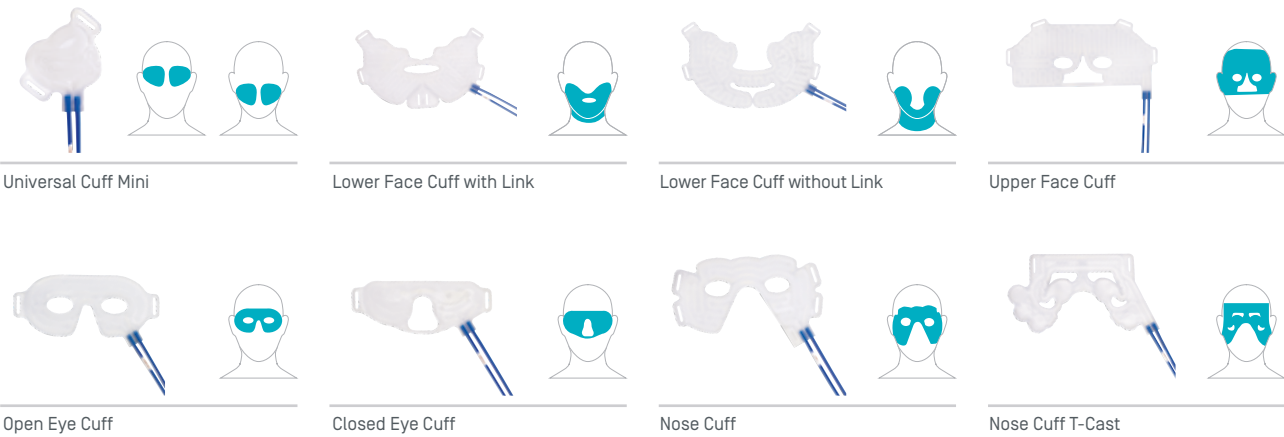
Anatomically Engineered Cuffs to Suit Your Needs

Depending on the indication and the affected part of the body, specific cuffs are available which have been specially designed with a delicate system of capillaries. This ensures the uniform impact of the temperature on the damaged tissue. We are happy to advise which cuff would be most suitable for you.

Disposal and Reusable Cuffs for orthopaedic surgery



Only available as disposal cuffs



References

Oral and Maxillofacial Surgery



Priv.-Doz. Dr. Dr. Majeed Rana
*Leading Senior Physican,
Specialist for Oral and Maxillofacial Surgery,
Plastic and Aesthetic Surgery
University Hospital Düsseldorf*

In our clinic for oral, maxillofacial and plastic surgery we have several HILOTHERAPY® devices in permanent use. Particularly after bi-maxillary osteotomies, we achieve remarkable results in terms of swelling and pain prophylaxis. Due to the wide acceptance and increasing demand on the part of the patients, the post-operative treatment is not imaginable without the HILOTHERAPY® devices, regardless of how big the operation is!

Plastic and Aesthetic Surgery



Dr. med. Volker Alt
*Specialist for Plastic and Aesthetic Medicine
KÖ-Clinic Düsseldorf*

In our clinic for plastic and aesthetic surgery, HILOTHERAPY® represents an important factor of success after facelifts. The innovative concept of constant cooling helps our patients to heal faster. The positive effects of the cooling device are not only appreciated by our patients, but also by our medical team. The system relieves our work significantly – in particular during post-operative treatment.

Orthopedics and Trauma Surgery



Dr. med. Klaus Steinhauser
*Orthopedic Specialist and Sport Medicine
Specialist
Orthopedic Clinic for Ambulant Knee Joint
Operations Karlsruhe*

By using HILOTHERAPY® for our patients we achieve optimal results. The patients describe their therapy as very pleasant. Post-operative swelling, haemorrhages or haematomas are clearly reduced by using this therapy. HILOTHERAPY® is an inherent part of our clinic and is indispensable when it comes to the care of our patients.

Sports Medicine



Dr. Hanns Christian Harzmann
*Team doctor of the U21 National Team of the
German Football Association*

We have been using HILOTHERAPY® for some time now. We apply the devices pre and post-operatively, mainly to heal ligament injuries, bruises and knee injuries. Thanks to HILOTHERAPY® we can significantly reduce our players' time on the sidelines.

Our range of products: HILOTHERAPY® - Temperature-controlled thermo healing.

**Prevention of swellings,
hematomas,
inflammations and pain**

**Pain relief from
rheumatism**

**Prevention of
Polyneuropathy (CIPN) and
Hand-Foot Syndrome (HFS)**

**Heat therapy for
tissue dissections and
transfers**

10 – 35 °C

HILOTHERM Clinic

15 – 22 °C

HILOTHERM HomeCare

10 – 12 °C

HILOTHERM ChemoCare

35 – 43 °C

HILOTHERM Calido

15 – 22 °C

HILOTHERM HomeCare



HILOTHERAPY®

HILOTHERAPY® is a thermal healing treatment that operates in a localised manner on damaged parts of the body and affects the oxygen requirement, the metabolism, the blood circulation and the pain receptors of the affected tissue. In the form of cryotherapy, it has a slow-down effect, and a stimulatory effect with hypothermia. The HILOTHERAPY® allows such effects while offering temperature controllable to the nearest degree, relative to the respective indication, within the specified temperature range.



Disadvantage of conventional cooling

HILOTHERAPY®'s ability to maintain a constant temperature, gives it an essential advantage over conventional alternatives such as ice gloves etc... These will thaw and lose their cooling effect, meaning they need to be changed throughout the treatment process. Patients who are exposed to these alternatives also risk developing skin burns, due to the extremely cold temperatures.