# IC LIGHT HESTURIN WRAP®

# USER GUIDE



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# CONGRATULATIONS

Thank you for choosing the IC LIGHT Hesturin Wrap light therapy device. This user manual aims to provide you with a comprehensive understanding of light therapy and the history behind its development. By the end of this manual, you will be familiar with the benefits and effects of therapeutic IC LIGHT Hesturin Wrap, as well as the unique features of the IC LIGHT Hesturin Wrap.

The IC LIGHT Hesturin Wrap is designed by Caball Therapy Systems (CTS). We are delighted to provide you with a simpel healing solution that has brought positive experiences to numerous users.

The IC LIGHT Hesturin Wrap harnesses the power of therapeutic light to stimulate cells and energies, marking a groundbreaking advancement in the realms of healing and wound care. This innovative product has been designed and crafted in Denmark, reflecting our commitment to quality and excellence.

Please note that each IC LIGHT Hesturin Wrap is meticulously handmade, which means there may be slight variations and nuances between individual units.



# A BRIEF HISTORY OF LIGHT THERAPY

Light therapy has been used for treatment and healing purposes for many years. In 1903, Niels Ryberg Finsen was awarded the Nobel Prize for his pioneering work with red light therapy, which showed promising results in the healing of smallpox and lupus. Subsequently, during the 1960s, laser-based light therapy was employed in clinical and experimental settings, leading to significant advancements in non-invasive disease treatment.

In the 1990s, NASA initiated research on LED-based light therapy devices for wound healing among astronauts, as wounds tend to heal slower in altered gravity conditions. This research laid the foundation for the development of the IC LIGHT, Hesturin Wrap which combines the best features of existing therapeut light therapy systems into a convenient, portable, and user-friendly healing device.

# UNDERSTANDING THE SCIENCE BEHIND LIGHT THERAPY

Light therapy harnesses the natural photobiological response of our cells to specific wavelengths of theraputic light. Within our cells, there are specialized photoreceptive molecules called cytochrome c oxidases, which are enzymes located in the mitochondria's respiratory chain. Mitochondria are essential cellular organelles responsible for providing cellular energy.

These cytochrome c oxidases absorb light within the red and near-infrared spectrum, which falls within the phototherapeutic window. This absorption triggers a series of redox reactions on the inner mitochondrial membrane. The primary mechanisms activated by this photobiological response initiate a photosignal transduction to secondary mechanisms, leading to various clinical effects.





# THERAPEUTIC LIGHT AND ITS EFFECTS ON HORSES

Therapeutic light therapy, also known as PhotoBioModulation (PBM), plays a vital role in supporting the overall well-being of horses. By utilizing the red and nearinfrared spectrum, it helps maintain the body's equilibrium, even at the cellular level. This user manual aims to provide an understanding of the effects of therapeutic IC LIGHT Hesturin Wrap on horses and its potential benefits.

#### Cellular Protection and Antioxidant Effects:

Therapeutic IC LIGHT Hesturin Wrap acts as an antioxidant, safeguarding cells against free radicals and degenerative processes. By influencing the proteins responsible for cell protection, it aids in preserving cellular integrity and preventing damage. Moreover, it enhances the osmotic resistance of red blood cells, reducing the risk of excessive hemolysis.

#### Nervous System, Microvessels, Muscle, and Connective Tissue:

The theraputic light affects various aspects of the horse's physiology. It influences growth factors in the nervous system, microvessels, muscle tissue, and connective tissue. These effects contribute to improved cell signaling, regulation of inflammation, immune response, and the horse's circadian rhythm.

#### Tissue Regeneration, Local Circulation, and Lymphatic System:

Therapeutic IC LIGHT Hesturin Wrap supports tissue regeneration and stimulates local circulation. By enhancing blood flow, it promotes the delivery of oxygen and nutrients to the treated area. Additionally, it stimulates the lymphatic system, aiding in the removal of waste products and toxins from the body.

#### Disease Mechanisms and Recovery Time:

Therapeutic IC LIGHT Hesturin Wrap can influence the mechanisms underlying the occurrence of diseases. Its application can significantly shorten the recovery time from injuries or illnesses. This can potentially reduce the need for extensive medical interventions and lower associated costs. However, it is important to note that Therapeutic IC LIGHT Hesturin Wrap is not a substitute for a healthy lifestyle or proper medical treatment, and it should not replace veterinary examination.

#### Complementary Effects and Medical Treatment:

While Therapeutic IC LIGHT Hesturin Wrap complements traditional medical treatment, it should be considered an additional therapeutic approach. It cannot replace the necessary veterinary examination and care required for injuries or illnesses. However, its proven complementary effects make it a valuable adjunct therapy in promoting the well-being of horses.



#### Visible Effects and Improved Healing:

The illuminated area shows improved circulation, enhanced cellular metabolism, and increased energy production within the cells. These effects contribute to accelerated healing and regeneration of the tissue. The technical term for this form of treatment is PhotoBioModulation (PBM).

#### Conclusion:

Therapeutic IC LIGHT Hesturin Wrap, or PhotoBioModulation (PBM), offers essential support to horses by maintaining homeostasis at various levels, from cellular protection to tissue regeneration. It complements traditional veterinary care and can potentially reduce recovery time and associated medical costs. However, it should be used as an additional therapeutic approach and not as a substitute for veterinary examination or medical treatment.



# USER INSTRUCTIONS FOR IC LIGHT HESTURIN WRAP®:

1. Fully charge the CTS powerbank before using it for the first time.

2. Plug the cable into the powerbank. Plug cable (with powerbank) into the IC Light Hesturin Wrap $^{(\!8\!)}$ .

3. Switch on the powerbank. 4 LED will indicate full current percentage, 3 LED will indicate above average current percentage, 2 LED will indicate below average current percentage, 1 LED will indicate low current percentage.

4. Place the IC Light Hesturin Wrap® on the area to be treated. Secure the IC Light Hesturin Wrap® with the 2 straps.

5. Switch on IC Light Hesturin Wrap  $\ensuremath{\mathbb{B}}$  by pressing the On/Off button, until the On/Off button turns green.

6. Select the desired protocol on the On/Off button:

- Press the on/off button to activate the red light.
- Press the on/off button again to switch to red and near-infrared lights combined.
- Press the on/off button again to switch to only near-infrared light.
- Press the on/off button once more to turn off the IC Light Hesturin Wrap®

7. If you wish to switch to the pulsating mode:

Make sure your IC Light Hesturin Wrap® is connected to the powerbank and that the power bank is turned on, indicated by the on/off button is green.

- To switch to the pulsating mode, press and hold the on/off button for 3 seconds until it changes color to blue.
- The IC Light Hesturin Wrap® will start with the pulsating red light.
- Press the on/off button to switch to the pulsating red and near-infrared lights.
- Press the on/off button again to switch to only the pulsating near-infrared light.
- Press the on/off button once more to turn off the IC Light Hesturin Wrap®.

8. CTS, the Light Therapy specialist, recommends that the treatment be carried out in a relaxed and quiet environment, to try to keep the horses body in a Rest and Digest state during the entire treatment. IC Light Hesturin Wrap® switches itself off. Repeat if necessary at the next location.

ATTENTION. If the individual is not used to light therapy treatment, make sure to start with 5 minutes and work up in time.



### CONTINUOUS MODE:

STARTING PROTOCOL 1: Fresh wounds 0-7 days PROTOCOL 2: Inflammation, ligament soreness PROTOCOL 3: Restitution

PULSING MODE:

# PROTOCOL 4: Chronic wounds, fungus, antistress PROTOCOL 5: Circulation, muscles and tendon issues PROTOCOL 6: Wellness, pain relief

When treating infected wounds, it is important to also address the lymph nodes above the wound. For example, if the wound is in the collarbone area, the lymph nodes in the same region should be treated as well. Remember to treat the wound and lymph nodes once a day, as the IC LIGHT Hesturin Wrap is designed for optimized daily treatments. In the case of an injury, it is recommended to treat it immediately for the best results.

# CONTRAINDICATIONS

Can IC LIGHT Hesturin Wrap be used during gestation? The effects of IC LIGHT Hesturin Wrap have not been tested on pregnant women or animals. Although the fetus is not expected to be adversely affected by therapeutic light, we do not recommend using IC LIGHT Hesturin Wrap in areas directly facing the developing fetus.

# CLEANING

Before treating a wound, clean the IC LIGHT Hesturin Wrap using surgical spirit or antibacterial products such as LEUCILLIN®.

Remember that the IC LIGHT Hesturin Wrap is not sterile, so it is important to cover the wound or the wrap itself with sterile plastic or plastic wrap.



# **TECHNICAL INFORMATION IC LIGHT Hesturin Wrap:**

- Measurement: 42 cm x 37 cm
- Rectangular treatment area
- 6 protocols
- 650 nm Red 850 nm near-infrared
- 96/288 LED of medical quality
- 55-150 mW/cm2
- 50,000 hours lifetime of LED
- 2 year warranty from date of purchase
- CE-RoHC-FC approved

#### Important Information:

Please be aware that the IC LIGHT Hesturin Wrap products should not be considered a replacement for medical advice or legitimate treatment. They are designed as supplementary treatment devices. It is crucial not to assume that all conditions can be treated with light therapy. The IC LIGHT Hesturin Wrap products are NOT intended for diagnostic purposes and should not be used as a substitute for medical treatment.

#### WARRANTY

This product is covered by a 2-year warranty from the date of purchase, provided that you present the original proof of purchase. Please note that warranty claims resulting from inflicted damage, accidental falls, water damage, or damage caused by organic solvents will not be accepted. The powerbank is subject to the manufacturer's maintenance warranty. Keep in mind that the specifications may differ from those outlined in this manual. If the device is not used for an extended period, remove the powerbank from the device and store IC Light Hesturin Wrap in the provided box.

WARNING! ONLY use the cable and powerbank that were supplied with the device. Using any other cable or powerbank may cause damage to the unit, and such damage will not be covered by the warranty. Additionally, please be aware that the powerbank has a limited lifespan. The battery capacity decreases with usage.

To contribute to environmental preservation, please return your used rechargeable powerbank to a nearby collection and recycling center. For more information, visit <u>http://www.rbrc.org</u>.



# CONTACT US

With over 30 years of combined knowledge and experience in light therapy, Caball Therapy Systems – The Light Therapy Specialist shines brightly in the industry.

> If you have any further questions, please feel free to contact us at: post@caball.biz

You can also call our customer service number: Monday – Friday 9am – 5pm CEST +45 2815 5676

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