

# Hilterapia®

## SEE HOW VALID OUR WORK IS AT ASACAMPUS

Working closely with an international network of researchers, ASAcampus has allowed us to demonstrate the validity of our work by:

- ▶ extensively studying the photochemical, photothermal, photomechanical effects resulting from the interaction between Hilterapia® impulse and biological tissue
- ▶ investigating, up to a molecular level, the mechanisms that are at the base of the biological reply
- ▶ evaluating the therapeutic effects



**ASL**  
A S A L A S E R  
Research and Therapeutic Solutions

## Hilterapia®: The Therapy.

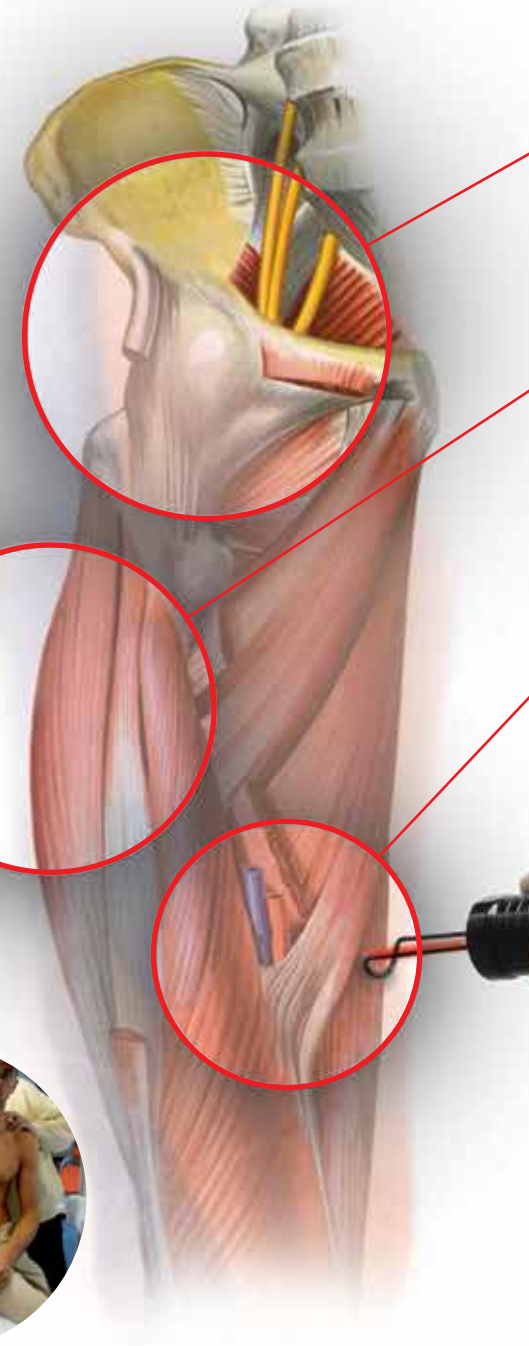


Hilterapia® is a therapeutic technique based on an exclusive high-intensity laser emission (HILT® = High Intensity Laser Therapy) that, working in absolute safety, allows to obtain an effective in depth therapeutic action. Ideal for treatment of painful pathologies affecting the osteo-muscular-articular apparatus, from the most superficial up to the deepest ones.

Hilterapia® thanks to its innovative high intensity laser pulse known as HILT®, patented in the U.S., can achieve in little time and with long-lasting benefits to the patient its effective bio-stimulating, anti-inflammatory and anti-pain actions. The devices that use it have been cleared by the FDA since 2005.

According to our knowledge no side-effects and pain during and after treatment have been reported. Today, Hilterapia® represents the most up-to-date solution, at step with groundbreaking innovations in the scientific world, in treating and curing painful pathologies such as those associated to tendons, muscles and ligaments; a rapid solution, effective and long-lasting all to the advantage of your patients, for their wellness and quality of life.

Hilterapia® is strikingly effective on the painful symptom and on the articular mobility; this allows to immediately start the rehabilitation program and gives immediate relief to the patient.



## JOINTS

- ▷ Reduces articular inflammation and stimulates reparative action

## MUSCULAR SYSTEM

- ▷ Rapidly resolves contractures, producing an intense analgesic effect

## CIRCULATION AND LYMPHATIC SYSTEM

- ▷ Encourages the supply of nutrients and reabsorption of liquid accumulations

## MAIN INDICATION

- ▷ Osteoarthritis and degenerative processes
- ▷ Bursitis, synovitis, capsulitis, tennis elbow, impingement syndrome
- ▷ Tendonitis and tenosynovitis
- ▷ Edema and distortion traumas
- ▷ Post-trauma pathologies, also due to over-exertion
- ▷ Adductors syndromes, tibio-tarsal sprains, insertional inflammations, patellar chondropathies, and all sport traumatology

## SIMPLY UNIQUE

- ▷ Immediate and long-lasting effects
- ▷ Rapid treatment, safe and painless
- ▷ Certified results from scientific documentation
- ▷ Therapeutic technology used by important clinics and medical centers around the world
- ▷ Italian research and development



**FDA CLERANCE:**  
510(k) K051537 - K122125

**UNITED STATES PATENT NO.:**  
US 6,527,797 B1 - US 8,480,719 B2



ASA Laser

### ASA Laser App

The most complete and up to date scientific content, technical and practical (3D animations, videos, tutorials, factsheets, ...) dedicated to Hilterapia® according to anatomy, diseases and treatments.

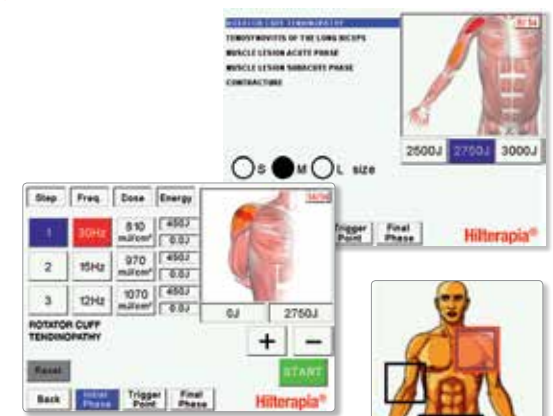
**ASV**  
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## Hilterapia®: Why it is Unique.

Thanks to a specific patented impulse, Hilterapia® reaches very high peak powers (1-3 kW) with a pulsed Nd:YAG source (wavelength 1064 nm). The high intensity reached (up to 15.000 W/cm<sup>2</sup>), unattained by other laser technologies currently available, allows to heal effectively even deep chronic lesions. In fact, if the objective is to provide a healing treatment besides symptomatic, it is necessary to supply energy in the most suitable way. It was experimentally proven that chronic and deep seated lesions and osteoarthritis need to receive a great quantity of energy in depth to be able to induce a biological answer. The high intensity and the big impact of energy of HILT® impulse promote not only the analgesic, anti-inflammatory and anti-edema effect, but also a real reparative and regenerative process. The characteristics of duration and frequency of the HILT® impulse guarantee to work safely, with respect of the thermal relaxation of tissue, thus avoiding any damaging effects.

**THE PHOTOMECHANICAL EFFECT:** A fundamental distinctive characteristic of HILT® pulse is its ability to induce photomechanical-type effects. The strength of these effects is directly proportional to the laser emission intensity and inversely proportional to the pulse duration. Thanks to the short pulse duration and the very high intensity, Hilterapia® has the right characteristics to generate this phenomenon, able to induce important therapeutic effects. It is known in fact that this kind of stimuli starts a series of biological signals that promote reparative and regenerative processes in tissues; moreover it activates lymphatic drainage and microcirculation.

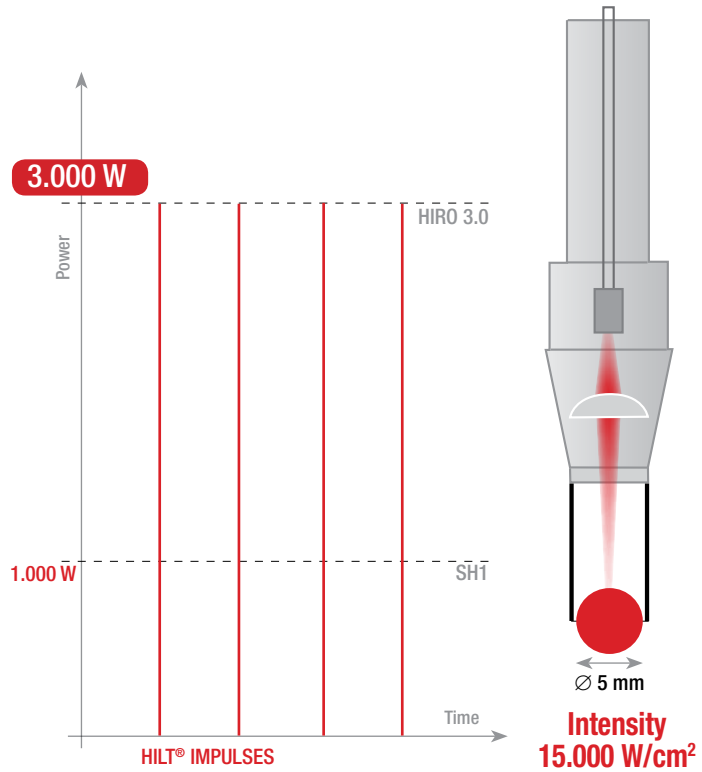
High intensity, depth, safety  
in one therapy. A result unattained  
by any other laser device.



# Intense, deep, safe. Simply beyond reach.

## INTENSITY

High intensity, up to 15.000 W/cm<sup>2</sup>, necessary to stimulate deep regeneration.



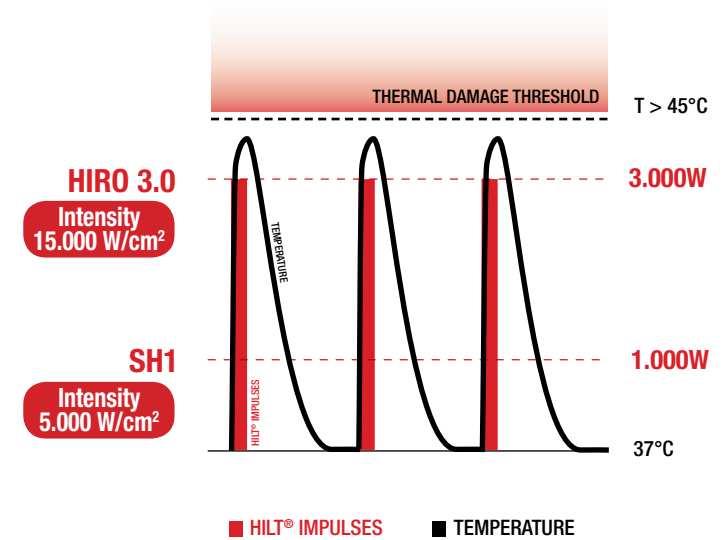
## DEPTH



The HILT® impulse is able to reach the deepest tissue layers.

## SAFETY

HILT® impulse takes high doses of energy down to considerable depth in complete safety.



## Hilterapia®: The Products.

Only HIRO 3.0 and SH1 devices are able to reach the high levels of intensity - depth - safety of Hilterapia® at the same time. The two models are aimed at different needs. SH1 combines the effectiveness in treating muscular pathologies with the ease of use of its portability. HIRO 3.0 allows to perform, besides the pain management, also a deep reparative and regenerative action, with the dedicated DJD handpiece.



# SH1

As result of our sport medicine experience Hilterapia® is now transportable: reduced dimensions with great performances. In fact it effectively treats muscular pain with analgesic and anti-inflammatory results also in depth and it heals edema. Results on pain symptoms are evident from the first treatment session.

### STANDARD HANDPIECE

For pain therapy featuring a spacer for the correct energy delivery on the treatment volume.

Intensity 5.000 W/cm<sup>2</sup>



# HIRO 3.0

HIRO 3.0 is the most complete device for Hilterapia®, FDA cleared. In fact, besides curing the muscular pathologies on antalgic and anti-inflammatory level and edema with great effectiveness also in depth, it promotes reparative and regenerative processes, thus allowing an effective action on insertional pathologies and osteoarthritis.

## STANDARD HANDPIECE

For pain therapy featuring a spacer for the correct energy delivery on the treatment volume.

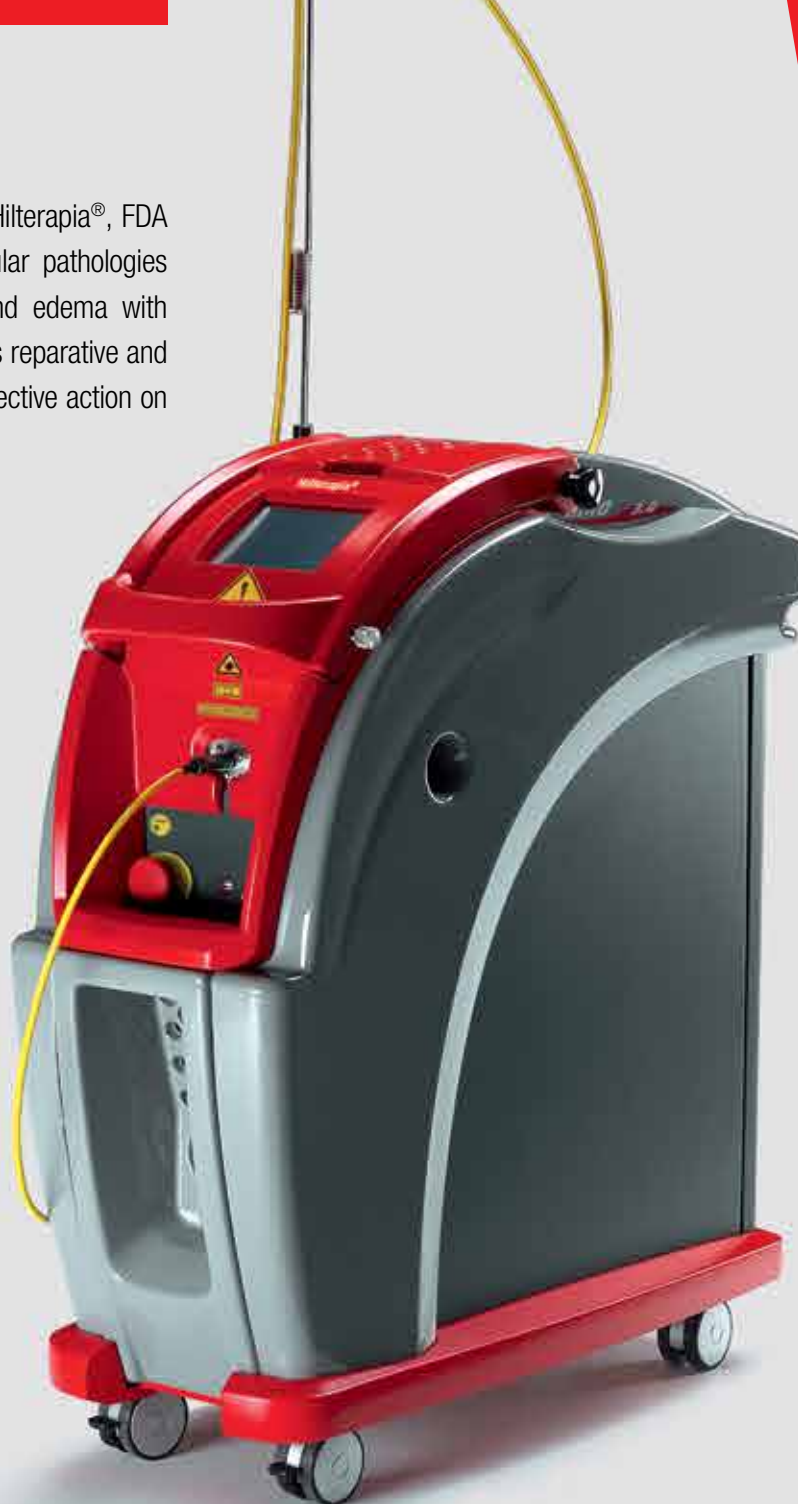
Intensity 15.000 W/cm<sup>2</sup>



## DJD HANDPIECE

For regenerative therapy, optimizing the HILT® pulse transfer to the tissue. Patented.

Intensity 15.000 W/cm<sup>2</sup>



## SH1

### TECHNICAL CHARACTERISTICS

- ▶ Laser system employing the patented HILT® pulse
- ▶ High Intensity Pulsed Nd:YAG Laser
  - Peak Power (max): 1 kW
  - Intensity max 5.000 W/cm<sup>2</sup>
  - Energy per impulse (max): 150 mj
  - Average power (max): 6 w
  - Fluence (max): 760 mJ/ cm<sup>2</sup>
  - Pulse duration up to 250 µs
- ▶ Standard handpiece for pain therapy
- ▶ User interface with graphic backlit color touch screen display with images of human body
- ▶ New operating system Touch 1.0
  - guided protocol for body area treatment
  - protocol for pathology treatment
  - anti-edema protocol
  - standard protocol
- ▶ Programs to modify and save personal parameters
- ▶ Emitted energy calculated automatically according to selected functions

### ALARMS AND SAFETY FEATURES

- ▶ Acoustic signal during the therapy
- ▶ Date and time
- ▶ Language option
- ▶ Machine status signals and alarms
- ▶ Emergency stop button for laser emission
- ▶ Laser emission warning light
- ▶ Interlock

### INCLUDED ACCESSORIES

- ▶ N° 2 Laser Safety Goggles

### SIZE AND WEIGHT

- ▶ 38 x 22 x 42 cm; 13 Kg

### POWER SUPPLY

- ▶ 230Vdc 50-60Hz 750 VA

## HIRO 3.0

### TECHNICAL CHARACTERISTICS

- ▶ Laser system employing the patented HILT® pulse
- ▶ High Intensity pulsed Nd:YAG Laser
  - Peak Power (max): 3 kW
  - Intensity (max): 15.000 W/cm<sup>2</sup>
  - Energy per pulse (max): 350 mj
  - Average power (max): 10,5 w
  - Fluence (max): 1780 mJ/ cm<sup>2</sup>
  - Pulse duration ≤ 100 µs
- ▶ Standard handpiece for pain therapy
- ▶ Patented DJD handpiece for regenerative therapy
- ▶ User interface with graphic backlit color touch screen display with images of human body
- ▶ New operating system Touch 1.0
  - guided protocol for body area treatment
  - protocol for pathology treatment
  - anti-edema protocol
  - standard protocol
- ▶ Programs to modify and save personal parameters
- ▶ Emitted energy calculated automatically according to selected functions

### ALARMS AND SAFETY

- ▶ Acoustic signal during the therapy
- ▶ Date and time
- ▶ Language option
- ▶ Machine status signals and alarms
- ▶ Emergency stop button for laser emission
- ▶ Laser emission warning light
- ▶ Interlock

### INCLUDED ACCESSORIES

- ▶ N° 2 Laser Safety goggles

### SIZE AND WEIGHT

- ▶ 30 x 70 x 78 cm; 40 Kg

### POWER SUPPLY

- ▶ 230Vdc 50-60Hz 1840 VA

# ASV

A S A L A S E R

Research and Therapeutic Solutions



## Asalaser training: real innovation is growing together.

### THE VALUE OF TRAINING. FOR US, ASALASER.

Building high performance machines based on state of the art technology which are simple and user-friendly is not the sole ingredient of innovation. We believe that in all this, training plays a fundamental role and accompanies the evolution of bio-medical technology in order to constantly improve your work and your therapeutic results. Our idea of training is being able to share with you the scientific results that precede and accompany our devices as well as transmitting what we firmly believe in: the value of knowledge and continuous updating aimed towards perfecting our expertise and that of those who choose to use our products.

### TRAINING OBJECTIVES. FOR YOU.

We aim to provide you with all the information and answers you may need concerning your work with ASAlaser technology: from modes of application to benefits, from tailor-made settings for treating specific conditions to device software, until we can optimise its use and obtain the most efficient results also thanks to a full and detailed analyses of success stories.

*The practical part will enable you to learn how to use laser systems correctly and how to achieve the best results on your patients.*



ASALASER TRAINING:  
ENTER THE WEBSITE AND LEARN MORE.



**THE ASALASER TRAINING PLATFORM: EFFICIENT, USEFUL, USER-FRIENDLY. LIKE OUR DEVICES.**

The training we believe in must take place anywhere our devices may be: all over the world. At the same time, it must be organised and tailored to each individual customer: for this reason our training platform is organised on several levels (Advanced, Master and Master Class Courses), is divided further into theory and practical sections and is implemented by highly qualified teaching staff (doctors and physiotherapists) using innovative technical tools (iPad and Android apps, videos with 3D imagery) and highly professional teaching materials (user guides and scientific publications).



*Participants have expressed the value of training first hand and report a considerable improvement in their therapeutic approach and in the results achieved even following just a single application of the therapy.*

*ASAlaser training has a precise aim: to produce immediate effects on the job, in terms of a better evaluation and planning of therapeutic approaches thus giving professionals the opportunity to explore the full potential of the therapy.*



**WEB SITE**

A section of the website dedicated to spreading the knowledge of Hilterapia® and to support the professionals with sections dedicated to application, courses, scientific and clinical research, news and events on Hilterapia®.

[www.asalaser.com](http://www.asalaser.com)



**SOCIAL NETWORKS**

Keep in touch daily with the world of ASAlaser. Receive updates on news, special dates and events. Share information and interesting news with professionals and experts. Talk to us and more through our social networks.



**COMMUNICATION SUPPORT**

Supports created to facilitate specialists and patients in understanding Hilterapia®, its scope of application and the achievable results.



App Store



Google play

**APP**

The most complete and up to date scientific content, technical and practical (3D animations, videos, tutorials, factsheets, ...) dedicated to Hilterapia® according to anatomy, diseases and treatments.

# ASA

A S A L A S E R

Research and Therapeutic Solutions

Hilterapia®

MIS  
Multiwave  
LockedSystem

Qs  
Magnetotherapy

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