



## DYNAMIC THERAPY

### K-LASER AROUND THE WORLD

Eltech K-Laser designs, manufactures and markets high quality professional laser equipment all over the world, ensuring the best performance with a special long-term K-Laser warranty. Every day, K-Laser's qualified staff cooperates with knowledgeable professionals and renowned private hospitals, investing its resources in Research and Development in order to deliver the most cutting-edge products on the market: **K-Laser Cube**.



### K-LASER THERAPY: SYNONYMOUS WITH DYNAMIC THERAPY

K-Laser's intuitive software consists of several **dynamic stages** that characterize the selected treatment. It allows adjusting application parameters, as well as wavelength, time frame, frequencies and power **within a single therapy session**, thus significantly increasing its efficacy and boosting the immune system while repairing tissues.

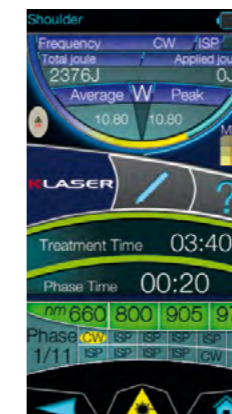
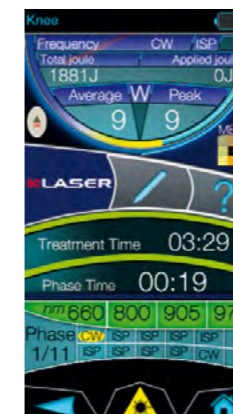
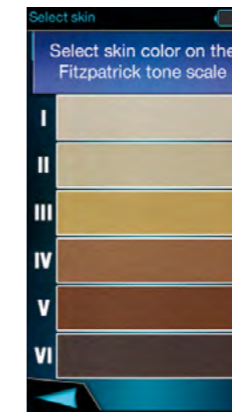
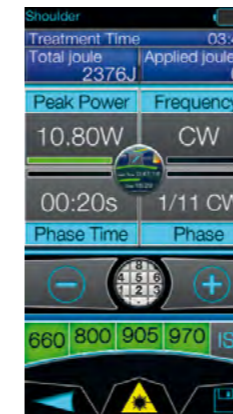
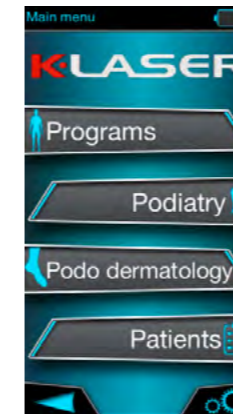
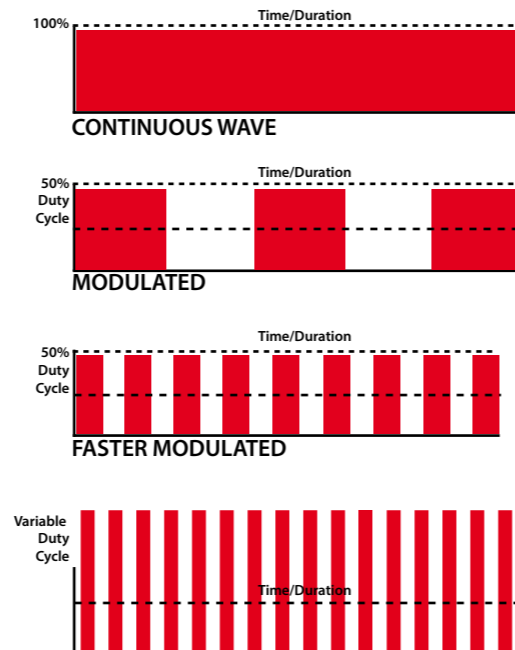
Thanks to an increased ATP production, which reaches its peak after 24 hours from the first laser treatment, the human body is able to transform laser energy into vital energy available to the cells

### DIFFERENT TYPES OF TISSUE CORRESPOND TO DIFFERENT MODULATION PARAMETERS

The parameters of the new K-Laser Cube line are distinguished according to the type of pulse (**CW mode, pulse mode with adjustable frequencies, ISP super-pulse mode**), with diversified tissue response.

Such effects have been thoroughly analyzed, paying particular attention to:

- the amount of energy administered depending on the effect obtained;
- the response obtained at different tissue depths;
- the effects of laser light penetration related to the most suitable administration modalities according to the kind of tissue to be treated.



### CUBE THERAPY REDEFINED FOR ALL KINDS OF PATIENT

**K-Laser Cube** allows adjustment of energy delivered depending on the factors involved, thanks to selected menus that are graphically intuitive.

**Increased power** and the wavelengths available play a crucial role in the success of the laser therapy.

### TYPE OF PAIN: CHRONIC AND SEVERE

According to the kind of pain experienced by the patient, **K-Laser Cube** makes it possible to select a specific treatment that's right for them.

### THE IMPORTANCE OF MELANIN FOR OUR BODY

Besides analyzing body morphology and the types of tissues, **K-Laser Cube** also takes into account another crucial factor for our skin: **melanin**.

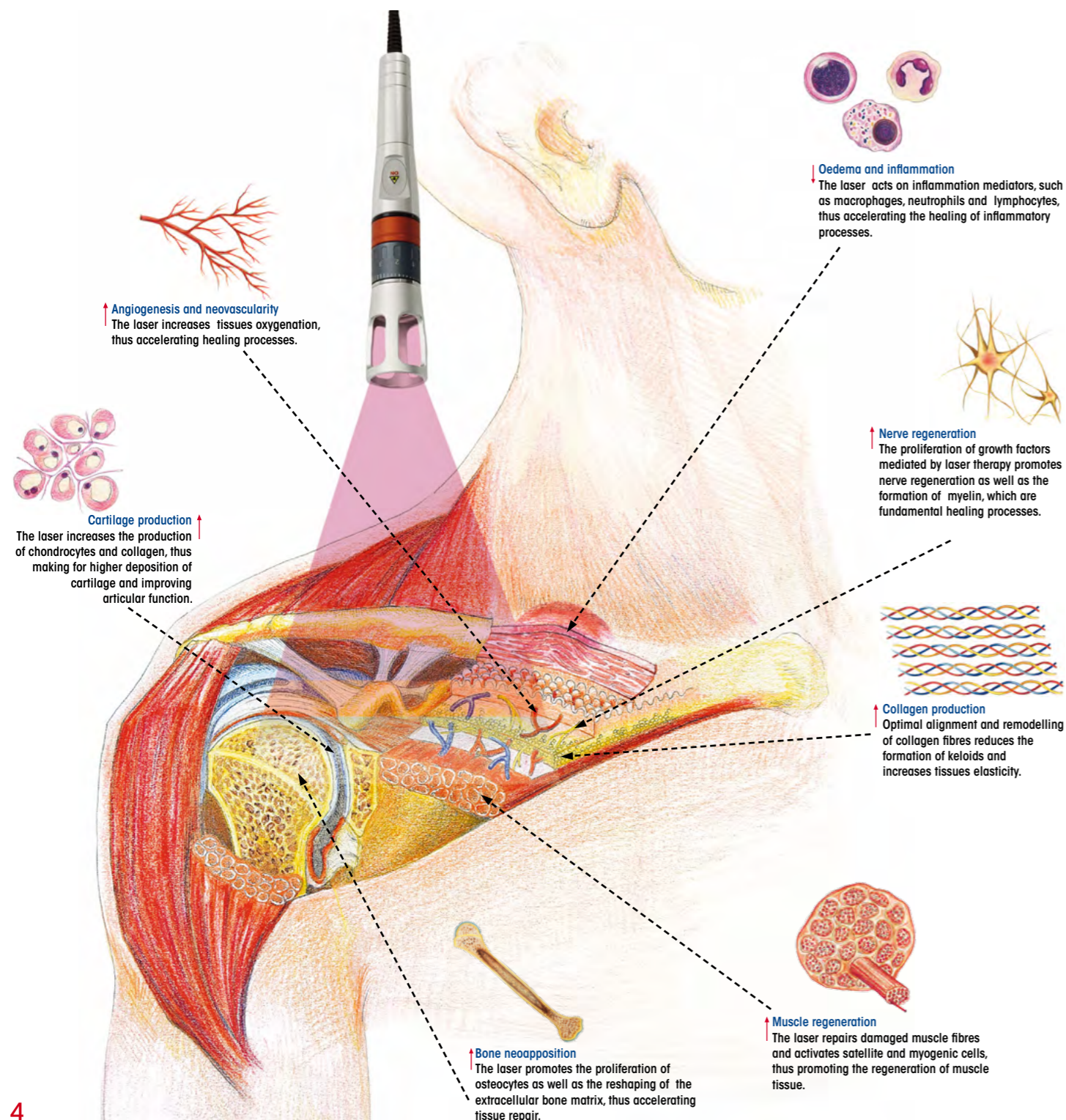
Thanks to its **innovative parameters**, K-Laser Cube recognizes the skin's six phototypes, taking into account every pre-set protocol variant.

### DYNAMIC PROGRAMS

Every K-Laser Cube protocol consists of a **dynamic parameter setting**, to be chosen according to the different types of tissues.

## EFFECTIVE IN PHYSIOTHERAPY

### Effects on metabolic processes



## EFFECTIVENESS AND BENEFITS FOR PAIN THERAPY IN THE MEDICAL FIELD

### K-Laser Dynamic Therapy is an excellent multidisciplinary therapy

**K-Laser Dynamic therapy** uses several pulse frequencies to produce a combination of **analgesia, inflammation reduction, biostimulation and antimicrobial effect**, thus accelerating the regeneration of tissues and increasing cellular energy.

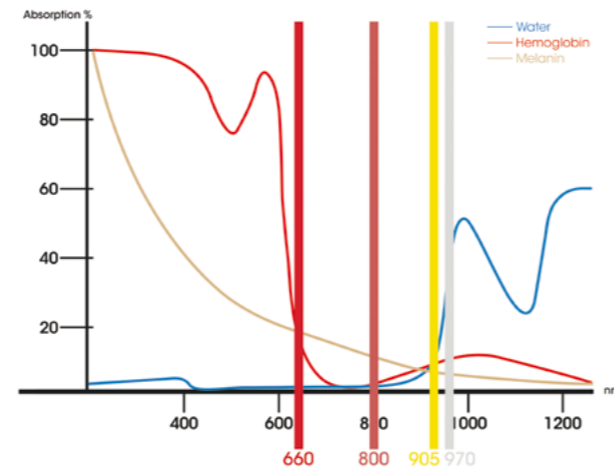
Cells can therefore absorb nutrients more quickly as well as eliminate waste substances. As a result of the exposition to laser light, the cells that constitute tendons, ligaments and muscles are repaired more quickly.

K-Laser Dynamic Therapy has **anti-oedemic effects since it produces vasodilation** while activating the lymphatic drainage system, which results in swelling reduction.



## 4 WAVELENGTHS

**K-Laser Cube** is Laser Therapy's world innovation: it completes the wavelengths range, delivering up to **15 different combinations**.

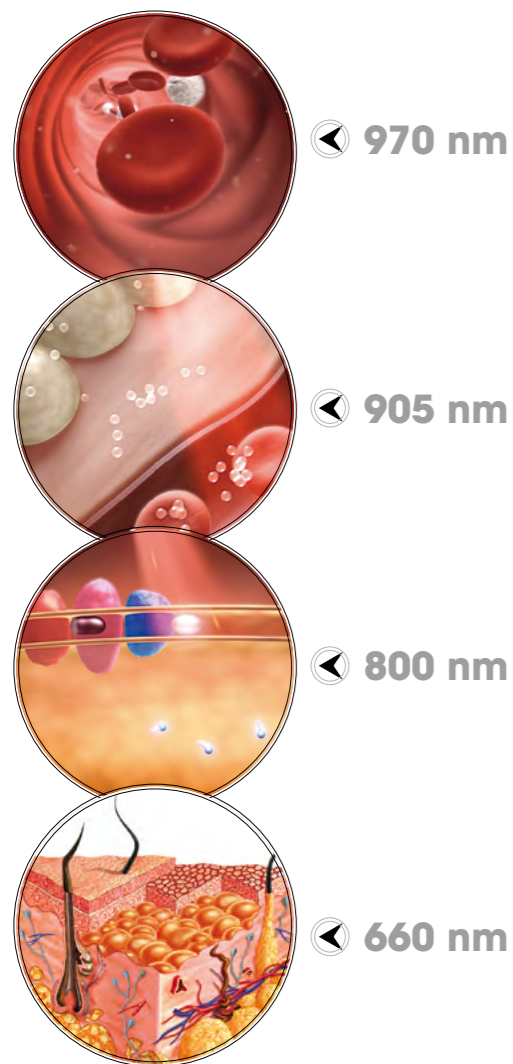


Blood, the main transport system, provides the cells with all the elements which are necessary to their metabolism, such as oxygen and nutritional substances, thus removing catabolic products. This wavelength is able to absorb most of the water contained in our body and a large part of the energy delivered by the therapy is transformed into heat. The deep tissue layers are then transformed into localized heat points that create temperature gradients at cellular level. They also boost local microcirculation thanks to the increase in oxygen provided to the cells.

Oxygen is released in variable percentages in the blood: the faster it is released, the more oxygen needs to be transported to the cell in order for the natural healing processes to take place. This wavelength is absorbed by haemoglobin, water, melanin and Cytochrome C oxidase. When it is absorbed, more oxygen is available to the cells.

Cytochrome C oxidase is the terminal enzyme of the respiratory chain that determines the amount of oxygen to be turned into ATP according to cellular efficiency. Enzymes are better absorbed at 800 nm: an ATP molecule is generated for each oxygen-reduction cycle accomplished. The photon absorption accelerates such process while increasing the ATP cellular production.

This wavelength is perfectly absorbed by the melanin contained in the skin, thus guaranteeing energy concentration in the most superficial tissue layers. Laser therapy allows obtaining excellent results in wounds healing as the light both inhibits bacterial proliferation and increases cellular growth.



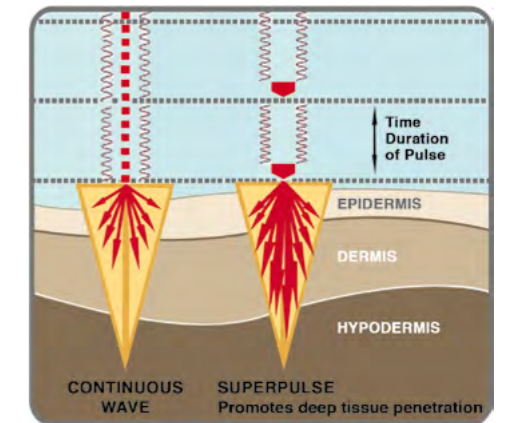
## ISP TECHNOLOGY (Intense Super Pulse)

### THE NEED FOR INCREASED POWER

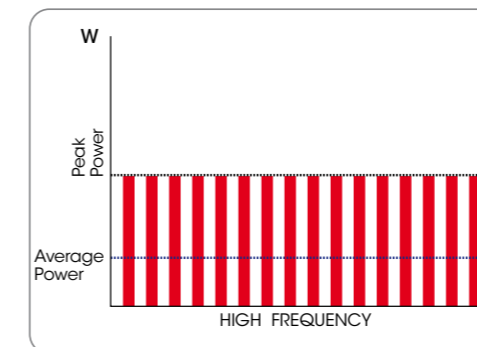
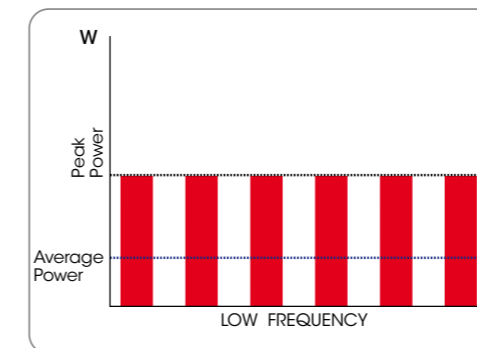
The most recent scientific researches revealed the importance of **average power kept constant in the body**: this feature, in fact, is crucial in order to deliver suitable energy during laser treatments. At present, most super-pulse lasers deliver high-power pulses in a short time frame (millionth or billionth of a second). They can only deliver few milliwatts, therefore reaching few watts of average power.

**K-Laser Cube** is the only laser that allows selecting both the right modulation frequency and average power, while operating in **super-pulse mode**, thanks to its exclusive and exceptional ISP MODE. As a result, the average power is kept constant at all times.

### ISP TENSE SUPER PULSE (da 1 a 20.000 Hz)



The pulse width is variable and is controlled by K-Laser's powerful software. It is up to 200 times wider than the one in ultra-rapid mode.



The pulse frequency can be chosen starting from the lowest ones (Low Frequency) for analgesic treatments, to the highest ones (High Frequency) for biostimulation. Average power is independent and adjustable to deliver the right type of energy for the tissue to be treated.

- › SPORTS INJURY REHABILITATION
- › PHYSIOTHERAPY



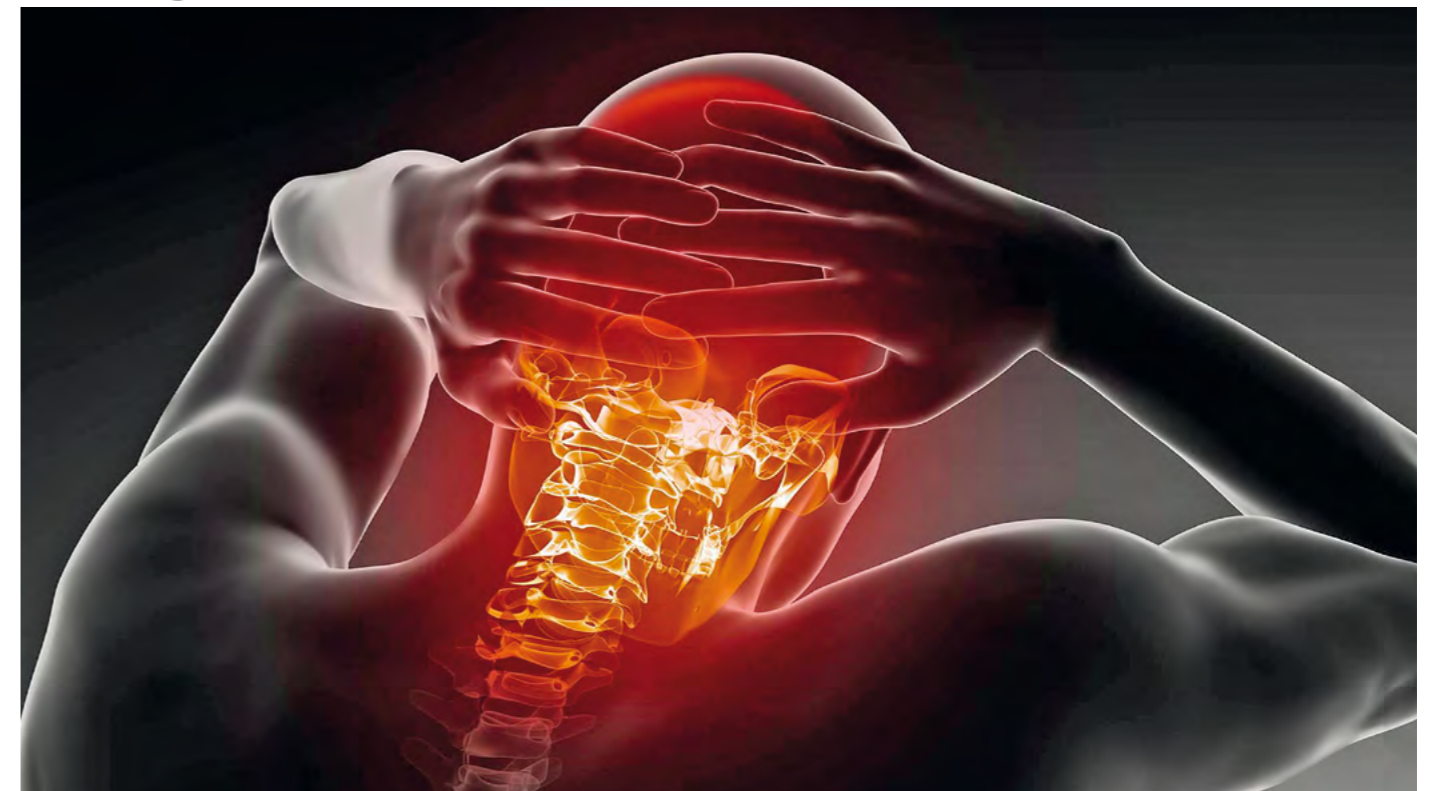
## EFFECTIVENESS IN SPORTS REHABILITATION

The innovative K-Laser Dynamic Therapy has also achieved remarkable results in **Traumatology and Sports Medicine**.

Treatment is quick with high application comfort. This is why K-Laser Dynamic Therapy can be used to treat all pathological conditions that affect sportspeople thanks to the biostimulation of damaged tissues and pain reduction.

### Treated Pathologies:

- Outcomes after bone Fracture
- Outcomes after Trauma
- Ligament injuries
- Tendon Luxation
- Tendon Inflammatory Pathologies



## IN FOOT PATHOLOGIES



### K-LASERTHERAPY SUCCESS

**K-Laser** relies on the super-pulse technology called “**Intense Super Pulse**” (ISP). This technology has immediate effects on tissue healing as it reaches deeper layers and reduces skin heating, thus immediately relieving pain.

A list of foot pathologies treated with laser therapy is shown here. Treatments use the **therapeutic zoom hand-piece, ORL hand-piece and high-energy optics**. Right after the first session, the patient can notice remarkable pain relief improvements. This is why **K-Laser** endorses non-invasive treatments.

- Metatarsalgia
- Hallux valgus-bursitis
- Plantar Fasciitis
- Tarsal tunnel syndrome
- Arthritis-Osteoarthritis
- Interdigital neuritis
- Heel spur
- Achilles tendonitis
- Morton's neuroma
- Post-sprain Edema
- Diabetic neuropathy
- Tibia-tarsal Distortion
- Diabetic ulcer
- Warts
- Mycosis

### K-LASER

## TESTING AND RESEARCH IN FOOT PATHOLOGIES

Thanks to the active cooperation with “**La Claudiana**”, school of health of Bolzano, **K-Laser** offers its resources to support technological advancement to help with research and develop new protocols in foot pathologies.



# K-LASER CUBE

## EXTEND PLUS THERAPY ON EXTENDED AREAS



The innovative K-Laser Dynamic Therapy has also achieved remarkable results in Traumatology and Sports Medicine.

**Treatment is quick with high application comfort.** This is why K-Laser Dynamic Therapy can be used to treat all pathological conditions that affect sportspeople thanks to the biostimulation of damaged tissues and pain reduction.

**K-Laser Cube Extend Plus** is equipped with an articulated swivel arm and with a removable head with housing for the laser beam. Thanks to its wider emission cone, it can treat larger areas.

**K-Laser Cube Extend Plus** has a unique and exclusive design with a **100 mm diameter**, making the device ergonomic and easy to position. It is also equipped with special optics that deliver energy uniformly on the whole area that's being treated.

**K-Laser Cube Extend Plus** makes use of all wavelengths available. Thanks to the wide range of treatments, it can also be used on serious wounds as well as to treat larger areas.

**K-Laser Cube Extend Plus** is available for all **K-Laser Cube models**.



# K-LASER QRT TECHNOLOGY

## QUICK RELEASE TECHNOLOGY (QRT)

### HANDPIECE WITH INTERCHANGEABLE OPTICS

This technology springs from the need to perform Dynamic Therapies on different application fields. This can range from Physiotherapy to dermal-foot therapy and Stomatology to Oral Pathology.



Variable zoom from 1 to 5 cm<sup>2</sup>

#### Optional Tips:

**K-Laser** dynamic principle includes **two optional optics** that can be used according to the physician's needs.

High Energy Optics

ENT Fiber



#### K-Laser Zoom Plus:

A more performing and uniform therapy thanks to **K-Laser Zoom Plus**.



#### K-Laser Optic Plus: 12 cm<sup>2</sup>

With **K-Laser Optic plus** treating extended areas is easier.



## IN DETAIL

### CUBE SOFTWARE UPDATES

K-Laser technology provide periodic updates of Cube devices in order to guarantee high-quality performance at all times.

### ELECTRONIC THERAPY RECORDS:

patients history

The Cube software includes the treatment history of the patients. Patient protocols can also be tailored and exported in various formats through USB device.

### K-LASER TROLLEY

(optional)

**Light, transportable and safe**, thanks to the magnetic plate, which guarantees the device stability on the trolley.

### RECHARGEABLE BATTERY

lithium-ion

K-Laser Cube is equipped with a **rechargeable battery** and **60 minutes of operating time** in case of continuous treatments.



### REDUCED WEIGHT

(about Kg. 1,3)

Thanks to its **compactness, K-Laser flagship and its transportability**, the physiotherapist can choose where to perform the treatment. This is why K-Laser Cube is an ideal tool in the field of Sports Medicine, Physiotherapy and Rehabilitation.

### LCD FULL COLOUR GRAPHIC DISPLAY

touch screen

Liquid crystal display and high definition full color graphics make for **high visibility** even with strong ambient light. The Touchscreen technology allows better interaction between K-Laser Cube and the user.



### K-LASER CUBE EXTEND & EXTEND PLUS



## CUBE 4

20W-ISP - 15W-CW 4 wavelengths



## ON DEMAND

K-LASER HAS CREATED THE BRAND-NEW AND UNIQUE SERVICE: **K-LASER ON DEMAND.**



Thanks to its advanced technology, **K-Laser** makes it possible to exploit its therapies through wireless connection.

The Physician can access the top range of **K-Laser Cube 4**, provided with four wave lengths and 20W, since it can only invest in performed treatments.

The **ON DEMAND** formula has been designed to contrast the economic crisis: therefore, **K-Laser** is the equipment that everybody can afford.

Together with the opening of a **K-Laser specialized center**, the "on demand" option offers the chance to approach and get to know one of the most widespread therapies in medicine, physiotherapy and podology.





K-LASER CUBE PLUS 30 MED US rev. 1  
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ELTECH K-LASER S.r.l.  
Strada Castagnole, 20/H  
31100 TREVISO - ITALY  
klaser.us

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