

Low Level Laser Therapy, commonly known as LLLT, is a form of phototherapy which involves the application of low power monochromatic and coherent light to injuries and lesions to stimulate healing.

LLLT is used to increase the speed, quality and tensile strength of tissue repair, resolve inflammation, and give pain relief. The technical term often used to describe this form of therapy is 'photobiostimulation'.

ADVANTAGES OVER OTHER MODES OF THERAPY?

LLLT has been found to offer superior healing and pain relieving effects compared to other electrotherapeutic modalities, especially in the early stages of acute injuries, and for chronic problems. LLLT can also be used for Acupuncture Point stimulation.

LLLT is a universal method of treating muscle, tendon, ligament, connective tissue, bone and skin tissue with one simple piece of equipment, however, the best results are achieved when it is used to complement other treatment modalities. Treatment time for the laser portion is typically between 4 and 12 minutes.

Importantly for athletes, LLLT is a non-invasive, drug-free modality that can be applied on competition day without risking disqualification by drug testing.

What is a Laser?

The laser is the latest and most advanced of our light sources. The word LASER is an acronym for Light Amplification by Stimulated Emission of Radiation. Strictly speaking, therefore, lasers are light amplifiers if the radiation produced is within the visible range, or radiation amplifiers if the radiation produced is within the infrared or the ultra-violet ranges.

The laser is a light source that generates extremely pure light. With pure light we mean light that has a single wavelength, not a whole spectrum. Light from laser is highly ordered, well organized, while the light from ordinary light bulbs is typically un-organized. Laser light is called coherent.

There are many different types of lasers. They can be manufactured as high power and low level lasers. Laser light can be of any colour, or it can be invisible. The laser beam can be made small and parallel, or divergent. Some are used for Medicine.

What is a Medical Laser?

There are many different types of medical lasers. For our purposes, two main groups stand out:

High Power Lasers: they are used to cut, coagulate and evaporate tissues. These lasers are often called surgical lasers because they can replace the scalpel of the surgeon.

Low Level Lasers: they can be used for the stimulation of cell function. They are also called bio-stimulating lasers or Low Intensity Lasers. Their biological effect is not thermal, as is the case with surgical lasers. The pure light of the lasers causes photochemical reactions in the cells. Laser light photons are absorbed by antenna pigments (chromophores) within the cells. This induces increased production of cellular energy (ATP) which leads to normalization of cell function, pain relief and healing. The effect of Low Level Laser Therapy (LLLT) is especially striking in areas of the body where cells are under stress.

Conditions that respond well to Low Level Laser Therapy (LLLT):

There are more than 50 positive Double Blind Low Level Laser Therapy (LLLT) Studies that show clear evidence that LLLT is highly effective for the following conditions:

- Chronic Pain
- Acute (traumatic) pain
- Neck, backpain
- Tendonitis
- Sports injuries
- Painful trigger points
- Carpal tunnel syndrome
- Tennis/golfer elbow
- Acne, eczema
- Inflammation skin conditions
- Wounds and burns
- Non-healing ulcers
- Rheumatoid arthritis
- Fibromyalgia
- Lymphedema
- Osteoarthritis
- Migraines
- Post herpetic neuralgia
- Scars and keloids
- Sinusitis, tonsillitis
- TMJ disorders
- Hearing loss
- Meniere`s Disease
- Tinnitus
- Vertigo