

What is Low Level Laser Therapy?

Cold Laser Therapy or Low Level Laser Therapy or LLLT

This is a treatment that uses particular light wavelengths in order to interact with tissue. Cold Laser Therapy or Low Level Laser Therapy has earned the reputation of helping to facilitate the healing process. It can be used on patients to help eliminate swelling, reduce spasms, eliminate pain and increase functionality for individuals who suffer from a variety of chronic and acute conditions.

How Cold Lasers Work

Cold lasers are typically the size of a flashlight and are handheld devices that are used by the clinician. Usually the laser is placed directly over the injured area for approximately 30 seconds to several minutes. The treatment time refers to the size of the area being treated as well as the dose provided by the cold laser unit.

During the treatment, non-thermal photons of light which are emitted from the laser, pass through the different layers of skin: the dermis, the epidermis, and the fat tissue located under the skin known as the subcutaneous tissue.

This specific light is capable of penetrating 2 to 5 cm below the skin at 830nm or 90mw. Once the light energy reaches the target area after passing through the layers of the skin, it is absorbed and interacts with the light sensitive elements in the cell. This process is similar to photosynthesis in plants. When sunlight is absorbed by plants, it is then converted to usable energy and the plant can continue to grow.

Once the body's cells absorb this light energy, a series of events in the cell becomes initiated. In theory, these events eventually result in reducing pain, increasing intracellular metabolism and reducing edema, inflammation and overall healing time, while normalizing injured or damaged tissue.

Cold laser therapy can stimulate all kinds of cell types such as: nerves, muscle, cartilage, ligament etc., therefore, a variety of conditions can be treated with cold laser therapy. Some of the specific issues that may be treated by cold laser therapy include: Carpal Tunnel Syndrome, Arthritis Pain, Neck Pain, Back Pain, Knee Pain, Tendonitis and Fibromyalgia Pain.

Effectiveness of Cold Laser Therapy

For many years, doctors and physicians have been utilizing the benefits of cold laser therapy on patients seeking alternative and effective methods for pain relief. Over 2500 clinical studies have been published across the globe since 1967. Many of these studies are placebo controlled, double-blinded tests that have confirmed and demonstrated that cold laser therapy is a proven method for pain relief.

Cold Laser Therapy

Albert Einstein conceived the theory of Light Amplification through Stimulated Emission of Radiation or "LASER," in 1916. For over 4 decades, this treatment has been utilized in clinical practice all over the world. Professor Andre Mester began using low power lasers in medicine in 1967. He is recognized by many people to be the grandfather of light therapy.

F.D.A Recognition of Cold Laser Therapy

The Food and Drug Agency or FFDA classifies medical lasers into 3 categories: Class 3A Low-Level Lasers, Class 3B Non-Surgical Lasers, and Class 4 Surgical Lasers.

Class 4 Surgical Lasers are utilized to coagulate, cut and vaporize tissue during medical procedures. This is different from Class 3A and Class 3B non-surgical lasers. These forms of lasers are non-cutting, non-burning and painless. Class 3A or Class 3B Low Level Lasers do not have the intensity to damage cells. Class 3A lasers help heal conditions and superficial wounds that generally do not penetrate below the skin's surface. Class 3B Low Level Lasers however, have the ability to penetrate and assist in the healing process of joint problems and deep tissue.

If you are considering undergoing any form of laser therapy, be sure to do your research. Ask your family doctor for a referral and make sure you book your consultation with an experienced treatment facility. The results can be dramatic and may provide you with a solution to pain or discomfort that you may have thought you had to live with forever.