

## The Sunshine Chiropractic Clinic

380 High Street  
Maryville, TN 37804  
(865)984-6850

## The Sunshine Chiropractic Clinic

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# COLD LASER

## Technology Update

### What Is Low Level Laser Light?

Low-level laser light is compressed light of a wavelength from the cold, red part of the spectrum of electromagnetic radiation. It is different from natural light in that it is one precise color; it is coherent (it travels in a straight line), monochromatic (a single wavelength) and polarized (it concentrates its beam in a defined location or spot). These properties allow laser light to penetrate the surface of the skin with not heating effect, no damage to the skin and no known side effects. Rather, laser light directs biostimulative light energy to the body's cells which the cells then convert into chemical energy to promote natural healing and pain relief.

### What Is Low Level Laser Therapy?

Low level laser therapy is the application of red and near infrared light over injuries or wounds to improve soft tissue healing and relieve both acute and chronic pain. Low-level therapy uses cold (sub thermal) laser light energy to direct bio-stimulative light energy to the body's cells without injuring or damaging them in any way. The therapy is precise and accurate and offers safe and effective treatment for a wide variety of conditions.

### How Does Low Level laser Therapy Work?

Low-level lasers supply energy to the body in the form of non-thermal photons of light. Light is transmitted through the skin's layers (the dermis, epidermis and the subcutaneous tissue or tissue fat under the skin) at all wavelengths in the visible range. However, light waves in the near infrared ranges penetrate the deepest of all light waves in the visible spectrum.

When low level laser light waves penetrate deeply into the skin, they optimize the immune responses of our blood. This has both anti-inflammatory and immunosuppressive effects. It is a scientific fact that light transmitted to the blood in this way has positive effects throughout the whole body, supplying vital oxygen and energy to every cell.

### The Physiological Effects of Low Level laser Therapy

1. Biostimulation—Improved metabolism—Increase of cell metabolism.
2. Improved blood circulation and vasodilation
3. Analgesic effect
4. Anti-inflammatory and anti-edematous effects
5. Stimulation of wound healing

### How Does Low Level Laser Therapy (LLLT) Benefit Users?

- Relieves acute and chronic pain
- Increases the speed, quality and tensile strength of tissue repair
- Increases blood supply
- Stimulates the immune system
- Stimulates nerve function
- Develops collagen and muscle tissue
- Helps generate new healthy cells and tissue
- Promotes faster wound healing and clot formation
- Reduces Inflammation

## F. A. Q.

Q. Does the laser treatment hurt?

A. No, there is virtually no heat or sensation with the use of cold laser therapy.

Q. How long are the treatments?

A. Treatment times can vary depending upon the protocols and pain severity, but in general actual laser exposure times are minimal—a few minutes per treatment, with regularly scheduled treatments based upon the nature of the ailment.

Q. What kind of results should I expect?

A. Patients and doctors alike report accelerated healing and pain reduction.

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# COLDLASER NEWS

Many acute and chronic conditions can be improved or eliminated with laser use, including:

- Rheumatic pain and rheumatoid arthritis
- Ankylosing spondylitis (inflammation between the vertebrae of the spine and sacroiliac joints)
- Buerger's disease (inflammation of the arteries, nerves and veins in the legs and arms)
- Osteoarthritis (degeneration of the cartilage that lines joints or formation of osteophytes (bony outgrowths))
- Frozen shoulder
- Radiculopathy (damage to the nerve roots that enter or leave the spinal cord)
- Lumbago (lower back pain)
- Occipital and trigeminal neuralgia (severe pain of the trigeminal nerve)
- Headache and migraine pain
- Otitis media (inflammation of the middle ear)
- Sinusitis (inflammation of the sinuses)
- Fibrositis/Fibromyalgia
- Cervical vertebral syndrome (pain in the neck joints)
- Contusions
- Tennis epicondylitis (inflammation in the tendon that attaches the extensor muscles to the humerus)
- Golfer's elbow (inflammation of the epicondyle (bony prominence) on the inner side of the elbow)
- Tendonitis (inflammation of a tendon)
- Bursitis (inflammation of a bursa—fluid filled pad that acts as a cushion at a pressure point in the body)
- Tenosynovitis (inflammation of the cartilage directly behind the kneecap)
- Sore heel cushion
- Plantar fasciitis (heel spurs or inflammation of the fibrous connective tissue of the foot)
- Sciatica (pain that radiates along the sciatic nerve in the leg)
- Morton's metatarsalgia (pain in the metatarsal bones in the foot)
- Post-operative pain
- Diabetic neuropathy (inflammation of the peripheral nerves between the central nervous system and other organs)
- Neuralgia (pain associated by the irritation of damage of a nerve)
- Prostatitis (inflammation of the prostate gland)
- Teitz's syndrome (inflammation of the rib cartilage)
- Muscular pains
- Healing of wounds
- Lessening of pain in geriatric wearing of joints
- Warts
- Accelerating the healing of a fracture
- Sprains and Strains
- Intercostal Neuralgia
- Menstrual Pain—reduces pain, increases regularity in cycles
- Immune system Modulation
- Muscle regeneration, Nerve regeneration, Bone regeneration
- Cerebral Palsy—reduces muscle spasm and increases the mobility of muscles