## **MLS Laser Therapy Information**



#### What is High Power Deep Tissue Laser Therapy?

MLS Laser Therapy is a non-invasive, safe, and effective treatment modality where light is used to relieve pain, reduce inflammation, and promote wound healing and soft tissue repair. Our laser is the only multi-wave locked system, dual wave, fully robotic laser therapy system on the market. This means deeper penetration with no heat produced allowing faster healing with no known side effects. It has been cleared by the FDA since 2009.

# Why Laser is Different?

MLS Laser Therapy is a medical breakthrough therapeutic device with unparalleled applications and treatment outcomes. The Laser works by converting light into biochemical energy, resulting in normal cell function, which causes symptoms (PAIN) to disappear.

The primary biological action of laser results from stimulation of cellular transport mechanisms in the mitochondria, cell membranes and epithelial tissues. This action causes the release of vasodilating chemicals, the stimulation of DNA and RNA (Building blocks) synthesis, an increase in enzyme production, an increase of superoxide dismutase activity, normalization of tissue pH, and increased ATP production. (Healing of the cells from the inside)

The increase of vasodilatation (blood supply) and improved microcirculation will increase the supply of cellular nutrition promoting tissue repair and remodeling (which means you heal faster). Significant reduction in edema (swelling) is also noted.

#### How is the treatment done?

The laser is fully robotic and placed 8 inches above the skin allowing the healing energy to penetrate tissue, where it interacts with various intracellular bio-molecules resulting in the restoration of normal cell function. This also enhances the body's natural healing processes. In essence, light energy is converted into biochemical energy. Think of this like photosynthesis in plants.

The result is normal cell functions are restored. The process results in a disappearance of symptoms and increases the speed at which your body heals. Other Effects include the immune system response is stimulated, lymphatic drainage is improved, & the body's natural healing process are enhanced.

The beneficial physiological changes noted above are the result in tissue regeneration and cellular stimulation. This is possible because we are using the newest and most powerful laser technology available to help our patients live a pain free life

Affordable, Effective Pain Treatment / No Known Side Effects

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## <u>FAQ</u>

#### What does laser therapy have over other forms of therapy?

It does not require the use of drugs or surgery, there are no known side effects, and it is quick/convenient. Studies have shown that it is equal to or more effective than other forms of physical therapy. These studies were performed at many prestigious institutions including Harvard University.

#### Does it hurt? What does the treatment feel like?

There is little or no sensation during treatment. There is no pain associated during laser application. Laser treatment is relaxing and some people even fall asleep.

#### How long does the treatment take?

The typical course of treatment is 10 to 15 minutes, depending on the size of the area being treated. Treatments are typically received 2 to 3 times a week. Treatment plans are determined on an individual basis.

#### How many treatments does it take?

This depends on the nature of the condition being treated. The typical treatment protocol is between 6 and 12 visits. Conditions such as severe arthritis may require ongoing periodic care to control pain.

## How long before results are felt?

You may feel improvement in your condition (usually pain reduction) after the 1 to 3 treatments. For some more chronic conditions it may take up to 6 visits to feel the benefits of laser therapy. Not everyone responds to laser therapy and results cannot be guaranteed.

# Are the results long lasting?

MLS Laser Therapy is about healing. It's not about masking or covering up a condition. When you feel better from this therapy... it's because you are better. Therefore results have been found to be quite long lasting.

## Can it be used in conjunction with other forms of treatment?

Yes, MLS Laser Therapy is sometimes more effective when combined with other forms of therapy, including physical therapy, chiropractic, massage, soft tissue mobilization, electrotherapy, and following surgery.

## How do I know if laser therapy is right for me?

We will evaluate your condition and perform a complete laser therapy examination to determine if you are a candidate for this procedure. Call us to schedule your evaluation or a consultation with one of the doctors. Consultations are always at no cost to the patient.

## Can laser therapy be used over medical implants or over metal?

Yes, laser therapy is a light treatment. No heating is involved with the surgical or metal implants. It can be used safely with no side effects. It is extremely effective for post-operative wound healing. Many hip and knee replacement patients see us for care.

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## **10 Benefits of MLS Laser Therapy**

- **1. Anti-Inflammatory:** MLS Laser Therapy has an anti-edema effect as it causes vasodilation, but also because it activates the lymphatic drainage system which drains swollen areas. As a result, there is a reduction in swelling caused by bruising or inflammation.
- **2. Analgesic:** MLS Laser Therapy has a beneficial effect on nerve cells. It blocks pain transmitted by these cells to the brain which decreases nerve sensitivity. Also, due to the decreased inflammation, there is less edema and less pain. Another pain blocking mechanism involves the production of high levels of pain killing chemicals such as endorphins and enkephalin from the brain and adrenal gland.
- **3.** Accelerated Tissue Repair and Cell Growth: Photons of light from lasers penetrate deeply into tissue and accelerate cellular reproduction and growth. The laser light increases the energy available to the cell so that the cell can take on nutrients faster and get rid of waste products. As a result of exposure to laser light, damaged cells are repaired faster.
- **4. Improved Vascular Activity:** Laser light will significantly increase the formation of new capillaries in damaged tissue which speeds up the healing process, closes wounds quickly and reduces scar tissue. Additional benefits include acceleration of angiogenesis, which causes temporary vasodilation and increase in the diameter of blood vessels.
- **5. Increases Metabolic Activity:** MLS Laser Therapy creates higher outputs of specific enzymes, greater oxygen and food particle loads for blood cells.
- **6. Trigger Points and Acupuncture Points:** MLS Laser Therapy stimulates muscle trigger points and acupuncture points on a noninvasive basis providing musculoskeletal pain relief.
- **7. Reduced Fibrous Tissue Formation:** MLS® Laser Therapy reduces the formation of scar tissue following tissue damage from cuts, scratches, burns or surgery.
- **8. Improved Nerve Function:** Slow recovery of nerve functions in damaged tissue can result in numbness and impaired limbs. Laser light speeds the process of nerve cell reconnection and increase the amplitude of action potentials to optimize muscle healing.
- **9. Immunoregulation:** Laser light has a direct effect on immunity status by stimulating immunoglobulins and lymphocytes. Laser emissions are absorbed by chromophores (molecule enzymes) that react to laser light. Upon exposure to the laser, the enzyme flavomononucleotide is activated and starts the production of ATP (adenosinetriphosphate), which is the major carrier of cell energy and the energy source for all chemical reactions in the cells.
- **10. Faster Wound Healing:** Laser light stimulates fibroblast development in damaged tissue. Fibroblasts are the building blocks of collagen, which is the essential protein required to replace old tissue or to repair tissue injuries. As a result, MLS® Laser Therapy is effective post surgically and in the treatment of open wounds and burns

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