

# High Intensity Laser Therapy

RELIEVES PAIN, PROMOTES HEALING

## FDA-Cleared, Non-Invasive, Drug-Free Therapy

High Intensity Laser Therapy (HILT) is an FDA-cleared treatment option that is unique in its ability to penetrate through bone, soft tissue, and muscle to deliver healing light energy to the cells of the body. HILT can reduce pain, minimize swelling, soften scar tissue, and reset the chronic pain cycle - all while healing damaged tissues at the cellular level.

### A Different Treatment Approach

There are a variety of options for treating acute and chronic pain. Pain medications and spinal injections may provide temporary comfort, but they do nothing to address the root cause of the pain - once the medication wears off, the pain returns. They can also be accompanied by serious side effects including other health problems, depression, and addiction. Surgery is expensive, carries its own set of major risks, recovery can last for weeks or months, and the success rates are not as high as you might expect.

### Laser Therapy is different.

It is a non-invasive, drug-free approach that treats the underlying cause of pain by actually repairing damaged cells.

The laser used at our clinic is a Class IV, therapeutic laser that was co-developed by Dr. Curt Draeger, DC, DACBOH, CCST. Using his experiences treating

HILT has seen an  
**90% success rate**  
 at improving function  
 and significantly  
 decreasing symptoms.

professional athletes and chronic pain sufferers, Dr. Draeger worked with physicists to develop this latest generation of high intensity lasers. These lasers are multiple times stronger than other lasers, reach deeper into cellular tissue, and treat surrounding tissues to provide longer-lasting results for our patients.

### MANY CONDITIONS BENEFIT FROM LASER THERAPY

- |                 |                     |                          |
|-----------------|---------------------|--------------------------|
| · Low back pain | · Hip pain          | · Tendonitis             |
| · Arthritis     | · Knee pain         | · Tennis Elbow           |
| · Neck pain     | · Sciatica          | · Neuralgia              |
| · Neuropathy    | · Headaches         | · Bursitis               |
| · Shoulder pain | · Plantar fasciitis | · Carpal tunnel syndrome |

### Is it Safe?

YES. Laser therapy has been cleared by the FDA for treating pain. It has been used in Europe since the 1970's and has been trusted by elite athletes around the world to accelerate recovery. Laser therapy has no known side effects when used by a properly trained professional.

### What to Expect During Treatment

The penetrating light from the laser feels warm on the body, and many patients find the soothing, warming sensation to be very relaxing. The therapeutic effects of HILT continue to work within your body even after your treatment session is complete.

It is important to know that HILT has been shown to have a cumulative effect, meaning that it requires a series of treatments for the laser to be able to do its job, with each session building upon the one before. While some patients feel immediate relief after just a few treatments, for most the response is more subtle and gradual.

# How Does High Intensity Laser Therapy Work?

The light energy from the laser stimulates healing within your body through a series of biological changes at the cellular level.

**Speeds Tissue Repair and Cell Growth** – accelerates cellular reproduction and growth by starting DNA and RNA repairs inside of the cells. Cells of cartilage, bones, tendons, ligaments, nerves, and muscles are repaired faster as a result of exposure to laser light.

**Softens Scar Tissue** – softens existing scar tissue and reduces the formation of new scar tissue following tissue damage. This is important because after an injury, the body heals with a tight, fibrous network of scar tissue. Scar tissue is less elastic, has poor circulation, is sensitive to pain, is weaker, and is much more prone to re-injury. HILT can soften scar tissue so that the doctor can work with the tissue to lengthen the fibers enabling more movement and mobility.

**Relieves Pain** – reduces pain by increasing the production of pain-killing chemicals, such as endorphins and enkephalins, from the brain and adrenal gland.

**Resets Chronic Pain Cycle** – chronic pain signals are actually memorized in the nerve switching stations in the body called interneurons. For example, pain that is felt in the knee is memorized in the interneurons near the spinal cord. The laser light reaches into the interneurons to reset that pain memory. It doesn't erase it completely, but it acts as an analgesic to suppress the nerve signals that transmit the sensation of pain to the brain.

**Reduces Swelling** – provides an anti-inflammatory effect, as it causes vasodilation (expansion of blood vessels) and activation of the lymphatic drainage system. As a result, there is a reduction in swelling caused by stress, trauma, overuse, or systemic conditions.

**Improves Blood Flow** – improves vascular activity and increases the formation of new capillaries (angiogenesis) in damaged tissues. This enables the body to deliver more oxygen and other vital nutrients to the treated area to speed healing.

**Improves Nerve Function** – accelerates the process of nerve cell regeneration and improves the communication between the nerves and the brain.

## UNDERSTANDING LASER THERAPY

Some patients find it easier to understand laser therapy by comparing it to photosynthesis. In school, we learned that during photosynthesis plants convert light energy from the sun into chemical energy to fuel growth. In a similar manner, the body converts laser light energy into chemical energy to fuel cell growth and healing.

