



Healing your pain... changing your life

What is Laser Therapy?

Laser Therapy, or “photobiomodulation”, is the use of specific wavelengths of light (red and near-infrared) to create therapeutic effects. These effects include improved healing time, pain reduction, increased circulation and decreased swelling. Laser Therapy has been widely utilized in Europe by physical therapists, nurses and doctors as far back as the 1970’s. Now, after FDA clearance in 2002, Laser Therapy is being used extensively in the United States.

Patient Benefits of Laser Therapy

Laser Therapy is proven to biostimulate tissue repair and growth. The Laser accelerates wound healing and decreases inflammation, pain, and scar tissue formation. In the management of chronic pain Class IV Laser Therapy can provide dramatic results, is non-addictive and virtually free of side effects.

Has effectiveness been demonstrated scientifically?

Yes. There are thousands of published studies demonstrating the clinical effectiveness of Laser Therapy. Among these, there are more than one hundred rigorously controlled, scientific studies that document the effectiveness of laser for many clinical conditions.

Cellular Effects of Laser Therapy

During Laser Therapy the infrared laser light interacts with tissues at the cellular level and metabolic activity increases within the cell, improving the transport of nutrients across the cell membrane. This initiates the production of cellular energy (ATP) that leads to a cascade of beneficial effects, increasing cellular function and health.

Laser Therapeutic Effects

During each painless treatment laser energy increases circulation, drawing water, oxygen, and nutrients to the damaged area. This creates an optimal healing environment that reduces inflammation, swelling, muscle spasms, stiffness, and pain. As the injured area returns to normal, function is restored and pain is relieved.

K-Laser Advanced Technology

K-Laser is leading the way in pain management, tissue repair, safe treatments, and fast treatment times. We are the premier laser company in the USA to offer: Dual-Wavelength Beam that

Penetrates Deep into the Tissue Continuous & Modulating Frequencies to Promote Pain Control and Healing. Super Pulse Mode for Deeper Therapeutic Penetration High Power Delivering Larger Doses, Resulting in Shorter Treatment Times. Presets that Result in More Consistent and Safe Treatment Outcomes.

4 Wavelength / 4 Frequencies

The K-Laser was the first to employ dual infrared wavelengths simultaneously of 660, 800, 907 and 970 nm. These Dual Wavelengths are more efficient, healing the tissue while also aiding in pain relief. Combining the K-Laser's Dual Frequencies of Continuous Wave and Modulation assures that each treatment you receive will be from the most advanced Class IV Laser Therapy technology. In addition, the K-Laser Super Pulse treats deeper conditions very effectively.

Numerous studies show that Laser therapy can help with:

Tendinopathies · Carpal Tunnel Syndrome · Myofascial Trigger Points · Lateral Epicondylitis (Tennis Elbow) · Ligament Sprains · Muscle Strains · Repetitive Stress Injuries · Chondromalacia Patellae · Plantar Fasciitis · Rheumatoid Arthritis · Osteoarthritis · Shoulder, Back & Knee Pain · Herpes Zoster (Shingles) · Post-Traumatic Injury · Trigeminal Neuralgia · Fibromyalgia · Diabetic Neuropathy · Venous Ulcers · Diabetic Foot Ulcers · Burns · Deep Edema / Congestion · Sports Injuries · Auto & Work Related Injuries

Are there any side effects or associated risks?

During more than twenty years of use by healthcare providers all over the world, very few side effects have ever been reported. Occasionally some old injuries or pain syndromes may feel aggravated for a few days, as the healing response is more active after treatment.

How long does each treatment take?

The typical treatment is 3 to 9 minutes, depending on the size of the area being treated.

How often should a patient be treated?

Acute conditions may be treated daily, particularly if they are accompanied by significant pain. More chronic problems respond better when treatments are received 2 to 3 times a week, tapering to once a week or once every other week, with improvement.

How many treatments does it take?

This depends on the nature of the condition being treated. For some acute conditions 1 to 6 treatments may be sufficient. Those of a more chronic nature may require 10 to 15 (or more) treatments. Conditions such as severe arthritis may require ongoing periodic care to control pain.

How long before the results are felt?

You may feel improvement in your condition (usually pain reduction) after the very first treatment. Sometimes you will not feel improvement for a number of treatments. This does not mean that nothing is happening. Each treatment is cumulative and results are often felt after 3 or 4 sessions.

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

Yes! Laser Therapy is often used with other forms of therapy, including physical therapy, chiropractic adjustments, massage, soft tissue mobilization, electrotherapy and even following surgery. Other healing modalities are complementary and can be used with laser to increase the effectiveness of the treatment.

About K-Laser therapy

Laser therapy was born from scientific research over 30 years ago in Europe and perfected by K-LaserUSA with the latest technological advancements.

A Class IV Therapeutic Laser has a greater power output. This delivers more therapeutic energy to the target tissues than 'cold' lasers.

The K-Laser uses 660, 800, 905 and 970 nanometer laser wavelengths. These penetrate deeper. The chromophores can absorb laser wavelengths from 500 to 1100 nanometers; there is no 'magical' therapeutic laser wavelength.

What is Laser or Light Therapy?

A: Laser Therapy or "photobiomodulation", is the use of specific wavelengths of light (red and near infrared) to create therapeutic effects. These effects include improved healing time, pain reduction, increased circulation and decreased swelling.

Laser therapy is the therapeutic application of coherent, monochromatic light.

Four widely accepted therapeutic benefits of laser therapy are the following:

- 1) Biostimulation/Tissue Regeneration
- 2) Reduction of Inflammation
- 3) Pain reduction, either chronic or acute
- 4) Antibacterial and Antiviral

Bio – "Life" stimulation and tissue regeneration are the first effects cited in much of the literature. How many therapies can make such a claim?

Laser therapy adds energy to living systems. While we are able to explain many of its molecular

and biochemical effects, it also adds energy at atomic and subatomic levels. When we understand these deeper effects, perhaps we may know much more about ourselves.

What can laser therapy treat?

Therapeutic applications which have shown promising results based on studies include:

Acne • Allergic Purpura • Alopecia Areata • Arteriosclerosis / Atherosclerosis • Arthritis • Asthma • Back Pain • Carpal Tunnel Syndrome • Cerebral Palsy • Dental Applications • Diabetes • Fibromyalgia • Headaches/Migraine • Hearing Disorders • Herpes • Hypertension • Hyperlipidemia • Lymphedema • Maxillofacial Disorders • Meniere's Disease • Nerve Regeneration • Neuralgia Neuropathy • Pain (Musculoskeletal, Myofascial, Nerve) • Pancreatobiliary Disease • Peyronie's Disease • Prostatitis • Reflex Sympathetic Dystrophy • Respiratory Disorders (Asthma, Bronchitis, Pleurisy, Pneumonia, Sinusitis, Tuberculosis) • Scars • Skin Disorders • Sports Injuries • Tendonitis • Tinnitus • Wound Healing

What is its history?

The effects of red light on cellular function have been known since 1880 however the clinical benefits were only discovered by accident during laser safety tests in 1967. The first low-power lasers suitable for treating pain became available commercially in the late 1970's and ever since then, laser therapy has been widely utilized in Europe by physical therapists, nurses and doctors. Now, after FDA approval in 2001, laser therapy is quickly gaining popularity in the USA.

Has effectiveness been demonstrated scientifically?

Yes. There are thousands of published studies demonstrating the clinical effectiveness of laser therapy. Among these, there are more than one hundred rigorously controlled, scientific studies that document the effectiveness of laser for many clinical conditions.

What does laser therapy do, anyway?

Physiological effects of Laser Therapy: Decreased pain levels Reduced inflammation Increased tissue proliferation & regeneration Accelerated soft tissue and bone repair Increased tissue tensile strength Enhanced nerve regeneration & function Increased cell metabolism Increased enzymatic responses Increased cell membrane potentials Increased microcirculation & vasodilation Increased lymphatic flow Increased collagen production Enhanced angiogenesis (creation of new blood vessels)

Numerous studies show that laser therapy can help with these conditions:

Arthritis Back Pain Carpal Tunnel Fibromyalgia Knee Pain Shoulder Pain
Sports Injuries Work or Auto Related Injuries

What is the power of most laser therapy devices on the market?

Low laser therapy devices are class III lasers or “cold” lasers. Their power ranges are in the range of 5 milliwatts to 500 milliwatts. The K-laser is a high-powered therapy device ranging upto 6000 milliwatts; however, the K-laser is power adjustable from 100 milliwatts to 12,000 milliwatts allowing for a wide range of treatment protocols. This power and penetration of the K-Laser system is not attainable with cold laser devices.

How many laser sessions are necessary?

A: Usually ten to fifteen sessions are sufficient to achieve a treatment goal. However, many patients note improvement in their condition in just one or two sessions. These sessions may be scheduled at two to three times per week for short duration treatment, or once or twice per week with longer treatment protocols.

Why is Laser Therapy better than some other forms of treatment?

It does not require the use of drugs or surgery, there are less side effects or risks, and it is quick

and convenient. Studies have shown that it is equal to or more effective than other forms of physical therapy.

What does it feel like to get a laser therapy treatment?

You really don't feel too much. There may be a slight warming sensation since the laser uses an infrared wavelength. Or you might feel a little tingly sensation - some people think this is due to the increase in cellular energy output, or the increase in cell membrane permeability.

What about side effects, or other risks?

Occasionally I have had a patient say their pain was slightly increased after a treatment. But remember - pain should be the ONLY judgment of your condition. Increased pain may be due to an increase in localized blood flow, increased vascular activity, increased cellular activity, or a number of other effects.

During more than twenty years of use of therapeutic lasers all over the world, very few side effects have ever been reported. Contrast that with the side effects of prescription drugs or surgery - laser therapy has an amazingly safe track record.

How long does each treatment take?

Thanks to the higher power output of a Class IV Therapeutic Laser such as the K-Laser, treatment times are shortened, so you can get on with your busy life. Most treatments take only a few minutes.

How many treatments will I need?

Obviously, all conditions are different. But as a guideline, most tendonitis cases require fewer than six treatments over two weeks, and the area has healed. Whereas chronic arthritic knee pain may require more treatments, along with an occasional 'booster' shot of laser therapy.

Don't want to come back for more laser therapy? Consider the alternative.

When will I feel better?

A: Some patients feel improvement in their condition after the very first treatment. Sometimes you will not feel improvement for a number of treatments. This does not mean that nothing is happening. Each treatment is cumulative and results are often felt after 3 or 4 sessions.

Research on the Benefits of Laser Therapy

What health problems have shown benefits from Laser Therapy?

Soft Tissue Injuries Tendinopathies Back and Neck Pain Carpal Tunnel Syndrome Myofascial Trigger Points Epicondylitis (Tennis Elbow) Sprains, Strains Repetitive Strain Injuries Chondromalacia Patellae Planter Fasciitis Degenerative Joint Conditions Rheumatoid Arthritis Osteoarthritis Neurogenic Pain Herpes Zoster (Shingles) RSD/CRPS Post-traumatic Injury Trigeminal Neuralgia Fibromyalgia Diabetic Neuropathy Chronic Non-Healing Wounds Venous Ulcers Amputee Stumps Diabetic Foot Ulcers Burns

What does research demonstrate:

Injuries treated with laser therapy heal faster
Laser Therapy has a strengthening effect on tissue repair
Laser Therapy improves blood flow & lymphatic drainage
It is an effective means of relief for many pain syndromes
It can improve immune response