LASER THERAPY

LASER: Acronym that stands for Light Amplification by the Stimulated Emission of Radiation.

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. It causes bio-stimulation of tissues to increase healing. 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.

Clinical studies and real-world use over several decades have proven that laser therapy has the following effects:

Anti-inflammation—By decreasing the release of prostaglandins and inflammatory mediators, Laser Therapy reduces inflammation, erythema, bruising, and edema.

Analgesic effect—Laser Therapy of diseased and damaged tissue decreases patient perception of pain by an increased release of tissue endorphins.

Accelerated Tissue Repair and Cell Growth—Photons of light from lasers penetrate deeply into tissue and accelerate cellular reproduction and growth. Laser light increases the energy available to the cells so that they can take on nutrients and get rid of waste products more quickly.

Improved Vascular Activity—Laser light significantly increases the formation of new capillaries in damaged tissue. This speeds the healing process, resulting in more rapid wound closure.

Increased Metabolic Activity—ATP is produced, which is the major carrier of cellular energy and the energy source for all chemical reactions in cells.

Trigger Points and Acupuncture Points—Laser Therapy stimulates muscle trigger and acupuncture points without mechanical invasion to provide musculoskeletal pain relief.

Reduced Fibrous Tissue Formation—Laser Therapy reduces the formation of scar tissue.

Improved Nerve Function—Slow recovery of nerve function in damaged tissue results in numbness and impaired limbs. Laser Therapy accelerates nerve cell regeneration.

Immunoregulation—Therapy Laser photons have an effect on immune system status through stimulation of immunoglobulins and lymphocytes.

Faster Wound Healing—Laser light stimulates fibroblast development. Fibroblasts produce collagen, which is predominant in wound healing in damaged tissue. Collagen is the essential protein required to replace old tissue or to repair tissue injuries. As a result, Laser Therapy is effective on open wounds and burns.
Frequently Asked Questions

1. **How does it work?** Class IV lasers send photons, or packets of light energy, deep into tissue without damaging it. This light energy stimulates the mitochondria in cells to produce ATP. ATP is the fuel that cells need for repair and rejuvenation. Impaired or damaged cells do not make ATP at optimal levels. During each painless treatment, laser energy increases circulation, drawing water, oxygen and nutrients to the damaged area. As the injured area returns to normal, function is restored and pain is relieved.

2. **How often should a patient be treated?** The number of treatments will depend on the condition being treated, age and overall health status of the patient, among other factors. For some acute conditions, one to two treatments may be sufficient. In general, acute conditions will be treated more frequently, sometimes as often as once daily if the patient has significant pain, and require fewer visits. More chronic problems respond better when treatments are received two to three times a week, tapering to once every week or two as improvement is noted, then maintenance treatment as needed. The effects of Laser treatments are cumulative.

3. **When can I expect to see an improvement? What might I see?** You may see relief in the first treatment or so as pain and inflammation are reduced. For example: better mobility for joint conditions, drying and healing of skin, faster healing for wounds and incisions, or your pet just seeming more relaxed and comfortable. For some conditions, a series of treatments may be needed before you see results due to the severity or complexity of the condition. Each pet is different, and treatments are tailored to your pet’s specific needs.

4. **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, acupuncture, chiropractic adjustments, massage, and with medications and herbal formulations. All other healing modalities are complementary and can be used with laser to increase the effectiveness of the treatment.

5. **Does it hurt? What does a treatment feel like?** Your pet will feel a gentle and soothing warmth. Many pets will relax during treatment, much like you would with a good massage. The almost immediate relief of pain will allow your pet to be comfortable and any anxiety that your pet initially experiences will decrease.

6. **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 symptoms may feel aggravated for a few days, as the healing response is more active after treatment.

7. **How long does each treatment take?** The typical treatment is three to eight minutes, depending upon the size of the area and number of areas being treated.
8. Are there any contraindications? Contraindications include the following: direct exposure of the eyes, directly over a pregnant animal’s uterus, over a cancerous tumor, and directly over thyroid tissue.

9. What can I expect at home? Often pets will exhibit renewed energy and freedom of movement. Consult your veterinarian before your pet returns to full activity. Patients may experience significant pain relief very quickly. A gradual re-introduction of activity may be suggested to ensure the patient does not aggravate the condition.

10. What can be treated with Laser Therapy? If your pet is feeling pain, has inflammation, or a wound, the laser is a sterile, pain-free, surgery-free, drug-free treatment.

- Osteoarthritis and Joint Pain
- Post-Orthopedic Surgical Recovery and Rehabilitation
- Infections (such as ears and anal glands)
- Ligament and Muscle Sprains
- Chronic Pain and Lameness
- Lick Granulomas
- Abscesses
- Tissue Trauma and Puncture Wounds
- Acute or Chronic Wounds
- Post-Surgical/Dental Pain
- Fractures
- Neuropathies
- Bladder Issues
- Burns and Hot Spots
- Neck and Back Pain (any joint)
- IVDD—Intervertebral Disk Disease
- Hip Dysplasia
- Mouth and Tooth Pain
- Inflammatory Bowel Disease
- Feline Acne/Eosinophilic granuloma complex
- Any acute or chronic condition
- Exotic pets can also be treated

Note: This list is not complete but illustrates the versatility of this modality. Laser Therapy is a healing modality that can benefit a large and varied number of patients on a daily basis.
Deep, soothing, laser therapy provides a drug-free option for enhanced patient care. It is extremely well tolerated by pets with no known side effects. Laser therapy can also decrease the need for surgery and medication. There is no need for sedation or clipping. It is quick to administer and owners can be present.

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.

To view a short educational video, visit www.cpvh.com/laser

Left: Gerry with Leia, post-surgery

Right: Leah with Sheena & Mr. Tindle

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