



Monroeville Pet Hospital
232 Center Road
Monroeville, PA 15146
412 372-1100

Laser Therapy Information

WHAT IS LASER THERAPY?

Laser therapy is the use of specific wavelength of light (red and near infrared) to tissues of the body, which relieves inflammation, increases blood supply and nutritional elements to the affected tissues while reducing swelling and pain. Simply put, veterinary laser therapy provides relief from pain.

Laser therapy is a noninvasive, drug free, surgery free, pain free treatment option. It is the only course of treatment which actually stimulates the body to heal from within (photobiomodulation).

Lasers produce a single wave length (monochromatic) beam of light, collimated as it is generated. Laser light has the property of being coherent, or in phase, which in simple term means it is uniform and very orderly light. Class IV laser therapy uses a simple beam of light to penetrate into tissues and produce positive tissue changes. It was FDA approved in the USA in 2005 for use in humans and animals

LASER THERAPEUTIC EFFECTS

During each painless treatment laser energy increases circulation, drawing water, oxygen and nutrients to the damaged areas. 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.

CELLULAR EFFECTS OF LASER THERAPY

During laser therapy treatment the infrared laser light interacts with tissues on a cellular level, metabolic activity increases within the cell, improving the transport



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of nutrients across cell membranes. This initiates the increase production of cellular energy (ATP) and leads to cascade of beneficial effects, increasing cellular function and health.

BENEFITS OF LASER THERAPY

Laser therapy can reduce pain, swelling, inflammation, and increase range of motion. It reduces the formation of scar tissue, promotes accelerated tissue repair and growth, and improves vascular and metabolic activity of damaged tissue. Laser therapy stimulates muscle trigger and acupuncture points to provide musculoskeletal pain relief and has the ability to optimize action and reduce nerve pain.

A SMALL LIST OF CONDITIONS THAT LASER THERAPY CAN HELP WITH:

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| Osteoarthritis | Burns |
| Hip dysplasia | Otitis (ear infections) |
| Muscle sprains | Lick granulomas |
| Ligament Sprains | Dermatological problems |
| Neck and back pain | Cystitis (bladder inflammation) |
| Wound healing | Insect Bites and stings |
| Post surgical pain relief and increased healing | |
| And much much more..... | |

It has been shown again and again that pain impairs healing and, more importantly, is inhumane. We place utmost importance on your pets' comfort and well-being.

If your pet has limited mobility or suffers from chronic pain, laser therapy might help. Please ask or veterinary staff if laser therapy can help your pet.



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Frequently asked questions

What happens during a laser treatment?

Each session usually takes 10-15 minutes to complete, depending on the number areas treated. The therapy is performed by specially trained veterinary technicians. You are encouraged to stay with your pet during the treatment. The laser operator uses hand held probes to apply the laser energy to the targeted areas, using scanning, grid-like pattern. The laser unit makes a beeping sound, lower than a normal conversation volume, to indicate laser operation and the transition between phases of continuous or pulsing energy.

Because the treatment is painless, anesthesia or sedation are not required, thus avoiding the associated risk and expense. Pets may go home immediately after treatment.

What does it feel like?

The treatment is entirely pain free. Your pet may feel just the sensation of the probe moving against their fur coat or skin and/or a warm or tingling sensation over the treated area.

Will my pet have to have his/her fur shaved for the treatment?

The laser light is absorbed by the pigmentation in the dark skin and coat and may be scattered by the presence of hair in the treated area. In addition, the very dense coats may limit the contact of the laser probe with the skin. The veterinarian may recommend the treatment area be shaved for these reasons and to better define the treatment locations for future therapies.

How many treatments will my pet need?

Because laser therapy is cumulative in nature, usually a series of visits are required to get the greatest results especially with chronic conditions. Very often the treatments are performed on a "3-2-1" schedule. Three treatments the first week, two treatments the second week, and one in the third week. After this initial series is completed it may be necessary to bring your pet back for booster treatments depending on your pet's response.

How soon will my pet feel relief?

Despite of the fact that laser therapy is cumulative majority of patients show greater comfort and mobility 12-24 hours after treatment.

Is it really safe?

The FDA approved class IV laser therapy for use in humans and animals. It is painless, non invasive, and non addictive. Monroeville Pet Hospital takes appropriate precautions and



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provides specialized eyewear to protect the eyes of the viewer, operator and patient. Companion Laser Therapy, the company who designed the therapy laser we use in our practice, has had no known complications or adverse effects with the use of the laser.

Are there any contraindications?

Most contraindications for laser therapy are based on prudence rather than clinical data. Treatment of malignancy, thymus or thyroid glands, testicles, pregnancy, and active hemorrhage are historical contraindications. Treatment after use of photosensitizing medications should be avoided.

Tell me more about the science behind the treatment?

Infrared laser light interacts with the tissues on a cellular level, increasing metabolic activity within the cells and improving transport of nutrients across cell membrane. This initializes the increased production of cellular energy that leads to a cascade of beneficial effects, increasing cellular function and health.

As the photons of laser light penetrate deeply in the tissue, the energy available to individual cells increases. With more energy available, the cells are able to speed the process of absorbing nutrients and flushing out the waste products, thus accelerating the growth and healing of the tissue. Exposure to the laser light helps repair tendons, ligaments and muscles.

Laser light also stimulates the development of fibroblasts, the building of collagen, the essential protein required to replace old tissue or repair tissue injuries. This is why it is helpful in treating tissue damage from cuts, scratches, burns or surgery.

Is radiation from the laser therapy safe?

The electromagnetic spectrum describes the entire range of radiation from gamma rays to radio waves. All forms of light, including laser light, emit radiation. As with visual light, excessive exposure to laser light can be detrimental. It is widely accepted that laser light poses the greatest risk to the eyes and secondarily, to the skin, of living beings. Laser light is non-ionizing form of radiation. Radiation that has enough energy to move atoms in a molecule around or cause them to vibrate, but not enough to remove electrons, is referred to as non-ionizing radiation. Other examples of this kind of radiation are sound waves, visible light, and microwaves. Laser therapy is performed in relatively short time frames as not to expose pets and operators for long periods of time. Appropriate eyewear is worn to prevent any corneal damage, and the small beam of light emitted from the laser is always directed away from any non-treated areas.