

## LASER THERAPY



Laser therapy is an innovative treatment that has gained popularity in recent years as veterinarians discover its benefits for pets. Laser treatment can be used in conjunction with or in place of medication to manage pain, inflammation, and wound healing.

“Laser”—an acronym for “light amplification of stimulated emission of radiation”—refers to a unit that emits focused, penetrating light beams.

### *How does laser therapy work?*

Therapeutic lasers use light waves of a specific wavelength to cause photobiomodulation, or the alteration of cellular and tissue physiology. Light absorbed by cellular components stimulates electrons and activates cells to promote growth, proliferation, migration, and repair. What that means is we use a special light that penetrates the skin and tissue that helps open up blood flow to the area. The bottom line is it helps to accelerate the body's natural healing process.

This type of laser therapy is sometimes referred to as cold laser therapy to distinguish it from surgical lasers, which use much higher frequencies to penetrate and reach deeper tissue. Laser therapy is non-invasive, which means there's no need to cut into your pet. Instead, your veterinarian simply shines a low-frequency laser beam over the surface of the skin and fur to treat the tissue beneath the surface.

### *Laser therapy helps tissue repair by causing the following:*

- Endorphin release
- Vasodilation, which increases blood flow to bring in oxygen and cells involved in the healing process
- Muscle relaxation
- Decreased inflammation
- Faster healing and repair

The main clinical benefits of laser use in pets include decreased inflammation, decreased pain, and improved wound healing.

### *Who can benefit from laser therapy?*

Laser therapy is used for many veterinary medical conditions, including:

- Osteoarthritis and joint pain
- Post-surgical nerve tissue repair
- Tendon and ligament injuries
- Acute, traumatic and chronic injuries
- Sprained or strained muscles
- Spinal disc swelling & Musculoskeletal issues

Laser therapy is particularly useful for pets with limited medical treatment options, such as:

- Pets with liver disease who cannot take medications
- Cats, for whom only a few pain-control medications are approved
- Exotic pets for whom medication administration is difficult or impossible
- Older pets with diminished organ function

### *How are laser treatments administered?*

During a treatment session, the handheld laser wand is slowly moved back and forth over the damaged tissue, producing a warm, pleasant sensation that most pets seem to enjoy and find relaxing. Sessions usually last 15 to 30 minutes, with the number of sessions and frequency of treatments dependent on the injury. Chronic conditions may be treated weekly, whereas surgical incisions and open wounds often require daily treatment.

### *How many laser therapy sessions will my pet need?*

It depends, the frequency and length of therapy is tailored to the pet's unique condition & response to treatment. Often arthritic patients may start with 1 -2 sessions per week for a month. As they improve the sessions decrease in frequency and are then administered on a as needed basis. In other cases, such as a non-surgical wound closure the pet may be seen for laser treatments every other day for several weeks.

### *Is laser therapy safe for pets?*

Laser therapy is safe if performed correctly, using the proper settings and treatment durations. Higher-powered units can cause thermal burns to tissues if used incorrectly. Also, laser beams directed at an eye can cause permanent retinal damage, so patients and all veterinary staff must wear protective goggles during treatment.