

What is Therapeutic Laser?

Laser is light therapy. The effects of low-level therapeutic laser (LLTL) are non-thermal. It can also be known as 'cold laser'

Laser stands for:

Light

Amplification

Stimulated

Emission of

Radiation

How does it work?

Therapeutic laser uses light energy to affect cells in the body through photobiomodulation (PBM). Both red (visible) light and infra-red (invisible) light are within the therapeutic spectrum of light. When applied to the body, cell proliferation and activity are modulated, and a series of physiological responses ensue.

All 3 stages of the healing process can be augmented using the effects of PBM

Bleeding and inflammation: Cells are attracted to the area to start cleaning debris and also to stimulate fibroblasts which produce the proteins of repair.

Proliferation stage – repair and regeneration occur. Oxygen is brought to the area by the stimulation of capillary buds.

Within a few days fibroblasts start to form collagen substances. These protein fibres are laid down and form scar tissue.

The remodelling stage – maturation. The fibres start to align themselves. It may take several months for the scar to fully mature and achieve its full strength.

What are the therapeutic effects of Laser?

In injured tissue there is reduced oxygen levels, low pH and poor nutritional status, which hinder the repair process.

Healing:

- Light energy signals an increase cell proliferation and motility.
- Stimulates the production of blood vessels, collagen synthesis and growth factor
- Speeds up the repair phase of tissue healing.

Pain relief:

- Suppression of nociceptor C-fibre (pain fibre) activity
- Elevates the levels of endorphin - a naturally occurring pain relief substance in the body
- Increased serotonin
- Can be used over acupuncture points for pain relief

Laser can be used to treat:

- Joint pain / arthritis
- Acute soft tissue injury / inflammation
- Chronic tendinopathies
- Trigger points and muscular soreness

Many conditions will benefit:

- Arthritis
- Elbow & Hip dysplasia
- Joint pain
- Spinal pain
- Ligament & muscle injuries
- After surgery for healing

Are there any side effects?

- There are NO side effects.
- It is a safe and scientifically proven therapy.
- It is quick and simple to apply

Laser is safe with:

Pins, metal plates, plastic implants
Growth plates, immature dogs &
Pacemakers

Laser cannot be used:

Over pregnant uterus
Over active neoplasm (cancer)
Directly in the eye

Caution must be taken in dogs with:

Epilepsy
Infection
Thyroid problems
Those who are having steroid injections

Other leaflets available:

- Degenerative Joint Disease (Arthritis)
- Fibro cartilaginous embolism
- Intervertebral Disc Disease (IVDD)
- Cranial Cruciate Ligament injury / Repair
- Femoral head and neck excision
- Hip dysplasia
- Elbow dysplasia

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Veterinary Physiotherapy
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What is Therapeutic
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