

## Laser Therapy

### What is Low Level Laser Therapy?

Low Level Laser Therapy, commonly known as LLLT, is a form of phototherapy which involves the application of low power monochromatic and coherent light to injuries to stimulate healing. It is a cold laser treatment and therefore very safe. More commonly known in the USA, UK and Europe, LLLT is now becoming an important aspect of equine rehabilitation in Australia and New Zealand.

### What is LLLT used for?

LLLT is used to increase the speed, quality and tensile strength of tissue repair, resolve inflammation and provide pain relief. It is an attractive form of treatment for equine athletes, due to the prospect of shorter recovery times. The portability of the laser system enables treatment to be carried out in field locations, allowing the effective treatment of equine sports injuries, such as muscle tears, haematomas, capped hocks, splints, sore shins, bowed tendons, wounds, tendon and ligament injuries.

### How does it work?

Light energy enters the damaged tissue and gets absorbed by the cells. It is then converted to chemical energy causing changes in physiology such as:-

- Increased micro-circulation of lymphatic and vascular activity which reduces swelling
- Acceleration of fibroblast development in damaged tissue leading to faster healing in wounds
- Stimulation of bone and cartilage regeneration
- Increased tensile strength of tissue repair
- Reduction in inflammation and pain
- Reduction in the formation of scar tissue
- Stimulation of nerve function

### How does it reduce recovery time?

Essentially toxins are a by-product of the normal inflammatory response a horse endures when it is injured. These toxins can irritate the nerve endings causing pain and can become trapped in the cells of the damaged tissue, delaying healing. LLLT can help release these toxins by creating a change within the cells, thereby speeding up recovery time.

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### Bibliography

1. Jenkins, Peter [www.spectravet.com](http://www.spectravet.com) Australia
2. Richardson, Heidi (Equine Rehabilitation) [www.horsewell.co.nz](http://www.horsewell.co.nz) , New Zealand