



## **THERALASE™ COLD LASER THERAPY**

**What is a therapeutic/cold laser? And how does it differ from surgical/hot lasers?**

**What is Low Level Laser Therapy (LLLT)?**

Low Level Laser Therapy (LLLT) is the use of therapeutic (or cold) laser light to provide relief from pain, eliminate inflammation (swelling) or to repair damaged tissues. LLLT is entirely non-invasive and has a wide range of applications, from neural muscular skeletal conditions to wound healing to acupuncture treatments. Rather than destroying tissue, as with surgical (or hot) lasers, LLLT uses low intensity laser light energy to stimulate cells through a number of known cellular pathways in order to encourage tissue healing.

**How Low Level Laser Therapy (LLLT) Works**

- Laser light is delivered in the therapeutic window by monochromatic laser light in wavelengths ranging from 600 to 950 nm
- Light particles also known as photons penetrate up to 10 cm into tissue
- Photons are absorbed by electrons in photosensitive compounds, known as chromophores and cytochromes residing in the mitochondria increasing the rate of Adenosine Tri-Phosphate (ATP) production. ATP is the basic food source of cells derived from the phosphorylation of glucose in the mitochondria.
- ATP fuels the cells and actuates the healing process - more ATP equals faster healing

**Benefits of LLLT**

- Drug free, non-toxic and non-invasive
- Extremely safe and virtually painless
- Easy to apply with no side effects
- Cost effective for practitioner and patient
- Highly effective for patient (>90% efficacy)