

What is Laser Therapy?

Laser therapy is based on the use of monochromatic light. The light source is placed in contact with the skin allowing the photon energy to penetrate tissue, where it interacts with cells resulting in the restoration of normal cell function. This also enhances the body's natural healing processes.

The Technology

This technology utilizes superluminous and laser diodes to deliver photons to abnormal tissue. These are particles of energy that are absorbed by a variety of micro-molecules within the cell. In essence, light energy is converted into biochemical energy. The result is that normal cell function is restored.

Light in its various forms has been used for healing from the time of the ancient Egyptian and Greek civilizations. With recent advances in the engineering of devices and the development of appropriate protocols for effective therapeutic application, dramatic benefits and treatment of many complex medical conditions are achievable. The BioFlex System combines numerous sophisticated engineering advances with the capacity to control all parameters such as frequency, duty cycle, energy density, duration, etc. An infinitive range of protocols can then be delivered to tissue in standard fashion or a customized basis.

The monochromatic coherent and polarized characteristics of the therapeutic light beam permit penetration of deep tissues without affecting normal cells.

The Advantages of Low Intensity Laser Therapy

- Non-invasive
- Non-toxic
- Highly effective
- Virtually no side effects

Some of the physiological effects of low intensity laser therapy

Short Term Effects

- Production and release of beta-endorphins (these are morphine like substances produced by various cells in the body that inhibit the sensation of pain)
- Cortisol production is increased (cortisol is the precursor of cortisone). This enables the body to combat the stress associated with trauma or the disease process
- The short-term effect is significant in 5-10% of cases during or after the conclusion of the initial treatment, but is not as important as the long term or cumulative effect

Long Term Or Cumulative Effects

- ATP (adenosine triphosphate) production is increased resulting in improved cellular metabolism
- DNA (deoxyribonucleic acid) production; protein building block of tissue is substantially increased
- Neurotransmission is facilitated due to elevated levels of serotonin and acetylcholine
- Mitochondrial activity is stimulated resulting in cell replication etc. (i.e. replacement, regeneration and repair of abnormal cells)
- Modulation of macrophages, fibroblasts and other cells
- Angiogenesis (formation of new blood vessels)
- Regulates cell membrane potential, essential in Na, Cl and K ion transfer (electrolyte balance)
- Cytokines and other chemicals enhancing cellular communications are released

Other Effects

- The body's natural healing processes are enhanced by stimulating the immune system
- Lymphatic drainage is improved
- The histamine response is positively altered
- Production of growth hormone is increased
- The beneficial physiological changes noted above are the result of tissue regeneration and cellular stimulation

**FOR MORE INFORMATION CONTACT WINNIPEG PAIN TREATMENT CENTRE – (204) 254-7246
OR VISIT OUR WEBSITE - www.winnipegpaintreatmentcentre.com**