



## **Laser Therapy New to Haldimand and Norfolk**

Chronic Pain can be both physically debilitating and disruptive to one's relationships with friends and loved ones. According to the Massachusetts Institute of Technology magazine (November 2003), more than 50 million North Americans experience chronic pain. More than one third of North American adults suffer from some form of joint disease and in addition 2.5 million North Americans are afflicted with rheumatoid arthritis.

The word laser is acronym for Light Amplification by Stimulated Emission of Radiation. Its development began in Bulgaria, the former Soviet Union and Japan, where there was a need to demonstrate world superiority in front of Olympic audiences. This technology was only recently studied and developed in the 1980's in western society. Laser therapy involves the use of low intensity laser diodes (250 milliwatts or less) or an array of high intensity super luminous diodes (1 000 milliwatts range). Laser light is both hi power and tremendously accurate, making it highly valued in medical applications.

Light energy (photons) delivered by the laser is absorbed by cellular tissues (muscle, bone, nerve and other tissues) and transformed into biochemical energy which in turn is used to restore normal cellular function (enhancement of the healing process). The effects of laser cause an increased production of the bodies natural combatment of pain (endorphins and cortisol precursor to cortisone), improved circulation, enhancement of cell function and the increased synthesis of DNA and proteins (which lead to new cell formation. This all leads to healing by providing the respective tissues with an environment that promotes accelerated healing.

The BioFlex Low Intensity Laser system was developed in Canada by Dr. Fred Kahn, M.D. with the assistance of Dr. Tiina Karu of the Russian Academy of Sciences with a research grant provided by the Canadian government. This innovative system was only recently approved by the United States Food and Drug Agency (FDA) in June 2003 BioFlex uses the advancements in laser technology with accurate computer control to deliver therapy in a non-toxic, non-invasive, pain free manner. This provides patients with an alternative to over the counter medications and prescription drugs (some of which patients can not take due to ulcers and other intestinal track difficulties). Treatment protocols have been developed through years of research to accurately and effectively treat conditions. Each treatment is divided into stages where the doctor uses red and infrared(light not visible to the human eye) lasers. The final stage of treatment utilizes a pistol type laser featuring a safety interlock mechanism, which requires the head to be in contact with skin before activation can occur. Computer software allows the clinician to customize treatments to patients based on age, skin color and body density. Most treatments require 30 to 40 minutes with areas such as low back and hip joint requiring approximately an hour and twenty minutes.

Low Intensity Laser therapy (LILT) is an effective treatment for musculoskeletal injuries, chronic and degenerative conditions and in wound healing. Currently the Toronto Raptors basketball franchise and the Toronto Maple Leafs utilize the BioFlex system in the management of their athletic injuries. Studies have shown Inflammatory conditions such as tendonitis, bursitis and rheumatoid arthritis respond well to laser care. Degenerative disorders such osteoarthritis, bone spurs and spinal disorders leading to leg and arm pain can be effectively treated in a safe and comfortable manner without eliciting pain. Patients can read or listen to music while being treated. Scientific advancements continue to provide patients with opportunities at improving their health and an increased likelihood that the will be able to return to normal activities of daily living after experiencing difficulties with their health. Low Intensity Laser therapy provides a safe, non-toxic alternative for patients who have not responded to other treatment options. The BioFlex laser system allows doctors to treat the cause of and not just modulate symptoms.

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