

Laser Therapeutic Effects



During each painless treatment, laser energy increases circulation, drawing water, oxygen and nutrients to the damaged area, creating an optimal healing environment that reduces inflammation, swelling, muscle spasms, stiffness and pain. Function is restored and pain is relieved as the injured area returns to homeostasis.

Clinical studies and research using laser therapy technology indicate the following beneficial effects of laser therapy on tissues and cells.

- Anti-Inflammation
- Anti-Pain (Analgesic)
- Accelerated Tissue Repair and Cell Growth
- Immunoregulation
- Improved Nerve Function
- Improved Vascular Activity
- Increased Metabolic Activity
- Reduced Fibrous Tissue Formation (scars)
- Trigger Points and Acupuncture Points
- Faster Wound Healing

Biological Effects of the Laser in Detail

- ✓ **Anti-Inflammation.** Laser therapy has an anti-edema effect, causing vasodilation, activation of the lymphatic drainage system (drains swollen areas). Thus, resulting in the reduction of swelling from bruising or inflammation.
- ✓ **Anti-Pain (Analgesic).** Laser therapy has highly beneficial effects on nerve cells, blocking pain signals transmitted to the brain, decreasing nerve sensitivity and inflammation. Less edema, less pain. Production of pain killing chemicals such as endorphins and enkephalins from the brain and adrenal gland are increased.
- ✓ **Accelerated Tissue Repair and Cell Growth.** Photons of light from lasers penetrate deeply into tissue accelerating cellular reproduction/growth. Laser light increases the intake ability of the cells enabling quicker absorption of nutrients while eliminating waste products.
- ✓ **Immunoregulation.** Laser light has a direct effect on immunity status by stimulation of immunoglobulin and lymphocytes. Laser Therapy is absorbed by chromophores (molecule enzymes) that react to laser light. The enzyme flavomononucleotide is activated, enabling production of ATP (adenosine triphosphate), a major carrier of cell energy and the energy source for all chemical reactions in the cells.
- ✓ **Improved Nerve Function.** Laser light increases the process of nerve cell reconnection. Increases the amplitude of action potentials, the human body's own mechanisms of actions to optimize nerve regeneration.
- ✓ **Improved Vascular Activity.** Laser light significantly increases formation of new capillaries in damaged tissue, accelerating the healing process while reducing scar tissue. Acceleration of angiogenesis, causing temporary vasodilation, an increase in the diameter of blood vessels.
- ✓ **Increased Metabolic Activity.** Laser therapy creates increased output of specific enzymes and increased oxygen for blood cells.
- ✓ **Reduced Fibrous Tissue Formation (Scars).** Laser therapy reduces the formation of scar tissue following tissue damage from cuts, scratches, burns, surgery and much more.
- ✓ **Trigger Points and Acupuncture Points.** Laser therapy dramatically stimulates muscle trigger points / acupuncture points non-invasively providing musculoskeletal pain relief.