Animal LED Therapy

Many studies have reported great results with LED therapy for the following equine and canine concerns:

General: Arthritis pain, bursitis, bruising, burns, edema, deep muscle problems, hematomas, inflammation, tight or sore muscles and infections.

Hoof Problems: Abscesses, bone spurs, inflammation, navicular (distal sesamoid bone), ringbone and laminitis.

Leg and Body: Ankle problems, bone chips, hock problems, inflammation, ligament soreness, tendon problems, sore backs, splints, strains, stifle issues, sprains, swelling, shoulder pain, hip pain, sore backs, sore necks, salivary gland problems, wounds, cuts, scrapes and for stimulating trigger points and acupuncture points.

But how does it work and why?
We found many impressive studies that included the following:

**The LEDs at specific wavelengths are reported to increase circulation by increasing the formation of new capillaries. New capillaries speed up the healing process by carrying more oxygen as well as more nutrients needed for healing and they can also carry more waste products away.

**Collagen is the most common protein found in the body and the essential protein used to repair damaged tissue and to replace old tissue. Studies cite that LEDs stimulate the production of collagen. It has been reported that by increasing collagen production, less scar tissue is formed at the damaged site.

**LED therapy is reported to stimulate the release of adenosine triphosphate (ATP). ATP is the major carrier of energy to all cells and provides the chemical energy that drives the chemical reaction of the cell. Increases in ATP allow cells to use nutrients faster and get rid of waste products faster by increasing the energy level in the cell.

**Increases lymphatic system activity. Edema has two basic components, liquid and protein. Research has shown that the lymph vessel diameter and the flow of the lymph system can be doubled with the use of light therapy. This means that both parts of edema can be eliminated at a much faster rate to relieve swelling.

**Reduces the excitability of nervous tissue. The light energy stimulates the release of endorphins which are the body's own long term pain fighting chemicals.

**May improve peripheral neuropathies by stimulating nitric oxide production.

**Increases RNA and DNA synthesis which helps damaged cells to be replaced more quickly.

**Increases the process of scavenging for and ingesting dead or degenerated cells by phagocyte cells for the purpose of clean up. This is an important part of the infection fighting process. Destruction of the infection and clean up must occur before the healing process can take place.

**Stimulates fibroblastic activity that aids in the repair process. Fibroblasts are present in connective tissue and are capable of forming collagen fibers.*

**Stimulates tissue granulation and connective tissue projections, part of the healing process.

**Stimulates trigger and acupuncture points.

**Helps relax muscles.

We have found no reports of adverse side effects regarding LED therapy. It is repeatedly reported that when the cell is "reenergized" it accepts no more energy, so you cannot cause harm and it is reported to have no effect on healthy tissue. The body will not absorb what it cannot use. Caution is urged for those taking photosensitive drugs. Please do not use on pregnant mares unless you are being advised by a veterinarian who is familiar with light therapy, we have found no studies citing use on pregnant mares.
We have been told that a temporary increase in pain or discomfort may be observed after treating chronic conditions. When we began using our first prototype, I was fortunate to speak with a trainer of racehorses who started using light therapy back in the mid '80s. He said," If he gets sore, don't stop, that means it's working." He uses light therapy not only for injuries, but as a regular part of his daily training program.