Step Into the Light:
The Healing Effects of Light and Laser Phototherapy

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You may have been hearing or reading more in the news about a rapidly advancing treatment for injuries and tissue repair called laser or light therapy, but not sure what it is or who is performing this treatment. Light therapy is not a new concept, it has been utilized for several years in Europe, South America, and Asia, but didn't receive FDA approval until February 2002 initially for treatment of carpal tunnel syndrome. Since then over 2,300 published studies have been produced with significantly positive results for treatment of disc herniations, inflammatory conditions such as plantar fasciitis, tendonitis, bursitis, arthritis, TMJ, frozen shoulders, whiplash sprain/strain, fibromyalgia, and wound/burn injuries. Even top athletes are turning to this treatment in conjunction with other therapies, you may recall Lance Armstrong, last year involved in a bad bicycle race. He received cold laser treatments and was able to race the next day. According to Lance's chiropractor, if an injured athlete can get a light therapy treatment within 2-3 hours of injury, rehabilitation time can be cut in half.

Currently, physical therapists, chiropractors, MDs, and acupuncturists are using light therapy to facilitate recovery of injuries and wound healing in their practices. How does light/laser therapy work? Light/laser therapy is based on photochemical and photobiological effects of cells and tissues. By absorbing light, cell functions are stimulated to produce increased amounts of ATP (energy) to increase cell metabolism, collagen synthesis, increase formation of capillaries (improved blood flow), decrease inflammation, and DNA to repair/regenerate cell/tissue components. The result is a dramatic reduction in pain, increased range of motion, healing of wounds/burns in much less time than with just conventional treatment alone. Each of our cells function at 630-640nM, the wavelength of red/infrared light falls within this range which is the most commonly used light/laser used. Therapeutic range 600-1000nM light to promote tissue repair and modulate pain. The light source does not have to be a laser to have a therapeutic effect, just of the correct wavelength. Most conditions are treated at a small dose 3-6 J/cm2, 2-3 times per week with a total of 8-10 visits, with most patients noting rapid improvement in 3-5 visits. Light therapy can be used with total joint replacement, as they do not produce heat, and persons with defibrillators or pacemakers. The only contraindications are over the uterus during pregnancy, of the thyroid, eyes, in presence of malignancies, or persons with increased photosensitivity. Treatments are usually less than five minutes in duration, but are all accompanied with traction (disc herniations), manual therapies, and therapeutic exercises. Talk to your physician, physical therapist, or chiropractor to see if this new treatment would be beneficial for you.