



Body Awareness

Physical Therapy

The Body Beat

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Light Therapy Works!

How is it that some of the best things in life are discovered by accident? That is just how light therapy was discovered by physical therapy. Light therapy emanated following the invention of the laser in the 1960's. Preliminary low energy laser research investigated the use of lasers for the treatment of cancer in animals. The low energy laser was ineffective in the treatment of cancer, however, the researchers observed faster healing of the incisions in the experimental animals that were treated with laser therapy. This sparked a whole new area of research in which these low energy lasers were tested for the treatment of wounds, ulcers,

and skin defects. In the following decades, light therapy has grown to become a very popular treatment for musculoskeletal disorders in physical therapy. So, why is it that you have not heard of light therapy? That is because the United States initially reserved the use of light therapy for experimental purposes. But, following further research the Food and Drug Administration (FDA) has approved light therapy as a safe and effective modality for use in the United States. Light therapy is painfree and non-invasive, and it can easily be integrated into a patient's treatment program. Light therapy is helpful for multiple conditions, some of which include, rheumatoid arthritis,

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osteoarthritis, soft tissue injury, postoperative pain, inflammatory conditions, wound healing, fibromyalgia, and pain management. In fact, light therapy has a promising future in the treatment of inflammation, especially since the medical community has been questioning the side effects of Vioxx and other anti-inflammatory drugs. Most patients are appropriate for this treatment as there are very few side effects and complications. In fact, we have observed excellent results in the patients we have treated with light therapy.

Q'N'A

Your questions answered by the Licensed Physical Therapists of Body Awareness Physical Therapy.

Q: How does light therapy work?

A: Light therapy is a useful modality because it utilizes energy from light to promote tissue healing and pain reduction. Research confirms that light therapy is effective in the management of musculoskeletal disorders. However, the mechanism by which light therapy works is still theoretical. The more plausible theory is based on the idea that light energy, in the form of photons, is absorbed by chromophores in the cell membrane and the mitochondria (a part of the cell that acts as a powerhouse and generator of useful energy). The mitochondria are the major producers of adenosine triphosphate (ATP), which is the primary form of energy that is used to fuel the metabolic processes of the body. Consequently, the

increased ATP production leads to increased cell proliferation, tissue repair, and pain control.

Q: How long does it take for tissues to heal following an injury?

A: Multiple factors influence the rate at which tissues heal, however, some general guidelines are that inflammation follows the initial injury for approximately 24-48 hours. The cells then begin to proliferate for a minimum of 21 days. New tissue is then formed, most of the time completing in 2 months, but possibly taking up to 2 years. Bone usually heals in 6 weeks, meanwhile the softer tissues (such as ligaments, muscles, and tendons) usually take anywhere from 6-12 weeks.

BODY AWARENESS GRADUATE OF THE MONTH

Graduate of the Month: Mark Gauthier

Mark entered physical therapy with a complete tear of his Anterior Cruciate Ligament (ACL) and chose rehab rather than surgery. He made a successful recovery and is now playing competitive soccer once again.-Chrissie Morgan PT



"Thanks for helping me return to soccer! Your staff was courteous, friendly, and helpful. I know that when I get injured again (not if) I will return to Body Awareness for physical therapy."

-Mark Gauthier

Community Corner

Vioxx is off the market, what should you do now?

Merck and Company, the manufacturers of Vioxx, has taken Vioxx off the market due to some concerns with the side effects. A large clinical trial shows that long term use of Vioxx doubles a person's risk of a heart attack or stroke. Drugs similar to Vioxx, such as Celebrex and Bextra, are now in question as to their safety because all of these drugs work by the same mechanism. However, these drugs do have different chemical make-ups and may not pose a cardiovascular risk. Currently, several studies are investigating the safety of Celebrex and Bextra.

So, what can you do if you have been taking Vioxx?

First of all, you should consult your physician to see what course of action should be taken regarding your medications. Many physicians have been changing their patient's medications to either Celebrex, Bextra, Ibuprofen, Naproxen, or Mobic. Another means of controlling inflammation is utilization of physical therapy. Physical therapy can minimize inflammation by means of physical medicine or the use of modalities. Some of these modalities may include ice, electrical stimulation, ultrasound, phonophoresis, iontophoresis, or light therapy. Patients are urged to consult with their physician or physical therapist regarding treatment possibilities.

Win a pair of movie passes!

The first five people who call in and give us the correct number of times the phrase "light therapy" is used in this newsletter will win a pair of movie passes. Call now!

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Healthy Hints

How to minimize muscle cramps and spasms:

- Drink plenty of water: a minimum of 8, 8 ounce glasses per day.
- Eat balanced meals and consume the necessary vitamins and minerals.
- Stretch regularly. You should stretch daily, and if you maintain one position for more than 30 minutes, you should take a break at least every 20 minutes to move around and stretch.
- If you are returning to a previous activity or starting a new activity, then progress slowly.