

LUMINOUS LIGHT THERAPY



How Your Red LED Therapy Helps with Pain

1. Rotator Cuff

Red Light Therapy uses red and infrared light wavelengths which have been proven in scientific and clinical study to break down inflammation and stimulate a normal tissue healing response. The aim is that the inflammation of the rotator cuff tendon which has been stuck, is effectively resolved, and is replaced by tissue repair, painlessly, effectively, and completely safe.

2. Fibromyalgia

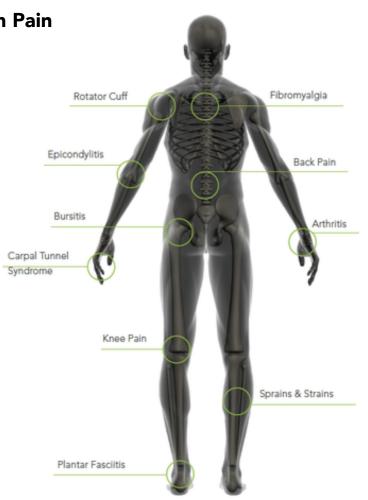
It is known that individuals with fibromyalgia have a decrease in microcirculation at their tender point areas. Therefore, there may be a decrease in oxygen, such that pain arises due to hypoxia. Red Light Therapy stimulates the local release of nitric oxide, which is a vasodilator, thus, restoring balance in blood flow by increasing oxygen to the area. Red Light Therapy effectively decreases the pain commonly arising in joints from fibromyalgia, and in turn, restores the ability to carry out desirable activities of daily living.

3. Epicondylitis

Lateral epicondylitis is characterized by pain and tenderness over the lateral elbow, which may also result in reduction in grip strength and impairment in physical function. Red Light Therapy has been shown effective in its therapeutic effects in tissue healing and pain control. Red light therapy alleviates chronic inflammation by increasing blood flow to the damaged tissues, and it has been found in many clinical trials to increase the body's antioxidant defenses.

4. Back Pain

Red Light Therapy reduces the acute inflammatory response and supports muscle recovery on a cellular level by activating myosatellite cells. These are stem cells that are contained within muscle tissue and are involved in muscle growth and repair. Myosatellite cells activate in response to muscle strain caused by injury or strenuous exercise. Normally inactive, these precursors to healthy muscle cells mobilize at the site of an injury and transform into fully functional muscle cells to quickly rebuild muscle.





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How Your Red LED Therapy Helps with Pain (continued)

5. Bursitis

By improving circulation and increasing cellular repair functions Red Light Therapy supplies an environment for your body's own natural healing processes to be activated and restored. Once normal immune processes are restored, the excessive inflammation is reduced, and healing can begin. Red Light Therapy has a powerful anti-inflammatory effect as well as a healing effect on inflamed bursae and surrounding inflamed soft tissues.

6. Carpal Tunnel Syndrome

Red Light Therapy works by using photo biomodulation to reduce inflammation, reducing oxidative stress, and boosting cellular health. These effects can help restore damaged medial nerves to full function and combat carpal tunnel syndrome.

7. Arthritis

The first major symptom of arthritis is pain, often excruciating and debilitating as the condition progresses. Numerous studies have shown that Red Light Therapy can profoundly help people with osteoarthritis (often called just "arthritis"). Red Light Therapy works by increasing natural energy (ATP) production in joint cells, which helps to reduce inflammation and normalize the joints biology and function.

8. Knee Pain

Red light reduces inflammation by stimulating cellular repair and regeneration. NIR light absorbs deep into the body's tissues to reduce inflammation in knees and other joints affected by arthritis.

9. Sprains and Strains

Red Light Therapy works by increasing blood flow and stimulating cell regeneration. These devices help the mitochondria in muscular cells complete their respiration cycle more efficiently, which makes the muscles suffer less fatigue. Improving the mitochondrial respiration cycle leads to better activation and formation of the muscle stem cells that eventually develop into healthy muscle tissue. Red Light Therapy also reduces inflammation that damages cells and makes muscles sore.

10. Plantar Fasciitis

Red Light Therapy offers a painless, non-invasive, side-effect free alternative to relieve the debilitating pain of Plantar Fasciitis. When applied to an injured site, Red Light Therapy has been shown to stimulate healing and reduce pain by accelerating the speed, quality and strength of tissue repair and the reduction of inflammation.





Red Light Therapy Pre & Post Exercise/Training

There are two primary ways to use light therapy treatments along with exercise and training:

Red Light Therapy Before Exercise:

- May improve physical performance and enhance post-exercise recovery
- Promote better fatigue resistance in bouts of exercise or strength training programs
- Pre-conditioning with light therapy before exercise supports stronger muscle performance.
- Pre-exercise light therapy helps limit muscle damage and strain, which can negatively impact performance because of inflammation, soreness, and longer recovery times.
- Red Light Therapy increases muscle torque at the beginning of the exercise and maintains the levels of lactate after resistance exercise. Therefore, light therapy with these parameters can be utilized in rehabilitation to improve muscle performance.

Red Light Therapy After Exercise:

- You can use light therapy after an exercise session, or after every exercise session as a part of your training routine.
- Light therapy may speed the recovery process by accelerating your muscle adaptation to exercise.
- Light therapy helps the body process acute inflammation from working out.
- Natural Red and Near-Infrared light increases antioxidant activity in the body. Antioxidants are molecules that help protect cells from damage caused by oxidative stress. (Oxidative stress occurs when there is an imbalance between free radical production and antioxidants. This leads to the deterioration of cells.)
- Red Light Therapy penetrates the skin and stimulates antioxidants reducing the oxidative stress that comes with delayed onset muscle soreness.

Red Light Therapy, Muscle Cells and Performance:

- Red and NIR photons enter the cells and stimulate the production of a high-energy molecule called adenosine triphosphate (ATP), which energizes cells.
- More cellular energy equals better performance, much the same as you perform at your best when you are filled with energy.
- Peak cellular functioning is critical to overall health, a strong immune system, reduced inflammation, physical energy, and longevity.
- Light therapy treatments have several mechanisms of action on muscle cells, glycogen synthesis, oxidative stress reduction, protection against exercise induced-muscle damage, and the addition of new myonuclei supporting muscle hypertrophy.
- Light therapy supports healing and recovery by improving blood flow and oxygen availability.

