



HealthLight

Introduction to Light Therapy

Relief is Possible with HealthLight



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Introduction

Pain, muscle spasms, and aches disrupt the lives of millions people, inhibiting their mobility and freedom.



This pain often interferes with walking and many daily activities affecting the quality of life.

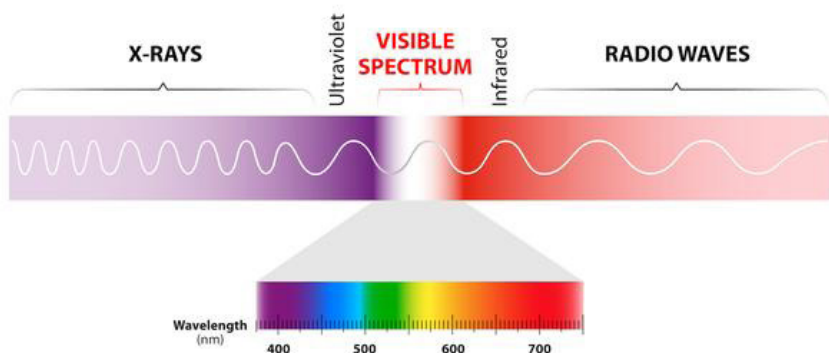
Light therapy has been proven to:

- relieve pain
- increase circulation
- relax muscles
- relieve muscle spasms
- relieve aches/stiffness caused by arthritis

HealthLight

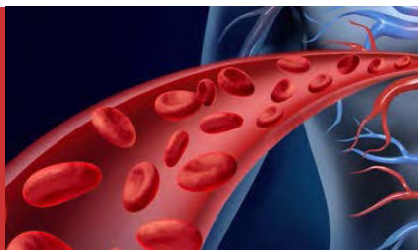
HealthLight manufactures photo-modulated (pulsed, light emitting diode) devices also known as light therapy devices. The infrared, visible red and blue LEDs are the heart of the HealthLight Therapy systems, providing gentle but powerful non-coherent light.

VISIBLE AND INVISIBLE LIGHT



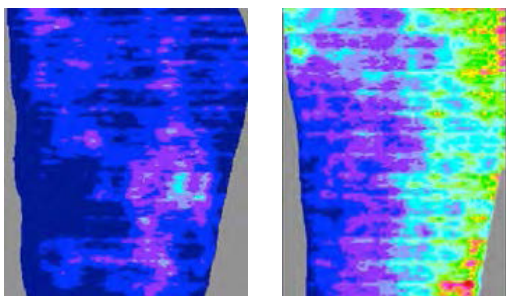
There are two main factors to maximize the benefits of light therapy:

the wavelength
the intensity of light energy



How Does Light Therapy Work?

NIR acts mainly on the mitochondria, where most light absorption in the cell occurs,¹ and it also acts on calcium channels located on the surfaces of cells which convey information to and from cells².

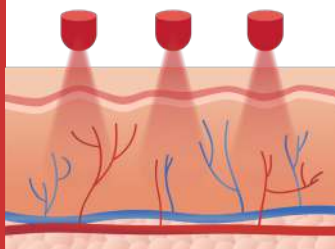


The image on the left shows bloodflow BEFORE a light therapy treatment. The image on the right shows bloodflow AFTER one light therapy treatment.

HOW DOES IT WORK?

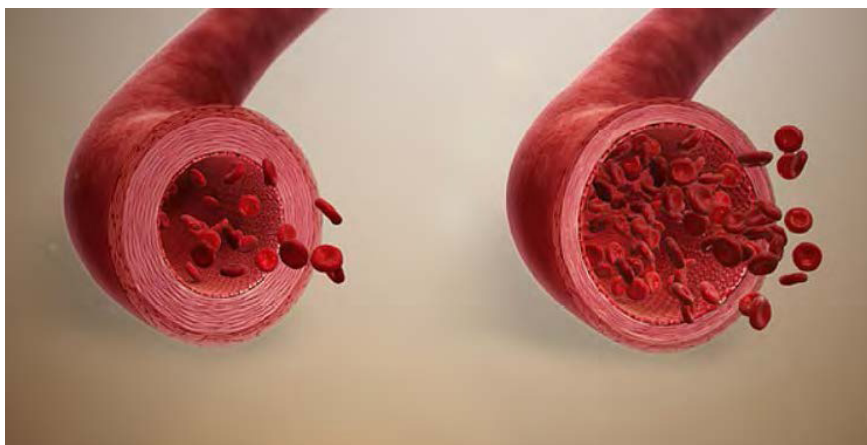
The cellular effects of NIR largely stem from its effects on nitric oxide (NO), which are two-fold:

1. NIR stimulates NO production possibly by increasing the activity of nitric oxide synthase, the enzyme that produces NO³.
2. It is thought that NIR works by dissociating nitric oxide (NO) from the energy producing machinery within the mitochondria².



Increase Circulation & Relieve Pain

When NIR light waves reach the surface of your body they penetrate into your skin a very small distance to reach blood and other cells near your skin surface. These cells' energy-producing machinery, called mitochondria, absorb the NIR energy.



NIR influences the amount of energy the mitochondria produce and also affects the way nerve cells communicate and receive messages. The amount of NIR that gets absorbed by a cell varies depending on the energy state of the mitochondria.

One important effect of NIR is dilation of blood vessels, which reduces your blood pressure and improves circulation and oxygen delivery. NIR also reduces pain, speeds healing of wounds, and improves recovery after a heart attack or stroke.

Muscle Spasms, Aches, & Stiffness

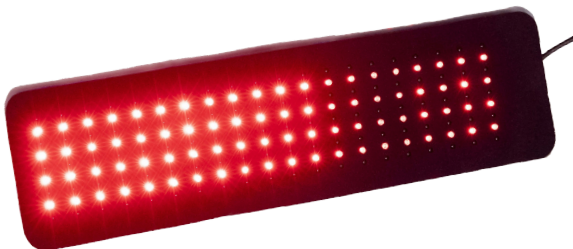
Light Therapy dramatically stimulates muscle trigger points and acupuncture points non-invasively providing musculoskeletal pain relief.



Acute conditions will respond more quickly than chronic conditions.

For acute conditions: we get users starting to feel a difference in the first few treatments.

For chronic conditions: we find the level of maximum improvement is between 24-36 treatments. Ongoing maintenance treatments will be needed.



Why HealthLight?

HealthLight devices are easy to use and non-invasive.
Our devices are a drug free pain relief treatment.



HealthLight devices offer an efficient and comfortable experience for patients. Therapy pads are designed in different sizes and shapes to allow application to a wide variety of body parts. Users treat from smaller areas like hands and feet to larger areas like the shoulders, hips and back. More than one pad can be utilized at the same time to treat multiple body parts.

Research backs the effectiveness of Near Infrared Therapy (NIR) to provide pain relief. HealthLightl uses cutting-edge, clinical strength and FDA-cleared technology to provide pain relief.

Easy Pain Relief Therapy

Our comprehensive line of light therapy pads are designed for in office use with a multi-port controller or for at home use with an in-line controller. With our Clinical Line, pads come with either our 2, 3 & 6 Port Controller.



Available as 3 & 6 Port Controller



2-Port Controller

■ Operating The Pads Is As Easy As 1, 2, 3

- 1. Plug it in**
- 2. Strap it on**
- 3. Push the button**

Ensure pad has direct contact with skin.
Pads automatically shut off after 20 minutes.



**20 Minutes, 3 or more times a week is often
needed to experience change.**

I Frequently Asked Questions

What is infrared light therapy?

Decades of research found that certain wavelengths of light within the red, blue and infrared bands were very beneficial to living tissue.

What are the effects of light therapy?

The 1998 Nobel Prize was awarded to scientists who discovered the relationship between near infrared light, Nitric Oxide and increased circulation.

How does nitric oxide increase circulation?

During the 20 minute treatment, the infrared light energy releases nitric oxide from hemoglobin and endothelial cells. Nitric oxide is a signaling molecule that relaxes smooth muscle cells found in the arteries, veins, and lymph vessels. When these muscles relax, the vessels dilate, thus allowing increased circulation.

Who uses infrared light therapy?

Light therapy is currently being used in clinical and home settings around the world. Light therapy has been in use by the medical profession to increase circulation and reduce pain or more than 20 years.

What does it feel like when using Light Therapy?

A comforting, warm feeling. How often can the Light Therapy system be used? A minimum of three times per week for 8-12 weeks. More frequent usage can reduce the number of weeks necessary to reach maximum improvement. Typically, a regular schedule of maintenance treatments helps sustain the improvement.

Why do some pads have red light vs. blue lights?

The type of light correlates with how deep the light penetrates the skin. Blue lights tend to be used for surface level or just underneath the surface penetration. Red lights penetrate deeper into the skin and increases bloodflow.

Questions you should ask when researching a light therapy device

There are multiple manufacturers and associated products available. You should ask the following questions when researching a Light Therapy Device.

Are the LEDs at the surface or recessed in the pad? Recessed LEDs lose power as the light travels to the surface.

HealthLight pads all have their LEDs at the surface.

Does the temperature of the pad rise above body temperature?

Depending on a patient's condition, if the pad is hot or getting hot, the patient may not feel it. It is better to have a pad that stays around body temperature.

All HealthLight pads operate near body temperature.

Are the pads manufactured in an ISO certified facility in the US?

Quality of the pads and controllers is very important. ISO is an international organization that certifies manufacturing facilities for following quality standards.

HealthLight pads are manufactured in Schaumburg IL at an ISO certified facility.

Are the pads cleared by the FDA?

Pads sold on Amazon, eBay and other online platforms may not be cleared by the FDA for usage in the US. Even some pads sold in healthcare offices may not be cleared. Ask before you buy.

HealthLight pads are FDA listed and are not sold on Amazon or eBay.

How long is each treatment?

Some available pads may require up to 80 minutes to complete a treatment cycle.

HealthLight pads take only 20 minutes.

I Bibliography

1. *Mechanisms and Mitochondrial Redox Signaling in Photobiomodulation.*
Photochem Photobiol, 2018. 94(2): p. 199-212
<https://pubmed.ncbi.nlm.nih.gov/29164625/>
2. *Mechanisms and applications of the anti-inflammatory effects of photobiomodulation.* AIMS Biophys, 2017. 4(3): p. 337-361
<https://pubmed.ncbi.nlm.nih.gov/28748217/>
3. *Photobiomodulation induces in vitro re-epithelialization via nitric oxide production.*
Lasers Med Sci, 2018. 33(5): p. 1003-1008
<https://pubmed.ncbi.nlm.nih.gov/29349512/>



Author Biography

We are always happy to answer your questions or discuss how Light Therapy might help you.

ABOUT HEALTHLIGHT

HealthLight has been manufacturing photo-modulated (pulsed, light emitting diode) devices also known as low-level light therapy (LLLT) devices for over 16 years. The infrared and visible red LEDs are the heart of the HealthLight Therapy systems, providing gentle but powerful non-coherent light.

HealthLight devices are for temporary relief of minor pain, minor muscle and joint aches and stiffness, and to temporarily increase local blood circulation. They are not intended to treat any disease.

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