

The History of LED Light Therapy

LED stands for Light Emitting Diodes. The power of light therapy originates back to ancient times. The Greeks first recorded the healing properties of light in 1500BC, when they suggested that exposure to light was essential for the restoration of health.

In 1805, the Danish Physician, Dr. Niels Finsen, received the Nobel Prize in medicine for his work showing the beneficial effects of various wavelengths of light in the treatment of Tuberculosis. The US space research program has examined the effects of gravity on cellular activity. NASA uses LED technology in space to promote wound healing and tissue growth.

Light Therapy is not a new or fleeting science. The benefits of light on the human body and mind have been recognized in the medical arena for over 30 years. Research at the Paterson Institute for Cancer Research led to the production of a pure red light source that, when combined with a cream, will kill certain types of skin cancer cells. During this work scientists observed that light on its own had a stimulating effect on cell and tissue regeneration, which greatly improved the appearance of the skin. This observation has led to further developments enabling introduction of light therapy to the beauty industry.

How Light Therapy Works

Light therapy has been shown in over 30 years of independent research to deliver powerful therapeutic benefits to living tissue. Visible red light, at a wavelength of 650nm (nanometers), penetrates human tissue to a depth of 8-10 mm. Skin layers, because of their high blood and water content, absorb red light very readily. It is very beneficial to treating problems close to the surface of the skin. The light is absorbed by the cells, accelerating tissue repair, thus speeding up recovery time. This technology is especially successful in the fields of Dermatology and Neurology and is a must in the world of beauty and fitness. The light affects a group of cells at the cellular level. The light causes these cells to release other cellular products. These products have the effect of dilating (opening up) skin capillary blood vessels. The dilation of these blood vessels leads to an increase in the blood flow. An increase in blood flow carries oxygen and nutrients to the skin. Light therapy restores skins natural cellular activity and promotes tissue regeneration. LEDs are similar to Lasers inasmuch as they can emit the same light but differ in the way that the light energy is delivered. Lasers are focused beam, single wavelength light emitters that can be intense enough to burn/cut tissue. LEDs do not deliver enough power to damage the tissue, but do deliver enough energy to stimulate a response from the body to heal itself. Aside from the great results, the best news is that Light Therapy has no reported side effects. This is a FDA approved Therapy.

What Does Light Therapy Do?

*Increases circulation *Stimulates the production of collagen *Helps to heal wounds *Protects healthy skin
*Helps to repair damaged skin *Decreases pore size
*Useful in skin rejuvenation *Increases RNA and DNA synthesis, helping damaged cells to replace more promptly
*Stimulates fibroblastic activity *Increases lymphatic system activity *Kills bacteria that causes acne *Comforts sore muscles, aches and pains *Increases moisture retention *Firms skin *Increases oxygenation and restoration of skin's natural cellular activity, which keeps the skin renewed and fresh.