

The Brain Light Pro Fact Sheet

Near Infrared Light is defined as light in the spectrum of 780 nanometers to 2500 nanometers, just outside the visible light spectrum. Infrared light is not visible, but is perceived by the body as heat, and has many therapeutic benefits.

The Brain Light Pro uses LED lights in the near infrared spectrum to achieve many different types of healing.

First, it increases mitochondrial production of Adenosine Triphosphate (ATP) by 300%. ATP is the energy that the cells produce when they break down foods, and that it uses for every function the body performs.

Increasing ATP also causes a **sustained** increase in Nitric Oxide (NO), which has a healing effect for the cardiovascular system. An increase in NO leads to vasodilation of the blood vessels, and a sustained increase leads to angiogenesis, or the creation of entirely new blood vessels. All of this means greater flow and improved circulation.

The Brain Light Pro is specially designed to deliver a high-powered 75 Milliwatts of healing Near-Infrared light 4-5 inches deep into the skin. An overlapping pattern of lights ensures enough coverage and penetration to trigger an increase in NO for long enough to stimulate angiogenesis.

Doppler images have documented an increase in circulation and restored blood flow in the brain on a permanent basis, and such changes in the brain have a cascade of positive benefits to the rest of the body.

Increasing circulation helps to reduce inflammation, which can lead to improvements in a variety of conditions, including Parkinson's Disease, depression, fibromyalgia, sleep issues and concussions.

Another way to reduce inflammation in the brain is to reduce stress in the Central Nervous System (CNS), and to switch the response mode from the fight or flight (Sympathetic Nervous System) to the rest and digest (Parasympathetic Nervous System) state. The body cannot heal when the Sympathetic Nervous System is engaged, but must be in a relaxed state. The Russell Brain Light Pro directly

targets the brain stem and the Vagus Nerve, which allows the CNS to engage the Parasympathetic Nervous System, and enter a state of relaxation and healing.

Bringing the body into a restful state also helps interrupt the continual cycle of cortisol release that happens when someone is in an ongoing state of stress, which affects hormonal balances, thyroid and adrenal function, sleep cycles and the ability to lose weight.

Another area where this technology is showing great promise is in the treatment of Alzheimer's and Dementia. Alzheimer's is now the 6th leading cause of death in the United States, with 5.3 million currently diagnosed. The primary pathological hallmarks for this condition are amyloid plaques and neurofibrillary tangles. When healthy disposal of these protein peptides does not occur, plaques form, ultimately resulting in:

- Blocked communication between neurons
- Inflammation
- Destruction of Cognitive Function

As of 2018, studies have documented the reduction of beta amyloid plaque in the brain, which is the primary pathological hallmark for both conditions. This can slow, and possibly even reverse the progression of these conditions, giving people suffering from them a better quality of life for a longer period.