# Using Red Light Therapy for Body Contouring It's Like an Energy Drink for your Cells!

Red and infrared light are the healthful and helpful wavelengths of the sun. We are here because our bodies are able to use the light from the sun. These wavelengths increase circulation, reduce inflammation, increase mitochondrial function, convert sugars and fats to energy, increase cell health and growth, reduce fat cell size by processing the energy out of the fat cell, nourish healthy cells, increase feelings of euphoria, decrease anxiety, heal wounds, decrease scar activity, decrease peripheral nerve neuropathy pain, promote deep sleep, promotes alertness.

More benefits of LED are discovered every day. Our quality of life is dependent on these healthy colors (wavelengths) from the sun. Everyone knows how much better they feel when they get some sun or sit near a campfire!

LED Red/near infrared light sculpting is a non-invasive procedure that uses specific wavelengths of red (635nm) and near infrared (830nm) light to target fat cells and promote lipolysis, the breakdown of fat molecules. Red Light therapy is a very natural process. Energy is stored in our fat cells.

Specific colors of sunlight cause our fat cell membranes to become permeable for 12-18 hours. This allows our body to use the energy that was stored in our fat cells. Any energy that is not used is reabsorbed by the fat cells and stored for later use. Red light therapy was pioneered by NASA more than 40 years ago.

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If you're looking to lose weight, it is best to use red light therapy in the morning. And covering as much of the body as you can. This is because red light opens up the membranes of the fat cells. This is called lipolysis. Then you have about 12 hours to

use that energy that is leaking out of the fat cells. After 12 hours or so, the fat cells begin to recapture any energy that has leaked out of the fat cells.

This is a normal process. This has been going on for millions of years. When you wake up in the morning and get out of your tent or hut or cave, the sun hits your body and causes the fat cell's membranes to become temporarily permeable releasing the energy that is stored in your fat cells. Thus, energy is available for you to perform physical and mental functions throughout the day. At the end of the day your fat cells reabsorb any unused energy so that it will be available the next time that you need it.

Many people report that using red lights early in the morning helps them to wake up. Other people say that using red lights in the evening helps them to relax and fall asleep.

## **Taken from The Energy Blueprint website where studies show:**

#### **Red Light Therapy Reduces Body Circumference**

RLT is proven to reduce overall body circumference measurements of the waist, hips, thighs, buttocks, and upper arms causing a "body contouring" effect. A study published in the National Institute of Health found that red light therapy "has a potential to be used in fat cells and cellulite reduction as well as in improvement of blood lipid profile without any significant side effects."

An assessment of fat thickness using ultrasound found that the subcutaneous fat layer was reduced from 12mm before treatment to 8mm after. The results go on to state, "One of the main proposed mechanisms of action is based upon production of transient pores in adipocytes, allowing lipids to leak out. Another is through activation of the complement cascade which could cause induction of adipocyte apoptosis and subsequent release of lipids."

## **Red Light Therapy Boosts Blood Circulation**

Red light and infrared light therapy have been proven to improve blood circulation, in turn reversing the breakdown of collagen production and elastin contributing to the appearance of cellulite.

In a controlled study to determine the efficacy of red and near-infrared light therapy in the treatment of, skin roughness, and the increase in intradermal collagen density, it was found that, "The treated subjects experienced significantly improved skin complexion, skin tone, and skin feeling, profilometrically assessed skin roughness, and ultrasonographically measured collagen density.

### Here's how it works and how it can aid in weight loss:

- 1. Stimulation of Fat Cells: Red light at specific wavelengths (usually between 630 to 680 nanometers) penetrates the skin and is absorbed by fat cells. This absorption triggers a photobiomodulation effect within the cells.
- 2. Activation of Mitochondria: Inside fat cells, red light activates the mitochondria, the energy powerhouses of the cell. This increased mitochondrial activity enhances the cell's ability to metabolize and release stored fat.
- 3. Release of Fatty Acids: As a result of this enhanced metabolic activity, fat cells release triglycerides and fatty acids into the bloodstream. These can be used by the body for energy or eliminated through metabolic processes.
- 4. Lymphatic Drainage: Red light therapy can also stimulate the lymphatic system, which helps in the removal of the released fatty acids and other waste products from the body.
- 5. Combination with Exercise and Diet: While red light therapy can aid in the release of stored fat, it's important to note that it's not a standalone solution for weight loss. For the most effective results, individuals should combine red light therapy with a balanced diet and regular exercise.
- 6. Hydration: Proper hydration is crucial. Drinking enough water helps flush out the fatty acids and waste products released during the lipolysis process.
- 7. Consistency: Consistent sessions are often required to see noticeable results. The frequency and duration of red-light therapy sessions may vary depending on individual goals and the specific device used.
- 8. Healthy Lifestyle: Weight loss is not just about shedding fat but also adopting a healthy lifestyle. This includes managing stress, getting enough sleep, and maintaining a balanced diet.

It's important to note that red light sculpting primarily targets fat reduction in localized areas and is not a guaranteed method for significant weight loss. Its effectiveness can vary from person to person, and results may be subtle. For more dramatic weight loss, a comprehensive approach involving diet, exercise, and lifestyle changes is typically recommended.