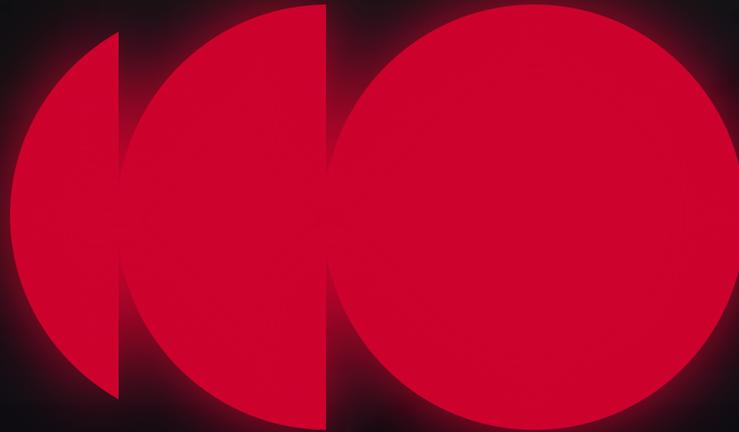


 *Peak*
HEALTH & FITNESS
IS PROUD TO OFFER:



RED LIGHT RISING

THE POWER OF --- REDLIGHT THERAPY

- + INCREASE YOUR ENERGY
- + MAXIMISE MUSCLE RECOVERY
- + REDUCE DOMS
- + ENHANCE ATHLETIC PERFORMANCE
- + EXTEND WORKOUT TIME TO FAILURE
- + ACCELERATE HEALING FROM INJURY
- + SPEED WOUND HEALING
- + INCREASE BONE FRACTURE HEALING
- + IMPROVE CIRCADIAN RHYTHM
- + INCREASE DEEP SLEEP
- + SPEED UP FAT LOSS
- + OPTIMISE COGNITIVE FUNCTION
- + ENHANCE RECOVERY FROM TBIS

- + PREVENT COGNITIVE DECLINE
- + INCREASED COLLAGEN
- + IMPROVE METABOLISM AND HORMONAL HEALTH
- + REDUCE INFLAMMATION
- + DECREASE PAIN
- + BUILD CELLULAR RESILIENCE
- + INCREASED ELASTIN PRODUCTION
- + FIBROBLAST FORMATION
- + COMBAT AGING
- + IMPROVE THE APPEARANCE OF SCARS
- + IMPROVE EYE HEALTH & REVERSE MACULAR DEGENERATION
- + IMPROVE IMMUNE SYSTEM FUNCTION
- + REVERSE HAIR LOSS

WHAT IS

PHOTOBIOMODULATION?

PHOTOBIO-MODULATION EXPLAINED

BLUE LIGHT

Sets the circadian rhythm in your brain which in turn regulates numerous different neurotransmitters and hormones.

UV LIGHT

This allows us to synthesise vitamin D from the sun's rays.

FAR INFRARED

Acts to heat up our cells (This is the part of the sun's spectrum that you feel as heat) stimulates cell changes and circulation changes.

RED LIGHT

Acts on the mitochondria in our cells to stimulate increased cellular energy production (APT)

NEAR-INFRARED

Acts on the mitochondria in our cells to stimulate increased cellular energy production (APT)

1

2

3

4

5

Just as our human cells need nutrients from food, light is also a necessary nutrient for our cells to function well and be healthy. Most people's light exposure habits are the equivalent of eating an all-McDonalds diet all day, everyday, which is linked to a number of health problems.

Different types of light are 'bioactive' in humans, meaning they affect the functioning of human cells. Our health is largely influenced by the dosage of these different types of light that we get each day. It turns out, we NEED red and near-infrared light to function optimally.

Red Light Therapy affects numerous physiological and biochemical mechanisms, but we will focus on the two key mechanisms:

1 Increased Mitochondrial Energy Production

these wavelengths of light penetrate the cells 1-5cm and stimulate ATP production through interacting with a photo receptor called Cytochrome C Oxidase. This means more cellular energy inside the cell, which allows the cell or organ to work optimally (eg muscles, brain, heart, liver, skin, etc...)

2

Reduced Inflammation + Enhanced Cellular Resilience

By creating a temporary, low-dose metabolic stress (like exercise) that ultimately builds up the anti-inflammatory, anti-oxidant and cell defense systems of the cell (known as hormesis). This creates lasting adaptations at the cellular level that lead to more resilience against stressors and a greater capacity to produce energy.

Further information regarding the science of RLT and the light spectrum can be found on the Blog Page of our website.

PERFORMANCE.RECOVERY

WELLBEING.

IMMUNE FUNCTION.

Red Light Therapy (RLT) is a safe and effective way to enhance performance. Clinical studies have consistently shown that red light therapy improves strength, endurance, speed and muscle growth.

RLT fires up your mitochondria so that your energy levels go through the roof and you will feel really energised (5; 6). Muscles are packed with mitochondria, so PBM is particularly effective (3)!

Fitness trials concluded that RLT significantly **improves muscular performance and accelerates recovery** (7). These showed significant improvement in measures related to performance of peak strength (44% increase in strength), max repetitions, speed and endurance (1). Time to exhaustion increases significantly and it prevents muscle fatigue with significant reduction in lactic acid production, allowing you to workout harder and for longer!

RLT improves oxygenation and cellular repair. It allows your red blood cells to carry more oxygen (11; 12). This enhances your circulatory system and blood flow literally increases (11), bringing with it numerous benefits and micro nutrient delivery to your muscles.

RLT enhances muscle hypertrophy and strength. The few small studies demonstrated the potential to **improve muscle gains by over 50% over an 8-week training program** (2). These studies also demonstrated decreases in markers of inflammation and muscle atrophy, while protein synthesis and oxidative stress defences were up-regulated.

RLT achieves rapid recovery, less soreness, reduced fatigue, and decreased inflammation. It is effective at significantly reducing DOMS (31) and is more effective than cryotherapy in this area (40).

RLT is a solution to speed up the healing process and help your injury recover quicker, including damaged muscles, ligaments and bones. The studies show benefits in healing tendons and sprains (46), increasing creation of blood vessels (51), and enhanced overall inflammatory process and greater functionality of joint despite injury (51).



WELLBEING

SLEEP

is the foundation of wellbeing and recovery, especially for athletes. Poor sleep has many health consequences and materially impacts performance and recovery.

Even mild sleep deprivation has demonstrated a 20% decrease in reaction times and degrades athletic performance – a similar effect of having a blood alcohol level of .05%. Following 1 poor night's sleep, **athletes were nearly twice as likely to get injured.** Red light dramatically improves sleep quality and endurance performance of athletes. Using RLT increased melatonin secretion (70%) and enhances muscle regeneration. This will lead to decreased time to sleep, longer sleep cycles, and increased deep sleep (and therefore raised HGH levels during sleep). Red light doesn't upset your circadian rhythm like blue light can, and it can have the opposite effect making it ideal for ambient evening use.

SKIN HEALTH

Skin health benefits hugely from RLT use. Red light stimulates both collagen and elastin production, which dramatically reduces fine lines and wrinkles, as well as the appearance of scars, surface varicose veins, acne, and cellulite. PBM is a safe and non-invasive alternative to injections and surgeries for anti-aging and skin rejuvenation.

WELLBEING

COGNITIVE FUNCTIONS

Researchers have found that RLT profoundly benefits the brain and executive function. It increases neurocognitive function with improvements in sustained attention and short-term memory retrieval.

Patients who have suffered TBI report improved cognition, better sleep, and enhanced recovery using a RLT protocol (1; 2). This is hugely promising for athletes involved in contact sports, but also those individuals who suffer from neurodegenerative conditions.

RLT shows potential for improving depression, SAD and mental health treatments. Studies demonstrated antidepressant properties with a significant effect. Trials have shown that light therapy treatments increase antioxidant and serotonin levels, while decreasing cortisol, nitric oxide, oxidative stress, and neuroinflammation. These demonstrate anti-depression and anti-anxiety effects.

IMMUNITY

Red Light Therapy appears to be an “immune nutrient” that supports optimal immune function in a wide variety of different scenarios and health conditions. It positively affects immune function regardless of pre-existing conditions or imbalanced immune system due to autoimmune disease.

In the context of wound healing, RLT has shown beneficial effects by modulating immune function and accelerating recovery.

It also appears to selectively modulate cell function in some types of infected cells, while not affecting healthy uninfected cells in the same way.

Studies on White Blood Cells show that RLT can increase activity of these immune cells within our bloodstream and internally. Thus bolstering our immune function and protecting against foreign infections.

Red light therapy, along with all the other protocols known to improve health and wellbeing, (Fasting/ time restricted eating, circadian rhythm optimisation, nutritious diet, adequate sleep, cold therapy, sauna/ heat therapy, exercise, sense of community) will contribute significantly to keeping energy production optimal in the cells, contributing to proper function of all the bodies systems which will help keep immune system vibrant and strong.



REDLIGHT

PACKAGES

£4.50 FOR A 10 MIN SESSION

OR

10 SESSIONS FOR £35

