



Red Light Therapy Guide

A practice patient guide on all things red light therapy at Optimal Dental Health.



Introduction

At Optimal Dental Health, we believe that oral health is deeply connected to whole-body health. Modern dentistry is no longer just about teeth; it is about supporting healing, reducing inflammation, improving sleep, lowering stress and helping patients feel healthier overall.

As part of our holistic approach to wellbeing, we offer full-body red light therapy using the Wellssystem Redwave bed. This non-invasive wellness treatment uses carefully controlled red and near-infrared light to support the body's natural recovery and regenerative processes.

This guide explains what red light therapy is, how it works, its potential benefits, what to expect during treatment and who may benefit from incorporating it into their wellness routine.



What Is Red Light Therapy?

Red light therapy, sometimes referred to as photobiomodulation or low-level light therapy, uses specific wavelengths of red and near-infrared light to stimulate cellular activity within the body.

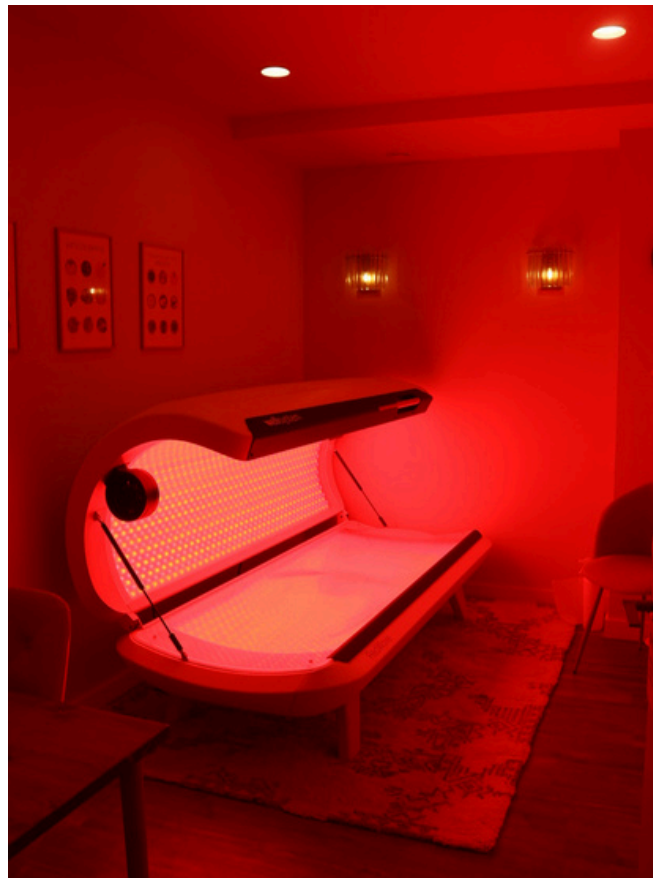
Unlike ultraviolet (UV) light from the sun, red and near-infrared wavelengths do not damage the skin. Instead, they penetrate the tissues gently and are absorbed by structures within the cells called mitochondria.

Mitochondria are often described as the “powerhouses” of the cells because they produce adenosine triphosphate (ATP), the molecule responsible for cellular energy production.

By supporting mitochondrial function, red light therapy can help:

- Improve cellular energy production
- Enhance circulation
- Support tissue repair and regeneration
- Reduce inflammation
- Promote relaxation and recovery
- Encourage healthier skin function
- Support better sleep quality

At Optimal Dental Health, we use the Wellssystem Redwave full-body system, which combines three therapeutic light spectrums to support both superficial and deeper tissues in the body.



How Does Red Light Therapy Work?

When red and near-infrared light reaches the tissues, light-sensitive molecules within the cells absorb the energy.

This process may:

- Stimulate mitochondrial activity
- Increase ATP production
- Improve blood circulation
- Enhance oxygen delivery to tissues
- Encourage collagen and elastin production
- Support cellular repair mechanisms
- Reduce oxidative stress

Different wavelengths penetrate tissues at different depths.

The Wellssystem Redwave system combines multiple wavelengths simultaneously, allowing the treatment to target both skin-level concerns and deeper muscular or joint tissues.

This scientifically studied combination is designed to support overall wellbeing, physical recovery and relaxation.

Red Light (600–700 nm)

This is the visible red light you can see. It works mainly on the surface of the skin and is commonly used for skin health and oral tissue.

Near-Infrared Light (700–1500 nm)

This wavelength is invisible to the eye but penetrates deeper into the body reaching muscles, joints and deeper tissues. It drives many of the wider health benefits studied in research.

How Does It Work?

Light is absorbed by your cells, particularly in the mitochondria (your cells' energy centres) and appears to support energy production, reduce inflammation and promote healing.

Can It Help With Pain & Inflammation?

One of the most studied benefits of red light therapy is its effect on inflammation. Research suggests it may help reduce pain and swelling by influencing the body's inflammatory signalling pathways.

Pain & Swelling

PBM may help reduce acute pain and swelling whether from dental procedures, injury or musculoskeletal conditions.

Gum & Oral Tissue

Particularly relevant for gum inflammation, post-treatment recovery and soft tissue healing in the mouth.

Tissue Recovery

By supporting the resolution of inflammation, PBM may help your body move through the healing process more smoothly.

Jaw & Facial Muscles

May be helpful for TMJ discomfort and tension in the jaw and facial muscles, common concerns for many dental patients.



What Happens During a Red Light Therapy Session?

At Optimal Dental Health, red light therapy sessions take place in a calm and comfortable environment.

Patients simply lie within the Wellssystem Redwave unit while the body is exposed to carefully controlled red and near-infrared light.

Session Length:

A typical session lasts 20 minutes.

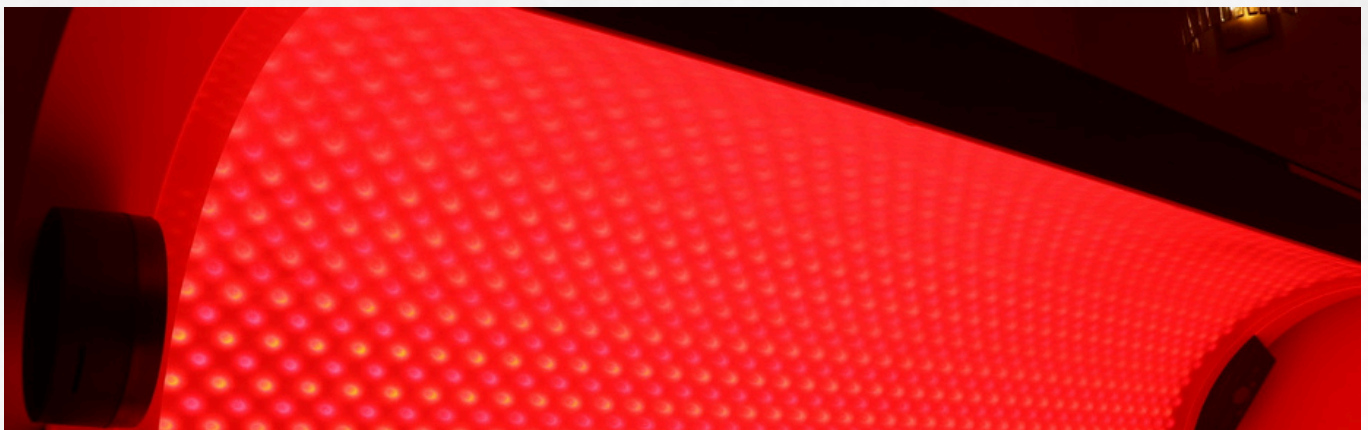
During Treatment:

Most patients describe the experience as:

- Warm
- Relaxing
- Comfortable
- Calming
- Rejuvenating

The treatment is completely non-invasive and painless.

Many patients choose to use the session as an opportunity to relax, meditate or decompress.



Recovery, Exercise & Physical Performance

Originally, red light therapy was delivered using small handheld devices. Modern LED technology now allows us to offer full-body sessions where the light can reach a much wider area and support your whole system, not just one spot.

Muscle Soreness

May help reduce the muscle soreness you feel after exercise or physical therapy – so you can get back to doing what you love sooner.

Post-Exercise Recovery

Studies suggest improved recovery in both trained athletes and everyday people following red light therapy sessions.

Joints, Muscles & Connective Tissue

May support recovery in joints, muscles and the connective tissue around them – including the jaw joint (TMJ) and facial muscles.

Circulation & Oxygen

PBM may support better local blood flow and oxygen delivery to tissues that are working hard to recover.



References: Forsey et al. 2023, Whole-body photobiomodulation improves post-exercise recovery. | Vanin et al. 2018, PBM for muscular performance and reduction of muscular fatigue. | Ferlito et al. 2022, Comparison between cryotherapy and PBM in muscle recovery.

Better Sleep, Less Stress, More Energy

Many of us are not just dealing with physical symptoms. We are tired, stressed and running on empty. A 20-minute red light session offers a quiet, low-stimulation pause in your day that may support your body's natural recovery rhythms.

Sleep Quality

Research suggests red and near-infrared light may help improve sleep quality. Studies in athletes have shown measurable improvements in sleep and performance.

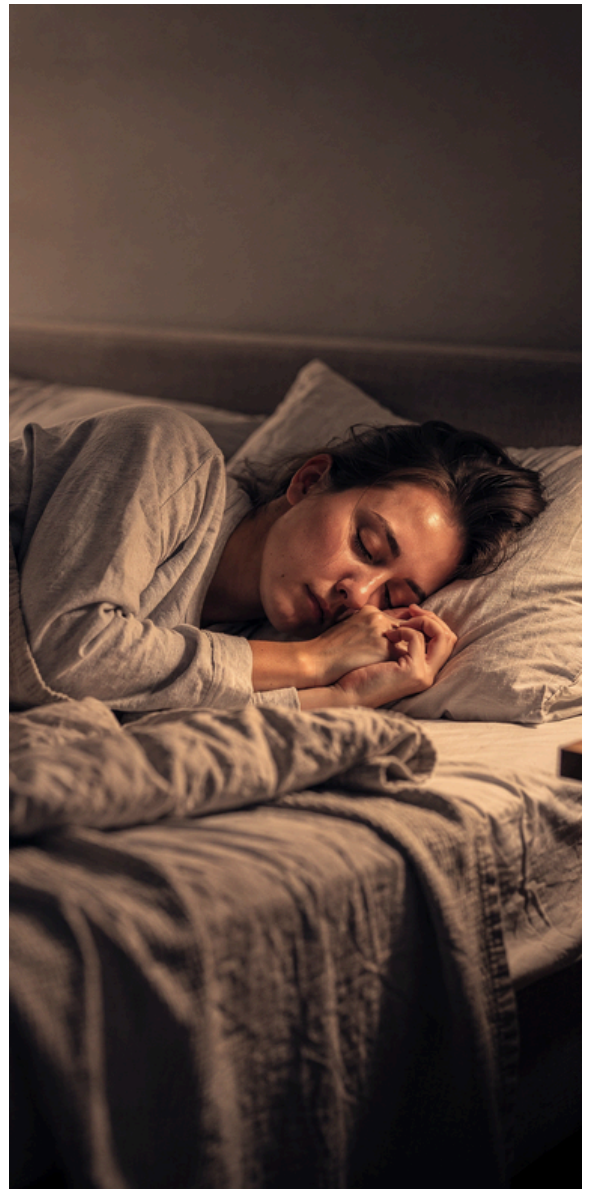
Your Body Clock & Recovery

Near-infrared light may support melatonin pathways and your body's natural circadian rhythms – helpful if you struggle with sleep or feel fatigued.

Mood & General Wellbeing

Emerging evidence suggests red light therapy may support general wellbeing and mood, particularly in people experiencing mild fatigue or sleep-related complaints.

References: Zhao et al. 2012, Red Light and Sleep Quality and Endurance Performance of Chinese Female Basketball Players. | Giménez et al. 2022, Near-Infrared Light on Well-Being and Health in Human Subjects with Mild Sleep-Related Complaints. | Tan et al. 2023, Melatonin and the Cellular Actions of Near-Infrared Light.



Red Light Therapy Safe for You?

Red light therapy is non-invasive, painless and does not involve UV light. It is generally very well tolerated. However, as with any therapy, there are some situations where we would want to check with you first.




Safe for Most People

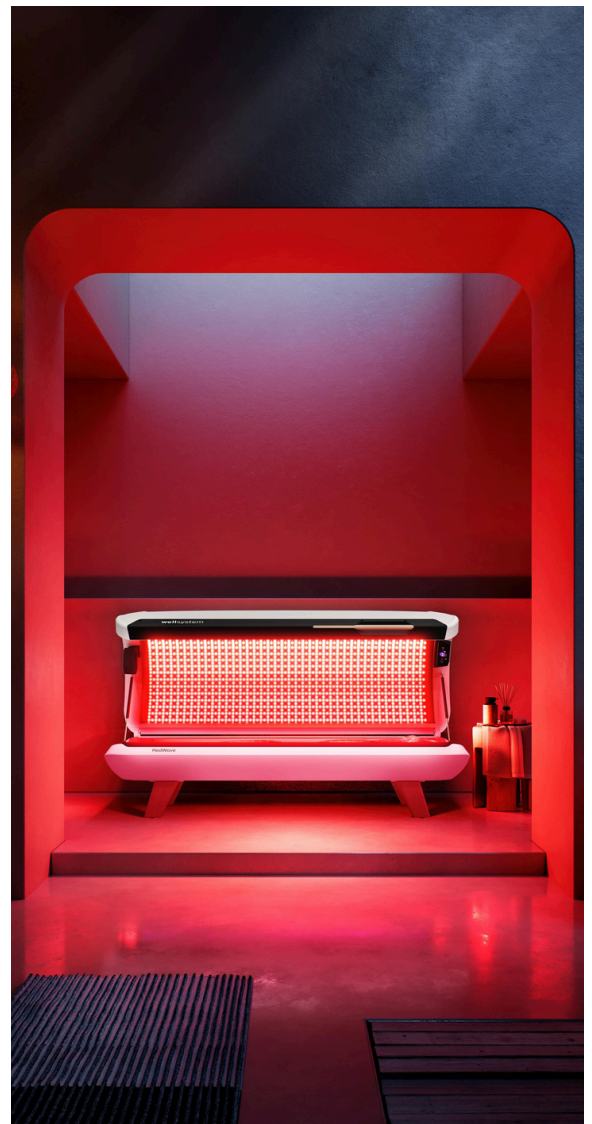
Suitable for most adults as part of a wellness or recovery routine. No downtime, no discomfort, no UV exposure.



Please Let Us Know If You Have:

- If you are pregnant
- Active cancer
- Epilepsy
- Open wounds at the site of application
- Chronic skin conditions at the site

 We advise caution and recommend appropriate medical advice before use in any of the above circumstances.





Optimal
Dental Health

Book Your Red Light Session Today

Take the first step
towards a healthier you.

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