

PHOTOBIO-MODULATION THERAPIST

ENROLLMENT: CONTINUOUS, ONLINE

LENGTH: 70 HOURS, SELF PACED

COST: \$2599

CERTIFICATIONS: PHOTOBIO-MODULATION THERAPIST

Photobiomodulation is the overlooked, misunderstood stepchild of the aesthetic laser and light industry. It is the most researched form of laser therapy by thousands of universities world-wide and yet it is seen as boring and ineffective by most people in the aesthetic industry. The reason is that it does not have the get-rich-quick-lure that high-power laser treatments have.

The equipment is very affordable and results can be dramatic. Running costs are extremely low, because you don't need consumables, the equipment is usually maintenance free and the direct cost of treatment is almost neglectable. The catch is that you have to take the time to figure it out.

Once you've taken the time to figure this out, you have a knowledge set that you can build a career and a profitable business on.

Photobiomodulation uses light to stimulate, heal, regenerate, and protect tissue that has either been injured, is degenerating, or else is at risk of dying. Photobiomodulation is only possible during a photochemical reaction.

A photochemical reaction is when light is absorbed and it then start, enhance and/or regulates biochemical reactions present in the body. This light should not cause any thermal reaction (heat) in the body, since a thermal reaction causes an inflammatory response that stops photobiomodulation.

In practice it means that photobiomodulation can only be achieved with low-level laser or LED-devices. High-power laser and IPL devices are not suitable for this type of treatments.

Photobiomodulation is the name that is currently used in the scientific community. But, there are many other names in use. Maybe you know it as LED therapy, Low-level Laser Therapy (LLLT), Soft Laser, Cold Laser, Chromotherapy or simply Light Therapy.

Photobiomodulation is the most researched sub-type of laser therapy. There is currently more than 20 000 academic research papers from many universities world-wide about the different applications of photobiomodulation.

Almost every salon and spa nowadays has at least one photobiomodulation device. This can range from a LED mask to a class 3 laser. Unfortunately, very few device owners and users are trained to fully optimize there equipment.

The two most important parameters for effective photobiomodulation are wavelength and energy. Although energy is the lesser important of the two, it is important to know that you will not succeed with too high energy and neither have much luck with too little energy.

Various researchers throughout the years have found that you ideally want to deliver 4 J/cm² to the target tissue. This should be delivered over a longer period to ensure that you only create a biochemical response and not a thermal or shock response.

Time and time again, wavelength has been shown as the main success determining parameter when it comes to photobiomodulation. Equally important, is the way these wavelengths are used or combined. If done wrong a hugely diminished effect is observed in results.

So far researchers have identified three super bio responsive wavelengths. This doesn't mean that you will not have results with other wavelengths. What it means is that you will get superior results when you utilize these wavelengths.

When you look at purchasing equipment you will find some units that provide you with LED's for all three wavelengths. The secret to having success with these machines is so simple that most people simply overlook it. And for this reason often still have disappointing results. On completion of the Photobiomodulation Therapist Course, you will never again step into this trap.

Three things you will gain from this course.

Firstly, it gives you a solid scientific foundation to build your career on. Thorough knowledge of the science behind laser and LED therapy enables you to consistently deliver successful treatment after treatment.

Secondly, it gives you comprehensive laser safety training. A quick overview of contraindications is not safety training that ensures that you and your client are safe during and after a treatment. This course deals with safety before, during and after a treatment. You will no longer have to deal with unexpected side effects.

Thirdly, it introduces you to a wide range of treatments that you can perform with your low-level laser or LED-device. Your income potential will skyrocket because you will be able to provide a wide range of treatments without having to change your equipment.

You will discover how:

- To provide a whole new range of well-being treatments with your existing equipment.
- Science makes it possible for someone to sculpture his or her body without diet or exercise.
- To prevent a visible scar after an operation or trauma.
- To always have youthful beautiful skin.
- To live without pain.
- To treat systemic diseases like arthritis without any medication.
- To improve brain function and boost study and exam results.

Course overview

Laser physics

- Laser Operation
- Laser Components
- IPL Components
- LED Components
- Types Of Lasers
- Modes Of Operation
- EM Spectrum
- Light Beam Characteristics For Laser, LED's And IPL's
- Characteristics Of Light Waves
- Treatment Parameters

Radiation-tissue interaction

- Interaction Of Radiation With Matter
- Wavelengths Used For Hair Removal
- Biological Change With Temperature

Laser safety

- Laser Classification (Ansi Z 136.1 Standard)
- Diffuse And Specular Reflections
- Eye Hazards
- Skin Hazards
- Eye Protection
- Skin Protection
- Non Beam Hazards
- Nominal Hazard Zone (NHZ)
- Respiratory Hazards (Gas Masks – No Smoke Is Safe)
- Safety Control Measures

Legal issues

- Indemnity Forms

Scientific publications

- Laser Florence abstracts from 2004 to 2015 (excluding 2005 and 2014).
- Comparison of light-emitting diode wavelength on activity and migration of rabbit ACL cells
- Do laser and led phototherapies influence mast cells and myofibroblasts to produce collagen?
- Effect of pre-irradiation with different doses, wavelengths, and application intervals of low-level laser therapy on cytochrome c oxidase activity in intact skeletal muscle of rats
- Effects of low-level laser therapy on orthodontics: rate of tooth movement, pain, and release of RANKL and OPG in GCF
- Comparative analysis of low-level laser therapy (660 nm) on inflammatory biomarker expression during the skin wound-repair process in young and aged rats
- Inflammatory cytokines are suppressed by light-emitting diode irradiation of P. gingivalis LPS-treated human gingival fibroblasts
- Intracellular signaling cascades following light irradiation

Biomodulation therapy

- Introduction To Low Level Laser Therapy.
- Treatments Low Level Laser Therapy Is Recommended For
- Physiological Changes
- Procedure
- Recommended Treatments
- Contra-Indications
- Tips

Biomodulation in health care for humans

- Hamstring treatment
- Broken patella
- LLLT in dental treatments
- LLLT treatment of fibromyalgia
- LLLT neck pain treatments
- LLLT foot & ankle treatment
- LLLT oral mucositis treatment
- Testimonial about knee pain
- LLLT for spinal cord injuries

Biomodulation in health care for animals

- LLLT for horses
- LLLT for arthritis in animals
- LLLT for healing in wild animals
- Deep Low Level Laser Therapy for pets and horses
- Cats, dogs & other pets treated with LLLT
- This horse has had 2sessions with the Low-Level Laser Therapy
- Equine Light Therapy – Scanning Your Horse

- Effect of laser acupuncture on salivary flow rate in patients with Sjögren's syndrome
- Photobiomodulation with light-emitting diodes improves sperm motility in men with asthenozoospermia
- Clinical and microbiological effects of photodynamic therapy associated with nonsurgical periodontal treatment. A 6-month follow-up
- Effect of photodynamic therapy on the healing of cutaneous third-degree-burn: histological study in rats
- Effect of irradiation with red and infrared laser in the treatment of oral mucositis
- Red (660 nm) and infrared (830 nm) low-level laser therapy in skeletal muscle fatigue in humans: what is better?

Laser acupuncture

- General Information on Low-Level Laser Acupuncture
- Advantages of laser acupuncture
- Auricular Acupuncture with Laser
- Clinical effectiveness of laser acupuncture in the treatment of temporomandibular joint disorder
- Clinical Effectiveness of Laser Acupuncture
- Comparison of Three Protocols: Dietary Therapy and Physical Activity, Acupuncture, or Laser Acupuncture in Management of Obese Females
- Deqi Sensation in Laser Acupuncture
- Effect of laser acupuncture on obesity: study protocol for a randomized controlled trial
- Laser acupuncture effect on fetal well-being during induction of labor
- Laser acupuncture: effectiveness depends upon dosage
- Laser Acupuncture Reduces Body Fat in Obese Female Undergraduate Students
- Anti-inflammatory effect of laser acupuncture in ST36 (Zusanli) acupoint in mouse paw edema
- Laser Acupuncture for Postoperative Pain Management in Cats
- Role of laser acupuncture in chronic respiratory diseases
- Laser Acupuncture Therapy in Patients with Treatment-Resistant Temporomandibular Disorders
- Intro to Laser Acupuncture by Singapore Laser Acupuncture Centre
- Application of laser needle acupuncture device for tennis elbow
- Laser Acupuncture Fertility Treatment

Hair growth stimulation

- Science behind hair growth stimulation.
- Therapy for treatment of hair loss.

Non-invasive laser lipo and body-sculpting

- Science behind laser lipo
- Body sculpting and contouring