



PODORTHO FOOT SPECIALISTS

Standards of Photobiomodulation Therapy (PBMT)

Definition, Mechanisms, Results of Phototherapy, Photobiomodulation (PBMT), Low Level Laser Therapy (LLLT), Cold Laser Therapy



Phototherapy is a therapeutic physical modality using photons of light from the visible red and infrared spectrum often used for tissue healing and pain reduction. LLLT/PBMT, is non-coherent narrow and broad band polarized light using diodes (LEDs & SLDs) placed outside the body on the surface of the skin. This is a non-thermal application of light.

Mechanism of Action

Light penetrates the skin and is absorbed by all cell types (e.g. muscle, joint, blood, nerve etc.) Light energy is transformed into biochemical energy (similar to photosynthesis) providing Increased ATP production & cellular cascade of events result in enhanced healing, pain relief and restoration of normal cell function.

This is a non-invasive, conservative treatment therapy resulting in positive health outcomes. This therapy poses little to no risk of harm and therefore falls within the public domain and is utilized by many for home and professional uses.

Results of PBMT Effects

- ↑ Blood & Lymph flow and formation of capillaries tensile strength and quality of repair
- ↑ Osteoblast production–accelerated bone healing
- ↑ Increased mobility and muscle force
- ↑ Healing (30 – 40 %)
- ↓ Pain
- ↓ Inflammation
- ↓ Swelling/edema
- ↓ Less tenderness on palpation
- ↓ Decreased muscle tension



Conditions Treated (List not inclusive) Practitioners Treating with PBM



Conditions

- Acute Injuries/Trauma Musculoskeletal
- Muscle & tendon tears
- Hematoma Healing
- Ligament strains/sprains
- Fractures
- Post-Op rehabilitation
- Repetitive strain injuries
- Rotator cuff tears
- Carpal tunnel syndrome
- Reflex sympathetic dystrophy
- Fibromyalgia
- Achilles Tendonitis
- Bursitis
- Plantar Fasciitis
- Autoimmune Diseases
- Rheumatoid Arthritis
- Degenerative Disorders
- Osteoarthritis

Regulated Health Care Providers and Unregulated Health Care Providers Utilizing PBMT/LLLT

- Nurses (RPN's, RN's, NP's Specialized in Foot, Lower Limb, Wound Care and Cosmetic's)
- Podortho Foot Specialists
- Chiropractors
- Physiotherapists
- RMT's
- Acupuncturists
- Holistic Energy Healers (Reiki Therapists, Reflexologists)
- Spa Owners
- Coaches/Trainers
- Veterinarians/Veterinarian Technician's
- Dental Clinics/Dental Hygienist's

Practitioner Considerations

Safety Precautions

Legal Aspects



Many “practitioners” and unregulated health care providers (UHCP) have been utilizing this conservative treatment modality as an adjunctive therapy to improve their client’s health outcomes. Both RHCP and UHCP should always ensure they have obtained the knowledge, skill and judgment to perform any and all treatments.

Lasers and light systems have been readily available in Canada to consumers in various forms such as infrared saunas, tanning beds, aesthetic LLLT units, for rehabilitation, skin and wound healing, pain reduction. Various classes of LLLT/PBMT are available in Canada for home personal and professional uses.

Safety

- Direct eye exposure is contraindicated (iiiib PBMT only, does not apply to class ii PBMT)
- Safety Training for Practitioner’s (Required by Ontario Ministry of Labour)
- Recommended programs available through OFCA/CFCA Members portal
- Various other online USA based training courses
- Safety training is also made available by suppliers in the form of an in-service demonstration inclusive with online training modules.
- Safe for Public Use and falls within the public domain

As our health care system continues to evolve and change, technologies have advanced. Light therapy (PBMT) has become a popular product used across the globe for its healing abilities.

Legal Considerations (RHPA)

PBMT is non-invasive and poses little to no risk of harm. Therefore, this is legally referred to as the “basket Claus”. Therefore, this therapy falls within the public domain.

“Healthcare services not involving a controlled act, prohibited act, or harmful act are in the public domain and may be performed by anyone”. (1, 2, 3, 4, 5)

Classes of PBMT (infrared and visible red light) Used for Treatment by OFCA Members

- 1000 mW Superluminescent Diode (SLD) clusters (Class II)
- 450 mW Laser (Class IIIb laser)

REFERENCES



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- (1) Regulated Health Professions Act, 1991, S.O. 1991, c. 18, s. 30(1)
 - (2) RHPA, s. 27(2).
 - (3) Ministry of Health and Long-Term Care, “Regulated Health Professions Act, 1991”:<http://www.health.gov.on.ca/en/pro/programs/hhrsd/about/rhpa.aspx>.
 - (4) Valerie Wise, LL.B., LL.M., C.S.* *Certified by the Law Society of Ontario as a Specialist in Health Law Wise. Prescribing. WISE HEALTH LAW PROFESSIONAL CORPORATION
 - (5) Steinecke, R. A complete guide to the Regulated Health Professions Act, p. 11-3.
 - (6) www.laser.nu
 - (7) Swedish Laser Association
 - (8) www.naalt.org
 - (9) North American Association of Laser Therapy
 - (10) www.waltza.co.za
 - (11) World Association of Laser Therapy
 - (12) Med X Health Corp. www.medxhealth.com
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“The answer to the problem of inequality is for the people who are fortunate enough to either have been gifted or deserved more to do everything they can to make the communities around them as strong as they possibly can.” J. B. Peterson

