



For Your Oral Health and Beyond

[www.TheOQ.shop](http://www.TheOQ.shop) [www.PBMTpro.com](http://www.PBMTpro.com)

# PhotoBioModulation (PBM)

Light energy can interact with and energize the body at the cellular level, generating physiological benefits, including the **promotion of wound healing** and the **reduction of pain and inflammation**.





# Penetrating Depth of PBM Light

## PBM<sub>Light</sub>

R 630 nm  
R 660 nm  
NIR 850 nm



## PBM<sub>Light</sub><sup>+</sup>

R 660 nm  
NIR 850 nm  
NIR 940 nm

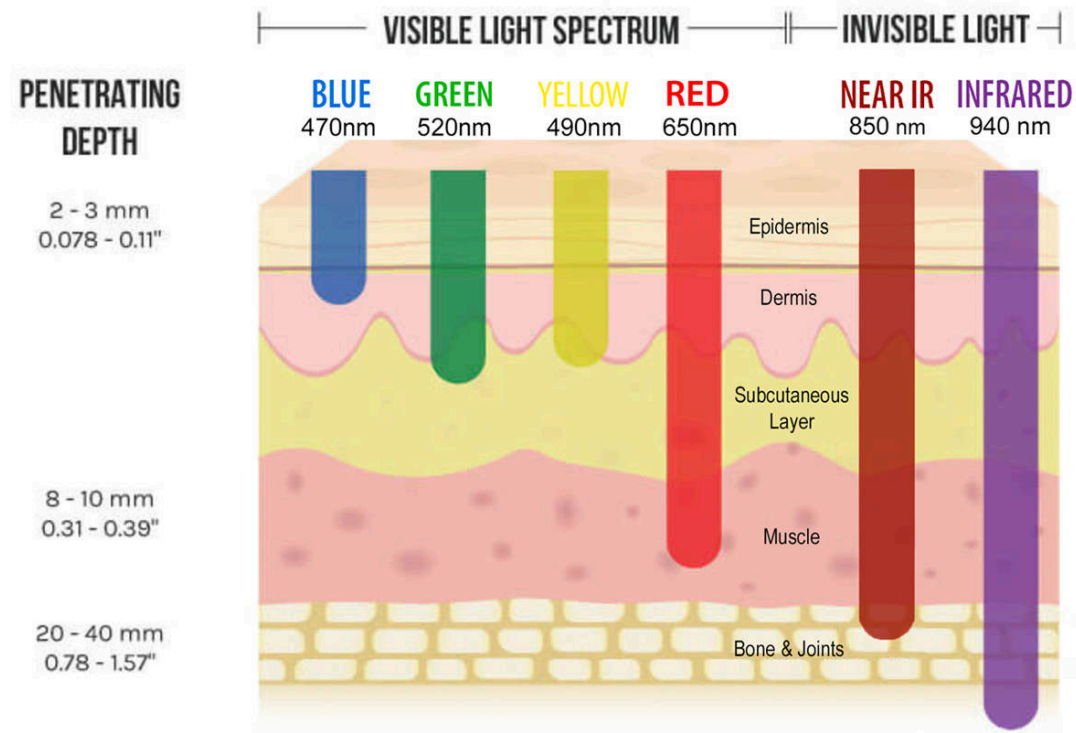


## PBM<sub>PRO</sub>

aBL 470nm  
R 630 nm  
R 660 nm  
NIR 850 nm  
NIR 940 nm



## PhotoBioModulation



# PBMT

Beneficial for joint health, muscle conditioning to prevent injuries, muscle and joint recovery and pain relief.





# PBMT



Oral & Facial  
TMJ



Wrist  
Hand



Knee



Shoulder



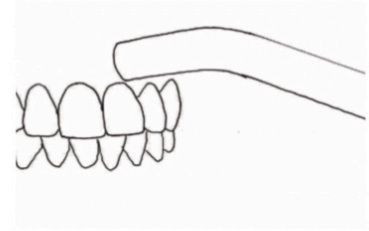
Nasal Application  
With Rod



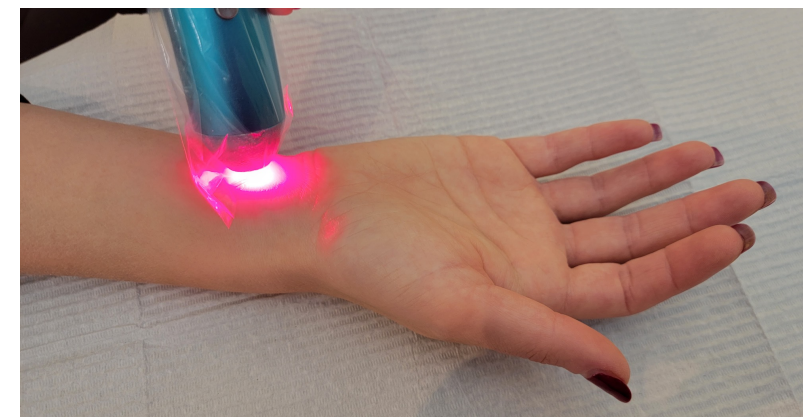
Auricular Application  
With Rod



Li4 Meridian Application  
With Ball



Dental Application  
With Wand



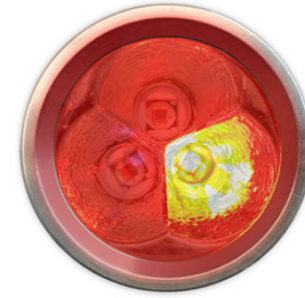
# PBM Light

## PBM Light

R 630 nm

R 660 nm

NIR 850 nm



Effective for soft tissues:

- Surface wounds
- Sore muscles and sports injuries
- Swollen tissues
- Mouth sores including oral mucositis
- Post-op discomfort
- Healing
- Inflamed joints
- Increases collagen production





# PBM Light+

Deeply penetrating energy for:

- TMJ and oro-facial pain
- Swollen tissues
- Osteoarthritis
- Inflammation of complex joints
  - Shoulders, knees and elbows
- Neuropathy
- Carpal tunnel syndrome
- Sports injuries

**PBM Light<sup>+</sup>**

R 660 nm

NIR 850 nm

NIR 940 nm





5 Wavelengths. 6 Operating Modes.

**PBM<sub>PRO</sub>**

aBL 470nm

R 630 nm

R 660 nm

NIR 850 nm

NIR 940 nm



3 different wavelength sets.  
Continuous mode and pulse mode available for each set.

Big 5 Mode:  
470, 630, 660, 850, 940nm



aBL (antimicrobial Blue) Mode:  
470nm



## 3 Unique Attachments

Efficient energy delivery for different clinical applications.

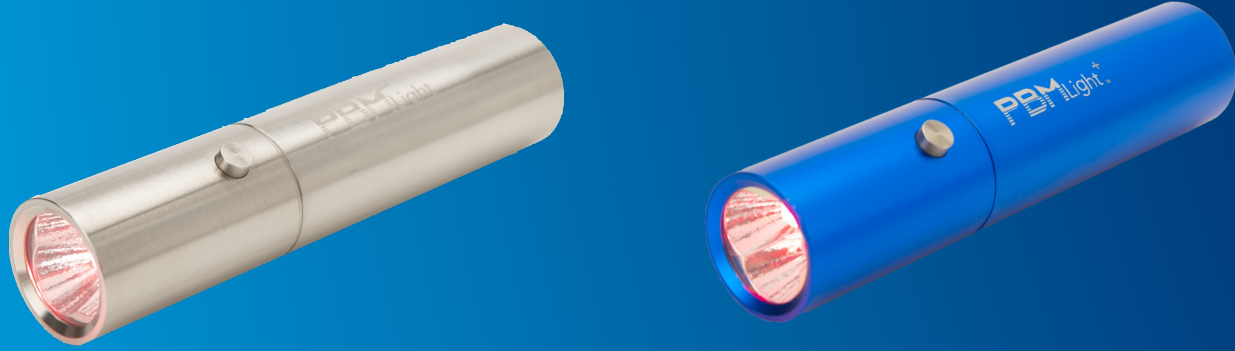
1. Ball Attachment: for smooth, focused and efficient maneuvering over muscles, joints and acupoints. Great for TMJ relief, muscle recovery and meridian Qi activation.

2. Rod Attachment: for reaching into tight spaces, like the oral cavity, nasal pathway, treating mouth sores, xerostomia, oral mucositis, rhinitis, sinusitis, and for auricular acupuncture.

3. Wand Attachment: curved for easy access and coated for efficient optic reflex and transmission of light, reaching all corners of the oral cavity and dental sites. Teeth can be treated by aiming energy at tooth neck and root (buccal and lingual) as well as directly over surgical sites.



# PBM Light PBM Light+ Specifications



|  |   |  |   |
|--|---|--|---|
| Product Size (std):                            | 26mm(w) x 120.5mm (L)                   | Net Weight (std):                                | 7.4oz / 0.21kg                                  |
| Product Size (Plus):                           | 26mm(w) x 120.5mm (L)                   | Net Weight (Plus):                               | 4.4oz / 0.12kg                                  |
| Material (std):                                | Adonized Aluminum                       | Wavelength (std):                                | 630nm, 660nm, 850nm                             |
| Material (Plus):                               | Adonized Aluminum                       | Wavelength (Plus):                               | 660nm, 850nm, 940nm                             |
| Irradiance (std):                              | Skin Contact: ~ 120mW / cm <sup>2</sup> | Irradiance (std):                                | 1" Distance from skin: ~ 40mW / cm <sup>2</sup> |
| Fluence (5 min):                               | Skin Contact: 11.5J / cm <sup>2</sup>   | Fluence (5 min):                                 | 1" Distance from skin: ~ 3.8J / cm <sup>2</sup> |
| Built-in pre-set timer: 5 minutes              |   | *Fluence is inversely related to dosage distance |   |
| Battery Type: Lithium-ion 18650 (rechargeable) |   | Battery Capacity: 2500mAh                        |   |
| Warranty: 12 months                            |   | Lifespan: 50,000 hours of use                    |   |

Oral IQ's PBM light devices, patent pending, have been registered with the FDA as a Class-2 light therapy device for temporary pain relief, medical device category K-100213, and is certified ANSI Class 3B (<500mW) as a non-surgical procedure safe for home use.





# Specifications

| PBMPro Device Specifications |   | PBMPro Attachment Outputs |                           |
|------------------------------|---|---------------------------|---------------------------|
| Size and Weight:             | 30mm (ø) x 123mm (L), 135g including battery        | Included Attachments (3): | rod, ball & wand (1 each) |
| Rating Power:                | 15w   | R + NIR + B (wand):       | 162 mW/cm2                |
| Actual Output:               | 5.52 watts (all): Red + NIR: 3.7w, Blue: 1.56w      | R + NIR (wand):           | 154 mW/cm2                |
| LED Quantity:                | 5 diodes  | B (wand):                 | 6 mW/cm2                  |
| Wavelengths:                 | 470nm (B), 630nm + 660nm (R), 850nm + 940nm (NIR)   | R + NIR + B (rod):        | 60 mW/cm2                 |
| Case Material:               | Aluminum (teal)                                     | R + NIR (rod):            | 50 mW/cm2                 |
| Battery:                     | Rechargeable Lithium Battery 18650                  | B (rod):                  | 3 mW/cm2                  |
| Irradiation:                 | > 120mW per square cm, at 1 inch distance           | R + NIR + B (ball):       | 200+ mW/cm2               |
| Timer:                       | 3 Minutes (audible)                                 | R + NIR (ball):           | 200+ mW/cm2               |
| Lifespan:                    | 50,000 hours (12 month warranty)                    | B (ball):                 | 10 mW/cm2                 |
| Attachment Dimensions        |   |                           |                           |
| Ball:                        | ø12 mm  |                           |                           |
| Rod:                         | ø5 mm, 3cm length from dome base                    |                           |                           |
| Wand (w/optical coating):    | ø8 mm, 5.5cm length from stainless steel sheath,    |                           |                           |
|                              | 7.0cm length from dome base, 8.5cm bare full length |                           |                           |

Oral IQ's PBM light devices, patent pending, have been registered with the FDA as a Class-2 light therapy device for temporary pain relief, medical device category K-100213, and is certified ANSI Class 3B (<500mW) as a non-surgical procedure safe for home use.

# PBMT Alleviates Lip Sores

Lip sore treated with PBMpro. One 3-minute cycle. Sore is significantly reduced, pt is happy.



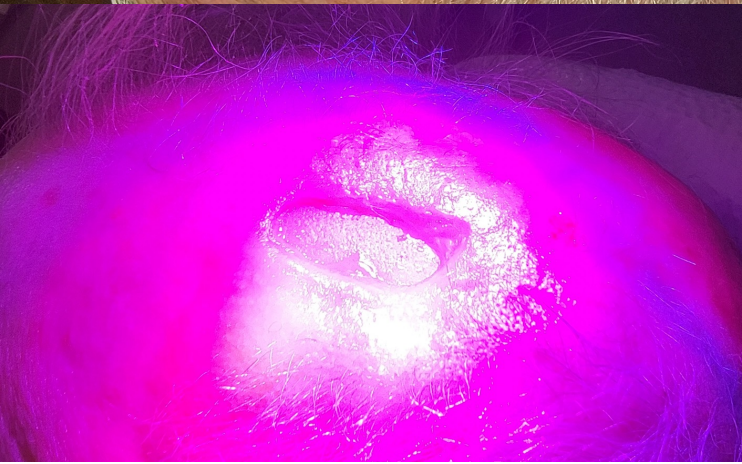
aBL (antimicrobial Blue) Mode  
470nm





# PBMT Promotes Wound Healing

Skin cancer surgery and graft. R+iR 15 mins daily for 3 months.



RIR Mode:  
630, 660, 850, 940nm



**PBM<sub>PRO</sub>**

aBL 470nm

R 630 nm

R 660 nm

NIR 850 nm

NIR 940 nm





# Rx for Trigeminal Neuralgia

Enhanced Cellular Functions:

1. Tissue Healing
2. Nerve Regeneration
3. Reducing Pain and Inflammation

DAILY PBMt for 2-3 months:

Twice Daily: 5 mins PhotoBioModulation tx with  
PBM Light + (660nm, 850nm, 940nm)

On affected local site and corresponding

Meridian system: **St 2, 4, 6, 7, 42**  
**Li4, Gb 14, Bi 2**

Supportive Supplements *antioxidant, anti-inflammatory*:

Omega 3, Alpha Lipoic Acid, B complex, ALCAR,  
N-Acetyl Cysteine & Turmeric

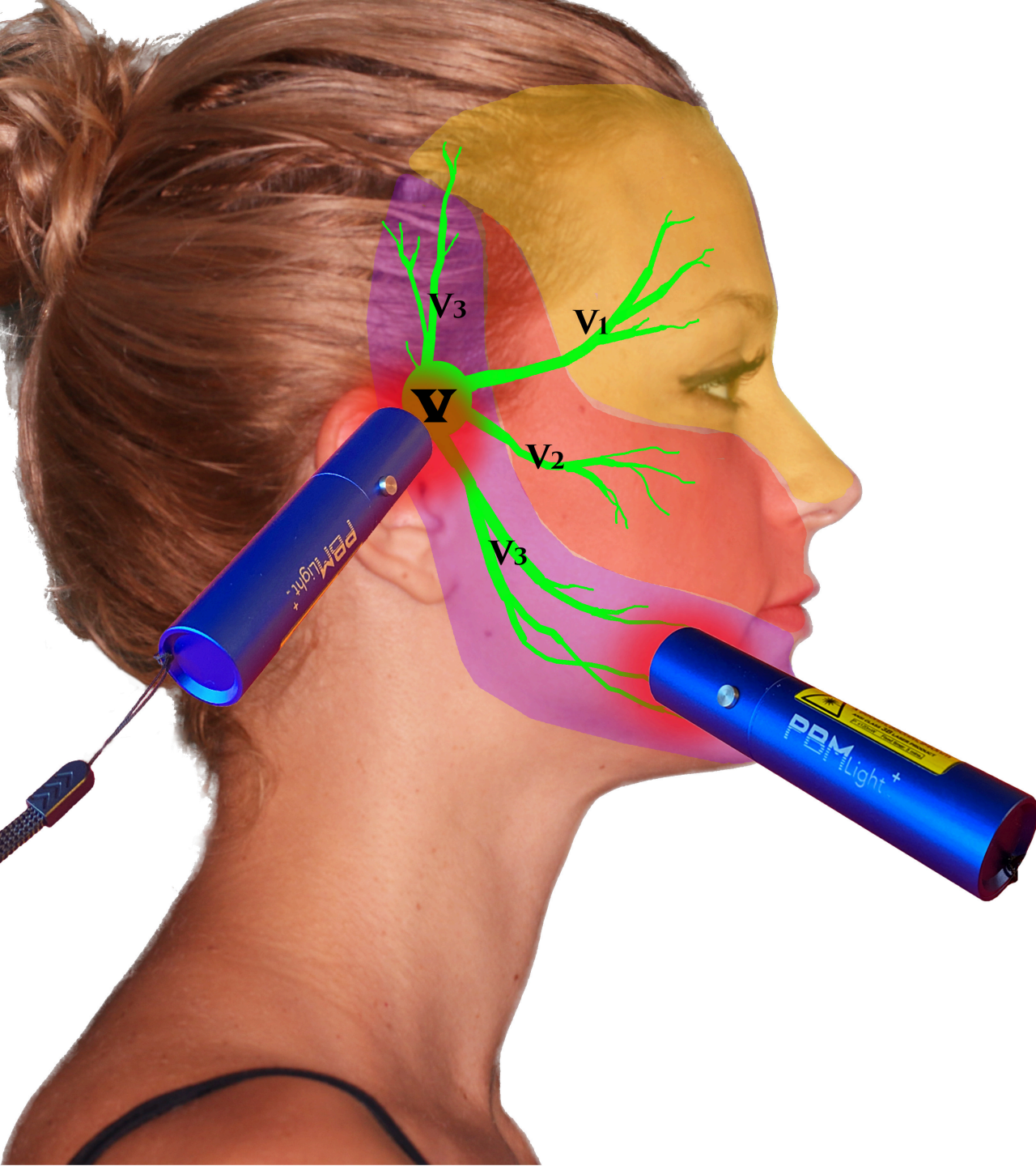


Photobiomodulation: Lasers vs Light Emitting Diodes?

<https://pubmed.ncbi.nlm.nih.gov/30044464/>

Effects of **940nm** Light Emitting Diode (LED) on Sciatic Nerve Regeneration in Rats

<https://pubmed.ncbi.nlm.nih.gov/21547474/>





# Tx for Xerostomia

Hydration, better oral care, nasal breathing

Avoid alcohol, certain meds

Acupuncture including auricular acupuncture

PBMT on salivary glandular tissues and on acupoints

Meridian Points:

Cv 22, 23, 24

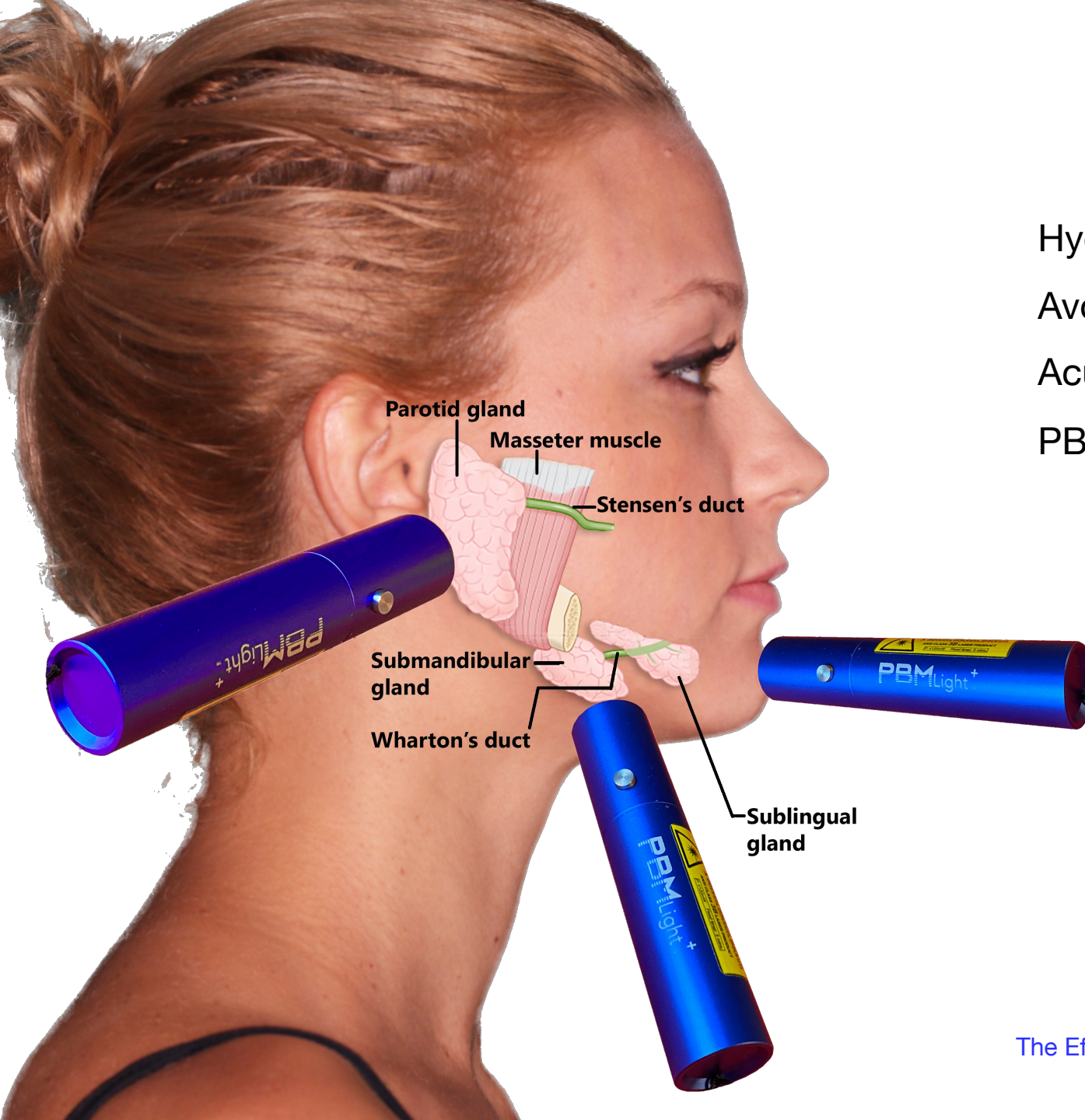
Gv 26, 27

Ex-Hn 12, 13

Li 1, 2, 3, 8

Tu 11

Tb 1



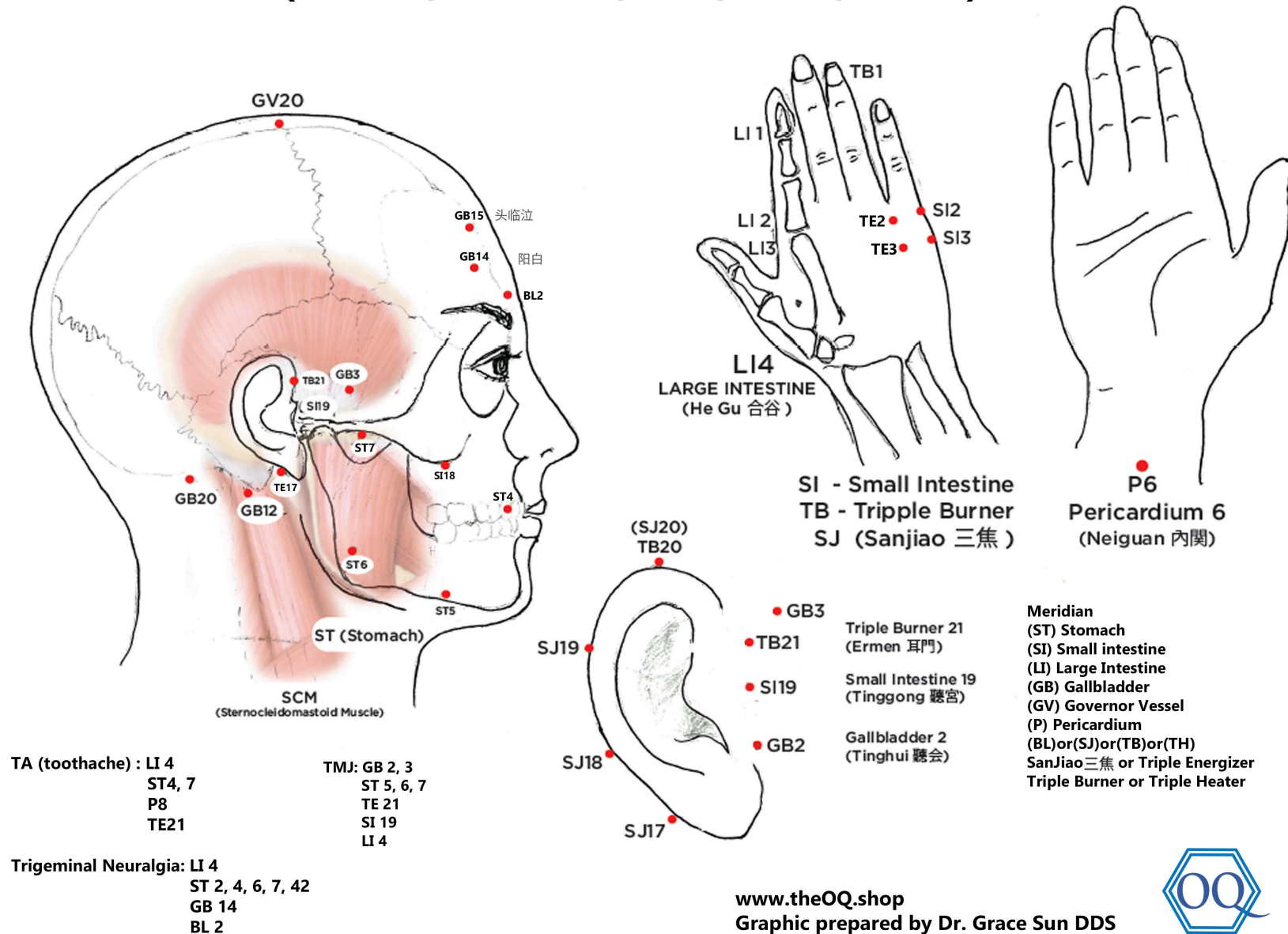
Different Protocols of Photobiomodulation Therapy of Hyposalivation

<https://pubmed.ncbi.nlm.nih.gov/29022754/>

The Effect of Low Level Laser Therapy on Salivary Glands in Patients with Xerostomia

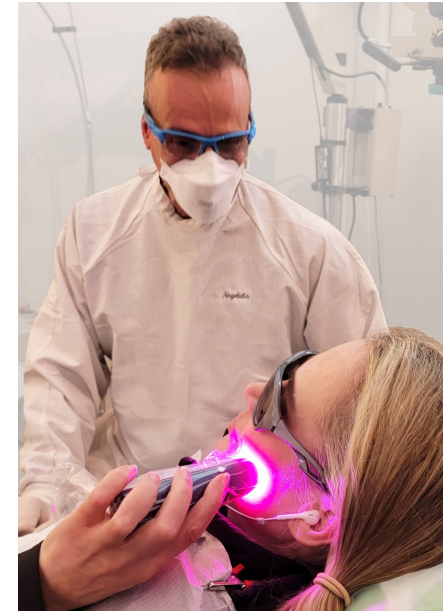
<https://pubmed.ncbi.nlm.nih.gov/21054200/>

# ACUPUNCTURE MERIDIAN POINTS FOR PAIN MANAGEMENT ( Dental, Orofacial, TMJ, Head, Stress)



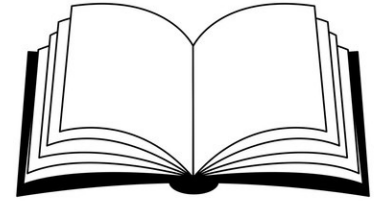


# Intro PBM (PhotoBioModulation) to Pts (sample verbiage)



- Tx Pre-Conditioning:
  - Before Dr enters room, team member shows positive energy and care. Start demo:
    - Demo operation to pt (on/off, glasses, plastic hygienic barrier). Place it in pt's hands. Position PBM Light for the patient. Let pt hold unit.
  - Go through today's procedure w/pt, explain PBM will prevent soreness, sensitivity.
    - *"We are going to use red light therapy on you that relaxes your jaw muscles, to make it easier to:*
      - 1. Receive an injection
      - 2. Go through procedure without sore muscles
      - 3. Go through procedure without sensitivity
- Post-Op Recovery:
  - Explain PBM post-op benefits while pt holds unit. Show pt proper placement as you explain:
    - *"We're going to do more red light therapy, to give you some good energy, in order to:*
      - 1. To promote healing
      - 2. To prevent a sore jaw
      - 3. To help the numbness, alleviate pain, reduce swelling and promote faster healing
  - Short explanation on PBM:
    - *"Red and infrared light are good energy that our bodies love and absorb quickly. When our bodies are being energized, we can function better, helping us heal and recover faster, with less swelling and discomfort."*

# Scientific References & Resources



Extensive resources and references can be found on Oral IQ's website:

<https://www.theoq.shop/pages/research>

1. Heiskanen, Vladimir, et al. "Photobiomodulation: Lasers vs Light Emitting Diodes?" *Photochem Photobiol Sci.*, 2018 Aug 8; 17(8): 1003-1017. doi:10.1039/c8pp00176f
2. Hudnut, Fritz, et al. "Re: 'Laser Acupuncture: A Concise Review' by Chon Et Al. (*Med Acupunct.* 2019;31(3):164–168)." *Medical Acupuncture*, vol. 32, no. 1, 2020, pp. 51–52., doi:10.1089/acu.2019.1393.
3. Loncar, Bozana, et al. "The Effect of Low-Level Laser Therapy on Salivary Glands in Patients with Xerostomia" *Photomedicine and Laser Surgery*, vol 00, no00, 2010 doi: 10.1089
4. Loncar Brzak, Bozana, et al. "Different Protocols of Photobiomodulation Therapy of Hyposalivation" *Photomedicine and Laser Surgery*, PHO-2017-4325.R2 Jul 2017
5. Keklikci, Hasibe Baser, et al. "Effects of 405, 532, 650, and 940nm Wavelengths of Low-Level Laser Therapies on Orthodontic Tooth Movement in Rats." *Progress in Orthodontics*, (2020) 21:43. <https://doi.org/10.1186/s40510-020-00343-3>
6. Shaughnessy, Timothy, Kantarci, A. & How Kau, C. "Intraoral Photobiomodulation-Induced Orthodontic Tooth Alignment: A Preliminary Study." *BMC Oral Health*, (2016) 16:3. doi:10.1186/s12903-015-0159-7
7. Serafim, Karla Guivernau Gaudens, Ramos, Solange de Paula, Mendes de Lima, Franciele et al. "Effects of 940nm Light-Emitting Diode on Sciatic Nerve Regeneration in Rats." *Lasers Med Sci*, 2010-09-20 doi:10.1007/s10103-011-0923-0
8. Hanna, Reem et al; "Photobiomodulation Therapy in Oral Mucositis and Potentially Malignant Oral Lesions: A Therapy Towards the Future." *MDPI* 2020-07-18 doi:10.3390/cancers12071949



# Created by a dentist, for your oral health and beyond.

**PBM**Light + **PBM**PRO 

Grace Sun, DDS FAACD MALD MAGD FICOI is a 1981 USC Dental School graduate who founded Sun Dental Group in the Beverly Hills area of Los Angeles, California. An early adapter of cosmetic and laser dentistry for better treatment outcomes and patient experiences, Dr. Sun has been working with both lasers and light therapy since 1997. She has lectured domestically and internationally, and is an author of and has contributed to several peer-reviewed scientific articles. In 2020-2021, the Academy of Laser Dentistry awarded Dr. Sun with the prestigious Leon Goldman Award for Clinical Excellence.



With the recent advancements in LED technology, therapeutic light units have become both portable and affordable. Dr. Sun holds the benefits of light therapy close to her own clinical philosophy, and believes in sharing the knowledge and benefits of light therapy to her colleagues, her patients and the general public. Dr. Sun believes PBM therapy enhances treatment outcomes and strengthens the philosophy of self-care, through the use of handheld PBM light therapy technology.

Dr. Sun's journey culminated in the development of safe, convenient and accessible PBM devices under the Oral IQ name.