



PHOTOBIMODULATION PROTOCOLS



INTRAORAL - 7 MM

DENTIN HYPERSENSITIVITY

INCISORS, CANINES, PREMOLARS

INTRAORAL



4 sec
spot



1

WAVELENGTH MODE

Select **DUAL** wavelength mode.

2

TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.

3

TREATMENT TIME - (3 TOTAL SESSIONS / CONSECUTIVE OR IN 72-HOUR INTERVALS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **4 SECONDS**.

4

TREATMENT TECHNIQUE

Position the tip perpendicular to and in direct contact with the treatment area. Hold the 7 mm tip steady, in a fixed position, while activating the laser for the recommended treatment duration. For incisors, canines, and premolars, ensure application at two distinct locations: one at the cervical region and the other in the apical region.

KEY METRICS PER TREATMENT SPOT

Dose

3.1 J/cm²

Power Density

0.8 W/cm²

Energy

1.2 J

DENTIN HYPERSENSITIVITY

MOLARS

INTRAORAL



4 sec
spot



1

WAVELENGTH MODE

Select **DUAL wavelength** mode.

2

TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.

3

TREATMENT TIME - (3 TOTAL SESSIONS / CONSECUTIVE OR IN 72-HOUR INTERVALS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **4 SECONDS**.

4

TREATMENT TECHNIQUE

Ensure that the tip is positioned perpendicular to and in contact with the treatment area. Hold the 7 mm tip steady, in a fixed position, while activating the laser for the recommended treatment duration. When treating molars, it is important to apply the laser at four distinct locations: the mesial cervical, distal cervical, mesial apical, and distal apical regions.

KEY METRICS PER TREATMENT SPOT

Dose

3.1 J/cm²

Power Density

0.8 W/cm²

Energy

1.2 J

DENTIN HYPERSENSITIVITY
Molars

THIRD MOLAR EXTRACTION

PAIN RELIEF

7 sec
spot



1

WAVELENGTH MODE

Select **DUAL** wavelength mode.

2

TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.

3

TREATMENT TIME - (3 TOTAL SESSIONS / 3X/WEEK FOR 1 WEEK)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **7 SECONDS**.

4

TREATMENT TECHNIQUE

Ensure the tip is placed directly in contact with the treatment area. Steadily hold the 7 mm tip in one position while activating the laser for the recommended treatment duration. Apply the first treatment spot on the vestibular gingiva in the vicinity of the extraction site, and the second treatment spot at the retromolar area on the upper portion of the gingiva. This procedure is strongly recommended for immediate post-surgery care on the first and second days following the surgical procedure. For optimal pain relief, it is recommended to also apply the 25 mm protocol treatment for third molar extraction.

INTRAORAL



7 mm

+

EXTRAORAL



25 mm

KEY METRICS PER TREATMENT SPOT

Dose

5.5 J/cm²

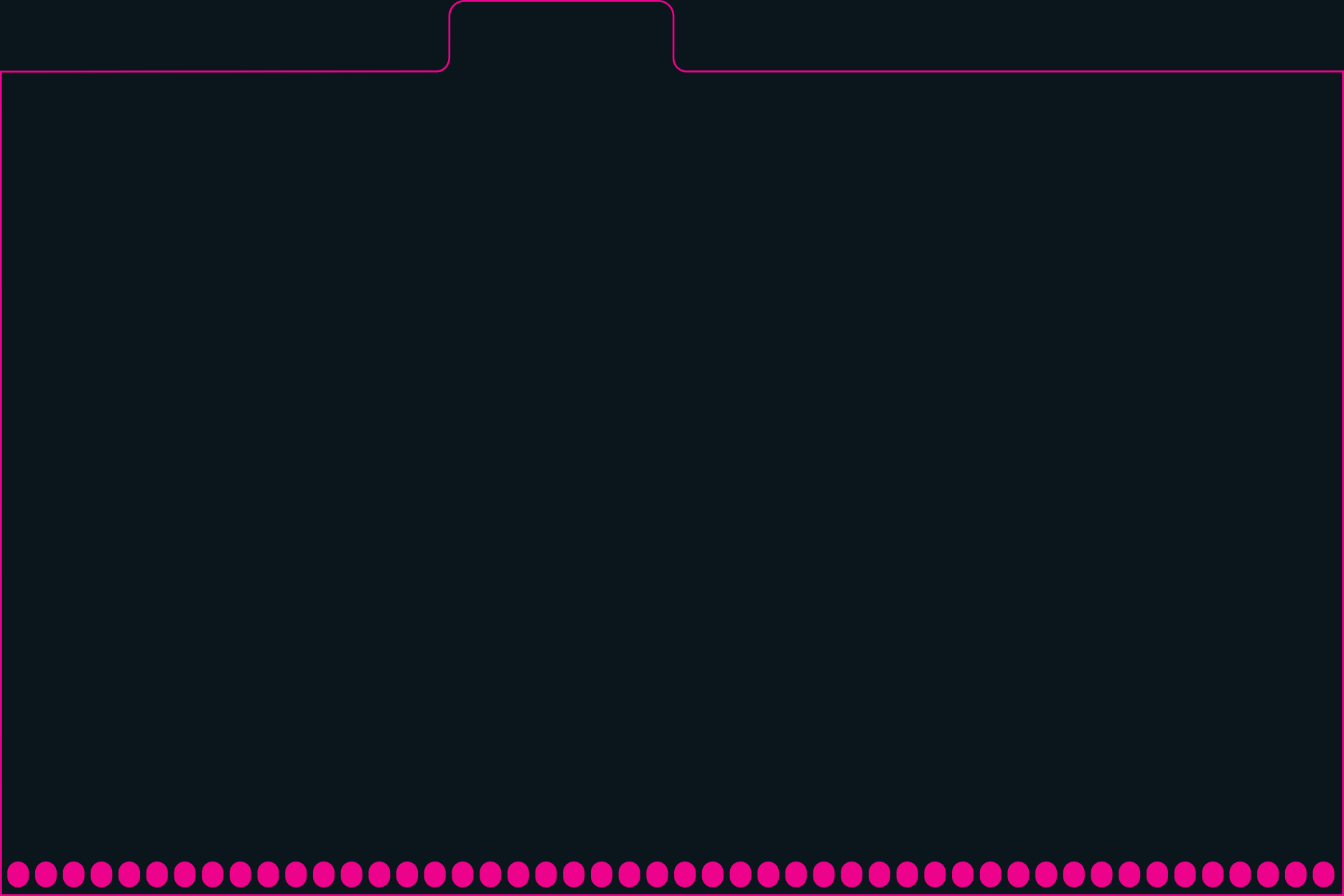
Power Density

0.8 W/cm²

Energy

2.1 J

THIRD MOLAR EXTRACTION
Pain Relief



CANKER SORE

HEALING & PAIN RELIEF

INTRAORAL



15 sec
spot



1

WAVELENGTH MODE

Select **DUAL** wavelength mode.

2

TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.

3

TREATMENT TIME - (3 TOTAL SESSIONS / 3X/WEEK FOR 1 WEEK)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **15 SECONDS**.

4

TREATMENT TECHNIQUE

For optimal results, it is advisable to apply photobiomodulation treatment 2 to 3 times a week, if feasible. The best outcomes are typically attained when treatments commence on the 1st and 2nd days upon the onset of the lesion. The quantity of spot treatments required may vary depending on the size and number of ulcers. It is recommended to administer photobiomodulation around the entire ulcer and its margins during the treatment process.

KEY METRICS PER TREATMENT SPOT

Dose

11.7 J/cm²

Power Density

0.8 W/cm²

Energy

4.5 J

CANKER SORE
Healing & Pain Relief

ORAL LICHEN PLANUS

HEALING

INTRAORAL



4 sec
spot



WAVELENGTH MODE

Select **DUAL** wavelength mode.



TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.



TREATMENT TIME - (12 TOTAL SESSIONS / 3X/WEEK FOR 4 WEEKS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **4 SECONDS**.



TREATMENT TECHNIQUE

When treating erosive or ulcerative lesions, it is important to apply the treatment to each lesion, ensuring comprehensive coverage of both the lesion itself and its margins within the oral cavity. Optimal results are obtained when the entire ulcer and the surrounding margin area are thoroughly covered during the treatment.

KEY METRICS PER TREATMENT SPOT

Dose

3.1 J/cm²

Power Density

0.8 W/cm²

Energy

1.2 J

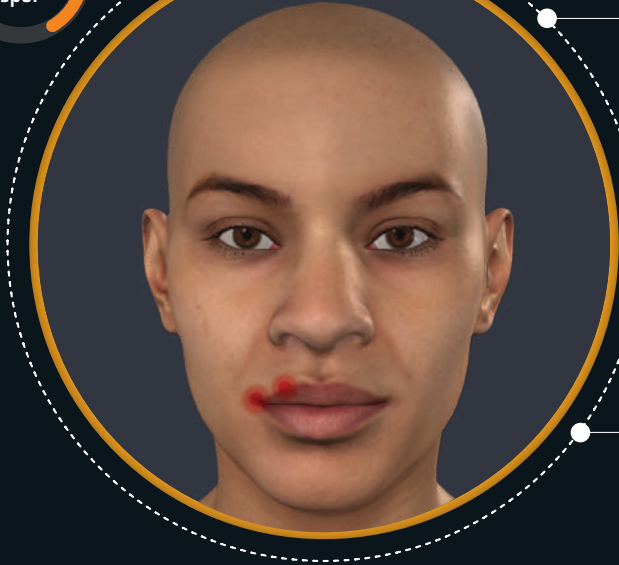
ORAL LICHEN PLANUS
Healing

HERPES LABIALIS HEALING

INTRAORAL



4 sec
spot



1

WAVELENGTH MODE

Select **DUAL** wavelength mode.

2

TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.

3

TREATMENT TIME - (2 TOTAL SESSIONS / 2X/WEEK FOR 1 WEEK)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **4 SECONDS**.

4

TREATMENT TECHNIQUE

Photobiomodulation should be administered over the treatment area. For optimal efficacy, this treatment should be conducted on two consecutive days. The quantity of treatment spots required may vary based on the size of the lesion.

KEY METRICS PER TREATMENT SPOT

Dose

3.1 J/cm²

Power Density

0.8 W/cm²

Energy

1.2 J

HERPES LABIALIS
Healing

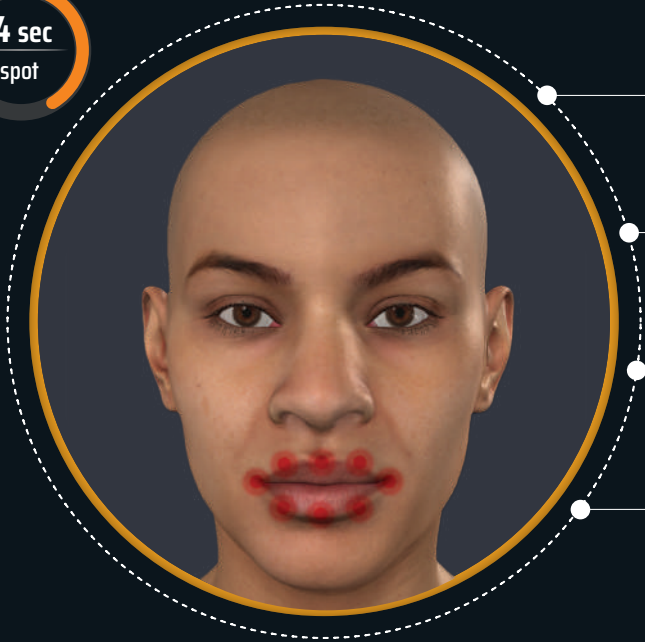
HERPES LABIALIS

PREVENTION

INTRAORAL



4 sec
spot



WAVELENGTH MODE

Select **DUAL** wavelength mode.



TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.



TREATMENT TIME - (10 TOTAL SESSIONS / 2X/WEEK FOR 5 WEEKS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **4 SECONDS**.



TREATMENT TECHNIQUE

This protocol is designed for preventative purposes. Photobiomodulation treatment should be applied precisely over the upper labial area, covering a total of 3 spots. Subsequently, the lower labial area should also be treated, encompassing an additional 3 spots. Additionally, ensure coverage of 2 spots at the commissures, including the transition to the dermis and the labial area.

KEY METRICS PER TREATMENT SPOT

Dose

3.1 J/cm²

Power Density

0.8 W/cm²

Energy

1.2 J

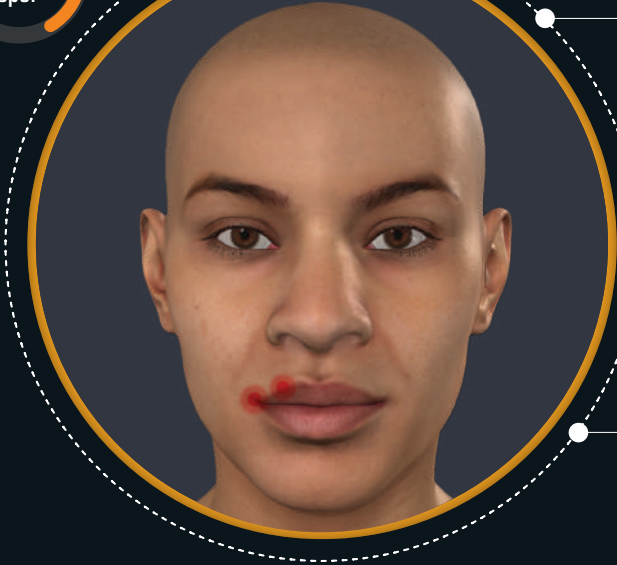
HERPES LABIALIS

PRODROME / EARLY STAGES

INTRAORAL



6 sec
spot



WAVELENGTH MODE

Select **DUAL** wavelength mode.



TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.



TREATMENT TIME - (1 TOTAL SESSION / 1X IN THE PRODRIMAL PHASE)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **6 SECONDS**.



TREATMENT TECHNIQUE

The photobiomodulation treatment should be precisely applied to the area exhibiting tingling or redness. This is a one-time treatment. The quantity of treatment spots required may vary depending on the size of the affected area. If blisters develop in the area, it is imperative not to apply photobiomodulation, as it could stimulate virus growth. In the event of blister rupture, the recommended course of action is to apply the Herpes Labialis - Healing protocol.

KEY METRICS PER TREATMENT SPOT

Dose

4.7 J/cm²

Power Density

0.8 W/cm²

Energy

1.8 J

HERPES LABIALIS
Prodrome / Early Stages

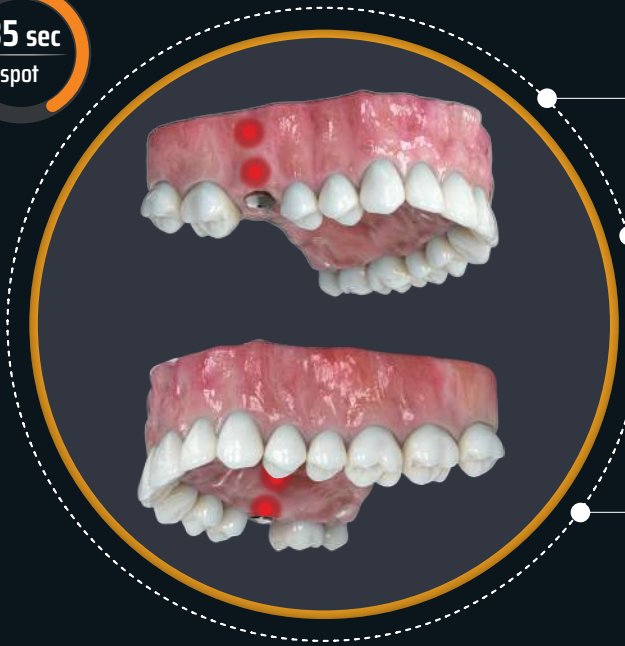
IMPLANTS

HEALING

INTRAORAL



35 sec
spot



WAVELENGTH MODE

Select **DUAL** wavelength mode.



TIP SELECTION

Attach **7 mm** (0.3 W / 0.38 cm² spot size) PBM tip to laser handpiece.



TREATMENT TIME - (3X/WEEK FOR 2-6 WEEKS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **35 SECONDS**.



TREATMENT TECHNIQUE

The irradiations should be applied precisely over the implant region, both vestibular and lingual, covering the bone tissue to promote osseointegration, with the additional potential benefits of reducing edema and pain.

KEY METRICS PER TREATMENT SPOT

Dose

27.3 J/cm²

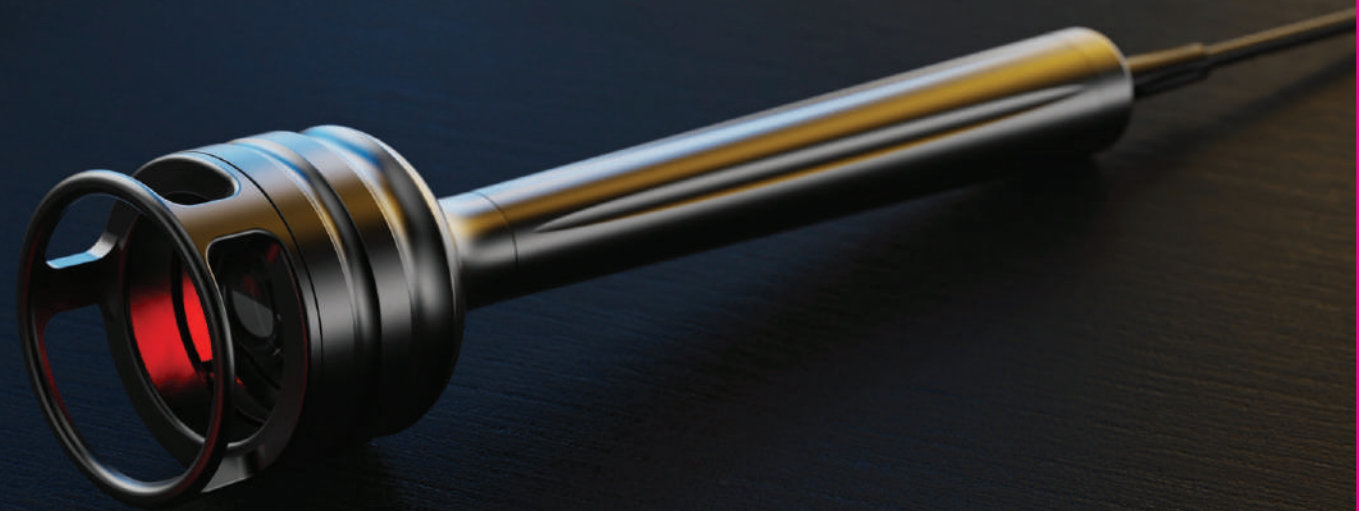
Power Density

0.8 W/cm²

Energy

10.5 J

IMPLANTS
Healing

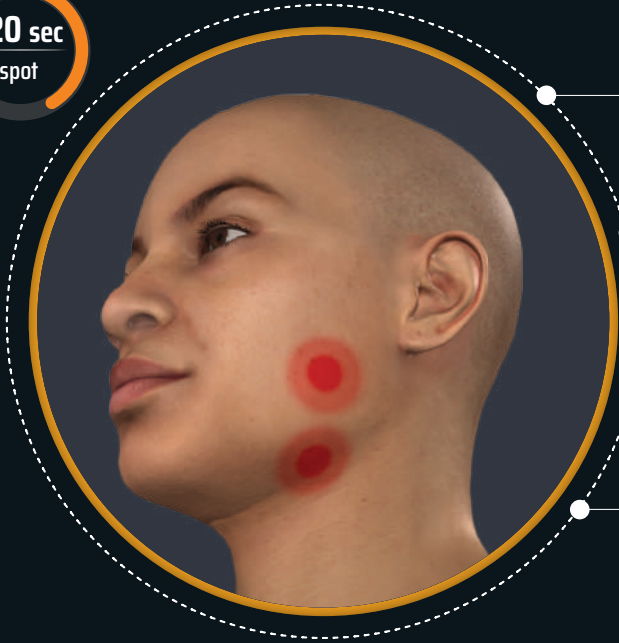


EXTRAORAL - 25 MM

THIRD MOLAR EXTRACTION

PAIN RELIEF

20 sec
spot



1

WAVELENGTH MODE

Select **DUAL wavelength** mode.

2

TIP SELECTION

Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece. To ensure proper use, apply PBM spacer to the **25 mm** tip.

3

TREATMENT TIME - (3 TOTAL SESSIONS / 3X/WEEK FOR 1 WEEK)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **20 SECONDS**.

4

TREATMENT TECHNIQUE

Position the tip in direct contact with the treatment area. Steadily hold the 25 mm tip at the emergence of the masseter muscle as your first treatment spot, and then at the submandibular area for the second treatment spot. For optimal pain relief, it is recommended to also apply the 7 mm protocol treatment for third molar extraction.

EXTRAORAL



25 mm

+

INTRAORAL



7 mm

KEY METRICS PER TREATMENT SPOT

Dose

4.07 J/cm²

Power Density

0.2 W/cm²

Energy

20.0 J

TEMPOROMANDIBULAR DISORDERS

ARTHROGENIC

EXTRAORAL 

20 sec
spot



1

WAVELENGTH MODE
Select **DUAL wavelength** mode.

2

TIP SELECTION
Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece.
To ensure proper use, apply PBM spacer to the **25 mm** tip.

3

TREATMENT TIME - (10 TOTAL SESSIONS / 2X/WEEK FOR 5 WEEKS)
For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **20 SECONDS**.

4

TREATMENT TECHNIQUE
For arthrogenic treatment, position tip directly in contact with the TMJ muscle causing discomfort.

KEY METRICS PER TREATMENT SPOT

Dose **4.1 J/cm²**

Power Density **0.2 W/cm²**

Energy **20.0 J**

TMJ DISORDERS
Arthrogenic

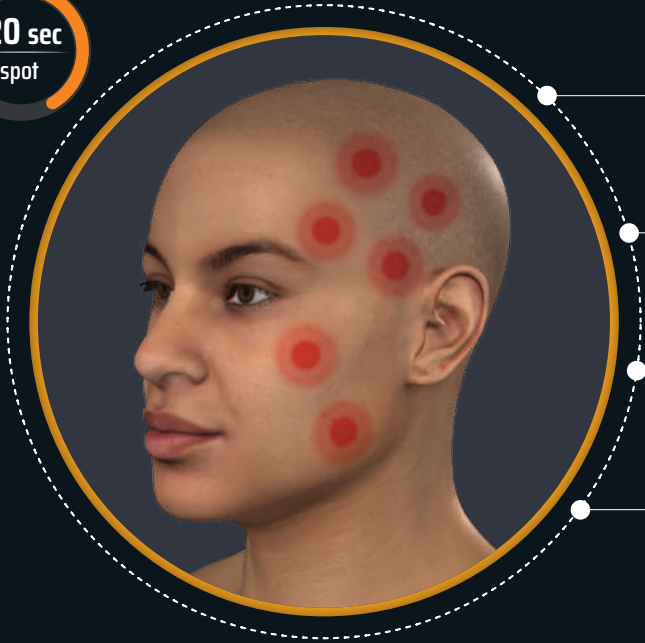
TEMPOROMANDIBULAR DISORDERS

MYOGENIC

EXTRAORAL



20 sec
spot



WAVELENGTH MODE

Select **DUAL wavelength** mode.



TIP SELECTION

Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece.
To ensure proper use, apply PBM spacer to the **25 mm** tip.



TREATMENT TIME - (10 TOTAL SESSIONS / 2X/WEEK FOR 5 WEEKS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **20 SECONDS**.



TREATMENT TECHNIQUE

When treating myogenic conditions, it is necessary to apply treatment to four spots on the temporal muscle and two spots on the masseter muscle, totaling six spots.

KEY METRICS PER TREATMENT SPOT

Dose

4.1 J/cm²

Power Density

0.2 W/cm²

Energy

20.0 J

TMJ DISORDERS
Myogenic

ORAL LICHEN PLANUS

HEALING

EXTRAORAL



30 sec
spot



WAVELENGTH MODE

Select **DUAL wavelength** mode.



TIP SELECTION

Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece. To ensure proper use, apply PBM spacer to the **25 mm** tip.



TREATMENT TIME - (12 TOTAL SESSIONS / 3X/WEEK FOR 4 WEEKS)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **30 SECONDS**.



TREATMENT TECHNIQUE

Administer treatment extraorally on the skin, targeting the area corresponding to the oral lesion. If the lesion is located at the border of the tongue, instruct the patient to touch the tongue against the buccal mucosa. The most favorable outcomes are achieved when the entire lesion area is comprehensively covered during the treatment.



KEY METRICS PER TREATMENT SPOT

Dose

6.1 J/cm²

Power Density

0.2 W/cm²

Energy

30.0 J

ORAL LICHEN PLANUS
Healing

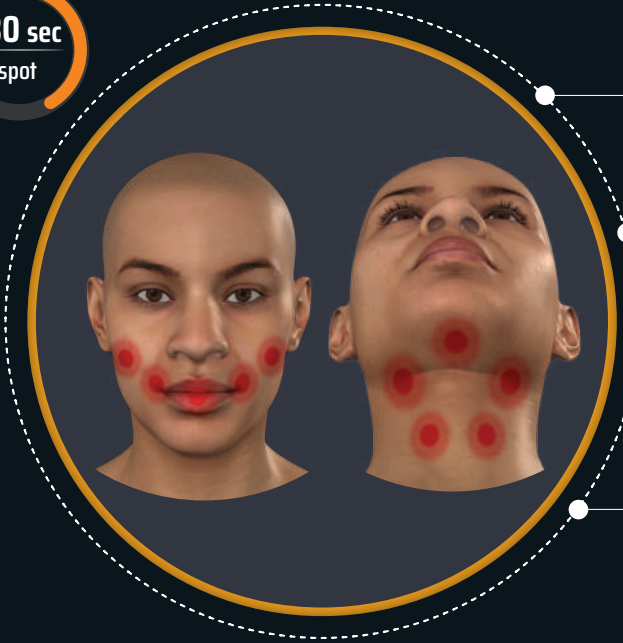
ORAL MUCOSITIS

HEALING

EXTRAORAL



30 sec
spot



WAVELENGTH MODE

Select **DUAL** wavelength mode.



TIP SELECTION

Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece. To ensure proper use, apply PBM spacer to the **25 mm** tip.



TREATMENT TIME - (EVERY DAY / 7X/WEEK FOR THE TREATMENT DURATION)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **30 SECONDS**.



TREATMENT TECHNIQUE

This treatment should be performed daily for patients undergoing head and neck radiotherapy or cycles of chemotherapy.

KEY METRICS PER TREATMENT SPOT

Dose

6.1 J/cm²

Power Density

0.2 W/cm²

Energy

30.0 J

ORAL MUCOSITIS
Healing

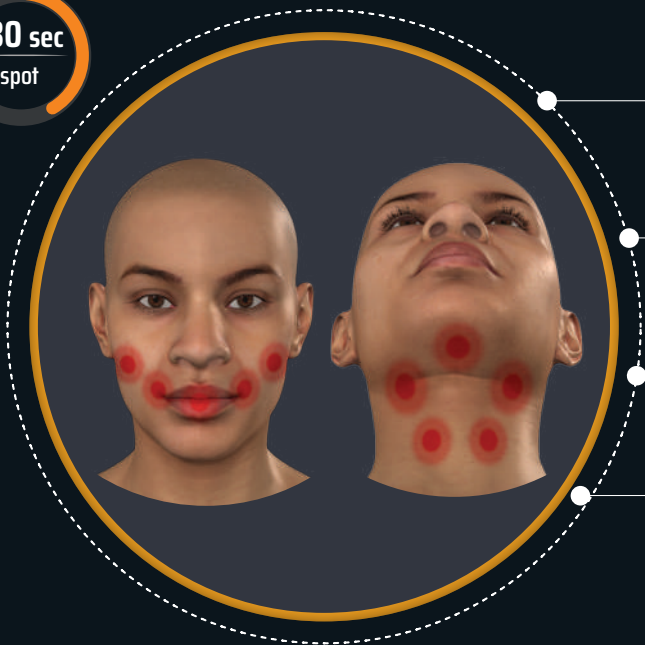
ORAL MUCOSITIS

PREVENTION

EXTRAORAL



30 sec
spot



1

WAVELENGTH MODE

Select **DUAL** wavelength mode.

2

TIP SELECTION

Attach **25 mm** (1 W / 4.91 cm² spot size) PBM tip to laser handpiece. To ensure proper use, apply PBM spacer to the **25 mm** tip.

3

TREATMENT TIME - (**EVERY DAY / 7X/WEEK FOR THE TREATMENT DURATION**)

For consistent results, the tip should be applied and not moved during the protocol treatment time. Each spot should be treated for **30 SECONDS**.

4

TREATMENT TECHNIQUE

This treatment should be performed daily for patients undergoing head and neck radiotherapy or cycles of chemotherapy.

KEY METRICS PER TREATMENT SPOT

Dose

6.1 J/cm²

Power Density

0.2 W/cm²

Energy

30.0 J

ORAL MUCOSITIS
Prevention

DENTIN HYPERSENSITIVITY

- Machado AC, Viana ÉL, Farias-Neto AM, et al. **Is photobiomodulation (PBM) effective for the treatment of dentin hypersensitivity? A systematic review.** *Lasers Med Sci.* 2018;33(4):745-753. doi:10.1007/s10103-017-2403-7
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TMJ

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THIRD MOLAR EXTRACTION

- de Barros DD, Dos Santos Barros Catão JS, Ferreira ACD, Simões TMS, Almeida RAC, de Vasconcelos Catão MHC. **Low-level laser therapy is effective in controlling postoperative pain in lower third molar extractions: a systematic review and meta-analysis** [published correction appears in *Lasers Med Sci.* 2022 Jun 11;]. *Lasers Med Sci.* 2022;37(5):2363-2377. doi:10.1007/s10103-021-03470-3
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CANKER SORE

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HERPES LABIALIS

- Zanella PA, Onuchic LF, Watanabe EH, et al. **Photobiomodulation for Preventive Therapy of Recurrent Herpes Labialis: A 2-Year In Vivo Randomized Controlled Study.** *Photobiomodul Photomed Laser Surg.* 2022;40(10):682-690. doi:10.1089/photob.2022.0054
- Bojović M, Kesić L, Jovanović G, Burić N, Savić Z, Obradović R, Petrović MS. **Application of soft laser in the treatment of herpes labialis: pilot study.** *Acta Stomatologica Naissii.* 2014;30(69)1342-1347. doi: 10.5937/asn1469342B
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ORAL LICHEN PLANUS

- Hoseinpour Jajarm H, Asadi R, Bardideh E, Shafae H, Khazaei Y, Emadzadeh M. **The effects of photodynamic and low-level laser therapy for treatment of oral lichen planus-A systematic review and meta-analysis.** *Photodiagnosis Photodyn Ther.* 2018;23:254-260. doi:10.1016/j.pdpdt.2018.07.001
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ORAL MUCOSITIS

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