

LIGHT MODULATION®

IN ORAL HYGIENE



LIGHT MODULATION in ORAL HYGIENE



TULIP MED D

Specific for Oral Hygiene and Parodontology

4 CERTIFICATIONS

- Medical CE (CE0476) - Europe
- FDA 510k - USA
- TGA - Australia
- ISO - Europe

4 INTERNATIONAL PATENTS



LIGHT MODULATION in ORAL HYGIENE

LIGHT MODULATION® OPERATIVE PROTOCOL OF PREVENTIVE AND NON-INVASIVE SUPPORT THERAPY FOR PERIODONTAL DISEASES WITH PSR EXAM



LIGHT MODULATION in ORAL HYGIENE

WHAT IS PSR

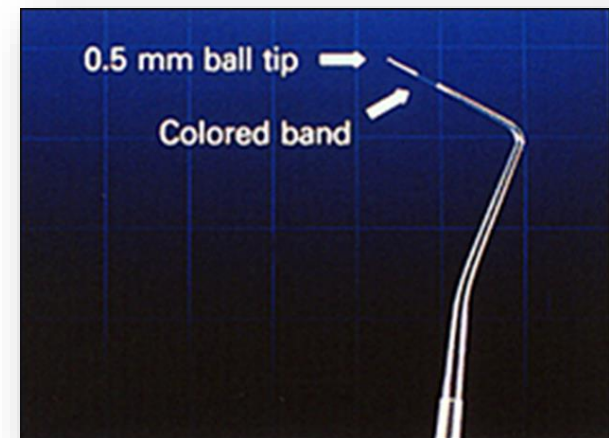
- **P**eriodontal **S**creening and **R**ecording is a screening diagnostic test able to identify quickly patients affected by periodontitis .
- The purpose of the PSR developed by the American Academy of Periodontology is the identification of health state of periodontal tissues by a rapid and effective procedure that avoids an unnecessary waste of human and economic resources .

**PERIODONTAL SCREENING
& RECORDING**

S¹	S²	S³
S⁶	S⁵	S⁴

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SEXTANT SCORE MONTH DAY YEAR





LIGHT MODULATION in ORAL HYGIENE

E-LIGHT D/TULIP MED operative protocol for periodontal diseases with PSR exam

- PSR can be interpreted by following a few simple guidelines, suggesting the most appropriate therapeutical procedure or the necessary in-depth diagnosis before treatment.

CODE 0: gingival health

CODE 1: presence of gingivitis

CODE 2: presence of retentive factors for bacterial plaque

CODE 3 AND 4: suspected periodontitis



LIGHT MODULATION in ORAL HYGIENE

E-LIGHT D/TULIP MED operative protocol for periodontal diseases with PSR exam

CODE 0 : gingival health

If the patient has all sextants with code 0 a primary prevention program is recommended.

Preventive program E-LIGHT D/ TULIP MED :

- 2 sessions of 20 min
- with 10 days interval .



LIGHT MODULATION in ORAL HYGIENE

E-LIGHT D/TULIP MED operative protocol for periodontal diseases with PSR exam

CODE 1 : presence of gingivitis

Therapeutic program E- LIGHT D/ TULIP MED : 3 sessions

- 1 session of 10 min just after oral hygiene
- 2 sessions of 20 min every 10 days



LIGHT MODULATION in ORAL HYGIENE

E-LIGHT D/TULIP MED operative protocol for periodontal diseases with PSR exam

CODE 2 : presence of retentive factors of bacterial plaque

Therapeutic program E- LIGHT D/ TULIP MED : 4 sessions

- 1 session of 10 min just after oral hygiene
- 3 sessions of 20 min every 10 days



LIGHT MODULATION in ORAL HYGIENE

E-LIGHT D/TULIP MED operative protocol for periodontal diseases with PSR exam

CODE 3 - 4 : suspected periodontitis

Therapeutic program **E- LIGHT D/ TULIP MED** : 6 sessions

- 6 sessions of 20 min every 7 days, during other treatments.

Supporting program to :

- Causal therapy
- Mechanical non-surgical therapy (root planing)
- Drug therapy
- Surgical therapy



LIGHT MODULATION in ORAL HYGIENE

Which is the innovation that characterizes TULIP ?

- The innovation is in the source of emission. It is made of high pressure Diode Micro Lasers able to emit infrared rays at a wavelength of 835 nm which has the advantage of acting in **depth**, allowing extra oral applications.
- Light Modulation[®] light has an excellent conduction through human tissue and the prolonged irradiation at the correct wavelength, determines its greater infiltration and effectiveness.
- With Light Modulation[®] the electrical potential is converted into electromagnetic energy emitted in the form of **light photons**.
- Light Modulation[®] does not carry enough energy to damage the tissue, but enough to stimulate a response. Its effect is **photochemical** not photothermal.
- The emitted light is monochromatic (same frequency), coherent (able to maintain the same frequency for a long time) but unlike in a laser, light is not collimated.
- Light Modulation[®] Medical technology is unique and Patented.



LIGHT MODULATION in ORAL HYGIENE

PHOTOBIOSTIMULATION...NAMELY

A series of atraumatic biochemical reactions developed between light photons emitted by Light Modulation[®] equipment and some cell receptors.

- It starts with a light stimulus.
- It triggers the increase of intracellular Ph and electric potential of the mitochondrial membrane.
- It achieves an increase in the concentration of ATP and of its synthesis.

THERAPEUTIC EFFECTS

- Increased speed to restore the integrity of treated tissues.
- Increased lymphatic drainage
- Stimulation of vascularization and local blood flow.

LIGHT MODULATION[®] therapy
optimizes the biological response of gum tissue.



LIGHT MODULATION in ORAL HYGIENE

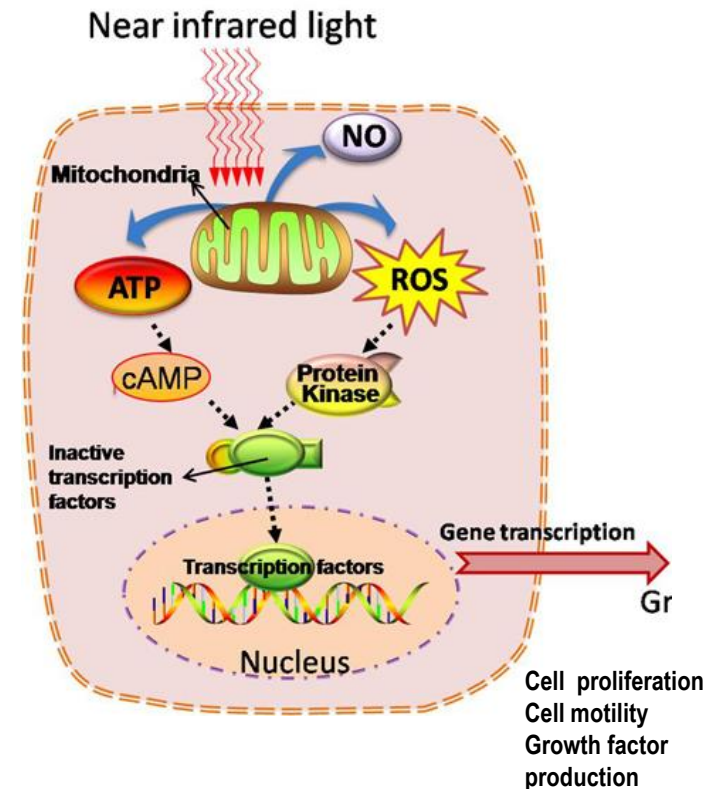
LIGHT MODULATION ... WHY ?

- **Light Modulation**[®] therapy adds a significant improvement in the therapeutic use of mechanical periodontal therapies, ensuring success in the short and long term.
- **Light Modulation**[®] treatment stimulates cell regeneration and **gum tissue trophism**: it is also recommended **at preventive level**, in combination with the standard hygiene treatment.
- The simplicity of the procedure and the immediate perception of results assure the complete satisfaction of patients.
- Thanks to this **innovative** proposal, Dentist is assured to **retain** patients.
- With **Light Modulation**[®], **unique and Patented** technology, the Doctor **completes** its offer to patients.

LIGHT MODULATION in ORAL HYGIENE

LIGHT MODULATION ...HOW IT WORKS:

- **Light Modulation®** is a strong metabolic enhancer
- The **infrared** light penetrates in depth and optimizes the biologic response of tissues, promoting mitochondrial parodontal fibroblasts reaction
- Infrared light stimulates mitochondria (2/3000 inside each cell) that are the energetic source of the cell. The stimulated mitochondria produce ATP.
- Light Modulation treatments ensure an increased ATP production of the cell, production that, because of the age and of several other factors, decreases over time.



LIGHT MODULATION in ORAL HYGIENE

Near infrared (NIR) transfacial led therapy Light Modulation® (LM) a new adjuvant treatment in postsurgical and chronic periodontal patients



Giovanni Mauro MD, DDS

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Master in Aesthetic Medicine

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Master in Implantology and Prosthetic Dentistry

LIGHT MODULATION in ORAL HYGIENE



Doc 111 rev 00 – ENG – PHTOBIOSTIMULATION WITH IR LED LIGHT - B.S. RONCATI



**PHOTOBIOSTIMULATION
with INFRARED LED LIGHT
(LIGHT MODULATION® TECHNOLOGY)
as an ADJUNCTIVE THERAPY in
Maintenance Recall :
A PRELIMINARY STUDY**

Marisa Roncati, B.S., R.D.H., D.D.S.
Studio Dr. Stefano Parma Benfenati – FERRARA Italy
Assistant Professor - University of BOLOGNA Italy -
Master on Post-prosthetic follow-up and
professional hygiene

SCIENTIFIC PAPERS

ANS! YOUNG
per Voi giovani

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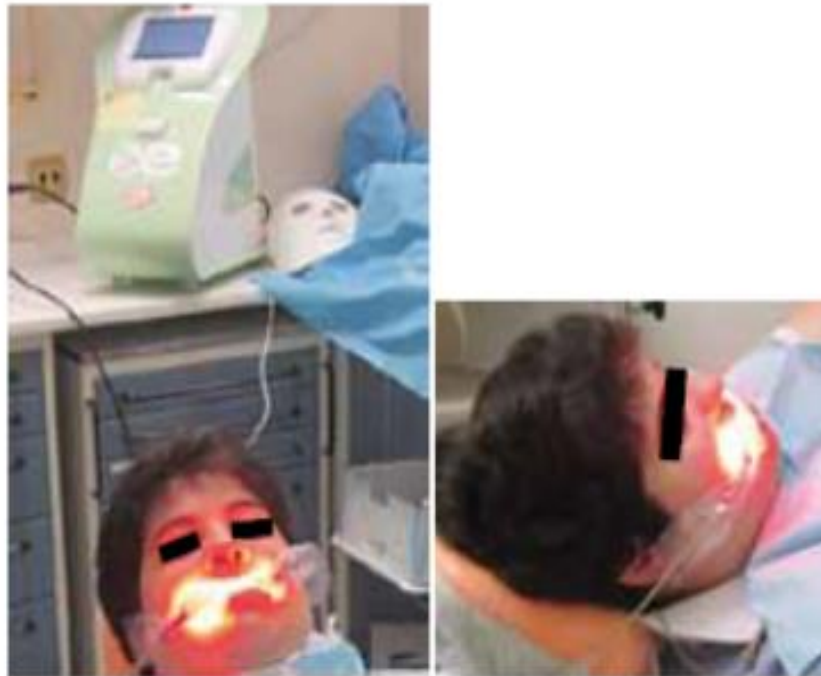
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SCIENTIFIC PAPERS



Pict. 30-31 Clinical application of infrared energy to improve tissue oxygenation, accelerating speed of capillary microcirculation, for a cicatrizing and anti-inflammatory action and to promote better healing (E-LIGHT Light Modulation® (L.M.) TECHNOLOGY **Espansione Group, Bologna, Italy**

SCIENTIFIC PAPERS



Pict.74 Photobiostimulation (PBS) with infrared light (630-1000 nm) using a device emitting a red light (E-LIGHT MODULATION® TECHNOLOGY). It is an adjunctive therapy that promotes an increase in the peripheral microcirculation speed and a cellular proliferation to the advantage of the healing processes.



ADVANCED ORAL HYGIENE

DENTIST ADVANTAGES:

- Simple application of treatment: intuitive touch screen interface and imbedded management software allow always the optimal result
- It does not require the Dentist to stand by the patient
- It does not require a «dedicated» work position
- Minimum time requested: 15 minutes
- Comfort and satisfaction of your patient
- **Adjuvant in the non-surgical treatment of periodontitis**
- **Considerable pain reduction of 1/2 points (VAS)**
- **Reduction of germs responsible of parodontal diseases (directly or through disinfectants excitement – PDT photodynamic -)**
- **Accelerates tissue repair (post-surgery)**



ADVANCED ORAL HYGIENE

PATIENT ADVANTAGES

- Immediate satisfaction of patient: visible result
- **Fast** treatment: **15 minutes**
- Gums bleeding reduced: **as of first treatments**
- No risks of bacteria resistance
- Non-invasive: **extraoral** application
- Totally painless...in fact it is a **pleasant** application
- **No side effects**
- Very reasonable cost

