



PHOTOBIOSTIMULATION
MULTIFUNCTION

Keep
PHOTOBIOSTIMULATION
4.0 evolution

Keep

PHOTOBIOSTIMULATION

4.0 evolution

FOR YOUR BUSINESS

- ✓ An answer to the needs of all ages and skin types
- ✓ Gain new customers all year round
- ✓ Various treatments, many solutions
- ✓ New, safe and effective treatments in just 20 minutes per session
- ✓ Tested and approved pre set protocols
- ✓ High yield results
- ✓ Easy to use

The Tuenda benefits

FOR YOUR CUSTOMER

- ✓ Totally non-invasive and painless treatments
- ✓ Stimulates natural physiological processes
- ✓ Long-lasting results
- ✓ Increases the effect of treatments compared to fillers and micro dermis abrasion alternatives.



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LET GET TO KNOW KEEP 4.0 PHOTOBIOSTIMULATION

The KEEP system helps to improve skin and tissue condition by applying LED photo bio stimulation technology. Human tissue cells absorb light, activate physiological processes that restore normal skin health conditions, and improve overall appearance.

The protocols, clinically tested, combine 3 wavelengths (Blue, Red, IR) through one SINGLE IRRADIATION MODULE. Each single protocol uses a pre set sequence of wavelengths for the entire 20-minute session.

AESTHETIC
MEDICINE

FUNCTIONAL
AESTHETIC
MEDICINE

WELLNESS



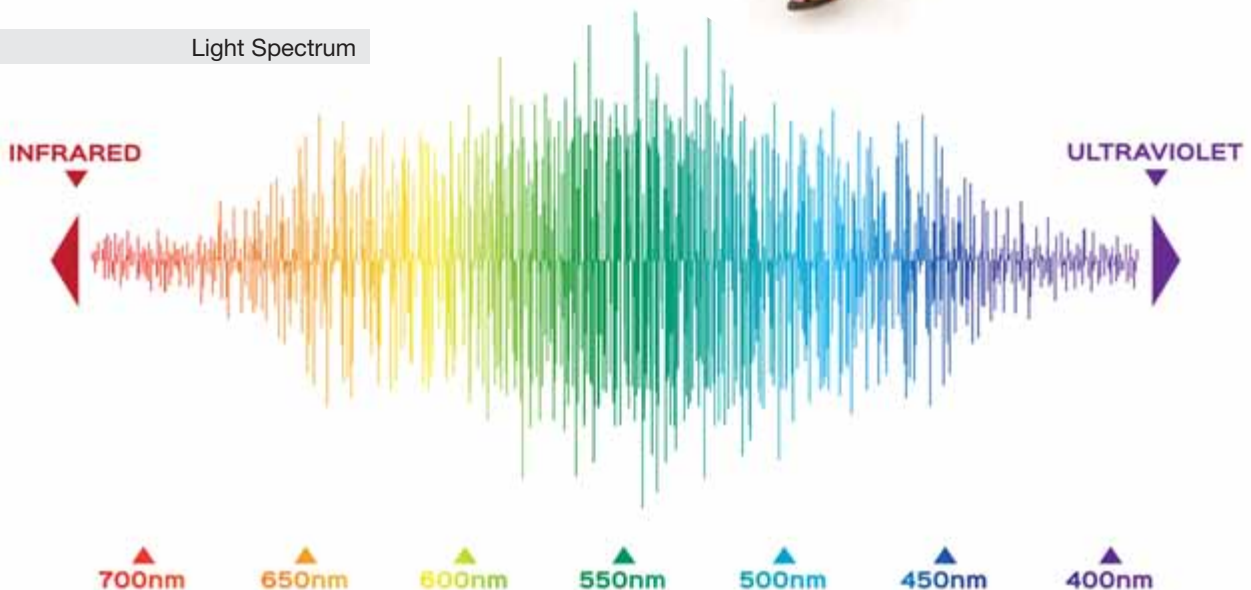
PHOTOBIOSTIMULATION

It is a science that uses light energy (visible and invisible) to stimulate a physiological effect on living tissues, without altering cell morphology and the genomic sequence of DNA.

Photo modulation stimulates the activity of target cells and chromophores, which absorb photons and the energy they transmit. As a result a cellular biological response is triggered, stimulating an extensive reproduction of ATP, which is at the core of the vitality process in cells.

Unlike other technologies (lasers, radio frequency, etc.), LED photo bio stimulation does not emit heat, does not cause ablation and is totally non-invasive and painless.

Light Spectrum



RED LIGHT ●

A wavelength of 633 nm penetrates the tissue to dermis level, and has a direct effect on the production of ATP, the natural energy source of cells. The red LED light stimulates cell activity and the proliferation of fibroblasts and keratinocytes through a photochemical effect, leading to the production of new collagen and elastin in the dermal matrix and the formation of new tissue.

The result is an increase in the tone of the tissue treated, becoming more compact and luminous, with greater hydration and an increase in oxygenation of the skin.

The red LED light is effective in all treatments that stimulate skin renewal.

BLUE LIGHT ●

Blue light acts within clogged sebaceous follicles, that cause redness, inflammation and blackheads in the presence of the acne bacteria (*P. Acnes*). At a wavelength of 415 nm, generated by the KEEP system there is a peak of absorption of the porphyrins present in the bacterium. This process leads to a series of chain reactions, with a sequence that generates Singlet Oxygen (O₂) only, strongly reactive, that alters the RNA sequence of the bacterium by annihilating it selectively, without causing damage to the surrounding cells.

INFRARED LIGHT ●

The 830 nm LED light wavelength exerts an anti-inflammatory action and immunological stimulation of the skin. Infrared light significantly activates cells normally present in an inflammatory phase (mast cells, neutrophils and macrophages); in addition, it accelerates the process of tissue and cellular remodelling and repair by stimulating the activity of keratinocytes and myofibroblasts.

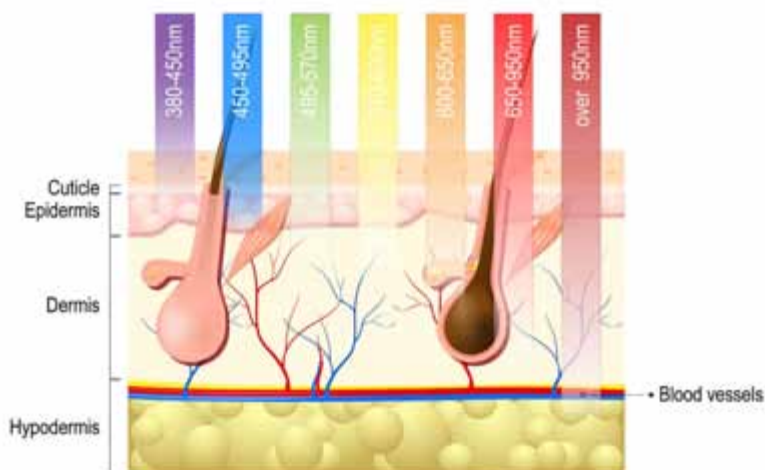
Infrared light also is effective in the treatment of inflammatory conditions, discolouration, irritation and redness of sensitive skin.

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LIGHT THERAPY



Effect of wavelengths on tissue cells

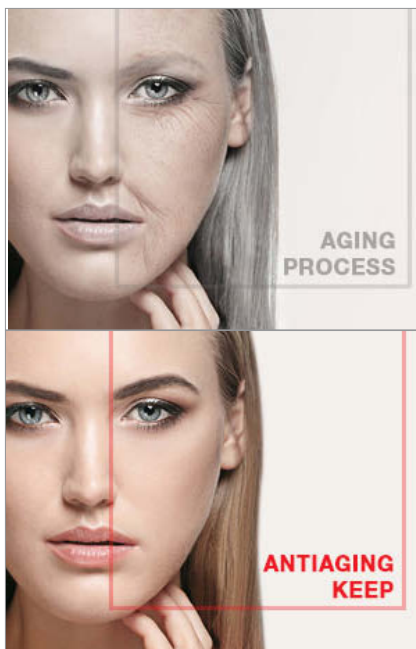
Nominal wavelength (nm)	CELL TYPES/ACTION LEVEL					
	Mast	Neutrophil	Macrophage	Fibroblast	Fibro-Myo	Keratinocyte
● 630 - 670	++	+	++	+++	+	+++
● 830	+++	+++	+++	+	+++	+++

- ✓ ANTIAGING
- ✓ SEBUM REGULATION
- ✓ SENSITIVE SKIN
- ✓ RE- MOISTURIZING



AESTHETIC
MEDICINE

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20
MINUTES
FOR SESSION

AESTHETIC MEDICINE
PROTOCOLS
8 SESSIONS

During the same session, this Aesthetic Medical treatment uses Red (633nm) and (833nm) and Infrared LED light in sequence. The results show a marked improvement in skin tone and texture.

The treated skin is more elastic, compact and luminous.

The combined action of LED light increases vascular activity giving the skin a healthier and enriched appearance, improving skin density and reducing the thinning of the stratum corneum (corneal layer).

- Pre-set protocols
- Medical certification for self treatments
- No contact between led module and customer
- No Operator
- Non-invasive
- Completely Painless

ANTIAGING

Skin is subject to an intrinsic and unpredictable ageing process, further conditioned by various exogenous factors including ultraviolet radiation that accelerates skin ageing (photo - ageing).

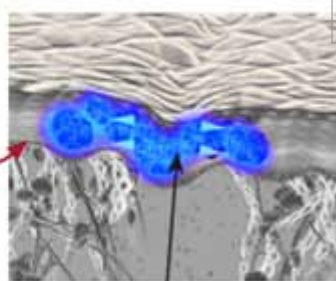
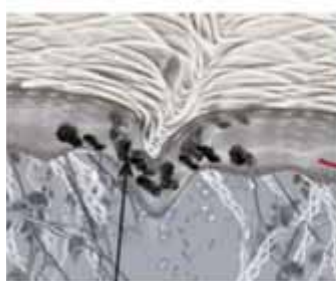
It should be pointed out that chrono ageing and photo ageing share multiple molecular similarities. The formation of reactive oxygen species and the induction of metalloproteinase matrices are the central aspects of skin ageing.

The accumulation of fragmented collagen fibrils slows down neocollagenesis and is responsible for further degradation of the dermal matrix, the structure that supports skin tissue.

In-depth knowledge of the effects of exogenous factors on ageing has enabled research to obtain clinically tested results through personalized skin treatments. Red and Infrared (IR) light stimulate the photo bio modulation process in cells and promote skin rejuvenation.

Anti-ageing treatment with LED Keep Photo bio stimulation technology is possible by using three different levels of intervention (preventive, medium and severe) through the successive emission of different wavelengths during the same session. Red and Infrared (IR) light stimulate photo bio modulation process in cells and promote skin rejuvenation.

Red light Energy stimulates cell activity and the proliferation of fibroblasts and keratinocytes, promoting the production of new collagen and elastin and accelerating skin renewal. Infrared energy, on the other hand, significantly activates the cells present in inflammatory phases (mast cells, neutrophils and macrophages) and accelerates the remodelling and tissue repair process



SEBUM REGULATION

LED Keep photo bio stimulation is able to eliminate clogged pores, reduce their size and balance the production of sebum.

Blue LED light can regulate multi-cellular behaviour by intervening on the inter cellular communication mechanism of bacteria through blue light receptors, inhibiting the formation of the organic film.



SENSITIVE SKIN

Sensitive skin is more prone to skin disorders, such as Couperose and Rosacea.

Couperose is a blemish of the skin, mostly facial, which leads to the formation of reddish patches due to an abnormal dilation of the blood capillaries.

Infrared LED light acts on sensitive skin reducing erythema, inflammation, redness and telangiectasia.



AESTHETIC
MEDICINE



RE-MOISTURIZING

Maintaining skin/water balance is essential for young, elastic and compact skin. Exposure to external factors can damage the stratum corneum by interrupting the normal process of moisturising the skin, causing dryness, premature ageing, loss of tone and elasticity, deteriorating the overall appearance of the skin.

This phenomenon worsens over time, when the slowdown in the activity of fibroblasts in the dermis and keratinocytes of the stratum corneum is associated with a physiological decrease in the reproduction of natural hydration factors and hyaluronic acid.

Red LED light stimulates the activity of fibroblasts and keratinocytes, leading to an increase in hydration levels.

- ✓ PSORIASIS
- ✓ SKIN PATCHES
- ✓ ACNE
- ✓ TRICHOLOGY



**FUNCTIONAL
AESTHETIC
MEDICINE**

Keep
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4.0 evolution

FUNCTIONAL AESTHETIC MEDICINE PROTOCOLS: 10 SESSIONS

Pre-set protocols

Medical certification for
self treatments

No contact between led
module and customer

No Operator

Non-invasive

Completely Painless

20
MINUTES
FOR SESSION

PSORIASIS

Psoriasis is a chronic inflammatory skin condition caused by an irregular immune response and is characterized by an abnormal cell turnover in the stratum corneum.

People affected by psoriasis often experience painful irritation and rough scaly patches on various parts of the body. To date, the causes of this disease remain unknown, so intervention is confined to alleviating the symptoms. Infrared LED light is able to restore normal immune response, as a result reduces inflammation, and stimulates the endorphins that relieve an itching sensation. Subsequently, the red LED light stimulates the production of ATP in the mitochondria of the fibroblasts, the cell's powerhouse.

This increase in energy accelerates up skin regeneration by producing collagen and elastin. The combined action of red and infrared light, in the end, regulates surface cell turnover, restoring the skin barrier.

SKIN PATCHES

FUNCTIONAL
AESTHETIC
MEDICINE

The combined action of LED Keep photo-bio stimulation and exfoliating anti-blemish serums is an effective treatment for skin discolouration.

Infrared LED light stimulates the metabolism and physiological homeostasis of the treated tissues, rendering them uniform as well as normalizing their appearance and physical and functional characteristics.

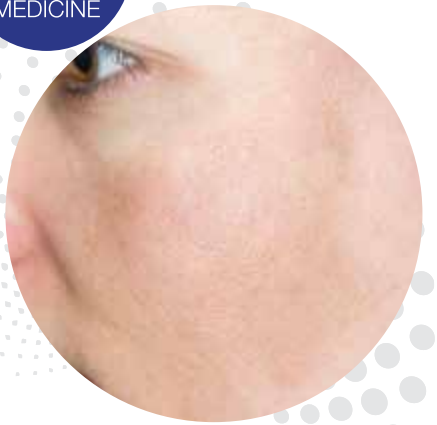
ACNE

ACNE TREATMENT

Intended for acne-prone skin of all ages and phototypes, it eliminates clogged pores, reduces their size, soothes inflamed and irritated skin, balances sebum production and treats acne lesions.

EFFECTS OF TREATMENT

The blue LED light neutralizes the acne bacterium (*p. acnes*) in clogged pores. The infrared light, in sequence, has an anti-inflammatory action that reduces the redness associated with acne lesions. The red LED light, on the other hand, promotes tissue repair of any scar and generates healthier and more balanced skin. It also improves its reactivity to topical treatments



TRICHOLOGY

Androgenetic alopecia is a condition characterized by a miniaturization of hair follicles and their reduced activity, which slows down the active phase of hair growth (anagen), leading to progressive thinning over time. It appears between the ages of 20 and 40 and is more common in men.

Hair Loss treatment with infrared LED light reactivates the blood circulation to the scalp, which is crucial for the supply of essential elements to nourish the hair.

At the base of the follicle there is an upward facing hollow notch, containing a connective structure rich in blood vessels, lymphatics and nervous structures, called papilla, that has the task of providing support, nourishment and to control the endocrine of the cells present in the hair matrix.

A correct vascularization, stimulated by infrared LED light, not only decreases the stiffening of tissue around the follicle, counteracting micro-irritations, it is also essential for the distribution of nutrients, such as vitamins, minerals, amino acids and proteins. in the scalp; in the absence of a necessary oxygenation carried out by the blood, the cells of the hair follicles cannot function properly.



- ✓ ANTALGIC
- ✓ MUSCULAR
- ✓ LOWER BACK PAIN
- ✓ JOINTS



WELLNESS

20
 MINUTES
 FOR SESSION

ANTALGIC

Infrared LED light is effective in treating inflammatory conditions in muscle, bone and joint tissue. It penetrates deep into treated tissues, activating the biological processes that reduce pain. Infrared is in fact able to stimulate the release of nitric oxide in the endothelial cells of blood vessels, triggering dilation of the blood vessels consequently increasing blood flow circulation in the treated area.

This results in a greater supply of nutrients and oxygen and the fast removal of metabolites and algogenic substances, that are responsible for pain.

Infrared LED light also stimulates the immune system, reducing inflammation.

MUSCULAR

The sequential succession of wavelengths of red and infrared LED light of the Keep protocol accelerates and stimulates muscle recovery. The mitochondria, the cell's "powerhouse", absorbs the red LED light at 633 nm, accelerating the cellular metabolism in the treated tissue. This process initially increases the production of ATP, a source of energy necessary for cellular functioning, and subsequently tangibly increases the number of fibroblasts.

In the case of muscle micro-lesions, a part of these numerous cells is converted into myofibroblasts, the presence of which triggers connective tissue compaction and contraction, and subsequently a leads to a regeneration of the lesion.



Pre-set protocols

Medical certification

No contact between led module and customer

No Operator

Non-invasive

Completely Painless



LOWER BACK PAIN

90% of lower back pain cases are caused by injuries to the anatomical structure of the back and spine such as injuries to spinal muscles, ligaments, vertebrae, joints and intervertebral discs.

Red LED light is effective in the treatment of lower back injuries, stimulating cells involved in the repair processes of connective and muscle tissue (myofibroblasts and fibroblasts). A 630 nm LED light wavelength is particularly appropriate for the production of collagen, an important component of connective tissue, which makes up the intervertebral discs, and generating an improvement of spinal mobility.

Infrared led light, on the other hand, stimulates the action of myofibroblasts on a deeper level and increases the supply of nutrients and oxygen to the treated area, further accelerating the repair process.

Furthermore, by promoting greater circulation, it is able to remove algogenic substances and waste metabolites and reduce edematous , which is responsible for swelling and pain.

JOINTS

Infrared LED light at an 833 nm wavelength is most effective in the human body healing process. It penetrates deep into the tissues and joints and increases blood circulation, oxygenation and the supply of nutrients to the treated area, accelerating the repair process. Furthermore, an infrared light encourages the stimulation of an immune response to inflammation and the removal of toxins and algogenic substances in the inflamed joint, generating immediate pain relief (e.g. arthritis and tendinitis).



PROTOCOLS
WELLNESS
6 SESSIONS

ADVANTAGES OF THE SYSTEM

Non-Invasive and Painless Treatment

During treatment a pleasant warmth of energy emission, and a feeling of extreme relaxation are transmitted to the customer

Contactless

No contact between the energy dispenser module and the skin. Maximum hygiene and no risk of cross contamination.

Treatment Freedom of Choice

The protocols are secure and pre-set and have a single duration of 20 minutes.

App / Tablet Control

KEEP is controlled via blue tooth transmission , up to 150 meters distance from the device. A dedicated app is readily installed on the tablet supplied with the equipment

The KEEP project is constantly evolving through Clinical Research, and the App can be updated over time to include new protocol treatments



Compact Design

KEEP is compact, easy to install and complete with trolley to facilitate movement. The minimum installation space required is 2 x 2



Maximizes
efficiency
of your staff



BEAUTY
ROUTINE

- ✓ MEDICAL DEVICE
- ✓ DERMOCOSMESIS

DERMOCOSMESIS

Growth Factors Line

Tuenda Serums in the “Growth Factors Line”, are certified ‘Medical Devices’ and are based on an innovative formulation, suitable for use as adjuvants in photo bio stimulation treatment. The CG-aFGF Growth Factors are proteins of biotechnological origin that promote absorption in the dermis at topical level.

Age Action Serum (30 ml bottle)

The innovative formula of the Age Action Serum, which combines double-structured Hyaluronic Acid and Fibroblast Growth Factor, supports the effect of photo bio stimulation, carrying out an analgesic, anti ageing, toning and elasticizing action.

Main functional substances include:

- fibroblast growth factor
- red algae extract
- double molecular weight hyaluronic acid

To be used in combination with the following KEEP protocols : anti ageing, re-hydration, trichology and wellness.



Pure Serum (30 ml bottle)

Pure Serum is indicated for impure, oily and acne-prone skin. The Azelaic Acid Derivative renders it an effective for use as an adjuvant in sebum regulation treatments.

Main functional substances:

- fibroblast growth factor
- red algae extract
- derivative of azelaic acid

To be used in combination with the following KEEP protocols: impure skin (acne, sebum) and dilated pores.



Couperose Serum (30 ml bottle)

Couperose Serum is indicated for delicate skin prone to redness and irritation. Given its formulation rich in Escin, Couperose Serum is an effective ally in photo bio stimulation treatments for soothing pain.

Main functional substances:

- fibroblast growth factor
- red algae extract
- escin

To be used in combination with the following KEEP protocols: couperose, sensitive skin.



Growth Factors are able to:

Prevent and decrease wrinkles and signs of ageing

Nourish and revitalize skin and hair

Exert an antioxidant action

Accelerate tissue repair and soothe the effects of inflammation



FRUIT ALPHA-HYDROXYACID (AHA) LINE

The Depigmentax Line including Fruit Alpha-Hydroxy Acids (AHA) is suitable for treatments against skin discoloration (age skin spots from photoaging and acne), supporting skin metabolism and accelerating skin renewal.

Depigmentax Serum is an exfoliate, skin rejuvenator that removes dead cells and impurities. The combined action of the acids promotes cell renewal, visibly reducing the signs of ageing, blemishes and acne scars.

Main functional substances:

- Fruit Alpha-Hydroxy Acids (AHA)
- Glycolic acid

Given its low molecular weight, Glycolic Acid penetrates the stratum corneum, filling the bonds between corneocytes.

DERMOCOSMESIS

Growth Factors Line



Age Action Cream - Airless 50 ml

Age Action is a specific cream against dehydration wrinkles and signs of ageing. The combined action of double-structured Hyaluronic Acid and a Peptide with a botulinum like action, prevent and reduce both gravitational expression wrinkles and sleep wrinkles.

Hydra Pro Cream (Airless 50 ml)

Hydra Pro is a moisturising and dermis protective treatment. The combination of cross-linked hyaluronic acid and Honey Extract ensure the moisturising action is effective, nourishing and long-lasting.

Filler Plus Cream (Airless 50 ml)

The Filler Plus Cream is a powerful toning treatment that includes Cross-linked Hyaluronic Acid Dehydrated Filling Sphere that penetrates under the skin, absorbs water, increasing volume by 30 times.

Couperose Cream (Airless 50 ml)

Couperose cream is dedicated to delicate skin, prone to redness and sensitive to climatic factors. The presence of highly tolerant Escin, Allantoin, Licorice Extract and Aloe Vera provides a decongestant, restorative, soothing, moisturising and anti-reddening effect.

Pure Cream (Airless 50 ml)

Pure cream is suitable for impure, oily and acne-prone skin. Its formula contains a derivative of Azelaic Acid that is particularly effective for its bacteriostatic activity, mainly against Propionibacterium Acnes.

Contour Cream (15 ml glass bottle)

Contour cream is a specific decongestant treatment for eye and lip contours. This compound, dedicated to eye area treatment, contains a powerful tetrapeptide with draining and anti-edema properties capable of repairing skin damage in particularly delicate areas.

Depigmentax Cream

(Airless 50 ml) Depigmentax is a cream used to actively illuminate skin, designed to perfect and even out skin complexion. Fruit Alpha Hydroxy Acids (AHAs) strongly inhibit tyrosinase, supporting skin metabolism and cell renewal acceleration.

Active ingredients in the Depigmentax Cream ensure the skin appears more radiant and hydrated.

To be used in combination with the following KEEP protocols: luminous skin.



CE
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