

Better than 
SUNSHINE
UVB / RED / NIR SUN LAMP



Owner's manual

Better than 
SUNSHINE
UVB / RED / NIR SUN LAMP

Owner's manual

Contraindications:

This product is contraindicated for use on persons under the age of 18 years.

Contraindications:

This product must not be used if skin lesions or open wounds are present.

Warning:

This product should not be used on individuals who have had skin cancer or have a family history of skin cancer.

Warning:

Persons repeatedly exposed to UV radiation should be regularly evaluated for skin cancer.



Read All Directions Before Use!



Always wear protective eyewear during lamp operation



Table of contents

Thank you for your purchase	5
Introduction	6
Package contents	8
Parts diagram	9
Contraindications and warning	10
Photosensitivity agent listing	10
The technology/benefits	11
Our technology	12
Facts about UVB exposure	14
Facts about Vitamin D	16
Facts about RED/NIR exposure	18
Naturalight program mode	19
Healing program mode	20
How to use the program mode	21
Identifying your skin type	22
Program chart	24
Exposure Schedule	26
Finals	27
Important safety information before you begin	28
Questions and answers	32
Specs	33
Safety Instructions, Warnings and Disclaimer	34
Maintenance, Customer Service and Warranty	36
References	37



MITOLUX Better than Sunshine Sunlamp
The Science of Youth



AC Input:
120V
Frequency:
60Hz

Model: BTS-1

Made in China for: Mitolux LLC, 7610 N Steemmons, FWY Unit 170 Dallas, Tx 75247. +1800 356 1773 support@mitolux.com www.mitolux.com

⚠ DANGER: Ultraviolet radiation. Follow instruction. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer.

WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES.

PLEASE REFER TO THE MANUAL.

Medication or cosmetics may increase your sensitivity to ultraviolet radiation. Consult a physician before using a sunlamp if you are using medications or have a history of skin problems or believe yourself especially sensitive to sunlight. If you do not tan in the sun, you are unlikely to tan the use of this product.

Recommended Exposure Schedule

Skin type	Start with	Medium	Max
Type 1	P1	P1	P2
Type 2	P1	P2	P3
Type 3	P2	P3	P5
Type 4	P3	P5	P7
Type 5	P4	P6	P8
Type 6	P5	P7	P10

ALL SKIN TYPES SHOULD USE THE SAME DISTANCE RECOMMENDATIONS. FOLLOW THE EXPOSURE SCHEDULE FOR APPROPRIATE SKIN TYPE.

Exposure at a distance less than 15" is not recommended. Maximum number of people to be exposed during the same session = 1.

This product complies with 21 CFR 1040.20.

It can take up to 17 weeks to raise your Vitamin D levels.
Contraindications: This product is contraindicated for use on persons under the age of 18 years.
Contraindications: This product must not be used if skin lesions or open wounds are present.
Warning: This product should not be used by individuals who have had skin cancer or have a family history of skin cancer.
Warning: Person repeatedly exposed to UV radiation should be regularly evaluated for skin cancer.

SERIAL NUMBER:
0000001

DATE OF MANUFACTURE
SEP 2023



Thank you for your
PURCHASE



Better than Sunshine Lamp

Is intended for individuals who may not receive sufficient sunlight exposure for good health but that may benefit from the UVB/RED/NIR rays present in natural sunshine.

Sun exposure is vital for health, and every day new studies prove the relationship between the sun rays and cellular health, and the need for UVB and RED/NIR for correct hormonal and mitochondrial function.

During the past decades the sun went from friend to enemy (contradicting evolutionary logic), but now new studies are proving that correct and moderate exposure to sun rays is vital for good health.

The Better than Sunshine Lamp can give you the optimal dose of UVB for vitamin D and hormone production in as little as five minutes and with less radiation exposure and no UVA rays, compared with the sun or traditional sunlamps.

In addition to using the most efficient wavelength of UVB; our sunlamp uses a (patent pending) light curve that begins and ends your sun exposure to the healing RED and NIR light resembling the natural way sunlight is exposed throughout the day.

In contrast with previous sunlamps that used to be based on mercury vapor or fluorescent technology that brought many health hazards (chemical, EMF, etc.) our lamp is based on 100% new narrowband LED technology that **doesn't contain the wrinkle causing UVA radiation** and can last a lifetime.

Our lamp can be used in Naturalight mode (all 5 frequency's on) for a complete light therapy exposure, or RED/NIR mode for when you need the health and beauty benefits of red-light therapy.

Even though our lamp will give you the scientifically proven benefits of UVB and RED/NIR therapy frequencies and **without UVA rays**, we encourage you to go outside, breathe fresh air, take sunshine responsibly, eat healthy, exercise, visit your doctor; but also study for yourself how to take care of your health.

From now on, it won't matter if you work a 9-5 schedule or in coldest and darkest winter, have bad weather, or simply want the health benefits of the Sun but without the UVA rays....

With Better than Sunshine, you can enjoy the best of the sun all year long.

Thank you for your purchase and hope you enjoy your lamp!

The Mitolux Team



Package Contents

Before using your “Better than Sunlight” lamp for the first time, please check your package to ensure it contains all of the items listed below. If you are missing an item, please contact customer support at +1-800-356-1773.

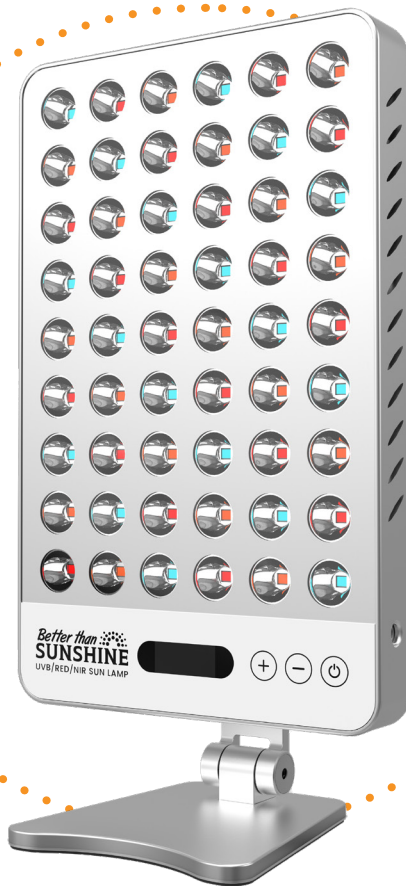
Protective safety glasses



User Manual and Warranty Card



Register your copy at www.mitolux.com



Power cord and generator



BTS-01 Main Unit (Better than sunshine lamp)

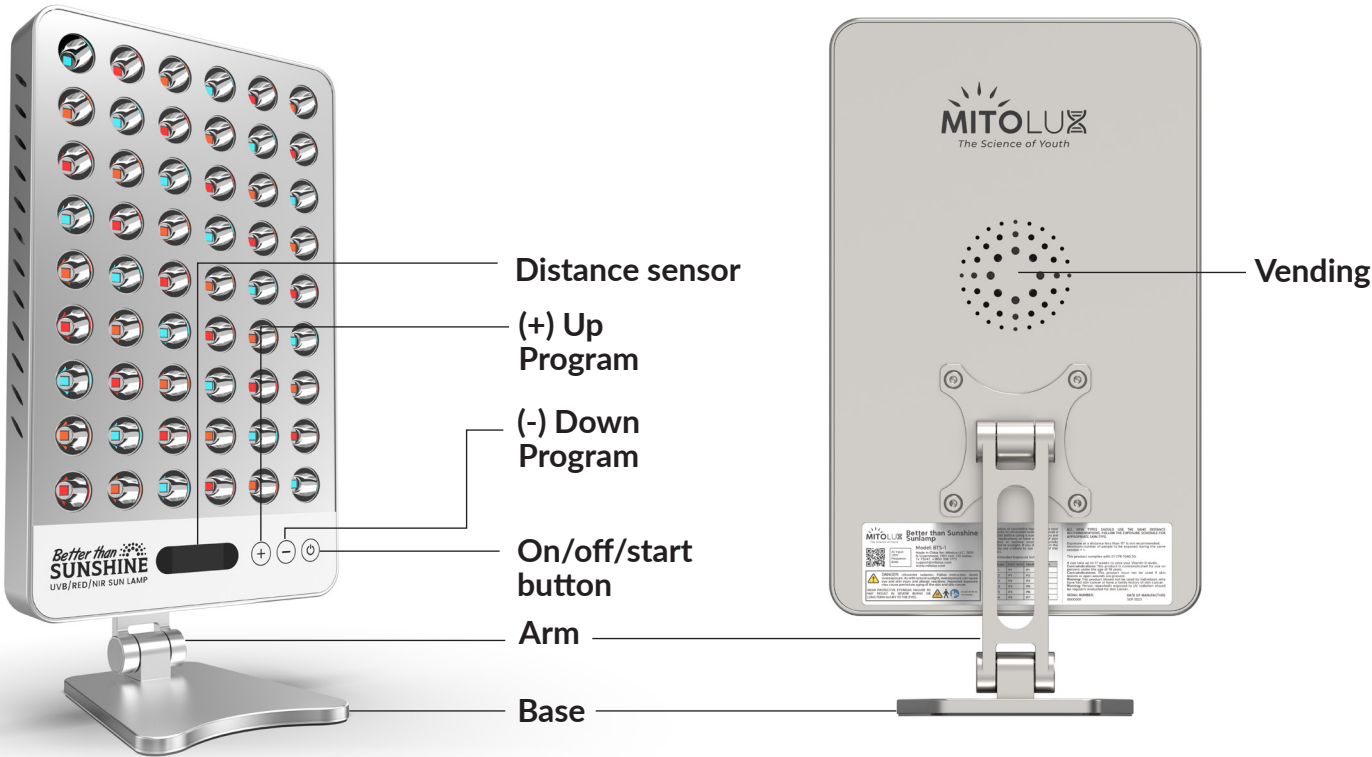


Maintenance & Replacement Parts

Maintenance – the LED lights included in your “Better than Sunshine” Lamp have an average life of 10,000+ hour and don’t break, like fluorescent tubes, so they can last almost a lifetime of regular use.

Replacement parts available are: power cord, UV protective eye wear, and stands.

A copy of this user guide may also be downloaded directly from our website at: www.mitolux.com/guides



Contra-Indications & Warning

Better than Sunshine is indicated for use for adults 18 years of age and older.

Better than Sunshine is contra indicated for the following conditions:

- You have been diagnosed with UV light allergies (also known as “sun allergy”): Actinic Prurigo (hereditary PMLE), Polymorphous Light Eruption (PMLE), or Solar Urticaria.
- You have been diagnosed with UV light sensitivities: Protoporphyrria (EEP), UV-Sensitive Syndrome, Photodermatitis, Xeroderma Pigmentosum (XP), Lupus Erythematosus, or Actinic Dermatitis.

Important Information

There are some conditions and circumstances where UVB phototherapy may cause harm. We recommend consulting your doctor to evaluate whether “Better than Sunshine Light Therapy” is suitable for you if:

- You have a history of skin cancer, especially malignant melanoma or recurring basal or squamous cell carcinomase.
- You are currently taking a photosensitizing medication (See the photosensitizing medications section of this user manual for a full list of medications and products.)
- You have hyperthyroidism
- You have a history of arsenic therapy, x-ray or grenz ray therapy
- You have florid tuberculosis or other florid processes.
- You are receiving concomitant therapy (topical or systemic) with known photosensitizing agents for the treatment of cutaneous T-cell lymphoma.
- You have received a significant amount of UV exposure within the last 24 hours as this could increase risk of burn.

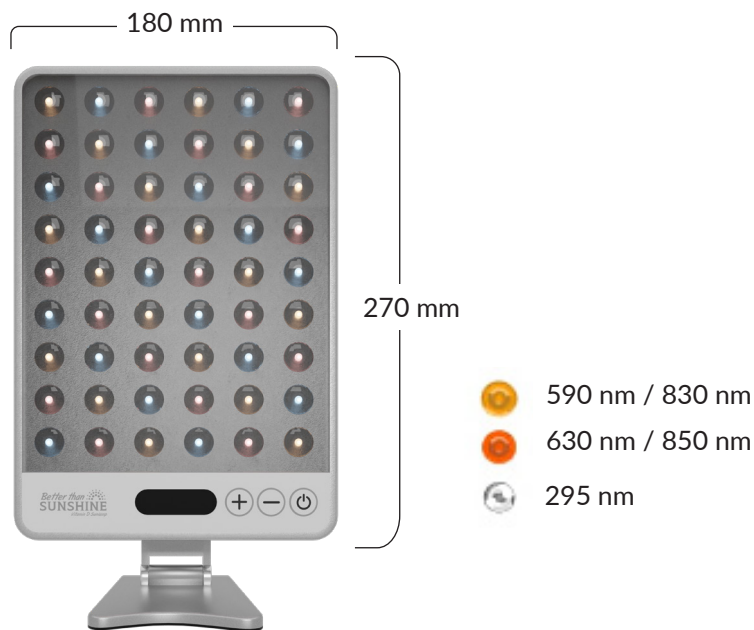


The technology
BENEFITS



Our Technology

We developed a compact, sleek, elegant device, using the latest LED technology (that produces only the exact wavelengths without heat and less electricity) utilizing some of the most scientifically proven light wavelengths. (We are also the first to exclude UVA).



Better than Sunshine uses the following frequency's that might help with:

- **UVB (295nm):** vitamin D, Testosterone, Hormones, Serotonin.
- **Amber (590nm):** reverses damage of sun spots, wrinkles, rosacea and redness, inflammation, lymphatic drainage.
- **RED (630nm):** collagen, wrinkles, spots, rejuvenation, cellulite, depression, fertility, acne, sport, stem cell regeneration.
- **NIR (830nm):** pain, muscle and joint injuries, depression, arthritis, metabolism, fat loss.
- **NIR (850nm):** acne, scars, anti-aging, bags under the eyes, sun damage.



Better than Sunshine Lamp Uses and Benefits:

(These statements have not
been verified by the FDA)



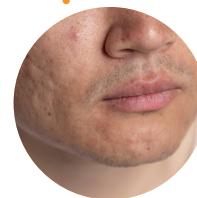
Hair
growth¹



Reduced pain,
inflammation and
wound healing time⁹



Vitamin D
production²



Reduced
acne and
acne Scars⁸



Testosterone
and hormone
production³



Muscle
performance,
recovery and
strength⁷



Better
sleep⁴



Better mood
and reduced
SAD⁵



Skin quality
(wrinkles, sun spots,
collagen, etc.)⁶



Facts About UVB Exposure

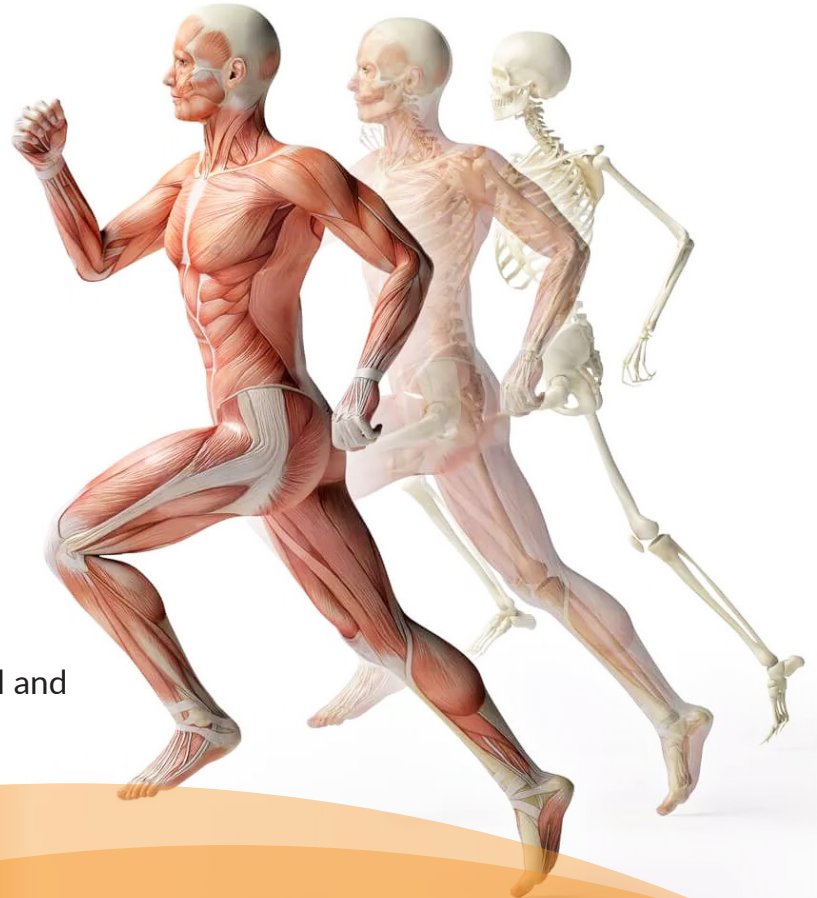
Even though we don't claim any health benefit from using our unit for legal reasons, UVB light has proven the following in independent scientific studies

Healthy photoproducts stimulated by UVB light include:

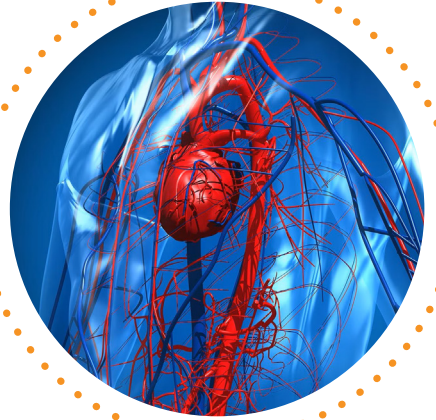
- **Calcitonin Gene Related Peptide (CGRP)**
Reduces hypertension and inflammation, and regulates the immune system.
- **Neuropeptide Substance P (SP)**
Promotes proper blood flow and regulates immune system.
- **Adrenocorticotrophic Hormone (ACTH)**
Reduces inflammation and regulates immune system.



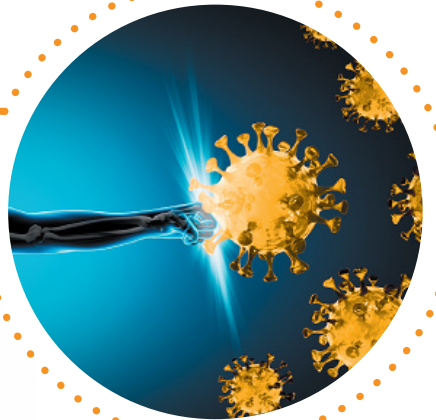
Vitamin D3
Impacts musculoskeletal, cardiovascular, neurological and immune system responses



- **Melanocyte Stimulating Hormone (MSH)**
Reduces inflammation and increases libido
- **Calcitriol**
Regulates cellular function and is involved in all major systems of the body
- **Beta Endorphin (BE)**
Increases relaxation, acts as a natural painkiller and promotes feeling of well-being
- **Testosterone: male hormone**
Fertility and sex drive, bone density, fat distribution, muscle strength, red blood production.
- **Estradiol**
Reproductive system, protects heart, bones, brain function.
- **LH/FSH**
Triggers gonads for hormone production and fertility.
- **Progesterone**
Relieves PMS, promotes sound sleep, bone health, fertility, cancer prevention.



Sunlight stimulates the proper functioning of your body



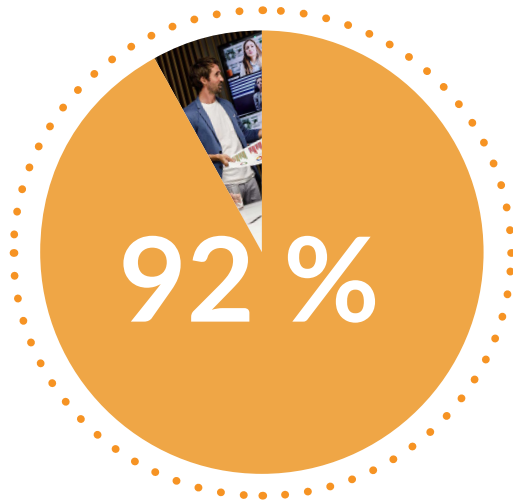
Facts About Vitamin D

- Vitamin D deficiency has been found to correlate with increased risk of: colon cancer, breast cancer, fibromyalgia, high blood pressure, metabolic syndrome, diabetes, obesity.
- Vitamin D is not actually a vitamin but a hormone naturally produced by your body.
- Vitamin D is **the most essential vitamin** since it is involved in the largest number of chemical reactions in the body.
- Vitamin D is produced by your skin in response to exposure to UVB radiation in the 290-303nm.
- Your body uses cholesterol to make vitamin D3.
- UVB rays of ultraviolet light generate Vitamin D in your skin but cannot penetrate glass, so you don't generate Vitamin D when sitting in your car or home.
- It is nearly impossible to get adequate amounts of Vitamin D from your diet since only Cod Liver Oil and UV exposed mushrooms have significant amounts.



Around 40 % of people in the United States are deficient in vitamin D.

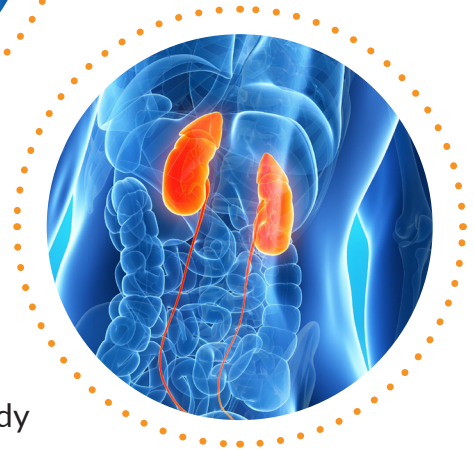
Nowdays Americans spend 92 % of their time indoors, this translates to reduced exposure to UVB and little Vitamin D production.



- Vitamin D has been found to correlate with increased risk of: colon cancer, breast cancer, Fibromyalgia, high blood pressure, metabolic syndrome, diabetes, obesity.
- Vitamin D is the most essential vitamin since it is involved in the biggest number of chemical reactions in the body.
- Vitamin D is produced by your skin in response to exposure to UVB radiation in the 290-303nm.
- Your body uses cholesterol to make vitamin D3.
- UVB rays of ultraviolet light generate Vitamin D in your skin but cannot penetrate glass, so you don't generate Vitamin D when sitting in your car or home.
- It is nearly impossible to get adequate amounts of Vitamin D from your diet since only Cod Liver Oil and UV exposed mushrooms have significant amounts.
- The type of vitamin D most present in foods (D2) is not as effective as naturally produced D3.
- Ultraviolet exposure is the only reliable way to generate Vitamin D in your body. You would need to drink ten tall glasses of Vitamin D fortified milk each day to get minimum levels of Vitamin D into your diet.



Vitamin D is “activated” in your body by your kidneys and liver.



It is impossible to generate too much Vitamin D from ultraviolet exposure. Your body will self-regulate and only produce what is needed.

Sunscreens block your body's ability to generate Vitamin D by ~95%.



Facts about RED/NIR Exposure

- RED/NIR light can help your skin in many ways: collagen, wrinkles, redness, acne, sun spots, and many signs of aging.
- Its main understood method of action is through the stimulation of ATP in the Mitochondria (The powerhouse of the Cell).
- Your cells have photoreceptors designed to use RED/NIR light to activate bodily and chemical functions (so basically, we are a human photo cell)
- The science of light therapy is called photo biomodulation.
- RED/NIR light can penetrate up to 6 inches deep energizing deep tissues.
- RED/NIR light can help to improve deep reparative sleep.
- RED/NIR light can help with intracellular Melatonin production reducing ROS.
- RED/NIR light can also help your body produce more CoQ10 enzyme helping the electron transport chain in metabolism.
- RED/NIR light has been proved and is used in the treatment of hair loss (hormonal alopecia).
- RED/NIR light can help with pain, inflammation, arthritis.
- RED/NIR light can help with muscle cramps.
- RED/NIR light can help with exercise recovery, fat distribution and strength.
- RED/NIR light can help with wound healing, and recovery after accidents and surgery.
- Amber light can help to improve your mood.



Two different modes: Naturalight Program Mode

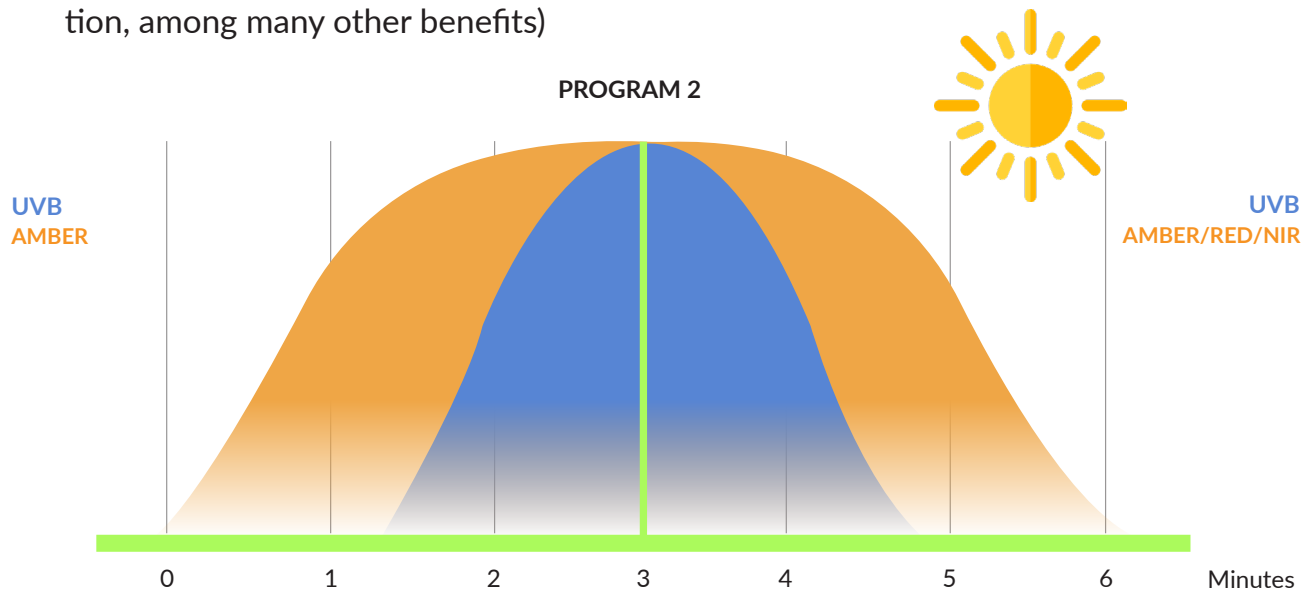
In order to set the best benefits, we have designed our UVB mode to replicate the natural way sunshine is distributed throughout the day.

In the early morning sunlight is warm and includes a lot of RED/NIR frequency's that not only improve your mood but also prepares and restores your skin for the UV rays present later in the day.

At mid day the UV rays are at their maximum (this is the time with the most UV rays) and only a brief exposure is needed.

As the sun goes down, so do the UV rays and again a cycle of healing RED/NIR frequency's help heal the body from the exposure to UV rays.

(RED/NIR rays have been shown to: help the body produce collagen, reverse sun damage, prepare the skin for UV rays, help heal, wrinkles, boost mitochondrial function, among many other benefits)



*Ideal for sistemic and broad use
in torso and back

Healing Program Mode (HP)

In our healing program mode, the UVB LED lights are **turned off (so you can get even closer), also the distance sensor is turned OFF.**

There are two healing lights that you can see: amber and red both with mood and cellular enhancing benefits. (The resulting color and warmth will remind you of sunrise and sunset).

There are also 2 NIR frequencies that are invisible to your eyes (830nm and 850nm) but you will feel their penetrating warmth and you cells will take all their energy.

In the healing mode 2 RED and 2 NIR frequencies are turned on, and a **10-minute counter** starts when you press the ON button.

You can use the device at the same distance, but for better results try using the “Better than Sunshine” lamp from 6-12 inches away from your body.

Since the device is small, you may use it separately in different parts of your body.



*Ideal for localized use.

For skin conditions 5-10 minutes is enough, but for deeper issues like arthritis, pain, etc you might want to use it for up to 20 minutes (2-10 minute sessions).



HOW TO USE

the Program Mode (U.V.)



How to Use in Naturalight Mode (UVB/RED/NIR)

Step 1 Identify your skin type

Skin type #1

Ethnic group:
Albinos, some redhairs

Hair colour:
Red and blond

Eye colour:
Blue, grey, green



Skin colour:
Very pale, white, white
pale with freckles

Tanning ability:
Burns very easily,
never tans

Skin type #2

Ethnic group:
People of northern european origin,
such scandinavians and celts.

Hair colour:
Red, blond, light brown

Eye colour:
Blue, grey, green and hazel



Skin colour:
Pale white

Tanning ability:
Burns easily,
rarely tans



Skin type #3

Ethnic group:

People of Mediterranean and Middle East origin

Hair colour:

Chest nut, dark blond

Eye colour:

Brown, blue, grey, green and hazel



Skin colour:
White, light brown

Tanning ability:
Sometime burns,
gradually tans

Skin type #4

Ethnic group:

People of East Asia origin, such as Chinese, Japanese, and some Indians and Pakistanis

Hair colour:

Brown, medium brown, dark brown

Eye colour:

Hazel, brown



Skin colour:
Medium brown,
dark brown

Tanning ability:
Hardly ever burns,
tans very easily

Skin type #5

Ethnic group:

People of African origins, South East Asians, and some Indians, Pakistanis and Latin.

Hair colour:

Dark brown

Eye colour:

Brown



Skin colour:
Dark brown

Tanning ability:
Really burns, tans easily,
and quickly darkens

Skin type #6

Ethnic group:

People with blue-black skin of african origin, aborigines and dark skinned asians, such tamils.

Hair colour:

Black

Eye colour:

Brown



Skin colour:

Black

Tanning ability:

Never burns, tans, very dark

Step 2

Look at the following table and always start with the shortest program mode for your skin type, over time and gradually you may raise 1 program mode a week until you find your **sweet spot**. If you stop using for more than a month start again at the lowest setting (since your skin will need to get used to UVB exposure again).

	Start with	Intermediate	Max
Type 1	P1	P1	P2
Type 2	P1	P2	P3
Type 3	P2	P3	P5
Type 4	P3	P5	P7
Type 5	P4	P6	P8
Type 6	P5	P7	P10



Step 3

With clean skin (better after a shower) put your **protective eyeglasses on, distance yourself about 16 inches from the unit**, direct the angle of the unit toward your torso or back, and press the start button.



The program will start and you may enjoy the warmth, and health benefits of your “Better than Sunshine Lamp”.

The unit will display a counter timer showing the time left for the completion of the program.

At the end of the program the unit will turn itself OFF and make a confirmation sound.

If at any time you want to cancel the program, just press the ON/OFF button.

If you get closer than 16 inches the unit will make a warning sound to remind you to maintain safe distance.

If redness occurs (erythema): avoid using the unit until the redness disappears (usually 24-48 hours).

Safety Distance Sensor

To provide better safety for your use, your BTS sun-lamp includes a distance sensor that will pause the unit if you get closer than 13 inches. (Recommended distance is 15-20 inches)

This is a safety measure, so you don't get higher UVB exposure than required.

If you do get too close the unit will give a warning sound and pause the timer, it will resume when you distance yourself from the unit.



Step 4

How to Find the Right Amount of Exposure:

Please check your skin during the next 24 hours to find your exposure **sweet spot**. The goal is to obtain the benefits of the UVB light without erythema (Reddening of your skin).

If you didn't get any reddening of your skin (Erythema): you may raise the power one level next time you use it.

If you get very mild erythema: You are on your sweet spot; try using this level until you don't get any erythema and you can raise one level.

If you get medium erythema: try lowering the program level next time you are using



the unit, or distancing yourself a little farther away (22 inches)

If you get strong erythema: please stop using the unit and consult with your physician (you might have photosensitivity)

Exposure Schedule:

Week one: use every other day, you may alternate front and back areas. (Please check for reddening of the skin and adjust exposure accordingly)

Week two: If you want to increase exposure (and you are not experiencing any bad reactions), you may use it every day alternating front and back.

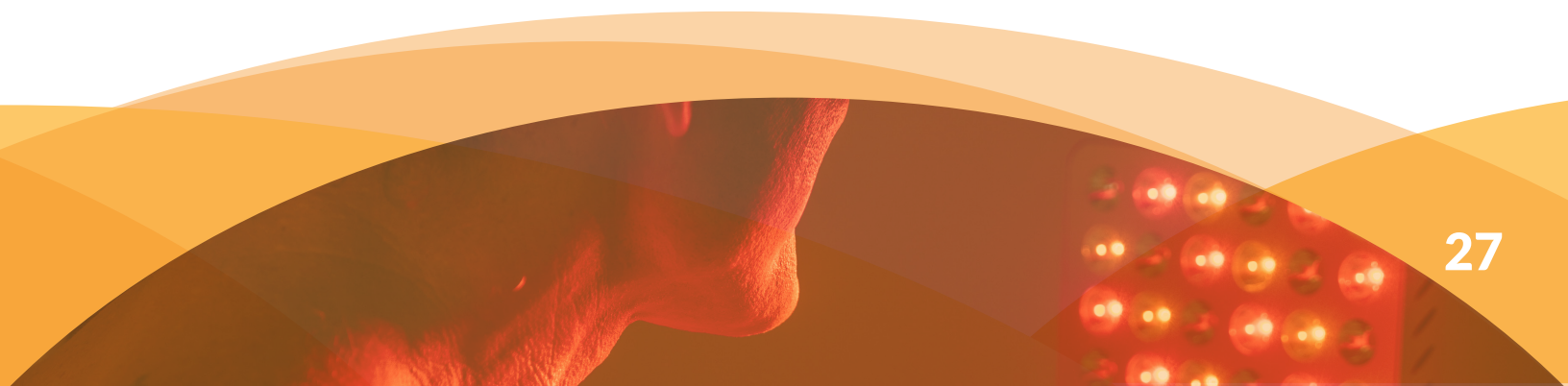
*If you want to rapidly raise your vitamin D/hormone levels, you may use the unit every day (considering the redness has disappeared before the next session).

*When you reach your vitamin/hormone levels and for maintenance you can use it 3-4 times per week.

*The best way to evaluate your progress is to measure your vitamin D levels before using the unit, and after 6 weeks of use (this way you can see for yourself the effectiveness of the Better than sunlight™ lamp).



FINALS



Important Safety Information

Before Use: Understanding Photosensitivity

Photosensitivity is typically defined as a chemically induced alteration in the skin that makes a person more sensitive to light. Photosensitive reactions may fluctuate from mild to chronic depending on the sensitivity of the individual.

Products or Chemicals that might affect photosensitivity

ANTIDEPRESSANTS: Clomipramine (Anafranil), isocarboxazid (Marplan), maprotiline (Ludiomil), mirtazapine (Remeron), sertraline (Zoloft), TRICYCLIC AGENTS, eg., Elavil, Asendin, Norpramin, Sinequan, Tofranil, Aventyl, Vivactil, Surmontil, venlafaxine (Effexor).

ANTIHISTAMINES: Astemizole (Hismanal), cetirizine (Zytec), cyproheptadine (Periactin), dimenhydrinate (Dramamine), diphenhydramine (Benadryl), hydroxyzine (Atarax, Vistaril), loratadine (Claritin), terfenadine (Seldane).

ANTIPARASITICS:

*Bithionol (Bitin), chloroquine (Aralen), mefloquine (Lariam), pyriminiparnate (Povan, Vanquin), quinine.

ANTIPSYCHOTICS:

Chlorprothixene (Taractan, Tarasan), haloperidol (Haldol)

CANCER CHEMOTHERAPY:

*Dacarbazine (DTIC), fluorouracil (5-FU), methotrexate (Mexate), procarbazine (Matulane, Natulan), vinblastine (Velban, Belbe).





ANTIBIOTICS: Azithromycin (Zithromax), griseofulvin (Fulvicin, Grisactin), *nalidixic acid (NegGram), QUINOLONES, eg., Cipro, Penetrex,, Levaquin, Floxin, *Maxaquin, Noroxin, * Zagam sulfasalazine (Azulfidine), * SULFONAMIDES, eg., Gantrisin, Bac-trim, Septra, TETRACYCLINES, eg., *Declomycin, Vibramycin, Minocin, Terramycin.

CARDIOVASCULARS: (See also Diuretics) ACE INHIBITORS, Capoten, Vasotec, Monapril, Accupril, Altace, Univasc, *amiodarone (Cordarone), diltiazem (Cardi-zem), disopyramide (Norpace), losartan (Hyzaar), lovastatin (Mevacor), nifedipi-ne (Procardia), pravastin (Pravachol), quinidine (Quinaglute), simvastatin (Zocor), sotalol (Betapace).

DIURETICS: (See also Cardiovasculars) acetazolamide (Diamox), amiloride (Mi-damor), furosemide (Lasix), metolazone (Diulo, Zaroxolyn), *THIAZIDES, eg., Hy-droDiuril, Naturetin.

HYPOGLYCEMIC SULFONYLUREAS: Acetohexamide (Dymelor), chlorpropamide (Diabinese), glimepiride (Amaryl), glipzide (Glucotrol), glyburide (Diabeta, Microna-se), tolazamide (Tolinase), tolbutamide (Orinase).



NSAIDs

All nonsteroidal anti-inflammatory drugs, eg., ibuprofen (Motrin, Naproxen (Anaprox, Naproxyn), Orudis, Feldene, Voltaren, etc. The new NSAID agents include: etodolac (Lodine), nabumetone, (Relafen), oxaprozin (Daypro)

If you are under any of this photosensitizing agents you may still use our lamp, just take more care.



PHENOTHIAZINES: Compazine, Mellaril, Stelazine, Phenergan, Thorazine, risperidone (Risperdal), thiothixene (Navane).

MISCELLANEOUS: Benzocaine, benzoyl peroxide (Oxy 10), carbamazepine (Tegretol), chlordiazepoxide (Librium), coal tar, eg., Tegrin, Zetar).

CONTRACEPTIVES: Oral estazolam(ProSom), *etretinate (Tegison), felbamate (Felbatol), gabapentin (Neurontin), gold salts (Myochrysine, Ridaura, Solganal), hexachlorophene (pHisoHex), hypericum (St. John's Wort), interferon beta-1b (Betaseron), *isotretinoin (Accutane), masoprocol (Actinex), olsalazine (Dipentun).





SUNSCREENS: *Benzophenones (Arimis, Clinique), cinnamates (Arimis, Estee Lauder), dioxbenzone (Solbar Plus), oxybenzone (Eclipse, Presun, Shade), PABA (Pre-Sun), *PABA esters, (Block Out, Sea & Ski, Eclipse).



***PERFUME OILS:** Eg., bergamot, citron, lavender, sandalwood, cedar, musk.

***PSORALENS:** Selegiline (deprenyl, Eldepryl), *tretinoin (Retin-A, Vitamin A Acid), zolpidem (Ambien).

Note: Items with an asterisk () are shown in bold because they are more likely to cause photosensitivity reactions. Overall, the drugs listed above cause reactions in less than 1% of patients. You may experience an unusual "sunburn" or allergic or eczematous reaction in skin areas exposed to light. Consult with your physician or pharmacist and to discontinue exposure to UV radiation.*



Questions and Answers

How long will I take to get to my ideal vitamin D levels if I expose to sun/UVB light?

This depends on your initial vitamin D levels, your age, your skin color type, your fat level, etc. But usually, you can get to your ideal values in **less than 2 months of regular use.**

When are vitamin D levels considered to be low?

Below 30 ng/dl you are deficient

Between 30-40 ng/dl you are xxxxx.

What are the ideal values for vitamin D?

The ideal values vary, but are generally accepted to range from 60-90 ng/dl

In what value does vitamin D can start being bad for your health?

Above 150 ng/DL; but you cannot reach these values with light exposure (only through excess consumption of oral vitamin D)

Can I get an overdose of vitamin D with Sun/UVB exposure?

No, natural vitamin D production from your own body self regulates, and when you have enough values, the excess will be converted to calcitriol which is a natural antioxidant.

Do I need any special nutrition recommendations?

If you want better results for the production and use of vitamin D: consume healthy fats (and avoid refined seed oils), magnesium, vitamin K, and vitamin B6.

Is oral vitamin D3 the same as the one produced by sunlight exposure?

They are similar but not the same; naturally produced vitamin D seems to be better utilized by the body and last up to 3 times more than supplemental.

How long will I take to see skin/hair results with RED/NIR light?

Usually you will see the first results within 3 months, and see better results with 6 months use.



SPECIFICATIONS

VITAMIN D LAMP

Voltage	120V - 240V AC
Power	35W
Frequency	60Hz
Distance sensor	Sonar 16 inches
Cord Length	7 feet
Safety Goggles	2 units
LEDS	18 - 295 nm UV 18 - 590-810 nm UV 18 - 630-850 nm UV
LED Expected Life	10,000 hours
Weight	1,814 grams (4 lbs)
Device Dimensions	11 3/4 L x 4 1/2 W x 20 3/4 H (measured in inches)
Treatment Area	330.2 cm ²
Storage and Transport Condition	Temperature: -10°C to 60°C / 14°F to 140°F • Relative humidity: 0%-100%
Operating Condition	Temperature: 15°C - 30°C (59°F - 86°F) • Relative humidity: 0%-93%

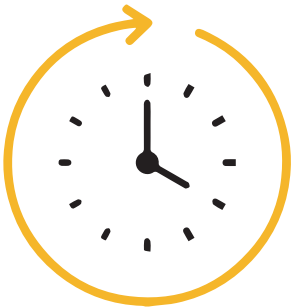


Safety Instructions, Warnings, and Disclaimer

To preserve the life and functionality of the device, always store it in a cool, dry place when possible. For proper use and safety, please be sure to read this manual and follow all instructions and do not do any of the following with the device:



- DO NOT let children use the device without adult supervision.



- DO NOT exceed 20 minutes of use in one therapy session.

- DO NOT use this device on infants.
- DO NOT let sleeping, disabled, or unconscious persons use the device.
- DO NOT use your device on open, fresh wounds.
- DO NOT use in combination with liniments, salves, ointments, or balms that contain heat producing ingredients. A skin burn could be the result of doing so.
- DO NOT modify or attempt to repair This equipment. There are no parts that are serviceable by the user. The light is an electrical device. To avoid electric shock and other electricity-related dangers, adhere to the following instructions.
- DO NOT wash electrical parts with water or other liquids.
- DO NOT drop your device in water or other liquids or place it where it may fall into water or other liquids.
- DO NOT expose your device to running water. If your device comes into contact or becomes submerged into water or other liquid, unplug it immediately from the electrical power outlet. If the device is to be used in the vicinity of water, we recommend using an electrical outlet protected by Ground Fault Circuit Interrupter.



- DO NOT directly touch the device or touch the plugs of switches with wet hands.
- DO NOT apply or touch the device to, or with, wet or damp skin.
- DO NOT pull, carry, or lift the device by its cord. If the cord is damaged, don't use the device.
- DO NOT use on or near heated surfaces.
- DO NOT store your device in hot temperatures exceeding 60 degrees Celsius.
- DO NOT use extension cords unless they are designed to carry the total wattage of the device being.
- DO NOT unplug by pulling directly on the cord. Grasp the plug itself, not the cord, when unplugging from an outlet.
- DO NOT cover the cooling fans while operating the device.



- DO NOT operate this device in areas where it could be exposed to flammable or combustible products or vapors. Explosions of fire may occur.



- DO NOT use your device if it's damaged. Continuous use of a damaged device may result in electric shock or injury.

DISPOSAL

The symbol on the right, which is on the device or in the packaging, indicates that the unit must not be disposed of with other household waste. This device requires disposal via a designated collection point for the recycling of electrical waste. Please recycle your disposal equipment to conserve natural resources and protect humans health and environment.

DISCLAIMER

This product is not intended to diagnose, cure or prevent any disease, We make no claims either guarantees regarding the ability of this product to cure something physical, skin or mental state from using this product. A qualified healthcare professional should always be consulted before using this product with respect to any conditions that require medical attention.



Maintenance, Customer Service, and Warranty

Maintenance

The device requires no maintenance other than basic maintenance and regular cleaning. It is easy to clean the device, just unplug it and wipe the surface with a damp cloth or paper towel. Do not use harsh cleaning chemicals or bleach as they may damage the device. Make sure the device is dry before using it again. For safety reasons, the device is intended for indoor use only.



Customer Service

We are committed to your well-being by providing you with effective, efficient and affordable light therapy devices. If you have a problem with the device's light therapy device, or if you have any questions or concerns about the device, do not hesitate to contact us at contact.support@mitolux.com and we will be more than happy to answer your questions.



Warranty

We guarantee that the device works and performs within the specification for 2 years after the delivery date. The 2 year warranty covers all parts during the warranty period with certain exceptions. If necessary, the buyer is responsible for returning the device to us within a 2 years warranty period. The warranty does not apply to any device that has been abused, misused, modified, damaged or equipped with spare parts other than manufactured parts. We are not responsible for losses or inconveniences caused by defects in our product.



After the warranty has ended, the buyer is obliged to pay for all parts and labor costs. If the unit is repaired or replaced, either within or outside the warranty period, we reserve the right to provide parts or replace in colors other than the original unit. To get warranty service, please email us at support@mitolux.com



References

1-Hair growth

Mai-Yi Fan S, Cheng YP, et al. "Efficacy and Safety of a Low-Level Light Therapy for Androgenetic Alopecia: A 24-Week, Randomized, Double-Blind, Self-Comparison, Sham Device-Controlled Trial." *Dermatologic Surgery*. 2018 Nov
<https://pubmed.ncbi.nlm.nih.gov/29957664/>

Joo HJ, Jeong KH, et al. "Various Wavelengths of Light-Emitting Diode Light Regulate the Proliferation of Human Dermal Papilla Cells and Hair Follicles via Wnt/ β -Catenin and the Extracellular Signal-Regulated Kinase Pathways." *Annals of Dermatology* 2017 Dec.
<https://pubmed.ncbi.nlm.nih.gov/29200764/>

Lanzafame RJ, Blanche RR, et al. "The growth of human scalp hair mediated by visible red light laser and LED sources in males." *Lasers in Surgery and Medicine*. 2013 Oct.
<https://pubmed.ncbi.nlm.nih.gov/24078483/>

Friedman S, Schnoor P. "Novel Approach to Treating Androgenetic Alopecia in Females With Photobiomodulation (Low-Level Laser Therapy)." *Dermatologic Surgery*. 2017 Jun
<https://pubmed.ncbi.nlm.nih.gov/28328705/>

2 -Vitamin D:

Ultraviolet B Light Emitting Diodes (LEDs) Are More Efficient and Effective in Producing Vitamin D3 in Human Skin Compared to Natural Sunlight, T A Kalajian 1, A Aldoukhi 1, A J Veronikis 1
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5597604/>

Evaluation of a Ultraviolet B Light Emitting Diode (LED) for Producing Vitamin D3 in Human Skin, ANGELINE J. VERONIKIS, MUHAMMET B. CEVIK, RACHEL H. ALLEN, ARASH SHIRVANI, AUDREY SUN, KELLY S. PERSONS and MICHAEL F. HOLICK
<https://ar.iijournals.org/content/anticanres/40/2/719.full.pdf>

Vitamin D production after UVB exposure – A comparison of exposed skin regions
Author links open overlay panel, Amra Osmancevic , Katarina Sandström , Martin Gillstedt, Kerstin Landin-Wilhelmsen , Olle Larkö , Ann-Marie Wennberg Larkö , Michael F. Holick c, Anne-Lene Krogstad
<https://www.sciencedirect.com/science/article/abs/pii/S1011134414003911>

3- Testosterone and Hormones:

Skin exposure to UVB light induces a skin-brain-gonad axis and sexual behavior, Roma Parikh,¹ Eschar Sorek,¹ Shivang Parikh,¹ Keren Michael,² Lior Bikovski,^{3,4} Sagi Tshori,^{5,6} Galit Shefer,⁵
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8411113/>

Ultraviolet radiation as a predictor of sex hormone levels in postmenopausal women: A European multi-center study (ECRHS), Kai Triebner ¹, Ersilia Bifulco ², Jose Barrera-Gómez ³, Xavier Basagaña ³,
<https://pubmed.ncbi.nlm.nih.gov/33541562/>

5- Depression and mood

Review of transcranial photobiomodulation for major depressive disorder: targeting brain metabolism, inflammation, oxidative stress, and neurogenesis, Paolo Cassano¹, Samuel R Petrie², Michael R Hamblin³, Theodore A Henderson⁴, Dan V Iosifescu⁵

<https://pubmed.ncbi.nlm.nih.gov/26989758/>

Psychological benefits 2 and 4 weeks after a single treatment with near infrared light to the forehead: a pilot study of 10 patients with major depression and anxiety, Fredric Schiffer,¹ Andrea L Johnston³, Caitlin Ravichandran,² Ann Polcari,¹ Martin H

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796659/>

Near-infrared photobiomodulation combined with coenzyme Q10 for depression in a mouse model of restraint stress: reduction in oxidative stress, neuroinflammation, and apoptosis, Farzad Salehpour¹, Fereshteh Farajdokht², Paolo Cassano³, Saeed Sadigh-Eteghad

<https://pubmed.ncbi.nlm.nih.gov/30385146/>

The potential of transcranial photobiomodulation therapy for treatment of major depressive disorder, Farzad Salehpour ¹, Seyed Hossein Rasta¹

<https://pubmed.ncbi.nlm.nih.gov/28231069/>

Effect of ultraviolet light on mood, depressive disorders and well-being, Bistra I. Veleva, Rutger L. van Bezooijen, Victor G. M. Chel, Mattijs E. Numans, Monique A. A. Caljouw

<https://onlinelibrary.wiley.com/doi/10.1111/phpp.12396>

6- Skin Health

Light Emitting Diode Phototherapy for Skin Aging, Alisen Huang MS,a,b Julie K. Nguyen MD,a,b Derek Ho MD,a,b, and Jared Jagdeo MD, MSa,b

<https://jddonline.com/articles/light-emitting-diode-phototherapy-for-skin-aging-S1545961620P0359X/>

A Controlled Trial to Determine the Efficacy of Red and Near-Infrared Light Treatment in Patient Satisfaction, Reduction of Fine Lines, Wrinkles, Skin Roughness, and Intradermal Collagen Density Increase, Alexander Wunsch¹ and Karsten Matuschka²

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3926176/>

Low-level red plus near infrared lights combination induces expressions of collagen and elastin in human skin in vitro, Wen-Hwa Li¹, InSeok Seo¹, Brian Kim¹, Ali Fassih¹, Michael D Southall¹, Ramine Parsa¹,

<https://pubmed.ncbi.nlm.nih.gov/33594706/>

Photobiomodulation: The Clinical Applications of Low-Level Light Therapy

<https://academic.oup.com/asj/article/41/6/723/6104785?>



A Controlled Trial to Determine the Efficacy of Red and Near-Infrared Light Treatment in Patient Satisfaction, Reduction of Fine Lines, Wrinkles, Skin Roughness, and Intradermal Collagen Density Increase, Alexander Wunsch¹ and Karsten Matuschka
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3926176/>

7- Muscle performance, recovery:

Photobiomodulation in human muscle tissue: an advantage in sports performance?, Cleber Ferraresi^{1,2,3}, Ying-Ying Huang^{1,2}, Michael R Hamblin
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5167494/>

Effect of phototherapy on delayed onset muscle soreness, Peter Douris¹, Veronica Southard, Richard Ferrigi, Joshua Grauer, Dina Katz, Christine Nascimento, Peter Podbielski
<https://pubmed.ncbi.nlm.nih.gov/16875447/>

8- Acne and Scars

Comparison of red light and blue light therapies for mild-to-moderate acne vulgaris: A randomized controlled clinical study, Jiahua Li, Jiandan Li, Linglin Zhang, Xiaojing Liu, Yajing Cao, Peiru Wang, Xiuli Wang
<https://onlinelibrary.wiley.com/doi/epdf/10.1111/phpp.12769>

Laser and Light-based Treatment of Keloids – A Review, A.D. Mamalis, H. Lev-Tov, MD, D.H. Nguyen, and J.R. Jagdeo, MD, MS
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378824/>

Effects of low-power light therapy on wound healing: LASER x LED*, Maria Emília de Abreu Chaves, Angélica Rodrigues de Araújo, André Costa Cruz Piancastelli, and Marcos Pinotti
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4148276/>

9- Inflammation and wound healing.

Mechanisms and applications of the anti-inflammatory effects of photobiomodulation
Michael R Hamblin
<https://pubmed.ncbi.nlm.nih.gov/28748217/>

Anti-inflammatory effects of low-level laser therapy on human periodontal ligament cells: in vitro study, Ji-Hua Lee¹, Min-Hsuan Chiang^{1,2}, Ping-Ho Chen^{1,3,4}, Mei-Ling Ho^{2,5,6}, Huey-Er Lee^{1,7}, Yan-Hsiung Wang^{8,9}
<https://pubmed.ncbi.nlm.nih.gov/29116611/>

Early Low-Level Laser Therapy Improves the Passive Range of Motion and Decreases Pain in Patients with Flexor Tendon Injury, Naghmeh Poorpezeshk^{1,2}, Seyed Kamran Ghoreishi³, Mohammad Bayat^{4,5}, Ramin Pouriran⁶, Masoud Yavari¹
<https://pubmed.ncbi.nlm.nih.gov/30300099/>



MITOLUX

The Science of Youth

www.mitolux.com

7610 N Steemmons FWY
Unit 170 Dallas, Tx 75247
+1 888 356 1773