

CE

# Handheld Laser Device

**HD-Cure Pro**



TENS



Laser



Time

USER MANUAL

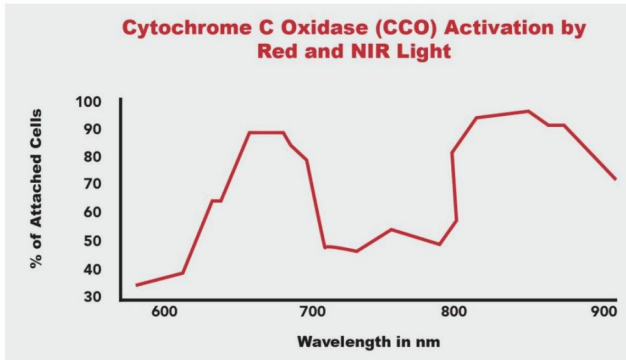
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# I. Introduction

Light therapy is among the earliest recorded healing modalities. Solar therapy was first used by the Egyptians, and forms of light therapy were also practiced by the ancient Greeks, Chinese and Indians.

There's no question that light exerts biological effects, in fact, the body needs light to be healthy. Clinical studies are now establishing how different wavelengths of light affect the body at a cellular level, the conditions that can be successfully treated using light therapy, and the optimal conditions needed to absorb the benefits of light-based treatments.



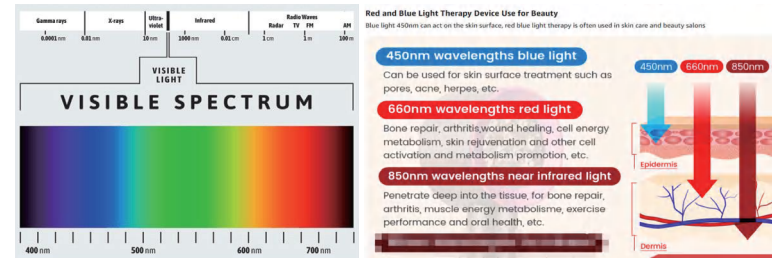
## 1. Treatment Principle

What's red light?

Red light resides on the visible end of the spectrum, which means you can see it. It is, however, on the "long end" of the whole spectrum in general.

Red light waves are the longest wavelengths that are still visible to human eyes. The longer the wavelength of red light is the more effective it is for penetrating your body to a significant cellular level.

Short red light penetrates your body to a depth of about 8 to 10 millimeters, reaching the mitochondria of your skin cells and other cells that are located closely beneath your skin to stimulate biological reaction.

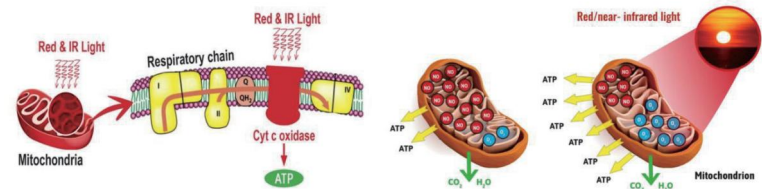


Red light therapy is a form of photo bio-modulation or a treatment that uses light-emitting diodes(LED) or low-level laser therapy(LLLT) to stimulate cellular activity to achieve therapeutic benefits.

So, what's the key mechanisms of Red/NIR Light Therapy?

Generally speaking, red/NIR light has two central mechanisms in how it benefits cellular function and overall health:

1. Stimulating ATP production in the mitochondria through interacting with a photoreceptor called cytochrome oxidase.
2. Creating a temporary, low-dose metabolic stress (known as hormesis, which is also a primary mechanism of why exercise works) that ultimately builds up the anti-inflammatory, anti-oxidant and cell defense systems of the cell.



Obviously, red light is best suited for treating skin conditions, local pain, mild inflammation, and accelerating surface wounds healing. And what is trustworthy is that there are no adverse side effects. Red light does not create heat, although you might experience a mild and pleasant warm sensation on your skin during therapy, but it won't burn your skin or damage any underlying body tissues.

It has been proven that almost all wavelengths of red light will provide a sort of benefits, but wavelength from 650nm to 850nm demonstrate the most healing power.

## 2.About The Low Level Laser & TENS Therapy Device

### a)Low Level Laser Therapy(LLLT)

The ingredients of the blood circulating in human body, water, oxygen, red blood cells, hemoglobin, white blood cells, plasma, thrombocytes, cholesterol, and various other substances form a considerably complex chemical compound.

It can only perform its intended function in a comprehensive manner, if its components are present in the optimal proportion. Medical studies indicate that blood fluorescence induced by laser mainly fluctuates in the 600nm-1000nm range, and 650-850nm spectrum is the top value, where the laser can achieve the highest performance. Therefore, we have adopted both the 650nm red light and the invisible 808nm cold laser.

The Cold Laser Therapy device's 650nm and 808nm low intensity, or Low Level Laser has a maximum output power of 930mW. It is monochromatic (operates at a single frequency), and coherent (it moves in a single phase and in a single direction). 650nm red light tends to improve skin health and collagen production, it reaches deep layers of the skin, where it stimulates cellular repair and increases circulation to promote a more vibrant, youthful complexion. 808nm cold laser, which is invisible to human eyes, can deeply penetrate and cause thermal effects to increase tissue temperature, promote blood circulation, enhance metabolism, improve cell viability and regenerative capacity.

During the process of the treatment by this Low Level Laser, no damage occurs, such physiological and biochemical changes may commence, which may promote the body's self-healing functions.

### b).Transcutaneous Electrical Nerve Stimulation(TENS)

When a low intensity electric impulse passes through the skin and penetrates deep into the tissue, it stimulates and improves local blood circulation, reduces muscle tension.

Furthermore, the treatment promotes the activation of the defense and immune system of the human body, moreover it helps balance cell metabolism in the treated areas.

TENS device adopts gentle electrical impulse which can stop the pain signals going to your brain and naturally enables your body to release endorphins, the body's 'feel good' chemical. TENS is used as a natural pain reliever and is ideal for chronic pain, sore muscles, fatigue reduction and tension release.

The low frequency electric can be adjusted to 3 levels between 40-200Hz. By means of this, it may successfully assist in the promotion of improving blood circulation and the acceleration of tissue regeneration.

All in all, the regular application of these treatments assists in jump starting the micro-circulation, as a result of which bones and joints receive a higher level of protection, furthermore, each and every cell type receives the energy required for its optimal functioning in the body, which facilitates wounds healing and pain relief.

## II .Introduction of Cold Laser&TENS Therapy Device

### 1. A Complete Breakthrough

Our Low Level Laser Therapy device, represents a breakthrough in the area of these types of treatments, and constitutes the perfect combination of the most effective therapies, lightweight, portable and rechargeable device.

Light irradiation using a low power density has been reported as a noninvasive, non-carcinogenic, non-traumatic procedure that can provide a therapeutic benefit to many diseases and medical conditions, and that has been reported to have no side effects.

Compared with specialized nursing in hospitals, portable handheld laser equipment is a very economical way of treatment. Cost performance is definitely more than you think, So you can easily relieve the pain without leaving home.

## 2.Features

- |   |                              |                          |
|---|------------------------------|--------------------------|
| ● Requires Zero Downtime  | ● Safe for All Skin Types    | ● Safe for All Ages 100% |
| ● Natural Drug Free   | ● Chemical Free Non-Invasive |                          |
| ● Non-Ablative (does not damage the skin)                                   |                              |                          |
| ● Painless (does not itch, burn or sting)                                   |                              |                          |
| ● No Adverse Short or Long Term Side Effects                                |                              |                          |
| ● Easily Self-Administered in Your Own Home                                 |                              |                          |
| ● Long Term Application of the Device Does Not Have Any Proven Side-Effects |                              |                          |

## 3.Indication

- |  |
|--|
| ● Wounds Healing Bone Healing                                  |
| ● Tendonitis, Arthritis, Cervical Spondylosis                  |
| ● Fat Loss, Reduce Cellulite (And Burns Of Stubborn Fat)       |
| ● Enhances Muscle Strength, Endurance, and Recovery            |
| ● Fibromyalgia Syndrome and Chronic Fatigue                    |
| ● Inflammation (and Potentially Inflammation-Related Diseases) |
| ● Reverse Skin Aging and Get Youthful Skin                     |
| ● Joint Pain, and All Kinds of Pain Relief                     |
| ● Immunity Improvement   |



## 4.Application Area



For different pain area, our cold laser therapy device can affect different cells differently—for example, it affects damaged and dysfunctional cells differently than healthy cells. It even has the capacity to irradiate the blood (and affects things like inflammatory mediators and immune cells), thus affecting the entire body through the changes in blood cells/compounds, not just the area the light is shined on.

The bio modulation achieved by our laser therapy allows it to be applied in situations that can be apparently paradoxical because it can sometimes be used to stimulate cells and tissues, and in other situation it can inhibit the same biological effect. For this reason, laser therapy is referred to by many researchers as a regulator or modulator because it restores the organism to homeostasis.

Moreover, there are considerable evidences of the systemic effects of laser therapy, which means that application to one area of the body can produce an improvement of a condition in another distant body part that does not receive the light. Systemic effects can be explained by local effects of light that can be transferred to other areas through the circulating blood, via the lymphatic system, or via the nervous system.

Ultimately, it relieves pain pressure in the whole body easily and comfortably in pure physical therapy, and brings you a healthy and pain-free life.

We have more than 18 years experience in this line of business, and are capable of providing you with a safe & effective solution, especially for people with limited mobility, so that you can easily relieve pain at home.

Nothing beats a strong will for being ready to embrace a new day. Light therapy device is the 100% natural solution for relieving the pain.

## 5.Treatment Recommendation

General, the device can be used several times per day, until the problem ceases. We would recommend using this device twice per day, 20 minutes for each time,10-15 days for one treatment session,2-3days' interval before next session. Please adjust the usage time according to your own conditions.

Long-term application does not have side effects. Please consult physician in the case of a special problem, before commencing regular use or a treatment course!

The device is safe and reliable, its operation is simple and convenient, its effect is evident, at the same time it is such a complementary treatment device that does not cause scarring and has no harmful side effect

## III.Main Structural &Specifications

### 1.Main Structure

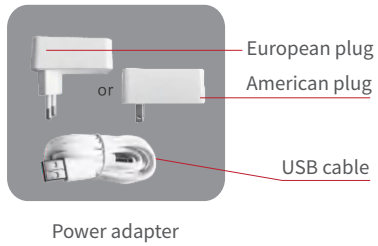
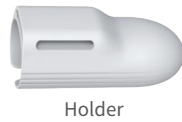
The device mainly consists of Host, charging stand,Band strap, USB Cable, Goggles, Adaptor,Holder.

### 2.Specifications

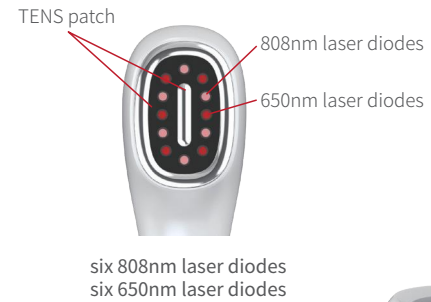
Laser medium	GaAIAs Semiconductor
Laser wavelength	650nm±20nm/808nm±20nm
Number of laser diodes	6×808nm laser diodes 6×650nm laser diodes
Maximum output power per 808nm laser diode	150mW±20%
Maximum output power per 650nm laser diode	5mW+20%
Total laser power	930mW
Laser power	3 levels (First level:pulse, Second and Third level :constant)
Tens power	3 levels
Time setting	5-30 minutes,5 minutes as an interval
Battery voltage	DC3.7V
Battery capacity	2600mAh
Input power	≤10VA
Environmental temperature	5°C~40°C
Relative humidity	≤80%
Atmospheric pressure	860hpa~1060hpa
Voltage	100-240V

The host uses internal power supply and class II power adaptor ; protection type of applied parts : BF type

### 3.Parts



(The picture is for reference only)



# IV. Operating Instructions

## 1. Functions Setting and Keys Operations

### 1.1 Turn on

- 1) Long press "⏻" (Figure 1).
- 2) Buzzer will "tick" and all the icons on LCD screen will light up when the device turned on, The default status: is 15 minutes, without Laser or TENS power output (Figure 2).



Figure 1

### 1.2 Time Setting

- 1) Press "🕒" to adjust time, Time increases 5 min / time; time is adjustable from 5 to 30 minutes.
- 2) When "🕒" is pressed, buzzer will "tick", and the time icon on LCD screen will change.

### 1.3 Laser Setting

When turn the device on, press "☀️" to select mode/power, First press is level 1 laser power by pulse mode, press again adjust to level 2, then press, adjust to highest power level by constant mode (figure 3).



Figure 2

Figure 3

### 1.3 TENS Power Setting

- 1) press "⚡️" to adjust the intensity of TENS output power. total 3 levels for options (figure 4).



TENS mode first level

TENS mode second level

TENS mode third level

Figure 4

### 1.5 Start and Pause

- 1) After working mode / time/ laser output power or TENS power intensity are set , short press "⏻" to start the device to output laser, or TENS, Buzzer "tick" and time counts down.
- 2) After using , buzzer "tick", LCD screen returns to the default status, and laser or TENS stops outputting.
- 3) If the device has to be paused in the process of using , short press "⏻", Buzzer "tick" and time display pauses.

#### Notes:

1. Time cannot be adjusted during the process of using, Please short press "⏻" before adjustment.
2. Laser or TENS power intensity cannot be adjusted during the process of using , Please short press "⏻" before adjustment.
3. Remarks: Laser and TENS can work separately or work together.

### 1.6 Wearing

Put unit into unit holder, and then fix it with body's area that you need to treat.

By the way, it is better to put cream on body for more comfortable treatment.



### 1.7 Shut down

Long press "⏻" to turn off, At the same time, buzzer "tick".

Note: Automatically shuts down after on minute (when not in use)



## 2.Treatment Recommendation & Guidelines

TREATMENT GUIDELINES OF RED LIGHT & TENS DEVICE FOR PAIN RELIEF					
Indications	Treatment time	Treatment frequency	Days for one treatment session	Treatment Courses	Interval Days
Acute soft tissue injury	20 min	Twice/per day	10days	2	3days
Periarthritis of shoulder	20 min+	Twice/per day	7days	3	2days
Knee arthritis	20 min+	Twice/per day	7days	3	2days
Tennis elbow	20 min	Twice/per day	7days	3	2days
Tenosynovitis	20 min	Twice/per day	7days	3	2days
Lumbar osteoarthritis	20 min	Twice/per day	5days	4	2days
Cervical osteoarthritis	20 min	Twice/per day	5days	4	2days
Lumbar strain	20 min+	Twice/per day	5days	2	2days
Cervical and back strain	20 min+	Twice/per day	5days	2	2days

**Note: "+" indicates that the time has to be increased according to the actual situation**

**Attention:**

- 1.The aseptic operation must be strictly implemented in the treatment of patients with soft tissue infection.During the treatment, if any reactions such as dizziness, nausea, and fatigue, the treatment time should be reduced and gradually adapted;
- 2.LED treatment will accelerate the body's metabolism, please drink water properly before and after treatment;
- 3.Long-term treatment of the body will produce tolerance and affect the treatment effect, please take interval rests stickly according to the requirements of the treatment course;
- 4.All treatment session increase or decrease have to be adjusted according to actual conditions.

♥ If you still have questions about this treatment guideline, please feel free to consult our customer service at any time, and we will give you a reasonable treatment plan according to your physical condition.

## Examples of suggested treatments for some pain symptoms

### (1)Treatments for Acute Soft Tissue Injury

#### Treatment instruction:

We suggest twice a day and about 20 minutes each time. 10 days is one treatment session and 3 days' interval between 2 sessions is recommended. It is recommended to use 2 treatment sessions.

After the curative effect appears, the consolidation treatment can be continued. At this period once a day and 20 minutes each time. Continue to adopt the treatment for 5 days.

#### Treatment area:

Close to the treatment area. Patients with open wounds need routine treatment before use, the distance from the injury area should be controlled within (1-2) cm.

### (2)Treatments for Shoulder Periarthritis and Knee Arthritis

#### Treatment Instruction:

We suggest twice a day and about 20 minutes each time. 7 days is one treatment session and 2 days' interval between 2 sessions. It is recommended to use 3 treatment sessions.

After the curative effect appears, the consolidation treatment can be continued. At this period once a day and 20 minutes each time. Continuous treatment for 5 days.

#### Treatment area:

Close to the treatment area, change the angle of irradiation around the targeted area every 10 minutes of treatment

### (3)Treatments for Tennis Elbow and Tenosynovitis

#### Treatment Instruction:

We suggest twice a day and about 20 minutes each time. 7 days is one treatment session and 2 days' interval between 2 sessions. It is recommended to use 3 treatment sessions.

After the curative effect appears, the consolidation treatment can be continued. At this period once a day and 20 minutes each time. Continuous treatment for 7 days.

**Treatment area:**

Close to the treatment area, change the angle of irradiation around the targeted area every 10 minutes of treatment.

**(4)Treatments for Cervical and Lumbar Osteoarthritis**

**Treatment instruction:**

We suggest twice a day and about 20 minutes each time. 5 days is one treatment session and 2days' interval between 2 sessions. It is recommended to use 4 treatment sessions. After the curative effect appears, the consolidation treatment can be continued. At this period once a day and 20 minutes each time. Continuous treatment for 5 days.

**Treatment area:**

Close to the treatment area.

**(5)Treatments for Strain of Cervical and Back,Muscles**

**Treatment Instruction:**

We suggest twice a day and about 20 minutes each time. 5 days is one treatment session and 2 days' interval between 2 sessions. It is recommended to use 2 treatment sessions. After the curative effect appears, the consolidation treatment can be continued. At this period once a day and 20 minutes each time. Continuous treatment for 3 days.

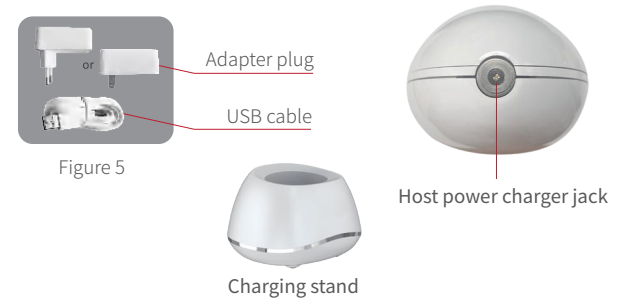
**Treatment area:**

Close to the treatment area.

The therapy effect varies between individuals. Please insist on using it when you need it to have a significant therapeutic effect on pain relief. The short-term effect may not be obvious, it depends on your body condition. If you have any questions please feel free to contact us.

**3. Charging Instruction**

- 1) Please charge timely when "▲" appears on LCD screen to ensure the normal service life of batteries.
- 2) Please put host into the charging stand, connect USB line with charging stand and adapter, then plug adapter into socket. Buzzer "tick" twice and the icon of battery on LCD screen shows that the device is charging. When the device is fully charged, the icon of battery displays.



Note: 1.The charging time should be above 10 hours for the first three times.  
2.Forbid replacing power adaptor to avoid damaging the device.

**V . Signs**

According to regulation in EN60825-1:2014 standard, each 3B laser product must be accompanied by a radiation warning sign and a radiation declarative sign.



Radiation warning sign



Radiation declarative sign

## Description of other signs



No littering



keep dry



keep away from sunlight



CE Mark



Fragile



Up

## VI. Contraindications

Pregnancy, cancer, hemorrhagic disease and prohibited to use this product.

## VII. Trouble-shooting Instructions

Faults	Causes	Solutions
Can not turn on the device	1. Insufficient time of pressing "On/Off". 2. Battery is low.	1. Long press "On/Off" over 3 seconds. 2. Plug "power adapter" to charge. The device can be normally turned on after being fully charged
Non-Luminance of lasers	"on/off" is not short pressed.	1. Short press "On/Off". 2. The device can be normally turned on after being fully charged.
Weak or no laser output	Damaged laser	Return the device to the factory for replacing or repairing

## VIII. Maintenance and Preservation

- 1) If the device breaks down, please check and exclude the cause according to "Trouble-shooting Instructions". If the problems can't be solved, please contact the nearest authorized service provider. Don't disassemble or repair by yourself without permission to avoid unnecessary losses.
- 2) Please use cotton soaked in neutral cleaning fluid to clean the dirty surface of the device. Don't use organic solvents, gas etc. to clean.
- 3) Please use cotton soaked in alcohol to gently clean light emitting ports or lasers. Strictly forbid using any liquid to soak or hard objects to dig.
- 4) Please keep the device away from humidity, high temperature and direct exposure to sunlight to avoid internal components aging to reduce the lifetime.
- 5) Please do not place the device together with hard objects to avoid scratches on its surface or damage to lasers.
- 6) For charging at the first three times, please recharge after the balance of battery runs out and time shall not be less than 10 hours.
- 7) If the device is not used for a long time, please charge it at least every 4 to 6 months, which is beneficial for battery maintenance. As lithium battery has the characteristic of power consumption, if the battery can't be charged for maintenance timely, it will be protected automatically after over discharging. In such case, the battery should be returned to the factory for activation or replacing, which will cause unnecessary trouble for you.

## IX. Transportation and Storage

General transportation tools are allowed, but strong shocks, vibration, snow and rain splash should be avoided in transportation process. The packed device shall be stored in the room with more than 80% relative humidity and without corrosive gas and well-ventilation.

## X. Product list

- |                                     |       |
|-------------------------------------|-------|
| 1. Host                             | 1unit |
| 2. Charging Stand                   | 1pc   |
| 3. Goggle                           | 1pc   |
| 4. Adapter+ USB Cable               | 1pc   |
| 5. Band strap                       | 1pc   |
| 6. Holder                           | 1pc   |
| 7. Manual ( contain Warranty card ) | 1pc   |

Warranty Card				
User name		Tel		Responsible person
Product name		Product model		Serial number
Date of purchase		Add		
The fault phenomenon				
Repair record				