



NerveCube



PMST

Magneto
PMST



HILT

High Intensity
Laser Therapy



LLLT

Low-Level
Laser Therapy



IFC

Electrotherapy



User Manual

INNOVATE



INTEGRATE



HEAL

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1. What is Nerve Cube?

For the Nerve Cube, its core innovation lies in its **Combinational Therapeutic approach**, which lets therapists easily combine different treatment approaches — whether targeting deep tissue repair with electromagnetic fields or laser, or providing precise pain relief with focused or radial shockwave.

Technologies for physiotherapy, sport medicine, urology, and orthopedics:

1. Vibration Therapy
2. Ultrasound Therapy
3. Low Level Laser Therapy
4. Electrotherapy
5. Focused Shockwave Therapy
6. Radial Shockwave Therapy
7. High Intensity Magnetic Therapy
8. High Power Laser Therapy

Also available:

9. Radio Frequency (TECAR) Therapy
10. PEMF Therapy (Pulsed Electromagnetic Field Therapy)

1.1 Combinational System Overview

Combinational Design: The system features a flexible 3-unit modular architecture, consisting of 1 Control Unit + 2 Therapy Modules.

1.2 Features

- **Combinational Treatment Options:** Users can expand capabilities by combining therapy modules.
- **Centralized Control:** The top Control Unit ensures synchronized management of dual technologies for combined or sequential therapies.
- **Clinical Flexibility:** Dedicated Therapy Modules support advanced physiotherapeutic applications across multiple treatment domains.

1.2-1 Control Unit (Top Module)

The Control Unit supports selection of two concurrent technologies from the following:

- Low-Level Laser Therapy (LLLT)
- Transcutaneous Electrical Nerve Stimulation (TENS)
- Interferential Current Therapy (IFC)
- 1 MHz & 3 MHz Therapeutic Ultrasound

This unit manages treatment parameters and delivers precise control over the selected modalities.

1.2-2 Therapy Modules (Middle & Bottom Units)

Each Therapy Module is dedicated to one high-power therapeutic technology selected from the list below:

- Radial Shockwave Therapy
- Focused Shockwave Therapy

- High-Power Laser Therapy
- Vibration Therapy
- TECAR Therapy
- Pulsed Electromagnetic Field (PEMF) Therapy
- Pulsed Mechanical Stimulation Therapy (PMST)

These modules provide robust, clinical-grade treatment delivery with high output and deep tissue reach.

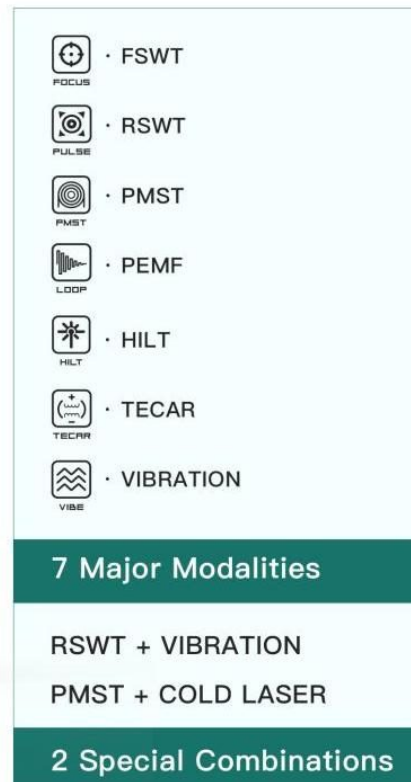
CONTROL BOX

(Pick any **two out of three**)



THERAPY BOXES

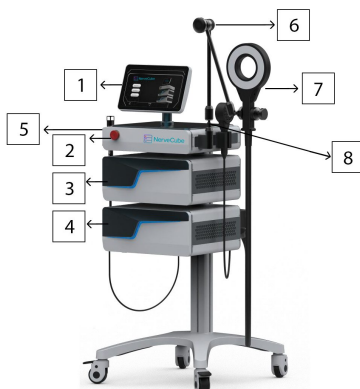
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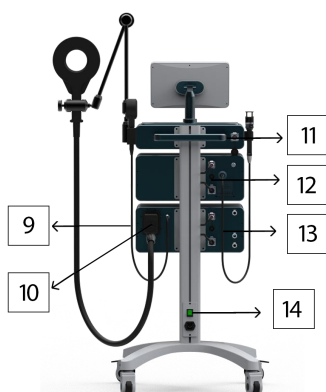
1.3 Model: MAGNETO+HILT+LLL

This Nerve Cube model combines PMST magneto with high intensity laser therapy (HILT) and low level laser therapy (LLL).

1.3-1 Machine structure



1	13.3 inch screen
2	System Control Box
3	HILT therapy box
4	Magneto + LLLT therapy box
5	HITL handle
6	PM200 magneto handle
7	LLL handle
8	Magneto holding arm



9	Magneto handle connect hole
10	HILT handle connect hole
11	USB connect hole
12	HILT handle connect hole
13	Magneto Water Inlet / Overflow / Water Outlet
14	Machine power switch

1.3-2 Machine technical data

MAGNETO

Intensity	4-7 Tesla
Frequency	1-150 Hz & 1-3 kHz
Therapeutic depth	18 cm
Mode	ST, MT, LT, EXPERT

LASER

Output power	45 W (30 W + 15 W)
Wavelength	980 nm + 1064 nm
Frequency	0.2-20000 Hz
Mode	Pulse, Continuity
Pulse width	10 µs - 3 s

COLD LASER

Output power	5600 mW (5.6 W)
Wavelength	650 nm & 808 nm
Mode	Continuous & Pulse



2. General Safety Information

This chapter contains the safety information that must be read, understood, and followed before the Nerve Cube is installed, operated, cleaned, or serviced. Keep this manual with the device and available to all users at all times.

2.1 Safety alert conventions

Safety messages in this manual use standardized signal words. Understand them before operating the device:

Signal word	Meaning
DANGER	Imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
NOTICE	Practice not related to personal injury, but which could result in equipment damage or loss of data.
NOTE	Additional information to help operate the device effectively.

⚠ **WARNING!**

WARNING — Incorrect handling of the device. Risk of injury to the patient and the operating personnel.

- Read this chapter, and the complete manual, before using the Nerve Cube.
- Read the separate operating manuals for all devices and applicators used with the Nerve Cube.
- Use the device only for its intended purpose and only as described in this manual.

2.2 Safety symbols and labels

Symbols appear on the device rating plate, on the applicators, and throughout this manual. Become familiar with them before use.

Symbol	Reference	Meaning
	ISO 7010 / 15223-1	Consult the instructions for use before operating.
(laser hazard)	IEC 60825-1	Laser radiation — avoid eye and skin exposure. [VERIFY laser class]
(no pacemaker)	—	Strong magnetic field — keep persons with active implants clear.
(manufacturer)	ISO 15223-1	Manufacturer name and address. [VERIFY]
(CE / UDI / type rating)	MDR / IEC 60601-1	Conformity mark, unique device identifier, and electrical type rating. [VERIFY]

2.3 Intended use, intended users, and operating environment

Intended use. [VERIFY — insert the manufacturer's cleared intended-use / indications-for-use statement verbatim.] In general terms, the Nerve Cube is a combination physiotherapy system delivering high-intensity pulsed magnetic field (PMST), high-intensity laser (HILT), and low-level laser (LLLT) therapy for the treatment of musculoskeletal pain and the support of tissue repair.

Intended users. The device is for use **only by trained, qualified healthcare professionals** who have read this manual and are competent in the applied therapies. It is not for lay or unsupervised use.

Operating environment. The device is intended for use in a professional healthcare facility. It is not intended for home use, and not for use in the patient environment of life-support equipment unless [VERIFY] confirms electromagnetic compatibility for that setting.

To ensure the device is used in accordance with its intended use, the operator must have the necessary technical proficiency and knowledge of this manual. All status and fault messages signalled during treatment must be attended to without delay.

Checks and inspections prior to treatment
Always confirm the device is functioning safely before each use: • Check device functions and the aiming/indicator systems before starting treatment. • Inspect the applicator, handpiece, fibre, and cables for damage; do not use damaged components. • Have the maintenance procedures recommended by the manufacturer carried out only by suitably authorized personnel.

2.4 Contraindications, warnings, and precautions

 WARNING!
WARNING — Do not begin treatment if any contraindication applies. Screen every patient before treatment. Treating a contraindicated patient can cause serious harm. When in doubt, do not treat, and consult the responsible physician.

Contraindications (do not treat)

Contraindication	Applies to
Active implanted electronic devices (pacemaker, ICD, neurostimulator, cochlear implant, infusion pump)	Magnetic / electrotherapy
Pregnancy, or treatment over the gravid uterus	All modalities
Active or suspected malignancy in the treatment area	All modalities
Active haemorrhage, or anticoagulant-related bleeding risk in the area	All modalities
Direct treatment over the eyes, or laser exposure to the eye	Laser (HILT/LLLT)
Treatment over an active infection, open wound, or recent thrombosis	All modalities
Photosensitivity, or use of photosensitizing medication	Laser

Precautions (treat only with additional care / physician guidance)

Precaution	Reason
Impaired skin sensation or inability to report discomfort	Patient cannot signal overheating/pain
Ferromagnetic or metallic implants in the treatment area	Heating / movement in magnetic field
Epilepsy, cardiac disease, or fever	Systemic reaction risk
Tattoos or heavily pigmented skin in the laser field	Excess heat absorption / burn risk
Paediatric patients, or treatment over growth plates	Developing tissue

2.5 Modality-specific safety

2.5.1 High-intensity magnetic field (PMST)

 WARNING!
WARNING — Strong pulsed magnetic field. The magnetic applicator generates a strong field that can interfere with active implants and accelerate or heat ferromagnetic objects. • Keep persons with pacemakers or other active/electronic implants at least 1 metre from the applicator, including operators and bystanders. • Before treatment, ensure all metallic objects (rings, chains, watches, glasses, keys, belts, phones, hearing aids) are removed from the patient and the treatment field. • Keep magnetic-sensitive items (credit/ID cards, mechanical watches, storage media) away from the applicator. • Do not treat over metallic or ferromagnetic implants. [VERIFY exclusion distance and implant guidance]

2.5.2 Laser safety (HILT and LLLT)

 WARNING!
DANGER — Laser radiation. Avoid eye and skin exposure to the beam. The Nerve Cube emits high-power (HILT) and low-level (LLLT) laser radiation, including invisible wavelengths. [VERIFY: HILT is expected to be a Class 4 laser product; confirm the class of each laser source.] Class 4 laser radiation can cause instant, permanent eye injury and skin burns, and can ignite flammable materials.

- **Protective eyewear is mandatory** for the operator, the patient, and everyone in the treatment room, whenever the laser is armed. Eyewear must match the device wavelengths and provide the required optical density. **[VERIFY wavelengths and minimum OD.]**
- Operate the laser only inside a designated **laser controlled area**. Post the required laser-warning sign at every entrance and restrict access while the laser is armed.
- Remove or cover reflective surfaces, mirrors, jewellery, and polished instruments in the beam path. Use matte/anodized instruments where possible.
- **Fire hazard:** never aim at, or operate near, flammable materials, gauze, alcohol-based skin preps, or oxygen-enriched atmospheres. Allow prep solutions to dry fully before use.
- Never look into the beam or the aiming beam, and never point the handpiece at anyone except at the intended treatment site. Keep the device in **standby** whenever the beam is not being delivered.
- Inspect the fibre, handpiece, and optical lens before each use; a damaged or contaminated lens can cause hazardous backscatter (see §2.10).
- Use the key control / interlock to prevent unauthorized emission. **[VERIFY interlock and key-switch behaviour.]**

2.5.3 Electrotherapy and ultrasound (Control Unit)

When the Control Unit's electrotherapy (TENS/IFC) or therapeutic ultrasound functions are used:

- Do not place electrodes transthoracically (across the chest), over the carotid sinus, over the eyes, or over broken/irritated skin.
- Do not use electrical stimulation on patients with active implanted stimulators without physician approval.

- Do not apply ultrasound over the eyes, reproductive organs, the gravid uterus, growth plates, or ischaemic tissue. **[VERIFY against cleared ultrasound labelling.]**

2.6 Electrical, installation, and environmental safety

 WARNING!
WARNING — Electrical hazard. Improper connection or damaged cabling can cause electric shock or fire. • Connect only to a correctly earthed (protective-earth) mains supply matching the device rating. [VERIFY mains voltage/frequency/current rating.] • Do not use the device with a damaged power cord, plug, or applicator cable. • Do not open the housing. There are no user-serviceable parts inside.

Protection against electrical hazards
Disconnect the Nerve Cube from the mains before any cleaning or maintenance. • Do not reconnect it until it has been completely reassembled. • Ensure there is no damage to the applicator or the applicator cable.

- Make absolutely sure that no liquid can seep into the system housing or applicators.
- Operate and store the device only within the specified environmental limits. **[VERIFY operating/storage temperature, humidity, and pressure ranges.]**
- This device requires special EMC precautions; keep portable RF communications equipment away from it per the EMC tables. **[VERIFY EMC separation distances.]**

2.7 Setup and operation

The applicator must not rest on the Nerve Cube during operation.

- Maintain a safety distance of at least **30 cm** between the Nerve Cube and the applicator; otherwise the device could be damaged.
- When treatment is not taking place, place the applicator in the holder on the housing or in the cradle on the holding arm.
- Keep the ventilation slits uncovered, and **never cover the device when in use.**
- Check that the device is in perfect working order before each use.
- Position the device so the mains plug and **emergency stop remain accessible** at all times.

2.8 Safety during treatment and patient monitoring

Pulses can give rise to undesirable reactions. The patient must be continuously observed during treatment, and the operator must respond to any reaction the patient experiences. **The patient must not be under anaesthetic** and must be able to perceive and report discomfort.

- The operator is responsible for correctly positioning the applicator and selecting the correct treatment zone.
- Brief the patient before treatment on normal sensations and on how to signal discomfort; keep communication open throughout.

- Stop treatment immediately if the patient reports pain, excessive heat, or any adverse reaction, or if a device fault is signalled.

2.9 Emergency procedures

In an emergency (adverse patient reaction, smoke, abnormal noise, fluid ingress, or any device malfunction):

1. **Stop emission** — release the handpiece trigger and press the emergency stop / power off.
[VERIFY emergency-stop location and behaviour.]
2. Disconnect the device from the mains if it is safe to do so.
3. Attend to the patient and provide care as clinically indicated.
4. Take the device out of service, label it, and contact authorized service.
5. Report any serious incident to the manufacturer and the competent authority as required by local regulation. [VERIFY reporting contacts.]

2.10 Maintenance and service safety

Proper maintenance is essential to ensure optimal performance, user safety, and extended equipment lifespan. Disconnect the device from the mains before any maintenance, and refer all internal repairs to certified technicians.

2.10.1 HILT maintenance guide

Operational Prohibitions

Item	Description	Notes
Unauthorized Disassembly	✗ Do not disassemble or modify the device	May void warranty and cause safety hazards
Fiber Optic Cable Handling	✗ Do not bend, compress, step on, or pull the fiber	Minimum bending radius 5 cm (2 inches)
Hand piece Connection	✗ Do not insert or remove while powered on	Always turn power OFF before connecting or removing the hand piece

User Maintenance Scope

Task	User Responsibility	Remarks
Daily Cleaning	✓ Wipe exterior, hand piece, and touchscreen	Use soft cloth or alcohol-free disinfectant wipes
Basic Checks	✓ Inspect cables, connectors, and plugs	Before each use
Troubleshooting	✓ Follow guided steps from support engineers	For basic errors only
Internal Repairs	✗ Not allowed	To be handled by certified technicians only

Optical Lens Maintenance

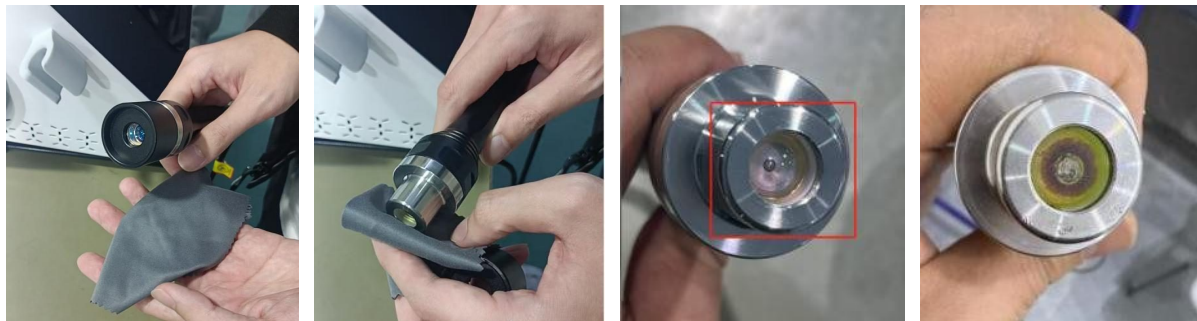
Step	Action	Guidelines
Pre-Treatment Inspection	✓ Visually check for dust, smudges, or cracks	Ensure lens is clean and clear before each use
Cleaning Procedure	✓ Gently wipe with soft, lint-free cloth	Do not press hard; clean only if contamination is visible
Strict Prohibitions	✗ No bare-hand contact; ✗ no abrasive materials (paper towels, clothing); ✗ no unauthorized alcohol use	Follow only approved cleaning protocols

Risks of Lens Contamination

Risk Type	Description
Irreversible Lens Damage	Contaminants create heat points that can crack or craze the lens
Hazardous Backscatter	Dirty or damaged lenses may cause dangerous energy reflection
Reduced Treatment Effectiveness	Laser beam may be weakened or scattered, compromising results

TIP:

Inspect the lens monthly for micro-fractures or surface damage. Power off the device before cleaning.

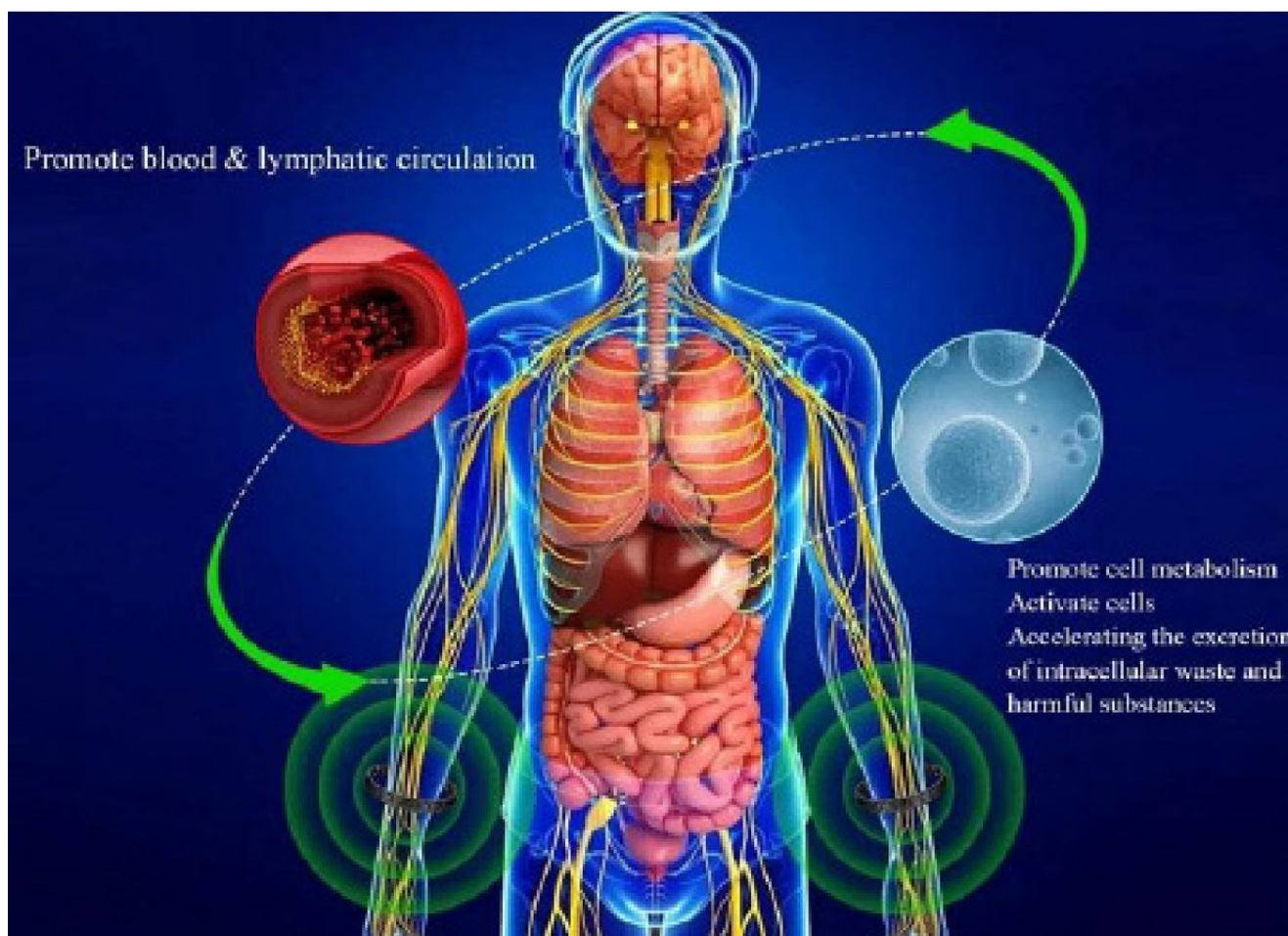


2.11 Residual risk

Even when the device is used as intended and all instructions are followed, residual risks remain (for example, thermal effects from laser or magnetic therapy, or unexpected patient reactions). Use the device only when the clinical benefit outweighs these risks, keep the patient under observation, and report any serious incident to the manufacturer and the competent authority. **[VERIFY the residual-risk statement against the product's ISO 14971 risk management file.]**

3. What is PMST?

Nerve Cube PMST stands for Physio Magneto Super Transduction. It is a type of high-intensity magnetic field therapy, also referred to as high-energy PEMF (Pulsed Electromagnetic Field Therapy), designed for use in physiotherapy, orthopedics, sports medicine, and rehabilitation. It is a non-invasive therapy to stimulate biological tissue, particularly muscles, tendons, bones, and nerves. The goal is to accelerate healing, reduce pain, and restore function.



The human body is a good conducting medium, and that also applies to magnetic fields. As ions in a cell have a charge, the cell membrane also needs a certain charge. The membrane charge of normal, healthy cells is higher than that of diseased or aged cells, including bacteria and viruses. When the cell membrane charge is low, the cell has too little energy to perform its normal function. Therefore cells need energy, and electromagnetic field stimulation is known to increase this energy and optimize the function of the cell.

Electromagnetic fields can pass through cells, tissues, organs, and bones without any deformation or loss, activate the electrical chemistry of tissues, and improve cell and cell membrane function. The PMST generates a magnetic field of 4-7 Tesla. This strong magnetic field stimulates nerve cells, muscles, and blood vessels consequently.

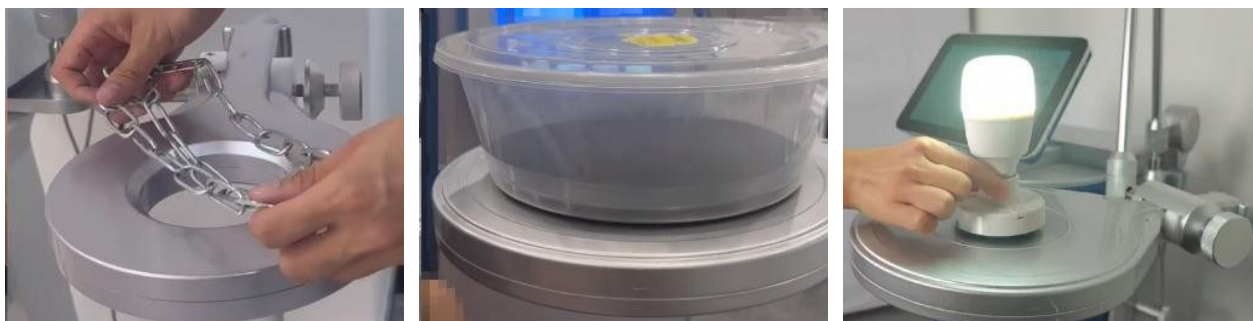
3.1 Why Use 4-7 Tesla Magnetic Field in Therapy?

Nerve Cube uses 4-7 Tesla high magnetic field strength to deliver deeper, stronger, faster, safer, and more effective treatment — perfect for chronic pain, nerve damage, joint problems, or rehabilitation, without surgery or needles.

Advantage	What It Means
✓ Deeper Penetration	Reaches up to 18 cm below the skin — ideal for deep joints, nerves, and bones
✓ Stronger Stimulation	High-energy pulses activate muscles, bones, and nerves, supporting muscle activation, bone healing, and pain relief
✓ Faster Results	More effective energy = fewer sessions needed for chronic or stubborn conditions
✓ Non-Invasive & Safe	No needles, no radiation — painless and contactless therapy through clothes, while sitting or lying down
✓ Clinically Proven Range	Similar field strength used in advanced MRI systems; safe and widely studied

Visualize Magnetic Fields

A metal chain, magnetic powder, or a light bulb can be used for a simple and visual demonstration of the presence and shape of the pulsed magnetic field.



TIP:

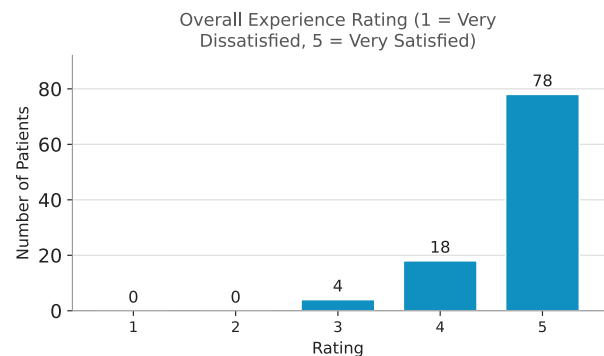
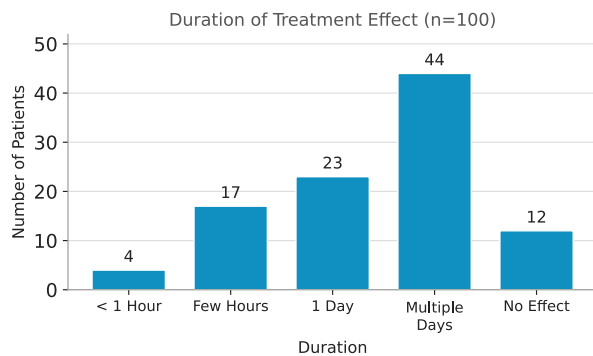
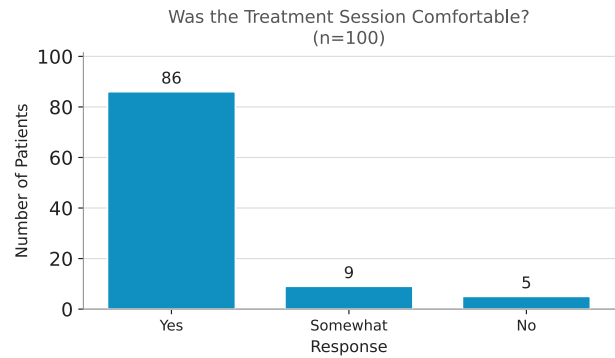
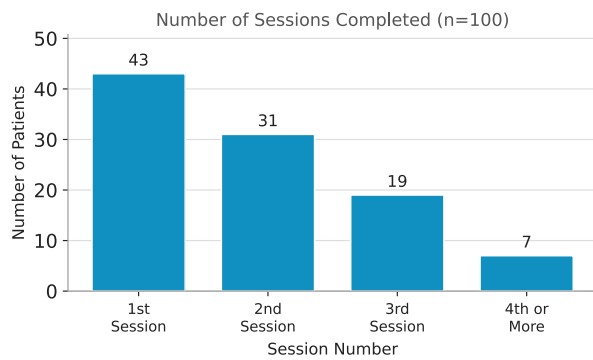
To measure magnetic field strength, you need to use a Tesla meter.

3.2 Patient Feedback Summary

This report presents patient feedback from 100 individuals who used the same magnetic therapy from Nerve Cube. The evaluation includes comfort during treatment, symptom response, session frequency, duration of effects, and overall experience.

Summary of Patient Feedback

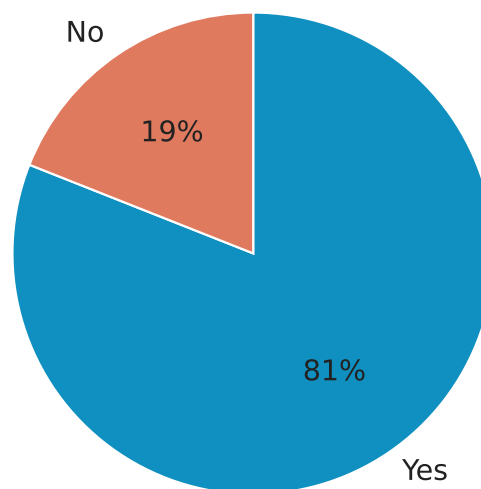
- 86% of patients reported the treatment was comfortable, with only 5% experiencing discomfort.
- 81% of patients noticed a change in their symptoms, with reduced pain being the most frequently mentioned improvement.
- Most patients were early in their treatment course: 43% were on their 1st session, and 31% on their 2nd.
- 44% of patients experienced treatment effects lasting multiple days, and 23% for one day.
- Overall satisfaction was high: 96% rated their experience as 4 or 5 out of 5.



Highlights

- These results highlight the magneto as a well-tolerated and positively received therapy, particularly for short-term symptom relief.
- The most commonly treated conditions with magneto were: shoulder impingement, frozen shoulder, tennis elbow, golfer's elbow, hip osteoarthritis, mechanical low back pain, and Achilles tendinitis. These reflect a strong emphasis on musculoskeletal and soft tissue pathologies.

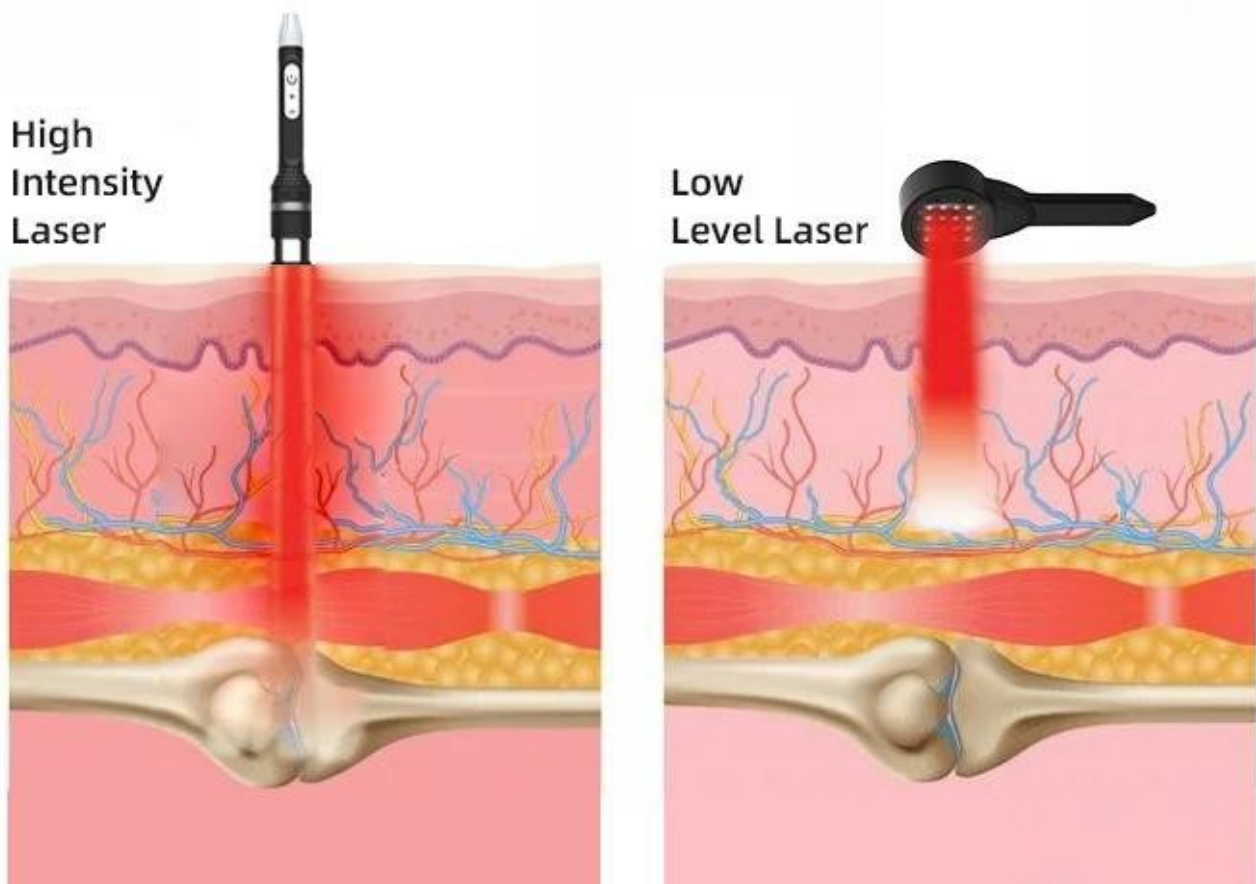
Noticed Change in Symptoms? (n=100)



Most common improvement: reduced pain

4. What is Laser Therapy?

Laser Therapy — also known as Photobiomodulation Therapy (PBMT) — is a non-invasive therapeutic modality that uses coherent, monochromatic, and collimated light to deliver specific wavelengths into biological tissues. This light interacts with cellular components, particularly within mitochondria, to modulate cell metabolism, reduce inflammation, relieve pain, and accelerate healing processes. Unlike surgical or cutting lasers, therapeutic lasers do not cause tissue ablation or damage when used within proper parameters.



4.1 Classification of Therapeutic Laser

Therapeutic lasers used in physiotherapy are generally classified by output power and clinical application:

4.1-1 Low-Power Lasers (LLLT / "Cold Laser")

Definition: Low-Power Laser Therapy (often termed Cold Laser Therapy) uses low output power and produces little to no thermal effect, instead stimulating cellular processes through photobiomodulation.

Typical wavelengths: 600–1000 nm (red and near-infrared spectrum).

Primary effects:

- Increases cellular ATP (energy) production
- Modulates inflammatory mediators
- Enhances microcirculation
- Promotes soft tissue healing
- Reduces pain and swelling

Clinical uses:

- Superficial soft tissue injuries (muscles, tendons, ligaments)
- Acute inflammation
- Wound healing
- Pain management
- Early-phase rehabilitation

4.1-2 High-Intensity Lasers (HILT / Class IV Laser)

Definition: High-Power Laser Therapy uses higher output power, producing both photobiomodulation and controlled thermal effects. These lasers can penetrate deeper tissues and are used in more intensive therapeutic applications.

Typical wavelengths: high-power therapeutic lasers usually emit in the near-infrared range, optimized for deep tissue penetration:

- 810 nm / 910 nm — strong biostimulation effect
- 980 nm — greater thermal effect for circulation
- 1064 nm (optional) — maximum penetration for deep joints and spine

Primary effects: High-Power Lasers deliver more energy per unit time into deeper structures, leading to:

- Enhanced ATP production in deeper tissues
- Increased blood flow and oxygenation
- Reduction of chronic inflammation
- Muscle relaxation via controlled heat
- Faster regeneration of deeper connective tissues

Clinical uses:

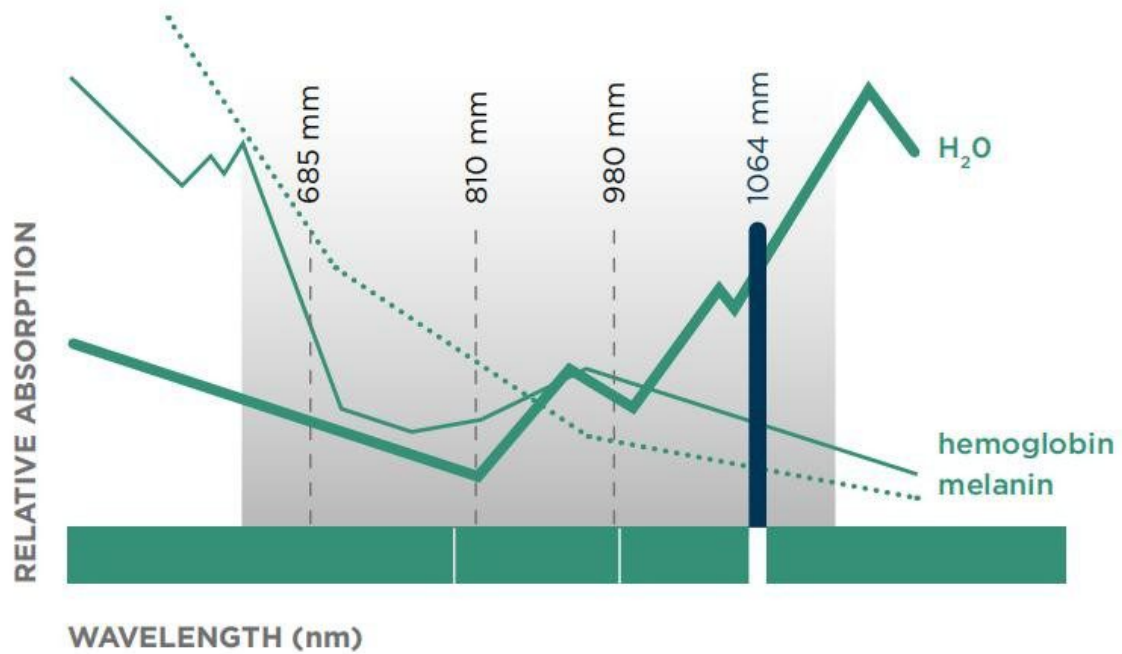
- Chronic musculoskeletal disorders
- Deep joint pain (knee, hip, shoulder)
- Tendinopathies
- Osteoarthritis
- Post-surgical rehabilitation
- Large muscles or deep tissue injuries

4.1-3 Comparison Summary

Feature	Low-Power Laser (LLLT)	High-Intensity Laser (HILT)
Output Power	< 0.5 W (mW range)	> 0.5 W (W range)
Thermal Effect	Minimal or none	Controlled heat
Tissue Penetration	Superficial	Deep structures
Key Uses	Acute injury, inflammation, wound healing	Chronic pain, deep musculoskeletal therapy
Biological Action	Photobiomodulation only	Photobiomodulation + thermal effects

4.2 Different Wavelength Effects

The absorption curves of water, hemoglobin, and melanin differ across high-power laser wavelengths:



Wavelength	Water	Hemoglobin	Melanin	Penetration
532 nm	Low	High	High	Shallow
755 nm	Low	Medium	High	Moderate
810 nm	Low	Low	High	Deep
980 nm	Medium	Low	Low	Medium
1064 nm	Low	Very low	Low	Deepest
1470 nm	High	None	None	Surface only

5. Nerve Cube Model System



Nerve Cube has an intelligent system; the intelligent program can control the three technologies at the same time.

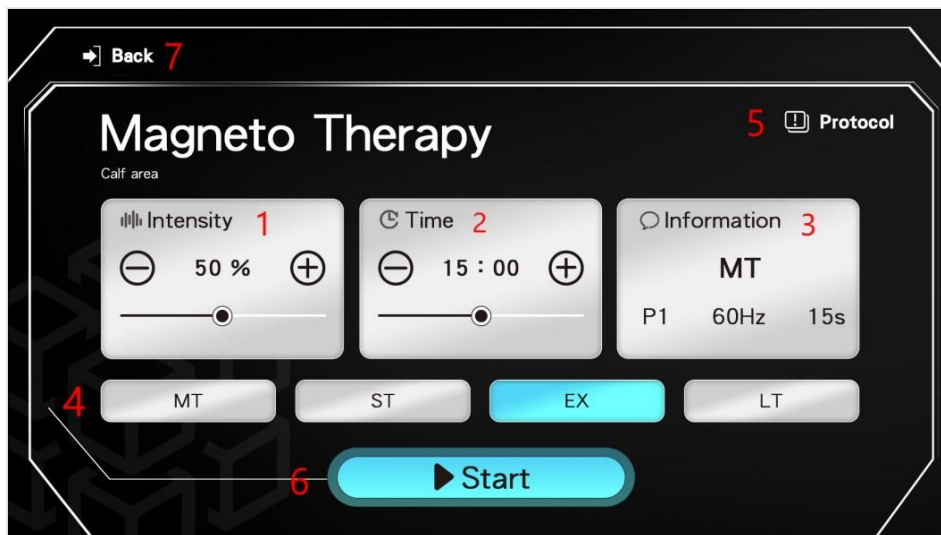


Home Page (5-1). On the home page, click the technology you need to use — for example PMST — to enter that therapy page. Clicking **Enter** takes you into (5-2).



Technologies Choose Page (5-2). Click each technology to enter that technology's therapy page.

5.1 Magneto therapy interface



(5-3 Magneto Therapy Page)

1	Energy setting from 5%–100%
2	Treatment time from 1–60 min
3	When you set the treatment parameters, the information is shown here
4	Magnetic therapy mode selection (details in 5.1.1). Clicking "MT" mode enters the customize protocol page (5-4).
5	Click "Protocol" to enter the Preset protocols interface (5-5)
6	Start / Stop button
7	Click "Back" to return to (5-2)

5.1.1 Magnetic modes introduction

MT mode — Magneto Transduction Mode

Frequency range: 1–150 Hz. Designed for superficial tissue penetration, primarily targeting muscles and soft tissues. Effectively induces muscle contraction and neuromuscular stimulation, improving muscle activation and local blood circulation.

Recommended for:

- Muscle stimulation and re-education
- Improvement of muscle tone and strength
- Muscle shaping and strengthening exercises

ST mode — Super Transduction Mode

Frequency range: 1000–3000 Hz. Features high-frequency magnetic pulses for deep tissue penetration, allowing energy to reach structures such as bones, tendons, ligaments, and deep connective tissues.

Recommended for:

- Tendon and ligament rehabilitation
- Bone-related indications
- Deep musculoskeletal pain management
- Post-injury and post-surgical recovery support

EX mode — Expert Mode

An advanced expert setting featuring dynamic and variable frequency modulation within a single treatment session. Different frequency combinations are applied automatically or manually to address the complex pathophysiology of both acute and chronic conditions.

Recommended for:

- Experienced clinicians and therapists
- Personalized treatment protocols
- Complex acute and chronic musculoskeletal conditions
- Multi-stage rehabilitation programs

LT mode — Low Transduction Mode

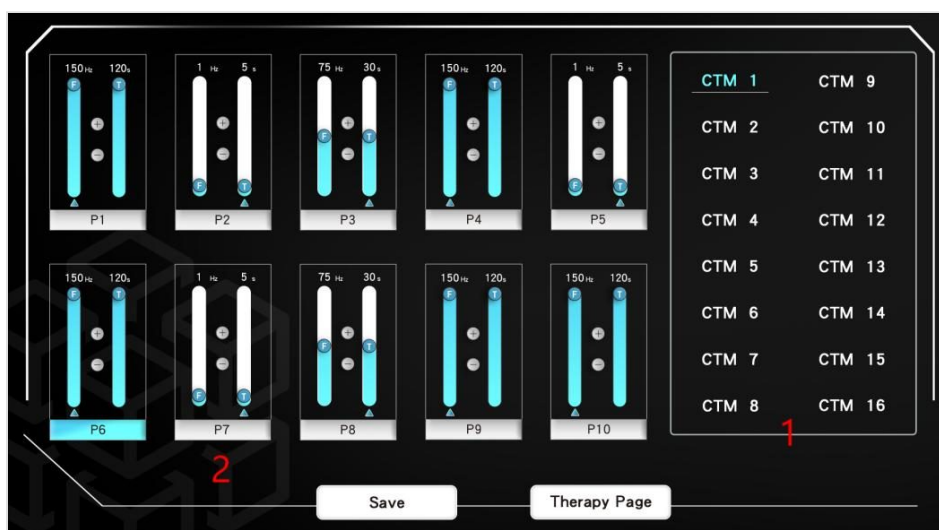
Frequency: 0.5 Hz. Provides low-frequency stimulation with a pronounced inhibitory neuromodulation effect. Helps suppress overactive nerve fibers responsible for pain transmission, making it especially effective in acute pain management.

Recommended for:

- Acute pain relief
- Reduction of neural hyperexcitability
- Supportive therapy for overactive bladder
- Relaxation of spasmodic or overactive muscles

5.1.2 Customized protocols interface introduction

Users can customize and store their own clinical data, with a total of 16 data items, which can be easily tracked and adjusted according to the treatment process, thereby achieving personalized treatment and effect evaluation.

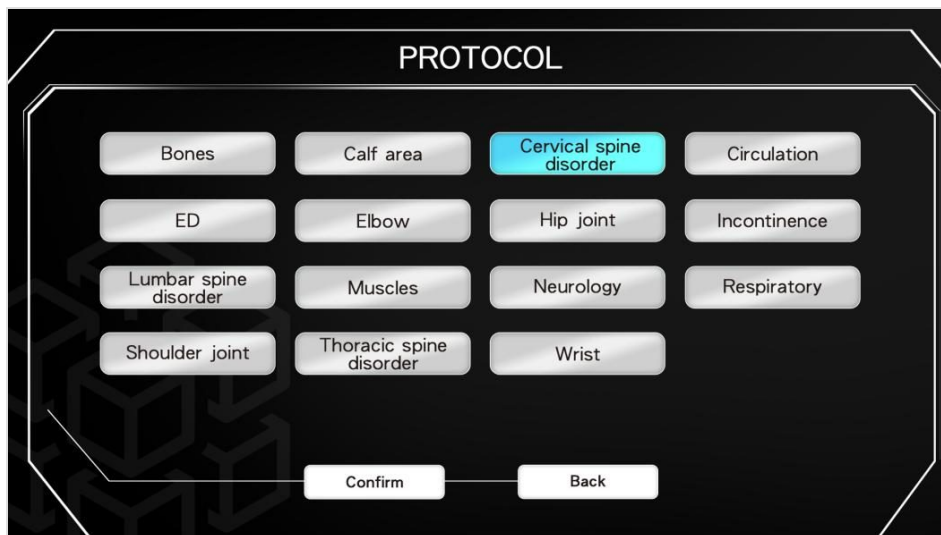


(5-4 Magneto Therapy Customize Page)

1	16 customizable treatment protocols
2	Each protocol can adjust 10 channel parameters. During treatment, each channel operates sequentially and cycles through the set treatment time. Frequency adjustment range is 1–150 Hz; Time adjustment range is 5–120 s.

5.1.3 Preset protocols interface introduction

Magnetic therapy precisely regulates the electromagnetic field for targeted treatment of body areas such as the elbow, wrist, and shoulder, allowing users to select protocols to relieve pain, improve function, and promote recovery.

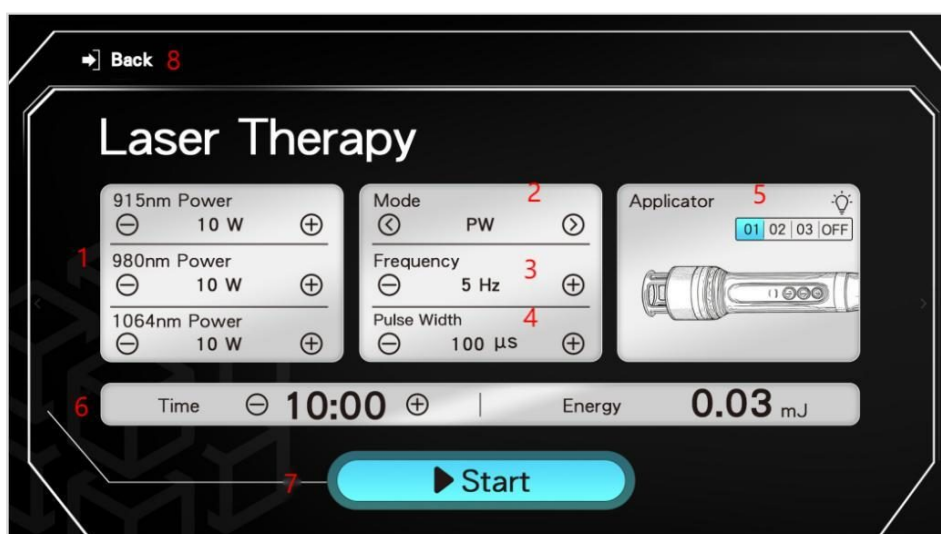


(5-5 Preset Protocol Page)



(5-6 Preset Protocol Page)

5.2 HILT therapy interface



(5-7 Laser Therapy Page)

1	Wavelength selection — single wavelength or in combination: 915 nm-15 W, 980 nm-15 W, 1064 nm-15 W
2	Working mode. CM: Continuity Mode; PM: Pulse Mode
3	When Pulse mode is chosen — Frequency: 0.2–20000 Hz. Flexible setting page (5-8).
4	When Pulse mode is chosen — Pulse width: 10 μ s–3 s. Selectable units: s / ms / μ s. Flexible setting page (5-9).
5	Aiming beam brightness selection 1–3
6	Automatically records treatment time and energy output
7	Start / Stop button
8	Click "Back" to return to (5-2)



(5-8 Laser Frequency Adjust Page)

Quickly adjust the laser frequency.



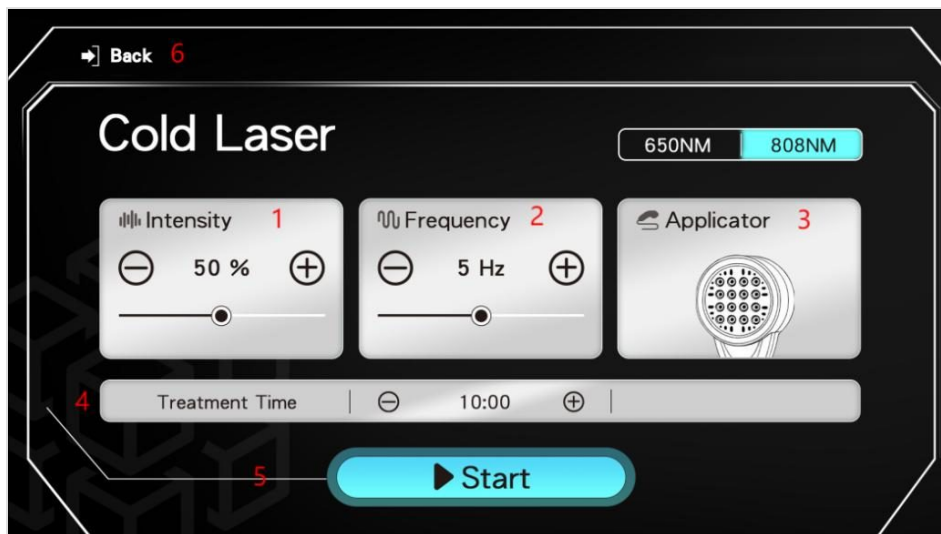
(5-9 Laser Pulse Width Adjust Page)

Quickly adjust the laser pulse width.

- 1 second = 1,000 milliseconds (ms) = 1,000,000 microseconds (μ s)

- 1 ms = 0.001 seconds = 1,000 μ s
- 1 μ s = 0.000001 seconds = 0.001 ms

5.3 LLLT therapy interface



(5-10 Cold Laser Therapy Page)

1	Intensity 10%–100%
2	Working mode. CM: Continuity Mode; PM: Pulse Mode (frequency: 5–100 Hz)
3	Wavelength selection: 650 nm / 808 nm
4	Treatment time record
5	Start / Stop button
6	Click "Back" to return to (5-2)

6. Magneto therapy Medical Effects

High-energy PEMF therapy has been studied as a non-invasive physical modality with multiple biological and therapeutic effects. It delivers controlled pulsed magnetic fields that induce electrical currents in biological tissues. These currents interact with cellular and neuromuscular processes, leading to measurable therapeutic responses.

6.1.1 Pain Reduction and Anti-inflammatory Effects

PEMF has been shown to significantly reduce pain and stiffness in musculoskeletal conditions such as osteoarthritis and shoulder impingement, compared with placebo, and may improve physical function.

6.1.2 Improvement of Physical Function

Clinical studies indicate PEMF can improve joint mobility and functional capacity in patients with degenerative joint disorders.

6.1.3 Support for Tissue Healing and Regeneration

PEMF may enhance the cellular repair process by stimulating metabolic activity, regulating inflammatory cytokines, and promoting tissue regeneration in soft tissues such as muscle and tendon.

6.1.4 Enhanced Circulation and Microvascular Function

The electromagnetic field can influence local blood flow, potentially increasing oxygen and nutrient delivery while aiding removal of metabolic waste products.

6.1.5 Bone Healing Support

Evidence suggests PEMF may increase the rate of bone healing and relieve pain associated with fracture healing, offering supportive effects in bone repair.

6.1.6 Soft Tissue Recovery

Experimental data show PEMF treatment may reduce muscle tissue inflammation and fibrosis while promoting functional recovery in injured skeletal muscle models.

6.1.7 Non-Invasive and Well-Tolerated Modality

PEMF therapy is generally non-invasive, with few reported adverse effects when used according to clinical parameters, and may be combined with other rehabilitation therapies.

6.2 Contraindications

Treatment with the magneto is not permitted in the following cases:

- Pacemakers and other sensitive electronic implants
- Implants that are not marked as MR Safe
- Pregnancy
- Brain in the treatment zone

Special precautionary measures

There are no contraindications in the following cases, providing special precautionary measures are taken:

- Tumor in the treatment zone
 - Do not hold the applicator directly over the affected area.
- Tattoos and permanent make-up
 - If the patient has tattoos with ink which contains metal particles, the treatment area may heat up.
- Implants marked as MR Safe or MR Conditional
 - Ask the patient about their implant. Do not hold the applicator directly over the implant.

7. High Intensity Laser therapy Medical Effects

High Intensity Laser is typically used in two modes — pulsed and continuous. Each mode affects the tissue differently and triggers different medical effects. Overall medical effects are biostimulation, pain relief, anti-inflammatory effect, superficial thermic effect, and muscle relaxation.

7.1.1 Analgesic Effect

The analgesic effect of the High Intensity Laser is promoted mainly when using the pulsed mode. The High Intensity Laser can deliver very short pulses at a very high repetition rate. With this setting it has the ability to create actual pressure. The pressure waves are carried through the tissue where they stimulate free nerve endings. Based on the gate control mechanism of pain, mechanical stimulation of free nerve

endings leads to their inhibition and hence pain relief. The analgesic effect of the High Intensity Laser is instantaneous and long-lasting.

7.1.2 Biostimulation

The term biostimulation means stimulating the organism on the cellular level to enhance healing and recovery. Oxygen is processed in cells by mitochondria, where it is processed by a cascade of respiratory enzymes and delivered to ATP synthase, which synthesizes the organism's source of energy — ATP. Faster exchange of oxygen and metabolites due to laser irradiation causes more oxygen atoms to reach mitochondria. Mitochondria are further stimulated to synthesize ATP faster. ATP allows for faster synthesis of RNA and DNA and leads to faster recovery, healing, and edema reduction in the treated area.

7.1.3 Microcirculation Stimulation

Mechanical waves created by the High Intensity Laser stimulate local microcirculation and support lymph drainage of the pathological area. Combining biostimulation and photomechanical stimulation, High Intensity Laser therapy actually heals the tissue while providing a powerful and non-addictive form of pain management.

7.1.4 Thermic Effect

The thermic effect of High Intensity Laser therapy is caused by the absorption of the 1064 nm laser beam in the superficial structures, which consequently causes a temperature increase in the tissue. Warming the superficial structures is responsible for a decrease of scatter and absorption coefficients for the 1064 nm wavelength and allows for even deeper penetration by the 1064 nm light. The thermic effect also causes vasodilatation. As a result, blood perfusion increases, larger amounts of oxygen are delivered to the tissue, and more metabolites are absorbed.

7.1.5 Anti-inflammatory Effect

The energy delivered to the cells by the High Intensity Laser speeds up cell metabolism and causes faster resorption of pro-inflammatory mediators. Decreased concentration of pro-inflammatory mediators restores capillary permeability and results in complete elimination of inflammation and a faster return to daily activities.

7.1.6 Muscle Relaxation

The energy transferred by continuous High Intensity Laser emission to the tissue causes superficial hyperthermy and consequently vasodilatation in the treated area. As increased perfusion passes more blood through the treated area, the muscles relax. In painful muscle-related indications such as trigger points and muscle strain, the patient feels immediate relief of pain caused by muscle tension, and an immediately increased range of motion.

7.2 Analgesia vs Biostimulation

	Analgesia	Biostimulation
Primary Goal	Pain relief (blocking nociceptive signals)	Tissue repair (stimulating cellular activity)
Mechanism	Inhibits prostaglandin synthesis; blocks nerve depolarization; reduces edema	Increases ATP production; enhances collagen synthesis; boosts microcirculation
Hand piece Movement	Scanning technique (fast circular / zigzag motion)	Spot or spiral technique with slower movement
Treatment Time	1–3 minutes per area	30 seconds to 1 minute per point / small area
Clinical Indications	Acute injuries; neuralgia; post-surgical pain	Chronic wounds; tendinopathy; bone fractures
Laser Power	High power (6–12 W or more)	Moderate power (1–6 W)
Frequency	High frequency (10–20 Hz or pulsed mode)	Low frequency (1–5 Hz or continuous wave)
Penetration Depth	Deep tissues (muscles, joints, nerves)	Superficial to medium-depth tissues (skin, fascia)

7.2.1 Analgesia

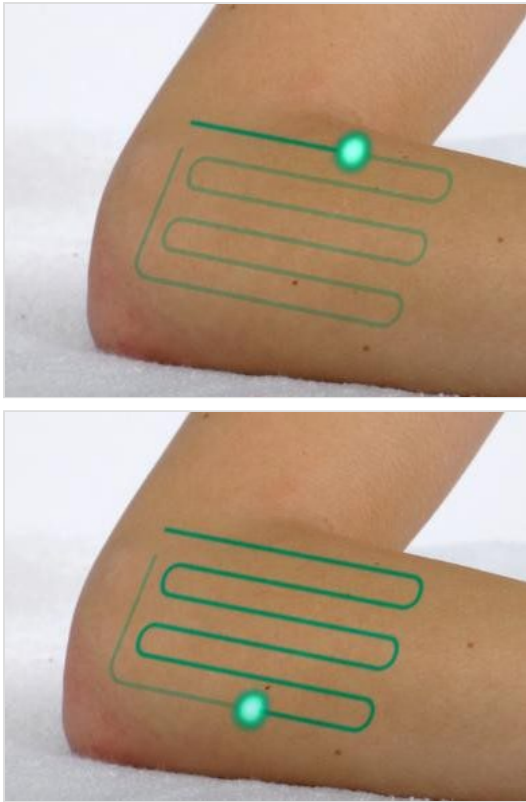
Analgesia is triggered by moving the applicator perpendicular to the skin in a spiral motion, with the most painful spot in the center.



1. Start about 5–7 cm from the most painful spot and create about 3–4 spiral loops.
2. Once in the center, irradiate the most painful spot statically for about 2–3 seconds.
3. Repeat the whole procedure from the spiral edge and continue until the therapy time is up.

7.2.2 Biostimulation

Proper biostimulation therapy is delivered by scanning along the treated area. The continuous motion creates a feeling of evenly spread warmth and stimulates the affected muscles evenly.



1. Actively ask about the patient's feeling of warmth.
2. If no warmth is felt, adjust the power to a higher value — or vice versa if the heat is too intense.
3. Avoid static application. Continue until the therapy time is up.

7.3 Contraindications

Absolute Contraindications (Do Not Treat)

These conditions generally preclude the use of high-power lasers:

- **Pregnancy** — Avoid treatment over the abdomen/pelvis due to unknown fetal safety.
- **Known or Suspected Malignancy (Cancer)** — Lasers may stimulate cellular activity in tumors.
- **Active Bleeding or Hemorrhagic Disorders** — Increased circulation may worsen bleeding.
- **Pacemakers or Implanted Electronic Devices** — Possible interference with device function.
- **Direct Eye Exposure** — Laser radiation must never be aimed at or near the eyes.

Relative Contraindications (Use Caution or Adjust Treatment)

Treatment may be modified or avoided depending on clinical judgment:

- **Thyroid and Endocrine Glands** — Sensitive to lasers; proceed with care.
- **Clotting or Thrombotic Disorders** — Laser effects on blood flow may pose risk.
- **Photosensitivity / Photosensitizing Medications** — Increased risk of skin irritation.
- **Epilepsy or Photosensitive Conditions** — Light pulses may trigger seizures in susceptible individuals.
- **Children (Dose Adjustment Required)** — Use age- and weight-appropriate settings.
- **Open Wounds, Infections or Active Skin Diseases** — Avoid direct exposure until conditions resolve or are stable.
- **Areas with Tattoos or Heavy Pigmentation** — May cause localized heat build-up.
- **Metal Implants (Non-Electronic)** — Not strictly contraindicated, but requires professional evaluation.

8. Low Level Laser Therapy Medical Effects

8.1 Treatment theory

During this procedure, different wavelengths and outputs of low-level light are applied directly to a targeted area. The body tissue then absorbs the light. The red and near-infrared light cause a reaction, and the damaged cells respond with a physiological reaction that promotes regeneration.

8.2 Indications

Doctors, dentists, physical therapists, and other medical professionals use cold laser therapy in a variety of ways. The main uses are tissue repair and relief from pain and inflammation. Sports medicine and physical therapy practices often use cold laser therapy in the treatment of minor injuries and sprains, such as:

- Ligament sprains
- Muscle strains
- Tendonitis
- Bursitis
- Tennis elbow
- Neck pain
- Lower back pain
- Knee pain

8.3 Recommended treatment protocols

Area	Intensity (%)	Frequency	Time	Sessions	Interval
Elbow	60–80	Continuity	15 mins	6–8	twice a week
Wrist	60–80	Continuity	15 mins	6–8	twice a week
Shoulder	80–100	Continuity	20 mins	6–8	twice a week
Cervical Vertebra	80–100	Continuity	20 mins	6–8	twice a week
Lumbar Vertebra	80–100	Continuity	20 mins	6–8	twice a week
Groin	70–100	Continuity	15 mins	6–8	twice a week
Hip	80–100	Continuity	20 mins	6–8	twice a week
Thigh	50–80	Continuity	20 mins	6–8	twice a week
Knee	60–100	Continuity	20 mins	6–8	twice a week
Foot/Ankle	60–100	Continuity	15 mins	6–8	twice a week

8.4 Contraindications

- Impaired cutaneous thermal sensations
- Defective arterial cutaneous circulation
- Dermatitis or eczema
- Tumors
- Skin damage due to ionizing radiation

- Tuberculosis
- Photosensitivity
- Hyperesthesia
- Mental retardation
- Metal implant
- Fever

9. Operating Procedure

9.1 Magneto Operating Procedure

Step 1. Loosen the central lock of the holding arm completely.



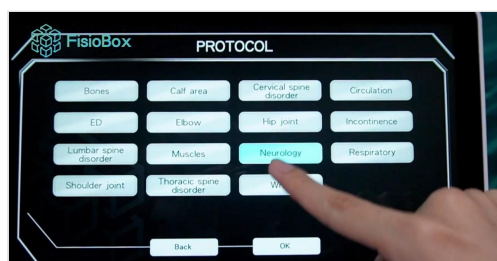
Step 2. Place the applicator above the treatment area.



Step 3. Tighten the central lock.



Step 4. Choose the protocol.



Step 5. Start the treatment.

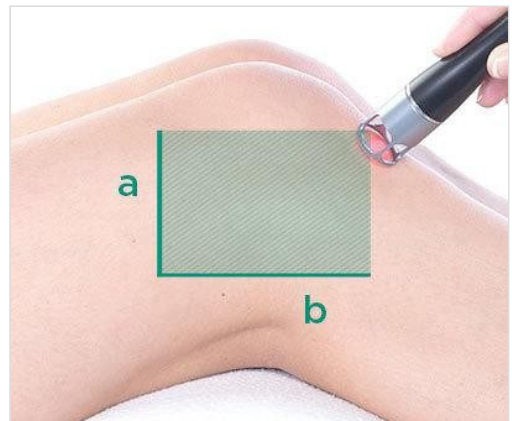


9.2 Laser Operating Procedure

Step 1: Locate the Pain Spot. Using manual palpation, locate the most painful spot.



Step 2: Define Treatment Area. Define the area to be treated around the painful spot.



Step 3: Choose Laser Spacer. Adapt to the treatment area.



Step 4: Inspect Equipment. Check the laser hand piece, fiber cable, and connections. Ensure the emergency stop button is released.



Step 5: Put on Safety Goggles. The operator and patient should wear laser safety goggles together.



Step 6: Power On the Device. Turn on the main power switch and wait for the system to initialize fully.



Step 7: Set Parameters. Adjust wavelength, power (W), frequency (Hz), and treatment mode.



Step 8: Activate Aiming Beam. Use alignment paper or low power to confirm the beam path. Helps to identify the treatment area accurately.



Step 9: Press "Start".



Step 10: Click the start button on the handle.



Step 11: Start the Therapy. Begin controlled scanning or pulsing. Use continuous motion to prevent excessive heating of tissues.



Step 12: Analgesia. Use a spiral motion for analgesia.



Step 13: Biostimulation. Use a scanning motion for biostimulation.



Step 14: Monitor Patient Response. Check for heat sensitivity or discomfort.



9.3 LLLT Operating Procedure

Step 1. Use the silicone to combine the magneto handle and laser handle.

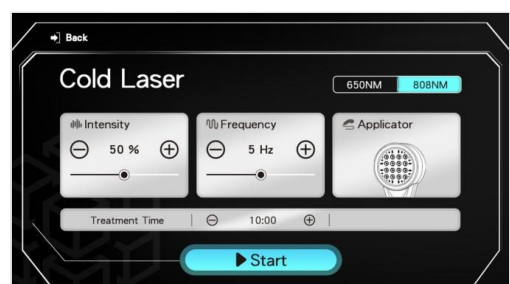


Step 2. Use two wavelengths and adjust treatment time and intensity based on the needs.



Step 3. Press the "Start" button.

Step 4. Start the treatment.



10. Warranty and Service

1. Attention

Modifications to the device are not permitted. Any opening, repair, or modification of the device by unauthorized personnel will relieve the manufacturer of its liability and responsibility for safe system operation. This will automatically void the warranty, even before the end of the warranty period.

2. Warranty for the control device

During the one-year warranty period from the date of delivery of the product to the end customer, defects will be remedied at no charge to the customer upon the customer furnishing adequate proof that the defect is due to defects in material or workmanship. The warranty does not extend to wear parts.

3. Warranty for the applicator

For a period covering 6 months following the date of delivery of the product to the end customer, defects will be remedied at no charge to the customer upon the customer furnishing adequate proof that the defect is due to faulty material or workmanship.

4. Service

We provide a standard warranty period for all devices as specified in the purchase agreement. Even after the warranty period has expired, we continue to offer free consultation services to support your use of the equipment. If replacement parts are needed, they will be offered at post-warranty service pricing.

11. Frequently Asked Questions (FAQ)

1. What is Magneto? Magneto stands for Extracorporeal Magneto Transduction Therapy. It uses high-energy magnetic pulses to stimulate tissue regeneration and reduce pain.

2. Is Magneto safe? Yes, Magneto is a non-invasive, safe technology when used by trained professionals following proper guidelines.

3. How long does one Magneto session take? Typically, a session lasts between 10 and 20 minutes, depending on the treatment area and condition.

4. How many sessions are needed? Most patients benefit from 6 to 8 sessions, but this varies based on individual needs and treatment goals.

5. Is the treatment painful? No, Magneto is generally painless. Some patients may feel a mild tapping or pulsing sensation.

6. Can Magneto be combined with other therapies? Yes, Magneto is often combined with physiotherapy, shockwave therapy, manual therapy, or ultrasound for enhanced results.

7. Are there any side effects? Side effects are rare. Some patients may experience temporary redness, warmth, or mild discomfort in the treated area.

8. Is Magneto suitable for post-surgery recovery? Yes, Magneto can support tissue healing and reduce inflammation after surgery, but it should be used based on a medical professional's advice.

9. How deep can Magneto penetrate into the body? Magneto can penetrate up to 18 cm, allowing deep tissue stimulation.

10. Is High Intensity Laser treatment connected with any risk? Treatment with High Intensity Laser is safe. However, there are safety precautions that need to be followed to ensure safety. High Intensity Laser

light can be dangerous to the eyes (even closed eyes), so both the patient and the therapist must wear safety goggles provided by the device supplier. As High Intensity Laser operates at high powers, the therapist is to continuously ask the patient about their sensations during the treatment and possibly adjust the power according to the patient's feeling.

11. Does the therapy hurt? One of the great benefits of the High Intensity Laser is that it is absolutely painless. The therapist delivers the therapy by moving the applicator along the skin surface in either a scanning or spiral motion — either in contact with the skin surface, or holding the applicator just above the treated area and conducting the same motion in a non-contact manner.

12. Can the High Intensity Laser burn me? There is very low chance of the High Intensity Laser burning the patient, as the therapy is always dynamic and the applicator is continuously moved along the skin surface. There is little or no heat sensation. To ensure safety, High Intensity Laser power starts at low values and can be increased if desirable. Therapists and doctors operating the High Intensity Laser are well-trained professionals.

13. How often will I need the treatment? The typical number of treatments per week is between 2 and 5. The therapist sets the number of treatments so that the therapy is the most effective and suitable to the patient's time options.

14. Are there any side effects to the treatment? There are no side effects to the treatment. There is a possibility of slight redness of the treated area right after the treatment, which disappears within several hours. As with most physical therapies, the patient might feel a temporary worsening of their condition, which also disappears within several hours after the treatment.



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