

FUEsion ScalpPulse™ — Smart, Needle-Free Hair Restoration

The Future of Non-surgical Hair Restoration

Now with 40 kHz TransEpidermal Delivery (TED)

Deliver physician-chosen actives deep to the follicles—no needles, no pain, no downtime. ScalpPulse fuses 40 kHz ultrasonic waves with pulsed, high-velocity TDA (up to 450 m/s) for precise, uniform coverage and visible results.



More growth. Less trauma. Zero needles.

ScalpPulse™ combines 40 kHz ultrasonic sonophoresis with pulsed TDA for accurate, comfortable delivery and visible results.

Add TED-powered restoration to your practice



FUEsion Scalp Pulse)))

Scalp Permeation and Pulsed Medication Delivery System

GET IT NOW



Non-invasive

Scalp Permeation and Pulsed Medication Delivery System for a pain-free, yet through treatment.



Easy

Easy-to-use, no special training and skills required. Minimal to no learning curve.

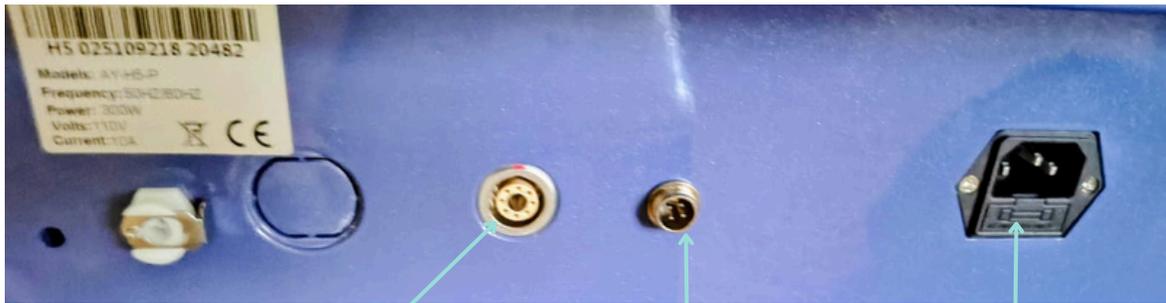


Results

See demonstrable and visible results, better than many other minimally-invasive, non-surgical treatment modalities and medications alone.



Back Panel



Pneumatic Handpiece Connection

Ultrasound Handpiece Connection

Power Interface / Switch

Technical Specs

Name: Scalp Pulse Non-Surgical Hair Restoration System

Rated Voltage: 110 Volts AC

Power: 300 W

Current: 10 Ampere

Pressure: 500 - 900 kpa

Ultrasound Frequency: 40KHz



Operating Interface:



When the machine is started, the above UI will be displayed.

Start with the Scalp Pulse → Click Scalp Pulse Icon



Engaging the medication filled syringe in the ScalpPulse Handpiece

1. First, lift the lid of the handpiece.



2. Insert the syringe with the product into the handpiece.



3. Ensure the syringe is securely placed.

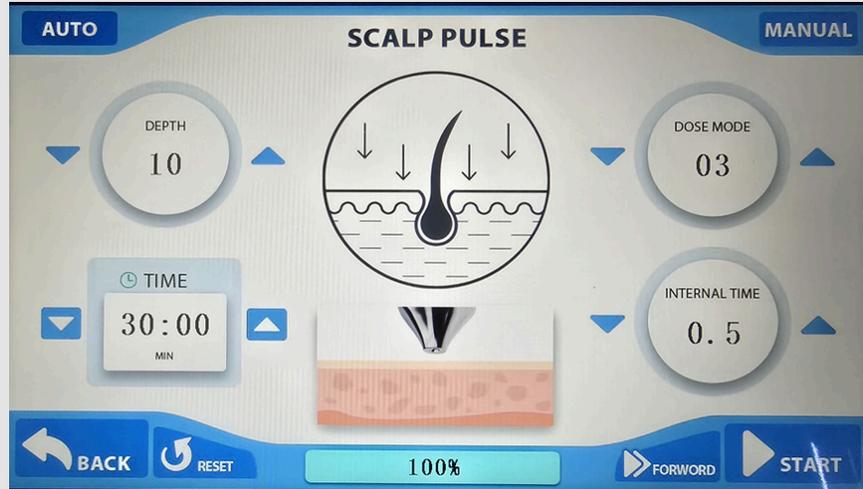


4. Secure the lid tightly on the handpiece.

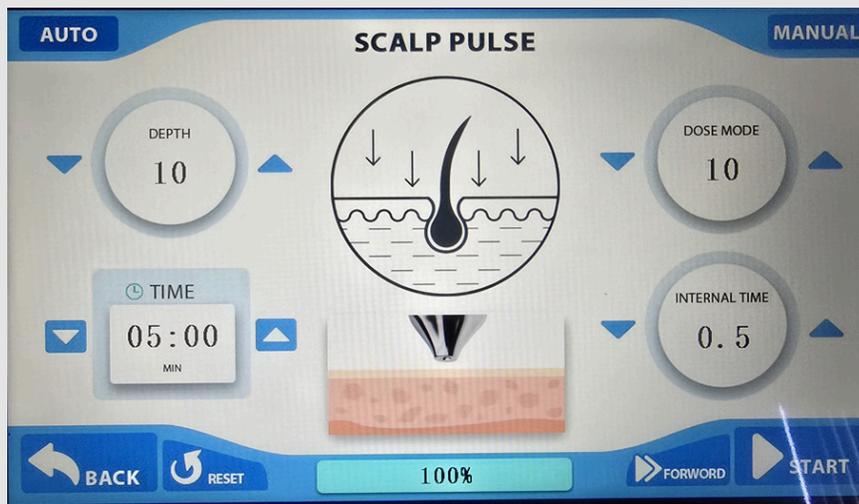


ScalpPulse Operating Interface:

The Default UI



Treatment Settings



Set the parameters to the values shown in the above figure. Select Auto, and click 'Start' to start the treatment.

The nozzle should not touch the skin surface. It should be kept at a distance of approximately 1 cms from the treatment area.



Scalp Sonic Operating Interface:

Default UI



Treatment Settings



Click Play icon to start the treatment



Set the parameters to the values shown in the above figure. Click 'Play' to start the treatment. The flat surface should touch the treatment area during treatment.

ScalpPulse™ Provider Protocol Manual

I. Device Overview

ScalpPulse is a **dual-function scalp therapy device** offering:

1. Low-Frequency Ultrasound (≈40 kHz)

- Enhances dermal microcirculation
- Improves penetration of topical serums
- Reduces inflammation and improves hydration

2. Pneumatic Micro-Infusion

- Delivers serums into the superficial layers of the scalp
 - Non-invasive alternative to microneedling
 - Stimulates scalp and follicles through rapid-pressure pulses
-

II. Treatment Room Setup

- Clean medical chair
 - ScalpPulse base unit + handpieces
 - Single-use serum vials
 - Gloves, alcohol-free wipes, drapes
 - Hair clips and comb
 - Disinfectant and sharps container (if required)
-

III. Patient Screening Protocol

Contraindications — Do NOT treat if:

- Active infection (folliculitis, tinea, herpes)
- Open wounds or unhealed transplant area (<10–14 days)
- Severe dermatitis or psoriasis flare

- Known allergies to intended serums
- Recent aggressive scalp treatments (<48–72 hours)
- Cochlear implants or metal implants in scalp region
- Pregnant (avoid ultrasound mode)

Caution With:

- Autoimmune disorders
 - Patients on blood thinners
 - History of keloids or hypertrophic scarring
 - Recent chemical hair treatments (<48 hours)
-

IV. Step-by-Step Treatment Protocol

Step 1: Consultation & Assessment

- Examine scalp visually and document thinning areas
 - Discuss expectations and treatment plan
 - Take baseline photos from multiple angles
-

Step 2: Scalp Preparation

- Cleanse scalp with alcohol-free solution
 - Section hair into treatment zones
 - Apply pre-serum or lubricating gel (if included)
-

Step 4: Pneumatic Micro-Infusion Mode (If Indicated)

Settings:

- Duration: 5–8 minutes
- Technique:

- Grid or zone-based passes
 - Maintain consistent spacing
 - Typical sensation: mild tapping or snapping
-

Step 3: Ultrasound Mode

Recommended Parameters:

- Frequency: ~40 kHz (device preset)
 - Duration: 8–10 minutes
 - Technique:
 - Slow circular or sweeping strokes
 - Avoid staying stationary on one spot >1–2 seconds
 - Keep continuous motion and gel contact
-

Step 5: Final Application

- Light massage for 30–60 seconds (optional)
 - Apply finishing serum or calming lotion if protocol includes it
 - Remove any excess gel/serum with dry gauze
-

V. Post-Treatment Recommendations

- No washing for 4–6 hours
 - Avoid sun, sauna, sweating same day
 - Resume minoxidil next day
 - Provide patient with instruction sheet
 - Schedule next session prior to leaving
-

VI. Documentation

Document:

- Treatment date and number
 - Zones treated
 - Ultrasound intensity
 - Pneumatic pressure settings
 - Serums used
 - Patient response
 - Before/after photos every 3–4 sessions
-

VII. Complications & Management

1. Redness or Sensitivity

- Apply cool gel or compress 5–10 minutes
- Reduce intensity in next session

2. Scalp Irritation >24 Hours

- Advise stopping all hair topicals for 48 hours
- Apply mild steroid lotion (hydrocortisone 1%)
- Delay next session

3. Possible Infection (Rare)

- Presents with pain, swelling, pus, fever
 - Stop treatment
 - Refer for medical evaluation
 - Start topical or oral antibiotics if indicated
-

VIII. Device Maintenance & Hygiene

- Disinfect handpieces after each patient
- Replace single-use parts when required
- Check pressure lines monthly
- Perform weekly ultrasound calibration
- Maintain log of device usage

ScalpPulse – Contraindications & Precautions

I. Absolute Contraindications

ScalpPulse **should NOT be used** in the following conditions:

1. Active Scalp Infections

- Bacterial folliculitis
- Fungal infections (tinea capitis)
- Viral infections (herpes, shingles on scalp)

2. Open Wounds / Non-Healed Surgical Sites

- Lacerations, abrasions, unhealed FUE donor/recipient areas
- Recent hair transplant recipient area (<10–14 days or until cleared by surgeon)

3. Active Dermatologic Conditions

- Psoriasis, severe seborrheic dermatitis, eczema flare-ups
- Lichen planopilaris (LPP) or scarring alopecias in active phase
- Severe dermatitis causing compromised skin barrier

4. Known Allergies to Applied Serums

- Allergy to peptides, growth factors, or any topicals used with ScalpPulse

5. Active Cancers of the Scalp

- Basal cell, squamous cell carcinoma, melanoma
- Any undiagnosed scalp mass or lesion

6. Photosensitive Disorders (if LED mode is used)

- Lupus, porphyria, albinism
- Photosensitizing medications (e.g., doxycycline, isotretinoin)

7. Pregnancy (Precaution → Avoid on Scalp with High-Intensity Mode)

While low-level ultrasound is generally safe, **avoid therapeutic scalp ultrasound in pregnancy unless medically cleared.**

8. Implanted Medical Devices Over the Head

- Cochlear implants
 - Deep brain stimulators
 - Metal plates near the scalp
-

II. Relative Contraindications (Use Only with Caution or After Medical Clearance)

1. Recent Hair Coloring or Chemical Treatments (<48 hours)

- Chemical barrier compromise may increase irritation.

2. History of Keloids or Hypertrophic Scarring

- Especially if high-pressure pneumatic infusion is used.

3. Chronic Skin Disorders

- Mild seborrheic dermatitis
- Controlled psoriasis
- Dermographism

4. Patients on Anticoagulants

- May experience increased pinpoint bleeding or bruising.

5. Autoimmune Conditions

- Alopecia areata (AA) — device can be helpful but inflammation must be controlled.
- Lupus — avoid if photosensitive or inflamed.

6. Diabetes Mellitus (Poorly Controlled)

- Higher risk of impaired healing.

7. Recent Use of Topical Irritants

- Minoxidil, retinoids, ketoconazole — discontinue 24–48 hours prior.
-

III. General Precautions

1. Stop Immediately If...

- Excessive redness > 2 hours
- Pain, burning, or discomfort
- New scaling, blistering, or skin irritation
- Worsening hair shedding past expected levels

2. Avoid Over-Treatment

- Follow recommended protocol (usually weekly or biweekly sessions).
- Excessive intensity may cause scalp sensitivity.

3. Avoid Direct Use Over:

- Moles, cysts, inflamed lesions
- Freshly transplanted grafts
- Recent micro-needling (<48–72 hours)

4. Ensure Proper Device Hygiene

- Sanitize handpieces before and after every use.
- Use only sterile, single-use serum vials (if pneumatic infusion).

5. Patch Test Before First Session

- Particularly if using peptide or growth factor solutions.

6. Pediatric Use

- Not recommended under 16 years without medical evaluation.
-

IV. Patient Preparation Guidelines

Before Treatment

- Clean scalp
- No hair products, gels, or fibers
- Stop minoxidil 24 hours before
- Hydrate well

After Treatment

- Do not wash hair for 4–6 hours
 - Avoid sun exposure for the day
 - Resume minoxidil next morning
 - Avoid scratching or rubbing
-

V. When to Delay Treatment

- Fever, flu, or systemic illness
- Scalp sunburn
- Migraines (wait until symptoms resolve)

Clinical Contraindications & Relative Contraindications for Operation

Warning – Do NOT treat or treat only with extreme caution in the following situations:

Allergy / Hypersensitivity

- Known allergy to any serums, exosomes, growth factors, peptides, PRP additives, or vehicles used with ScalpPulse.
- History of severe or atypical reactions to other injectable or topical hair-growth treatments.

Scarring & Skin Quality

- Strong tendency toward hypertrophic or keloid scarring in the treatment area.
- Markedly atrophic, thinned, or steroid-damaged skin of the scalp.
- Areas of prior surgery, trauma, or radiation over the scalp should be evaluated carefully; these are relative contraindications.

Autoimmune / Immunosuppressed Patients

- Autoimmune diseases affecting skin or hair (e.g., lupus, scarring alopecias) require individualized risk–benefit assessment.
- Patients on systemic immunosuppressive therapy, chemotherapy, or high-dose steroids should be treated only under physician oversight, or deferred.

Recent Energy-Based Procedures

- Use caution in patients who have undergone laser, IPL, radiofrequency, microneedling, or strong chemical peels to the scalp within the preceding 3 weeks. Delay treatment until the skin barrier has fully recovered.

Active or Unstable Skin Disease

- Avoid treatment during active outbreaks of inflammatory scalp disease, such as severe seborrheic dermatitis, psoriasis flare, folliculitis, or localized inflammation.

Systemic Medical Conditions

- Patients with poorly controlled hypertension, cardiovascular disease, diabetes, or other significant systemic illnesses should be medically optimized before treatment.

- Pregnancy and breastfeeding: ScalpPulse ultrasound and TDA are non-invasive, but use is not recommended in pregnancy unless the supervising physician clearly deems it appropriate for that patient.

Medication-Related Precautions

- Patients taking anticoagulants, antiplatelet agents (e.g., aspirin, clopidogrel), high-dose NSAIDs, or hormonal therapies should be assessed for bruising/bleeding risk and timing of treatment.
- Any decision to pause or adjust medications must be made only by the prescribing physician.

Other Relative Contraindications

- Skin in remission but highly lax, thin, or with enlarged pores – use lower intensity and monitor closely.
 - Recent scalp surgery, grafting, or trauma – defer treatment until fully healed and cleared by the surgeon.
-

Precautions for Use in the Operating Environment

Electrical & Power Safety

Warning:

- Always switch off the main power and unplug the unit before replacing fuses, handling the power inlet, or moving the device, to avoid fire or electric shock.
- Use only a 110V AC power supply that matches the voltage and frequency specified on the ScalpPulse rating label.
- Connect the device only to a properly grounded (earthed) outlet. Do not use ungrounded adapters.
- Do not use damaged, frayed, or modified power cords. Replace immediately if any deformation, cracks, or exposed wires are observed.
- Do not place heavy objects on the power cord or route it where it may be pinched, crushed, or excessively bent.

Caution:

- If the power plug or socket feels abnormally hot or loose, discontinue use and contact service.
- Always grasp the plug, not the cable, when disconnecting the device.

Placement & Environment**Warning:**

- Do not operate ScalpPulse in unstable environments (tilted, vibrating, or subject to impact). The device must stand on a flat, stable surface.
- Keep liquids away from the control console and internal vents. If liquid or debris enters the housing, switch off the device, unplug it, and contact authorized service.
- Maintain at least 5 cm (2 inches) of free space around all ventilation openings to allow proper cooling. Do not cover or block vents with drapes or towels.

Caution:

- Avoid use in environments with:
 - Direct sunlight on the device
 - High humidity, steam, or condensation
 - Near sinks, baths, or other water sources
 - Strong electromagnetic fields, voltage surges, or corrosive gases
 - Do not place the device immediately adjacent to high-EMI sources such as large motors, microwaves, or high-power RF generators, as this may affect performance.
 - During transportation, minimize vibration and shock. Secure the device and accessories to prevent damage.
-

Precautions Before Use**Warning:**

- Before powering on ScalpPulse, the operator must carefully read and understand the User Manual and be trained on the device.

- Device settings should be configured under the guidance of a licensed healthcare professional responsible for treatment protocols.
- Only designated and trained personnel may operate or change clinical parameters.

Caution:

- Confirm that the device housing, cables, handpieces, and connectors are intact and undamaged before each use.
 - Ensure:
 - The power cord is firmly seated in the outlet and device inlet.
 - The grounding is correct.
 - All tubing and serum lines are securely connected and not kinked.
 - When multiple devices (e.g., suction, laser, or other aesthetic units) are used in the same room, verify that their placement and power draw do not create tripping hazards or overload circuits.
-

Precautions During Use

Warning:

- If any abnormal event occurs—unusual noise, vibration, odor, smoke, sudden patient discomfort, or error alerts—immediately stop treatment, switch off the device, and unplug it if necessary.
- Do not continue treatment if the patient reports burning, sharp pain, dizziness, or breathing difficulty.

Caution:

- Continuously observe:
 - The patient's comfort, skin response, and vital status.
 - The device display, pressure indicators, and ultrasound output.
- Only trained operators should use ScalpPulse. Untrained personnel and non-clinical staff are not permitted to operate the device.
- Avoid directing the pneumatic jet or ultrasound handpiece:

- Into the eyes or ear canal
 - Over open wounds, mucous membranes, or non-scalp skin unless a specifically approved protocol exists.
-

Troubleshooting, Maintenance, and Inspection

Safety Warnings

Warning:

- Do not use the instrument if it is known or suspected to be malfunctioning.
- If you notice smoke, burning smell, unusual heat, or repeated power cycling, immediately:
 - Turn off the main power.
 - Unplug the power cord.
 - Contact authorized service—do not attempt to restart.
- Only authorized technicians may open the housing, repair electronics, or modify internal components. Unauthorized repair or modification may:
 - Compromise electrical safety
 - Void warranty
 - Expose users to shock or fire risk

Routine Checks

Caution:

- Perform regular inspection of:
 - Power cord and plug
 - Handpiece shells and tips
 - Tubing, connectors, and serum lines
 - Ventilation grills for dust accumulation
- Use only soft cloths and approved disinfectants to clean the exterior. Avoid abrasive tools (hard brushes, brooms, metal pads) that can damage coatings or labels.

- If the device has been unused for more than 2 weeks, visually inspect all components and perform a short test run (without a patient) before returning it to clinical use.
-

Electromagnetic and Equipment Interaction Warnings

Warning:

- Do not connect ScalpPulse and high-frequency surgical units, shortwave diathermy, or microwave therapy devices to the same patient at the same time.
Electromagnetic interactions can:
 - Lead to burns at electrode sites (on other equipment)
 - Cause unstable operation or damage sensitive components.
- Using ScalpPulse within 1 meter of high-power RF or microwave equipment may lead to unstable output. Increase distance or switch off the interfering device.

Caution:

- Avoid placing ScalpPulse directly next to radios, Wi-Fi routers, or high-gain antennas. If interference is suspected (e.g., erratic display, intermittent output), reposition devices or use different outlets/circuits.
-

Maintenance, Storage, and Fuse Replacement

Maintenance & Storage

Caution:

- Store the instrument in a clean, dry, ventilated area when not in use.
- Use a dust cover to protect from dust and debris.
- If internal cleaning is required due to long-term dust accumulation, it must be performed only by an authorized service technician.

Fuse Replacement

Warning:

- Always switch off the main power and unplug the cord before replacing fuses to prevent electric shock.

FUEsion ScalpPulse™ — Needle-Free Hair Restoration

Dual-Mode: Pneumatic TDA + 40 kHz Ultrasonic TED

Partner with a technology your patients will ask for.

ScalpPulse™ brings dual-mode, needle-free delivery (40 kHz TED + pulsed TDA) into everyday practice—with clear protocols, staff training, and ongoing support. Book a live demo to review indications, workflow, and integration.



FUEsion Scalp Pulse)))

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Non-invasive

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Easy

Easy-to-use, no special training and skills required. Minimal to no learning curve.



Results

See demonstrable and visible results, better than many other minimally-invasive, non-surgical treatment modalities and medications alone.

CONTACT DETAILS

Get in touch with us! We would like to hear from you.

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