

Non-Invasive Therapy for **Urology & Gynecology**

- ✓ Advanced Care
- ✓ Zero Downtime
- ✓ Maximum Confidence



What is Morenova?

Morenova is a breakthrough therapy device using focused electromagnetic stimulation to restore muscle tone, enhance circulation and relief pain dysfunction without surgery, pain or recovery time.

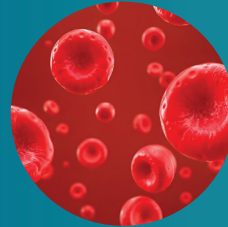
Developed by Direx Group – a global pioneer in Non-Invasive Urology and Gynecology technologies trusted in over 70 countries



Therapy



Muscle Tone



Circulation



No Surgery



MORENOVA^{PRO}

Premium LiSWT System for Regenerative Therapy



MoreNova Pro is engineered for modern clinical environments such as:

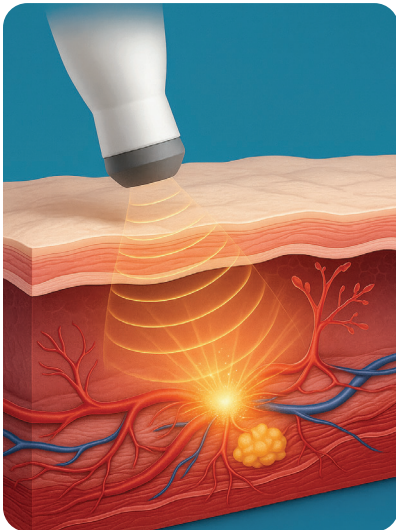
- ✓ Clinics, hospitals, and rehab centers
- ✓ Built to meet high-performance demands

Key features and technology:

- ✓ Low-Intensity Shockwave Therapy (LiSWT)
- ✓ Combines linear, focused, and large-area energy delivery
- ✓ Enables deep tissue penetration for whole-tissue therapeutic results

Design and usability:

- ✓ Touchscreen interface for intuitive operation
- ✓ Modular platform for easy upgrades and flexible usage
- ✓ Supports streamlined workflows and customizable protocols



Advanced Technology, Real-World Benefits

LiSWT Technology

Delivers precise acoustic pulses to stimulate

- ✓ Biological regeneration
- ✓ Angiogenesis (formation of new blood vessels)
- ✓ Improved circulation and oxygenation
- ✓ Calcium deposit dissolution
- ✓ Reduction of inflammation and fibrosis
- ✓ Tissue remodeling and cellular repair

How It Works

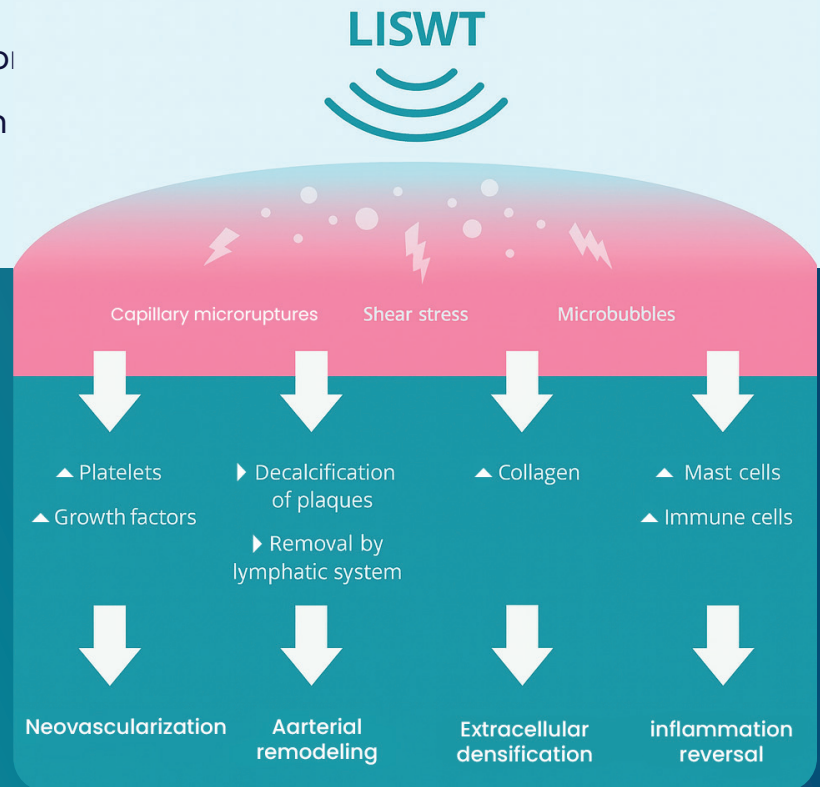
- ✓ Targets Deep Pelvic floor Muscles (up to 10cm)
- ✓ Induces over 10,000 contractions per session
- ✓ Boosts blood flow, neuromuscular oxygenation
- ✓ Painless, fully clothed seated treatment

Clinical Edge :

- ✓ Office-based, 20-30 min sessions
- ✓ Personalized protocols for men & women
- ✓ Ergonomic, Unisex applicator design
- ✓ Hands free Procedure

The Science Behind LISWT

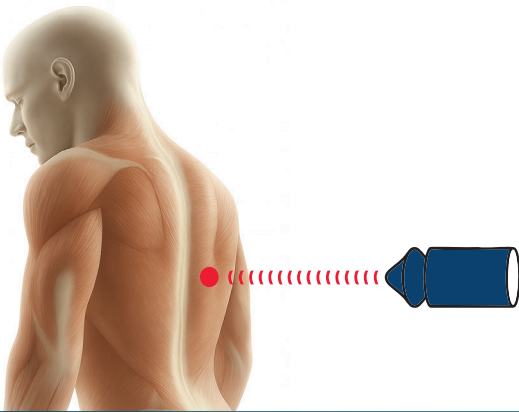
Numerous studies have demonstrated the effectiveness of LISWT at inducing angiogenesis (i.e., the formation of new blood vessels), generating new tissue growth, and significantly improving hemodynamic.



The Evolution of Low-Intensity Shockwave Therapy

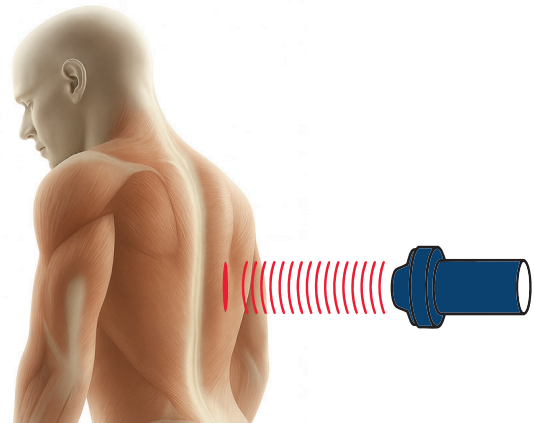
Point Focused Shockwaves

The initial approach focused acoustic energy onto small tissue areas, requiring multiple sessions for desired results and offering less-than-optimal comfort.



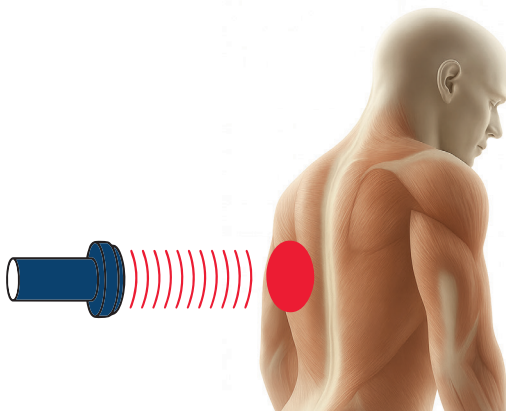
Linear Shockwave Technology (LSWT)

Morenova's predecessor, Renova, introduced LSWT, covering longer tissue segments with enhanced energy density, reducing treatment sessions, and improving comfort.



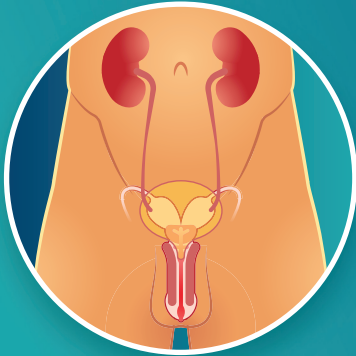
Planar/Large-Area Shockwave Technology

Morenova represents the pinnacle of shockwave therapy evolution, enabling treatment of large tissue areas with variable depths, customizable applicators, and hands-free operation, revolutionizing patient care across various medical specialties.



Comprehensive Indications

Urology



- ✓ Erectile Dysfunction (ED) – Enhances hemodynamics and performance, Stimulates blood vessel regeneration (angiogenesis) to improve penile blood flow.
- ✓ Peyronie's Disease – Improves tissue oxygenation and circulation helping reduce fibrosis and improve penile symmetry.
- ✓ Chronic Pelvic Pain Syndrome (CPPS) – Relieves neuromuscular tension
- ✓ Post-Prostatectomy rehab – Aids recovery of continence and function
- ✓ Male Urinary Incontinence – Strengthens sphincters and pelvic control

Gynecology



- ✓ Stress urinary Incontinence (SUI) – Reduces leakage with muscle reconditioning
- ✓ Pelvic Floor Dysfunction – Restores muscle balance and control
- ✓ Vaginal Laxity & Sexual Wellness – Boosts tone, sensation and confidence
- ✓ Postpartum Recovery – Speeds rehabilitation and improves quality of life

Innovative Technology

- ✓ Linear Low-Intensity Shockwaves – The only system with dual probes for enhanced ED treatment.
- ✓ Hands-Free Operation – Equipped with a holder for easy and precise positioning.
- ✓ Multiple Probes Designed for Anatomy-Specific Treatment – Ensuring optimal energy delivery.
- ✓ Short, Effective Sessions – Covers a large treatment area for maximum efficiency.
- ✓ Wide Coverage & Deep Penetration
- ✓ ED: 50mm LINEAR active treatment area.
- ✓ PD: 15mm CONIAL focused treatment area.
- ✓ CPPS: 30mm LARGE circular treatment area.

Advantages of morenova



Morenova Has The Unique Large Area (And Also Linear) Technology That Enables The Design Of Many Types Of Transducers, Each With Different Sizes And Shapes Of The Therapy Area



The Fact That Large Areas Of Tissue Can Be Treated In A Single Application, Allows For The Transducer To Be Positioned And Locked In Place Enabling A Hands-Free Treatment



The Large Area And Linear Shockwave Technology Enables A Smaller Number Of Applications And Smaller Number Of Sessions To Achieve Clinical Results



Morenova Transducer Technology Can Be Miniaturized And Allows For Invasive Application Of Shockwave Therapy For Example Transvaginal, And In The Future Transrectal



The Morenova Is A Single Treatment System That Can Be Utilized For A Very Large Number Of Clinical Therapies Each Clinical Indication Utilizing A Dedicated Transducer

Competitor Comparison Sheet

	Aries	Doulith	ED-1000	MoreNova
Publications	3	3	9	25
Transducer Technology	Small Focus	Small Focus	Small Focus	Linear
Focal Zone	10 mm width	5 mm width	13 mm width	50–60 mm
Organ Coverage of Penis	3 x 10 mm = 30mm around 50% of penis	3 x 5 mm = 15mm around 25% of penis	3 x 13 mm = 39mm around 60% of penis	Total coverage & direct contact 60 mm length
Energy Density	0.051 mJ/mm2	0.05 mJ/mm2	0.09 mJ/mm2	0.09 mJ/mm2
Protocol	5 – 10 sessions	Up to 20 sessions	12 sessions in 9 weeks.	6 sessions
Holding	User has to hold the transducer	User has to hold the transducer	User has to hold the transducer	Hands free application

Proven Success and Risk-Free

Morenova is the only device on the market specifically designed for vulvovaginal health. In clinical trials, menopausal women reported relief of symptoms immediately after initial treatment sessions with Morenova and even greater improvement by the end of the treatment course. Morenova is simple and safe, with no pain or unpleasant side effects. In fact, we are proud of our 100% safety record and our optimal patient satisfaction.



Uncompromising Safety
Low- to zero-risk, no heating, no ablation, no side effects



Optimal comfort
Outpatient setting, quick and painless, no anaesthesia



Effective from the first session, with continued improvement throughout therapy

MORENOVA PRO

Trolley based design – offering advanced user interface, two transducer arms and automatic water circulation for high treatment-volume centers

Offering an advanced user interface and automatic water circulation, the Pro version is designed for high treatment-volume centers, providing efficiency and convenience.



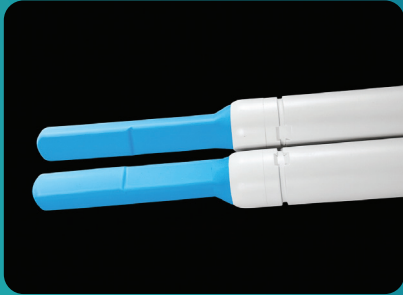
MORENOVA DT

Desktop design - Light weight and easily portable unit, compatible with all types of Morenova therapy probes with internal water circulation

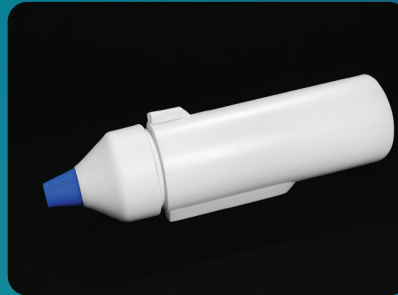
Can be placed on custom trolley if required or positioned on a treatment table or cabinet

Men's Health Segment

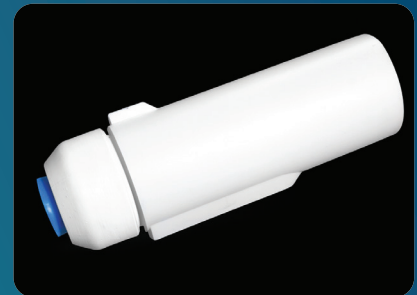
Men's Health configuration includes transducers developed for 3 indications



E.D. Erectile Dysfunction
Linear Transducers

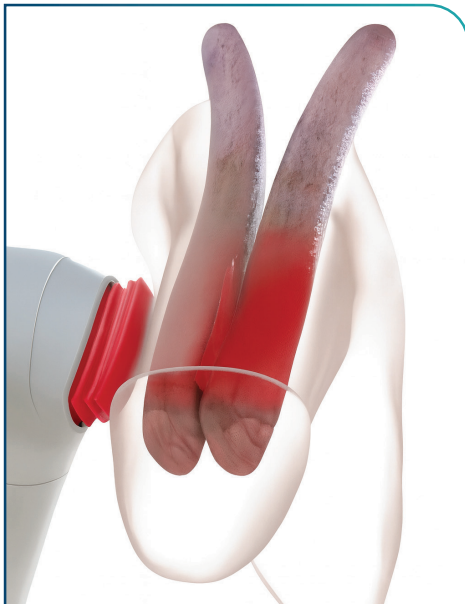


P.D. Peyronie's Disease
Focused Energy Transducer



C.P.P. Chronic Pelvic Pain
30mm Circular Transducer

Morenova treats a large volume of tissue in single applications to maximize efficiency, reduce required number of sessions and simplify application



The method is to use a double probe locked in place, applying shockwaves to both left and right anatomy per application:

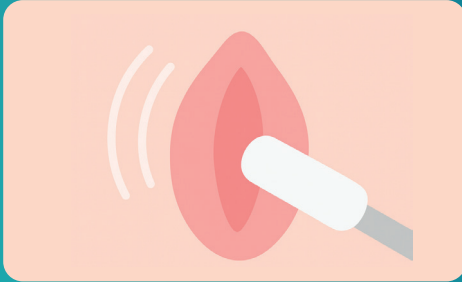
Recommended Treatment Protocol

- ✓ Number of sessions: 6
- ✓ Number of applications per session: 2
- ✓ Numbers of Pulses per application: 1500
- ✓ Total number of Pulses per session:
3,000 -> 18,000 for the course
- ✓ Applications: Shaft (bilateral)
& Crura (bilateral)

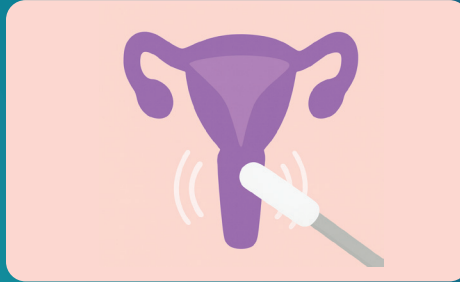


Women's Health Segment

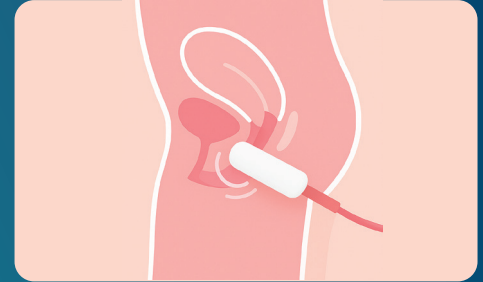
Women's Health configuration includes transducers developed for 4 indications



Labia Majora



Labia Minora



Transvaginal

Indications:

- ✓ VD Vulvodynia
- ✓ VA Vaginal Atrophy
- ✓ SUI Stress Urinary Incontinence
- ✓ FSD Female Sexual Dysfunction

The probes are specifically designed for different target organs and the miniaturized technology allows minimally invasive probes (transvaginal).

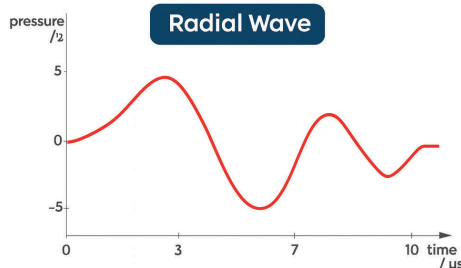
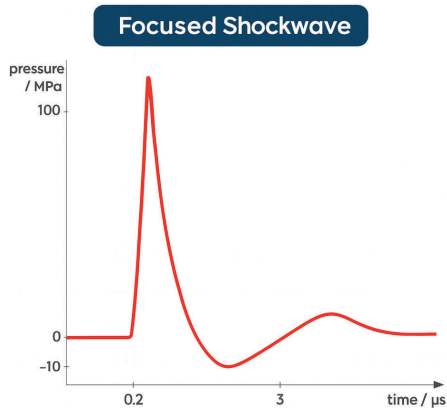
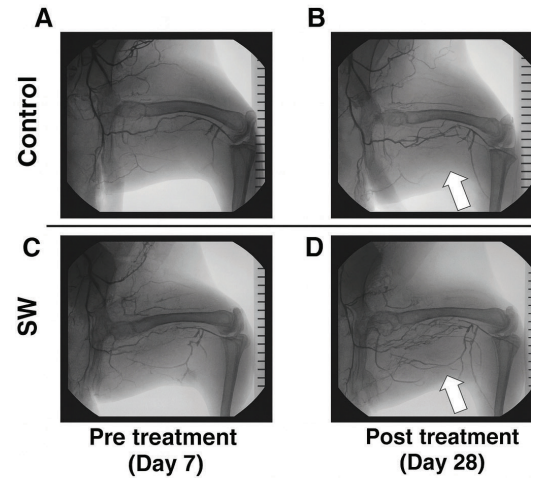
Recommended Treatment Protocol

- ✓ Sessions: 6 (At a frequency of 2 sessions per week).
- ✓ Applications per session: 6
- ✓ Pulses per application: 400
- ✓ Total number of Pulses per session/treatment: 2400 / 14,400
- ✓ Applications: Vaginal canal, Labia Minora, Labia Majora, Clitoris



Shockwave Technology Promotes Angiogenesis

- ✓ Research has shown that new blood vessels (angiogenesis) are formed as a response to low intensity shockwaves. Endothelial cells, lining the blood vessels are responsible for this process
- ✓ Optimal energy density for achieving this cellular response is 0.09 mJoule/mm²
- ✓ At this energy level the production of Vascular Endothelial GrowthFactor (VEGF) is maximized
- ✓ Specialized transducer technology and design required in order to apply this therapeutic energy to treat multiple medical conditions.

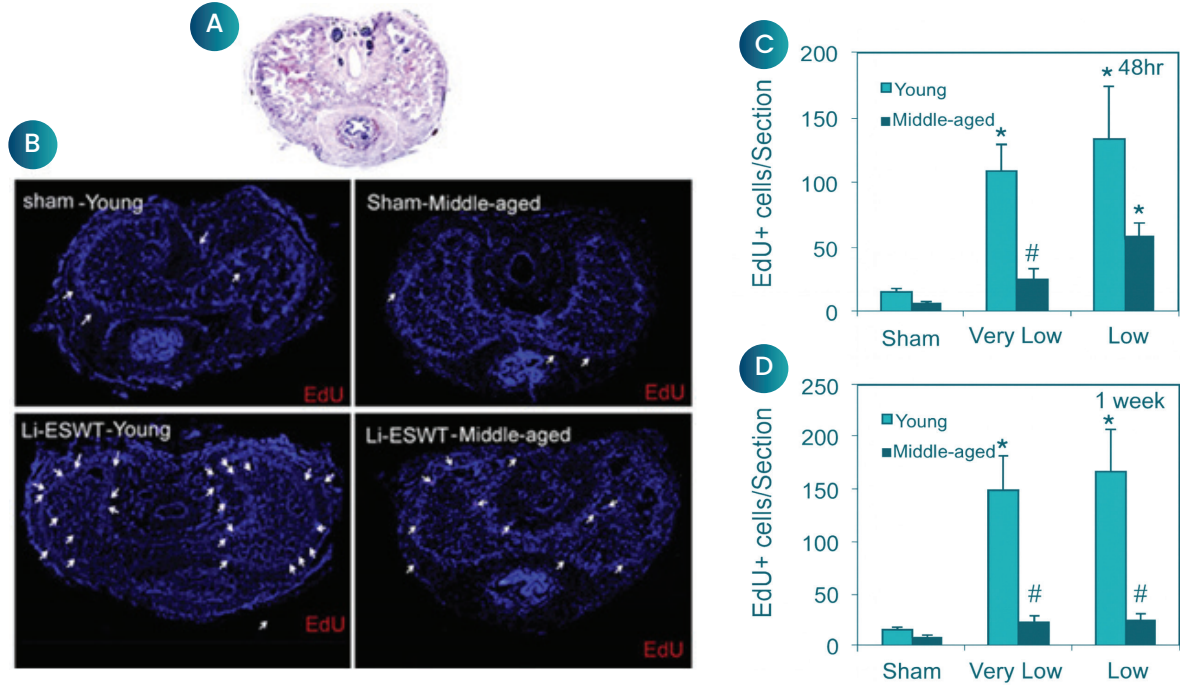


Shockwave vs. Radial wave

- ✓ Shockwaves are defined as abrupt changes in pressure, with velocities higher than the speed of sound in the medium it propagates
- ✓ In contrast to focused shockwave generators, radial waves produce 'conventional' sound waves with higher levels of pressure, but at slow rise times
- ✓ Radial waves do not create shockwaves and do not produce angiogenesis and do not activate progenitor/stem cells
- ✓ Clinical data demonstrates that radial wave treatment for erectile dysfunction is equivalent to placebo effect

Biological Effects of LISW – Summary

1. Stem & Progenitor Cell Activation



Mechanism of Action

LISW stimulates resident progenitor and stem cells by creating mechanical microstress within tissues. This mechanical signal is transduced into a biochemical response that initiates cell division and activation.

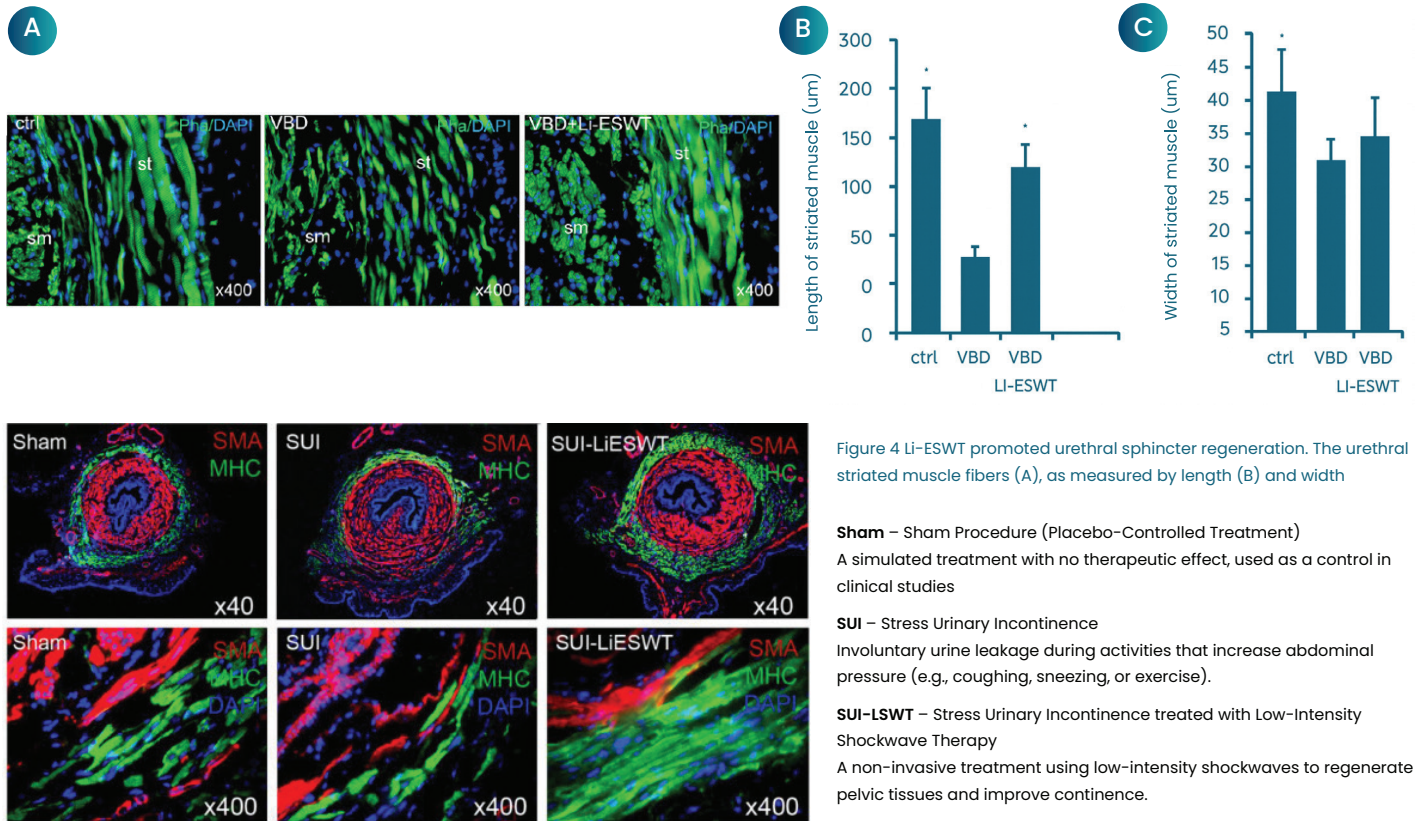
Biological Effect

EdU staining (white dots in the image) shows a significant increase in newly proliferating cells after LISW, particularly in young tissue. This confirms the activation of endogenous stem and progenitor cells in penile tissue.

Key Reference:

Lin et al., "In Situ Activation of Penile Progenitor Cells with Low-Intensity Extracorporeal Shockwave Therapy" (UCSF, Prof. Tom F. Lue)

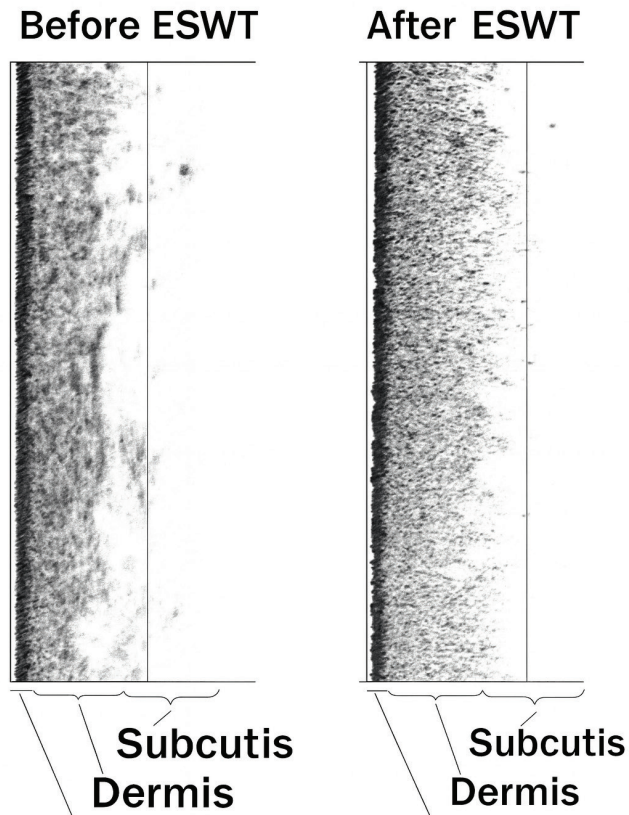
2. Myogenesis (Muscle Regeneration)



Key Reference:

Wu et al., "Treatment of stress urinary incontinence with low-intensity extracorporeal shock wave therapy" (UCSF, Prof. Tom F. Lue)

3. Connective Tissue Activation



Mechanism of Action

LISW induces mechanical shear and tensile stress, leading to upregulation of fibroblast activity and dermal remodeling. This includes ECM reorganization and stimulation of the PKB/AKT pathway, which promotes cell survival and proliferation.

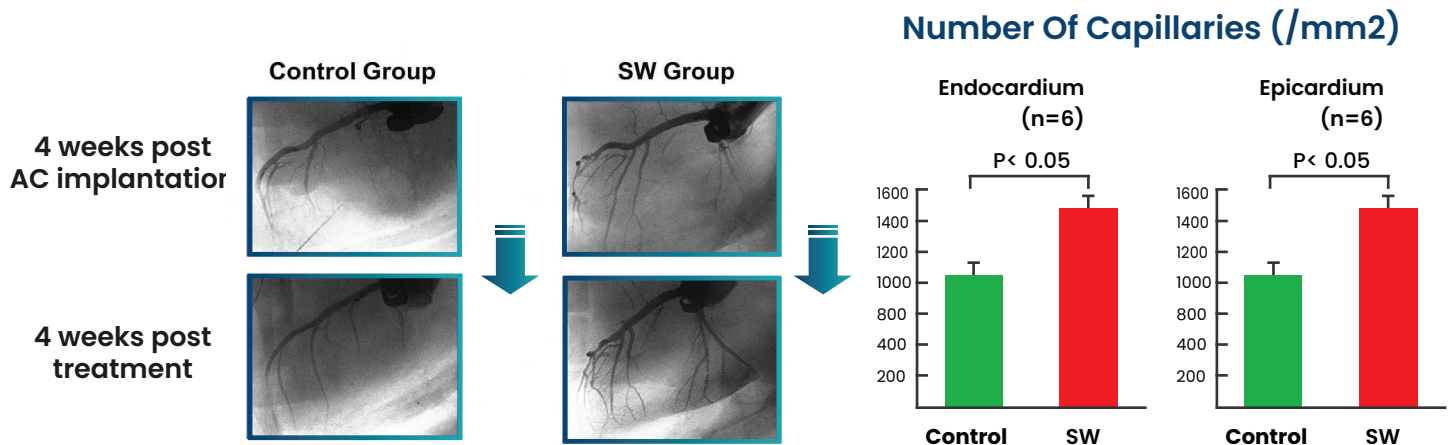
Biological Effect

Histological imaging reveals visible changes in connective tissue density and structure post-treatment, suggesting dermal thickening and improved structural support in the skin and subcutaneous layers.

Key Reference:

Kuhn et al., "Impact of Extracorporeal Shock Waves on Human Skin with Cellulite: A Case Study" (SwiTech Medical AG, Switzerland)

4. Angiogenesis & Vascular Growth



Mechanism of Action

LISW stimulates the expression of angiogenic growth factors, particularly VEGF (vascular endothelial growth factor), by applying mechanical stress to endothelial cells promoting neovascularization and improved blood supply.

Biological Effect

In vitro and in vivo models (including porcine heart ischemia) show upregulation of VEGF at optimal energy levels (~0.09 mJ/mm²) and a marked increase in new vessel formation post-treatment, confirmed via angiography and capillary count analysis.

Key Reference:

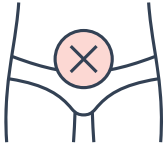
Gutersohn et al., "Upregulation of VEGF via Shock Waves in HUVEC" (University Hospital Essen, Germany)

Nishida et al., "Extracorporeal Cardiac Shockwave Therapy Ameliorates Ischemia-Induced Myocardial Dysfunction in Pigs" (Tohoku University, Japan)

LISW triggers biological regeneration by engaging multiple physiological pathways

including stem cell activation, muscle repair, connective tissue remodeling, and angiogenesis all through non-invasive mechanical stimulation. These effects are validated across multiple organ systems and preclinical models, underscoring the broad therapeutic potential of LISW technology.

Men's Urogenital Functional Restoration



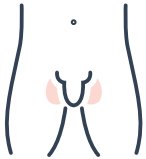
Erectile Dysfunction

Morenova enhances erectile function by improving blood flow and reactivating pelvic floor muscles. It promotes spontaneous, stronger erections over time without medication or invasive procedures.



Chronic Pelvic Pain Syndrome (CPPS)

Through deep electromagnetic stimulation, Morenova relaxes chronically tense pelvic muscles, reduces inflammation and helps restore neuromuscular balance providing lasting relief for persistent pelvic Pain.



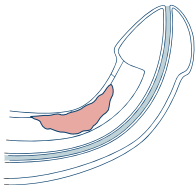
Post-Prostatectomy Rehabilitation

After prostate surgery, Morenova assists in the recovery of continence and sexual function by strengthening pelvic floor muscles and improving nerve signaling all through a comfortable seated treatment.



Male Urinary Incontinence

Morenova targets the pelvic floor and urinary sphincter muscles to improve bladder control and reduce leakage offering a non-invasive dignified solution for incontinence after surgery or due to aging.



Peyronie's Disease

As a supportive therapy, Morenova increases blood circulation and promotes tissue elasticity in men with peyronie's disease. Used alongside other treatments it may reduce curvature and improve penile function naturally and without pain.

Women's Urogenital Functional Restoration



Stress Urinary Incontinence (SUI)

Morenova strengthens the pelvic floor muscles responsible for bladder control helping reduce or eliminate urine leakage caused by physical activity, coughing or sneezing without surgery or downtime.



Pelvic Floor Dysfunction

By reactivating deep pelvic muscles and improving neuromuscular coordination Morenova restores pelvic stability and relieves symptoms such as heaviness, pain and loss of support with high patient comfort.



Vaginal Laxity & Sexual Wellness

Morenova improves vaginal tone, enhances sensitivity and increases blood flow contributing to greater sexual satisfaction and confidence especially after child birth or hormonal changes.



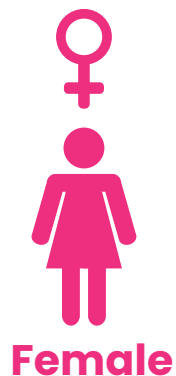
Postpartum Recovery

Safe and effective after childbirth Morenova accelerates recovery of pelvic strength, bladder control and intimate wellness supporting physical and emotional well-being for new mothers.

Treatment Plan



Indication	Sessions	Pulses per Session
Erectile Dysfunction	6	3,000
Peyronie's Disease	8	2,000
CPPS (Chronic Pelvic Pain)	8	2,000
General Urogenital Health	Protocol depends on indication and application	



Indication	Sessions	Pulses per Session
Stress Urinary Incontinence	8	2,000
Sexual Wellness / Arousal Disorders	6	2,400
Vulvodynia / Dyspareunia	6	2,400
General Pelvic / Vaginal Health	Protocol depends on indication and application	

Suggested Protocols

- ✓ **Treatment Duration:** Each session is typically 20-30 minutes
- ✓ **Frequency:** Recommended 2-3 sessions per week or as advised
- ✓ **Protocol can be adjusted according to patient severity.**

Additional Indications

Beyond Urology and Gynecology, Morenova offers therapeutic benefits across Physiotherapy, Wellness and postoperative rehabilitation.

Overactive Bladder (OAB)

- ✓ Urge incontinence
- ✓ Frequent nighttime urination (Nocturia)
- ✓ Detrusor overactivity in menopausal women or diabetic patients

Pelvic Floor Rehabilitation in Elderly patients

- ✓ Functional urinary incontinence in seniors
- ✓ Fall risk due to poor pelvic-core stability
- ✓ Frailty-related pelvic muscle weakness

Post-Hysterectomy Recovery

- ✓ Post-Hysterectomy Recovery
- ✓ Post-surgical pelvic floor dysfunction
- ✓ Pelvic organ prolapse prevention
- ✓ Vaginal vault support loss

Post-Cesarean Section Recovery

- ✓ Diastasis recti (Abdominal muscle separation)
- ✓ Stress urinary incontinence after C-section
- ✓ Weak core activation in early postpartum stage

Low back pain linked to pelvic instability

- ✓ Chronic nonspecific lower back pain
- ✓ Sacroiliac joint dysfunction
- ✓ Lumbar-pelvic instability in sedentary patients

Post-Cancer Pelvic Health Rehabilitation

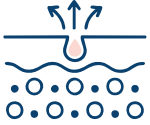
- ✓ Incontinence after prostatectomy
- ✓ Radiation-induced pelvic floor damage
- ✓ Post-gynecological oncology recovery

Physiotherapy & Core Conditioning Support

- ✓ Tennis Elbow (Lateral epicondylitis) – when pelvic posture correction is part of the kinetic chain.
- ✓ Athletes with poor pelvic alignment leading to hip or lumbar strain
- ✓ Rehabilitation after sports hernia

Proven Success and Risk-Free

Morenova offers a revolutionary solution for vascular disease management supported by extensive research and proven effectiveness. With a flawless safety record and high patient satisfaction, it marks a significant advancement in vascular healthcare.



Comprehensive Coverage

Morenova can address large wound areas and surrounding tissues, providing holistic treatment for chronic wounds.



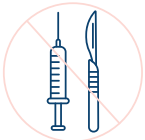
Stimulation of Vascular Activity

By inducing neovascularization and angiogenesis, Morenova promotes the formation of new blood vessels, enhancing blood flow to affected areas.



Focused Transducer Technology

By inducing neovascularization and angiogenesis, Morenova promotes the formation of new blood vessels, enhancing blood flow to affected areas.



Non-Invasive & Painless

Patients benefit from a safe and pain-free treatment experience, with no downtime or unpleasant side effects.

Technology Overview

Treatment Mechanism: electromagnetic stimulation, blood flow improvement, neuromuscular activation

Clinical & Patient Benefits

- ✓ No downtime
- ✓ Office-based therapy
- ✓ High compliance & satisfaction
- ✓ 20–30 min sessions

Clinics & Physicians

- ✓ ROI estimate
- ✓ Easy staff training
- ✓ Minimal space required
- ✓ Marketing & patient education tools included

Physio-Therapy & Esthetic treatments protocol

Morenova treats bone pain, muscle pain, tendon and ligament pain, Fibromyalgia, joint pain, "Tunnel" syndromes, nerves, and discs.

The most common treatment areas include:

- ✓ Lower back pain
- ✓ Tennis and Golfer's elbow
- ✓ Plantar fasciitis
- ✓ Knee and shin pain
- ✓ Biceps tendinopathy
- ✓ Supraspinatus tendinopathy
- ✓ Limb Peripheral Artery Disease (PAD)
- ✓ Diabetic Foot Ulcer (DFU)
- ✓ Achilles Heel
- ✓ Shoulder and neck pain



Accessible Esthetic Treatments

With esthetic medicine having developed from a side specialty to its own discipline, the market for esthetic treatments is growing. Morenova harnesses the power of low-intensity shockwaves to regenerate collagen, minimize wrinkles, and treat cellulite. It is painless and requires no special preparation, so women of all walks of life can benefit from treatment.

Scope of Treatment

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Combating Cellulite

Morenova is a safe and effective treatment for cellulite which develops in different people in different areas, most commonly the thighs, buttocks, abdomen, and upper arms, characterized by an irregular, dimpled skin surface with thinning of the epidermis/dermis and the presence of nodular clusters of fat cells.





Collagen Regeneration

When the body's cells age, their ability to produce proteins slows down, making it more difficult for the skin to snap back to its original shape, which causes wrinkles. Morenova stimulates angiogenesis and collagen production in facial soft tissue and tightens connective tissue to minimize the appearance of wrinkles.

Contact & Demo Booking

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