



MoreNova for Cellulite

A Compendium of Research Articles and
on the Integration of MoreNova into cellulite

MORENOVA
for Cellulite

Table of Contents

Learn from Leading Practitioners.....3

MoreNova for Cellulite **at** a Glance4

Clinical Indications for Utilizing MoreNova for Cellulite5

Molecular Mechanism of Action6

Cellulite and Focused Extracorporeal Shockwave Therapy for Non-Invasive Body Contouring: A Randomized Trial8

Effectiveness of Electromagnetic Shock Wave Therapy in the Treatment of Cellulite 10

Comparison of Extracorporeal Shock Wave Therapy Versus Manual Lymphatic Drainage on Cellulite After Liposuction: A Randomized Clinical Trial..... 12

Predictability of the Individual Clinical Outcome of Extracorporeal Shock Wave Therapy for Cellulite 13

Caffeine Phonophoresis versus Shock Wave Therapy for Adult Women with Cellulite: A Randomized Controlled Trial..... 15

Comparison of Current cellulite Treatment Options 16

Learn from Leading Practitioners

This compendium lists selected publication references, synthesizing the knowledge and experiences from leading practitioners, and documenting a range of applications and models for implementing MoreNova for Cellulite in routine practice.

- ◆ We hold ourselves to a high standard when it comes to accumulating clinical evidence
- ◆ We are committed to extending research opportunities to medical professionals worldwide
- ◆ We strive to engage the professional community to explore existing guidelines to reach knowledge-based consensus recommendations for change, while recognizing the valued relationship between aesthetic and dermatology professionals and industry.

To learn more about how MoreNova for Cellulite can benefit you and your patients, please contact us at:



<https://initiamedical.com>



info@initiamedical.com

MoreNova for Cellulite at a Glance

MoreNova for Cellulite is a new-generation shockwave-based, non-invasive treatment designed to improve skin texture and reduce the appearance of cellulite. It stimulates biological processes such as collagen remodeling, angiogenesis, and enhanced tissue elasticity—helping to smooth and firm the skin in areas commonly affected by cellulite.

Application made easy

Uniquely designed hand-held or arm-mounted applicators are shaped for smooth contact and even energy distribution across the treatment area. The ergonomic design and adjustable applicator sizes ensure optimal coverage of body contours—such as thighs, buttocks, and abdomen—providing both comfort and precision during each session.



Clinical Indications for Utilizing MoreNova for Cellulite

Indications in Aesthetic and Dermatological Applications:

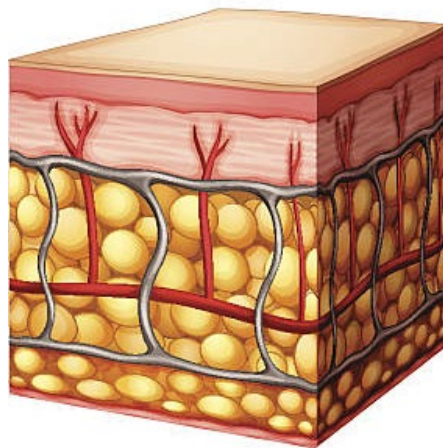
- Reduction of cellulite appearance on thighs, buttocks, abdomen
- Improvement of skin firmness, elasticity, and tone
- Enhancement of local microcirculation and lymphatic drainage
- Reduction of subcutaneous fat nodules
- Post-liposuction skin texture improvement

Clinical Benefits

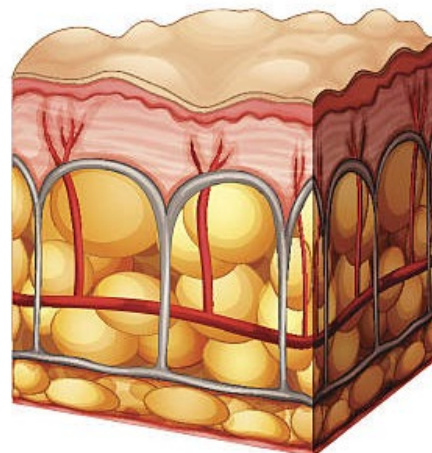
- Non-invasive, non-surgical, and non-ablative treatment
- No anesthesia, no downtime, and minimal discomfort
- Clinically validated improvement in skin elasticity and texture
- Promotes angiogenesis, collagen remodeling, and metabolic activation
- Applicable across a wide range of ages and body types
- Low operator dependency and consistent treatment outcomes
- High patient satisfaction and durable aesthetic results

Features and Highlights

- Proprietary Large-Area Shockwave Technology (LAST) electromagnetic platform
- Comfortable, outpatient procedure with no recovery period
- Time-efficient—quick sessions, no special preparations required
- Hands-free or manual application adaptable to various body areas
- Visible results after the first few sessions, progressive improvement over time
- Integrates seamlessly into standard clinical workflows, with no additional equipment needed



healthy skin

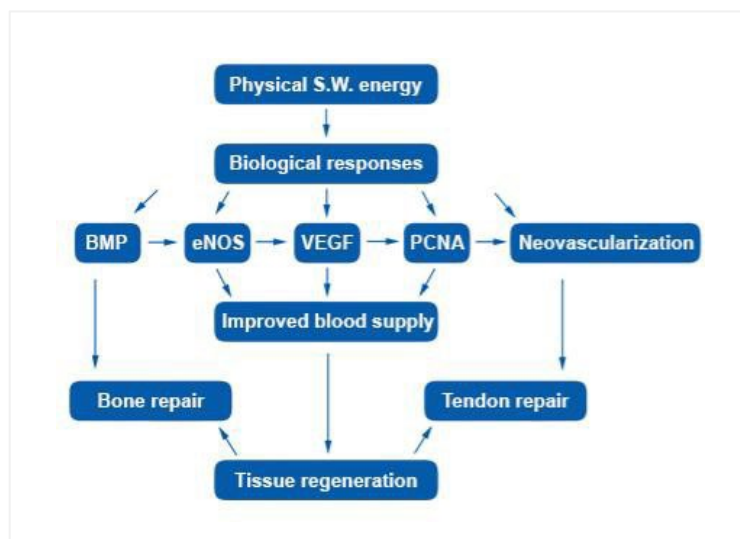


skin with cellulite

Molecular Mechanism of Action

Shockwaves are characterized by a rapid jump in pressure, high energy peak, high amplitude, and non-periodicity. The energy is transferred from the transmitter at the end of the applicator into the skin and subcutaneous tissue.

The human body has a remarkable capacity for self-repair. Low Intensity Shockwave Therapy (LISWT) enhances this natural healing ability by delivering acoustic pressure waves that carry low-intensity mechanical energy into the tissue. The resulting cascade of biological responses triggers cellular activation, tissue remodeling, and regeneration—leading to improved skin texture, elasticity, and reduced appearance of cellulite.



Wang CJ, Wang FS, Yang KD,
Biological mechanism of musculoskeletal shockwaves
ISMST Newsletter 2006, 1 (I), 5-11

During and after treatment, LISWT delivers pulse waves to the targeted areas (such as thighs, buttocks, and abdomen), stimulating the following regenerative processes:

- ANGIOGENESIS AND NEOVASCULARIZATION

Adequate blood flow and tissue oxygenation are essential for skin vitality and structural integrity. LISWT induces capillary micro ruptures that activate platelets and increase growth factor expression (e.g., VEGF, eNOS), stimulating the formation of new blood vessels. This neovascularization enhances local metabolism and drainage, improving skin tone and reducing the dimpled appearance of cellulite.

- STIMULATION OF COLLAGEN PRODUCTION AND RESTRUCTURING

Collagen and elastin are key components maintaining skin firmness and elasticity. LISWT activates fibroblasts, promoting the synthesis and reorganization of collagen fibers. This results in tighter, more resilient connective tissue and visible skin smoothing.

- ENHANCEMENT OF LYMPHATIC DRAINAGE AND MICRO-CIRCULATION

Mechanical vibrations from LISWT improve lymphatic outflow and stimulate local microcirculation. The process enhances metabolic waste removal and reduces interstitial fluid accumulation, both contributing to a smoother skin surface and decreased cellulite volume.

- REDUCTION OF FIBROTIC SEPTAE AND TISSUE STIFFNESS

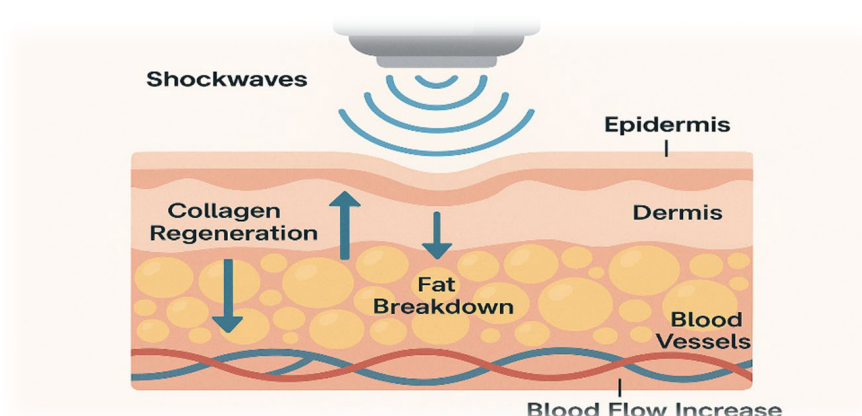
Cellulite is characterized by fibrous connective bands tethering the skin to deeper layers, creating uneven contours. LISWT induces controlled mechanical stress that disrupts these fibrotic septae, softening the connective network and promoting uniform skin tension.

- REVERSAL OF CHRONIC INFLAMMATION

LISWT modulates local inflammatory mediators by activating mast cells and macrophages. This controlled stimulation leads to cytokine release (IL-10, TGF- β), promoting tissue repair and reducing chronic low-grade inflammation associated with cellulite.

References

- Sundaram S et al., J Mol Med (Berl), 2018;96(11):1177-1187.
- Huang TH et al., Mol Med, 2017;22:850-862.
- Tepeköylü C et al., J Thorac Cardiovasc Surg, 2013;146(4):971-8.
- Haberal B et al., Jt Dis Relat Surg, 2021;32(1):162-169.
- Kuhn C, Angehrn F, Sonnabend O, Voss A. Clin Interv Aging. 2008;3(1):201-10.
- Modena DAO et al., Dermatol Ther (Heidelb). 2019;9(3):431-440.
- Knobloch K et al., Dermatol Ther (Heidelb). 2013;3(2):143-155.



Cellulite and Focused Extracorporeal Shockwave Therapy for Non-Invasive Body Contouring: A Randomized Trial

Karsten Knobloch, Beatrice Joest, Robert Krämer, Peter M. Vogt
Dermatology and Therapy (Heidelb) | 2013

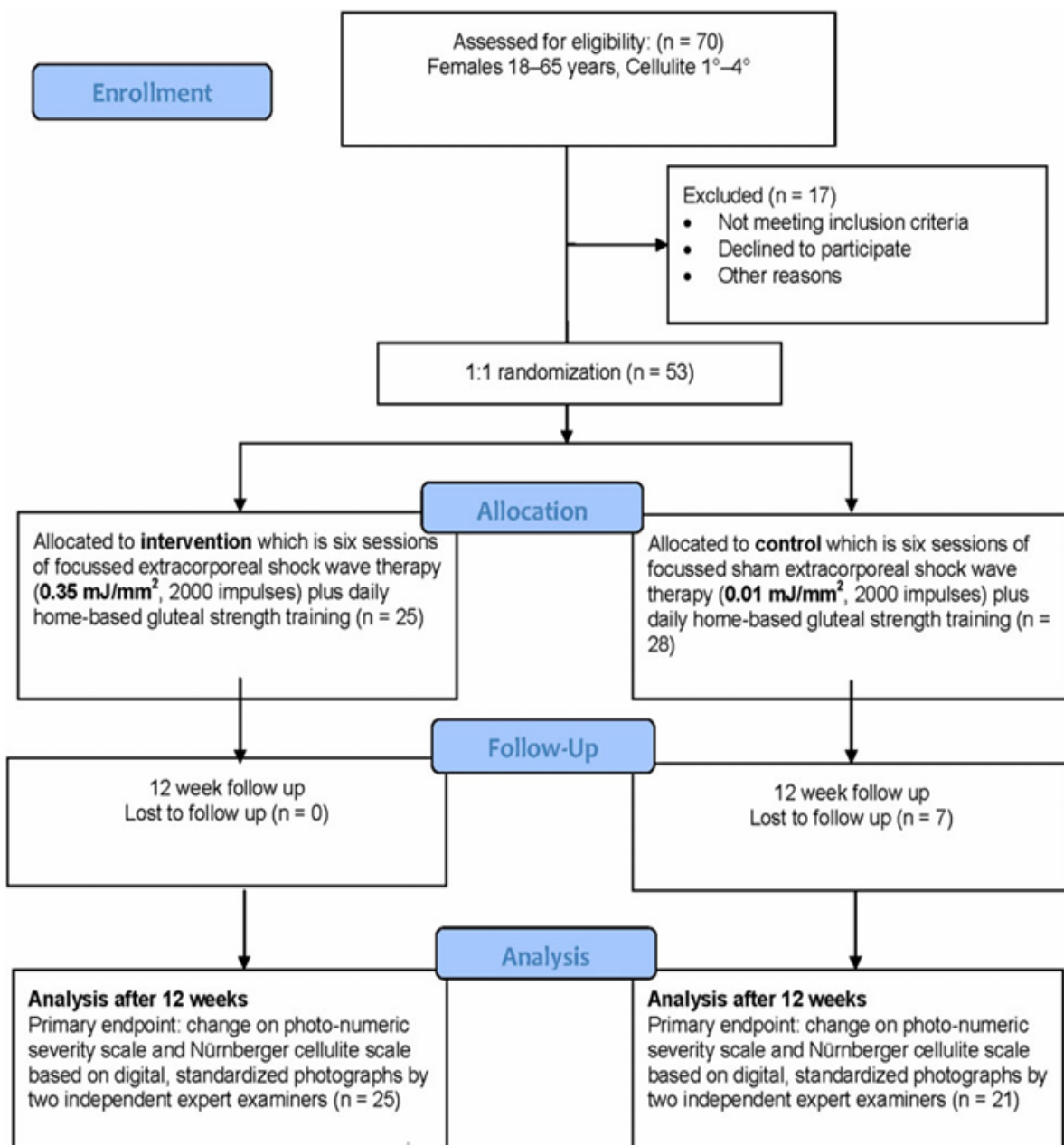
Objectives: To test whether focused ESWT plus gluteal-strength exercises improves moderate–severe cellulite versus sham ESWT plus the same exercise program.

Methods: Single-center, double-blinded RCT. Six sessions of focused ESWT (2,000 impulses, **0.35 mJ/mm²**), every 1–2 weeks, to gluteal and thigh regions; control received sham ESWT. Primary endpoint: photo-numeric Cellulite Severity Scale (CSS) rated by blinded assessors.

Results: CSS improved significantly in the ESWT group at 12 weeks versus sham (between-group **P = 0.001**).

Conclusion: Focused ESWT (6 sessions; 0.35 mJ/mm², 2,000 impulses) plus exercise was superior to sham plus exercise for reducing cellulite severity at 3 months.





Effectiveness of Electromagnetic Shock Wave Therapy in the Treatment of Cellulite

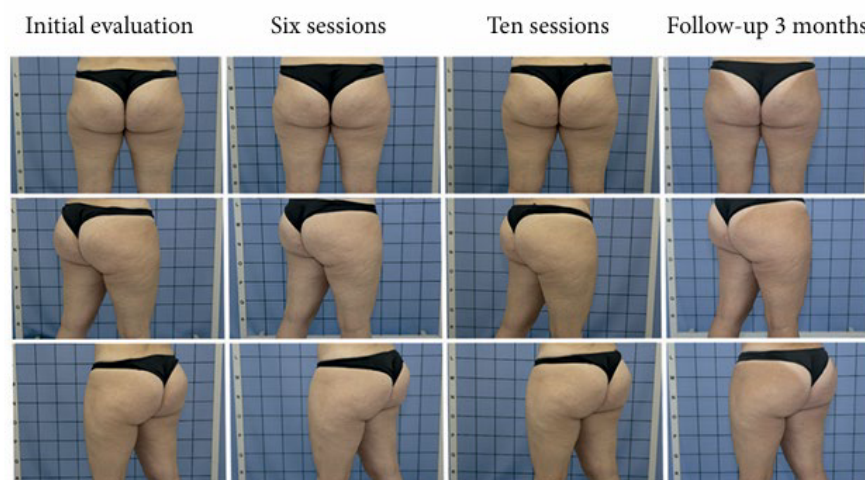
Débora A.O. Modena, Caroline N. da Silva, Talita C.P. Delinocente, et al.
Dermatology and Therapy (Heidelberg) | 2019

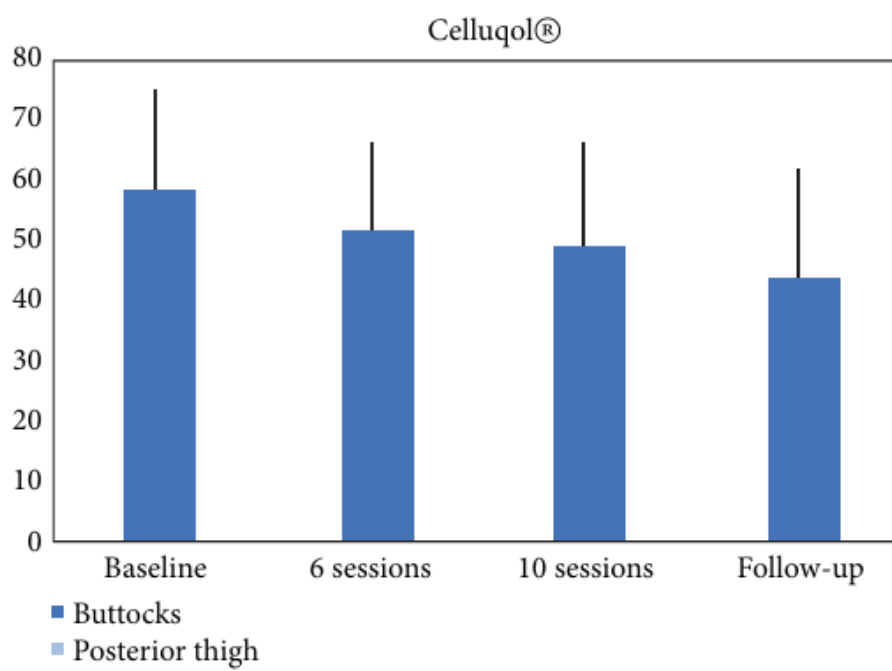
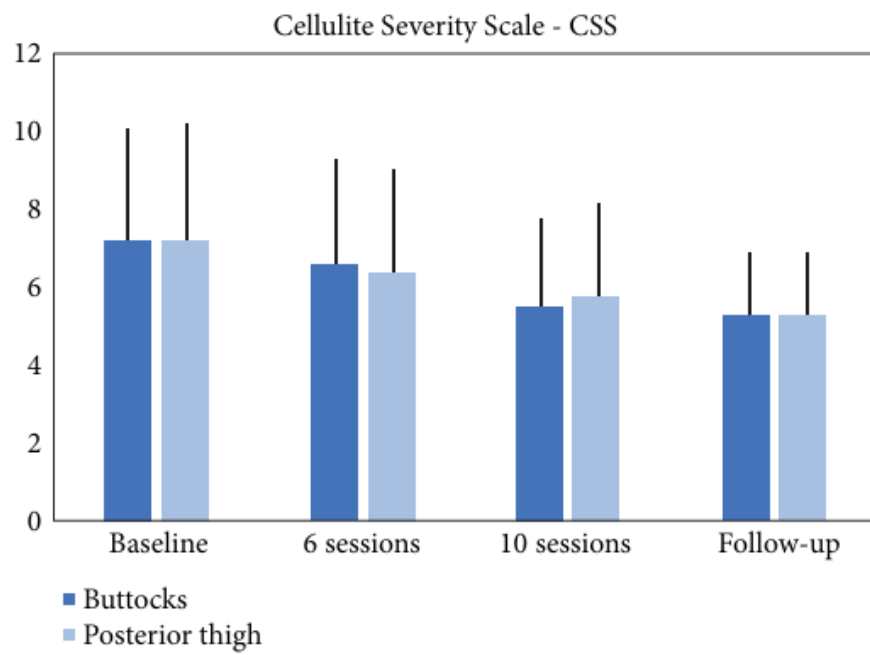
Objectives: Evaluate efficacy and safety of ESWT on gluteal and posterior thigh cellulite.

Methods: Prospective comparative study; **10 sessions** of ESWT. Assessments: anthropometry, perimetry, **Cutometer®** viscoelasticity, ultrasound hypodermis thickness, **Cellulite Severity Scale (CSS)**, and **CelluQoL®**; baseline, after 6 & 10 sessions, and 3-month follow-up.

Results: Significant improvements in CSS, skin elasticity/deformation, and quality of life; benefits maintained at 3-month follow-up.

Conclusion: ESWT was effective and safe for reducing cellulite degree, improving skin appearance, and enhancing QoL.







Comparison of Extracorporeal Shock Wave Therapy Versus Manual Lymphatic Drainage on Cellulite After Liposuction: A Randomized Clinical Trial

Nesma M. Allam, Radwa T. Elshorbagy, Marwa M. Eid, et al.
PMC (Clinical Trial Report) | 2021

Objectives: Compare ESWT with manual lymphatic drainage (MLD) for reducing cellulite grade and subcutaneous fat thickness after liposuction.

Methods: Single-blinded RCT; **30 females** with grade-3 cellulite randomized to ESWT (n=15) or MLD (n=15) for 4 weeks; both used topical retinol. Outcomes: cellulite grading scale and skinfold caliper thickness.

Results: Greater reductions with ESWT: skinfold decreased **24.4%** vs **15.38%** (p<0.001); cellulite grade improved more in ESWT vs MLD (p<0.001).

Conclusion: ESWT outperformed MLD for improving cellulite and reducing subcutaneous thickness post-lipo.

Table 4. Summarized Celluqol™ questionnaire results in pair percentage to control (n = 8) and treatment (n = 12) groups

Celluqol™ questionnaire	Before treatment		After treatment	
	TG	CG	TG	CG
Does not affect quality of life	0	0	0	0
Affects quality of life a little	33.3	37.5	33.3	25
Reasonably affects quality of life	33.3	37.5	41.6	62.5
Greatly affects quality of life	33.3	25	25	12.5

TG – treatment group, CG – control group

Predictability of the Individual Clinical Outcome of Extracorporeal Shock Wave Therapy for Cellulite

Angehrn F., Kuhn C., Voss A.

Journal of Cosmetic and Laser Therapy | 2007

Objectives:

To identify factors predicting individual response to extracorporeal shockwave therapy (ESWT) for cellulite and assess the relationship between baseline skin properties and treatment outcome.

Methods:

Prospective observational study including **30 women** with moderate-to-severe cellulite (grades II–III). Patients underwent **6 ESWT sessions** (2 per week) on thighs and buttocks using a radial shockwave device at **2,000 pulses/session, 0.25 mJ/mm²**. Skin elasticity, dermal thickness, and surface topography were assessed at baseline and 12 weeks post-treatment using ultrasound, cutometry, and standardized photography.

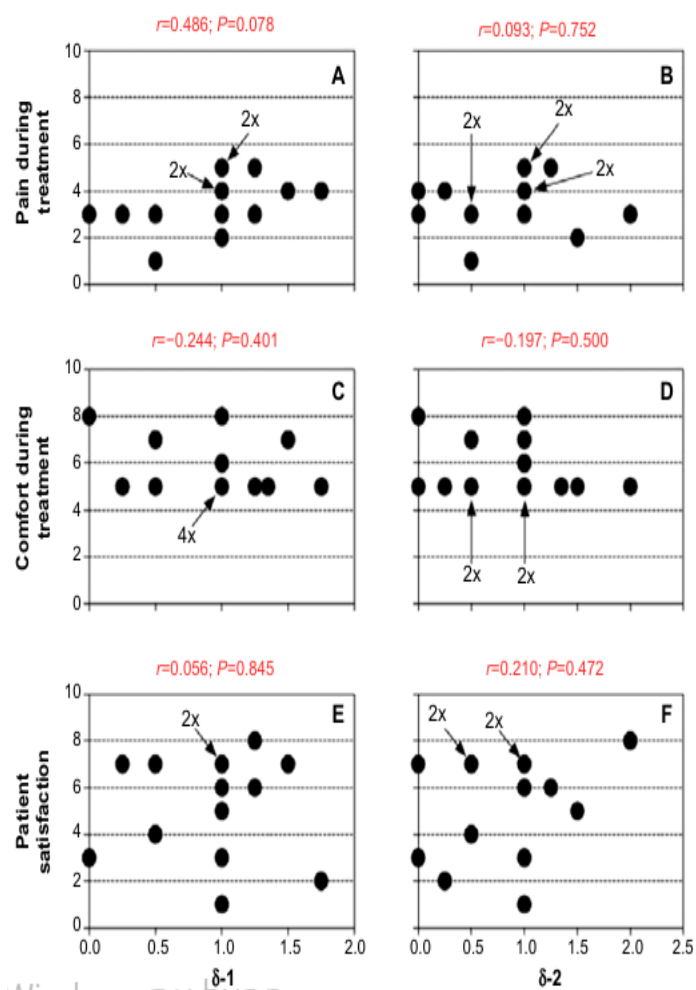
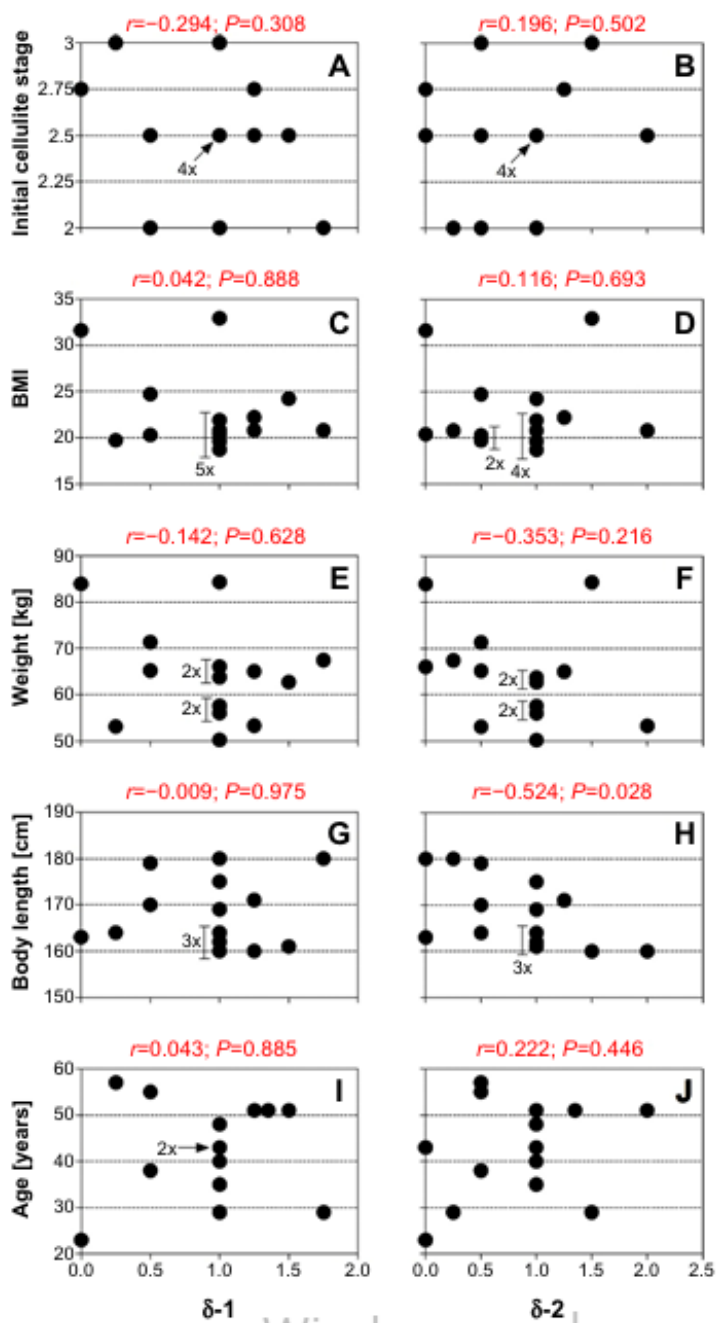
Results:

Clinical improvement in cellulite severity correlated positively with baseline skin elasticity and negatively with subcutaneous thickness ($p < 0.05$). Approximately **80%** of subjects showed visible to marked improvement in skin appearance. No adverse events were reported.

Conclusion:

Response to ESWT for cellulite is predictable based on baseline skin biomechanical parameters. Patients with higher elasticity and lower adipose thickness achieve greater benefit, confirming ESWT's reproducible and safe therapeutic effect.





Caffeine Phonophoresis versus Shock Wave Therapy for Adult Women with Cellulite: A Randomized Controlled Trial

El Sayed S.M., Mohamed A.A., Hegazy F.A.
Journal of Physical Therapy Science | 2020

Objectives:

To compare the efficacy of caffeine phonophoresis and extracorporeal shockwave therapy (ESWT) in reducing cellulite severity among adult women.

Methods:

Thirty women (aged 25–40 years) with grade 2–3 cellulite on thighs and buttocks were randomized into two groups:

- **Group A:** Caffeine phonophoresis (5% caffeine gel + 1 MHz ultrasound, 1.5 W/cm²)
 - **Group B:** Radial ESWT (**2,000 pulses/session, 0.25 mJ/mm²**, twice weekly).
- Both groups received **12 sessions** over 6 weeks. Outcomes included **Cellulite Severity Scale (CSS)**, **skinfold thickness** (caliper), and **ultrasound echogenicity** pre- and post-treatment.

Results:

Both groups showed significant reductions in CSS and fat thickness ($p < 0.001$). Improvement was greater in the **ESWT group** than caffeine phonophoresis (mean CSS reduction: 3.2 ± 0.8 vs. 2.1 ± 0.7 ; $p < 0.05$). No side effects were observed in either group.

Conclusion:

Both modalities improved cellulite appearance and subcutaneous structure, but **shockwave therapy demonstrated superior efficacy** in reducing cellulite severity and skin irregularity, confirming its advantage as a noninvasive therapeutic option

Table 2 The values of cellulite grading scale and skin fold thickness (mm) of caffeine and shock wave groups

Outcomes	Caffeine group (n=15)		P value	Shock wave group (n=15)		P value
	Treated side	Untreated side		Treated side	Untreated side	
Cellulite grading scale						
Before	2.60±0.51	2.47±0.52	0.481	2.53±0.52	2.67±0.49	0.401
After	1.13±0.55	2.67±0.49	0.001*	0.87±0.55	2.60±0.51	0.001*
P value	0.001*	0.082		0.001*	0.582	
Skin fold thickness						
Before	44.67±6.76	45.07±7.05	0.875	46.87±5.62	45.93±5.02	0.635
After	37.27±6.04	44.73±6.61		35.13±4.12	46.27±4.82	0.268
P value	0.001*	0.353		0.001*	0.238	

Data are presented as mean±SD. * $P < 0.05$, significant.

Comparison of Current Cellulite Treatment Options

1. Shockwave Systems		2. Laser / Radiofrequency Systems	
Pros	◆ non-surgical, non-pharmacological ◆ No tissue ablation or heating ◆ Clinically validated regenerative effect ◆ Improves collagen remodeling and microcirculation ◆ High safety and efficacy	Pros	◆ non-surgical, non-pharmacological ◆ Widely used for aesthetic indications ◆ Provides temporary tightening and contouring
Cons	◆ Requires multiple sessions ◆ Mild temporary erythema possible ◆ Limited data for extremely severe cellulite	Cons	◆ Heat-based: possible discomfort, swelling, burns ◆ Limited efficacy for moderate–severe cellulite ◆ Short-lived results; maintenance required
3. Subcision / Surgical Procedures		4. Injectable Treatments	
Pros	◆ Mechanically releases fibrotic septae ◆ Effective for deep dimples and advanced cellulite	Pros	◆ Enzymatically breaks fibrotic septae ◆ Noticeable improvement after 1–2
Cons	◆ Invasive, requires anesthesia ◆ Risk of bruising, hematoma, uneven surface ◆ Longer recovery and downtime	Cons	◆ Local pain, bruising, transient induration ◆ High cost and repeat sessions needed ◆ Limited indication for certain areas
5. Topical / Cosmeceutical Products		6. Physical Therapy	
Pros	◆ Easily accessible, non-invasive ◆ May improve local hydration and circulation	Pros	◆ Improves lymphatic drainage and blood flow ◆ Relaxing, non-invasive procedure
Cons	◆ Minimal structural improvement ◆ Short-term effects; daily use required ◆ No significant clinical remodeling evidence	Cons	◆ Temporary results; low durability ◆ Requires frequent maintenance ◆ Limited impact on dermal architecture



MoreNova for Cellulite

info@initiamedical.com • www.initiamedical.com

MORENOVA
for Cellulite

MoreNova_Cellulite_ClinicalCompendium Rev A - BK20260419

Final Audit Report

2026-05-20

Created:	2026-05-20
By:	Niv Ein-Gal (adrianj@initiamedical.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA54bVxfGh6OLnziT_nZ7ftpInB_1VyXWZ

"MoreNova_Cellulite_ClinicalCompendium Rev A - BK20260419" History

 Document created by Niv Ein-Gal (adrianj@initiamedical.com)

2026-05-20 - 10:20:46 AM GMT

 Document emailed to Braah Krayem (braah@initiamedical.com) for signature

2026-05-20 - 10:20:53 AM GMT

 Email viewed by Braah Krayem (braah@initiamedical.com)

2026-05-20 - 10:21:58 AM GMT

 Document e-signed by Braah Krayem (braah@initiamedical.com)

Signature Date: 2026-05-20 - 10:22:29 AM GMT - Time Source: server - Signature Appearance Selected: MOBILE_DRAW

 Document emailed to Jwana Akawe (jwanaa@direxgroup.com) for signature

2026-05-20 - 10:22:32 AM GMT

 Email viewed by Jwana Akawe (jwanaa@direxgroup.com)

2026-05-20 - 10:33:03 AM GMT

 Document e-signed by Jwana Akawe (jwanaa@direxgroup.com)

Signature Date: 2026-05-20 - 11:51:03 AM GMT - Time Source: server - Signature Appearance Selected: TYPE

 Agreement completed.

2026-05-20 - 11:51:03 AM GMT