MORPHEUS8 MORPHEUS8 resurfacing

MORPHEUS8 primeMORPHEUS8 body











M®RPHEUS8

Epidermal Resurfacing & Subdermal Adipose Tissue Remodeling Tips

...AND NOW 1-7MM PENETRATION DEPTH



BENEFITS OF MORPHEUS8

Full-body fractional technology = large volume of tissue is effected

Triple action = subdermal adipose remodelling, epidermal resurfacing and broad-spectrum dermal heating

Superior to all others with the deepest heat profile in market = full thickness contraction

Versatility - Multiple treatment tips = customizable treatments & the most treatment capabilities of any technology

Only hybrid RF fractional micro-needling technology

Upgradeable platform – allows for combination treatments and improved ROI. Investment made is for many years.

MECHANISM OF RF THERAPY



Electrical current conducted by the tissue increases ion collision

Kinetic energy is transformed to thermal energy (heat)

Heat causes controlled damage to skin tissue

The damage triggers natural healing mechanism

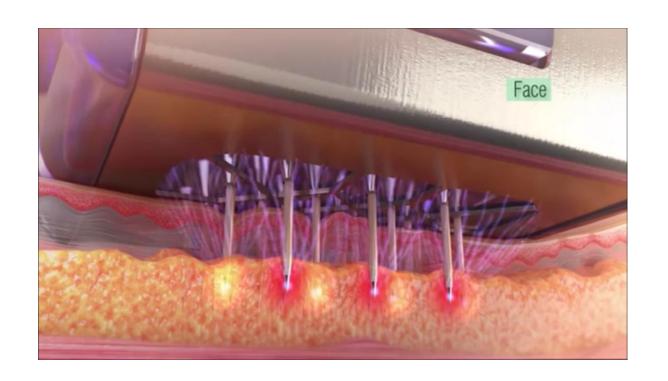
Tissue renewal (collagen, elastin, HA) and regeneration (thicker dermis) resulting in skin tightening

INDICATIONS FOR USE

Morpheus8 is programmable fractional technology delivering RF energy to the subdermal space according to treatment area

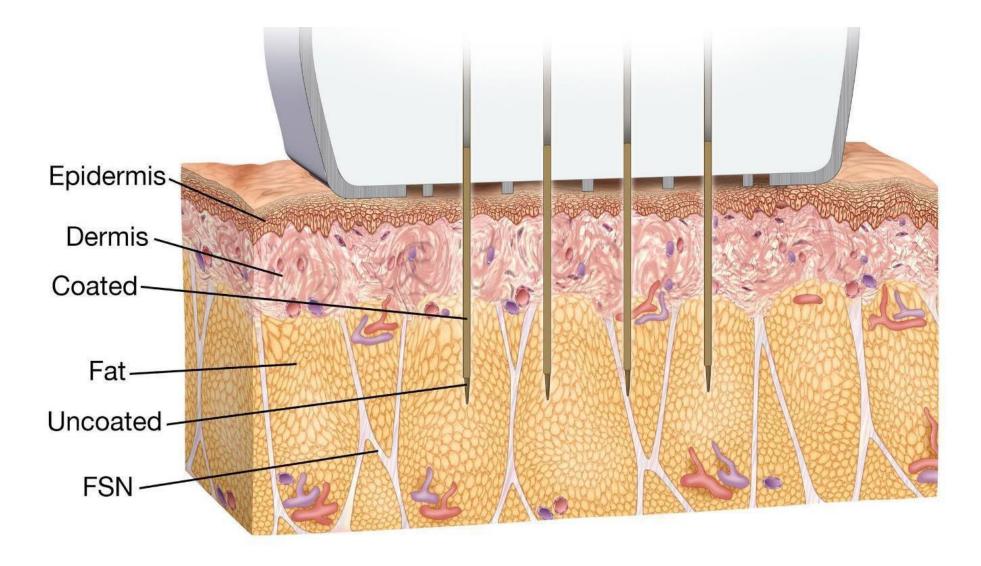
Deepest FDA approved fractional technology:

Applicator is intended for use in Dermatological and General Surgical procedures for Electrocoagulation and Homeostasis

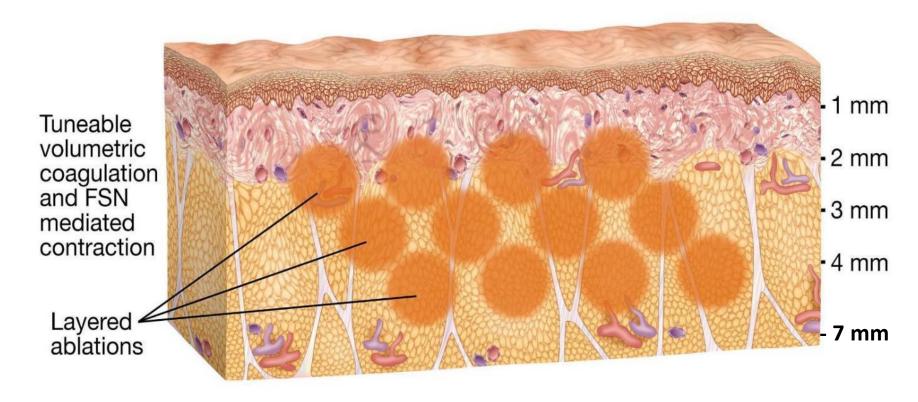




MORPHEUS8



MULTI-LAYER TECHNOLOGY



Vertical and horizontal fractional RF ablation coagulation

NEW TECHNOLOGY FOR SUBDERMAL – MORPHEUS8

- New technology for subdermal adipose remodeling, dermal treatment and epidermal resurfacing:
 - The Morpheus8 is applied externally and is the first and only device to mold the fat subdermally in order to morph aging facial and body features into a more youthful appearance.
 - Safe treatment of ethnic skin with little to no risk of PIH
 - Perfect for face and body

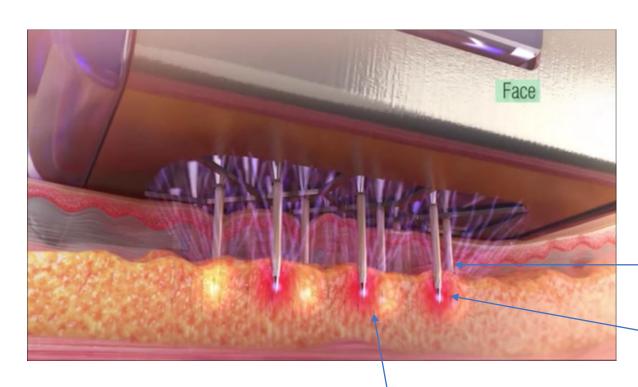


MECHANISM OF ACTION

MORPHEUS8

Bipolar radio frequency energy is delivered into the skin and a pre determined depth to create microscopic injury to the skin. Injury in a controlled manner will induce an inflammatory response 'wound healing'.

Fractional RF takes advantage of the healing power of healthy tissue around the treated zones. Thermal injury induces neo collagenesis.

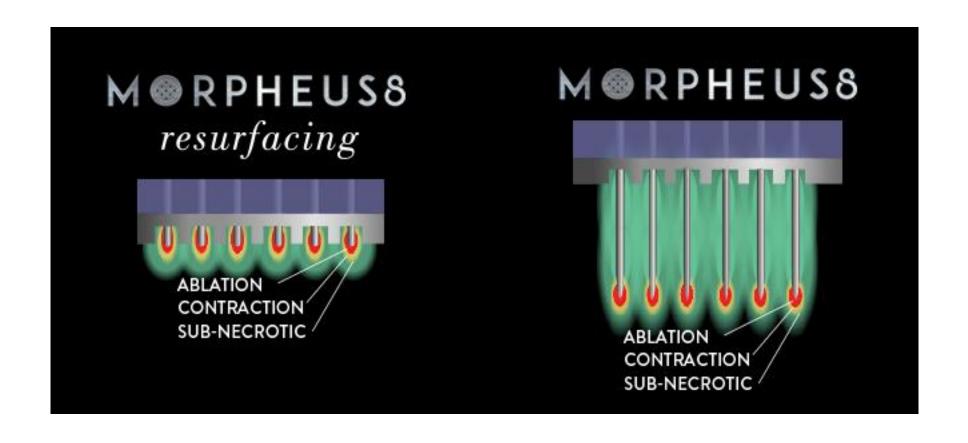


Coated PIN

End of the pin is not coated 0.5mm)

1mm heat profile

COMPARING THE TWO MORPHEUS8 TIPS



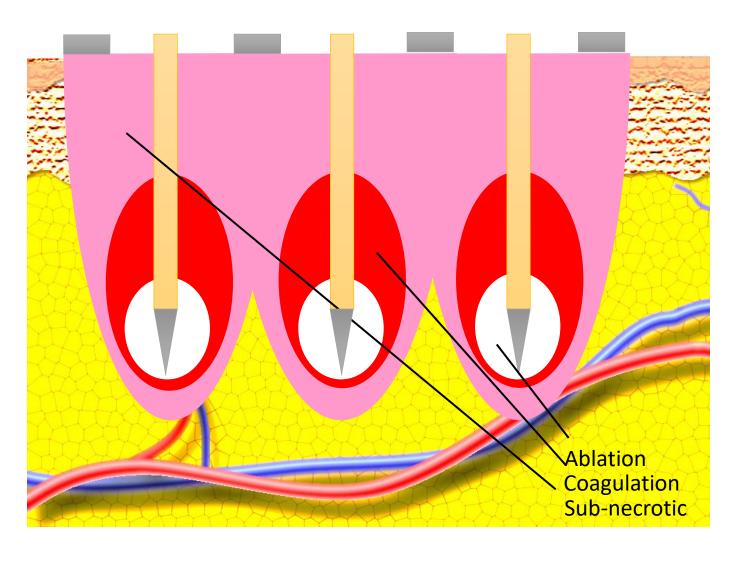
SPECIFICATIONS

- Morpheus8, Prime and Body tips :sharp polymer coated needles
- Return electrode symmetrically surrounds each needle for uniform performance
- Tip diameter is 250um
- Automatic synchronization between penetration of needles and RF energy delivery
- Multiple treatment depths with the same tip:
 - 1mm, 2mm, 3mm, 4mm (up to 7mm for new 40 pin body tip)
- Superficial treatment with additional Resurfacing Tip (fixed pins length)
- Repetition can be set to single pulse mode or autorepeat mode when pulses are delivered automatically with predetermined pulse repetition rate





MORPHEUS8 – Fractional RF - HOW IT WORKS



- Energy is applied between needle and external electrode placed on the skin surface
- Triple effect
 - Ablation
 - Coagulation
 - Bulk heating
- Large volume of tissue is effected
 - Large contraction zone
 - Full thickness sub-necrotic heating

Coagulation zone was calculated as volume where temperature is above 50°C in the end of the RF pulse

THERMAL BIOLOGICAL EFFECTS

What happens at specific temperatures:

•	Heating (Stimulation)	40 - 50°C
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Coagulation (Necrosis) with Collagen Contraction 50 - 80°C

Collagen Denaturation >80°C

• Ablation (Evaporation) >100°C

Generally skin surface temperature will be in the 50's any > 70 degrees Celsius for coagulation.

Temp can be assessed using FLIR camera.

COAGULATION ZONE AROUND THE NEEDLES

Energy level – 5 Coagulation – 750um Area coverage – 4.7% Energy level – 20 Coagulation – 1060um Area coverage – 9.5% Energy level – 40 Coagulation – 1260um Area coverage – 13.4%

Energy level – 60 Coagulation – 1400um Area coverage – 16.4%



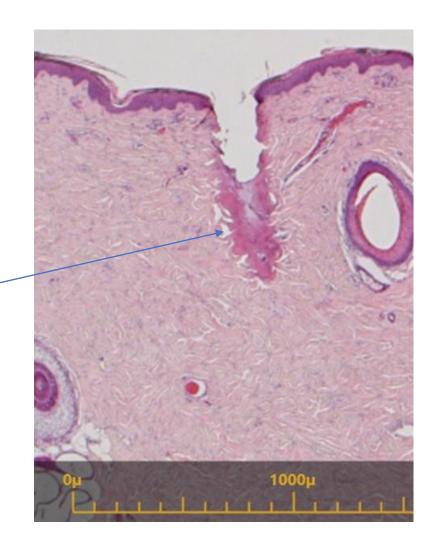




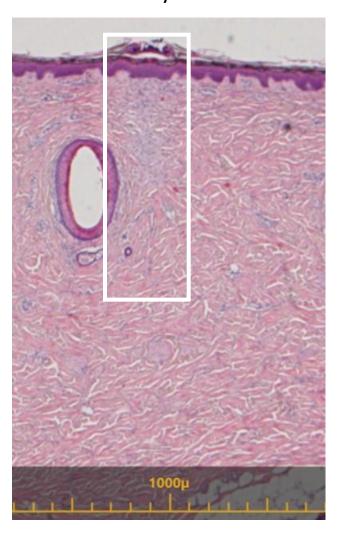


PORCINE SKIN, IN-VIVO TREATMENT

Immediately

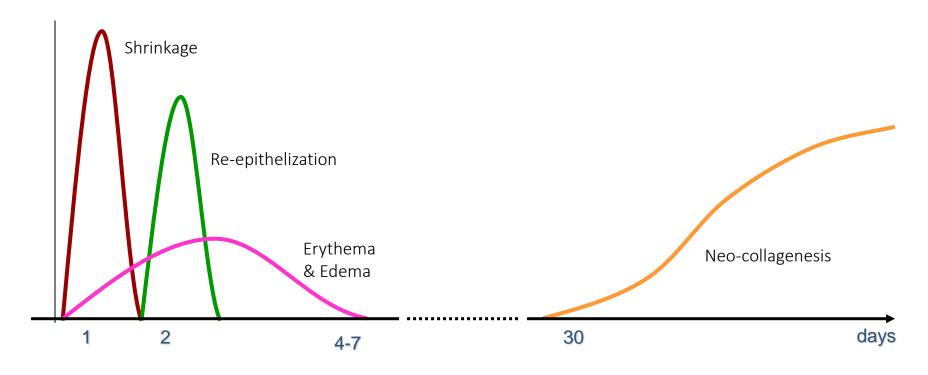


14 days after



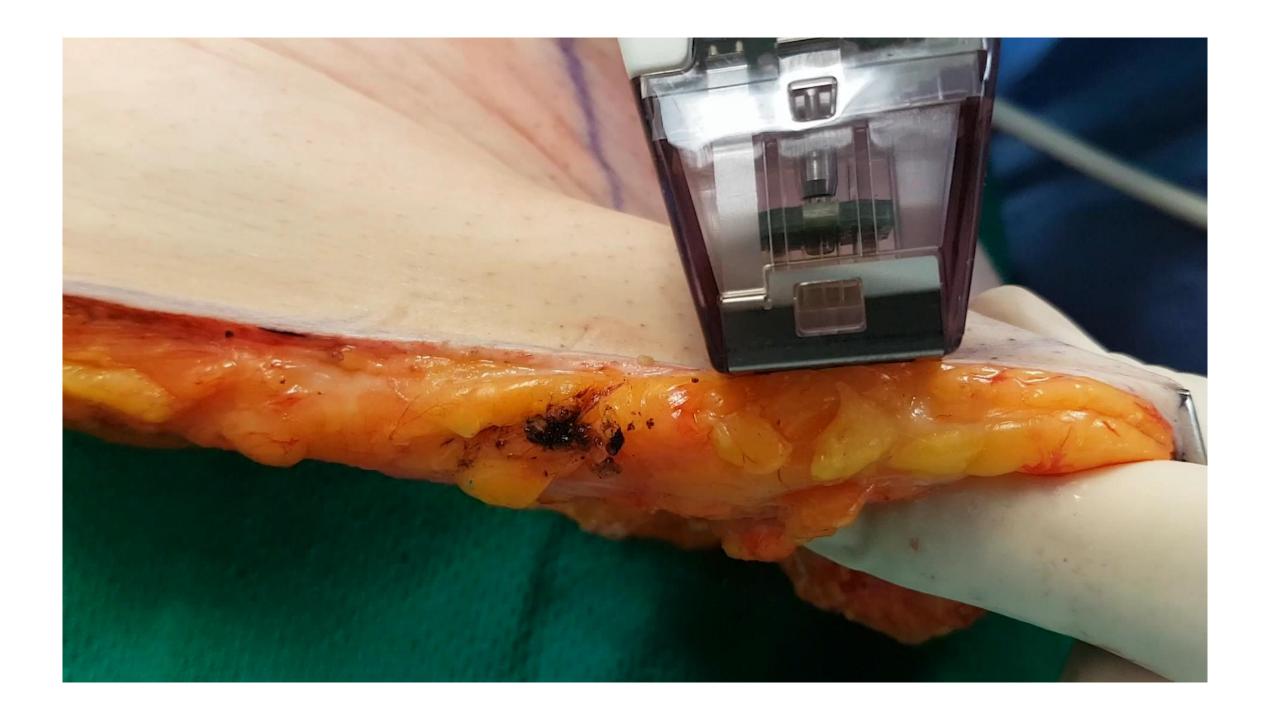
Large coagulation zone in the depth

WOUND HEALING FOLLOWING FRACTIONAL RF ABLATION



Reference: Basil M. Hantash et al."In vivo histological evaluation of a novel ablative fractional resurfacing device" Lasers Surg. Med. 39:96-107, 2007.





MORPHEUS8

- Deep fractional technology
- Penetration into the adipose 4mm (4000 microns)
 - Plus additional 1mm Heat Profile
- Uniform effect
- Little to no thermal damage to epidermis
- Disposable tips
- Supplements RFAL technology







SPECIFICATIONS

SPECIFICATIONS

- Morpheus8, Prime and Body Tips 24, 12 or 40 sharp polymer coated needles (except 0.5mm distal tip)
- Return electrode grid symmetrically surrounds each needle for uniform thermal profile



- Automatic synchronization between penetration of needles and RF energy delivery
- Multiple treatment depths with the same tip
- Morpheus8 T Tip 0.5mm fixed depth Non-coated for resurfacing
- Operation modes:
 - Cycle each pulse, needles are pulled in and out
 - Fixed needles stay protruded and RF pulses are delivered with pre-determined repetition rate in the same site (stacking)

- Tip is GAMMA sterilized.
- Pre-Use Check:
- Check to ensure proper sterilization. The tip must be used in conjunction with proper sterilization procedure to ensure that the tip is visibly clean and dry.
- Inspect all components of the Handpiece for visible damage.

The Morpheus8 tip is single use only!

INTERFACE

- LED BAR on the applicator indicates penetration depth
- Operation Modes:
 - Cycle needles penetrate the skin and retract from the skin with every pulse
 - Fixed needles stay protruded and RF pulses are delivered with predetermined repetition rate



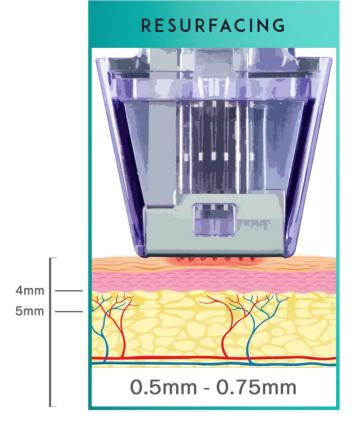


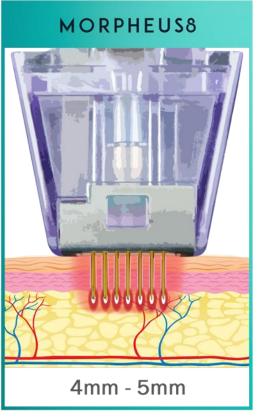
SPECIFICATIONS

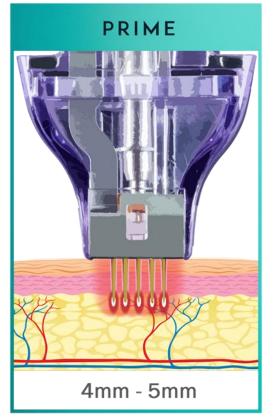
- Penetration into the adipose tissue up to 4mm
- Thermal effect up to 5mm
- Most uniform effect
- Virtually no damage to epidermis (Coated needles)
- Disposable single use tips to prevent cross contamination
- Resurfacing tip: Can be used for the applications related to skin surface coagulation such as texture, tone, pigment, fine lines, acne scars as an addition to Sub-Dermal Adipose Tissue Fractional Remodeling or as a stand-alone treatment.

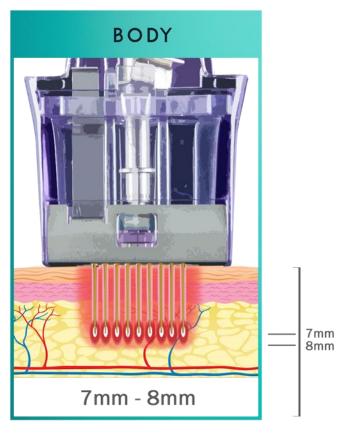


MORPHEUS8 HANDPIECE AND TIPS







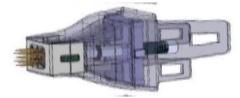


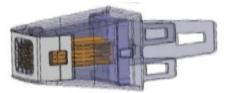
Pin length/+Thermal profile

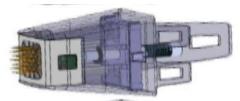
MORPHEUS8 TIPS

Morpheus8 Body (40pin) COMING SOON	Morpheus8 Prime (12-pin) COMING SOON	Morpheus8 Resurfacing (M8R)	Morpheus8 (24-pin)
Length 1,2,3,4,5,6,7mm	Length 1, 2, 3, 4 mm	Length 0.5mm	Length 1, 2, 3, 4 mm
Additional 1 mm Heat Profile	Additional 1 mm Heat Profile	Additional 0.25 mm Heat Profile	Additional 1 mm Heat Profile
Computerised Treatment Depth	Computerised Treatment Depth	Fixed Length	Computerised Treatment Depth
Insulated with 0.5mm Conducted Tip	Insulated with 0.5mm Conducted Tip	0.5mm Conducted Tip	Insulated with 0.5mm Conducted Tip
Data not available yet	1-3 Sessions	3-6 Sessions	1-3 Sessions
Weeks Between Sessions 3-6	Weeks Between Sessions 3-6	Weeks Between Sessions 3-6	Weeks Between Sessions 3-6
Data not available yet	2-5 Days Downtime	1-5 Days Downtime	2-5 Days Downtime
High density with deep tx depth designed for body tx especially cellulite	Small tips specifically designed for subdermal and dermal remodeling of periorbital and perioral areas	Epidermis and dermis fractional resurfacing	Subdermal and dermal remodeling through fractional coagulation and bulk heating











TREATMENT AREAS FOR DIFFERENT TIPS

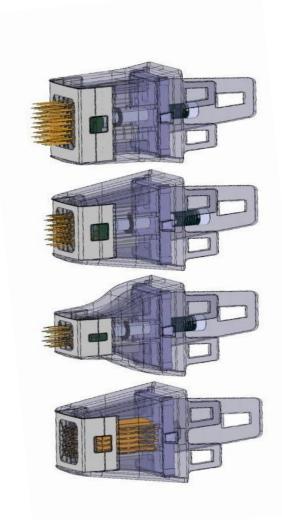
Tip Name	Treatment Depth (mm)	Treatment Areas & Indications
Morpheus8 Prime Tip (12 pin)	1-4	Small and difficult to access facial area e.g. perioral and periorbital with wrinkles and/or lax skin, scar revision
Morpheus8 T Tip (24 pins)	0.5	Superficial treatment for resurfacing – fine lines, PI acne scarring, open pores , sun damaged skin
Morpheus8 Tip (24 pin)	1-4	Soft and bony face and neck areas for wrinkles, active acne, atrophic acne scars, macropores and lax skin. Stretch marks and cellulite on smaller areas
Morpheus8 Body Tip (40 pin)	2-7	Soft and bony body areas for lax skin, stretch marks and cellulite

SUGGESTED TREATMENT PARAMETERS FOR ALL TIPS

Treatment Areas	Penetration Depth	RF Energy Level	Treatment Mode Cycle/Fixed	Number of Sessions	Weeks between Sessions	Downtime Days
Facial Bony Areas, e.g. Periorbital, Forehead, Chin	0.5-2mm	15-30	Cycle	1-3	3-6	2-5
Facial Soft Tissue, Neck, perioral	2-3mm	20-40	Cycle/Fixed	1-3	3-6	2-5
Body Areas						
e.g. Buttocks, Abdomen	4-7mm	30-50	Cycle/Fixed	1-3	3-6	2-5
e.g. Decollate, Hand dorsum	2-3mm	20-40	Cycle			

MORPHEU8 TIPS

Tip Name	Pins	Depth	Energy	Cycle	Fixed	Burst
	number	mm	Levels	Mode	Mode	Mode
Morpheus8 Body	40	2, 3, 4, 5, 6, 7	5-60	Yes	Yes	Yes
Morpheus8	24	1, 2, 3, 4	5-60 (1mm-5- 30)	Yes	Yes	no
Morpheus8 Prime	12	1, 2, 3, 4	5-60 (1mm-5- 30)	Yes	Yes	no
Morpheus8 T (Resurfacing)	24	0.5 Fixed	5-30	Manual	Manual	no



TREATMENT PROCEDURE

PRE-TREATMENT

- Proper Patient Selection, analysis of skin, establish expectations
- Cease any potential contraindicated medications
- The patient should arrive with clean skin, i.e., no lotions, creams, make-up, etc.
- Treatment area(s) should be washed with an antibacterial soap
- Topical and/or Local Anesthetics should be ordered by a physician and applied by properly trained personnel.
 - Always exercise caution applying and removing numbing cream around the eyes so as not to accidentally expose anesthesia to eyes.

PRE-TREATMENT

- Prior to the treatment inspect the tips for any damage.
- Anti HSV viral prophylaxis is recommended for patients with history of Herpes Simplex when treating the perioral area.
- Remove numbing cream from treatment area clean and degrease skin with cleanser and 70% rubbing alcohol.
- Apply a few test spots and wait 10-15min for light skin and longer for dark skin. If the spot pattern is uneven, remove the tip and apply a new tip.

CONTRAINDICATIONS

- Pacemaker or internal defibrillator, or other metallic or electronic implant anywhere in the body.
- Permanent implant in the treated area such as metal plates, screws and metal piercing or silicon.
- Intra-dermal or superficial sub-dermal areas injected with Botox®/HA/collagen/fat injections or other augmentation methods with bio-material, before the product has been dissipated (up to 6 months), except Botox after binding to the facial muscles (3-7 days).
- Current or history of skin cancer, or any other type of cancer, or pre-malignant moles.
- Pregnancy and nursing.
- Severe concurrent conditions, such as cardiac disorders or sensory disturbances.
- Impaired immune system due to immunosuppressive diseases such as AIDS and HIV, or use of immunosuppressive medications.
- Patients with history of diseases stimulated by heat, such as recurrent Herpes Simplex in the treatment area, may be treated only following a prophylactic regime.
- Poorly controlled endocrine disorders, such as diabetes or thyroid dysfunction and hormonal virilization.
- Any active skin condition in the treatment area, such as sores, psoriasis, eczema, and rash.
- History of skin disorders, keloids, abnormal wound healing, as well as very dry and fragile skin.

CONTRAINDICATIONS

- History of bleeding coagulopathies or use of anticoagulants in the last 10 days
- Any treatment area surgery performed within a year prior to treatment.
- Facial dermabrasion, facial resurfacing, or deep chemical peeling within the last three months, if face is treated.
- Having received treatment with light, laser, RF, or other devices in the treated area within 2-3 weeks for non-ablative procedures, and 6-12 weeks for ablative fractional laser resurfacing (according to treatment severity) prior to treatment, except special recommendations.
- Use of Isotretinoin (Accutane®) within 6 months prior to treatment.
- Use of non-steroidal anti-inflammatory drugs (NSAIDS, e.g., ibuprofen-containing agents) one week before and after each treatment session, as per the practitioner's discretion.
- Treating over tattoo or permanent makeup to be kept, treating over the lips.
- Skin type VI and dark VI patients treat with caution.
- Treating over hair bearing surfaces.
- Irritable skin like excessively tanned skin from sun, tanning beds or tanning creams and sprays within the last two weeks.
- As per the practitioner's discretion, refrain from treating any condition that might make it unsafe for the patient.

METHOD OF ANESTHESIA

- Topical anesthetic for 45-60 min limited to energy as tolerated by the patient, depending on the percent of numbing ingredients and patient sensitivity.
- Some patients require nerve block or local anesthesia for higher energy.
- Tumescent or IV sedation is usually applied when doing higher energy levels.

SELECTING TREATMENT PARAMETERS

- Treatment may be applied to all skin types.
- The deeper the treatment the higher RF energy can be applied.
- Reduce ~20% energy when working on thin skin like neck, or on bony area like forehead or jawline.
- Further ~20% reduction on thin skin over bone, like upper chest and back of hands.
- Use **1-2 mm** and **Cycle Mode** settings ONLY on bony areas such as: Forehead, Periorbital, etc.

SELECTING TREATMENT PARAMETERS

- When treating dark skin restrict energy, starting at energy level 8 or lower, and avoid treating or treat with over caution over bone and curved areas, preferably following bleaching regimen.
- Safety Use lower energy for thin skin, darker skin and bony areas. Start with lower settings for patient's first treatment.
- Types of lesions Higher energy for deeper lesions such as acne scars and deep wrinkles.
- Higher settings may be used if the user is experienced and is determined and ordered by the physician.

TIPS STERILIZATION AND CLEANING

- Tip arrives GAMMA sterilized
- Pre-Use Check:
 - Check package integrity
 - Inspect all components of the tip for visible damage parallel pins
 - Clean pins through alcohol swabs every ~200 penetrations
 - Discard tips every 1500-2000 penetrations

The Morpheus8 tip is single use only!

POST-TREATMENT

- Cooling the treated skin is recommended after the treatment to relieve discomfort
- Apply healing ointment or antibiotic & cortisone cream immediately post treatment for 1-3 days
- As soon as the needle craters close (1-3 days), apply moisturizer, sun-screen, and make-up



ONE MORPHEUS8 FACIAL TREATMENT WITH MORPHEUS8 TIP



Before

After 1 month

Energy level: 50

Face: 3mm & 2mm

Neck: 4mm, 3mm & 2mm

~50% overlapping, >600 pulses total

Courtesy of Dr. F. Roth, USA



ACTIVE ACNE TREATMENT WITH MORPHEUS8 24 PIN TIP



ACTIVE ACNE & ACNE SCARS SIMULTANEOUS MORPHEUS8

TREATMENT



Morpheus8 tip 3mm, energy 40, 3 stacks 2 passes



ONE MORPHEUS8 KNEE TREATMENT



Before



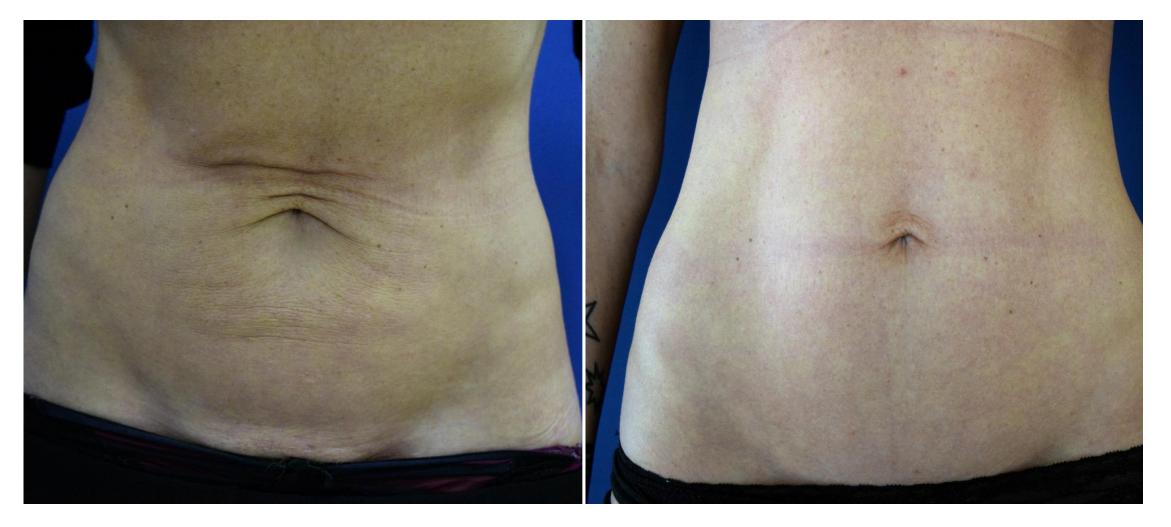
2 Months after treatment

35 energy levels at 4, 3 and 2mm depths, one pass at each depth

Courtesy of Dr. Duncan, Co, USA



ONE MORPHEUS8 4MM TREATMENT



Morpheus 8 tip 4mm

ONE MORPHEUS8 CELLULITE TREATMENT





6mm Body 40 Pin Tip

After 3 weeks

3 passes with 6mm Tip followed by 3 passes with 3mm Tip at 45 energy levels



