

Sub-Dermal Adipose Tissue Fractional Remodeling

Morpheus8 is a fractional device with programmable penetration depth and energy delivery. The coated 24 needles penetrate into the sub-dermal tissue, coagulating the fat and contracting connective tissue. Simultaneously, directional RF energy generates bulk sub-necrotic heat in the dermis.

Typical Treatment Parameters

Treatment depth setting should correlate with the indication and treatment area to ensure proper sub-dermal tissue remodeling. For example, in the periorbital area in which dermal thickness is less than 1mm, treat with a 2mm depth, while for body the dermal thickness can be up to 3mm and this area should be treated with a 4mm depth penetration.

Treatment Parameters

- **Depth** – automatically set for the treatment area
- **RF Energy** – is varied from 5 to 62
- **Cycle Mode** - needles penetrate the skin and retract from the skin with every pulse
- **Fixed Mode** - needles are inserted into the skin and energy is delivered when the footswitch is activated. The needles retract from the skin and energy stops once the footswitch is released. It can be used for stacking of pulses when required.
- **Repetition** – can be set to single pulse mode or autorepeat mode when pulses are delivered automatically with predetermined pulse repetition rate:
 - In Cycle Mode – Single, 0.5 and 1pps.
 - In Fixed Mode – 0.5, 1.0 and 1.5pps. No Single pulse.

Depth	Treatment Areas	Depth of Penetration mm	RF Energy Level	Treatment Mode Cycle/Fixed	Number of Sessions	Weeks between Sessions	Downtime Days
Periorbital	Bony Areas, Periorbital, Forehead, Chin	2	15-30	Cycle	1-3	3-6	2-5
Face	Soft Tissue, Neck	3	20-40	Cycle/Fixed	1-3	3-6	2-5
Body	Body Areas	4	25-40	Cycle/Fixed	1-3	3-6	2-5

- 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 **Periorbital Depth** and **Cycle Mode** settings ONLY on bony areas such as: Forehead, Periorbital, Jawline, etc. Do not stack pulses.
- When treating dark skin restrict energy, starting at energy level 15 or lower, adding 5 levels each visit to a maximum of energy level 40 on soft tissue, and energy level 25 over bone, preferably following bleaching regimen.
- Energy Setting Considerations
 - Safety - Use lower energy for thin skin, darker skin, labia minora/majora 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.

- 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.

Pre-Treatment

- Prior to the treatment inspect the tips for any damage.
- Start with a low energy and adjust settings according to skin response.
- Anti HSV viral prophylaxis is recommended for patients with history of Herpes Simplex.
- Remove numbing cream from treatment area – clean and degrease skin with cleanser and 70% rubbing alcohol.
- Always exercise caution applying and removing numbing cream around the eyes so as not to accidentally expose anesthesia to eyes.
- Using complete contact and firm pressure, 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.

Treatment Procedure

- Apply the hand piece perpendicular to the treated area, with complete contact and firm pressure.
- Press footswitch to deliver RF energy – In Cycle Mode: Single press for each pulse for sensitive and small areas like periorbital areas, or continuous press while moving the tip from site to site according to predetermined pulse repetition rate. Use Fixed Mode for stacking.
- When performing treatment, move the hand piece to the adjacent area with overlap of approximately 30-50%.
- 1-2 additional pulses may be triggered at the same site (Stacking) in Fixed Mode. However, DO NOT stack pulses on bony areas such as Forehead, Periorbital, Jawline, etc.
- If gaps are visible after the full area treatment, they may be re-treated immediately.
- Occasionally, an additional 1-2 passes are necessary to optimize results. Wait until the full area is treated before attempting a second pass, allowing for a delayed response. An additional pass may be applied in a different direction to the first pass, to ensure complete area coverage.
- The endpoints are minimal to substantial erythema and edema often accompanied by tingling heat sensation. Minor pin-point bleeding can be observed.
- Clean the tip frequently to remove skin and blood debris. Cleaning the tip will improve coupling and reduce the risk of arcing of RF energy.

Post-treatment

- Cooling the skin can reduce discomfort and excessive skin response.
- Apply healing ointment or antibiotic ointment, immediately post treatment for 1-3 days.
- As soon as the needle holes close (1-3 days), apply moisturizer, sun-screen, and make-up.

Tips

- Use firm pressure to ensure good contact and coupling of the tip.
- Do not slide tip over the treatment area to avoid skin scratching. Make sure to lift and place the tip for complete placement and apply pressure before pulsing.
- Cooling the treated skin is recommended after the treatment to relieve discomfort.
- During treatment, air cooling can be used to increase comfort. If other means of cooling are used, use clean technique and make sure skin remains completely dry to prevent arcing and to facilitate maximum coupling.
- Avoid treating over superficial injected areas with natural fillers or very recent Botox injection.