

## **PIXEL ERBIUM:YAG LASER STANDARD OPERATING PROCEDURE**

**PURPOSE:** To provide safe and proper protocol using a fractional ablative laser device to smooth and soften skin texture and improve over-all tone on the face, neck, chest, hands, and body scars.

**EXPECTED NUMBER OF TREATMENTS AND HOW OFTEN:**

- Generally 3 for aggressive and 5 for conservative, 4 weeks apart
- Scar tissue may need 5-7 treatments

**SUGGESTED SETTINGS:**

- **Pulse width:** Short (1 ms), Medium (1.5ms), and Long (2ms)
- **Short pulse width:** Use on small skin structures such as lentigenes & skin tags, and when you do not want to deliver much heat.
- **Long pulse width:** Creates a **greater thermal effect.**
- **Fluence:** Conservative 600-800mj, moderate 900-1000mj, aggressive 1400mj.
- **Number of passes:** Conservative 1, moderate 2, aggressive 3.
- Pulse width controls heat, the longer the pulse width, the greater the heat.
- Number of passes controls ablation.
- Stacking controls the dept of penetration.
- First treatment, start conservative, 800-900mj for two passes, especially with Asian and Hispanic skin.
- 7x7 tip (49 holes):
  - ❖ Is more aggressive than the 9x9 tip.
  - ❖ First treatment, consider using the 7x7 tip at 800J for the first pass and the 9x9 tip at 900-1000J for the second pass.
  - ❖ The 7x7 tip at 1400mj/2 ms is very aggressive; consider using it on thick sebaceous skin. Decrease the energy to 1000-1200mj on the second pass if client is too uncomfortable.
- 9x9 tip (81 holes):
  - ❖ Delivers less energy and less penetration than the 7x7 tip
  - ❖ Used if a client wants little redness
  - ❖ Used if a client has nice texture, but needs “buffing”
  - ❖ Used if your goal is good exfoliation without going too deep
  - ❖ Used when treating thin skin such as around the eyes, neck, and chest.
- Stacking (2-3+ pulses in the same place) is acceptable over problem areas and scars.
- A single pass can ablate 50 microns plus 75 microns of thermal injury zone.
- Triple stacking can ablate up to 150 microns plus 75 microns of thermal injury zone.

**EXCLUSIONARY CONDITIONS:**

- Bacterial or viral infection.
- Impaired immune system and poor healing.

- Accutane within the past 12 months.
- Scleroderma, Vitiligo, Melanoma, Irregular Pigmentation, and Psoriasis.
- Extensive radiation therapy.
- Burns in the treatment area.
- Skin type VI.
- Must wait 2 weeks following injection with Botox and fillers.
- Do not use the Pixel over areas with Silicone injections.
- Never microderm prior to Pixel with a machine that uses **crystals**; Pixel will drive crystals deep into the skin.
- Melasma is hormonal, it may get better or it may get worse following the Pixel.
- Pixel may be too stimulating for rosacea.
- Acne should be under control prior to Pixel treatments.

#### PRE-PIXEL TREATMENT:

- Rule out exclusions, verify that consent is signed and client has no questions.
- Antivirals may be necessary for clients with a history of cold sores.
- Verify client has avoided unprotected sun exposure.
- Encourage client to drink plenty of fluids to hydrate, this provides a richer target.
- 6 weeks of gentle exfoliation and Retin-A is suggested to clean up stratum corneum.
- HQ for skin types III-V may help decrease the risk of hyperpigmentation.
- Gentle, crystal-less microdermabrasion prior to Pixel is acceptable, treatment will be more aggressive, recommend the DermaSweep HA infusion to increase hydration.
- Skin must be clean and dry.
- A smoke evacuator must be used for laser plume.
- Insert laser hand-piece and turn device on per manufacturer's recommendations.

#### PIXEL PROTOCOL:

- Appropriate safety eyewear for everyone in the NHZ (OD 6+ at 2940 nm).
- Do not laser within the bony orbit of eye without intraocular shields
- NO GEL.
- Choose appropriate tip, 7x7 or 9x9, and settings based on the results and the amount of recovery time the client wants, especially with the first treatment. Gradually increase energy with subsequent treatments.
- Keep smoke evacuator 1 inch from site to be effective.
- Recommend doing one pass or stacking over problem areas such as wrinkles, scars, and areas of congestion first.
- Glide hand-piece over clean, dry skin, first in one direction, then in another direction firing continuously to conserve pulses when possible.
- Overlap approximately 50% and be consistent when using a non-stationary method.
- Maintain contact with skin or client will feel much heat, but **do not apply pressure**.
- It is easier to pull Pixel tip toward you during the treatment.
- If excessive reddening and swelling occur reduce fluence.

#### TREATING SCAR TISSUE WITH THE PIXEL:

- For skin type I-III, perform up to 6 passes with stacking based on thickness of scar.
- For skin type IV perform up to 3 passes with stacking based on thickness of scar.
- **Stop treatment if there is any sign of pinpoint bleeding, which is too aggressive.**
- Once scar tissue is smooth and more flat, begin treatments with the 540 & 570 hand-pieces to pull up browns and reds. ST can be used to tighten.

#### POST-PIXEL TREATMENT:

- Client will feel irritation and heat following treatment.
- Most products will sting if applied immediately post-treatment, wait.
- Gently apply a non-irritating, calming product onto the skin.
- Apply sunscreen to treated areas that will be exposed to UV rays.
- If applicable, apply a protective, non-stick dressing to protect area from friction.
- Provide home care instructions.
- Clean laser tips with appropriate disinfectant.
- Schedule next appointment as appropriate, follow-up call in 24 hours, and chart.

#### PIXELS HOME CARE INSTRUCTIONS:

- First 24 hours, reapply dressings as needed to protect your skin from friction.
- Do not cleanse area until the next day; do reapply hydrating balm at bedtime.
- We recommend that you sleep on your back if your face and/or chest were treated.
- First 3-24 hours and up to 2 days, you will have a sunburn sensation and erythema (redness).
- Through day 5, expect edema especially following an aggressive treatment and/or if your skin is well hydrated.
- On days 1-3 and up to 7, use only a gentle cleanser followed with:
  - PM, apply a rich, hydrating balm (Pixel is very dehydrating)
  - AM, apply balm until day 3-4
  - AM, days 3-7, apply moisturizer with antioxidant, anti-inflammatory, calming and healing properties.
  - Always follow with an SPF (a physical block while healing is recommended).
- After day 3-4, you may apply a pure mineral make-up only.
- On days 3-5, expect your skin to show a brown Pixel pattern, skin will feel grainy with minor flaking.
- Pixel spots will exfoliate; they are less obvious if your skin is well hydrated.
- On days 5-7 the face will flake and heal, other body parts take longer. A gentle microdermabrasion or microscrub is fine if you are bothered by the rough skin texture.
- On day 6-7 perform a spot test prior to resuming your normal skin care products.