

halo®

HYBRID FRACTIONAL LASER

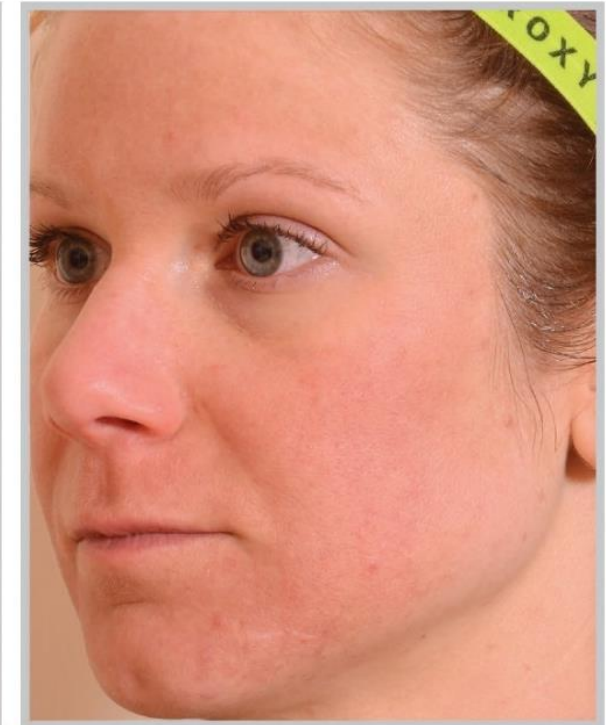


Why HALO?

HALO is the world's only HFL that delivers a non-ablative and ablative wavelength to the same microscopic treatment zone.

Offer a ***Skin Quality*** treatment that:

- Enables ablative laser like results with non-ablative downtime
- Treats UV damage, appearance of fine lines & wrinkles, textural issues, pores, dyschromia, dull skin tone
- Achieves radiant, glowing skin
- Delivers consistent results
- Very high ROI
- Great for off-face treatments as well



FDA CLEARANCES

HALO Approved Applications

- Wrinkles
 - Scar Revision (including acne scars)
 - Skin Resurfacing
 - Signs of Aging
- Sun Damage
 - The appearance of enlarged pores
 - Discoloration
 - Dyschromia's
 - Pigmented Lesions

Common Skin Conditions



Deep
Pigment/UV
Damage

Courtesy of Sanctuary Medical Center

Melasma



BEFORE

Courtesy of Rebecca Gelber, MD

AFTER

POST 1 TX

Skin Resurfacing



Photos Courtesy of AesthetiCare

Visible Pores



Photos Courtesy of AesthetiCare

60% Reduction of Pore Count

feature count	2790	1153
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Photos Courtesy of AesthetiCare

Treat on Darker Skin Types

Fitzpatrick Skin Types IV, V & VI



Photos Courtesy of Chris Robb, MD, PhD

Body Treatments

BBL

560: 8/15 x 2

515: 10/12 x 2 lg

515: 12/10 x 2-3 small
circle spots

HALO

1470: 350/20

2940: 40/19



Courtesy of Thomas Griffin, Jr. M.D.

Body Treatments

HALO

1470-350/20%

2940-60/19%

1 Treatment

B&A are 10 weeks apart



Courtesy of Erin Blackwell, glowpro.e

Body Treatments

HALO Chest

1470-300/15%

2940-50/15%

BBL 3 weeks post

560-10/10/15 2 passes

560-15/15/20 1 pass

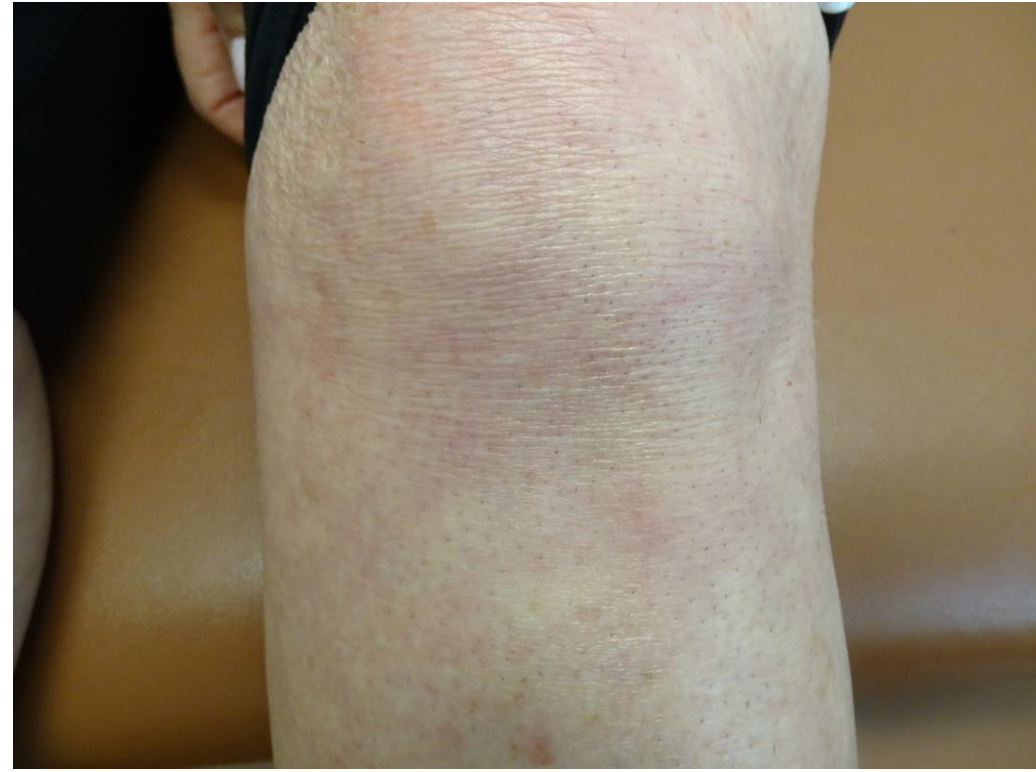
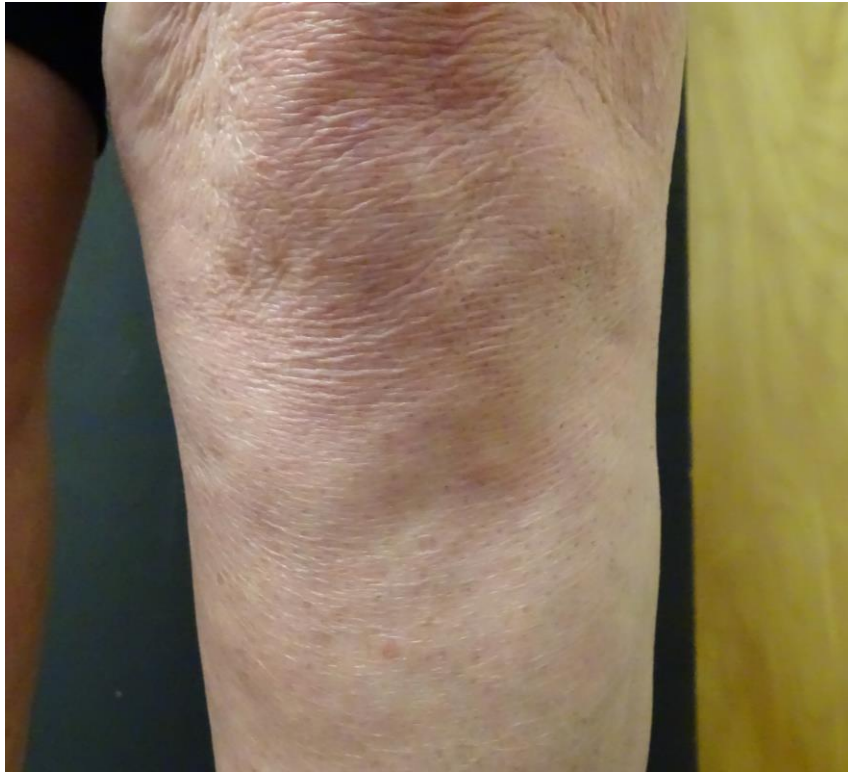
590-10/200/20 3 passes



Courtesy of Erin Blackwell, glowpro.e

Body Treatments

HALO Legs: 1470 400/20%, 2940 60/19%



Courtesy of Thomas Griffin, Jr. M.D.

Body Treatments

HALO Hands

1470-350/20%

2940-60/19%

BBL 3 weeks post

515-12/10/20 1 pass

515- small square over remaining large spots

12/5/25 1 pass

560-10/10/15 1 pass

590-10/200/20 3 passes



Courtesy of Thomas Griffin, Jr. M.D.

The Treatment “Possibility” Matrix



What can we treat?

- Texture
- Wrinkles
- Acne Scarring
- Surgical Scars
- Dyschromias
- Pore Size



What do patients want?

- Minimal Downtime
- Fewer Treatments
- No Pain
- Reliability
- Affordability



What do we want?

- Effectiveness
- Easy-to-do
- Can be Delegated
- Low Purchase Cost
- Low Consumable Cost
- Wide Patient Appeal



HALO Hybrid Fractional Laser (HFL) Science and Technology

Timeline of Laser Resurfacing

*CO2 Laser
Full Field*

Fraxel

*Fractional +
Full Field*

1995

1998

2004

2006

2008

2009

*Erbium
Full Field*

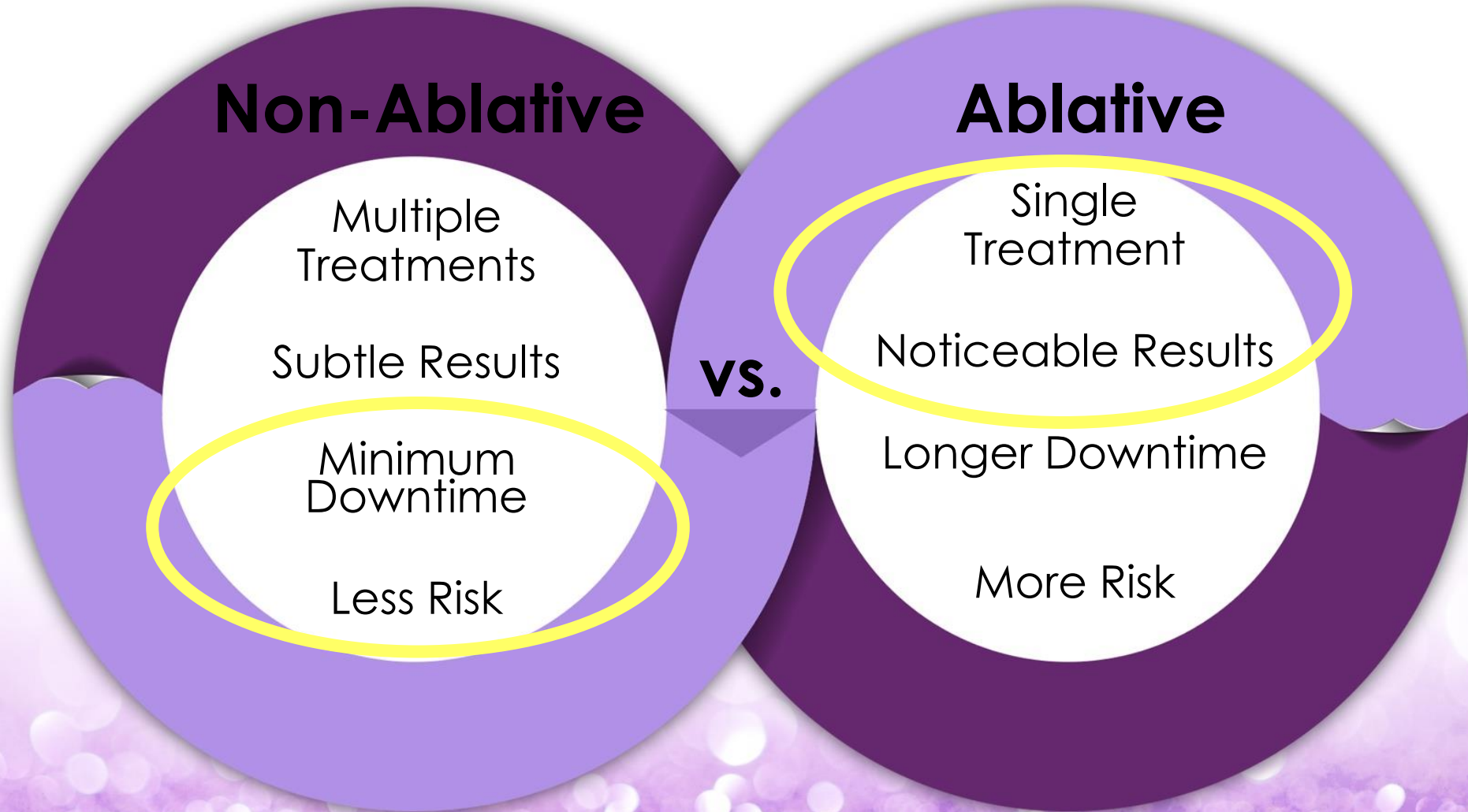
*Fractional
Ablative*

Thulium

halo™

*2014
Hybrid
Fractional
Laser*

The BEST of BOTH Worlds!



Tunable Control = The Best of Both Worlds



Hybrid Wavelength Characteristics

1470nm wavelength is for non-ablative coagulation

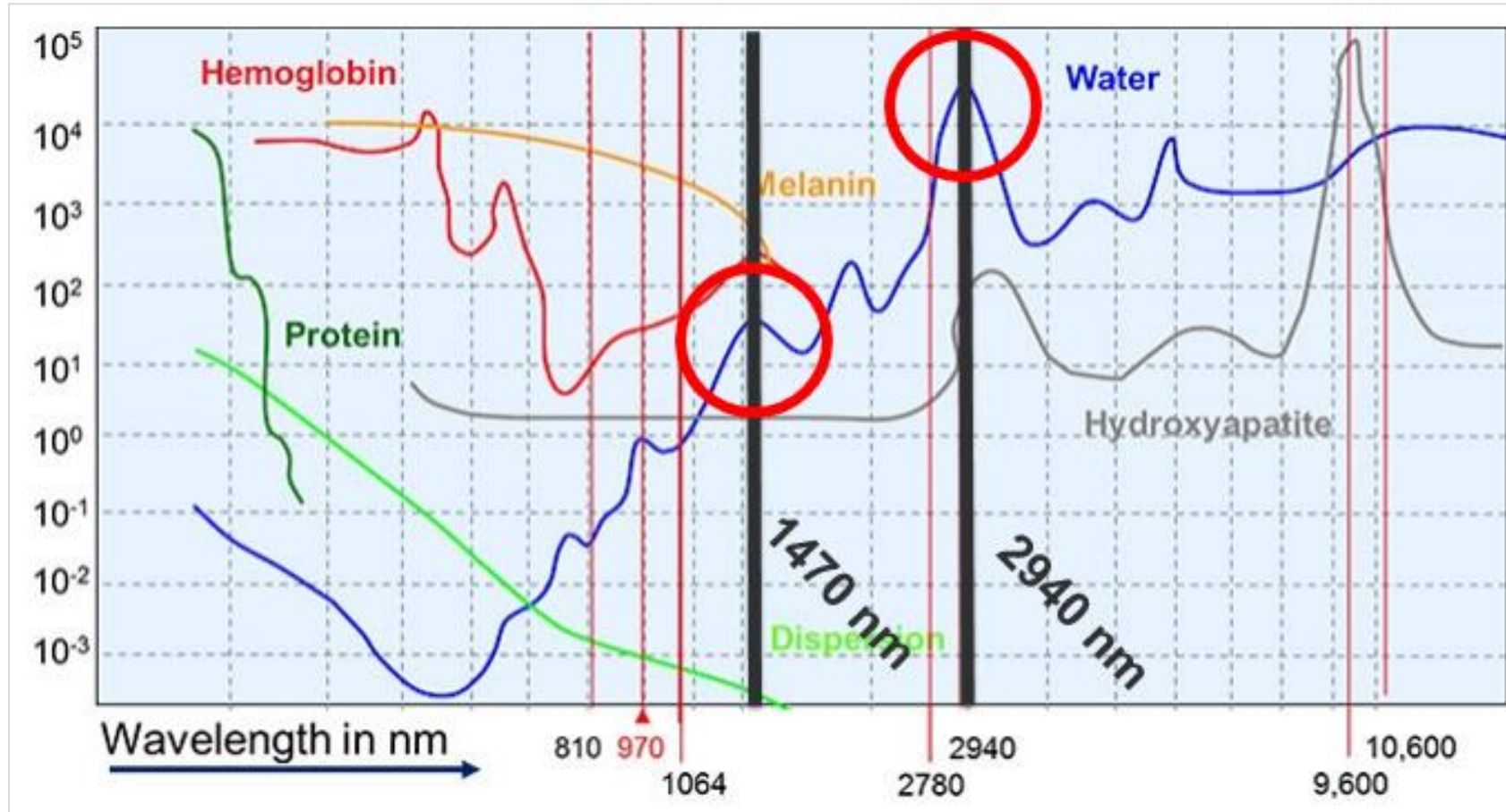
- Ideal for non-ablation of soft tissue and creating controlled zones of coagulation to chosen depths into the dermis.
- **Tunable between 200 – 700** microns to optimally target epidermal and dermal pigmented lesions.
- Treatment with the 1470 nm laser alone produces non-ablative channels and can be delegated to support staff

2940nm wavelength is for epidermal ablation

- Erbium's high absorption in water results in precision ablation as desired in the epidermis.
- **Tunable from 20 – 100 microns** to target intraepidermal tissue.
- Decreases downtime due to faster exfoliation of MENDS
- Can wear makeup 24 hours after procedure

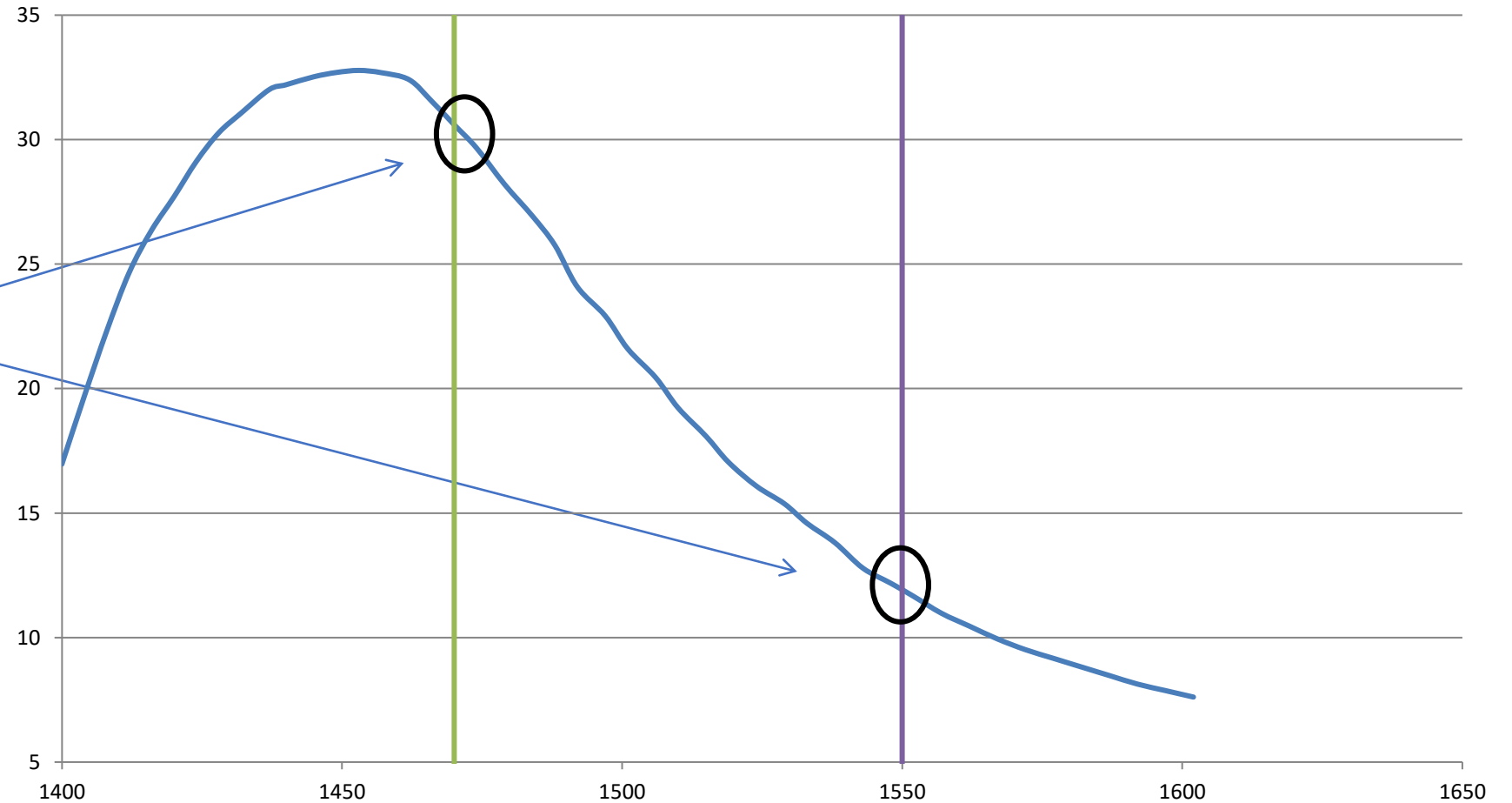
HFL Absorption

Both 1470 nm & 2940 nm wavelengths are strongly absorbed in water



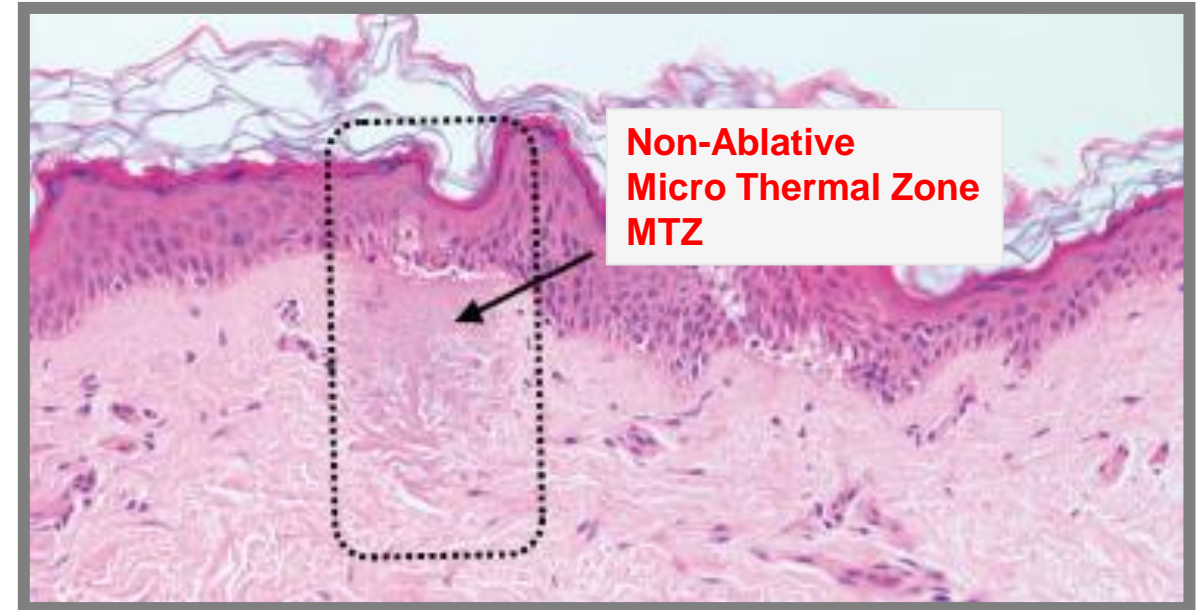
1400-1600nm Absorption Curve

- 1470nm is absorbed 3X more than 1550nm
- 1470nm only goes about 700 microns
- Less penetration means less discomfort



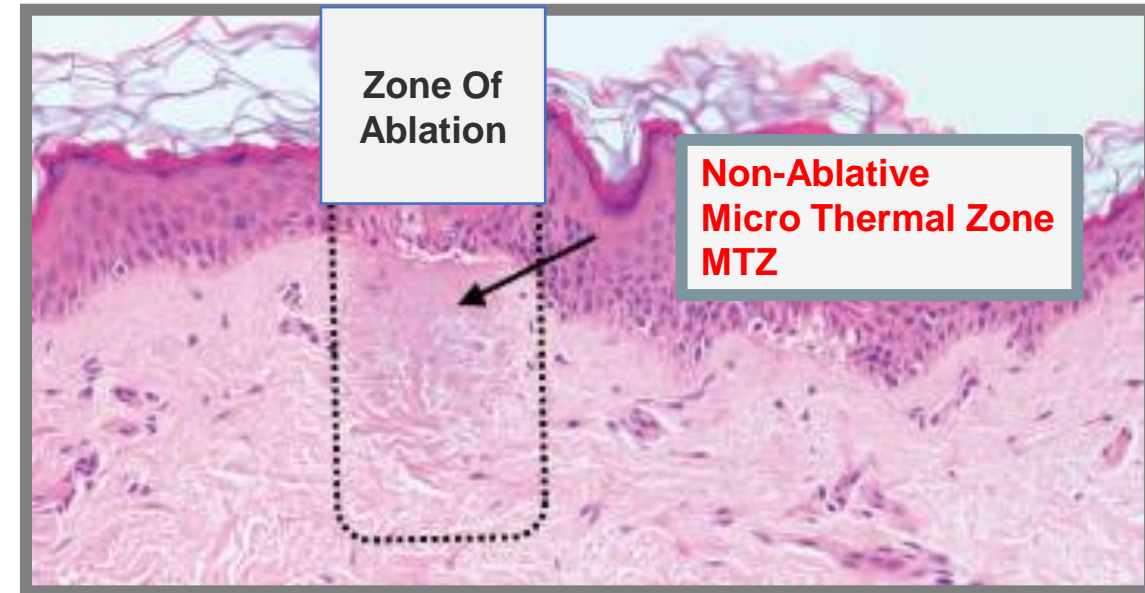
1470nm - Non-Ablative Fractional Laser

- **1470nm ONLY** – Non-Ablative HALO
- Non-Ablative only – Skin Types I – V
- Coagulates tissue, does not remove it
- Creates Micro Thermal Zones -MTZ
- Less invasive, can wear makeup immediately



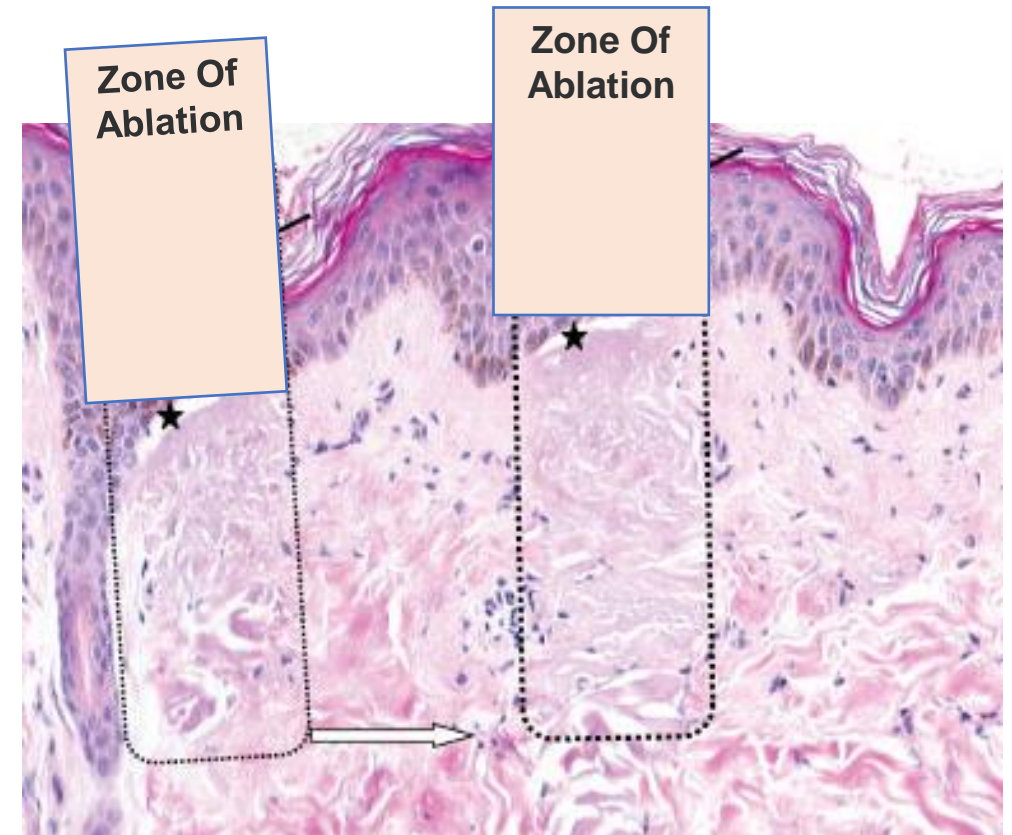
Ablative Fractional Laser – Adding Erbium

- Combined 2940nm & 1470nm = HALO Pro
- Safe for ALL skin types I – VI
- The addition of 2940nm allows for ablation between 20 and 100 microns
- Removes a portion of the epidermis & speeds up the recovery process!

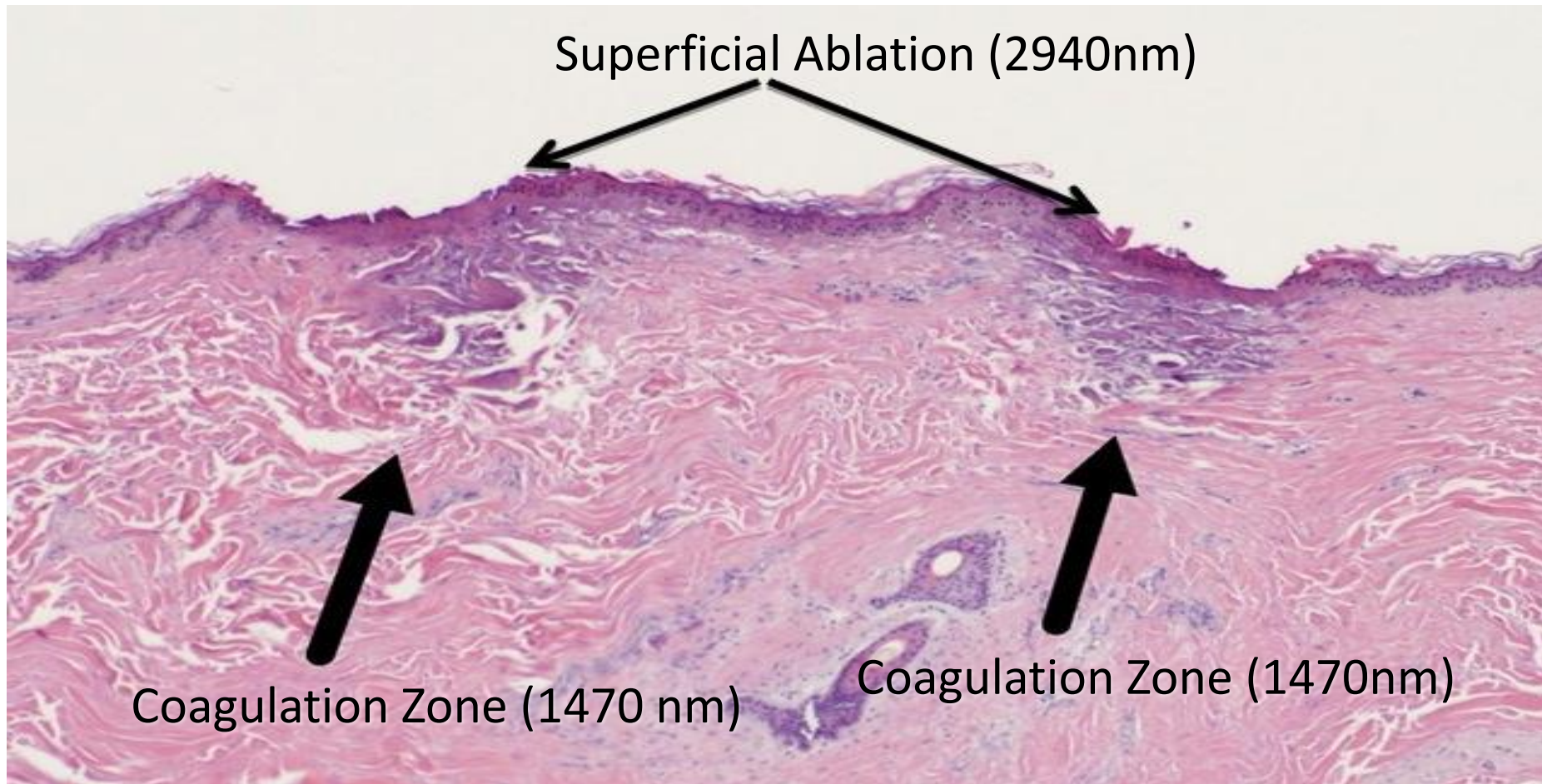


Ablative Fractional Laser – Adding Erbium

- The addition of the 2940nm ablative “openings” allows the MENDs that form to be sloughed from the skin sooner than with non-ablative alone.
- Generally all MENDs are sloughed by the 4 – 5 day mark for facial treatments.



HALO Histology



Research Supports a Hybrid Treatment Approach

Multi-Center IRB Study

NOVEMBER 2018

1032

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ORIGINAL ARTICLES

JOURNAL OF DRUGS IN DERMATOLOGY

Hybrid Fractional Laser: A Multi-Center Trial on the Safety and Efficacy for Photorejuvenation

Jill S. Waibel MD,^a Jason Pozner MD,^b Christopher Robb MD,^c Elizabeth Tanzi MD^d

^aMiami Dermatology and Laser Institute, Miami, FL

^bSanctuary Plastic Surgery, Boca Raton, FL

^cSkin and Allergy Center, Spring Hill, TN

^dCapital Laser and Skin Care, Chevy Chase, MD



CONCLUSION

In our prospective study we found that the hybrid fractional laser is able to safely and effectively treat photodamage/dyschromia, enlarged pores, and rhytides/wrinkles on the face and neck. Patient satisfaction is extraordinarily high, patient downtime is short, and side effects are minimal.

Published Studies

Combined Fractional Ablative and Non-ablative Laser Resurfacing Treatment: A Split-Face Comparative Study

- **Joel L. Cohen, MD and E. Victor Ross, MD**
About-Skin Dermatology & DermSurgery, Englewood, CO and Scripps Clinic Carmel Valley, San Diego, CA
- **Conclusion:** Facial Rejuvenation using a combination treatment of fractional ablative 2,940 and nonablative 1,440 lasers provides improvement in wrinkles and pigment similar to conservative purely ablative approaches. These purely ablative approaches include the Er:YAG laser used in a sequential confluent fractional manner, or fractional CO₂ laser alone. Reduced side effects make the combined procedure an attractive option for facial rejuvenation.

Published Studies

Lasers Surg Med. 2007 Jan;39(1):14-8.

Effects of skin temperature on lesion size in fractional photothermolysis.

Laubach H¹, Chan HH, Rius F, Anderson RR, Manstein D.

Author information

- 1 Wellman Laboratories for Photomedicine and Department of Dermatology, Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts, USA.

Abstract

BACKGROUND AND OBJECTIVES: Fractional photothermolysis is a new concept in cutaneous re-modeling whereby laser-induced microscopic zones of thermal injury (MTZ-Microscopic Treatment Zones) are surrounded by normal, viable tissue. This unique thermal damage pattern allows re-epithelialization in less than 24 hours. To increase patient comfort level during the procedure of fractional photothermolysis, simultaneous skin cooling has been proposed and is now extensively used. The purpose of this in vitro study was to examine the influence of skin temperature on the diameter of the epidermal microthermal zone and the extent of thermal injury per unit area. The determination of the changes in these parameters that are due to skin temperature will allow the better control and understanding of fractional photothermolysis at different skin temperatures.

Published Studies



Arisa Ortiz, MD



Hybrid Fractional Ablative and Non ablative Laser Resurfacing of Actinic Keratoses AKs

Overall the authors conclude that they observed that a single HALO is a “promising new alternative for the treatment of AKs off the face with good efficacy, patient compliance and satisfaction.

LETTERS AND COMMUNICATIONS

Hybrid Fractional Ablative and Nonablative Laser Resurfacing of Actinic Keratoses

Field treatment of actinic keratoses (AKs) is a therapeutic challenge due to lack of patient tolerability and compliance with traditional treatments. Actinic keratoses are a known risk factor for development of squamous cell carcinoma. Actinic keratoses may be treated with cryosurgery, topical immunomodulators, topical chemotherapy, electrodesiccation and curettage, and photodynamic therapy. Both cryosurgery and curettage can leave unsightly scars or permanent dyspigmentation. Topical immunomodulators and topical chemotherapy require patient compliance. Photodynamic therapy can be painful and requires strict sunlight avoidance. Laser resurfacing is emerg-

laser to treat AKs off the face. Patients with active skin cancer in the treatment field or allergy to 7% lidocaine/7% tetracaine anesthetic ointment were excluded. A total of 9 patients (3 men and 6 women) of Fitzpatrick skin Type I to III between the ages of 50 and 75 with a total 358 AKs off the face on 17 sites underwent treatment. The individual sites were as follows: scalp (n = 1), neck (n = 1), chest (n = 3), arms (n = 2), forearms (n = 4), and dorsal hands (n = 6). On obtaining informed consent, each patient received standardized photography of the treatment area and a baseline clinical examination at which time all clinically identifiable AKs were palpated and marked on transparent



Megan M. Brown, MD



HALO Hybrid Fractional Laser (HFL) Unique Design

Integrated Cooling and Suction

INTEGRATED COOLING

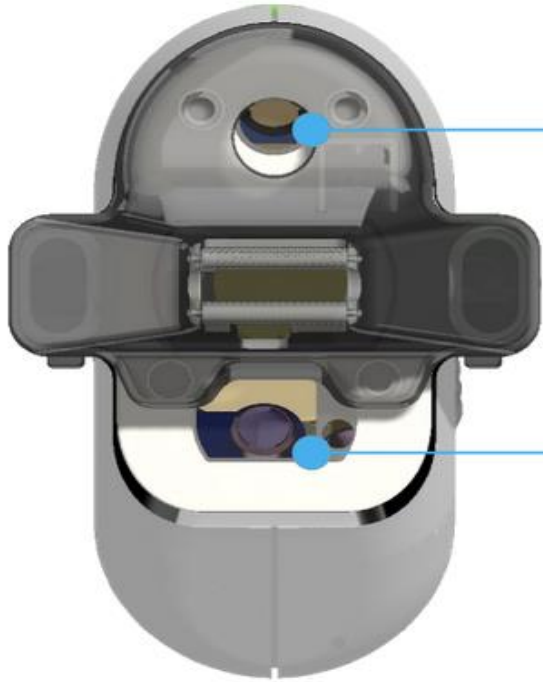
- Keeps the skin cool and comfortable throughout the treatment.

INTEGRATED SUCTION

- Integrated smoke evacuation keeps the air clear from debris during ablation.



DTO and Optical Navigation

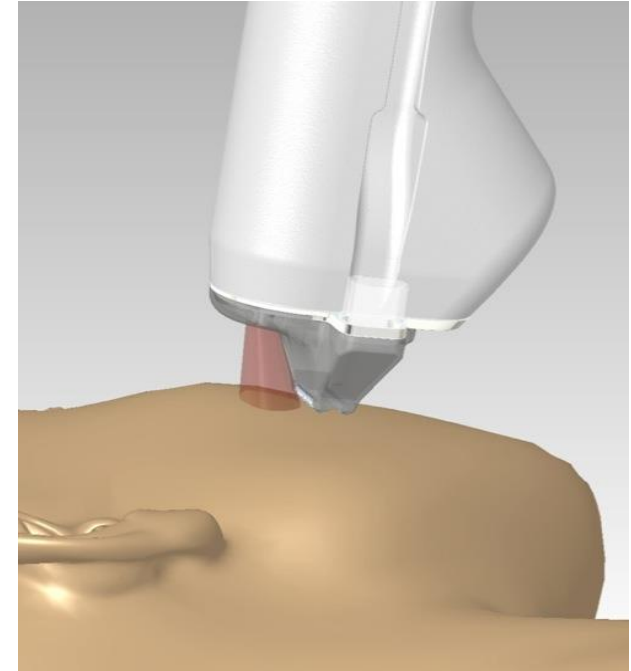


DTO TECHNOLOGY

Dynamic Thermal Optimization continually measures the temperature of the skin and automatically changes energy density and pulse width to ensure the laser is always tuned to your specifications

OPTICAL NAVIGATION

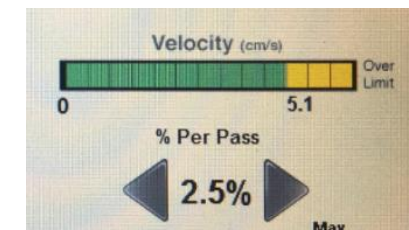
Halo measures the speed that the handpiece is moving relative to the skin and adjusts the scanning speed to guarantee an even treatment.



Scanner/Handpiece

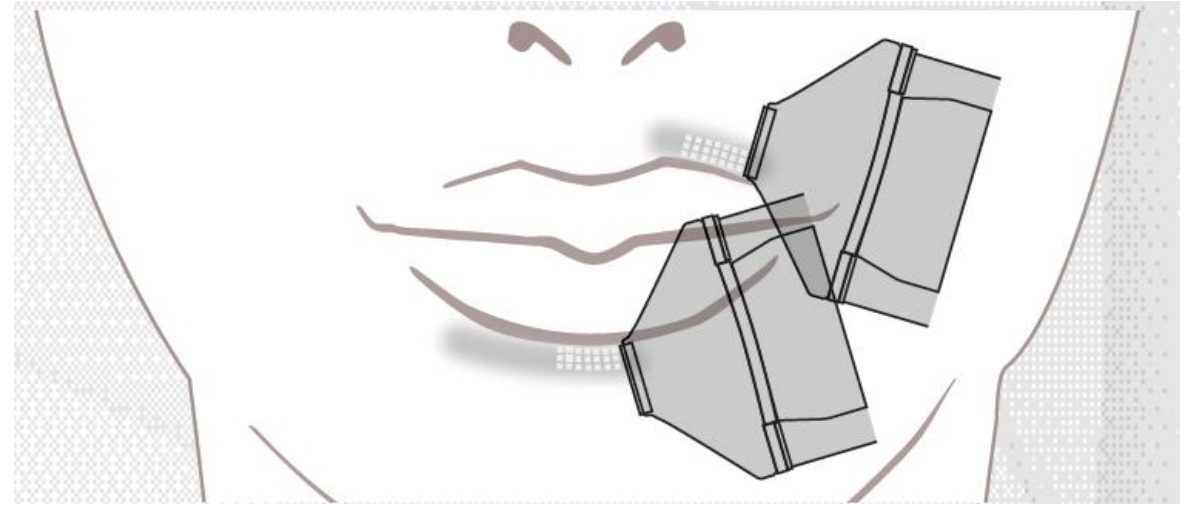
VISUAL SPEEDOMETER

- Provides visual feedback on Maintains optimal speed for efficiency and effectiveness
- 3 LEDs:
 - Blue LEDs indicates that the user is stationary
 - Green LEDs indicates that the user is working at optimal velocity to deliver the best outcomes
 - Yellow LEDs indicates that user is working too fast and will need to decrease velocity



Adjustable Beam Placement (ABP)

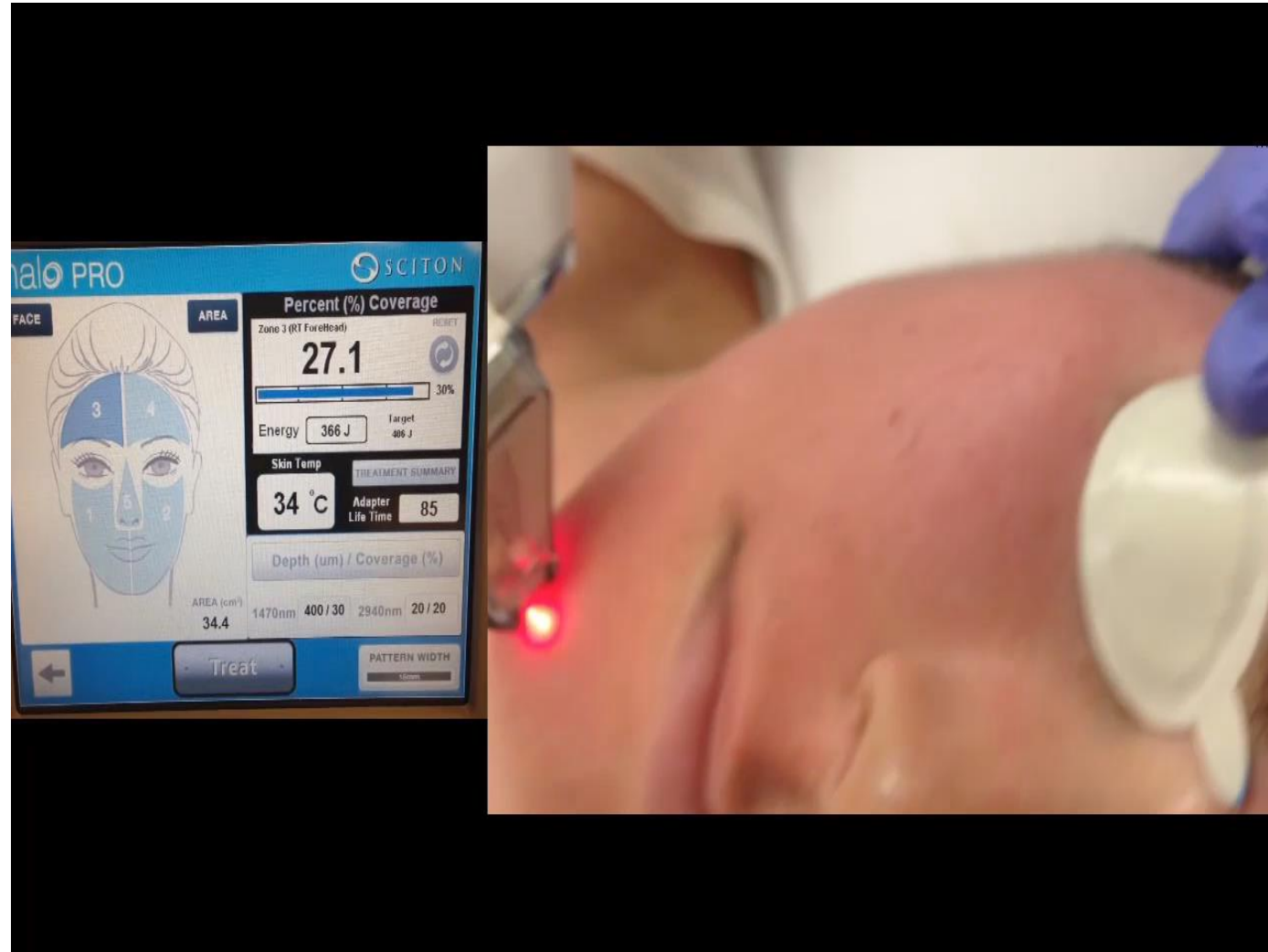
- ABP provides the ability to change both the size and position of the delivery beam.
- Three beam sizes: 15mm, 7mm, or 4mm.
- Two beam placements: left or right.
- Treat areas with distinct edges and linear scars.



HALO Software



Treatment Video



Healing Diary

Consistent results with minimal downtime

20% Treatment



Photos Courtesy of AesthetiCare

1470 300 microns 20% / 2940 20 microns 22%

20% Treatment



Before

Day 1

Day 2

Day 3

Day 4

Courtesy of George Delany, MD

20% Treatment



Before

Day 1

Day 2

Day 3

Day 4

Courtesy of Skin Rejuvenation Clinic

25% Treatment



Before

Day 1

Day 2

Day 3

Day 4

Courtesy of Steven Swengel , MD

30% Treatment

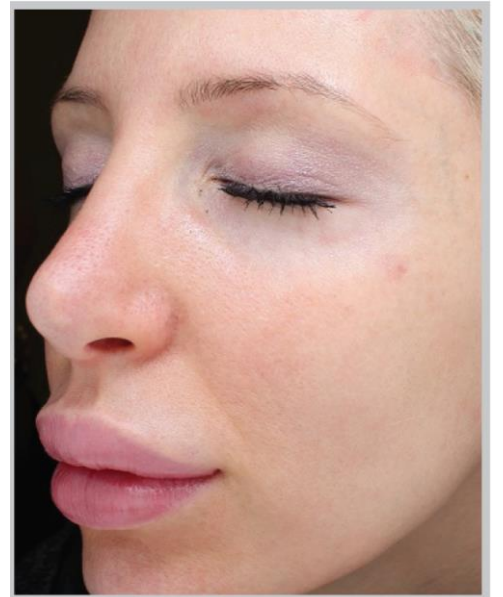


Photos Courtesy of AesthetiCare

1470 250 microns 30% / 2940 20 microns 20%

HALO Benefits

- Offering the best *Skin Quality* treatment
- Captures patients not ready for ablative treatments
- Bridge from BBL to more aggressive treatments
- Easily delegate-able to extender staff
- Superior results: tunable fractional device with the *ablative efficacy* and *non-ablative downtime*
- Offer the Halo Glow. Face and Body
- Leapfrog with Halo/BBL combination treatments



The Gold Standard



3 Consecutive Years

