Depth of Penetration by Wavelength (not to scale)

Intense Pulsed Light

Microdermabrasion

2940 Er:YAG

1440 Er:Glass

1540 Er:Glass

1550 Fiber Laser

585-595 Pulse Dye

694 Ruby

1320 Nd:YAG

755 Alexandrite

1064 Nd:YAG
HISTORY OF LASERS FOR SKIN REJUVENATION

Ablative
- Er:YAG
- CO₂
Early 1980s

Non-ablative
- PDL
- 1064nm
- 1320nm
- IPL

1550nm Fractional

Skin Laxity
RF, IPL

1440nm CAP
21st century
Market Opportunity

• Skin rejuvenation is one of the leading growth drivers in aesthetic medicine.
  – Over nine million procedures are performed each year, generating more than four billion dollars in fees for physicians
  – The category is forecasted to grow to 11 million annual procedures within five years
  – Baby Boomers account for 51% of the US population with an ample disposable income available
44% of population
44% of population

70% of US disposable income
Trends are favorable ...

Large number of aging baby boomers in the U.S., Europe and Japan

Skin rejuvenation is now the **most popular energy-based aesthetic procedure**\(^1\)

Skin rejuvenation is the **second most common procedure** after LHR

Skin rejuvenation will experience **market-beating growth** in procedure volume (4% CAGR) and will be roughly equivalent to LHR by 2017

Skin rejuvenation has **very good procedure fees** and account for roughly half of all worldwide procedure fees for energy based aesthetic treatments

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1. Medical Insight, 2013, p32
Who Else Purchases Aesthetic Procedures?

**Generation X** has a population of 50 million, ages 31-45.

Though their numbers are fewer than Boomers, they *lead in cosmetic procedures*.

They account for almost 4 million or 42.9% of procedures performed in 2011.

Gen X is more accepting of cosmetic procedures than past generations.

Many consider these procedures simply part of their budget, for personal ‘maintenance’ = *EASY RETENTION*
Fitzpatrick Skin Types
Solar Elastosis

Interruption UV Exposure
Collagen Breakdown	New Collagen Synthesis

Photoaging
Wrinkles

UV

Collagen Breakdown
New Collagen Synthesis

Evidence of Solar Elastosis

Cumulative Solar Scar
Visible Solar Scar
SmartSkin CO₂ LaserSkinRenewal™
Documented Efficacy and Safety in Multiple Publications
Combination of CO$_2$ and micro-ablative technologies

- **CO$_2$**
  - Standard Skin Resurfacing
  - Micro-Ablative Skin Resurfacing

(+) Interlaced scanning to reduce tissue temperature increase
(++) Spot pitch
How does it work?

**Spot pitch** – influences how much tissue is ablated

**Power** – determines the ablation depth

**Dwell time** – defines lateral thermal effect
Clinical Results
Clinical Results
Compared with other Fractional Systems
• 1440nm wavelength is absorbed ~2-2.5x better than 1540nm in water

• 1440nm confines effect to the zone of photodamage ~300 mm thick

• Less energy is required for effective treatment

• Less pain

• Greater safety in peri-orbital area
Non-ablative skin rejuvenation

- **1440 nm Nd:YAG**
- **1320 nm Nd:YAG**
- **560 – 950 nm Pulsed Light**

Service Offerings

- Wrinkle reduction
- Coagulation resulting in tissue tightening
- Scar and Striae treatment*
- Treatment of pigmentation and redness

* Pending FDA clearance
CAP Technology

- CAP technology produces varying levels of heat distribution in the skin:
  - Apex pulses create high intensity lesions remodeling collagen
  - Low level heating surrounds the apex pulses creating collagen stimulation
Cross section of 50 year old skin

- Epidermis
- Photo aged skin: ~300 µm (dermis)
- Healthy skin (dermis)

Cross section of 18 year old skin

- Epidermis
- Photo aged skin: minimal - none
- Healthy skin (dermis)

Advantage: Target Tx Approach
Dermal Tissue Histology

E. Tanghetti, MD / R. Weiss, MD

Columns
Width = 100 µm

Acute inflammation
Depth = ~1.0 µm
Histology Outcomes

- Fibrosis creates inflammation

Inflammation in simple terms does the following:

- *Inflammatory mediators induce fibroblast and cytokines activity*
- *Fibroblasts start tissue repair and enhance new collagen production*

So the fibrosis causes a wound healing response that leads to delayed tissue contraction because of the inflammation created
Multiplex Tx

Skin Laxity

Before

Immediately Post

2 Days Post
Micro-thermal Rejuvenation

Baseline

1 Month Post 3 Tx

3.0 J/cm²
Clinical Results with 1440 nm
Acne Scarring

Baseline                                             1 Month Post 5 Tx

Courtesy A. Myers, RN
Micro-thermal Rejuvenation

Baseline 1 Month Follow up 6 Month Follow up

3.0 J/cm²
**1540 Fractional Clinical Results**

- Well tolerated treatment
  - Mild tolerated pain, no need for anesthetic
  - Effective collagen shrinkage
  - FDA-cleared for soft tissue coagulation
  - Long term collagen growth

- Rapid healing
  - 3 to 5 Tx. Intervals of 14 days apart or more
  - No infections, bleeding, oozing
  - No down time – can shave or wash face immediately
  - Mild erythema
  - Mild edema 1-2 days
Icon – 1540 Specifications

Applications

• Skin Resurfacing
• Soft Tissue Coagulation
• Acne Scars and Surgical Scars
• Melasma
• Striae (Stretch Marks)

Wavelength: 1540 nm
Spot Sizes: 10 mm, 15 mm, 12 mm x 12 mm
Max. Energy: 70 mJ per mb
Pulse Width: 10, 15, 20 ms
1540 Fractional Laser Microlenses

**XF™ Microlens**
- Extra Fast
- High speed with increased surface coverage
- Allows for a full face, one pass treatment in under 15 minutes

**XD™ Microlens**
- Extra Deep
- Uses unique lens design to allow for maximum depth of penetration, up to 2mm depth

Imprint of XD treatment on the skin
1540 post 3 TX; dr. sinclair, FL
1540 Fractional Laser Handpiece

Pre-Treatment

Post-Treatment: after 4 treatments

Photos courtesy of Dwight Scarborough, MD
Fraxel® DUAL 1550/1927

Treatment Overview

• Predictable, reproducible results
• Safe on
  – All skin types
  – Anywhere on the body
• Advanced continuous motion handpiece for consistent, even treatment

The Fraxel DUAL 1550/1927 laser is safe and easy to delegate to a trained professional*

*Please check your local regulations
Skin Reaction Progression

1550 nm - Post 1 Treatment

before and after photos are un-retouched. Results may vary. Courtesy of Solta Medical Aesthetic Clinic
Skin Reaction Progression

1927 nm - Post 1 Treatment

10 mJ
TL 7 50% Coverage
8 passes

All before and after photos are un-retouched. Results may vary. Courtesy of Solta Medical Aesthetic Clinic
Clear + Brilliant® Overview

*Integrated Skincare +*

Original

Perméa™

SkinCeuticals available in U.S. and Canada Markets only
Patient Profiles

Shelly, 26

- Uses skincare products and sunscreen, gets facials
- Has tried microdermabrasion and chemical peels
- Doesn’t have textural irregularities… yet!

“What else can I do for my skin?”

Skin Care Rx: Shelly needs to be proactive in her skin care:
- Continue current skin care regimen
- Add Clear + Brilliant® treatments to microdermabrasion

Clear + Brilliant:
New treatment option for younger patients
Patient Profiles

Jeanine, 31

• Wants radiant skin with minimal downtime
• Doesn’t want to use injectables
• Getting all she can from chemical peels

“I want more but don’t have a lot of free time. What can I get for a radiant glow?”

Skin Care Rx

Jeanine needs elevated continuum of care:
• Continue current skincare regimen
• Add Clear + Brilliant® treatments to chemical peels

Clear + Brilliant:
Incremental treatment for radiant skin
Patient Profiles

Sarah, 37

- Takes care of her skin, but has years of photo damage
- Is new to laser procedures
- Wants long term results with little downtime

“I have some sun damage. Is there anything I can do to even out my tone?”

Sarah needs a comprehensive regimen:
- Continue at home skin care
- Clear + Brilliant® Perméa™ treatments

Clear + Brilliant Perméa:
Integrated skincare for long-lasting results
Patient Profiles

Diane, 43

- Uses professional skincare products
- Started Botox®/fillers a few years ago
- May benefit from a more aggressive treatment

“I’m not ready for a big laser treatment just yet – is there something else you can offer me?”

Skin Care Rx

Diane needs a treatment to bridge the gap:
- Continue current skin care regimen
- Supplement Botox®, fillers with Clear + Brilliant®

Clear + Brilliant:
A stepping stone to transformative treatments
Patient Profiles

Caroline, 50

• Uses professional skin care products, Botox®/fillers and peels
• Received a series of Fraxel® laser treatments in the past

“I need a refresher for my skin. Is there an affordable option?”

Caroline needs maintenance care:
• Continue current skin care regimen
• Offer Clear + Brilliant® to maintain results from Fraxel

Clear + Brilliant:
Affordable treatment to protect “skin” investment
Managing Patient Expectations

Treatment Experience

- Multiple treatments are ideal
  - Spaced 2-4 weeks apart
- Maintenance treatments, as desired
- Appointment will take approximately 35-60 minutes *Depends on treatment area(s)*
  - Topical anesthetic agent: 15-30 min
  - Procedure time: 20-30 min

*Tx Feeling*
Most patients describe an increased sensation of heat or “prickling” during treatment
Managing Patient Expectations

Results

• Uniform skin tone
• Improved texture
• More radiant skin
• Minimized pore size appearance
• Skin that looks and feels clear and brilliant
• Immediate and progressive – improves over multiple treatments

In a clinical study, 100%* of patients reported improvements in their skin

*Data on file. N=28; 100% reported improvements after 5 treatments
Clear + Brilliant® Results

Healing Progression Photos

Before

Before and after photos have not been retouched. Individual results may vary.
Immediately Post Treatment

“Felt redness very next day and felt dryness for a while”

“A little puffy around my eyes”

“A little red and rough to the touch”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

1 Day Post Treatment

“Skin peeling and no dryness”

“Skin has a rough texture”

“Skin feels a bit scaly”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

2 Days Post Treatment

“Skin is much smoother”

“Rough skin starting to flake off”

“Complexion is starting to look better”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

3 Days Post Treatment

“Brightened skin tone”

“Make-up goes on so much smoother!”

“Skin just looks better”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

4 Days Post Treatment

“Clearer skin and pores are tighter”

“Skin is much smoother”

“There is a glow to my skin!”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

1 Week
Post Treatment

“Short downtime & smoother skin after treatment”

“Everything just looks better”

“Tone is even, more natural!”

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Results

Healing Progression Photos

2 Weeks
Post Treatment

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Perméa™ Results

Before and After Photos

Before Perméa (followed by C E Ferulic®) 1 Week Post 6 Treatments

Before and after photos have not been retouched. Individual results may vary.
Clear + Brilliant® Perméa™ Results

Before and After Photos

Before and after photos have not been retouched. Individual results may vary.
PicoSure® Product Overview

• **755 nm, 532 nm, 1064 nm**
• **550-750 picosecond pulse duration**
• **Boost™ for 70% pressure increase**
• **FOCUS™ Lens Array**

*No other pico laser has all this!*

Broad US FDA clearances:
PicoSure 755 and 1064 are FDA cleared to treat tattoos and pigmented lesions in skin types I-VI. PicoSure 755 with Focus is FDA cleared to treat pigmented lesions in skin types I-VI and acne scars and wrinkles in skin types I-IV. PicoSure 532 is FDA cleared to treat tattoos in skin types I-III.
Focus™ Lens Array

- Diffractive lens **redistributes and delivers 755 nm energy**
- Low and high intensity energies **lighten unwanted pigment**
- High intensity energy leads to LIOBs, Pressurewaves, cell signaling and **dermal remodeling**

- Only PicoSure’s unique injury can trigger temporary cell membrane permeability, enhanced inflammation, **increased collagen & elastin, with virtually no downtime**
Focus™ *uniquely creates* intra-epidermal injuries *activates* pressurewaves and cell signaling.

Images courtesy of Emil Tanghetti, MD
How does Focus compare histologically?

Fraxel Restore
dual non-ablative

Fraxel Repair
CO₂ ablative

PicoSure Focus

Columns of thermal injury, epidermal injury, and open lesions

Elegant injury limited to the epidermis, no open lesions, and virtually no downtime

Courtesy of Bob Weiss, MD and Emil Tanghetti, MD
Collagen & Elastin ~ 6 months after 4 Focus Tx

Before

After

Blue stain shows increased collagen deposition

Before

After

Gray stain shows increased density of elastin fibers

Courtesy of David McDaniel, MD
Focus Lens Array

Impressive Results with Minimal Discomfort/Downtime

Images courtesy of D. McDaniel, MD
Pigment & Acne Scar Treatment

Before

After 4 Focus Tx

Courtesy of Emil Tanghetti, MD
Pigment Treatment

Before

After 4 Focus Tx

Courtesy of Lisa Espinoza, MD
Wrinkle & Pigment Treatment

Before

After 2 Focus Tx

Courtesy of Emil Tanghetti, MD
Skin Revitalization

Before

After 1 Focus Tx
No downtime Skin Revitalization

Uniquely stimulate your skin refreshing processes
Lighten unwanted pigment and discoloration
Increase collagen, elastin and skin reflectivity

PicoSure Focus

Traditional Non-ablative

Traditional Fractional CO₂
# The Challenge – Non-Ablative vs. Ablative

<table>
<thead>
<tr>
<th>Non-Abative</th>
<th>Ablative CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look refreshed</td>
<td>Look years younger</td>
</tr>
<tr>
<td>Progressive results</td>
<td>Immediate results</td>
</tr>
<tr>
<td>No to minimal downtime</td>
<td>2-5 days downtime</td>
</tr>
<tr>
<td>Operator: NP, PA or DO, MD</td>
<td>Operator: MD, DO</td>
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</tbody>
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Aging gracefully is 20% Nature and 80% Nurture
Paradigm Shift