

UltraPulse | AcuPulse

for whatever your day holds



Beyond Fractional Skin Resurfacing

UltraPulse®

more than a fractional laser.

AcuPulse™

simply sophisticated.



Precisely Powerful Performance

Whether it's cosmetic procedures or advanced surgical solutions, Lumenis offers innovative tools and resources to help you organize, plan and create a customized patient solution, step by step.

With hundreds of treatment options, unsurpassed control and precision, and patient friendly pulse characteristics, the UltraPulse and AcuPulse systems offer a full range of options to treat up to 34 FDA cleared dermatology and plastic surgery indications.

Now that's performance you can count on.

Full of Possibilities

For more than 40 years, our dedication to research and development has made Lumenis the unrivaled global leader in Dermatologic, Ophthalmic, and Surgical lasers.

For Whatever Your Day Holds

We have helped tens of thousands of physicians and patients turn everyday challenges into opportunities.

“UltraPulse gives me the extreme precision I desire from a fractional CO₂ laser. It gives me the possibility to tailor parameters to individual patient's needs and the confidence to treat in a safe and efficient way.”

- Dr. Christine Dierickx

Fine Lines

Blepharoplasty

Syringoma

Acne Scars

Actinic Keratosis

Deep Wrinkles

Dyschromia

Sun Damage



beyond fractional

The Beauty of Science

The science behind our lasers directly relates to the powerful results you can achieve for every unique patient. Only Lumenis' fractional technology delivers the power to instantly and precisely ablate tissue at optimum levels for impressive results, more quickly, and with less pain than other CO₂ systems¹.



BEFORE

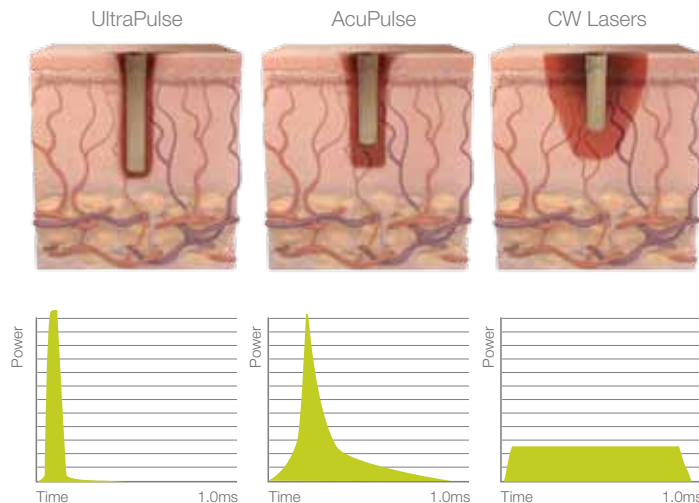
AFTER TOTALFX AND FACIAL REJUVENATION SURGERY

photos courtesy of J. Kevin Duplechain, MD, FACS

High Peak Power. Short Pulse Duration

Sustainable high pulse power with extremely short-pulse durations ablates tissue instantly to reach effective dermal depths with sufficient coagulation to promote collagen remodeling².

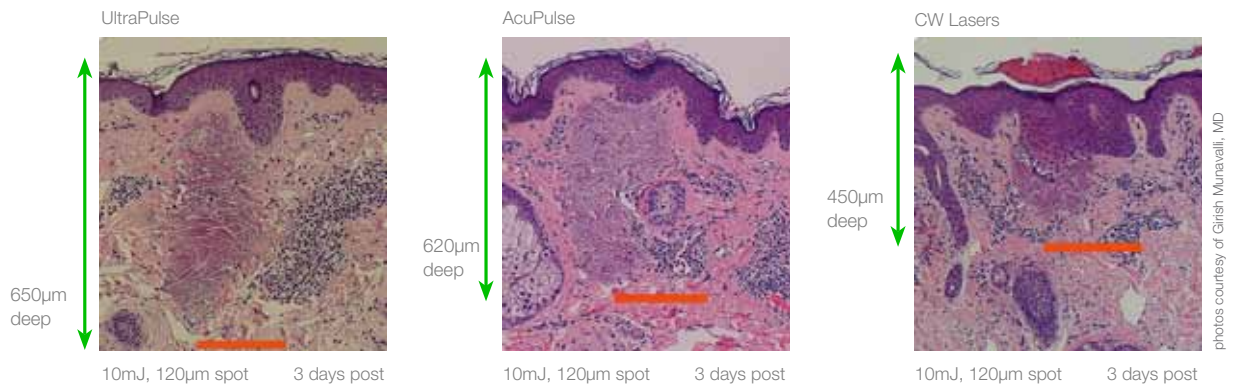
Fractional CO₂ Laser Pulse Widths Comparison (1.0 ms)



Depth of Penetration

A variety of handpieces provide superficial and deeper depths of penetration. Tissue ablation occurs at the precise level which effectively removes surface discoloration, improves skin texture, induces immediate tissue coagulation and stimulates long-term collagen remodeling for improvement of deep wrinkles and scars¹⁻¹¹.

Zone of Collagen Remodeling

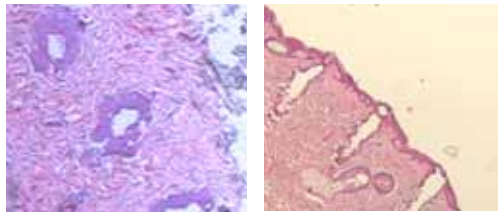


Customizable Treatment

With the highest power to tissue of any CO₂ laser, the UltraPulse and AcuPulse deliver the shortest pulse width for any given energy, offering the best control of residual thermal damage and the lowest probability of complications¹⁻¹¹.

Customized Coverage

5–100% ablation

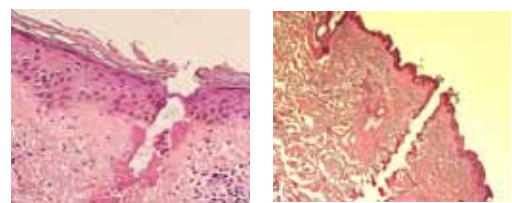


histology courtesy of Vladimir Lemberg, PhD

Only the UltraPulse gives the flexibility of 5-100% coverage in a single pass.

Customized Depth

50–2000 µm



histology courtesy of Vladimir Lemberg, PhD

Target dyschromia, fine lines, deep wrinkles and scars by choosing the depth of ablation¹⁻¹¹.

A large, white, professional-grade laser machine with a control panel on the left side. The control panel features a color touchscreen displaying various settings and a red emergency stop button. The machine has a sleek, modern design with a vertical column extending upwards.

UltraPulse

UltraPulse

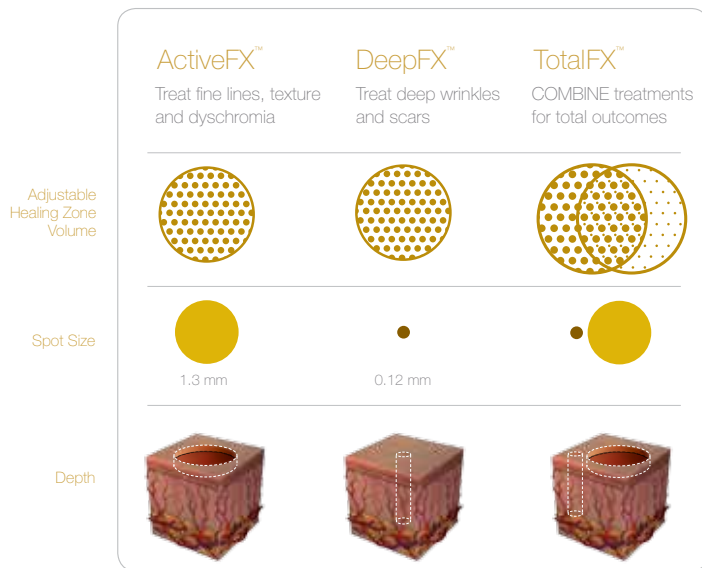
UltraPulse: Iconic. Innovative. Ideal.

With six times the power of most CO₂ lasers, the UltraPulse system is the laser for advanced applications. Delivering speed, versatility, performance and precision, UltraPulse easily supports a full spectrum of aesthetic and surgical capabilities.

Safe. Precise. Powerfully Fast.

- Single treatment, single pass, results in fast recovery
- 240 watts of power to tissue
- 225 mJ of energy output
- Advanced patented technologies
- Six times more powerful than other CO₂ lasers
- Twice the treatment speed of most CO₂ lasers
- Offers the most delivery options¹
- Deepest ablative capability with hemostasis¹
- Customizable with unmatched versatility in range of treatments
- Low cost consumables
- 34 FDA-cleared dermatology and plastic surgery indications

Customizable. Versatile. Reliable.



ActiveFX—Superficial fractional ablation* for fine lines, uneven texture, dyschromia and actinic keratosis. Collimated, non-sequential scanning delivers high effect, low-downtime, single pass laser skin resurfacing. 1.3 mm spot size.

DeepFX—Deep fractional ablation* for treatment of profound wrinkles. 0.12 mm spot size.

TotalFX—Combined superficial and deep fractional ablation* provides scar treatment, improved skin texture and resolution of fine lines and wrinkles. 1.3 mm and 0.12 mm spot size.



ActiveFX handpiece



DeepFX handpiece

Optimal reproducibility with a variety of scan shapes, density and sizes:



Optional Handpiece Upgrades

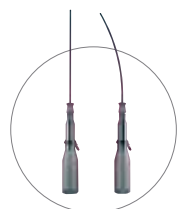
TrueSpot collimated handpiece delivers consistent fluence over a range of working distances. Ideal for skin resurfacing, acne scars, actinic keratosis, basal cell carcinoma, burn debridement, scar treatment, rhinophyma and removal of nevus. Up to 2.0 mm spot size.

Focused Incisional handpiece for precise incision and large area ablation, skin resurfacing and precise surgical work including blepharoplasty and wart removal. 0.2 mm and 1.0 mm.

UltraFlex Wave Guide for incisional, ablative, and coagulative laser procedures.



TrueSpot collimated handpiece



UltraFlex waveguide



Focused incisional handpiece

* "Fractional" refers to the delivery of laser energy in a fractional manner and over fractions of areas, instead of entire area, being a type of delivery methodology that is well characterized in the literature.

UltraPulse

As unique as your patients

Individual Patient Plan

Personalize a treatment plan to meet each patient's needs with the most versatile range of treatment effects available from any CO₂ laser^{1,3-5}.

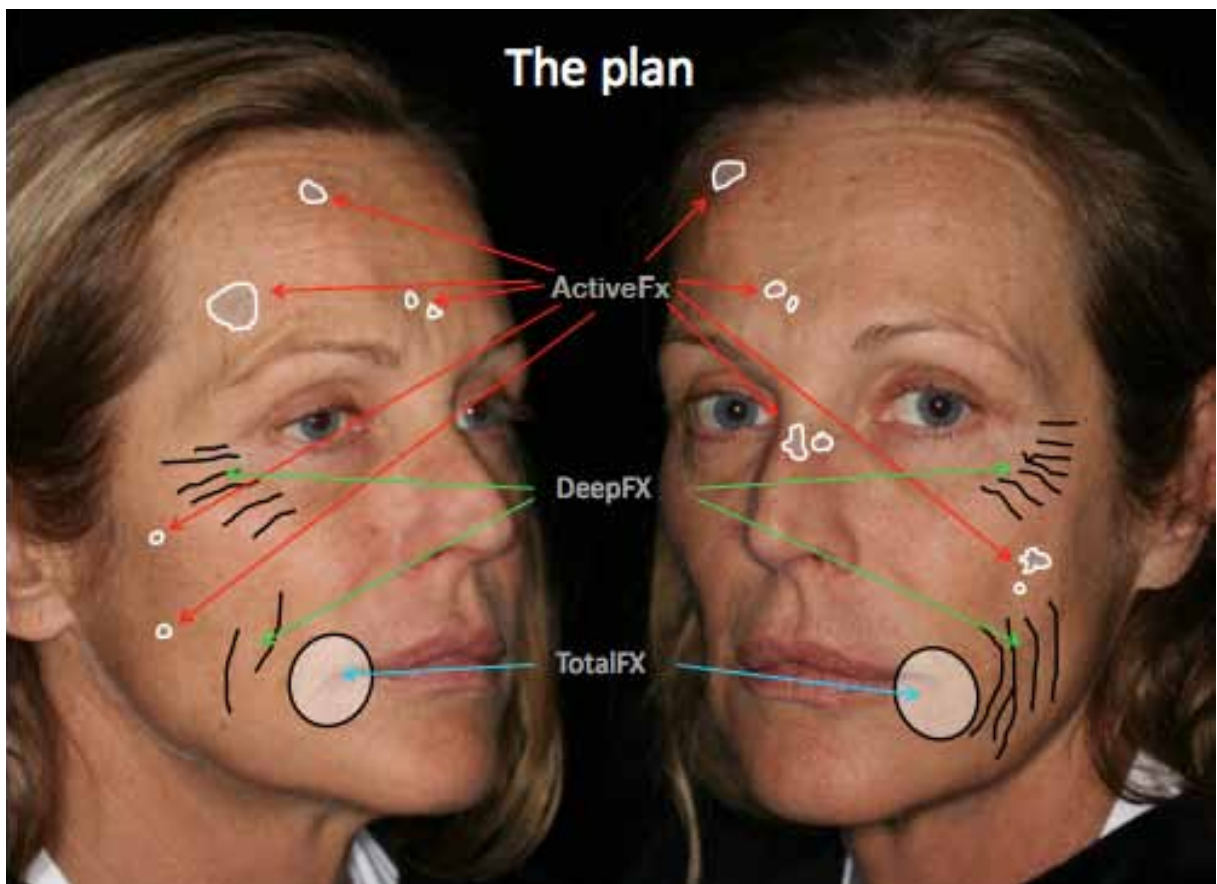


photo courtesy of Matteo Trett Clementoni, MD



PRE TREATMENT



1 YEAR POST TREATMENT



3 YEARS POST TREATMENT

photos courtesy of Matteo Trett Clementoni, MD

UltraPulse

Clinical Results

ActiveFX and DeepFX



BEFORE



AFTER 1 TREATMENT

photos courtesy of Matteo Tretti Clementoni, MD

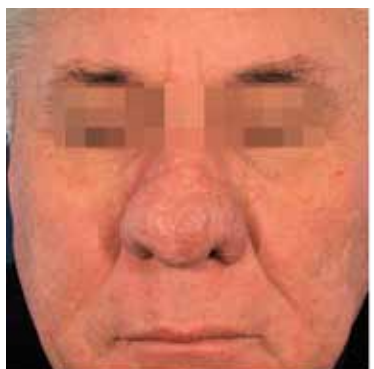


BEFORE



AFTER 2 YEARS

photos courtesy of Matteo Tretti Clementoni, MD



BEFORE



AFTER 1 TREATMENT

photos courtesy of Girish Munavalli, MD



BEFORE



AFTER 2 YEARS

photos courtesy of Matteo Tretti Clementoni, MD

TotalFX Scar Treatment



BEFORE



AFTER

photos courtesy of Jill Waibel, MD



BEFORE



AFTER

photos courtesy of Jill Waibel, MD



AcuPulse

AcuPulse

With MultiMode™ Technology

Simply Genius

AcuPulse with MultiMode™ technology is a lightweight, yet powerful boost to your practice. AcuPulse with MultiMode offers both Superficial and Deep treatment modalities using a single handpiece.

With its sleek, state-of-the-art construction, AcuPulse with MultiMode technology, packs a multiplicity of uses into one portable, profitable package.

Never before has a laser done so much, so well, for so little.

Safe. Simple. Versatile.

- 200 watts of power to tissue
- SuperPulse technology reaches deeper than CW lasers
- One handpiece for both superficial and deep fractional treatments
- Patented scanning technologies
- Precision ablation minimizes thermal damage
- High power for fast treatments
- Treatment of light to moderate sun damage and wrinkles
- Easy touchscreen navigation
- Low cost consumables
- Patient-personalized settings
- Ability to upgrade from aesthetic to full surgical functions
- 34 FDA-cleared dermatology and plastic surgery indications

Optimal reproducibility with a variety of scan shapes, density and sizes:



For All You Do

AcuPulse offers unique MultiMode technology that allows you to treat both superficial and deep targets with one handpiece, giving you the versatility to customize treatments to meet the needs of individual patients.

MultiMode Superficial Large Spot Fractional for moderate sun damage, fine lines, dyschromia and actinic keratosis. 1.3 mm spot size.

MultiMode Deep Small Spot Fractional to treat acne scars, deep wrinkles and rhytides. 0.12 mm spot size.

MultiMode Combo for combined superficial and deep treatment of acne scars, facial lines and wrinkles, and sun damage. 0.12 mm and 1.3 mm spot sizes.



AcuPulse Results



BEFORE



AFTER 1 TREATMENT

photos courtesy of Michael H. Good, MD



BEFORE



AFTER 1 TREATMENT

photos courtesy of Rafael Nunes, MD



BEFORE

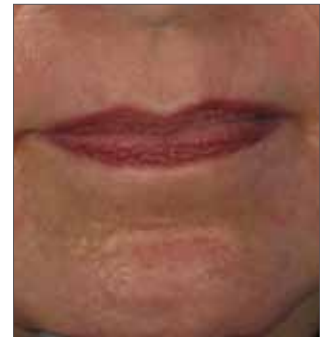


AFTER 1 TREATMENT

photos courtesy of Yuan Hong, Li, MD



BEFORE



AFTER 1 TREATMENT

photos courtesy of Gresh Munavalli, MD, MHS, FAAD

UltraPulse and AcuPulse CO₂ Lasers

specifications

PLATFORM	UltraPulse Encore	AcuPulse 40 AES-F, AES-R, AES A
Technical Specifications		
Wavelength	10,600 nm	10,600 nm
Laser Type	UltraPulse or CW	SuperPulse and CW
Power to tissue	240 Watts	200 W
Spot Size	Minimum 0.12 mm Maximum 2.0 mm (TrueSpot) Up to 60% overlap coverage in CPG (fractional)	Minimum 0.12 mm. Maximum 1.3 mm Full resurfacing (non-fractional), 100% coverage in Silk/FeatherTouch modes
Percent coverage per pass	5-100%	5-25%
Depth of Penetration	Up to 2.0 mm per pulse	Up to 1.0 mm per pulse
FDA-cleared indications	>100	>100
FDA-cleared Aesthetic indications	34	34
Full Resurfacing Capabilities	yes	yes
Fractional Capabilities	yes	yes
Incisional Capabilities	yes	yes
Excisional Capabilities	yes	yes
Aiming Beam	5 mW red diode laser, 635 nm, adjustable intensity, blink on/off	5 mW red diode laser, 635 nm, adjustable intensity
Beam Delivery	Articulated arm with up to 240 cm reach, 360° rotation	Lightweight, 7-joint, spring-balanced arm w/120 cm (47.2") reach, 360° rotation
Memory Setting	Three	Min. 100
Cooling	Self-contained, closed cycle	Self-contained, closed cycle
Warranty and Coverage	1 Year standard	1 Year standard
Recommended Passes/Treatment	1	1

Platform Specifications

Electrical	100 – 240 VAC, 20 A max., 50/60 Hz	100 – 240 VAC, 10 A max., 50/60 Hz
Weight	128 kg (280 lbs)	49 kg (108 lbs)
Dimensions (WxDxH)	34 cm X 51 cm X 144 cm to 195 cm (13.6" X 20" X 57" to 77")	37 x 40 x 119 cm; (14.6" x 15.8" x 47" in)

Optional Handpieces



Contact your Lumenis Sales Representative for more information, or call **1-877-LUMENIS** (1-877-586-3647)

Visit www.aesthetic.lumenis.com today.



Ensure Compliance with Government Safety and Performance Standards

1-877-LUMENIS (1-877-586-3647)
Outside USA, visit www.lumenis.com, click 'Service & Support'

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ISO 13485:2003 Certified CE:0473 PB1099720 RevA

AMERICA

Lumenis Inc.
Santa Clara, CA, USA
Tel +1 408 764 3000
1 877 586 3647
Fax +1 408 764 3999
1 800 505 1133

EUROPE / MIDDLE EAST / AFRICA

Dreieich-Dreieichenhain, Germany
Tel + 49 6103 8335 0
Fax + 49 6103 8335 300

Formello (RM), Italy
Tel + 39 06 90 75 230
Fax + 39 06 90 75 269

London, UK
Tel + 44 20 8324 4200
Fax + 44 20 8324 4222

JAPAN

Lumenis (JAPAN) Co. Ltd.
Tokyo, Japan
Tel + 81 3 5789 8300
Fax + 81 3 5789 8310

ASIA / PACIFIC

Beijing, China
Tel + 86 10 6510 2620
Fax + 86 10 6510 2621

Gurgaon, India
Tel + 91 124 422 33 80
Fax + 91 124 422 33 83

References: 1. Gold, MH. Update on Fractional Laser Technology. *Journal of Clinical and Aesthetic Dermatology*. 2010; 3(1): 42-50. 2. Ross, EV, Domankevitz, Y, Skrobal, M, and Anderson, RR. Effects of CO₂ Laser Pulse Duration in Ablation and Residual Thermal Damage: Implications for Skin Resurfacing. *Lasers in Surgery and Medicine*. 1996; 19:123-129. 3. Waibel, J., and Beer, K. Ablative Fractional Laser Resurfacing for the Treatment of a Third-degree Burn. *Journal of Dermatology*. 2009; 8(3):294-297. 4. Cho, S.B., et. al. Treatment of Burn Scar Using Carbon Dioxide Fractional Laser. *Journal of Drugs in Dermatology*. 2010; 9(2):1-3. 5. Lee, S.E., et. al. Treatment of Striae Distensae Using an Ablative 10,600 nm Carbon Dioxide Fractional Laser: A Retrospective Review of 27 Participants. *Dermatological Surgery*. 2010; 36:1683-1690. 6. Cervelli, V., et. al. UltraPulsed Fractional CO₂ Laser for the Treatment of Post-traumatic and Pathological Scars. *Journal of Dermatology*. 2010; (11):1328-1331. 7. Sasaki, G., Travis, H.M., Tucker, B. Fractional CO₂ Laser Resurfacing of Photoaged facial and non-facial skin: Histological and Clinical Results and Side Effects. *Journal of Cosmetic and Laser Therapy*. 2009; 11:190-201. 8. Li, YH., et. al. A Chinese experience of fractional UltraPulsed CO₂ Laser for Skin Rejuvenation. *Journal of Cosmetic and Laser Therapy*. 2010; 12:250-255. 9. Neaman, KC., et. al. Outcomes of Fractional CO₂ Laser Application in Aesthetic Surgery: A Retrospective Review. *Aesthetic Surgery Journal*. 2010; 30(6):845-852. 10. Laubach, H-J, Tannous, Z, Anderson, RR, and Manstein, D. Skin Responses to Fractional Photothermolysis. *Lasers in Surgery and Medicine*. 2006; 38:142-149. 11. Manstein, D, Herron, GS, Sink, RK, Tanner, H, and Anderson, RR. Fractional Photothermolysis: A New Concept for Cutaneous Remodeling Using Microscopic Patterns of Thermal Injury. *Lasers in Surgery and Medicine*. 2004; 34(5):426-438.