

UltraPulse® Encore™ Featuring ActiveFX™

Reference Article List

Scientists and physicians have studied the application of CO₂ laser energy and Lumenis' UltraPulse systems with UltraScan™ technology for more than ten years. Applications studied range from laser skin resurfacing to various incisional, excisional and other surgical procedures.

Laser skin resurfacing (LSR) is the treatment of choice for patients seeking optimal treatment for photoaged skin. LSR works by passing laser energy over the skin, removing the damaged outer layers and vaporizing damaged tissues. Studies have shown that LSR with a CO₂ laser stimulates collagen regeneration after a single treatment (References #1 and #3 below).

A number of studies have compared low energy, single pass LSR (e.g., ActiveFX) to approaches which utilize different types of energy, for example Erbium:YAG.

Reference #1 below

“...[compared to Er:YAG] more long-term wound contraction and fibroplasia per micrometer depth of injury is achieved with the carbon dioxide laser.”

Reference #2 below

“It is now apparent that clinical improvement following equivalent depth dermal laser wounding with the erbium:YAG laser is less than that observed following carbon dioxide laser skin resurfacing.”

Reference #3 below

“...more new collagen seen after use of pulsed CO₂ systems compared with scanned CO₂ systems or Er:YAG systems.”

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