

SmartXide DOT's Customized Settings Generate Excellent Results

By Bob Kronemyer, Associate Editor



Before Tx



After Tx

Photos courtesy of Bill Johnson, M.D.

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After Tx

Photos courtesy of Douglas Key, M.D.

Manufactured by DEKA (Firenze, Italy) and distributed in the U.S. by Eclipsmed, Ltd. (Dallas, Texas), the SmartXide DOT CO₂ laser system delivers optimal ablative thermal energy with a 350 µm spot. This is in contrast to the leading CO₂ laser system which uses larger saucer-shaped spots, leaving shallow overlapping thermal zones and possibly causing excessive epidermal damage and longer recovery times.

Some newer fractionated skin resurfacing systems feature narrow column-shaped spots which ablate deep into dermal tissue and cause significant pain and edema, but may not deliver the necessary amount of collateral thermal injury zones needed to promote neocollagenesis.

Dermal Optical Thermolysis (DOT) Therapy is performed using the SmartXide DOT laser with the Hi-Scan DOT scanner. This DOT scanner delivers a broadly varying density of scanned DOTs, each with a bowl-shaped footprint. The result is a clinically significant volume of thermally effected tissue to resurface skin and stimulate optimal production of new collagen.

"Historically, the problem with traditional CO₂ laser skin resurfacing was the tremendous downtime, prolonged redness and potential for hypopigmentation," explained Bill Johnson, M.D., who operates a cosmetic medical practice in Dallas, Texas. "Instead of treating the entire surface, DOT Therapy delivers thousands of tiny DOTs, which can provide predictable results, similar to traditional skin resurfacing, with only three or four days of downtime, seven to ten days of redness and a high degree of safety."



Bill Johnson, M.D.
Dallas, TX

Dr. Johnson observed "a real improvement in fine lines and wrinkles. I have even noticed excellent skin tightening. I

envision DOT Therapy becoming the treatment of choice for acne scars and facial scars."

Moreover, Dr. Johnson appreciates the Infinite Delivery Options feature of the SmartXide DOT laser, which enables him to dial in precise energy levels and customize DOT spacing. For scars, he widely disperses the DOTs and uses high energy pulses to penetrate deep into the dermis. For pigment, DOTs are spaced very close together and treatments are shallower. "We perform a single pass with a very tight pattern," Dr. Johnson explained. He has also successfully treated non-facial areas (neck, chest and hands). "Our patients have been thrilled with the results."

Douglas Key, M.D., a dermatologic surgeon in Portland, Ore., is also impressed with skin tightening results from a single DOT Therapy session. "We are very excited with the initial results. All of our patients have seen visible gains. Typically, patients require only one treatment. Combined with good skincare, results should last up to five years."



Douglas Key, M.D.
Dermatologic Surgeon
Portland, OR

Dr. Key's own patient survey found pain levels with DOT Therapy to be in the one to three range (on a scale of one to ten), versus eight to nine with a competing laser. "This is a huge plus," he said.

Initially, Dr. Key used the laser with conservative settings (spacing between 0.5 and 0.8 mm). Now, he routinely uses more aggressive settings. "We think the sweet spot may be a DOT spacing of 0.4 mm or even 0.3 mm," he said. "In fact, density of surface coverage may be just as important as depth. We are achieving extremely promising results and high patient satisfaction with a relatively shallow depth of ablation."