High Speed LightSheer Duet
Platform Improves Hair Removal

By Sean McKinney, Contributing Editor

With up to 75% increased procedural efficiency and significantly minimized discomfort, physicians consider the new High Speed LightSheer Duet from Lumenis (Santa Clara, Calif.) a revolutionary hair removal system.

The LightSheer Duet retains the established LightSheer ET featuring a 9x9 mm^2 cooled crystal tip to deliver standard high fluence, and adds the new High Speed (HS) system with a substantially larger 22x35 mm^2 spot size and integrated vacuum assist technology. By adding this high speed component treatment is significantly faster and similarly effective at a lower fluence – up to 12 J/cm^2 – with increased comfort.

Although the LightSheer ET component remains critical for smaller or boney areas such as the upper lip or around the ankles, Girish Munavalli, M.D., M.H.S., F.A.A.D., medical director of Dermatology, Laser and Vein Specialists of the Carolinas (Charlotte, N.C.), described High Speed treatment as "the most intriguing of the two modalities."

Moshe Lapidoth, M.D., M.P.H., head of the laser unit, along with attending dermatologist Shlomit Halachmi, M.D., Ph.D., both from Rabin Medical Center in Israel, agree that the LightSheer Duet succeeds because energy at the skin's surface is not the only important factor in laser hair removal.

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"The goal is to heat the follicle and bulge, which are located in the deeper dermis, to a sufficient enough temperature that they are damaged," explained Dr. Halachmi. "With small spot sizes, a higher fluence is needed to achieve heating in the deep dermis, whereas larger spot sizes can achieve the same heating with lower fluences."

According to Dr. Halachmi, the treatment with LightSheer HS is less painful because the energy density at the skin's surface is relatively low. In addition, "the vacuum reduces the perception of pain due to neural gating, a phenomenon in which triggering the pressure sensitive nerves blocks the ability of pain nerves to signal the brain. The vacuum gently pulls the tissue up into a dome-shaped configuration within the gold-plated walls of the handpiece. This allows energy to penetrate from multiple angles, as light is reflected back to tissue from the handpiece walls."

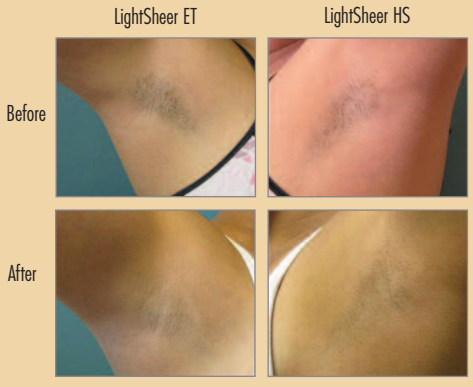
"As a result, more photons bypass epidermal melanin and hemoglobin to hit the hair bulbs," added Dr. Munavalli. "The dermal structures are also elevated by the vacuum so they essentially become easier targets."

Upon comparing treatments Dr. Munavalli observed that "traditional LightSheer produces prominent follicular edema and erythema, while the High Speed LightSheer produces mild erythema and minimal immediate follicular changes. The end result (hair reduction) with both the ET and HS are very similar at this point."

"I like that the LightSheer Duet is compact and portable, which allows us to move it from room to room," explained Dr. Munavalli. "The flexibility to treat all body areas rapidly and effectively is difficult to duplicate with other devices. My patients and staff alike prefer the shorter treatment times with less discomfort and strain. I believe this is growing our hair removal business."

Lumenis is currently performing an ongoing evaluation of patients who were treated with the LightSheer HS and ET at six clinical sites worldwide. Findings demonstrate that more than 80% of responding patients prefer the LightSheer HS over the ET and more than 90% of respondents are satisfied with their HS treatments.

Dr. Halachmi will present more clinical results based on a side by side comparison of high fluence and low fluence diode lasers (LightSheer Duet) in axillary hair removal during a Cutaneous Laser Surgery Session at the 30th annual *American Society for Laser Medicine* and Surgery conference in April 2010.



Side by side comparison of woman's axilla after being treated with LightSheer ET or HS handpiece demonstrating similar results 12 months after first Tx with follow-up treatments every six weeks.

Photos courtesy of Girish Munavalli, M.D., M.H.S., F.A.A.D.

Comparison of man's back demonstrating progress after two 15-20 minute LightSheer Duet HS treatments.

Photos courtesy of Mitchel P. Goldman, M.D.