



TAKE CARE OF **YOUR** SKIN

DISCOVERY*PICO*

The picosecond laser specially design to take care of your skin



Quanta System
LASER IN OUR DNA

Picosecond Laser Raises the Bar

By Sean McKinney, Contributing Editor

Offering three laser wavelengths (1064 nm, 532 nm, 694 nm), four pulse modalities (picosecond, Q-switched, Optipulse, photothermal,) and 1.8 GW of peak power, the Discovery Pico laser from Quanta System (Milan, Italy), effectively treats tattoos and facial pigmentation. In addition, it now offers a fractionated handpiece that allows for efficacious and safe treatment of skin texture, acne and surgical scarring. And, the unique degree of flexibility and tissue-sparing capabilities enable effective and efficient tattoo removal and high-quality facial skin treatments.

With tattoo ink being placed deeper and more densely in the tissue, and a wider variety of colors, tattoo removal is becoming more complex. Treatment must include either multiple devices or one system that has the power and variability to treat all colors. In a single-laser system, multiple wavelengths in different pulse modes can alter the treatment as the removal process progresses.

"With the Discovery Pico, I can easily treat a tattoo with multiple colors," said Thomas Griffin, MD, a dermatologist and head of the laser and cosmetic department at Dermatology Associates of Plymouth Meeting (Plymouth Meeting, Pa.). "With the push of a button on the screen, I can toggle between 532 nm to treat red, yellow and orange, 694 nm to treat blues and purples and 1064 nm to treat blacks."

The laser also permits a stepped treatment approach for high-density tattoos. "The theory is to break down ink into small enough particles for the body's immune system to clear. The Q-switched modality has a longer pulse width, which has the effect of breaking down large ink globs into medium-sized pebbles," Dr. Griffin explained.

"After a session or two, I switch from the Q-switched modality to the picosecond modality. I use much shorter pulses (450/370 ps) of photoacoustic waves to pound the pebbles into sand. Relying on this approach, I can safely and effectively treat dense tattoos in fewer sessions – using the same device."

One outstanding innovation of the Discovery Pico series is the level of peak power delivered through ultrashort pulses. This increased power allows for higher fluence at larger spot sizes, enabling treatment of deep ink particles.

Beyond Tattoos

The picosecond laser can also effectively treat fine lines, wrinkles and scarring conditions. "Treatment of lines and wrinkles is well tolerated," said Dr. Griffin. "Fractionated energy reduces downtime and enhances

safety. I'm only treating deeper regions of the skin, as opposed the entirety of the skin and tissue."

High Energy, Distinctive Spots

Along with the 1.8 GW of power, the Discovery Pico Series offers an Nd:YAG double-wavelength laser source that can discharge up to 800 mJ of energy in picosecond mode. In addition, the Quanta Optibeam II handpiece treats with a wide range of flat-top square, round and fractional spots, making Discovery Pico a powerful and flexible laser.

"The photomechanical effect causes damage deeper in the skin and does not generate heat," Dr. Griffin observed. "Few patients experience more than a few hours of downtime. The exception would be when I increase power to treat acne scars or related skin disruptions."

Patients also face little risk of post-inflammatory hyperpigmentation. "I can aggressively treat darker skin more safely," Dr. Griffin pointed out. "For ablative or non-ablative lasers, I have to reduce the energy and density and provide more treatments, increasing visits, costs and use of consumables; but this is not needed with the picosecond."

"Picosecond has emerged as my foundational treatment for tattoos, acne scarring and melasma," Dr. Griffin concluded.



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Before and after
treatment with
Discovery Pico
Photos courtesy of
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