

# HOYA ConBio Products Demonstrate Evolution of PhotoAcoustic Technology

By Bob Kronemyer, Associate Editor



**Paul Rappaport, M.D.**  
Dermatologist  
Saratoga Springs, NY



**Bruce Saal, M.D.**  
Dermatologist  
Los Gatos, CA

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Before Tx



After four RevLite treatments  
Photos courtesy of Paul Rappaport, M.D.



Before Tx

Photos courtesy of Bruce Saal, M.D.



After Tx

As a pioneer of photoacoustic technology, HOYA ConBio (Fremont, Calif.) is continuing to advance this novel approach of combining high peak power and short pulse duration with the RevLite laser. By allowing safe dispersion of up to 60% more energy, this enhanced Q-switched Nd:YAG device achieves deeper penetration with minimal patient discomfort. In clinical studies, the unique PhotoAcoustic Technology Pulse (PTP) option has proven particularly beneficial for non-ablative skin rejuvenation, collagen formation and hair removal.

"When you use nanosecond pulses, you achieve a photomechanical or photoacoustic effect. It is more than simply a thermal effect," explained Bruce Saal, M.D., a dermatologist in private practice in Los Gatos, Calif., who has been using lasers with photoacoustic technology for nearly 20 years. Additionally, the 1064 nm wavelength (near infrared), "is colorblind, so you can use it on almost any skin type, including tanned skin. Hence, you can treat a very wide variety of indications."

In 1995, Dr. Saal and others discovered that using nanosecond pulse technology (specifically at 1064 nm) for photorejuvenation at two to four week intervals resulted in collagen stimulation and remodeling. "This realization has made photoacoustic technology valuable for treating acne scarring, as well as beneficial for decreasing pore size, improving skin texture and tone," he said.

According to Dr. Saal, photoacoustic technology is reproducible, reliable and safe. "These lasers rarely require service and there are virtually no consumables," he said. "The technology is very stable. I use my Q-switched YAG lasers 30 times a day in the office."

To enhance revenue Dr. Saal employs two full-time nurses as physician extenders to perform photorejuvenation, tattoo removal and treat diffuse dyschromia. "The income I've generated from the RevLite has allowed me to purchase virtually every other device in my office."

Paul Rappaport, M.D., a dermatologist in Saratoga Springs, N.Y., has been using Q-switched Nd:YAG lasers since 1997, starting with the MedLite IV. "Recently, HOYA ConBio introduced photoacoustic therapy with the RevLite to deliver superior acne scar reduction, laser toning, wrinkle removal and tattoo removal," he said. Indications can also be treated in fewer sessions.

Dr. Rappaport mostly uses the RevLite for tattoo removal. "In the majority of cases, we can remove at least 90% of the tattoo ink, typically in six to ten sessions, spaced six to eight weeks apart," he conveyed. "RevLite offers more effective removal of bright colors like green and blue." His second most popular indication is pigmented lesions (primarily lentigines and age spots). With a single treatment, "you can usually achieve excellent results."

For all indications, "results have been consistent and reproducible," Dr. Rappaport pointed out. "HOYA ConBio lasers are very reliable and last a very long time. I used my MedLite IV for over ten years." Furthermore, the nurses in Dr. Rappaport's office perform the laser toning procedures because, "it is extremely safe and non-invasive."

For those practices limited to one device, a HOYA ConBio laser should be considered, according to Dr. Rappaport. "They have so many different uses. We've been impressed with the ability of photoacoustic technology to reduce wrinkles, acne scars and pore size with virtually no risk to the patient."