

Shedding more *Light* on Laser Hair Therapy

In the winter issue of the National Hair Journal, a Q&A with me, James Britt, was published addressing: what else? The most frequently asked questions about laser hair therapy.

Here, I would like to expand on some of those questions and answers while shedding new light on issues that were not addressed. As mentioned in the NHJ article; “Laser Hair Therapy continues to be an exciting and dramatic profit center, bringing both clinical and economic success to those clinics willing to make the investment and commitment in this exciting, effective, and increasingly popular technology.”

In October of 1997, at a large gathering of hair loss professionals at the New Image Technology Conference, I introduced the first Class-III A, fifteen diode laser hair therapy device to the US hair restoration industry. Then, as now, the Class IIIA, laser was used extensively in Europe to stop the progression of hair loss, stimulate re-growth and treat diseases of the scalp. At the same time there was another, single-diode laser on the market, the “Boston,” designated as a Class-1 laser, which was being marketed to the salon industry for the purpose of enhancing the results of colors and perms.

Since that time we have seen the 15diode laser hair therapy device evolve into a 30-Diode Laser, and with the recent introduction of the new *Anagen AlphaLase LX40*, the industry now has a 40-diode laser, from which to choose. It makes perfect sense that the more lasers available to distribute laser energy to the scalp, the better the coverage, resulting in a more effective treatment. However, the increase from 15 diodes to 30 diodes was primarily an economic decision, rather than a “coverage” issue. As a result of doubling the laser diodes from 15 to 30, treatment time was reduced from 30 minutes to 15, allowing more clients to be placed under the laser during the course of a working-day.

More, laser diodes is not necessarily the formula for a more effective treatment. There is a point of diminishing return, “a point beyond which the application of additional resources yields less than proportional increase in output.” The new AlphaLase, with 40 laser diodes, perpetuates the economic benefit, while dramatically increasing the area of irradiation without dramatically increasing the number of laser diodes.

The LX40 employs the advanced action of an oscillating hood, which automatically raises and lowers, (in tiny increments) during treatment time, redistributing laser light to areas not yet fully treated, resulting in a more effective treatment.

More important than the quantity of laser diodes is the quality of laser diodes. For purposes of therapeutic treatment, laser diode manufactures agree that glass-lens diodes are superior to plastic lens, providing a more effective prism through which light can be transmitted. The power, or milliwatt (mW) of the diode is also critical. In order to achieve the desired 4 (mW) of laser energy on the scalp, it is often necessary to increase to a 5 or even 7 (mW) diode. Four milliwatts of power will seldom deliver more than 2.5-to-3 (mW) of energy on the scalp. The “nanometer,” or wavelength of the laser is also critical.

The first helium/neon laser hair therapy devices utilized wavelengths of 630 to 670 nanometers, but new technology has produced advanced laser diodes that stimulate a more effective therapeutic response when “tuned” to 650 nanometers.

With the advent of panel lasers, it is useful to address the comparative effectiveness of “hooded” lasers versus “panel” lasers. Distributors of the panel laser promote their technology as being new, therefore suggesting that the hooded-laser is old technology. Nothing could be further from the truth. The geometric configuration of the “hood” makes as much sense today as it did when first introduced thirteen years ago, perhaps more, when you consider the alternative. There are some geometric shapes and designs on which you simply *cannot* improve; the “wheel” immediately comes to mind as being one of those shapes. It’s also scary to think about modifying the “shape” of a bowling-ball. Although the “round” shape of the wheel has been used for more than six-thousand years, for practical application-in industry, travel and recreation, there is still no more efficient design than a symmetrical component moving in a circular motion on an axis. The hooded laser is very much like the wheel in that regard. When the goal is to completely eradicate the cranium, there is no more efficient design than a half-sphere into which, half of a head is neatly arranged, than treated.

We should all be excited by the significant strides that have been made in the science of laser hair therapy. The future of laser hair therapy is as bright as laser light itself.