

Hair Removal

LASER NOTEBOOK

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## Long-Term Hair Removal Results with the LightPod® Neo™ from Aerolase®

By David J Friedman, MD

I recently completed a clinical study of laser hair removal using the LightPod Neo, a 1064nm Nd:YAG laser from Aerolase. I was requested to conduct this study because I have a well established cosmetic dermatology practice in which I perform the laser treatments myself, and hair removal is a key area of my laser dermatology expertise.

I became intrigued by this laser's unique 0.65msec pulse duration, which is below the skin's thermal relaxation time; this unique feature negates the need for skin cooling during treatment that is common with other systems, and it allows for treatment that is virtually pain-free on any skin type. But the main question in my mind at the outset had to do with clinical efficacy: would this device have the capability of delivering long-term results?

The parameters of the study, which was conducted during the Winter of 2006/2007, were as follows:

### Patient Selection:

- Total of 12 patients treated (11 females, 1 male)
- Ages from 30 to 42
- Skin types II through VI
- Multiple anatomic sites: chin and neck, cheeks, upper lip, back, axillae

Patients were treated without any form of cooling or application of gels or anesthetics, either before, during or after treatment, regardless of skin type. The laser delivered fluences that were appropriate for hair removal, causing hairs to singe and creating perifollicular edema as expected; transient erythema was observed in just a few instances and

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patients reported that the treatment pain ranged from painless to tolerable.

Patients were treated monthly for a total number of treatment sessions ranging from 3 to 7, and they were followed to assess long-term results. The majority of patients reported 82% clearance on average and as high as 93%. These assessments were made, on average, 8.3 months after the patients' final treatment sessions.

This study demonstrates that, from the standpoint of clinical efficacy, the Neo has the ability to perform hair removal in a similar fashion to Nd:YAG 1064nm lasers that employ substantially longer pulse durations. This is true not only in terms of % hair clearance for a given number of treatment sessions but, of particular importance, in terms of long-term results. When combined with the other advantages of the 0.65msec pulse duration mentioned above - no skin cooling with virtually no treatment pain and the ability to safely treat any skin type - this makes the Neo a unique addition to the field of Nd:YAG lasers from a clinical performance standpoint.

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The physical characteristics of the LightPod Neo laser are also very unique. Due to its air-cooled emitter design, it is a compact and portable device, in marked contrast to large conventional water-cooled laser systems. The Neo design has eliminated the water circulating system as well as fiber optic cables common in other systems, which results in a highly affordable device that is essentially maintenance-free.

In summary, the LightPod Neo offers a new and unique set of capabilities to laser hair removal, enabling it to be a foundation laser for a hair removal practice focusing on high-profit facial, axilla and bikini treatment areas or an extension of an existing practice into treatment of darker skin types, pain-free performance and/or any practice where the laser's compact size, portability or lack of required maintenance are deemed beneficial.



**Before**



**30 days After 3rd Tx**

**Laser Hair Removal, Axilla, Skin Type VI**



**Before**



**8.5 months after 5th Tx**

**Laser Hair Removal, Upper Lip, Skin Type III**

photos courtesy of DavidFriedman, MD

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