Wendy Lou; Adelle Quintana; Roy Geronemus; Melanie Goldman. **Prospective Study of Hair Reduction by Diode Laser (800 nm) with Long-Term Follow-Up.** Derm Surg. 2000; 26:428-432.

**Objective:** The purpose of this study was to determine the safety and long-term efficacy of the 800 nm, pulsed diode laser at reducing hair count.

**Methods:** Fifty volunteers, primarily Fitzpatrick skin types II and III, with dark brown or black hair, were treated with a diode laser (800 nm, 10-40 J/cm2, 5-30 msec, 9 mm x 9 mm, 5oC chilled hand piece). Each subject had eight treatment sites at varying fluences and pulse durations, as well as a varying number of treatments and pulses. Hair counts were obtained at each site at baseline, 1, 3, 6, 9, and an average of 20 months after treatment.

**Results:** After one treatment, hair regrowths ranged from 22 to 31% at the 1-month follow-up visit, then remained stable between 65 and 75% from the 3-month to the averaged 20-month follow-up. After two treatments there were relatively longer growth delays, with hair regrowths plateauing beginning at 6 months after treatment and ranging from 47 to 66% for the remainder of the follow-up evaluations. Side effects were limited to pigmentary changes, transient in subjects with skin types II and III.

**Conclusions:** This 800 nm diode laser with a chilled sapphire tip and variable pulse duration is safe and effective for long-term hair reduction in individuals with skin types II and III.