

# SUCCESSFUL HAIR REDUCTION WITH 810 NM DIODE LASER COUPLED WITH BIPOLAR RADIOFREQUENCY

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**Background and Objectives:** To report the efficacy and safety of an 810 nm diode laser coupled with radiofrequency for hair removal (Syneron, Yokneam, Israel).

**Study Design/Materials and Methods:** We treated facial hair in seventeen volunteers with Fitzpatrick skin phototypes I-IV with a range of fluences between 35 and 50 J/cm<sup>2</sup> and pulse duration of 100 ms. Radiofrequency energy densities ranged from 10 to 50 J/cm<sup>3</sup>. Treatment areas received between 1 and 4 treatments over 6 months at 4 to 6 week intervals. Hairs were counted at baseline prior to treatment and monthly thereafter using images obtained with a digital SLR camera with polarizing illumination.

**Results:** There was a mean 50% in hair reduction after an average of 1.9 treatments with a mean follow-up of 2.7 months. There was a trend towards greater hair reduction with thicker and darker hair, although in two cases there was a marked reduction in thinner hairs. There were no observed differences between low and high radiofrequency energies. Pain was proportional to hair pigmentation, density and thickness, and occasionally was severe.

**Conclusions:** The long pulse 810 nm laser coupled with bipolar radiofrequency energy achieved cosmetically acceptable hair reduction with a high degree of patient satisfaction.