



# **Safety and efficacy of low-fluence, high-repetition rate versus high-fluence, low-repetition rate 810-nm diode laser for permanent hair removal--a split-face comparison study.**

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## **Abstract**

### **BACKGROUND:**

This study was designed to evaluate the hypothesis that low-level fluences done repetitively on a hair follicle will produce permanent hair removal with less discomfort and fewer side effects than a single high-fluence pulse.

### **OBJECTIVE:**

To compare the safety and efficacy of a low-fluence, high-repetition rate versus a high-fluence, low-repetition rate 810-nm diode laser for permanent hair reduction in patients with facial hirsutism.

### **METHODS:**

Forty-two female patients with confirmed polycystic ovaries by ultrasonography with facial hirsutism were subjected to the low-fluence, high-repetition QM-808® XL laser in SHR mode and the DepiMED™ laser on each side of the face using preset parameters once a month for six sessions. Hair counts were done at the end of the sixth session using a 'High Quality Hair Analysis Program System' and the pain score was recorded by a visual analog scale.

### **RESULTS:**

The overall median reduction of hair was 90.5% with the QM-808 XL and 85% with the DepiMED, with a standard deviation of 7 and 8.5 respectively.

### **DISCUSSION:**

This new technology, with low fluence and high repetition, showed a statistically insignificant increase in hair reduction compared to the DepiMED, but did show a significant reduction in hair thickness and a low pain score.

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