

LED helps recovery after IPL, reduces redness

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This paper is good news for both those undergoing IPL treatments and those interested in Light Emitting Diode (LED) therapy as a anti-redness treatment. Patients treated immediately after IPL with a LED device showed that their post-treatment redness subsided faster compared to not also being treated with LED.

[Use of light-emitting diode photomodulation to reduce erythema and discomfort after intense pulsed light treatment of photodamage](#), *J Cosmet Dermatol.* 2008 Mar;7(1):30-4., Khoury JG, Goldman MP., La Jolla SpaMD, La Jolla, CA, USA.

Objectives: This study evaluates the use of light-emitting diode (LED) photomodulation therapy to accelerate resolution of post-intense pulsed light (IPL) erythema.

Methods: In this split-face study, 15 subjects were randomized to receive LED treatment to one side of the face as determined by computer-generated randomization numbers. All 15 subjects received a single IPL treatment for facial photodamage. Immediately after IPL treatment, one side of the face was treated for 35 s with the LED device. The other side was not treated. Subjects returned 24 h later for a second LED treatment on the same side of the face. Post treatment erythema was rated on both sides of the face by the blinded investigator and by subjects immediately after IPL treatment, 24 h later, and 1 week later on a scale of 0% (no erythema) to 100% (severe erythema). Patients commented on post treatment discomfort immediately after IPL treatment.

Results: Mean erythema scores on the first visit were significantly higher ($P = 0.0054$) on the side not treated with LED (52.7 ± 24.6) than on the LED-treated side (43.3 ± 21.9). Visit 2 data showed a similar trend ($P = 0.0281$). The subjects reported similar findings with mean erythema scores on the first visit on the LED-treated side (46.7 ± 25.3) compared with the untreated side (60.0 ± 23.3); the difference was significant ($P = 0.0382$). On the second visit, the mean erythema scores trended lower on the LED-treated side (24.3 ± 22.1) than on the untreated side (27.9 ± 25.8), but the difference did not reach statistical significance ($P = 0.1365$). Erythema scores on both facial sides were 0 for all subjects 1 week after IPL treatment. Four patients commented that post treatment discomfort was considerably less on the LED-treated side immediately after treatment.

Conclusion: LED photomodulation treatment may accelerate the resolution of erythema and reduce post treatment discomfort in IPL-treated patients with photodamage.

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