

# 1064 nm Nd:YAG Laser Treatment of Leg Veins

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## SUMMARY

Vascular lesions of legs, including spider veins and varicosities, are a frequent complaint among women. It is a well-known and evidence-supported fact that the long-pulsed Nd:YAG laser offers very good results in leg vein treatments [1]. We have used a Fotona Nd:YAG laser for leg vein treatments in our clinic for more than 10 years, and among 3,865 leg veins treated, about 25% of these were large ones.

Over time we developed a 2 pass technique (4 mm spot size, 90 J/cm<sup>2</sup> fluence, 25 ms pulse duration and 1 Hz), with the first pass in zig-zag fashion over and off the vein – back and forth, working distal to proximal, with 1 to 3 pulses along the vein while giving a few seconds pause to the patient between these 1-3 pulses.

The second pass, with 120-130 J/cm<sup>2</sup> fluence and 14 ms pulse duration, follows immediately after the first. This pass is much more comfortable for the patient, as most of the blood supply has already been heated and has been used to close any remaining open areas.

Distal-to-proximal ace bandage wrapping of the treated area follows immediately after the treatment and is recommended to be worn for 24 hours before removing. No hot baths and no exercise are advised for the next 72 hours.



Fig. 1: Result of leg vein treatment with a 2-pass Nd:YAG laser technique, before and six week after the treatment.

From our 10 years of experience we can conclude that the Fotona LP Nd:YAG laser presents an

excellent tool for the treatment of leg veins using a safe procedure with a minimal number of transient adverse effects, resulting in highly satisfied patients.



Fig. 2: Treatment of a large leg vein using a 2-pass Nd:YAG laser technique. Before and 3 months after a single treatment.

## REFERENCES

1. Trelles MA, Allones I, Martín-Vázquez MJ, Trelles O, Vélez M, et al. (2004) Long pulse Nd:YAG laser for treatment of leg veins in 40 patients with assessments at 6 and 12 months. *Lasers in surgery and medicine* 35: 68–76.

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