

VASCULAR LESIONS

QUICK GUIDE



Vascular lesions

Laser technology is a great technique for the treatment of vascular lesions, varicules and cherry angiomas, due to selective photothermolysis. This biological effect involves the heating of the haemoglobin that is found in vascular lesions, which leads to the photocoagulation of the blood when temperatures exceeding 70 °C are achieved.

The heat is transmitted to the walls of the varicule and/or cherry angioma, causing its epithelial cells to denature. This denaturing results in damage and localised inflammation, and prevents the recanalisation of vascular lesions. The tissue repairs over time, culminating in the disappearance of the varicule and/or cherry angioma.

Through the selection of the appropriate laser parameters (pulse duration and fluence), vascular lesion can be removed while minimising undesirable side effects.

The use of the **prime** lase excellence model YAG of 1060 nm, high-power (4,000 W) diode laser from **cocoon medical** is an innovative method that has demonstrated good results for the removal of vascular lesions.

This treatment should always be carried out under medical supervision.

Parameters:

Yag 🖗 M 10x10 | 1060nm



Skin Phototype (Fitzpatrick I-VI)	Lesion	Fluence (J/cm²)	Pulse Duration (ms) AUTO*	Frequence (Hz)	Treatment
I-IV	Telangiectasias or spider veins (thickness <1 mm)	80-120	33-74	1	1 pulse With contact and gel
	Venulectasias (thickness >1 mm)	100-120	50-74	1	1 pulse With contact and gel
	Cherry angiomas	20-30	6-9	1	4 consecutive pulses With contact and gel

*AUTO: Minimum pulse duration mode for the selected fluence

Pre-preparatory:

- Skin colour and phototype classification according to the Fitzpatrick scale.
- Lesion characteristics: colour, diameter and reflux spots.
- History of herpes.

User guidelines: step by step

Varicules:

- Cleanse, degrease and disinfect the treatment area.
- If there is hair, shave the treatment area.
- Demarcate the treatment area.
- The patient, medical practitioner and staff must wear appropriate protective eyewear.
- Select the parameters on the treatment screen. Begin the treatment with the lowest recommended energy levels and evaluate the response of the patient.
- The use of a gel is recommended to facilitate the movement of the head of the applicator across the skin and to minimise energy loss. It is not advisable to cool the area with packs prior to treatment.
- Rest the head of the laser applicator on the skin for 1-3 seconds to cool the skin (without applying pressure), then perform a shot.
- The shots must juxtapose one another. Do not use dynamic mode or overlap the area where shots are discharged.
- In cases where it is necessary, cooling with the sapphire crystal can be used to ease pain in the treatment areas or to prevent pain in sensitive areas. To do this, simply pass the head of the applicator over the area in circular motions for 2-3 seconds.
- Verification that one of the two potential end-points has been reached:
 - Spasm: an immediate clearing of the vessel occurs.
 - Thrombosis: the vessel darkens.

Cherry angiomas:

- Cleanse, degrease and disinfect the treatment area.
- If there is hair, shave the treatment area.
- Demarcate the treatment area.
- The patient, medical practitioner and staff must wear appropriate protective eyewear.
- Select the parameters on the treatment screen. Begin the treatment with the lowest recommended energy levels and evaluate the response of the patient.
- The use of a gel is recommended to facilitate the movement of the head of the applicator across the skin and to minimise energy loss. It is not advisable to cool the area with packs prior to treatment.
- Rest the head of the diode laser applicator on the skin for 1-3 seconds to cool the skin (without applying pressure), then perform four consecutive shots without lifting the head of the applicator away from the skin.
- In cases where it is necessary, cooling with the sapphire crystal can be used to ease pain in the treatment areas or to prevent pain in sensitive areas. To do this, simply pass the head of the applicator over the area in circular motions for 2-3 seconds.
- Verification that the end-point has been reached:
 - The cherry angioma darkens to a purple/grey colour.
- If, after 1 minute, the end-point cannot be observed, discharge another shot.

Immediately post-treatment:

Varicules:

• Following the clearing or darkening of the vessel, erythema and transient inflammation will be present. This will disappear over the following days.

Cherry angiomas:

- The lesion will darken over the 24-48 hours following the treatment, until a scab forms which may be present until 7-21 days after the treatment.
- The lesion will typically be resolved after 21-30 days, resulting in the lightening of the pigment.

Post-treatment recommendations:

Varicules:

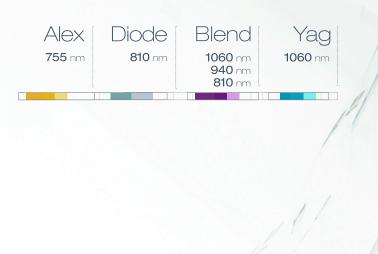
- Washing and applying vitamin K or topical iron chelating agents is recommended during the first 15 days.
- The use of a pentosan polysulfate sodium cream on the lesion is recommended from the 3rd day following treatment and for a period of 1 week to assist the reabsorption of the cord that forms in thick varicose veins.
- Sun exposure must be avoided during the first 4-6 weeks following treatment and the use of an SPF 50 sunscreen is essential.
- The treatment may consist of several sessions (typically 3-5), which will be carried out every 6-8 weeks.

Cherry angiomas:

- 1% hydrocortisone creams can be used to prevent inflammatory reactions.
- Washing the area with a neutral soap and applying antibiotic, e.g. Plasimine (mupirocin), or antiseptic cream, e.g. Diprogenta or Cicalfate (copper and zinc salts), as indicated is recommended for the first 15 days.
- Sun exposure must be avoided from day one and an SPF 50 sunscreen must be used to avoid hyperpigmentation.
- The use of moisturisers is generally not advised when the scab is still present as they may moisten it, avoiding this will help the skin to regenerate.
- Revitalising creams can be used once the scab has fallen off.
- The treatment may consist of several sessions (typically 3-5), which will be carried out every 6-8 weeks.



A diode laser platform developed with the exclusive technology of **cocoon medical**. It has a maximum power of 4.800 W and different wavelengths (755, 810, 940 and 1060 nm) that are suitable for all skin phototypes and types of hair throughout the year.



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