

# ELVES™

## ENDO LASER VEIN SYSTEM

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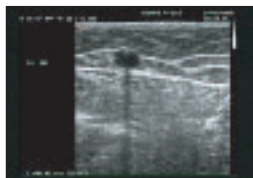
*A unique and complete solution for treatment  
of venous incompetence ...*



*Quick and effective outpatient treatment of ...*

- Greater saphenous vein
- Small saphenous vein
- Reticular veins
- Branch varicosities
- Telangiectasia
- Spider veins
- Venous ulcers
- ... and more

## ► Endovenous Treatment of Saphenous Veins



Vein pre-treatment

The treatment of venous incompetence of the lower limbs by endovenous laser under ultrasound guidance is **easy to perform** in either treatment room or operating theatre setting.

Using only **local anaesthesia** it provides a minimally invasive, less traumatic and cosmetically optimal solution to this condition.



3 days post-op

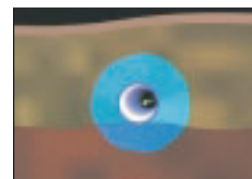
This endovascular technique leaves **no scars** and minimises the risk of infection and post-operative pain. **Excellent clinical and aesthetic results** have been observed with greatly reduced procedure costs<sup>1</sup>.

### How ELVeS™ works ...

- Following percutaneous entry into the saphenous vein, a fine ELVeS™ laser fibre is inserted into an introducer sheath and advanced towards the sapheno-femoral junction.
- Once in position (confirmed by ultrasound and the laser aiming beam), the near infrared laser energy is delivered in short pulses or in continuous mode, causing thermal damage and contraction of the vein wall. Due to the application of tumescent local anaesthesia damage of surrounding structures is inhibited.
- The laser treatment is performed along the entire vessel length. The irreversible thermal damage induced by the laser energy then leads to a complete occlusion of the vein.
- The complete procedure takes about 30 – 45 minutes; the patients can return to normal activities immediately, with the exception of vigorous gym workouts.
- Bi-lateral ELVeS™ treatments or combined GSV & SSV procedures can be performed during the same session.



Fibre position at SFJ



Perivenous anaesthesia and laser energy delivery



Treatment using fine ELVeS™ laser fibre

Ref<sup>1</sup>: Dr. J.-L. Gerard, Phlebologist/Angiologist – Hôpital Henri Mondor, Creteil, Paris, France

## ► Transcutaneous Treatment of Spider Veins & Telangiectasia



Transcutaneous treatment of spider veins

Telangiectasia and spider veins are frequently observed in patients presenting with varicose veins. These tiny veins can be treated transcutaneously with the same laser system using the ELVeS™ focusing handpiece and through the innovative **DermaMode** software for the management of the fluence.

- The near infrared laser energy is well absorbed by haemoglobin and easily penetrates to underlying tissue with low absorption in the dermis.
- The surface tissue is unaffected by the laser energy as it is defocused at this level and anaesthesia is not necessary. Vessels up to 1.5 mm in diameter can be successfully treated by this technique.

## ► Endovenous Treatments of Branch Varicosities & Reticular Veins



ELVeS™ treatment of branch veins<sup>1</sup>

Branch varicosities and reticular veins can also be treated under direct visualisation by a similar endovascular technique.

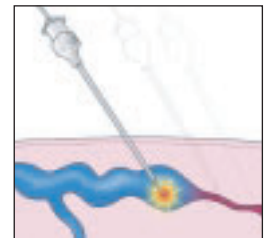
This method is **faster** and more **efficient** than conventional treatments. The procedure is **well tolerated** with rapid patient recovery.

Experience in more than 1000 patients has shown a **high success rate** in vessel closure. Positive patient feedback has been reported<sup>2</sup> with no side effects such as skin blanching or pigmental disorders.

This treatment can be performed on patients taking anti-coagulants or with impaired circulation.

### How ELVeS™ works ...

- Following topical anaesthesia, a tiny needle is inserted into the vein. With laser fibres down to 220 µm even very small vessels can be easily treated. For larger branch varices a local anaesthesia is advised.
- Laser pulses are applied, using power setting depending on the vein diameter. The needle is then withdrawn; this procedure is performed along the length of the varicose vein.
- For larger side branches a compression should be applied for the following days. After 8 days the varicose vein should have disappeared with no recurrences detected after one year in the treated areas.<sup>2</sup>



Endovenous treatment of reticular veins

Ref<sup>2</sup>: *Intravascular Laser Therapy for Reticular and Branch Varicosities – Experience in 1000+ Patients.*  
Dr. Berg, Blaustein, Germany

## ► Wound Healing for Venous Ulcers



ELVeS™ of Venous Ulcers

ELVeS™ is useful in the management of wound care and constitutes an alternative treatment that is free of side effects.

### ■ Endo Venous Approach

Following percutaneous entry into the feeding vein, a fine ELVeS™ laser fibre is inserted into an introducer sheath and advanced towards the Venous Ulcer by ultrasound control and visual control of the laser aiming beam.

The laser treatment is performed along the entire vessel length. The irreversible thermal damage induced by the laser energy leads to a complete occlusion of the treated perforator veins, encouraging the wound healing process, hence significantly reducing the healing time.

### ■ Transcutaneous Approach

Laser light is well-known to have beneficial effects on healing wounds.

Low level energy is applied to the wound in criss-cross pattern via an ELVeS™ wound healing hand-piece to ensure complete exposure. This photo-stimulation effect is specifically noticeable in treatment of diabetic foot ulcers.<sup>3</sup>

The laser treatment induces a positive effect in conditions of reduced microcirculation and results in the stimulation and proliferation of the patient cells.<sup>3</sup>

Ref<sup>3</sup>: *The Use of the Ceralas D15 980 nm Laser in the Management of Foot & Leg Ulcers.*  
V.J. Hetherington DPM, Ohio College of Podiatric Medicine, Ohio, USA

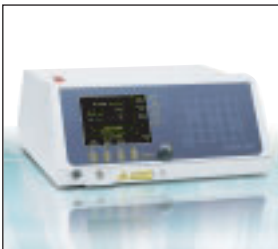
▶ **ELVeS™ Kits, Fibres & Accessories**



Product Name	Code(s)	Description	Quantity
ELVeS Saphena Treatment Kit 55 cm	500200767	Supplied sterile Guide wire Introducer sheath ELVeS fibre with ELVeS-Lok™ Entry needle	Box of 5 set
ELVeS Saphena Treatment Kit 98 cm	500200901	Supplied sterile Guide wire Introducer sheath ELVeS fibre with ELVeS-Lok™ Entry needle	Box of 5 set
ELVeS 360 fibre	BFWF 360 ELVeS	Bare Fibre (360/415 µm) compatible with 23 G ELVeS needle - Autoclavable	1
ELVeS 220 fibre	BFWF 220 ELVeS	Bare Fibre (220/240 µm) compatible with 25 G ELVeS needle - Autoclavable	1
ELVeS needles	AB 1825	Supplied sterile 25G dedicated hollow needle length 35 mm	Box of 50
	AB 1630	Supplied sterile 23G dedicated hollow needle length 35 mm	Box of 50
ELVeS vascular focusing handpiece	500200022	0.6mm – 2.5mm spot size 7 mm (wound healing)	handpiece & spotsizes

ALSO AVAILABLE FROM BIOLITEC

▶ **Ceralas G5 – 532 nm Laser**



Ceralas G5 – 532 nm DPSS Laser

**Vascular treatments:**

- Naevus flammeus
- Facial telangiectasia
- Vascular malformations
- Haemangiomas
- Spider veins

The Ceralas G5 emits laser radiation at a wavelength of 532 nm which has high absorption in haemoglobin and melanin and low absorption in water. The G5 has an adjustable pulse length and collimated beam handpieces, enabling selective and gentle treatment of vascular lesions.

Its user-friendly features include:

- Reliable diode technology with no routine maintenance required
- Easy to set up and use
- Power output up to 5 Watts
- Range of collimating hand-pieces with beam diameters of 0.75 mm, 1.0 mm and 1.5 mm

**Ceralas G5 - Technical Specification**

Wavelength	532 nm
Optical Power	5 Watt +/- 10 %
Aiming Beam	635 nm, 1 mW
Operating Mode	cw, pulsed
Pulse-Duration / Interval	0.01 – 99.9 sec
Dimensions (H x W x D)	18 cm x 44 cm x 37 cm
Weight	12kg

## ▲ Why ELVeS™ ...

**ELVeS™** has been developed by **biolitec AG** as the innovative and complete solution for the treatment of varicose veins.

Varicose veins are a frequently occurring condition with up to 40 % of women and 20 % of men likely to suffer from symptoms such as fatigue, pain and swelling of the lower limbs. Soft tissue breakdown leading to ulceration can result if left untreated.

**ELVeS™** (Endo Laser Vein System) from **biolitec AG** is a versatile and easy to use system that allows you to treat all conditions resulting from venous incompetence. Treatment can be performed on an outpatient basis under local anaesthetic with key benefits for your patients ...

- minimal discomfort
- short treatment time
- excellent aesthetic results
- a rapid return to normal activities

## ▲ What is ELVeS™ for ...



ELVeS™ patient counselling

### A complete system including:

- ELVeS™ diode laser (15 W, 25 W or 50 W)
- ELVeS™ laser fibres (600 µm, 400 µm, 360 µm and 220 µm)
- Introduction set for endovenous varicose vein treatment (55 & 98 cm)
- Range of hollow needles (25 & 23 G) for treatment of reticular and branch varicoses
- Vascular application focusing handpiece (0.6 – 2.5 mm spot size)
- Wound healing handpiece (7 mm spot size)
- ELVeS™ patient counselling material (English, German, Italian)

### ELVeS™ technology

The **ELVeS™** lasers from **biolitec AG** incorporate a range of user-friendly features:

- dedicated software for ELVeS™ applications (DermaMode, ELVeSMode)
- unique 220 µm core fibre enables use in micro-surgery
- quick to set up and easy to use
- low running costs
- reliable diode technology with no routine maintenance required
- compact, portable and ideal for use in either a clinic or operating theatre
- operates from a standard electrical outlet
- attractive extended warranty options available



ELVeS™ diode laser

### ELVeS™ Laser – Technical Specification

Wavelength	980 nm (810 nm also available*)
Optical Power	15 Watt / 25 Watt / 50 Watt
Aiming Beam	635 nm, 4 mW; brightness adjustable
Operating Mode	cw, pulsed
Pulse-Duration / Interval	0.01 – 99.9 sec
Dimensions (H x W x D)	18 cm x 22 cm x 37 cm (15 Watt / 25 Watt) 18 cm x 44 cm x 37 cm (50 Watt)
Weight	7.5 kg (15 Watt / 25 Watt) 16 kg (50 Watt)
*different specifications	

## ▲ Why biolitec ...

**biolitec** is an established and leading manufacturer and supplier of diode lasers, optical fibers and accessories for application in a wide range of surgical specialities. The **biolitec** group includes the CeramOptec brand of medical lasers and fibers and is also involved in the development and production of photosensitizers for use in photodynamic therapy (PDT). **biolitec** is unique in providing all core competencies for PDT – lasers, fibers and photosensitizers.

## ▲ Training and After-Sales Support

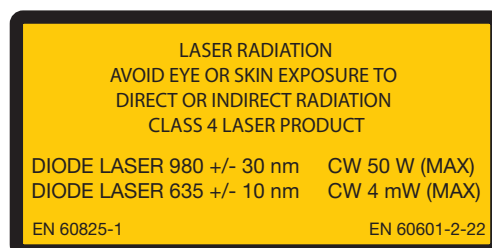
**biolitec** products are sold around the world through our network of local sales offices or by exclusive distributors. We have a strong commitment to provide clinician training in the safe and successful use of our products either in the form of user workshops or one to one training at a **biolitec** reference center.

Your local sales office or distributor is your first point of contact for after-sales support and service to enable you to get the maximum benefit and return on investment from your laser system.

## ▲ Your biolitec point of contact

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