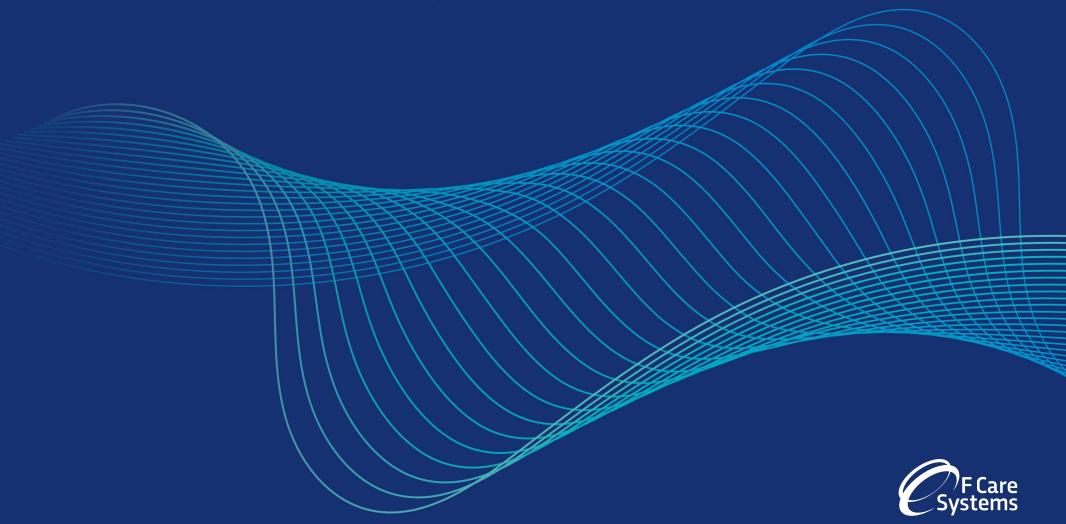
# Veineo®

Radiofrequency treatment of varicose veins



# **Veineo**®

## A safe and easy procedure for the treatment of varicose veins

The Veineo® procedure uses the principle of radiofrequency thermocoagulation to treat varicose veins. It is a minimally invasive technique based on the emission of high frequency electromagnetic waves (4MHz).

A catheter is inserted into the vein and the radiofrequency energy is transmitted to the vein through the catheter tip. The energy will heat and ablate the vein wall, thus seal the vein along its full length.

Depending on the vein diameter, a range of different catheter sizes is available; CR30i, CR40i or CR45i.

The high flexibility of these CR-catheters is a key advantage that allows to easily follow the course of tortuous veins. Moreover, the catheters are lumen-free and have a steel wire running through their entire length. Therefore, they are unbreakable, and are well visible under ultrasound guidance, even after tumescence has been administered. Furthermore, no extra guide wire is required during the procedure.

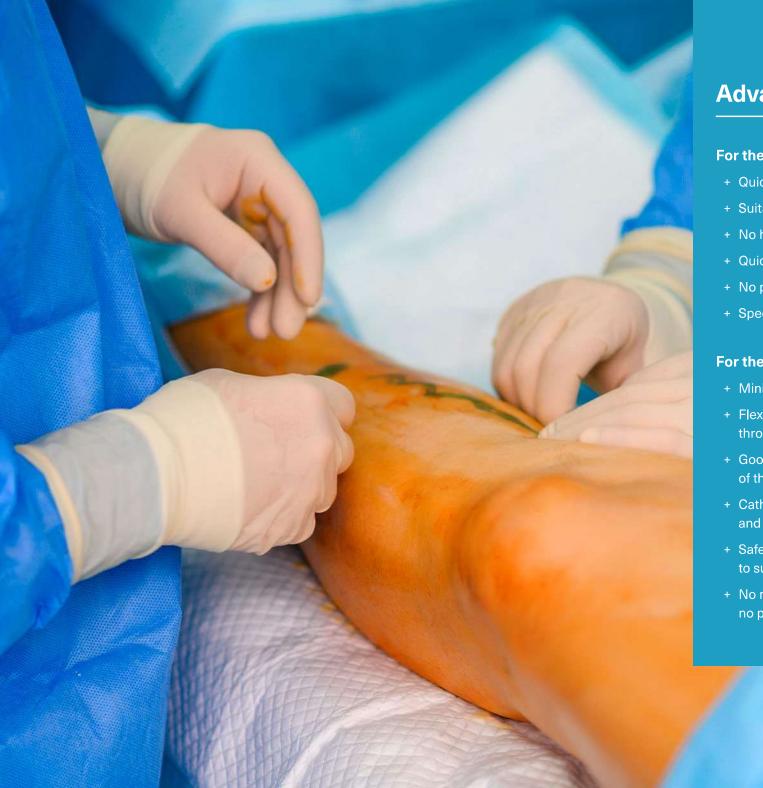
The thermal effect around the catheter tip has a 3 mm action radius, thus avoiding damage to surrounding tissue, muscles, or nerves.

The Veineo® procedure can be performed in a day-case or outpatient setting. The intervention only takes a few minutes with minimal discomfort for the patient, allowing a speedy return to daily activities.



- Ionic agitation
- Dehydration of the tissue
- Denaturation of proteins
- Coagulation by thermal destruction





## **Advantages**



#### For the patient

- + Quick and minimally invasive procedure
- + Suitable for all skin types
- + No hyperpigmentation
- + Quick relief from symptoms
- + No post-operative wound care
- + Speedy return to daily activities

#### For the practitioner

- + Minimally invasive procedure
- + Flexible catheters easily maneuverable through tortuous veins
- + Good visibility, thus fast positioning of the catheter under ultrasound guidance
- + Catheter markings allow premeasurement and clearly indicate the procedure speed
- + Safe energy control, avoiding damage to surrounding tissue, muscles, or nerves
- + No major complications, no risk of DVT, no paresthesia, no ecchymosis





### **Clinical studies**

Comparative analysis of five-year outcomes of lower extremity varicose vein therapy using monopolar and segmental radiofrequency ablation

Witold WOŹNIAK, Maciej KIELAR, R. Krzysztof MLOSEK, Piotr CIOSTEK International Angiology 2018 December; 37(6):457-64

Comparison of monopolar and segmental radiofrequency ablation in the treatment of lower limb chronic venous insufficiency

Jun-Yi Ryan TAN, Zhiwen Joseph LO, Pravin LINGAM, Qiantai HONG, Enming YONG, Sadhana CHANDRASEKAR, Glenn Wei Leong TAN ARC Journal of Surgery, Volume 4, Issue 3, 2018, PP 5-10, ISSN 2455-572X

Endovenous ablation of incompetent truncal veins and their perforators with a new radiofrequency system. Mid-term outcomes

Stavros SPILIOPOULOS, Vasiliki THEODOSIADOU, Athanasia SOTIRIADI and Dimitrios KARNABATIDIS Vascular OnlineFirst, December 12, 2014

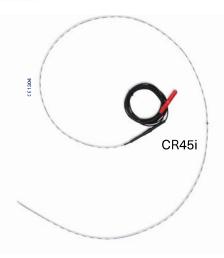
## **Equipment**

## 1. Catheters

Catheter type	CR30i	CR40i	CR45i
Vein type	2-5 mm varicose vein	perforating vein	saphenous vein
Catheter diameter	0.7 mm	1.1 mm	1.9 mm
Catheter length	275 mm	365 mm	600 mm or 1190 mm
Tip length	10 mm	5 mm	5 mm
Sterile extension cable length	1 m	2.5 m	2.5 m
Marking	_	every 7 mm	every 7 mm
Insulation material	PTFE	PTFE	PTFE
Tip material	stainless steel	stainless steel	stainless steel
Included	20G introducer	16G introducer	_
Product reference	05CR30i	05CR40iV2	05CR45iV2 (1190 mm) 05CR45i 60 (600 mm)









## **Equipment**

#### 2. CR45i Pack



#### Content\*

1x sterile CR45i catheter

1x sterile 6F introducer set

1x sterile tubing set for tumescence pump

1x sterile transducer cover

1x universal electrosurgical pad

\*Availability and content may vary from region to region

#### 3. MedRF4000® radiofrequency generator

The new MedRF4000° generator is suitable for the treatment of several types of varicose veins, but it can be used for multiple treatments with radiofrequency energy, such as the ablation of haemorrhoids or anal fistulas.

It's a smart all-in-one generator to which you can connect all sorts of disposables. Adding a treatment to the device takes a simple software installation (simply using a USB fob).

The device is monopolar and generates 4MHz radiofrequency waves that are applied to whichever catheter, probe, or needle that is attached. The application of energy is controlled by a foot pedal. The MedRF4000\* is easy to use and has preset parameters for each treatment.

## 0

#### For treatment of

- Saphenous veins
- Collateral veins
- Perforating veins
- Telangiectasia
- Haemorrhoids
- Anal fistulas



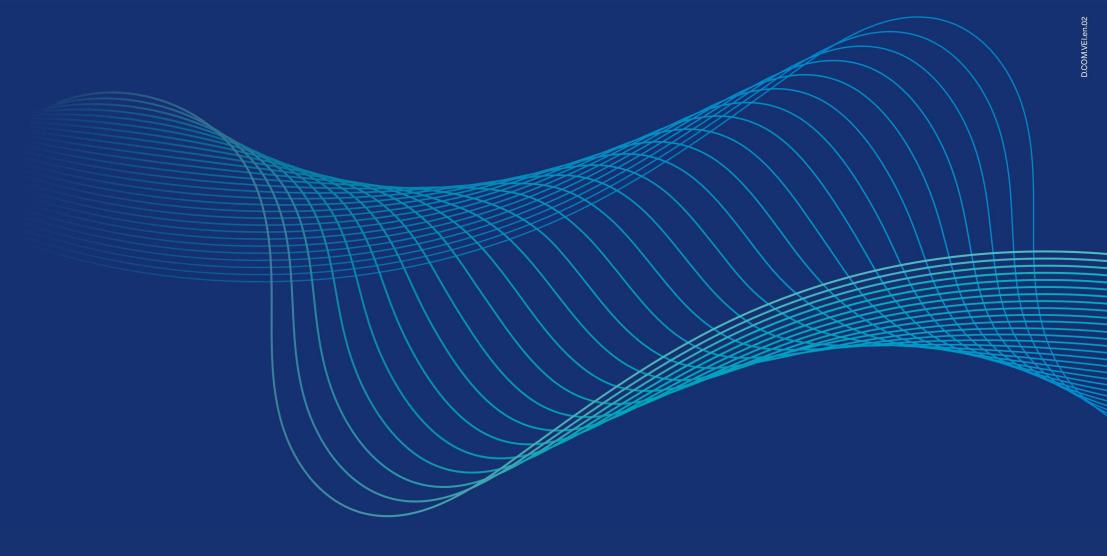


- O Plug & play device
  - Tilted touchscreen with user-friendly interface
  - Display of time and energy (number of Joules per leg)
  - Foot switch energy control
  - Export of individual procedure settings via USB key

## **Technical specifications**

MedRF4000® generator		
Technology	monopolar RF generator	
Output Frequency	4 MHz	
Dimensions	W 252 mm x D 245 mm x H 185 mm	
Supply voltage	110-230 V / 50-60 Hz	
Max. input power	125 VA	
Output setting	100% (25 W)	
Applied parts classification	type BF	
Weight	± 5 kg	
Product REF	00MEDRF4000	





#### F Care Systems NV (HQ)

Uitbreidingstraat 42-46 2600 Antwerp BELGIUM

Tel +32 3 451 51 45 Fax +32 3 451 51 39

#### F Care Systems France SARL

13 bis Av. de La Motte-Picquet 75007 Paris FRANCE

Tel +33 1 78 90 04 93 Fax +33 1 76 21 90 98 Mob +33 6 61 07 75 75

#### F Care Systems Germany GmbH

Oberstraße 3 47829 Krefeld GERMANY

Tel +49 2151 4799420 Fax +49 2151 4799425

#### **F Care Systems USA LLC**

11098 Biscayne Blvd, Suite 301 Miami, FL, 33161 UNITED STATES

Tel +1 786 288 0740 Mob +1 305 987 1822

