

OLYMPUS

Your Vision, Our Future

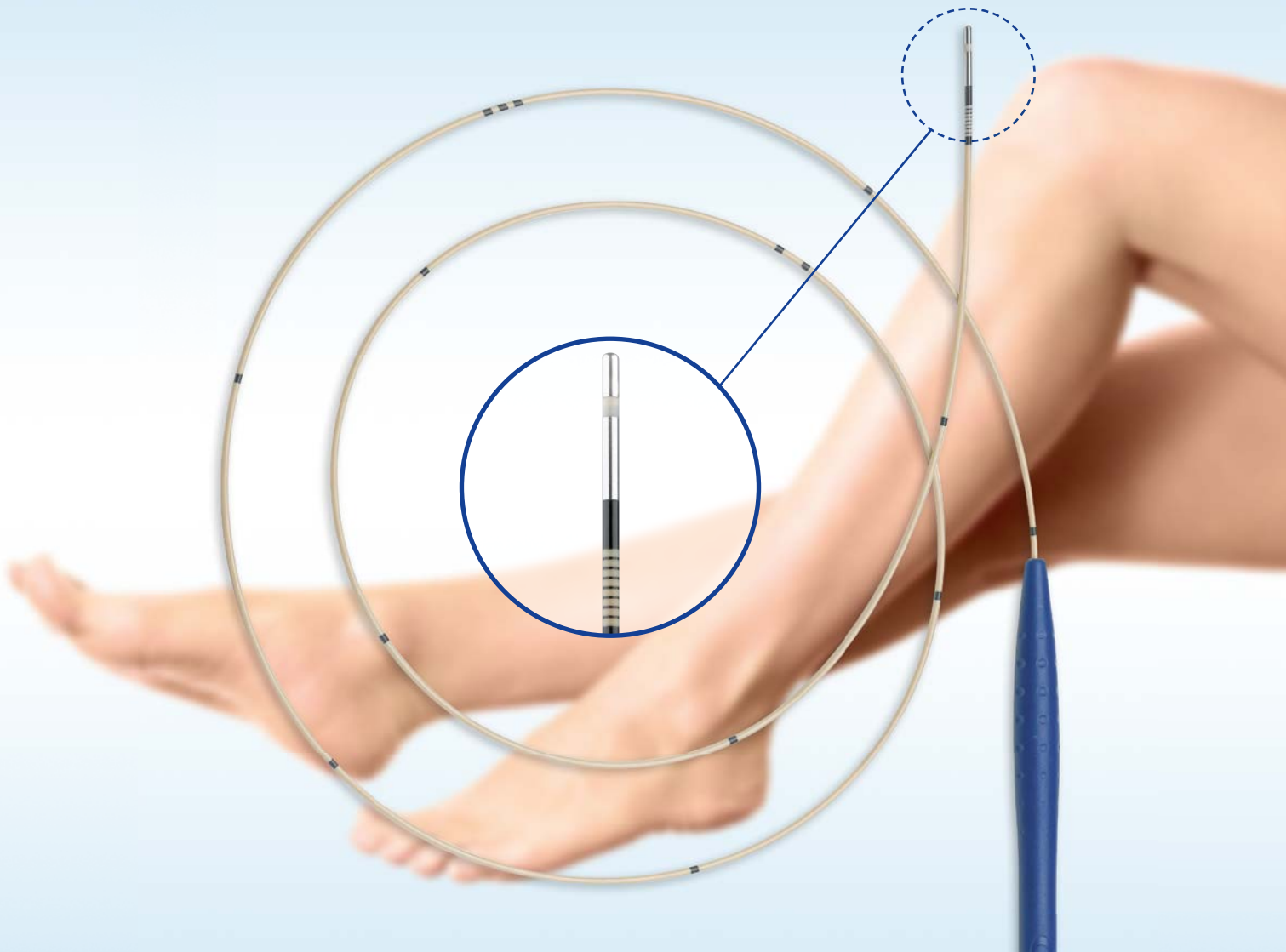
CELON

 ProCurve

 Precision

GENTLE ABLATION WITH RFITT TECHNOLOGY

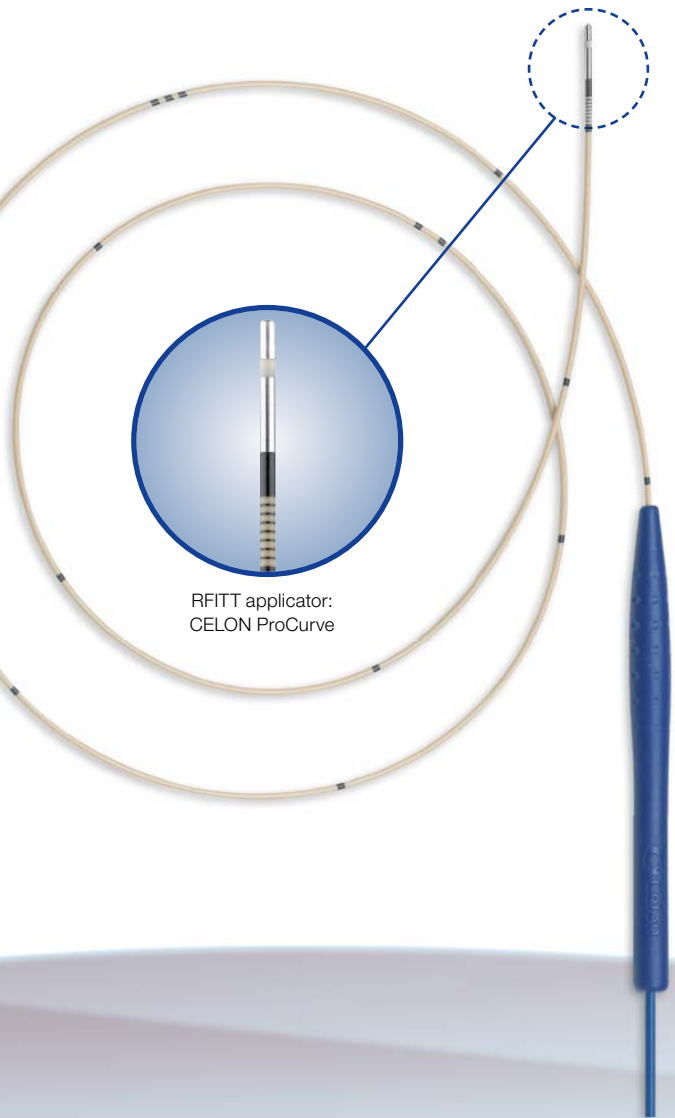
For varicose vein treatment



CELON RFITT METHOD

For healthy and beautiful legs

CELON has developed a leading bipolar radiofrequency ablation (RFA) system that can be sused to treat successfully insufficient veins in a minimally invasive procedure.



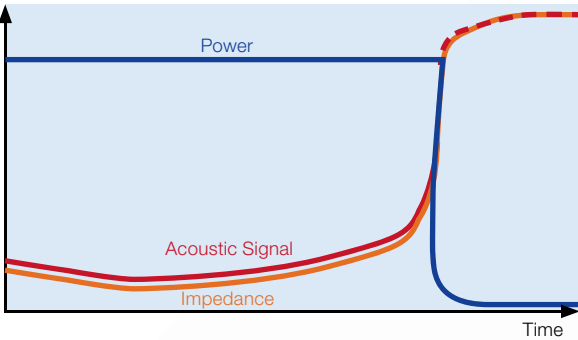
RFITT (Radiofrequency-Induced Thermotherapy)

The unique bipolar radiofrequency-induced thermotherapy (RFITT) technology represents an effective, user-friendly and safe alternative to conventional surgical methods, to laser technology and to monopolar high-frequency applications. During the procedure veins are gently heated to a temperature of 60 to 100 °C using the CELON ProCurve bipolar applicator inserted into the vein. The tip is rounded so as to allow the applicator to be inserted into and withdrawn from the vein easily and gently. This localized and precise application of radiofrequency energy causes the vein to shrink and occlude in a short time. The obliterated vein remains in the body and is no longer visible.



3D-impedance feedback

The 3D-impedance feedback of the CELON Precision RF ablation control unit ensures a controlled power output during the entire coagulation process. An acoustic feedback signal indicates the treatment status at all times. As the degree of coagulation advances, impedance is measured directly at the tip of the CELON ProCurve bipolar applicator. The patented RFITT technology continuously monitors tissue resistance, with an acoustic signal as impedance feedback. During the entire coagulation process the automatic power output control function adjusts the emitted energy. If the tissue is occluded, the impedance and the frequency of the acoustic signal increases and power output stops automatically.

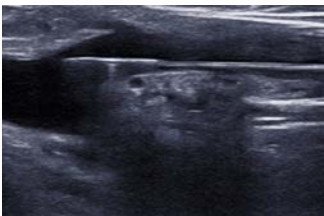


The diagram illustrates the three parameters power, impedance and acoustic signal in their relation to each other and to time. The success of the treatment is determined by the withdrawal speed. The optimum withdrawal speed is indicated by a slightly increasing frequency of the acoustic signal.

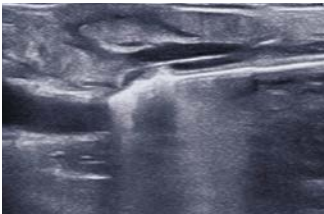


Duplex ultrasound imaging

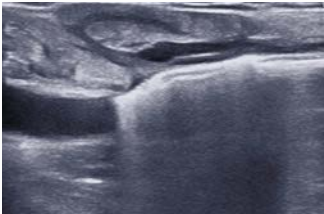
The RFITT applicator can be easily seen on duplex scanning where the two electrodes of the CELON ProCurve tip produce visible acoustic shadows. This is an advantage for clinicians new to the technique of endovenous ablation.



The flexible applicator is passed under ultrasound monitoring into the affected vein.



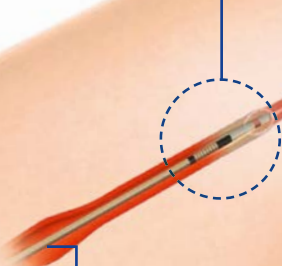
To ensure correct positioning the applicator tip must be located at the saphenofemoral junction.



The vein is occluded by impedance-controlled release of radiofrequency energy as the CELON ProCurve applicator is withdrawn slowly and smoothly.

Images courtesy of Dr. med. Peter Jü-von Lipinski, Specialist for Surgery and Vascular Surgery, Center for Vascular and Endoluminal Therapy Hamburg, Germany

Schematic view of endovenous thermal occlusion during withdrawal of the CELON ProCurve RFITT applicator.



Each applicator has a diameter of just 5 Fr. (1.8 mm) and a total working length of 120 cm. Single markers are provided on the applicator at 10 cm, a double marker at 50 cm and a triple marker at 100 cm, so providing the user with a means of ensuring the correct pull-back speed is maintained. Thanks to the bipolar electrode measuring just 1.5 cm, it makes it possible to not only treat the great and small saphenous veins, but perforator veins as well, providing for potential cost savings.

System features

- Bipolar technology (safe high-frequency treatment)
- 3D-impedance feedback (acoustic signal indicates the tissue response at all times)
- Auto stop function (reduced risk of thermal injuries or burns)
- Same RFITT applicator can be used for saphenous and perforator veins
- Free choice of anesthesia, for example GA, spinal, local, tumescent
- Free choice of access to the vein (introducer or vena section)

Patient benefits

- Rapid mobilization
- Outpatient setting
- Significantly lower levels of post-operative discomfort
- Good cosmetic results
- High patient satisfaction
- No inflammatory reactions
- Less scarring, infection and hematoma

Clinical outcome

“Complete occlusion rates of 98.4 % ...”

Radiofrequency-induced thermal therapy: results of a European multicentre study of resistive ablation of incompetent truncal varicose veins. [Phlebology 2013 Feb;28(1):38-46]

“RFA was less painful for patients than EVLA and produced less bruising in the postoperative period with comparable success rates...”

Laser and Radiofrequency Ablation Study (LARA study):

A Randomised Study Comparing Radiofrequency Ablation and Endovenous Laser Ablation (810 nm) [Eur J Vasc Endovasc Surg. 2010 Aug;40(2)]



Prof. Mark Whiteley
MS FRCS (Gen) FCPheleb
Consultant Surgeon and
Clinic Director, The Whiteley
Clinic, United Kingdom

“The Celon RFITT ProCurve system has proven to be a very successful addition to our veins service. When used as part of our protocol, we have had excellent results in both truncal veins and perforators. As it uses radiofrequency, it does away with the need for laser regulations.”



Dr. med. Thomas K. Weiler
Specialist for Surgery,
Vascular Surgery and
Phlebology, Vein Center –
Pforzheim, Germany

“I have used the Celon method for 4 years, and I am very satisfied with this in using this endovascular approach as the results are truly convincing. Given a correct indication, under proper application, an almost 100 % occlusion rate can be achieved in the treated vein segments. A particular advantage of the method is the fact that tumescent anesthesia can be basically avoided.”

CELON Precision
Power Control Unit

Control unit
“CelonLab PRECISION”,
200 – 240 V
WB991027
WB991028 100 – 120 V



Bipolar power control unit with acoustic process monitoring, automatic power control and application time display for bipolar RFITT applicators

Power cable must be ordered separately.
Delivery includes: control unit,
foot switch

Technical Data

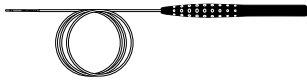
Power supply
Voltage 200 – 240 V ~
Voltage 100 – 120 V ~
Frequency50/60 Hz
Power consumption 100 W

Size
Width436 mm
Height..... 175 mm
Depth.....335 mm
Weight 9.7 kg

Output
Power 1 – 25 W
(in steps of 1 W)
Frequency 470 kHz (±10 kHz)

Safety
Protection class I, IP 21
Applied parttype BF,
defibrillation-safe

CELON ProCurve
Applicator



Flexible bipolar RFITT applicator for intraluminal use

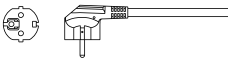
WB990206 Bipolar applicator
“CelonProCurve 1200-S15”,
1.8 mm (5.4 Fr.), spherical tip,
1200 mm shaft length,
15 mm electrode length,
sterile, single use, 5 pcs.

Accessories

WB991003 Foot switch,
for CelonLab PRECISION



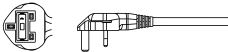
B125011A Power cable,
3 m,
type E/F (CEE 7/7),
for continental Europe



B125036A Power cable,
3 m,
type A (JIS C 8303),
for Japan



B125048A Power cable,
3 m,
type G (BS 1363),
for UK



B125060A Power cable,
3 m,
type B (NEMA 5-15),
for USA



OLYMPUS

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