



# PROVEN TECHNOLOGY CLOSUREFAST™ CATHETER

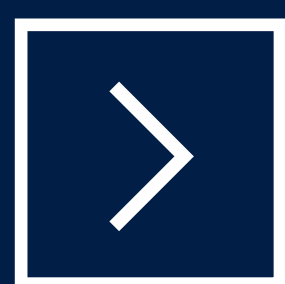
CLINICAL DATA COMPARISON  
RFA VERSUS EVLA

RELIABLE  
OCCLUSIONS

FEWER  
COMPLICATIONS

LESS PAIN

LONG TERM  
CLINICAL DATA



2+ MILLION PATIENTS  
TREATED IN OVER 100  
COUNTRIES<sup>1</sup>

A PROVEN THERAPY WITH  
5-YEAR CLINICAL RESULTS<sup>2</sup>

10+ YEARS  
OF PATIENT CARE



ClosureFast™  
Endovenous Radiofrequency Ablation

**Medtronic**  
Further, Together





# RELIABLE OCCLUSIONS

ClosureFast™  
Endovenous Radiofrequency Ablation

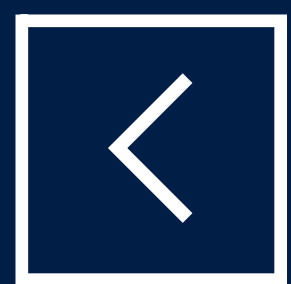


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## CLOSUREFAST™

**No need to worry about the fiber pullback speed!**

The **ClosureFast™ Endovenous Radiofrequency Ablation (RFA) Catheter** uses segmental ablation technology to deliver precise, uniform, radiofrequency energy to the catheter's heating element.<sup>1</sup>

- **Segmental ablation eliminates the inconsistency related to variable pullback speeds**
- Thermal energy is only delivered during each segmental ablation interval lasting 20 seconds, giving consistency throughout the procedure
- The device is only moved following each segmental ablation period giving accurate, reliable energy delivery
- RF delivery can be repeated at a given segment up to 3 treatments
- **Saphenous veins exceeding 12mm in diameter are successfully closed using the ClosureFast™ catheter<sup>3</sup>**

## LASER

**Even for well-trained physicians there can be inconsistencies in treatment delivery.<sup>4</sup>**

These variations (too low pullback speed and consequently too high LEED) could easily explain why the complication rate or recurrence rate are sometimes reported in clinical studies.<sup>4</sup>

Laser is not a single procedure but rather an approach composed of several variables under the control of the operator.<sup>5</sup>



# FEWER COMPLICATIONS

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## CLOSUREFAST™

**RFA has a lower risk of complications than EVLA.<sup>6,7</sup>**

From 12 articles published (10 RCT's and 2 Cohort studies) comparing the vein ablated length, pain scores (at 3 days and 10 days), quality of life and occlusion, overall complications (thrombophlebitis, haematoma and recanalization) between the EVLA and RFA group.<sup>6</sup>

**Several randomized controlled trials (RCTs) have compared different interventions for chronic venous insufficiency (CVI) management.**

**Odds of occurrence of adverse events** was  
3.3 times in the sclerotherapy arm,  
2.7 times in the EVLA arm,  
1.6 times with surgery and  
1.1 times with RFA vs VenaSeal system arm.<sup>8</sup>

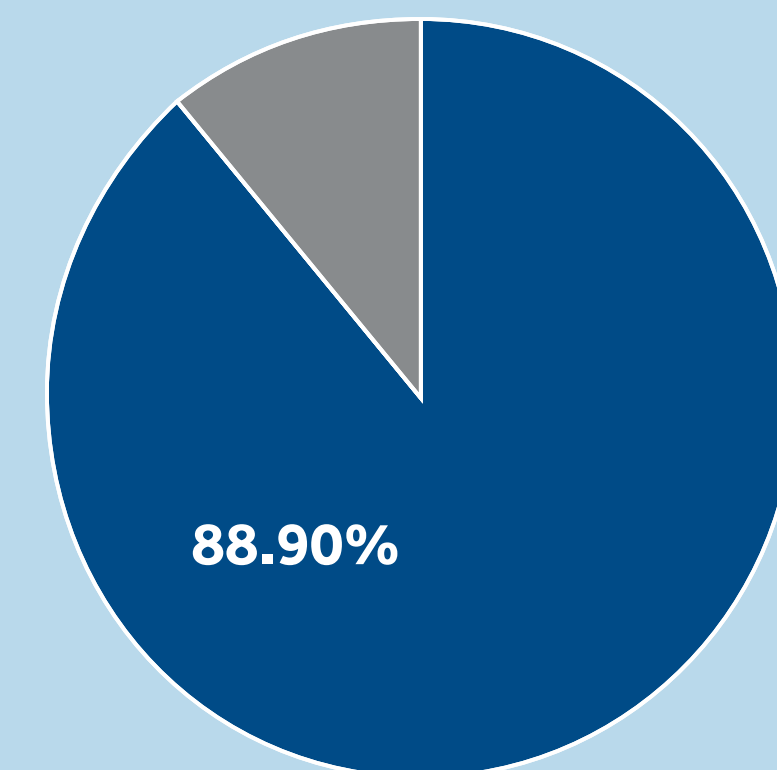
**(20 RCTs and 4570 patients)**

## LASER

While the gold-tip NeverTouch™ fiber resulted in **fewer complications**, it also resulted in a **lower efficacy** rate than the bare-tip fiber laser.<sup>9</sup>

**Efficacy rate at 5 months:**

Gold-Tip NeverTouch™ Fiber



**Fig. 1** Impact of laser fiber design on outcome of endovenous ablation



# LESS PAIN



ClosureFast™  
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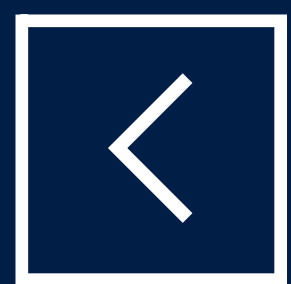


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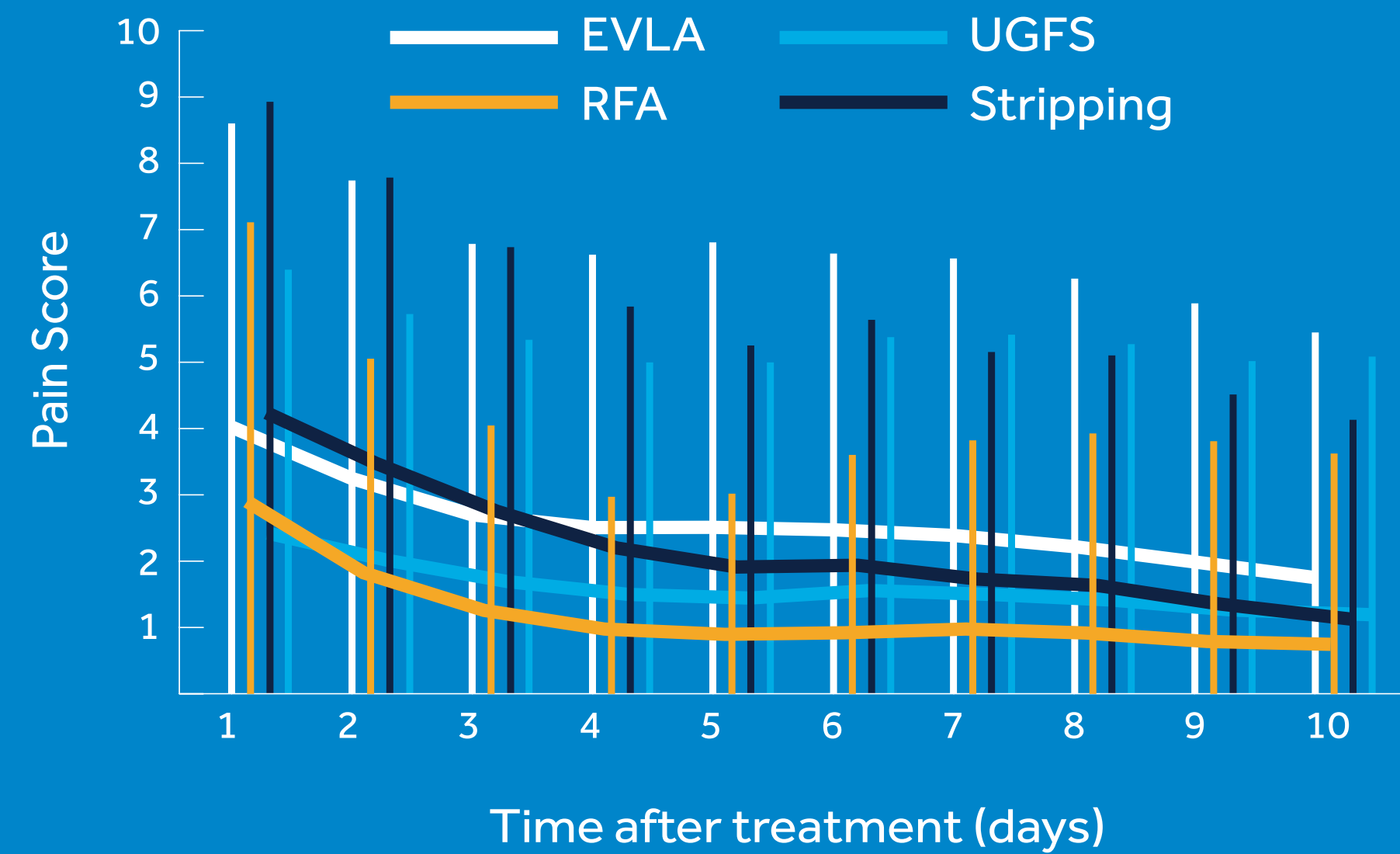
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## CLOSUREFAST™

The sequence of pain scores below demonstrates that **ClosureFast™ patients have significantly less post-operative pain than those in the EVLA and stripping groups.**<sup>10</sup>



**Fig. 2** Mean (s.d.) pain scores on a visual analogue scale from 0 to 10 for the first 10 days after treatment.

## LASER

**There was no relationship between postoperative pain scores and laser WL.** Additionally, laser WL did not affect the technical success or occurrence of complications.<sup>11</sup>

	Group 1 (N=54, <b>980-nm Laser</b> )	Group 2 (N=36, <b>1470-nm Laser</b> )	p <sup>2</sup>
Age (years)	42.03±11.81	44.21±12.44	0.445
Pain	3.25±2.42	3.45±2.30	0.717

\* Student test for equality of variances.  
Data are given as mean ± standard deviation.

**Fig. 3** Comparison of age and pain scores in groups 1 and 2.



# LONG TERM CLINICAL DATA

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## 5-YEAR FOLLOW-UP OF A RANDOMIZED CLINICAL TRIAL

Five hundred patients with Great Saphenous Vein (GSV) reflux and varicose veins were randomized to one of 4 treatments modality.

The data below represents the legs that developed recurrent varicose veins.<sup>12</sup>

Treatment	No. of legs treated	Legs with recurrence	Clinical recurrence
RFA	147	19	13%
EVLA	144 <sup>a</sup>	42	29%
UGFS	144	28	19%
HL/S	142	38	27%

a. 127 legs were treated with 1470-nm laser  
17 legs were treated with 980-nm laser

RFA: radiofrequency ablation; EVLA: endovenous laser ablation; UGFS: ultrasound-guided foam sclerotherapy; HL/S: high ligation and stripping





# LONG TERM CLINICAL DATA

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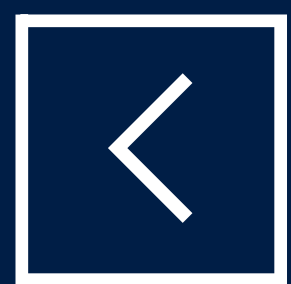


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## 5-YEAR RESULTS FROM THE PROSPECTIVE EUROPEAN MULTICENTRE COHORT STUDY

295 limbs (225 patients) were treated with the ClosureFast™ catheter at 8 sites across Europe. Patients were evaluated at 3, 6, 12, 24, 36 and 60 months post-procedure.<sup>2</sup>

295 Limbs (225 Patients)	Vein Occlusion	No Reflux
3 Months	99.7%	99.7%
6 Months	98.6%	99.3%
1 Year	96.3%	99.0%
2 Years	94.5%	97.2%
3 Years	92.6%	95.7%
5 Years	91.9%	94.9%



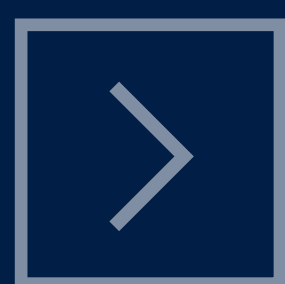


## RELIABLE OCCLUSIONS

## FEWER COMPLICATIONS

## LESS PAIN

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See the device manual for detailed information regarding the instructions for use, indications, contraindications, warnings, precautions, and potential adverse events.

For further information, contact your local Medtronic representative and/or consult the Medtronic website at [medtronic.eu](http://medtronic.eu)

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