

# Endovenous laser therapy (EVLT) versus ultrasound-guided foam sclerotherapy (UGFS) for the treatment of varicose veins

<b>Submission date</b> 21/01/2010	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 04/02/2010	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 04/03/2016	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Varicose veins are swollen and enlarged veins that usually occur on the legs. The aim of this study is to compare two treatments for varicose veins: endovenous laser therapy and ultrasound-guided foam sclerotherapy. Endovenous laser therapy involves having a tiny laser inserted into the vein, which delivers bursts of energy that heat up the vein and seal it closed. Ultrasound-guided foam sclerotherapy involves injecting special foam into the vein, which seals it closed.

### Who can participate?

Patients aged 18 or over with varicose veins

### What does the study involve?

Participants are randomly allocated to be treated with either endovenous laser therapy or ultrasound-guided foam sclerotherapy. Participants are followed up for 5 years to assess their recovery, quality of life, pain and the costs of treatment.

### What are the possible benefits and risks of participating?

Not provided at time of registration

### Where is the study run from?

Ealing Hospital (UK)

### When is the study starting and how long is it expected to run for?

April 2009 to May 2016

### Who is funding the study?

1. Ealing Hospital NHS Trust (UK)
2. STD Pharmaceuticals Ltd (UK)

Who is the main contact?  
George Geroulakos  
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## Contact information

**Type(s)**  
Scientific

**Contact name**  
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## Additional identifiers

**Protocol serial number**  
08/H0710/78

## Study information

**Scientific Title**  
Randomised controlled trial of endovenous laser therapy (EVLT) versus ultrasound-guided foam sclerotherapy (UGFS) for the treatment of varicose veins

**Study objectives**  
Patient recovery, quality of life, post-procedural pain and the direct medical costs of treatment are significantly different between endovenous laser therapy (EVLT) and ultrasound guided foam sclerotherapy (UGFS).

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Ealing and West London Research Ethics Committee, 17/03/2009

**Study design**  
Single-centre randomised controlled trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

**Health condition(s) or problem(s) studied**

Chronic venous insufficiency

**Interventions**

Group 1: UGFS to the long saphenous vein

Group 2: EVLT to the long saphenous vein and concurrent local anaesthetic phlebectomies

Total duration of treatment ranges from the primary procedure (1 day) to two further optional sessions, 6 weeks apart (3 months). Total duration of follow-up is 3 months after the last treatment session.

Updated 17/06/2014: Follow-up has been extended to 5 years after the last treatment session.

**Intervention Type**

Procedure/Surgery

**Primary outcome(s)**

1. Return to normal activities
2. Quality of life using the Aberdeen Varicose Vein Questionnaire

All outcomes will be assessed prior to the procedure (Day 0), at 3 weeks, then after optional adjuvant UGFS sessions and finally after a further 3 months. Air plethysmography will only be carried out before treatment and 3 months after the last treatment session.

Updated 17/06/2014: Outcomes will be assessed and air plethysmography will be carried out at 5 years after the last treatment session.

**Key secondary outcome(s)**

1. Direct medical costs
2. Number of treatment sessions
3. Incidence of side-effects and complications
4. Effectiveness of treatment using duplex and air plethysmography
5. Post-procedural pain scores using a visual analogue scale
6. Change in clinical severity using the venous clinical severity scoring system

All outcomes will be assessed prior to the procedure (Day 0), at 3 weeks, then after optional adjuvant UGFS sessions and finally after a further 3 months. Air plethysmography will only be carried out before treatment and 3 months after the last treatment session.

Updated 17/06/2014: Outcomes will be assessed and air plethysmography will be carried out at 5 years after the last treatment session.

**Completion date**

31/05/2016

# Eligibility

## Key inclusion criteria

1. Adult patients (aged 18 years or over, either sex) with symptomatic primary varicose veins in the long saphenous distribution and reflux greater than 1 second on duplex scanning
2. Suitability for both techniques, foam and laser

## Participant type(s)

Patient

## Healthy volunteers allowed

No

## Age group

Adult

## Lower age limit

18 years

## Sex

All

## Key exclusion criteria

1. Saphenopopliteal junction incompetence
2. Previous surgery for varicose veins
3. Previous sclerotherapy for varicose veins
4. Deep vein thrombosis, previous or current
5. Significant arterial disease (Ankle Brachial Pressure Index [ABPI] less than 0.8)
6. Active malignancy
7. Coagulopathy
8. Pregnancy
9. Known allergies to local anaesthetics or sclerosants

## Date of first enrolment

01/04/2009

## Date of final enrolment

31/05/2016

# Locations

## Countries of recruitment

United Kingdom

England

## Study participating centre

**Ealing Hospital**  
Middlesex  
United Kingdom  
UB1 3HW

## Sponsor information

### Organisation

Ealing Hospital NHS Trust (UK)

### ROR

<https://ror.org/0380w8h49>

## Funder(s)

### Funder type

Hospital/treatment centre

### Funder Name

Ealing Hospital NHS Trust (UK) - Research and Development Department

### Funder Name

STD Pharmaceuticals Ltd (UK)

## Results and Publications

### Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/05/2012		Yes	No
<a href="#">Results article</a>	results	01/08/2013		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes