

# Sonographer reporting and worksheets

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# Introduction

This document outlines how sonographers should report their findings. Refer to Section F (how should the venous insufficiency examination be reported) for detailed information.

## Information that should be included in the sonographer report

### Text report

Patient information	Patient full name
	Date of birth
	Time of examination
Examination information	Sonographers initial and surname
	Patient history and clinical information
	Technical considerations
	Diagnostic findings

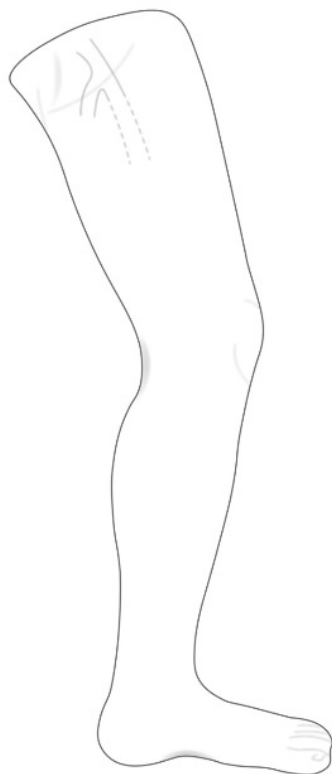
### Schematic diagrams

The schematic diagram is a core element in facilitating understanding of the venous system and haemodynamics, aiding in determining the suitability of target veins for appropriate treatments. It should illustrate all assessed venous anatomy (irrespective of whether they are competent, or incompetent), including anatomical variations, vein diameter, and venous competency, (refer to Table E1, section E, or Assessments required for specific veins (General Guidance) in short form guide (Supplementary file 1)). Enhancing the schematic diagram by using colour coding and symbols to denote pathologies can improve its effectiveness for result interpretation and communication. A legend to colour coding and symbols should always be provided.

*The following graphics can be used by sonographers to develop worksheets with standardised graphic notations. Graphics have been adapted with permission from Western Sydney Vascular and Nepean Vascular Laboratory and Parsi et al. [214]*

# Left leg

Left leg medial (Option 1)



Left leg medial (Option 2)



Left leg posterior (Option 1)



Left leg posterior (Option 2)



Left leg lateral



Left groin



Left posterior knee



#### KEY FOR COLOUR WORKSHEET

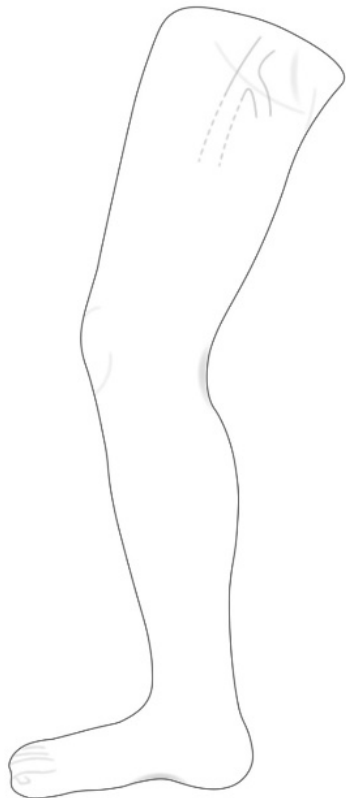
Competent	Incompetent	Aneurysm	Hypoplastic	Aplastic	Wall Thickening	Recanalised	Competent Perforating Vein	Incompetent Perforating Vein	Ligated vein	Venous ablation	Venous thrombosis	Lymph Node Venous Networks	Non-vascular Structure	Active or healed ulcer
—	—	●	---	----	==	==	×	×	##	—	—	●	●	●

#### KEY FOR NON-COLOUR WORKSHEET

Competent	Incompetent	Aneurysm	Hypoplastic	Aplastic	Ligated vein	Treated thrombosed	Competent Perforating vein	Incompetent Perforating vein	Lymph Node Venous Networks	Non-vascular structure	Venous ulcer
↑	↓	○	---	----	##	—	○	×	○	○	□

# Right leg

Right leg medial (Option 1)



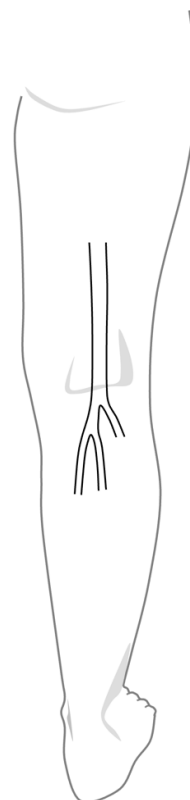
Right leg medial (Option 2)



Right leg posterior (Option 1)



Right leg posterior (Option 2)



Right leg lateral



Right groin



Right posterior knee



#### KEY FOR COLOUR WORKSHEET

Competent	Incompetent	Aneurysm	Hypoplastic	Aplastic	Wall Thickening	Recanalised	Competent Perforating Vein	Incompetent Perforating Vein	Ligated vein	Venous ablation	Venous thrombosis	Lymph Node Venous Networks	Non-vascular Structure	Active or healed ulcer
—	—	●	---	----	==	==	×	×	##	—	—	●	●	●

#### KEY FOR NON-COLOUR WORKSHEET

Competent	Incompetent	Aneurysm	Hypoplastic	Aplastic	Ligated vein	Treated thrombosed	Competent Perforating vein	Incompetent Perforating vein	Lymph Node Venous Networks	Non-vascular structure	Venous ulcer
↑	↓	○	---	----	##	—	○	×	○	○	□

# Examples of Sonographer report (samples only)

Colour coded version      Reproduced with permission from Western Sydney Vascular

Dr.

P:

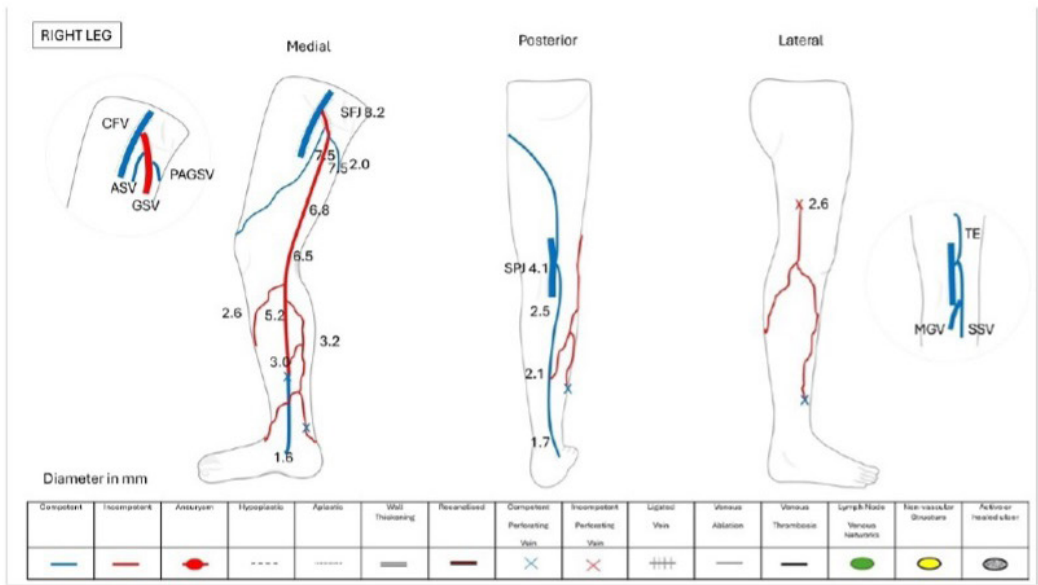
F:

Patient ID:

Exam date:

## Extremity Venous Duplex

Patient:      **GE TEST**, DOB: 6/12/1958



**Indication**      Right leg varicose veins, swelling and hyperpigmentation

**Patient ID & Consent**      Patient ID checked and verified. View: Verbal consent given

**Comment**      On the right, the common femoral vein, femoral vein, and popliteal vein are patent and competent with no evidence of valvular incompetence and venous obstruction.

The sapheno-femoral junction is incompetent.

The great saphenous vein is incompetent from the groin to the mid-calf, becoming competent at the distal calf below the level of a re-entry para-tibial perforating vein.

The sapheno-popliteal junction is located at 2cm above the popliteal crease with no evidence of reflux.

The small saphenous vein is competent throughout the calf, and its thigh extension, connecting with the posterior accessory of the great saphenous vein, is also competent.

Above the knee, the anterior saphenous vein in the upper thigh shows no evidence of reflux. Tributary veins in the anterolateral thigh drain into the anterior saphenous vein. An incompetent lateral thigh perforating vein, located at 15cm above the popliteal crease,

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feeds the varicose tributaries in the distal lateral thigh.

Below the knee, both the anterior and posterior arch veins are incompetent, with reflux originating from the great saphenous vein. A re-entry posterior tibial perforating vein, located at 12cm above the medial malleolus, drains the reflux from the posterior arch vein. Incompetent tributary veins in the lateral calf are associated with the incompetent lateral thigh perforating vein and its tributaries. A lateral calf perforating vein located at 15cm below the popliteal crease drains the reflux flow from the lateral calf tributaries.

#### Conclusion

Right Leg - Normal deep vein system.

Great saphenous vein incompetence with calf tributaries associated.

Normal small saphenous vein.

Incompetent lateral thigh perforating vein identified as a source of reflux.

Sonographer

Vascular surgeon

Signing Doctor

Page 2 of 2 for report of patient



Ph: F: E:

## Vascular Ultrasound Report

### Patient Details:

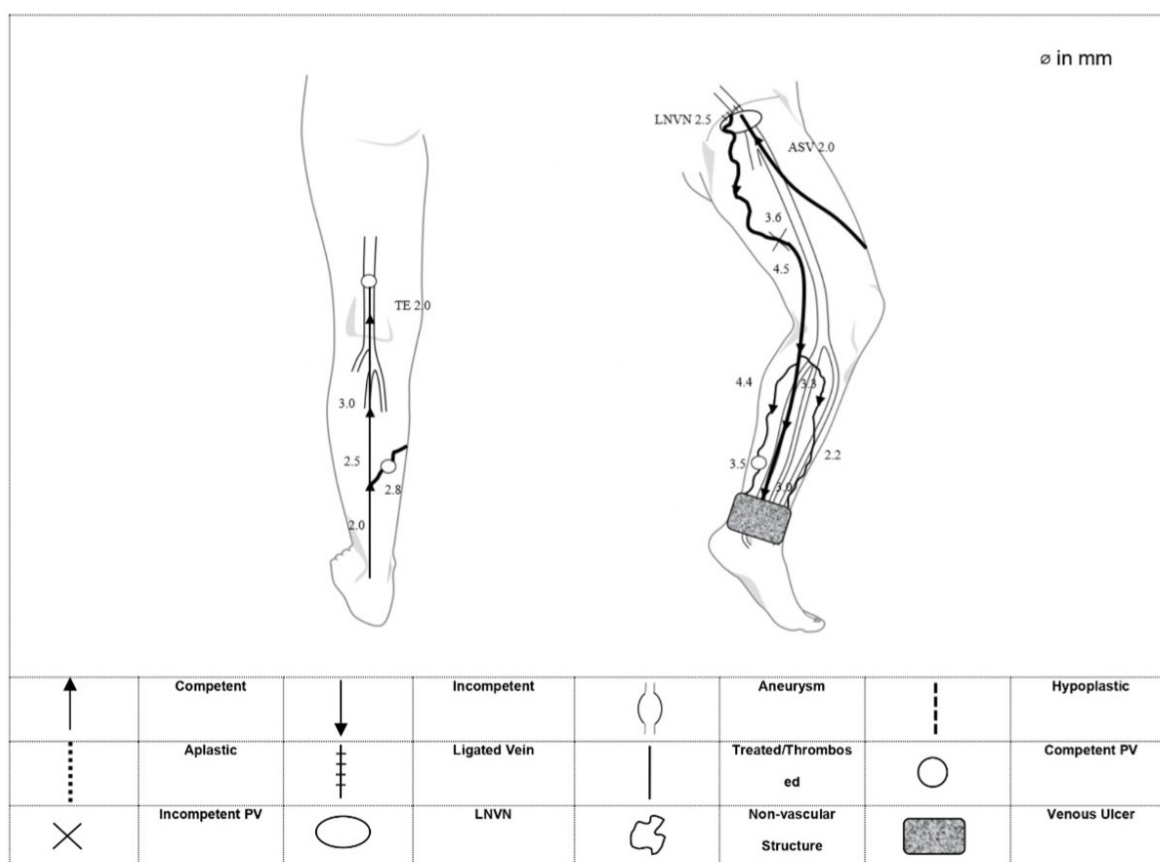
First Name	ABC	Last Name	XYZ
ID	0000	Date of Birth	10/04/1945
Date of Study	4/29/2025	Sonographer	GL

### Study: Left Leg Venous Insufficiency

**Clinical Indication:** Left leg recurrent varicosities and venous ulcer in the ankle area (>3 months)

**Medical History:** 2018 Sapheno-femoral junction ligation and great saphenous vein stripping

### Schematic Diagram:



**Report:**

On the left side, the common femoral vein, femoral vein and popliteal vein are patent and competent with no evidence of venous reflux and obstruction.

The sapheno-femoral junction has been ligated. The proximal-mid thigh segments of the great saphenous vein are not visualised, in keeping with prior stripping surgery. There is an incompetent thigh perforator ( $\varnothing$  3.6mm) located at 18cm above the knee crease, feeding the great saphenous vein remnant.

There is no sapheno-popliteal junction visualised in the popliteal fossa region, and small saphenous vein continues up, joining with the thigh extension of the small saphenous vein, with no reflux flow detected throughout.

Above the knee, a competent anterior saphenous vein is present at the proximal thigh with no evidence of venous reflux. Neovascularisation is noted in the groin region associated with incompetent lymph node venous networks. Incompetent tributary veins are found in the proximal thigh carrying reflux flow from the groin varices to the great saphenous vein remnant. The thigh extension of the small saphenous vein is seen with its flow drained via a posterior thigh perforator.

Below the knee, incompetent tributary veins are identified in both posteromedial and anteromedial calf, both travelling down to the ulcerated area and associated with the great saphenous vein incompetence. At 12cm above the medial malleolus, there is a posterior tibial perforator ( $\varnothing$  3.5mm) draining reflux from the posterior arch vein. A medial gastrocnemius re-entry perforator ( $\varnothing$  2.8mm) is also noted at 8cm below the knee crease, draining reflux flow from the posteromedial calf tributaries.

**Conclusions:**

Left leg – Norma deep venous system. Incompetent lymph node venous networks and mid-thigh perforator which are responsible for the great saphenous vein incompetence and recurrent varicosities in the calf. Competent small saphenous vein and thigh extension.

**Reported by,**

[Redacted Signature]

FRAC, Vascular, Endovascular and Transplant Surgeon

Finalised on Tuesday, 29 April 2025