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| https://www.ahcs.ac.uk/wordpress/wp-content/uploads/2014/05/IQIPSlogo-300x106.png | **Clinical Physics** |  |
| **Name of Department: Vascular Ultrasound** | |

# Lower Limb Venous Duplex

**Patient Preparation:**

Check patients identification

Explain test procedure

Obtain verbal consent or implied consent (if patient gets undressed / lies down for scan)

Take relevant history from patient

Ask patient to undress as appropriate

**Scanner Preparation:**

The probes should be cleaned with T-Spray (which must be allowed to dry on the probe for 10 minutes). Alternatively, Distel disinfectant wipes can be used to clean probes for immediate use, in between patients. After scanning an infectious patient, the room should be deep cleaned (order though the helpdesk) and the scanner cleaned according to the manufacturer’s protocol.

**Procedure:**

1. The patient should ideally be scanned standing bearing weight on the contralateral limb to encourage venous dilatation. If the patient cannot stand they should sit with the bed elevated and their legs hanging down, facing the sonographer – assessment of the common femoral vein (CFV) and sapheno-femoral junction (SFJ) might not be possible with the patient in this position. Venous scans for varicose veins/venous ulceration/venous insufficiency cannot be performed on a supine or prone patient.
2. The CFV, superficial femoral vein (SFV), PFV confluence and popliteal vein should be imaged for patency and competency. Any evidence of acute or chronic DVT should be noted. Only if specifically requested would the calf deep veins be imaged for patency and competency.
3. The SFJ, long saphenous vein (LSV) and perforators (if present) are assessed for competency. If reflux is found, the diameter of the superficial vein or perforator should be noted and reported. If any incompetent perforators are found their location should be noted and reported.
4. The sapheno-popliteal junction SPJ, (if present), Giacomini vein (if present), short saphenous vein (SSV) and posterior calf perforators (if present) are assessed for competency. If reflux is found, the diameter of the superficial vein or incompetent perforator should be noted and reported. If any incompetent perforators are found or if the SPJ is incompetent, the location of these veins in relation to the popliteal skin crease should be noted and reported.

**Criteria:**

Incompetency is reflux lasting ≥1 second on PW Doppler.

**Report:**

***Any patient in whom acute DVT is incidentally found should be brought to the attention of the referring clinician and the Fast Response Team (FRT) at RLH contactable via switchboard – the FRT should be informed of the patient’s DVT before the patient leaves the Vascular Lab, as the patient may need to be seen by the FRT urgently with their Duplex report.***

Reports will be available on PACS.

Diagrams will be drawn in complex cases and where they add value to the report.

**Recommended images to be stored on PACS:**

* Spectral Doppler images to show CFV flow, SFV flow, popliteal vein flow and where necessary SFJ / SPJ flow on distal compression.
* Colour / spectral Doppler images of PFV confluence, SFJ, LSV and SSV competence
* Where superficial vein incompetence is detected, store B-mode image of diameter(s) of LSV / SSV
* Store images of any other relevant pathology detected
* NB. In a one-stop clinic environment where time is limited, it may be difficult to record all of the above images