

Lower Extremity Venous

Image Summary

If a unilateral please provide contralateral side first. (This allows the physicians to easier assess the waveforms between Right and Left. A difference in waveforms can be indicative of disease.)

For unilateral scans, obtain the following:

1. Patient information screen
2. Trans split screen contralateral CFV with compression
3. Long contralateral CFV gray scale
4. Long contralateral CFV color Doppler
5. Long contralateral CFV phasicity with spectral analysis
6. Long contralateral valsalva /proximal compression with spectral analysis
7. Long contralateral CFV distal augmentation with spectral analysis

1. Trans split screen CFV with compression (above level of SFJ)
2. Long CFV gray scale and color Doppler
3. Long CFV phasicity with spectral analysis
4. Long CFV valsalva / proximal compression with spectral analysis
5. Long CFV distal augmentation with spectral analysis
6. Long saphenofemoral junction gray scale
7. Long saphenofemoral junction color Doppler
8. Trans split screen CFV/SFJ with compression
9. Long CFV to FV/PFV gray scale
10. Long CFV to FV/PFV color Doppler
11. Trans split screen Prox Profunda femoris vein with compression
12. Trans split screen Prox Femoral vein with compression
13. Trans split screen Mid Femoral vein with compression
14. Trans split screen Dist Femoral vein with compression
15. Long Prox Femoral gray scale and color
16. Long Mid Femoral gray scale and color
17. Long Mid Femoral vein phasicity with spectral analysis
18. Long Mid Femoral vein valsalva / proximal compression with spectral analysis
19. Long Mid Femoral vein augmentation with spectral analysis
20. Long Dist Femoral gray scale and color
21. Trans split screen Popliteal vein with compression
22. Long Popliteal vein gray scale
23. Long Popliteal vein color Doppler
24. Long Popliteal vein phasicity with spectral analysis
25. Long Popliteal vein valsalva /proximal compression with spectral analysis
26. Long Popliteal vein augmentation with spectral analysis
27. Trans split screen PTVs with compression
28. Long PTVs color Doppler
29. Trans split screen Peroneal veins with compression
30. Long Peroneal veins color Doppler

For bilateral scans, repeat the above steps on the opposite leg.

Pause protocol in the presence of thrombus to obtain additional images. Document with a waveform at the obstruction and distal to the obstruction (superior to, as venous flow is towards the heart). Follow the clot as far superior as possible. If the clot extends into the pelvis, document the iliac vein and IVC as well when possible.

The following additional sites may be imaged when indicated: inferior vena cava, common & external iliac, greater saphenous, lesser saphenous, proximal deep femoral, gastrocnemius, soleal and anterior tibial veins.

Record represented images of venous insufficiency when present as well as incidental findings such as Baker's cyst, lymph nodes or masses.

It is important to compare the phasicity & amplitude of right & left common femoral veins. A waveform that is continuous or significantly decreased in amplitude compared to the opposite side is a sign of proximal venous obstruction whether it is from a blood clot or from external venous obstruction; therefore steps should be taken to look for the obstruction when possible.

[Revised 3/7/2022]