

# DVT POCUS: 1-pager

## Indications

1. Concern for DVT (edema, calf tenderness, Homan's sign, etc.)
2. Concern for PE

## Probe Selection

1. Linear probe
2. Curvilinear probe can be helpful for obese or edematous patients

## Technique/Views

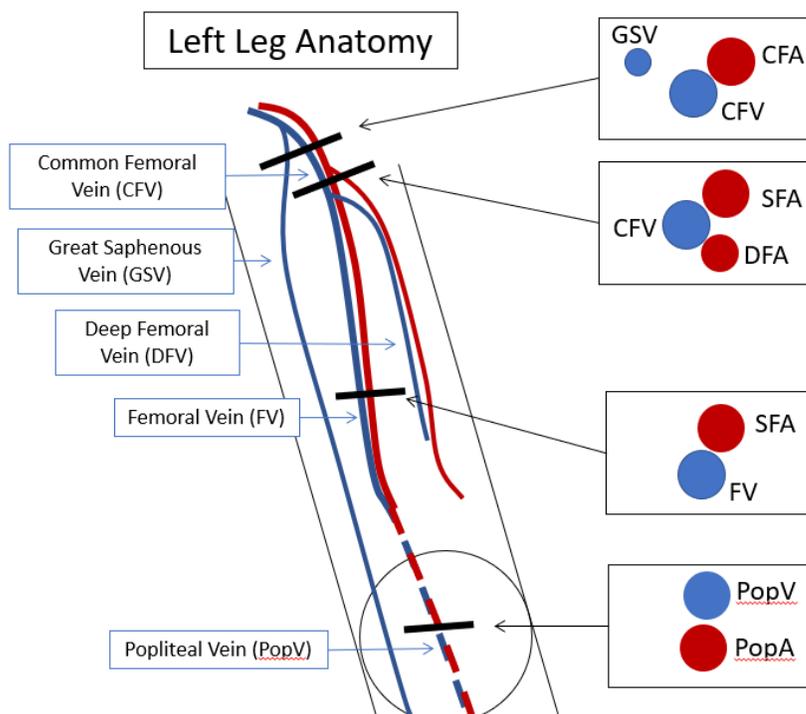
### Visualize at least three sites:

*"Compress & slide distal 1cm, repeat"*

1. Common femoral vein (medial to CFA)
2. (Superficial) Femoral Vein (medial to SFA)
3. Popliteal vein (superficial to pop artery)

### Confirm patency (3 findings):

1. Compressible = Collapses before artery  
*May need to direct pressure against bone to apply sufficient pressure*
2. Anechoic  
*Echogenic structure suggests thrombus. Fan transducer to differentiate artifact.*
3. Flow  
Doppler signal suggests patency and distinguishes from non-vascular structures. Ensure transducer is angled toward or against direction of flow to enhance doppler effect.



## Next Steps:

The impact of a DVT POCUS exam on the pre-test probability for a DVT, like any exam, is dependent on the quality of visualization and the provider's proficiency with the exam.

**If POCUS positive with clear visualization** → Consider empiric anticoagulation while awaiting formal study

### Pearls

- Elevate HOB (30°) or reverse trandelenburg improve lower extremity venous filling
- Compress with transducer perpendicular to the vessel
- Compress against a bone, not just against soft tissue
- Force of compression should not cause arterial deformation
- When using doppler, need to angle transducer slightly parallel with direction of flow

### Pitfalls

- This test does NOT rule out calf DVTs or superficial VTs
- Lymph node: Can be confused for noncompressible vein; check by moving up or down 1 cm.
- Baker's cyst: anechoic, no flow, difficult to compress
- Pseudoaneurysm: check for pulsatile flow

## References:

Baston D. Pocket Guide to POCUS: Point-of-Care Tips for Point-of-Care Ultrasound. 1<sup>st</sup> edition. Ney York City, NY. McGraw-Hill Education; 2019

Soni NJ. Point of care ultrasound. 2nd edition. ed. St. Louis, MO: Elsevier; 2019.

Pedraza Garcia J, et al. Comparison of the Accuracy of Emergency Department-Performed Point-of-Care-Ultrasound (POCUS) in the Diagnosis of Lower-Extremity Deep Vein Thrombosis. J Emerg Med. 2018.