

UPPER EXTREMITY VENOUS DOPPLER:

- Prep: None
- Basic Principles: Use appropriate linear transducer depending on patient body habitus. Patient supine with head slightly elevated and effected arm extended. Evaluate the venous system in gray scale, color and pulsed wave Doppler.
- The examination should include the following:
 - Grayscale image evaluation with and without compression at each of the following levels (where anatomically possible):
 - Jugular vein
 - Subclavian/Innominate vein
 - Axillary vein
 - Cephalic and Basilar veins
 - Brachial vein
 - Focal symptomatic areas, if present
 - Color images at the following levels:
 - Jugular vein
 - Subclavian vein
 - At a minimum (even if examination is otherwise unilateral), the right and left subclavian venous spectral Doppler should be recorded to evaluate for asymmetry or loss of cardiovascular pulsatility and respiratory phasicity. All spectral Doppler should be obtained from the long axis and should be from the same location in the vein, and in the same patient position. (per ACR protocol)
 - Axillary vein
 - If seen, the innominate vein should be recorded with color Doppler imaging.
- Abnormal examinations generally require additional images. The extent and location of sites where the veins fail to compress or fill with color completely should be clearly recorded and generally require additional images. Long-axis views without compression may be helpful to characterize the abnormal vein.
 - Measure the length of a superficial venous thrombosis and the distance from the deep system. Document on the e-form and worksheet.
- The presentation, clinical indication, or clinical management pathways may require protocol adjustments such as imaging the forearm veins or performing bilateral study.
 - Other vascular and nonvascular abnormalities, if found, should be recorded but may require additional imaging for diagnosis or further characterization.