



## DOPPLER ULTRASOUND

- Generally considered the initial imaging test of choice for the investigation of suspected upper extremity deep venous thrombosis.
- Involves: [10](#)
  - An assessment of the compressibility of the subclavian, axillary and sometimes the internal jugular, innominate, brachial and basilic veins.
  - Doppler imaging to assess the characteristics of venous flow.
- Sensitivity has been shown to vary from 78% to 100%. [1-6](#)
- Specificity has varied from 82-100%. [1-6](#)
- Advantages of Doppler ultrasound over contrast venography
  - less invasive
  - more widely available
  - less expensive
- Disadvantages:
  - Not validated to the same extent as it has been for leg DVTs. [9](#)
  - False negative and false positive results.
  - Visualisation and compression of the subclavian vein may be hindered by the overlying clavicle. [7](#)

## VENOGRAPHY

- Considered the gold standard investigation for the investigation of upper extremity deep venous thrombosis. [1](#)

- Involves the injection of contrast into the antecubital vein or if this is not possible a more distal vein. Images are taken of the venous system and thrombus is demonstrated as a filling defect.
- Is rarely used in clinical practice because: [8](#)
  - It can be technically difficult.
  - It requires the use of a contrast agent which may cause an allergic reaction, nephrotoxicity or a chemical phlebitis.
- Like Doppler ultrasonography, venography is operator dependent with more accurate results and better inter-observer and intra-observer agreement with more experienced operators. [9](#)

## REFERENCES

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#### Website

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