

Chapter 6 & 7 Exercises:  
Venous Imaging & Insufficiency

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vi-1. A venous Doppler exam of the popliteal vein reveals a sustained flow signal upon release of distal compression. This would indicate which of the following:

- A. Proximal obstruction.
- B. Venous reflux.
- C. Normal venous flow.
- D. Distal obstruction.

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vi-2. Virchow's triad is best described as the following:

- A. Circulatory stasis and hypocoagulability with intimal injury.
- B. Circulatory stasis, hypercoagulability and intimal injury.
- C. High cardiac output and intimal injury.
- D. Intimal injury, hypercoagulability and poor stroke volume.

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vi-3. Continuous, non-phasic venous flow unilaterally in a common femoral vein suggests which of the following conditions.

- A. Normal flow.
- B. Femoral vein thrombosis.
- C. IVC obstruction.
- D. Iliac vein obstruction.

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vi-4. What is another name for an abnormal popliteal structure containing synovial fluid?

- A. Hematoma.
- B. Ganglion cyst.
- C. Baker's cyst.
- D. Lymph node.

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vi-5. The presence of respiratory variation in the femoral vein rules out DVT in the ipsilateral popliteal vein. True or False?

- A. True
- B. False

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vi-6. A condition resulting in a grossly swollen and cyanotic leg that is caused by iliofemoral venous thrombosis is known as:

- A. Stasis dermatitis.
- B. Lymph edema.
- C. Homan's sign.
- D. Phlegmasia cerulea dolens.

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vi-7. What is the name of the perforating veins located in the upper thigh?

- A. Cockett's.
- B. Boyd's.
- C. Hunterian.
- D. Dodd's.

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vi-8. Incompetence in this valve often leads to the entire GSV being incompetent. Name this valve?

- A. External iliac valve.
- B. Terminal valve.
- C. Mitral valve.
- D. Sapheno-popliteal valve.

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vi-9. In addition to incompetent valves, which of the following is a cause of venous insufficiency?

- A. Arterial occlusive disease.
- B. IVC filter.
- C. Chronic venous outflow obstruction.
- D. Atresic great saphenous vein.

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vi-10. With the patient standing, what time value is the threshold between normal and abnormal reflux in the deep veins?

- A. 0.35 second.
- B. 0.5 second.
- C. 1 second.
- D. 2 seconds.

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vi-11. Perforating veins exceeded this diameter have a high predictive value for being incompetent.

- A. > 1 mm
- B. > 1.5 mm
- C. > 2 mm
- D. > 2.5 mm
- E. > 3.5 mm

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vi-12. Which of the following describes the anatomical position of the popliteal vein compared to the popliteal artery?

- A. It lies posterior to the artery.
- B. It's lateral to the artery.
- C. It's medial to the artery.
- D. It lies anterior to the artery.

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vi-13. Thrombosis of the left common iliac vein by extrinsic compression of the right iliac artery is known as:

- A. Marfan's syndrome.
- B. Nutcracker syndrome.
- C. Arcuate ligament syndrome.
- D. May-Thurner syndrome.

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vi-14. Which of the following best describes primary venous insufficiency?

- A. Insufficiency caused by chronic outflow obstruction
- B. Insufficiency caused by congenital absence of valves.
- C. Insufficiency resulting from previous deep vein thrombosis.
- D. Insufficiency resulting from poor arterial inflow.

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vi-15. Which of the following veins should not be evaluated with the valsalva maneuver for reflux?

- A. Popliteal.
- B. Great saphenous.
- C. Common femoral.
- D. Proximal femoral.

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vi-16. Perforating veins should be evaluated with the patient in which of the following positions?

- A. Supine.
- B. Sitting, leg dependent.
- C. Trendelenburg.
- D. Semi-Fowler's.

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vi-17. Why is Doppler angle correction not necessary in venous imaging.?

- A. Velocity is already known.
- B. Velocity calculation is not necessary.
- C. Doppler angle can be at 90 degrees.
- D. Flow direction is not important.

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## Chapter 6. Venous imaging-lower

vi-1. B  
vi-2. B  
vi-3. D  
vi-4. C  
vi-5. B, False  
vi-6. D  
vi-7. D  
vi-8. B  
vi-9. C  
vi-10. C  
vi-11. E  
vi-12. A  
vi-13. D  
vi-14. B  
vi-15. A  
vi-16. B  
vi-17. B

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