



M.P. SHAH HOSPITAL
A Legacy of Care

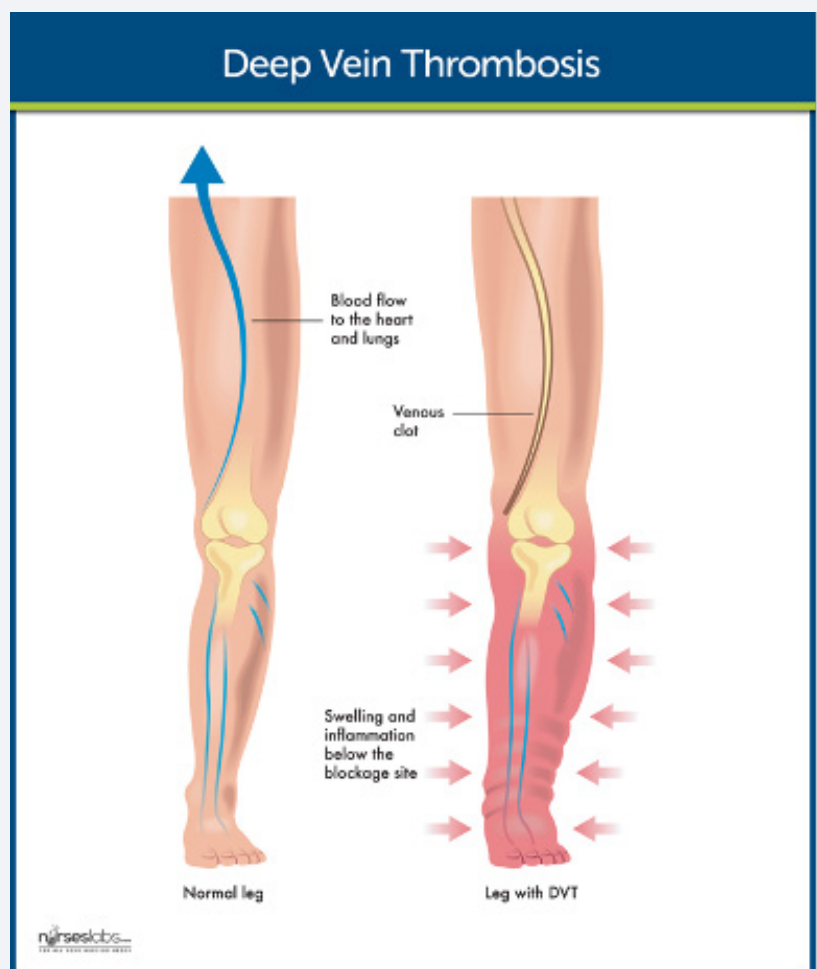
DEEP VENOUS THROMBOSIS (DVT)

DEFINITION

This occurs when there is the formation of a blood clot in one or more of the deep veins, usually the ones found in the leg.

HOW DOES THE CLOT FORM?

- **Reduced blood flow.** Venous stasis occurs when blood flow is reduced when veins are dilated.
- **Damage.** Damage to the intimal lining of blood vessels creates a site for clot formation.
- **Phlebitis.** Inflammation of the vein walls.
- **Platelet aggregates.** Venous thrombi are aggregates of platelets attached to the wall of the vein (a tail-like appendage containing fibrin, white blood cells, and many red blood cells).
- **Tail.** The "tail" can grow in the direction of the blood flow to form successive layers.
- **Fragmentation.** Break down of the clots spontaneously or it dissolves naturally, or it can occur with elevated venous pressure.
- **Recanalization.** After an acute episode of DVT, there is the reestablishment of the lumen of the vessel.





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CAUSES OF DEEP VENOUS THROMBOSIS

- **Direct trauma.** Direct trauma to the vessels, as with fracture or dislocation, diseases of the veins, and chemical irritation of the veins from IV medications and solutions, can damage the veins.
- **Blood thinners.** Patients who have been on blood thinners and have been suddenly withdrawn.
- **Oral contraceptives.** Oral contraceptive use also leads to the formation of clots.
- **Pregnancy.** Normal pregnancy leads to an increase in clotting factors that lasts up to 8 weeks after birth.

SIGNS AND SYMPTOMS

- Oedema swelling of the affected limb
- Painful, tense, cool to touch limb
- Pain as the limb inflammation occurs
- Later pulmonary embolism once the blood clot moves to the lungs.

DIAGNOSTIC TEST TO CONFIRM DEEP VENOUS THROMBOSIS

- Doppler ultrasound to identify the arteriole blood flow
- CT scan images of the soft tissue to identify volume change

MEDICAL MANAGEMENT

- Endovascular - (thrombolysis) catheter-directed breaking of clots
- Vena cava filter- protection that is normally placed during thrombolysis
- Use of anticoagulants that prevent or reduce blood clot formation i.e. warfarin, clexane



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WHAT SHOULD I DO WHEN AT HOME WITH DVT?

- Take medication as prescribed and at regular time.
- Do blood test at scheduled times to check if the drug dose is adequate and if it's working.
- Stop taking alcohol as it interferes with the function of the anticoagulant.
- Elevate affected limb at rest and regular exercise to aid in blood circulation.
- Use of compression stocking to improve on blood flow and prevent the blood clot from dislodging.

COMPLICATIONS

- Bleeding as a result of anticoagulant use
- Heparin use i.e. clexane reduces platelet count

REFERENCE

1. <https://emedicine.medscape.com/article/1911303-overview>
2. <https://www.aafp.org/afp/2012/1115/p913.html>

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