

What is Deep Vein Thrombosis ?



Definition



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Deep vein thrombosis (DVT) occurs when a thrombus (blood clot) develops in veins deep in the body secondary to veins injury or the blood flowing through them is too sluggish due to immobility or thickened blood. Blood clots may partially or completely block blood flow through the vein; 90% of DVT happen in the lower extremities.

Symptoms



How Does Deep Vein Thrombosis Presents ?

Swelling of your extremity.
Pain or tenderness of the extremity.
The area of the extremity may be warmer than usual.
Skin is red or discolored.
Swollen extremity veins
Abdominal pain or flank pain (when blood clots affect the veins deep inside your abdomen).
Severe headache (usually of sudden onset) and/or seizures (when blood clots affect the veins of your brain).
Up to 30% of people with a DVT don't have symptoms
Some people don't know they have a DVT until they present with pulmonary embolism.

Causes



What Are The Causes Of Deep Vein Thrombosis ?

Inherited condition increasing risk for blood clots.
Cancer and some of its treatments (chemotherapy).
History of deep vein thrombosis.
Vein injury, surgery or immobilization.
Not moving for a long period of time like travelling
Pregnancy or recent delivery.
Being older than 40.
Overweight/obesity.
Autoimmune disease (lupus, vasculitis or inflammatory bowel disease).
Smoking.
Varicose veins.
Taking birth control pills or hormone therapy.
Central venous catheter or pacemaker.
COVID-19.

Consequence



Consequences Of Deep Vein Thrombosis ?

Even though DVT itself is not life-threatening, the blood clots have the potential to cause pulmonary embolism, this can be life-threatening.

50% of those who get a DVT in their legs develop symptoms of intermittent leg pain and swelling that may last, called post-thrombotic syndrome and is caused by the damage to the valves and inner lining of the veins leading to engorgement of the veins and increase pressure inside the veins with pain and swelling:

- Pooling of blood.

- Chronic leg swelling.

- Increased pressure within the veins.

- Increased pigmentation or discoloration of the skin.

- Leg ulcers known as venous stasis ulcers.

Treatment



How Do We Manage Deep Vein Thrombosis ?

Treatments include medications called anticoagulants (blood thinners), compression stockings and elevating the affected leg(s) at different times throughout the day. In a minority of cases, when the DVT is extensive, invasive treatments (catheter-based procedures) may be required.

1. Anticoagulants(blood thinners)

This type of medication makes it harder for your blood to clot and prevents clots from getting bigger and moving. Anticoagulants don't destroy blood clots. Your body may naturally dissolve a clot, these medication are: heparin, warfarin (Coumadin), apixaban (Eliquis), rivaroxaban (Xarelto), edoxaban (Savaysa) and dabigatran (Pradaxa).

2. Compression Stockings

You will probably need to wear graded elastic compression stockings to either improve or completely get rid of leg swelling. Damage to the small valves inside your veins often causes this swelling. You may also have swelling because the DVT is blocking blood flow in your vein.

3. DVT Treatment Procedures

In some cases when DVT are extensive and cause severe symptoms catheter based intervention needs to be done either with thrombolysis, thrombolytic medications (clot busters) like tissue plasminogen activator (TPA), dissolve the clot. It can be injected in the vein with a catheter called EKOS; or Thrombectomy Which is a catheter based procedure where the blood clot can be retrieved through the vein with a catheter (ENARI or PENUMBRA).