

Venous Thromboembolism

Overview:

- Venous thromboembolism is a common and potentially lethal disease, that can lead to serious long-term complications.
- Venous thromboembolism is a disorder that includes deep vein thrombosis, which occurs when a blood clot forms in a deep vein then travels through the bloodstream to the lungs.
- Venous thromboembolism can develop due to certain known causes, or, in some cases, it can happen for no reason. It is important to be familiar with the signs and symptoms.
- The risk of deep vein thrombosis increases when several risk factors are present at the same time.
- The best way to prevent this condition is by staying active and avoiding inactivity and lethargy .

Introduction:

Venous thromboembolism (VTE) refers to a blood clot that starts in a vein. It is a disorder that includes deep vein thrombosis and pulmonary embolism. This common and potentially lethal disease is often overlooked but it can lead to serious long-term complications.

Other Names:

Venous thrombosis

Types of Venous Thromboembolism:

Deep vein thrombosis (DVT): Deep vein thrombosis occurs when a blood clot forms in one or more of the deep veins in the body; usually in the legs, but sometimes the arms or other veins. Deep vein thrombosis can be very serious because blood clots in the veins can break loose, travel through the bloodstream, and lodge in the lungs.

Pulmonary embolism (PE): A pulmonary embolism occurs when a clot travels through the bloodstream to the lungs.

Cause:

Blood is in a constant state of circulation; it is constantly flowing through the blood vessels. However, in certain cases, blood clots may form due to the following reasons:

1. If something stops or slows down the blood flow in blood vessels.
2. If the density of platelets and blood plasma increases.
3. If there are any changes in the vein wall or if it sustains any damage.
4. Clots may also form for no apparent reason.

Risk Factors:

- Genetics.
- Other chronic health conditions (such as: high blood pressure and others).
- Inactivity and prolonged bed rest (such as: during a long hospital stay or paralysis).
- Sitting for long periods of time (such as: when driving or flying).
- Pregnancy, as it increases the pressure in the veins of the pelvis and legs.
- Birth control pills (oral contraceptives) or hormone replacement therapy.
- Personal history of deep vein thrombosis or pulmonary embolism.
- Hip or pelvis fractures.
- Cancer and some of its treatments.
- Surgery.
- Being overweight or obese.
- Inheriting a blood disorders.
- Smoking.

Symptoms:

Deep vein thrombosis	Pulmonary embolism
<ol style="list-style-type: none">1. Leg pain.2. Swelling in the leg or arm.3. Red or discolored skin on the leg.4. A feeling of warmth in the affected leg.	<ol style="list-style-type: none">1. Sudden shortness of breath.2. Chest pain or discomfort that worsens when you take a deep breath or when you cough.3. Rapid or irregular heartbeats.4. Coughing up blood.5. Dizziness or fainting.

When to See a Doctor?

Consult your doctor immediately if you notice any of the abovementioned signs and symptoms of deep vein thrombosis or pulmonary embolism.

Complications:

- Chronic thromboembolic pulmonary hypertension.
- Venous insufficiency (post-thrombotic syndrome), which is caused by the damage the venous valves have sustained from the blood clot and leads to swelling and fluid retention in the legs.

Diagnosis:

- Physical examination.
- Laboratory tests: Blood test.
- Other tests: Ultrasound, X-ray scan, MRI scan, and CT scan.

Treatment:

Treatment for venous thromboembolism usually involves taking anticoagulant medications, which reduce the blood's ability to clot. These medications are given either by mouth (orally), by injection through the skin, or by an intravenous (IV) injection.

The patient might also be advised to wear compression stockings to improve blood flow, prevent swelling, and stop the blood from pooling and clotting again.

In rare cases it may be necessary to perform surgery to remove a clot.

Prevention:

- Stay active and avoid lack of movement and lethargy.
- Avoid sitting for long periods of time, (such as: after surgery).
- Use intermittent pneumatic compression devices if you are unable to get up and move around.
- Wear compression stockings.
- Engage in regular physical activity.
- If you are traveling long distances, whether by land or by air, try to move your feet or keep them elevated, and try to walk around if possible.
- Drink plenty of fluids to prevent dehydration.
- Maintain a healthy diet and avoid obesity.
- Avoid crossing your legs for long periods of time as it restricts blood flow.
- Make sure to take your anticoagulant medications as instructed by your physician.
- Quit smoking.

Frequently Asked Questions:

- **Does massaging the swollen area stimulate blood flow and treat clots?**

Answer: No, massaging the swollen area in case of suspected clot may result in dislodging the clot which only makes it travel through the bloodstream to potentially more critical areas of the body.

- **Should aspirin be taken after the age of ٤٠ to prevent blood clots?**

Answer: Aspirin must not be taken without a doctor prescription. The doctor may prescribe aspirin in certain cases if the patient has certain risk factors for heart disease.

Clinical Health Education Department

For more information, please contact us by email on:

Hpromotion@moh.gov.sa