



PATIENT & FAMILY EDUCATION / NYU Medical Center

DVT & PE

DEEP VEIN THROMBOSIS (DVT)

PULMONARY EMBOLISM (PE)

A Patient's Guide



DVT & PE

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DVT & PE

WHAT ARE DEEP VEIN THROMBOSIS (DVT) AND PULMONARY EMBOLISM (PE)?

Deep vein thrombosis (DVT) is a blood clot that forms in a deep vein. They most often occur in the legs, but can occur in other parts of your body as well. The veins return blood to the heart, which sends it to the lungs to pick up oxygen. If a blood clot forms in a deep vein it can block the flow of blood.

Sometimes a piece of a blood clot is carried by the bloodstream through the heart to a blood vessel where it lodges and reduces or blocks the flow of blood. This type of clot is called an embolism. A blood clot lodged in a blood vessel in the lung is called a **pulmonary embolism (PE)**.

WHO IS AT RISK OF DEVELOPING DVT OR PE?

Approximately 2 million people each year experience **DVT**. At risk include those people:

- Who undergo *major* surgery
 - Orthopedic (e.g., hip or knee replacement)
 - Abdominal
 - Gynecological
- Have cancer
- Have badly broken bones or traumatic injuries
- Are immobile
- Are pregnant
- Have previously been diagnosed with **DVT**
- Are older
- Who are smokers; have a sedentary life style; take hormone replacement or birth control pills containing estrogen

Pulmonary embolus (PE) affects approximately 600,000 people each year; about 60,000 of these cases are fatal. Nearly 70% of people who have **PE** also have **DVT**.



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WHAT CAUSES DVT AND PE?

DVT is associated with slowing of blood flow in the deep veins and/or injury to the vein. When blood flow slows, blood clots can form on irregular areas along the blood vessel wall.

WHAT ARE THE SYMPTOMS OF DVT?

Symptoms of **DVT** in the leg include pain, swelling and redness. Many people experience no symptoms. Symptoms of **PE** may include difficulty breathing, rapid breathing, and/or chest pain.

WHAT ARE THE RISKS OF DVT AND PE?

The main risk of **DVT** is that a clot or a piece of a clot will break off and travel to the lungs, causing **PE**. If left untreated, **PE** can be fatal. Since most **PEs** come from **DVT**, your health care provider's primary focus is to treat the **DVT**.

HOW ARE DVT AND PE TREATED?

- Blood thinning (anticoagulant) medications to prevent more clots from forming (eg, warfarin, Coumadin®, heparin, Lovenox®, Fragmin®).
- Occasionally medication is used to dissolve the clot (thrombolytic) (e.g., streptokinase).
- Umbrella-like filters can be placed in a blood vessel to keep clots from reaching the lungs (e.g., Greenfield filter).
- In rare circumstances clots may be surgically removed.



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PATIENT RESPONSIBILITIES:

- Follow doctor's instructions, especially regarding medications.
- Keep scheduled appointments.
- Examine legs daily for increased swelling or pain.
- Wear support hose, change positions often or walk, and drink plenty of fluids.
- Keep your legs elevated above the level of your heart while at rest.

WHEN DO I CALL THE HEALTH CARE PROVIDER?

- If you experience worsening symptoms such as increased swelling, redness, warmth, or pain in the legs
- Any signs of complications from anticoagulation therapy such as:
 - Unusual bleeding (e.g., nosebleed, bleeding gums, red or cola colored urine, black bowel movements which are not related to use of iron supplements, bruising)
- If you develop sudden onset of difficulty breathing, shortness of breath, or chest pain, **go to the nearest Emergency Room immediately!**



RESOURCES

- ***American Heart Association***

1-800-553-6321 or www.americanheart.org

- <http://www.dvt.org/dvt/>

An Internet resource for deep vein thrombosis and pulmonary embolism

- <http://www.coumadin.com/>

Provides consumers with information on oral anticoagulants

- <http://www.warfarinfo.com>

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