



About Venous Disease

What are Venous Diseases?

Venous diseases are acute or chronic disorders of the veins and include the following:

- Venous Thromboembolism, which includes Deep Vein Thrombosis and Pulmonary Embolism
- Chronic Venous Insufficiency
- Post-Thrombotic Syndrome
- Varicose Veins

What is Venous Thromboembolism or “VTE”?

Venous Thromboembolism or “VTE” is a common, potentially life-threatening, but treatable and largely preventable disorder that includes two related conditions:

- 1) Deep Vein Thrombosis (DVT) - Abnormal clotting of the blood in one or more veins, most commonly the veins of the leg; and
- 2) Pulmonary Embolism (PE) - Occurs when a DVT breaks free from its original site in a vein and then travels through the heart and then into the lungs.

How Common is VTE?

VTE is very common.

- VTE is the third most common vascular disorder after heart disease and stroke
- Few Americans have any knowledge about VTE or how to prevent it
- VTE occurs in nearly 1 million Americans every year
- More than 100,000 Americans die from PE every year
- Death from VTE is more common than all deaths from breast cancer, car crashes and AIDS combined
- In more than 90% of fatal cases of PE, there was no use of therapy to prevent death
- VTE can affect men and women of all ages, including newborns and pregnant women
- The risk of VTE increases as we get older
- Among hospitalized patients who receive no intervention to prevent VTE the risk of developing a DVT is:
 - 10-20% in patients admitted with an acute medical illness (such as pneumonia or heart failure)
 - 20-40% after a major general surgical or gynecologic procedure
 - 40-60% after hip or knee replacement surgery
 - 60-80% after a spinal cord injury

Who's at Risk?

- VTE may affect people who have recently had surgery or who are admitted to the hospital for a medical illness
- Pregnancy, the birth control pill, hormone replacement therapy, leg injury or major injury elsewhere, certain cancers, many cancer treatments, and reduced mobility increase the risk of VTE.
- Approximately one third of patients who develop VTE have no identifiable risk factors.
- Approximately one in ten healthy people have a disorder of their blood clotting system which increases their chances of developing VTE in the future – many of these blood clotting disorders are inherited

What are the Consequences of VTE?

Consequences of DVT:

- Leg swelling and/or leg pain are the most common symptoms of DVT.
- DVT can result in PE; in fact, when DVT is diagnosed, at least one half of the patients already have PE.
- Chronic leg swelling, discomfort, skin discoloration, or leg ulcers are frequent long-term consequences of DVT, and are referred to as Post-Thrombotic Syndrome (PTS). PTS occurs in one third to one half of patients with DVT and results in significant disability and discomfort that may affect patients for many years.
- When DVT occurs in pregnancy it can lead to complications such as PE, high blood pressure, miscarriage, stillbirth, or delivery of small babies.

Consequences of PE:

- Chest pain, shortness of breath, a feeling of apprehension, coughing up of blood, or fainting are common symptoms.
- Can lead to sudden death.
- Some PE patients develop chronic shortness of breath and reduced exercise tolerance.
- PE is the number one cause of maternal death in pregnancy.

Prevention of VTE

- About two thirds of VTE occur as a result of hospitalization for surgery or a medical illness.
- With proper use of anticoagulant medication, most hospital-acquired VTE can be prevented.
- PE is the most common preventable cause of hospital death.
- There are hundreds of randomized trials that demonstrate the effectiveness of thromboprophylaxis and more than 20 evidence-based guidelines recommending the routine use of thromboprophylaxis. Despite the overwhelming evidence, most hospitals do not routinely assess patients for their risk of VTE or provide thromboprophylaxis.

Treatment of VTE

The main therapy for VTE is the use of an anticoagulant medication such as heparin, a low molecular weight heparin, fondaparinux, and/or an oral anticoagulant such as warfarin. Over the past several years, a number of exciting new diagnostic and treatment strategies for DVT and PE have been developed. These include the use of catheter-directed interventions to rapidly reduce the clot burden, the availability of new anticoagulants, the outpatient treatment of VTE, and improvements in our understanding of the risks and benefits of anticoagulation after a thromboembolic event. However, despite major advances in knowledge related to the management of VTE, many patients receive care that is inadequate or inappropriate. Furthermore, physicians still face uncertainty about many practical aspects of VTE care and additional research will be needed to answer these important questions.

What about Varicose Veins?

Varicose veins also very commonly affect the leg veins. A predisposition to develop varicose veins is often inherited. Varicose veins most commonly result from failure of the one-way valves within the vein, but may also occur after a DVT. They may not produce any symptoms although they often produce chronic leg swelling and discomfort (heaviness, tiredness, aching) as well as localized pain over the veins, itching, skin infection, thrombophlebitis (clotting of a varicose vein), discoloration of the skin and skin ulcers. Compression stockings are often helpful in managing symptoms of varicose veins. Minimally invasive treatments such as sclerotherapy (local injection of a medication which causes the vein to close), microphlebectomy (hooking and removal of a vein through a tiny incision), and endovenous ablation (closure of the vein through catheter-directed application of heat energy or medication) have also been found to be beneficial and well tolerated by patients.

The Venous Disease Coalition is a consortium of 30 different health organizations and numerous volunteer health professionals with a common purpose to reduce death and disability from venous disease. It is a program of the Vascular Disease Foundation.