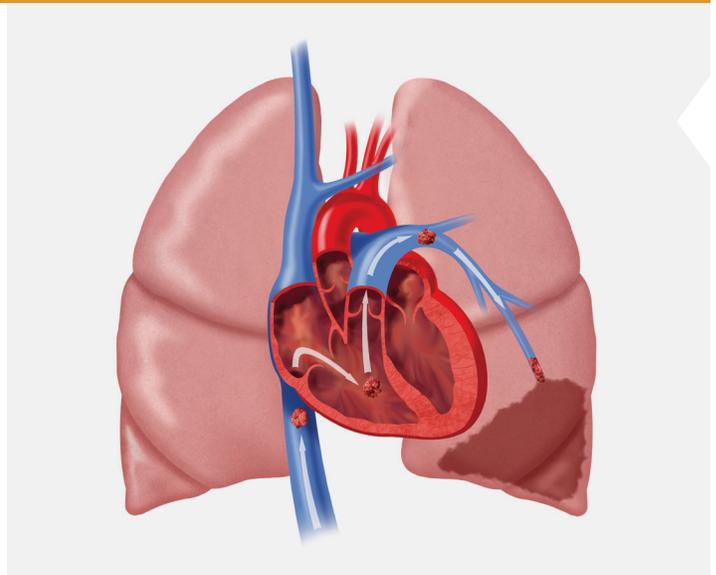


Venous Thromboembolism

A venous thromboembolism (also known as venous blood clot or VTE) is a potentially deadly condition caused by abnormal (pathologic) blood clots that obstruct the normal flow of blood. VTE includes deep vein thrombosis (DVT) and pulmonary embolism (PE).

DVT occurs when blood clots form in one of the large, deep veins in the legs.² Larger blood clots that substantially block the flow of blood may cause pain and swelling in the affected leg. Other symptoms can include redness and tenderness in the leg.³ Blood clots that only partially block the flow of blood often produce no symptoms; these asymptomatic episodes account for approximately half of all DVT cases.³

PE is a serious, potentially life-threatening complication of DVT. A PE most commonly occurs when part or all of a clot dislodges from a lower extremity and is carried along to the pulmonary arterial circulation system, where it can partially or completely block blood flow. Typically, symptomatic PE causes difficulty breathing, rapid heart rate, chest pain, and low blood pressure.



Some patients cough up blood, while others faint.³ When PE occurs with large clots, or multiple clots, or when the patient already has preexisting heart or lung disease, the event may be fatal.⁴

Who is at risk for VTE?

People most likely to experience a VTE include those who have undergone major surgery, the elderly, pregnant women, and those using certain medications or therapies. Prolonged immobility and chronic medical conditions such as heart disease and cancer also increase the risk of developing blood clots.³

FAST FACTS

- 1** Blood clots form to prevent prolonged bleeding in response to injury to a blood vessel wall; they act as a plug at the site of the blood vessel injury.¹
- 2** A blood clot typically will dissolve naturally once the injury has healed. However, when inappropriately activated, the blood-clotting cascade can lead to the formation of abnormal and potentially fatal blood clots.¹
- 3** VTE can take the form of either:
 - DVT, a blood clot in a deep vein (usually in the leg) that partially or totally blocks the flow of blood which may lead to;
 - PE, a blood clot in the lung(s) that can partially or totally block the flow of oxygenated blood.
- 4** Each year, it is estimated that more than 900,000 Americans have a VTE episode, of which, approximately one third are fatal.²

It's important to realize that a person's risk of developing a blood clot persists after they are discharged from the hospital:

- Patients have a 30% chance of VTE recurrence within ten years from experiencing a VTE.²

The cost of VTE

The majority of patients suffering from a VTE will experience a DVT alone; however about one-third of patients with a DVT progress to a PE.⁵ Nearly 25% of PEs result in sudden death.⁶ Recurrent PE events are usually fatal.⁷ A risk of a recurrent event is highest in the first six to 12 months after experiencing an event.²

Even in the absence of a PE, DVT alone may have burdensome and costly consequences such as venous hypertension, ulceration, an increased risk of recurring clots and post-thrombotic syndrome. Patients with venous blood clots have been observed to have a substantially increased long-term risk of subsequent cardiovascular events such as heart attack and stroke.⁸

In addition to its significant health impact, VTE also exacts a financial toll on the health care system. The main drivers of VTE costs are initial and recurrent medical events – or their associated complications – requiring hospitalization or any visit to a healthcare professional.

- In the U.S., DVT and PE costs for initial hospitalization average more than \$10,800 and \$14,000, respectively.⁹
- Rehospitalization costs average more than \$11,800 and \$14,700, respectively.⁹

Anticoagulant therapy in the treatment of VTE

Prevention of a recurrent VTE is the most important aim of VTE treatment with anticoagulants. Anticoagulants help prevent the formation and halt the progression of a blood clot (thrombus), and their use is a well-established preventative approach.

Current guidelines indicate that long-term anticoagulation therapy for the prevention of recurrent VTE should last for at least three months for a patient who has had an unprovoked DVT; the continuation and length of treatment with long-term anticoagulation therapy beyond that should be evaluated based on a patient's risk factors, including recurrent VTE.¹⁰

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