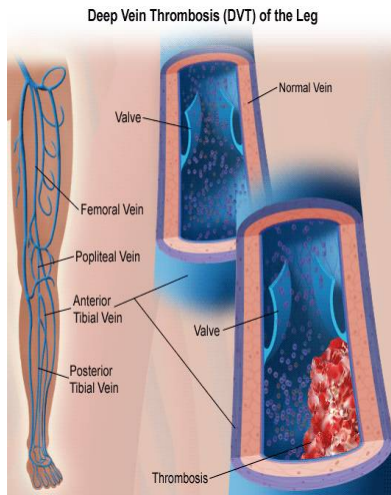


A Patient's Guide to Deep Vein Thromboses in Foot and Ankle Surgery

What is a Deep Vein Thrombosis (DVT)?

A Deep Vein Thrombosis is commonly known as a “blood clot” that forms in the blood vessels that return blood to the heart. They most commonly form in the vessels of the legs in the thighs and calves.



Why are DVTs dangerous?

When a DVT forms in the blood vessels in the legs, a piece of the clot can break off and then travel with flowing blood as the blood is pumped by the heart. The piece that breaks off is called an embolus and the process is known as embolization. Frequently the embolus goes to the lungs where it is known as a Pulmonary Embolus (PE). Clots in the lungs from DVTs or PE can cause fatal lung failure.

Why do DVTs happen?

DVTs form because of natural processes in the body that allow your blood to clot to stop bleeding when you cut yourself. However, the blood must maintain a delicate balance between a tendency to clot in the event of a cut or bleeding and a tendency to not clot to prevent clots from forming in normal blood vessels. When the body and thus blood remain more stationary than usual, the tendency to clot increases. Additionally, different states of health and sickness can alter the balance between clotting and bleeding to favor the

formation of clots.

Am I at risk for a DVT?

Patients who undergo surgery in general are sometimes at increased risk because of decreased blood flow in the lower extremity, a decrease in the normal processes that dissolve clots because the body is responding to the trauma caused by surgery, and the inability to move in the period during and after surgery.

What is the risk of DVT/PE during foot and ankle surgery?

DVT and PE are much less common in foot and ankle surgery compared to other types of surgery and other orthopedic surgeries in general. A large study conducted showed the rate of DVT to be 0.6% in elective foot and ankle surgery. PE was less common still, and a deadly PE even more rare.¹ Another large study demonstrated a similarly rare number of DVTs after elective foot and ankle surgery with a rate



of 0.42%.² Given the uncommon nature of DVT/PE with foot and ankle surgery, current practice guidelines do not strongly advocate the use of specialized anticoagulation medications—commonly known as “blood thinners”—to prevent DVT/PE in healthy patients undergoing elective foot and ankle surgery.

Why might I be at increased risk for DVT/PE?

Even though DVT/PE is rare in patients who have elective foot and ankle surgery, if you have underlying medical problems such as a known tendency to have blood clots, cancer, previous history of DVT/PE or intend to remain stationary for a long period of time in the post-operative period such as traveling long distances by airplane or car, please notify your surgeon as you may be at increased risk for DVT/PE.³

How are DVT/PEs prevented and treated?

Because two factors that contribute to the formation of DVT and PE are being stationary and increased tendency to clot in blood, DVTs are prevented with external devices to prevent the pooling of blood in the body such as leg squeezing-devices and compression stockings.



Additionally, anti-coagulant medications such as coumadin can be prescribed. If a DVT is found to form, it can be treated in a

manner similarly to prevention, using anticoagulant medication; however, at higher doses than are used just for prevention.

What are signs or symptoms I should watch out for that might indicate a DVT?

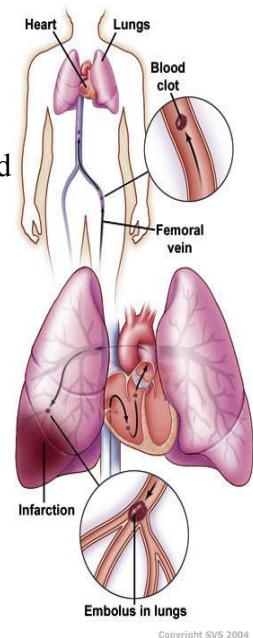
Blood backing up behind the clot can cause the affected leg to appear red, warm, swollen, and painful. If any of the above occur in the period after surgery immediately seek the services of the nearest Emergency Room (ER) where studies can be conducted to confirm the possibility of a DVT.

Calf Swelling, Erythema (Swelling) and Leg Warmth are indications that a patient may have DVT.



What are some signs or symptoms I should watch out for that might indicate a PE?

Sudden difficulty breathing after surgery, sharp pain in the chest, particularly when you try to take a deep breath, rapid heart beat or breathing, or coughing up blood could indicate the presence of a PE. In this case immediately seek care at an ER.



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Guide Authored by Elliott A. Fried MS IV on behalf of Timothy Charlton MD and USC Orthopedics of Keck Hospital of USC

References:

- 1-Hamilton PD, Hariharan K, Robinson AH. "Thromboprophylaxis in elective foot and ankle patients--current practice in the United Kingdom." *Foot and Ankle Surg.* 2011 Jun;17(2):89-93. Epub 2011 Apr 9.
- 2-Griffiths JT, Matthews L, Pearce CJ, Calder JD. "Incidence of venous thromboembolism in elective foot and ankle surgery with and without aspirin prophylaxis." *J Bone Joint Surg Br.* 2012 Feb;94(2):210-4.
- 3-Hanslow SS, Grujic L, Slater HK, Chen D. "Thromboembolic disease after foot and ankle surgery." *Foot Ankle Int.* 2006 Sep;27(9):693-5