



Hemophilia and Thrombophilia Center

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Factor V Leiden Educational Resources

The following information is provided to you for educational purposes. Please contact a staff member of the Rush Hemophilia and Thrombophilia Center if you have questions or concerns. This information is intended to supplement the education that you received in the clinic during our face-to-face visit. If you are experiencing any symptoms described here, go to the closest emergency room for evaluation and possible treatment.

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What is Factor V Leiden?

Factor V Leiden is the most common hereditary blood coagulation disorder in the United States. It is present in 5% of the Caucasian population and 1.2% of the Afro-American population. Factor V Leiden increases the risk of venous thrombosis 3-8 fold for heterozygous (one bad gene inherited) and substantially more, 30-140 fold, for homozygous individuals (two genes inherited are bad). Factor V Leiden can be associated with the following complications:

- 1. Venous thrombosis (blood clots in veins) such as**
 - ! Deep vein thrombosis (DVT) (veins in legs and arms)
 - ! Superficial thrombophlebitis
 - ! Pulmonary embolism (PE) (blood clot in lung)
 - ! Sinus vein thrombosis (veins around the brain)
 - ! Mesenteric vein thrombosis (intestinal veins)
 - ! Budd-Chiari syndrome (liver veins)
- 2. Arterial clots (stroke, heart attack) in selected patients (some smokers)**
- 3. Transient ischemic attacks (TIA's)**
- 4. Possibly with stillbirth or recurrent unexplained miscarriage**
- 5. Preeclampsia and/or eclampsia (toxemia while pregnant)**

Taken from <http://www.fvleiden.org/>

What is Deep Vein Thrombosis?

Deep vein thrombosis is a medical condition for blood clotting. This is a process for formation of thrombi that either partially or completely block circulation in a deep vein, generally in the lower extremities. These veins—the iliac, femoral, popliteal, and tibial—bear primary responsibility for returning deoxygenated blood to the heart. Unlike the superficial veins just below the skin surface, the deep veins are surrounded by powerful muscles that contract to force blood back to the heart. One-way valves inside the veins prevent backflow of blood between muscle contractions. The quick and efficient return of blood to the heart using the power of the leg muscles is a crucial phase of the circulatory process.

Symptoms of DVT may include pain, swelling, discoloration of the affected area, and skin that is warm to the touch. But up to 50% of deep vein thromboses produce minimal symptoms or are completely "silent."

Symptoms of DVT may include:

- ! Pain
- ! Tenderness
- ! Swelling
- ! Discoloration
- ! Warmth

The major risk associated with DVT is development of pulmonary embolism (PE). A fragment of a blood clot breaks loose from the wall of the vein and migrates to the lungs, where it blocks a pulmonary artery or one of its branches.

Symptoms of PE may include

- ! Shortness of breath
- ! Apprehension
- ! Rapid pulse
- ! Sweating
- ! Sharp chest pain
- ! Bloody sputum
- ! Fainting

Taken from <http://www.thrombosisonline.com>