The Basics of Deep Venous Disease (DVD)

Deep veins play an important role in returning blood to the heart. They are usually located near an artery and are vital to transporting blood throughout the in valves body. But when lines blood s flow they become damaged, they can have a hard time carrying blood efficiently and this can lead to deep venous disease (DVD).¹

There are several types of DVD conditions, including venous compression, non-thrombotic iliac vein lesions (NIVL), popliteal entrapment syndrome, and thoracic outlet syndrome.² Other types of common deep venous diseases include deep venous insufficiency (DVI), a malfunctioning of the vein valves, and deep venous occlusions (DVO), a compression of the vein resulting in either a partial or complete blockage of the blood flow.

These set of DVD conditions can cause several complications. When veins can't function properly, fluid is forced out of the blood vessels into the surrounding tissue, resulting in uncomfortable swelling and pressure.³

Over time, these conditions can lead to chronic swelling, various vein problems and can put you at risk for deep vein thrombosis (DVT). If you think you may have DVD, it is important to take the step and consult your doctor for help.



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Still want to learn more? You can find information about DVD symptoms, diagnosis, and treatments by visiting PVDandMe.com. You'll also find:



Patient Stories



Help Finding a Doctor

- 1. Henke, P. "Chronic Venous Insufficiency." Society for Vascular Surgery. N.p.
- 2. Butros et al. "<u>Venous compression syndromes: clinical features, imaging findings and management</u>." Br J Radiol. 2013 Oct; 86(1030): 20130284.
- 3. "<u>Venous insufficiency</u>." MedlinePLUS. U.S. National Library of Medicine. June 6, 2016.
- 4. Raju et al. "<u>High prevalence of nonthrombotic iliac vein lesions in chronic venous disease: A permissive role in pathogenicity</u>." Journal of Vascular Surgery. Volume 44, Issue 1, Pages 136–144.

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DVD Deep Venous Disease



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Are you experiencing any of these symptoms of DVD?

Not all people with DVD conditions experience symptoms. In fact—some people, such as young women—may be relatively healthy and then begin to experience symptoms following an injury.⁴

If symptoms do appear, they can range in severity depending on how diseased the deep veins may be.



These DVD symptoms include:4

- Swelling that causes discomfort and pain in the legs, feet and ankles
- A warm feeling in the leg
- Tired, heavy legs that make walking and regular activity difficult
- Fluid that spreads, becoming trapped in the leg and ankle
- Skin changes, such as discoloration and redness
- Deep throbbing, diffuse pain after prolonged standing
- Sores or wounds on the legs, located above the ankle that won't heal well

If you notice any of these symptoms, you should talk to your doctor about these concerns. Getting screened for venous disease is important, especially to rule out potentially serious complications.

Am I at Risk for DVD?



There are various conditions that can lead to DVD. Depending on those underlying causes, some people may carry a higher risk than others for developing the condition.

These risk factors may include:³

- **Pregnancy**, which can put pressure on a woman's pelvic area and surrounding veins
- Age can be a risk factor for developing deep venous disease, as poor circulation commonly develops in adults over 50 years of age
- **Gender** can play a role as women are twice as likely to develop the condition than men
- **Standing or sitting** for long periods of time can reduce the body's ability to circulate blood
- **Obesity and being overweight** can increase the likelihood of developing DVD due to increased pressure on the veins

Discuss with your doctor if you have these risk factors for DVD. He or she can recommend ways to reduce the likelihood of developing the disease, or may recommend screening for the condition.

DVD Diagnostic Procedures and Treatments

Because there are various deep venous diseases, obtaining a diagnosis might be a little different for each. Your doctor may use a combination of physical exam, medical history and one of several tools to determine if there is an obstruction or inadequate blood flood due to valve malfunction.

If your doctor suspects deep venous occlusion (obstruction), he or she may use the following tools to determine the best course for care:

- Duplex ultrasound to visualize blood flow in the veins
- Intravascular ultrasound (IVUS) to look within blood vessels to identify the source of compression
- Magnetic resonance venography or computed tomography venography to locate the severity of blood vessel obstruction

To confirm a diagnosis of deep venous insufficiency, your doctor may use duplex ultrasound to visualize blood flow and may recommend compression stalkings to help improve blood flow.

If an obstruction is diagnosed, your doctor may recommend medication therapy and/or angioplasty, which is a procedure that opens the blocked vein and places a stent to keep the blood vessel open.

Still not sure about DVD diagnosis and treatment? Your doctor can provide more information and make recommendations based on the progression of disease. It is important to seek consultation because without treatment venous disease can progress to more serious complications and can interfere with your quality of life.