

## Venography

### INTRODUCTION

Venography is an x-ray test that provides an image of the leg veins after a contrast dye is injected into a vein in the patient's foot. Venography is primarily performed to diagnose deep vein thrombosis (a condition that can lead to pulmonary embolism). It is the standard procedure used to detect this type of disorder. Venography also can be used to distinguish blood clots from obstructions in the veins, to evaluate congenital vein problems, to see how the deep leg vein valves are working, and to identify a vein for arterial bypass grafting.

### PROCEDURE

A venogram involves the placement of a plastic intravenous tube (catheter) into a vein in either your groin or your forearm. Some numbing medicine will be injected in the skin over the vein that will be used before the catheter is inserted. Intravenous medications may also be given to you to make you more comfortable and relaxed. This is known as conscious sedation.

Once the catheter has been placed into the vein, it will be advanced through the blood vessels. During this time, x-ray contrast material (x-ray dye) will be injected through the catheter and x-ray pictures taken. You may be asked to hold your breath for several seconds as these pictures are taken. During the injection of x-ray contrast material, you may experience a warm feeling or a strange taste in your mouth. Both of these sensations are temporary and will go away soon.

Depending on the results of the venogram, an angioplasty, stent placement, or lytic therapy may be performed. At the completion of the venogram, the catheter will be removed and pressure will be applied to the insertion site until the bleeding has stopped. To help prevent bleeding, it will be very important for you to lie flat in bed without moving your arm or leg for up to six hours.

If the venogram shows an area of blockage, an angioplasty may be performed in an attempt to open up the area. This involves the insertion of a special tube, which has a tiny deflated balloon. The balloon is positioned at the site of the blockage and is then inflated. Following an angioplasty, if there still is not enough blood flow through the area of blockage, a metal mesh tube (stent) may be placed at the site. The stent will widen the vessel and improve the blood flow.

If the venogram shows that a blood clot is blocking one of your vessels, a special intravenous drug may be given to dissolve the clot. This is known as lytic therapy. This therapy may take 24 hours or more and may require that you be admitted to the Intensive Care Unit for monitoring while this drug is being given. Additional venogram x-ray pictures may be taken to determine the progress of the dissolving blood clot.

### RISKS

Risks associated with the procedure include pain or discomfort at the catheter insertion site, bleeding at the site, injury to a blood vessel, infection which may result in an infection of the blood stream, the development of a blood clot (embolization), and stroke. Risks associated with the x-ray contrast material include an allergic reaction and reduced kidney function. The medications used for the conscious sedation are associated with the risks of aspiration (inhaling food or liquid into your lungs) or respiratory depression. In addition to these potential risks associated with the procedure, the x-ray contrast material, and the conscious sedation medications, there may be other unpredictable risks including death

**Alternatives**

There may be other procedures that can be performed to further evaluate your circulation and/or treat an area of blockage. If you are unsure about having a venogram, along with a possible angioplasty, stent placement, or lytic therapy performed, please discuss these other alternatives with your physician.