

*Patient Education Sheet*

## What is a Duplex Ultrasound?

### What is a duplex ultrasound?

A duplex ultrasound is a diagnostic test that uses sound waves to take images of your blood vessels. These images show how well blood is flowing through your vessels and the speed of blood flow.

Duplex ultrasound creates color images that show your physician where blood flow is blocked from problems in your vessels, such as from cholesterol deposits.

At Danbury Hospital, duplex ultrasounds are performed in the non-invasive vascular lab. These tests are performed on the outside of the body and do not involve injecting any contrast dye, needles or catheters into your body. These tests are painless and have no side effects.

### What types of conditions would a duplex ultrasound be ordered for?

Your physician may order a duplex ultrasound to diagnose conditions that involve the blood vessels, including, but not limited to:

- Carotid artery occlusive disease
- Deep vein thrombosis
- Leg or arm artery disease
- Aorto-iliac occlusive disease
- Varicose veins
- Aneurysms in the abdomen or legs

### How do I prepare for the duplex ultrasound?

Follow the instructions given to you by your physician. Depending on the area to be



Transducer

examined, you may be asked not to eat or drink prior to the test. Bring with you a list of all medications you are currently taking. Let the technologist who is performing the test know if you have had a previous procedure such as a bypass, balloon angioplasty, or stent placement.

### How is the duplex ultrasound performed?

- You will be asked to put on a hospital gown or to remove clothing from the area being examined.
- You will lie on an exam table.
- A gel will be applied to the area being tested. This helps sound waves move through your skin.
- The technologist will slide the ultrasound probe, or transducer, over the gel. You may hear a whooshing sound, which is the sound of blood flowing through your vessels.
- A blood pressure cuff may be applied to your arm or leg and inflated during the test.
- Depending on the area evaluated, you may be asked to stand up during the test.

**Carotid duplex** – in this exam, ultrasound is in the neck that feed the brain with blood. Gel is applied to the skin of the neck. A transducer is then placed on the gel-covered area to obtain images and evaluate the blood flow in the arteries. Your physician may order this test if you have symptoms of blocked carotid arteries.

**Transcranial duplex (TCD)** – this exam evaluates the blood vessels that supply the brain within the skull. Gel is applied to the skin of the face and head and a small transducer is then used on the gel-covered area.

**Venous duplex** – in this exam, ultrasound is used to evaluate the veins that carry blood to the heart from the legs or arms. Gel is applied to the skin of the legs or arms. A transducer is then placed on the gel-covered areas to obtain images and to evaluate blood flow in the veins. Your physician may order this to evaluate the cause of pain or swelling in your arms or legs.

**Arterial duplex** – in this exam, ultrasound is used to evaluate the arteries that feed the arms and legs with blood. Gel is applied to the skin of the legs or arms. A transducer is then placed on the gel-covered areas to obtain images and evaluate the blood flow in the arms or legs. Your physician may order this test to evaluate the cause of pain in the leg muscles when walking.

**Abdominal vascular duplex** - in this exam, ultrasound is used to evaluate the blood vessels that bring blood to and away from the abdominal organs. Gel is applied to the abdomen. A transducer is then placed on the gel-covered areas to obtain images and evaluate blood flow in the arteries and/or veins.

## **How do I find out about the results of my test?**

*For more information, or to learn about the specialized services and programs , please visit [www.westernconnecticuthealthnetwork.org](http://www.westernconnecticuthealthnetwork.org)*

used to evaluate the carotid arteries located The Vascular Lab works closely with your referring physician to diagnose vascular conditions, coordinate further evaluation and treatment, and assist with follow-up care. All tests are interpreted by board certified physicians with added credentials in non-invasive vascular interpretation.

The Vascular Lab technologist will not discuss the results of the exam with you. You will be contacted by your physician with test results.

### **Directions to your appointment**

**\*There are three locations, check to make sure you know where your appointment will be.**

#### **Danbury Hospital:**

Park in the **RED** parking lot and enter the Stroock lobby on the first floor where you will register and be given direction to the testing area.

If you have further questions please call (203) 739-4999. 8am-4pm

***During construction you will park in the Red Lot. Registration for this test will be on the 1<sup>st</sup> floor Stroock Lobby located next to the Emergency Room.***

***Danbury Hospital Medical Arts Center-*** Located at 111 Osborne Rd., park in any available parking or in the Gold parking garage. Enter the main lobby on the first floor for registration, and then proceed to the third floor. If you have further questions please call (203) 739-4999.

***Southbury Cardiovascular Center-*** Located at 22 Old Waterbury Road, Southbury, CT., upon arrival please register with Cardiology Reception, in Suite 107. If you have any further questions, please call Southbury Cardiology at (203) 262-4234.

#### ***Sources:***

Alan Dietzek, MD. Danbury Hospital Praxair Regional Heart and Vascular Lab.

VascularWeb. Duplex Ultrasound. Retrieved from [www.vascularweb.org](http://www.vascularweb.org)