

Northwestern Memorial Hospital

Patient Education

TESTS AND PROCEDURES

## **Quick Scan: Vascular Screening**

A quick scan uses ultrasound to look at the basic health of 3 types of arteries in your body:

- Carotid arteries
- Abdominal aorta
- Leg arteries

*If there is a chance you could be pregnant, please tell your clinician.* 

An ultrasound (sonogram) test uses sound waves to project an image. It lets the physician look at the arteries. The technician puts a small, hand-held device (transducer) on your skin over the area to be examined. The sound waves from the transducer are reflected off the artery back to the transducer. The sound waves create an image on a video screen. The images are in real time and show movement. The test can detect narrowing or plaque (fat, cholesterol and calcium build-up) in the artery.

Based on your quick scan results, your physician may order more tests or treatment.

## **Carotid arteries**

The carotid arteries are the major arteries in your neck that supply blood to your brain. A severe decrease in blood flow to the brain can cause a stroke. Based on the scan results, the carotid arteries are graded on a scale of 1 to 3.

Grade	Findings
1	Normal blood flow is present with no sign of plaque build-up.
2	A small amount of plaque is present. There is no major decrease in blood flow or narrowing of the artery.
3	A large amount of plaque is present. There is decreased blood flow and narrowing of the artery. Further testing is advised.

Your right carotid artery was a grade \_\_\_\_\_.

Your left carotid artery was a grade \_\_\_\_\_\_.

## **Abdominal aorta**

The abdominal aorta is the main artery in your chest and abdomen. An aneurysm happens when the wall of the aorta weakens. The pressure of the blood flowing through the vessel creates a bulge at the weak spot. Over time, as the pressure continues, it can grow in size. An aortic aneurysm can rupture (burst) and lead to a large amount of bleeding in a very short time.

The normal abdominal aorta is less than 3 centimeters (cm) in diameter.

Your abdominal aorta measures \_\_\_\_\_ cm.

## Leg arteries

The posterior tibial artery and the dorsalis pedis artery are the 2 main arteries in your lower leg. This test can show if there is reduced blood flow in these arteries. Narrowing of the leg arteries may be mild, and you may not be aware that anything is wrong. If plaque narrows the artery, you may have cramping and pain in your legs when you walk. Increased plaque buildup causes more severe pain even at rest.

During the exam, the technician will check the blood pressure (BP) in both of your ankles and at the top of each foot. Then this reading is compared with the BP in your arms (brachial). The measurements are put into a ratio called the ankle/brachial index (ABI). ABI is a good measure of the blood flow to your legs.

ABI	Level of Arterial Blockage
0.90 or higher	Normal
0.70 to 0.89	Mild
0.40 to 0.69	Moderate
Less than 0.40	Severe

Your right ABI is \_\_\_\_\_.

Your left ABI is \_\_\_\_\_.

If you have any questions, please ask your clinician.