

Ankle Brachial Pressure Index Test (ABI)

This test uses sound waves (Doppler) to measure the blood pressure in your arms and ankles. The higher blood pressure in your arm is compared to the higher blood pressure in each of your ankles. Tell us if you have diabetes, kidney failure, hyperparathyroidism, or any other reason why a blood pressure can not be measured. These health problems can affect the results of the test.

Blood pressures are taken in each arm and on each ankle using a blood pressure cuff and a small, handheld device called a Doppler. A Doppler lets your sonographer hear the pulse in your arteries after the blood pressure cuff is deflated. During the ABI test, the Doppler will be pressed against the pulses in your arms, tops of your feet, and inside your ankles.

Reasons for ABI

This test is done to check for peripheral arterial disease. This is a condition where the arteries in your arms or legs are narrowed. If you have peripheral arterial disease, an ABI is used to see if your treatment is helping or if a different treatment should be used.

Before Your ABI

You will need to take off your shoes, socks, and clothes from your upper arms. This will help get correct blood pressure readings. You will be asked to rest in bed for about 10 minutes before the test. This allows your blood pressure to get back to you normal.

During the Test

You will be asked to lie on your back. A gel is applied to the areas where the Doppler will be placed. This may feel cool and a bit moist. The gel will be wiped off at the end of the test.

The sonographer will measure your blood pressure on each arm. Then they will measure your blood pressure on each of your ankles from two different arteries. One on top of your feet and the other inside of your ankles. A small sensor will also be placed on one toe of each foot.

If your doctor orders the test with exercise, you would be asked to walk on a treadmill. After exercise the sonographer will measure your blood pressure on each of ankle and one of your arms. The test should take less than 60 minutes to complete.

Risks

The ABI test is very safe. There are no known risks from sound waves. The test is painless. You may feel pressure on your arm or ankle when the blood pressure cuff is inflated. This will not last long and should stop when the air is released from the cuff. If you have severe leg or arm pain, let your sonographer know. Your doctor may want to order a different test.

Results

The sonographer **does not** give test results. Your doctor will talk to you about the results and how they affect your treatment plan. This may be done while you are in the hospital, or at future clinic visit.