

ABI AT REST ULTRASOUND

OVERVIEW: The ABI test is used to document the presence or absence of peripheral arterial disease (PAD), and can be performed every year to assess whether PAD is getting worse. Blood pressure measurements are taken at the arms and legs using a pencil shaped ultrasound device called a Doppler.

PREPARATION: There is no preparation for this test. This test is done by measuring blood pressure at the ankle and in the arm while a patient is at rest. The ankle-brachial index (ABI) result is used to predict the severity of PAD which can be linked to a higher risk of heart attack or stroke.

Patients are asked to remove their clothing from around their legs, shoes, and socks. A sonographer will wrap a blood pressure cuff around the patient's arms and legs at various places including the ankles. Because pulses in the legs and ankles are inaudible through a stethoscope, the Doppler is used. The sonographer will put ultrasound gel on the patient's pulse points and use the Doppler to take blood pressure from each point. The Doppler will make a loud noise as the sonographer finds the pulse, but this is normal. The cuffs will inflate until the pulse can no longer be heard through the Doppler and then deflated. The patient should not experience any pain, but they may feel some discomfort around the thickest part of their legs such as the calves and upper thighs.

If a patient's results from a Resting ABI are normal or have no significant changes, the referring doctor may want the patient to have a Stress ABI. If so, the patient will be asked to perform 3 minutes of heel/toe raises. This may cause leg pain, so the sonographer should be told if any pain is experienced at all. Immediately after the three minutes, the arm and ankle blood pressure measurements will be taken again to detect any changes from the exercise.

This test can diagnose and rule out a number of problems such as (but not limited to):

- Identification of peripheral arterial disease (PAD).
- Determine how well a treatment is working (such as medical treatment, an exercise program, angioplasty, or surgery).

THIS ULTRASOUND WILL TAKE ABOUT 30 MINUTES AND THE REPORT WILL BE BACK TO YOUR ORDERING PHYSICIAN WITHIN 24-48 HOURS.