

# Ankle-Brachial Index

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The Ankle-Brachial Index (ABI) is a non-invasive vascular test used to assess the presence of [peripheral vascular disease](#) (PAD), which is a condition characterized by the narrowing or blockage of the arteries that supply blood to the legs and feet. The test compares blood pressure measurements taken at the ankle and the arm.

Here's how the Ankle-Brachial Index test is typically performed:

**Blood Pressure Measurement:**

A blood pressure cuff is wrapped around the upper arm (brachial artery) and the ankle (usually the posterior tibial or dorsalis pedis artery). Blood pressure is measured at both locations using a Doppler ultrasound device to detect the pulse. Calculation of the Ankle-Brachial Index:

The ankle blood pressure is divided by the brachial (arm) blood pressure to obtain the ABI. The formula for calculating the ABI is:  $ABI = \text{Ankle systolic pressure} / \text{Brachial systolic pressure}$ .

**Interpretation:**

A normal ABI is typically around 1.0 to 1.3. An ABI below 0.90 is suggestive of peripheral arterial disease (PAD). Lower values indicate a greater degree of arterial blockage. Interpretation of ABI Results:

0.90 to 1.30: Normal 0.71 to 0.90: Mild PAD 0.41 to 0.70: Moderate PAD Below 0.40: Severe PAD Key Points:

A lower ABI suggests impaired blood flow to the lower extremities, which may be indicative of PAD. The test is commonly used in individuals with symptoms such as leg pain or cramping during exercise (claudication). ABI is a simple, cost-effective screening tool for PAD, but additional tests may be needed for a more comprehensive evaluation. It's important to note that the Ankle-Brachial Index is just one component of a thorough vascular assessment, and healthcare professionals use it in conjunction with other clinical information to make a diagnosis and develop an appropriate treatment plan.

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