Ankle Brachial Index (ABI): A non-invasive measurement of the ratio of the systolic blood pressure of arm to the systolic blood pressure of the leg

- Place patient in supine position for 5-10 minutes
- Apply the appropriately sized blood pressure cuffs on the extremities
- Apply ultrasound gel to skin surface over the brachial artery in the arm and over the dorsalis pedis and posterior tibial arteries in the feet
- Place Doppler probe over the artery at a 45-60 degree angle to the surface of the skin
- Inflate the cuff to 20 mm Hg above the point where systolic sound is no longer heard
- Gradually deflate until the arterial signal returns. Record the systolic pressure reading
- Repeat for all extremities

### Calculating the ABI:

<table>
<thead>
<tr>
<th>Right Leg ABI</th>
<th>Left Leg ABI</th>
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</thead>
<tbody>
<tr>
<td><strong>Right Arm</strong></td>
<td><strong>Left Arm</strong></td>
</tr>
<tr>
<td>Systolic Pressure:</td>
<td>Systolic Pressure:</td>
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<td>mmHg</td>
<td>mmHg</td>
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<tr>
<td>Right Ankle</td>
<td>Left Ankle</td>
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<tr>
<td>Systolic Pressure:</td>
<td>Systolic Pressure:</td>
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<tr>
<td>mmHg (DP)</td>
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<td>mmHg (PT)</td>
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</tbody>
</table>

**ABI Values:**

- **1.00 – 1.40** Normal
- **0.90 – 0.99** Borderline
- **0.70 – 0.89** Mild
- **0.40 – 0.69** Moderate
- **<0.40** Severe
- **> 1.40** Non-compressible

**When to Refer:**

- Lifestyle limiting claudication
- Normal ABI with high suspicion of PAD
- ABI<0.90
- Poorly compressible/calcified vessels
- Rest pain or tissue loss