

LifeDop™ ABI Vascular System ABI Glossary Guide

ABI Index – Ankle-Brachial Index. Vascular test used to assess lower extremity circulation. Ratio of ankle pressure to the highest of bi-lateral brachial pressures providing a guide to severity of PAD.

0.90 – 1.30	Normal
0.70 – 0.89	Mild
0.40 – 0.69	Moderate
< 0.40	Severe ^[1]

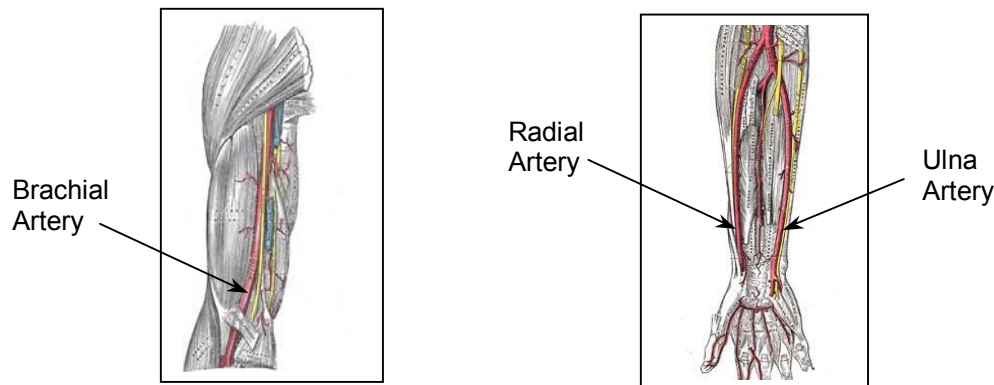
Aneroid – Actuating pressure device, in vascular studies used for inflating cuffs for obtaining blood pressures.

Arterial – Pertaining to arteries, or vessels that carry blood from the heart to tissues throughout the body.

Atherosclerosis – Thickening, hardening, and loss of elasticity of the walls of blood vessels, especially arteries due to accumulation of lipid materials.

Bi-Directional – Directional, Pertaining to the ability to sense or move in two directions. In the case of Doppler probes, the ability to distinguish blood flow both toward and away from the transducer.

Brachial Artery – Main artery of the arm, continuation of the axillary artery on the inside of the arm ^[2]. The brachial branches into two primary arteries of the forearm, namely the radial and ulna arteries.



Calcification – Deposits of lime salts in the walls of arteries.

Claudication – A severe pain in calf muscles occurring during walking but which subsides with rest, resulting from inadequate blood supply due to atherosclerosis or occlusion.

Diastolic – Pertaining to diastole, the part of the heart cycle in which the heart is in a period of relaxation. Corresponding to minimum blood pressure.

Hypertension – A condition in which the patient has a higher blood pressure than that judged to be normal.

Hyperlipidemia – An elevation of lipids, or fats, in the bloodstream including cholesterol, phospholipids and triglycerides.

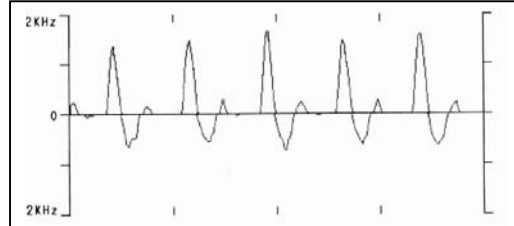
Incompressible Artery – Condition in which the cuff pressure can not occlude an arterial vessel, typically due to calcification, resulting in abnormally high ABI measurement ^[3].

Occlusion – The closure, or state of being closed, of a vessel.

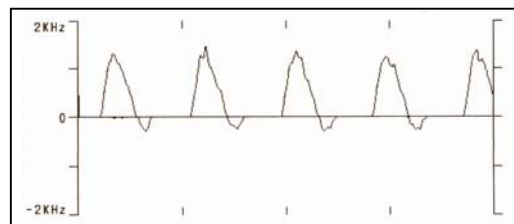
PAD – Peripheral Arterial Disease. Atherosclerosis of the abdominal aorta and arteries of the lower extremities ^[1].

Phasic – Pertinent to phased behavior, appearance of states of regularly occurring cycle of changes.

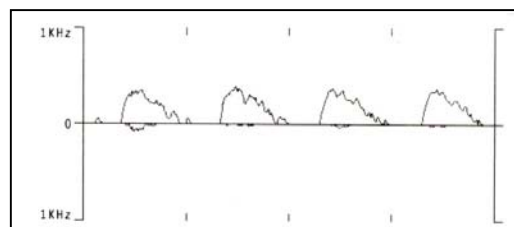
Tri-Phasic Audio – Blood flow sounds with three major components – typically associated with normal blood flow, corresponding visually to the following ^[2]:



Bi-Phasic Audio – Blood flow sounds with two major components – typically associated with diminished blood flow, corresponding visually to the following ^[2]:



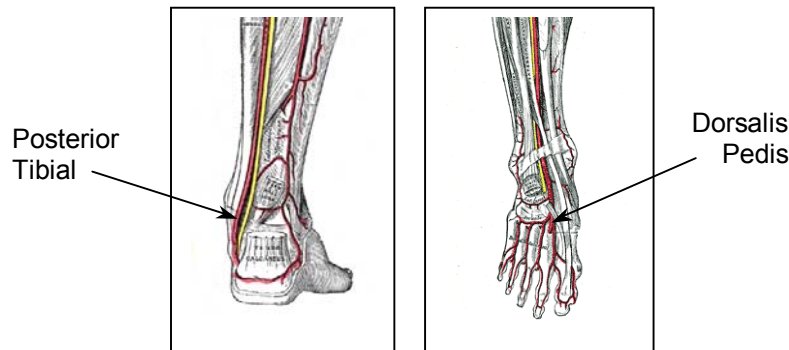
Mono-Phasic Audio – Blood flow sounds with one major component – typically associated with PAD, corresponding visually to the following ^[2]:



Pedal Artery – Arteries associated with the foot.

Posterior Tibial – Main artery leading into the foot, located behind the tibia bone. Can be accessed for ABI assessment behind the ankle notch ^[3].

Dorsalis Pedis – Main artery leading to the toes, located on top of the foot. Can be accessed for ABI assessment on a line extending from between the first two toes to the midline of the foot ^[2].



Sphygmomanometer – Instrument for determining arterial blood pressure.

Stenosis – The constriction, or narrowing, of a vessel.

Supine – Laying on the back - face, palm and feet facing upward.

Systolic – Pertaining to systole, the part of the heart cycle in which the heart is in a period of contraction. Corresponding to maximum blood pressure.

Venous – Pertaining to the veins, or vessels that carry blood from tissues throughout the body back to the heart.

References:

Unless otherwise noted: Taber's Cyclopedic Medical Dictionary 13th Edition; Thomas CL (Ed), F.A. Davis Company Publishing

[1] Olin JW. Clinical Evaluation and Office-Based Detection of Peripheral Arterial Disease, contained in Primary Care Series: Peripheral Arterial Disease and Intermittent Claudication; Hirsch AT (Ed), Excerpta Medica, Inc., 2001

[2] Gray, Henry. Anatomy of the Human Body. Philadelphia: Lea and Febiger, 1918: 20th edition edited by Warren H. Lewis, 2000

[3] Techniques in Noninvasive Vascular Diagnosis – an Encyclopedia of Vascular Testing; Daigle RJ, Summer Publishing, 2002: 137-148