

## Peripheral Vascular Examination – The Basics

After you have taken a brief history, proceed with the following principles. At each stage, think about the signs you would see if a patient has peripheral vascular disease.

### General Examination

*Inspection for obvious features those are important to your clinical scenario. For example: tiredness, lethargy, anorexic features.*

Vitals: Temp, PR, RR, BP

Hands: nicotine, signs of infective endocarditis

Neck: carotid pulse (rate, rhythm, volume, character), bruits.

Heart: apex beat, murmurs

Lower limbs:

Inspection	Palpation	Percussion	Auscultation
Contour: swollen, inverted champagne bottle, no erythema	Skin: temperature, capillary refill, sensation		Abdominal aorta, femoral, superficial femoral, popliteal
Skin: Colour, Texture, Hair, Integrity, Veins, Nails	Muscle: sensation, movement (Homan's sign → DVT)		
Muscle: Size, Movements	Arteries: A aorta, iliac, femoral, popliteal, posterior tibial, anterior tibial, dorsalis pedis		
Beurger's test: Lift leg up (knee straight) and watch for pallor – note vascular angle, and approximate BP in digital arteries. Hang legs over edge of bed, watch for pallor → red → purple / blue			

Common OSCE question: What is the ankle brachial index (ABI)?

The ankle brachial index is ratio of blood pressure at level of ankle compared to level of arm. Usually  $\geq 1.0$ . The reason for this is due to gravitational effects, therefore blood at lower extremities travel are greater velocities → therefore exerting greater pressure on the arterial walls. If  $\leq 0.8$  → there is arterial disease. If  $\leq 0.3$  → there is often rest pain.

Ankle Brachial ratio  $> 0.95$ : Normal  
0.6  $<$  Ankle Brachial ratio  $< 0.95$ : Peripheral Vascular Disease  
0.5  $<$  Ankle Brachial ratio  $< 0.6$ : The disease affects at more levels than one  
0.3  $<$  Ankle Brachial ratio  $< 0.5$ : Rest pain  
Ankle Brachial ratio  $< 0.2$ : Gangrenous extremity