## **Extremity Arterial Ultrasound Interpretation Guidelines**

Lower Extremities			Vessel Disease		ABI	тві	Doppler	PVR
			Calcified Vessel	10 0000	> 1.4	unaffected	AAA	MM
Stenosis	PSV	<b>PSV Ratio</b>	Normal	10 0 m	0.9 - 1.4	> 0.6		Δ. Δ. Δ.
None	<150 cm/sec	<1.5					amment	[NNN
Mild (30-49%)	150-200 cm/sec	1.5 to 2.0	Mild PAD	100 m = 1	0.7 - 0.89	0.34 - 0.59	MAAA	
Moderate (50-75%)	200-400 cm/sec	2.0 to 4.0	Moderate PAD		0.51 - 0.69	0.12 - 0.34	AAAA	~~~~
Severe (>75%)	>400 cm/sec	>4.0						
Occlusion	no flow	NA	Severe PAD		≤ 0.5	≤ 0.11	mm	

- Pressure in the upper thigh should be 20-30 mmHg higher than the brachial pressure. High thigh index (HTI) >1.2 normal, 0.8-1.2 suggests aortoiliac disease, <0.8 suggests iliac occlusion
- >20 mmHg pressure difference or >0.15 ratio difference between two consecutive segments suggests an intervening stenosis.
- >30 mmHg pressure difference between left and right at the same level suggests a stenosis at or above the level of the side with the lower pressure.
- Toe pressures should be 60-80% of normal brachial pressures.
- Post exercise ABIs should be the same or increased from pre exercise values.

Stenosis	PSV	<b>PSV</b> Ratio	- DVD g
None	<150 cm/sec	<1.5	
Mild (30-49%)	150-200 cm/sec	1.5 to 2.0	
Moderate (50-75%)	200-400 cm/sec	2.0 to 4.0	
Severe (>75%)	>400 cm/sec	>4.0	Severe PAD
Occlusion	no flow	NA	B E
Degree of PAD	WBI	FBI	
Normal	≥0.90	≥0.86	
Mild	0.75-0.89	0.70-0.85	C F
Moderate	0.60-0.74	0.50-0.69	
Severe	0.40-0.59	0.30-0.49	Moderate PAD Critical PAD
Critical	≤0.39	≤0.29	

## **Upper Extremities**

- >10 mmHg pressure difference between two consecutive segments suggests an intervening stenosis.
- >20 mmHg pressure difference between left and right at the same level suggests a stenosis at or above the level of the side with the lower pressure.
- Pressures between the radial and ulnar arteries should be within 5-10 mmHg. A pressure difference ≥20 mmHg suggests a stenosis in the vessel with the lower pressure.
- An absolute finger pressure of <70 mmHg or a brachial-finger pressure gradient of >35 mmHg suggests a stenosis between the brachial artery and the finger.
- A wrist-to-finger pressure gradient of  $\geq$ 30 mmHg suggests distal digit ischemia.