QRS Axis Deviation on ECG

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The QRS Axis

Normal Axis:

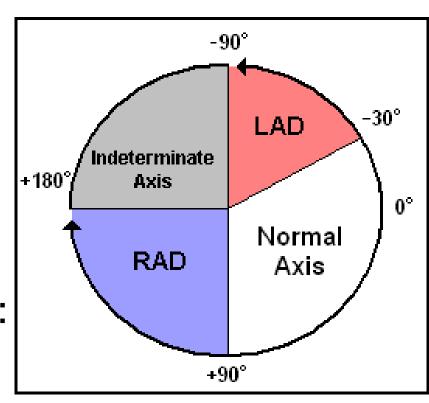
$$-30^{\circ}$$
 to $+90^{\circ}$

Left Axis Deviation (LAD):

$$-30^{\circ}$$
 to -90°

Right Axis Deviation (RAD):

$$+90^{\circ} \text{ to } +180^{\circ}$$



Determining the Axis

The Quadrant Approach

 Examine QRS complex in leads I and aVF and determine if they are predominantly positive or negative.

0	The com	ıbina	tion	places
	the axis	into	one	quadrant

		Lead a∀F		
		Positive	Negative	
Lead I	Positive	Normal Axis	LAD	
Leaur	Negative	RAD	Indeterminate Axis	

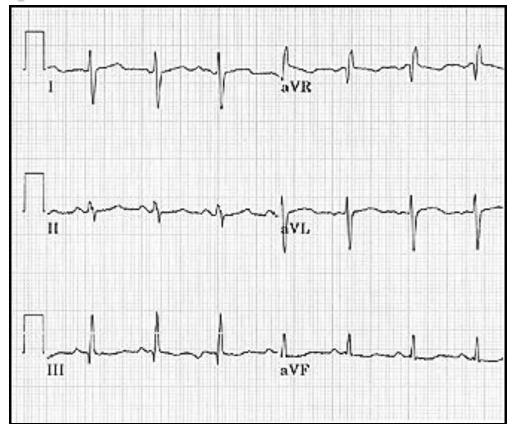




Determining the Axis

- If LAD is suspected, examine lead II to determine if this deviation is pathologic.
- If QRS in II is positive, the LAD is nonpathologic (normal axis).
- If it is predominantly negative, it is pathologic.

Example



Negative in Lead I, positive in Lead aVF → Right Axis Deviation