Ischemia, Injury and Infarction on EKG

Sunnyvale HST

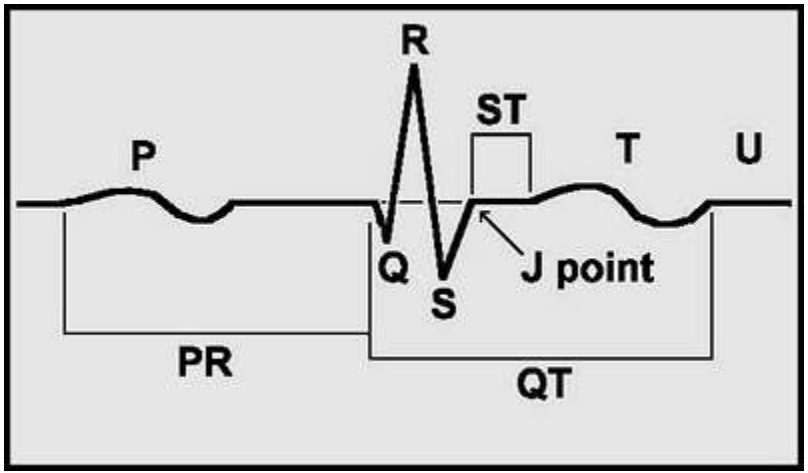
Definitions

Ischemia	:Inadequate blood supply, may lead to death of tissue
Injury	:harm or damage
Infarction	:obstruction of blood supply, causing death of tissue

The J Point

Junction between QRS complex and ST segment

Anomalies to the right of the QRS complex indicate injury, ischemia or infarction

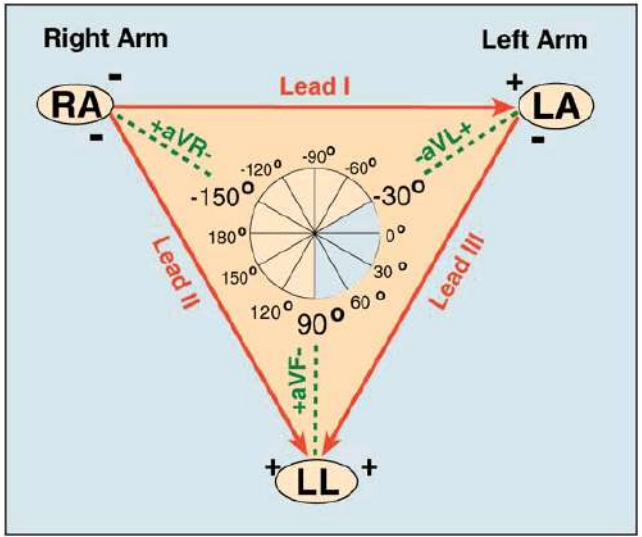


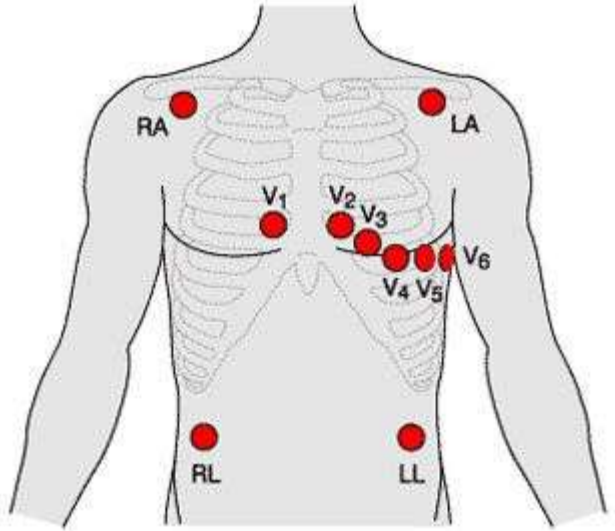
Reciprocal Leads

Opposite changes on reciprocal leads confirm anomalies

Common Reciprocal Leads

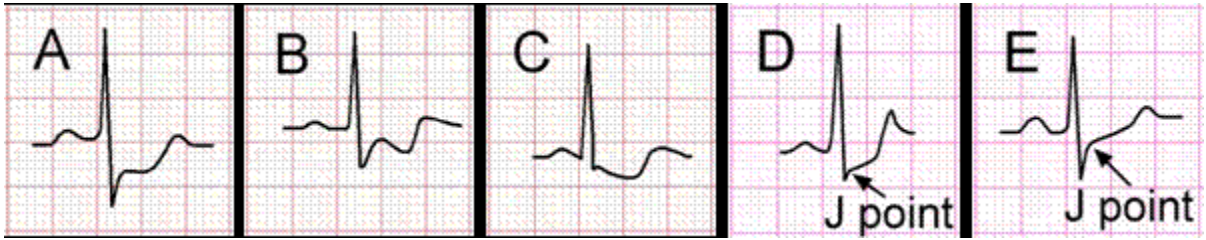
- II, III, aVF are reciprocal to I, aVL
- VI, V2 and V3 are reciprocal to II, III, aVF

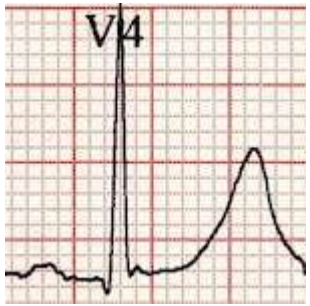


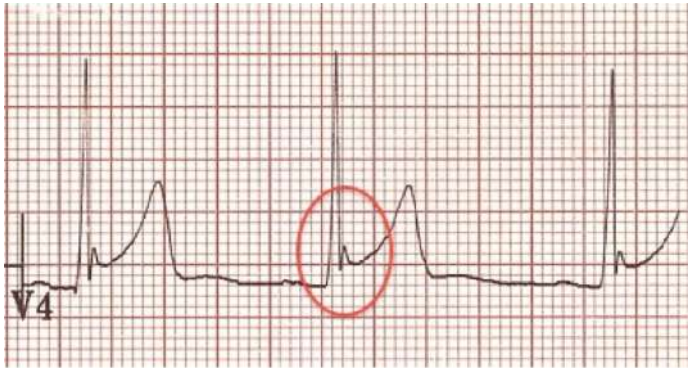


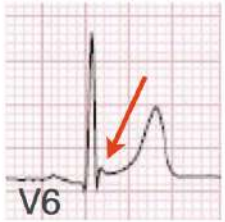
J Point Depression or Elevation

Indicates ischemia





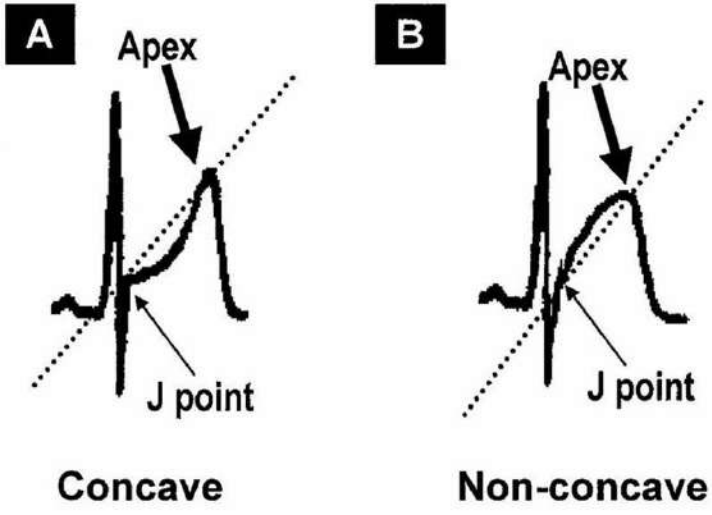




Convex ST Segment

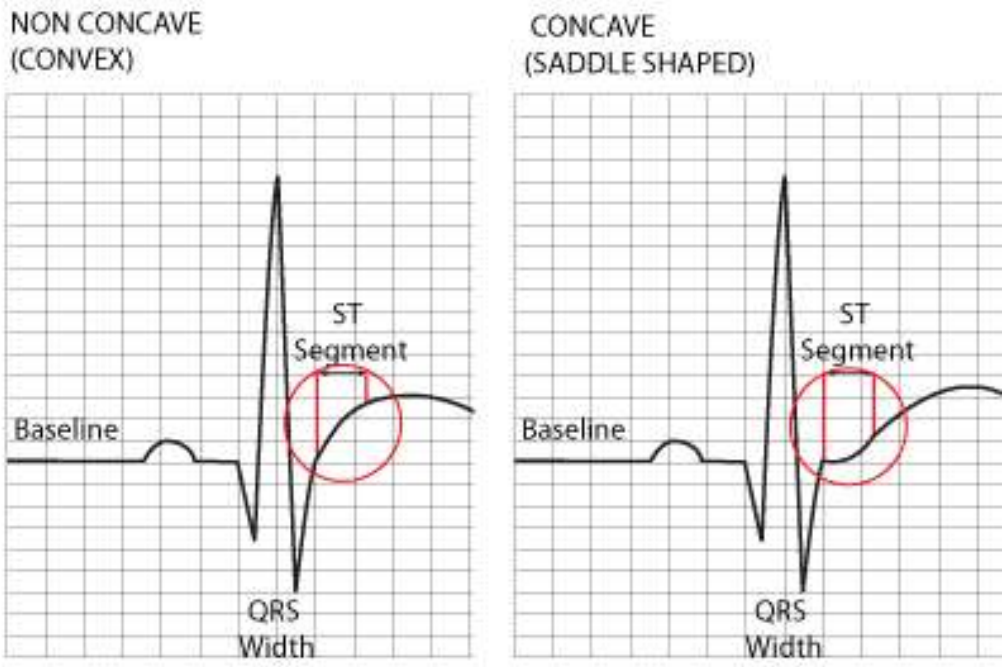
Indicates ischemia

Draw a line from the J point to the peak of T wave, if T wave is on the drawn line or above it, the ST segment is convex



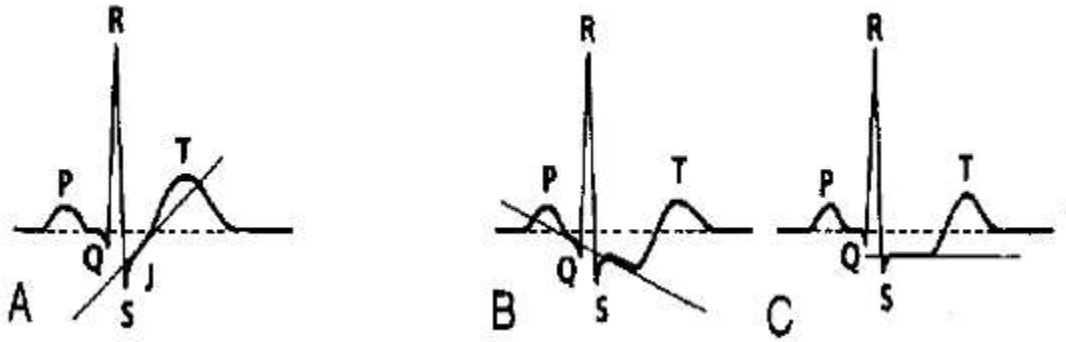
Concave ST Segment

Likely means no ischemia present



ST Slope Irregularities

Indicates ischemia



Rapid Upslope Horizontal Slope (Normal with exercise)	Downslope (Abnormal)	(Abnormal)

**Gradually upsloping ST segment also indicates ischemia

T Wave Abnormalities

The following T wave findings indicate abnormalities:

- Symmetry--the T wave is symmetrical with respect to the y-axis
- Peaked/Tented--the apex of the T wave elevates and forms a peak
- Hyperacute--the T wave is taller than ½ of the QRS height
- [illegible]se--the [illegible]ad base
- [illegible]--T wa[illegible]