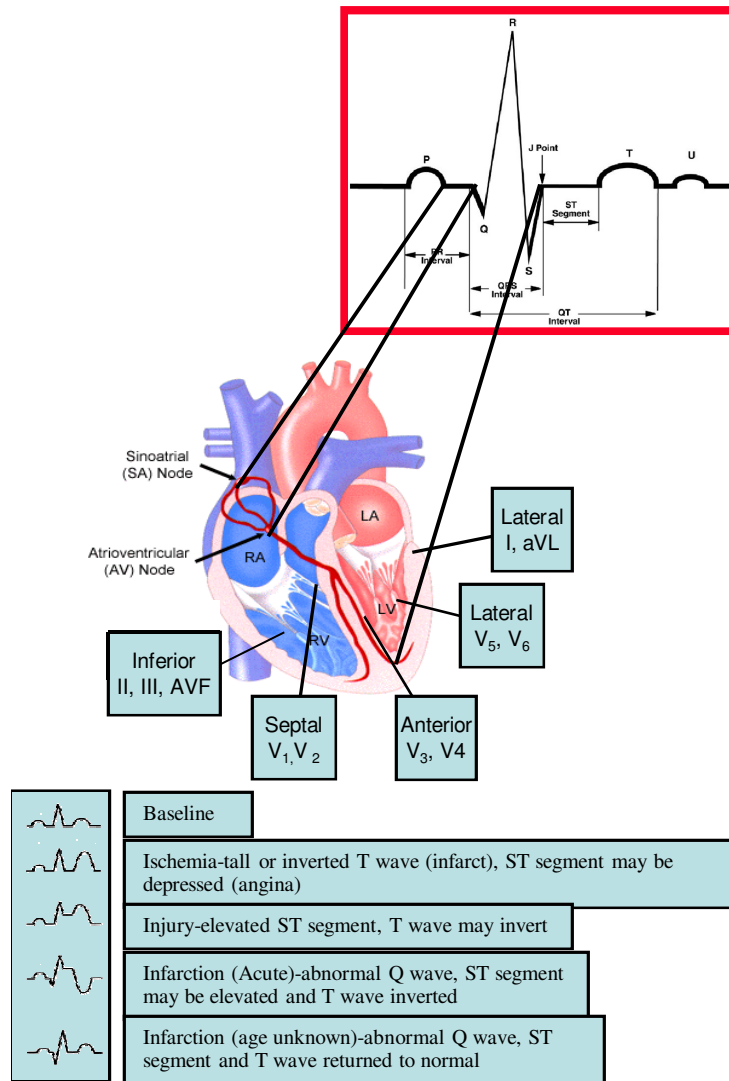
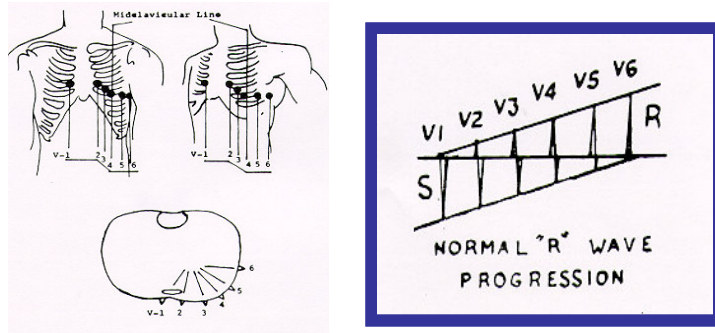


12 lead EKG Fast Facts





Evaluating EKG's

1. Determine rate, rhythm and intervals: PR-.12-.20; QRS-.04-.10sec
2. Any Q waves? If $\geq .04$ and in 2 or more related leads = SIGNIFICANT. Q waves in leads correlate with location of injury.
3. Is there normal R wave progression in precordial leads? R wave should increase in size from V₂ to V₄ then become smaller again. Absence of R wave progression=LV injury or a LBBB.
4. T waves should be rounded and upright without peaks or notches.
5. All spaces between waves are flat and isoelectric. Check for ST segment to be isoelectric.
5. Assess for hypertrophy. Wide QRS in V₁V₂ seen with RVH. Wide QRS in V₅V₆ seen with LVH.

EKG changes associated with health abnormalities

Hypokalemia-flattened T waves, U waves

Hyperkalemia-peaked T waves

Hypercalcemia-shortened QT interval, prolonged PR interval

Hypomagnesemia-U waves, low voltage of P waves and QRS complexes

PE-tachycardia, S wave in lead I, Q wave in lead III, inverted T wave in lead III (S₁ Q₃ T₃), new RBB block

Increased ICP-sinus bradycardia, QT prolongation, inverted T wave

Pericardial effusion-alternating/varying QRS complex voltages within 12 lead tracing, ST elevations in precordial leads, low voltage

CHF-nonspecific ST changes, low voltage

Cor pulmonale (RV overload)-ST depression, T wave inversion

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References: M. Cvach & P. Ibello; Johns Hopkins University Hospital; Sweetwood, H.M. (1983). *Clinical Electrocardiography for Nurses*.