



How to Read an EKG

Note: This guide is meant to provide you with a systematic approach to EKG interpretation. Many detailed resources exist; Dubin's is a classic.

Quick details: Large boxes = 0.2 s, small boxes 0.04 s. Most strips are 10 s total.

Rate - Multiply total number of QRS complexes in 10 s strip by 6 to get bpm. Tachycardic? Bradycardic? Counting the small boxes between QRS complexes tells you the rate as well. 1 small box = 300 bpm, 2 = 150, 3 = 100, 4 = 75, 5 = 60, 6 = 50.

Rhythm - Sinus rhythm? Heart block? Arrhythmias?

Axis - Normal axis? Leftward? Rightward?

Intervals - Check for normal interval duration. P-R? QRS? Q-T?

Hypertrophy - Atrial (P waves either higher voltage or biphasic)? LVH (S wave in V1 + tallest R wave in V5/V6 > 35 mm)?

Ischemia - ST elevation/depression? T wave inversions? Q waves? Try to localize ischemia based on affected leads (II, III, aVF = inferior; I, aVL, V5, V6 = lateral, etc.).

Other changes - Other wave abnormalities (peaked T waves, low voltage QRS, delta waves, etc). Bundle branch blocks?