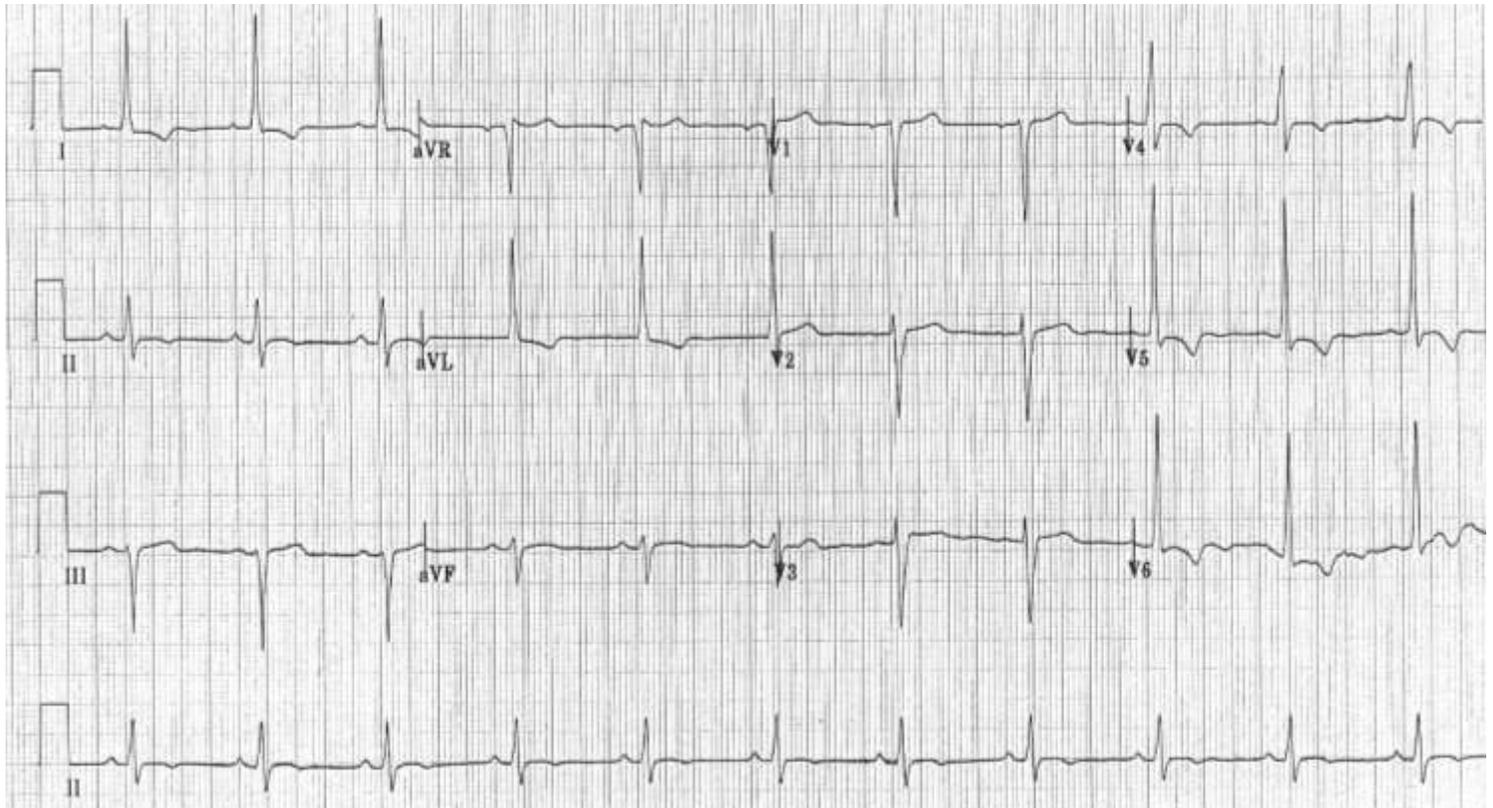


**ECG Basics - Reading ECGs**  
**Template and Practice ECG**  
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Rate: \_\_\_\_\_ bpm  
 Rhythm: \_\_\_\_\_  
 Axes:  
 P wave axis: \_\_\_\_\_ normal; \_\_\_\_\_ abnormal (normal 0- to 90°)  
 QRS axis: \_\_\_\_\_ normal; \_\_\_\_\_ left axis; \_\_\_\_\_ right axis; \_\_\_\_\_ superior axis (normal -30 to 90°)  
 T wave axis: \_\_\_\_\_ normal; \_\_\_\_\_ abnormal; \_\_\_\_\_ opposite QRS axis (normal -30 to 90° or within 45° of the QRS axis)  
 Intervals:  
 PR interval: \_\_\_\_\_ normal; \_\_\_\_\_ prolonged; \_\_\_\_\_ short (normal 0.12 to 0.20 seconds)  
 QRS interval: \_\_\_\_\_ normal; \_\_\_\_\_ prolonged (normal 0.08 to 0.12seconds)  
 QT interval: \_\_\_\_\_ seconds; \_\_\_\_\_ < ½ the RR interval  
 RR interval: \_\_\_\_\_ seconds  
 √RR interval: \_\_\_\_\_  
 QTc interval: \_\_\_\_\_ seconds (normal 0.36 to 0.45)  
 Waveforms:  
 P waves: \_\_\_\_\_ left atrial abnormality; \_\_\_\_\_ right atrial abnormality; \_\_\_\_\_ none  
 Q waves: \_\_\_\_\_ not present; \_\_\_\_\_ present (Leads: \_\_\_\_\_ inf; \_\_\_\_\_ septal; \_\_\_\_\_ ant; \_\_\_\_\_ lat)  
 QRS complex: \_\_\_\_\_ tall for LVH; \_\_\_\_\_ small for low voltage; \_\_\_\_\_ wide for BBB; \_\_\_\_\_ Tall narrow R wave V1 for RVH or Post MI; \_\_\_\_\_ R wave < 3mV in V3 (poor R wave progression); \_\_\_\_\_ Abnormal transition (not in V3 or V4)  
 ST & T waves: \_\_\_\_\_ ischemia; \_\_\_\_\_ secondary changes; \_\_\_\_\_ non-specific changes  
 ECG Diagnoses: \_\_\_\_\_  
 Clinical Diagnoses: \_\_\_\_\_

**Practice ECG**



Rate: 66 bpm  
 Rhythm: Normal sinus rhythm  
 Axes:

P wave axis: +60° (normal 0- to 90°)  
QRS axis: -15° (normal -30 to 90°)  
T wave axis: +150° (normal -30 to 90° or within 45° of the QRS axis) - in this case the T wave axis is opposite to the QRS axis (~180°).

Intervals:

PR interval: 0.14 seconds (normal 0.12 to 0.20 seconds)  
QRS interval: 0.08 seconds (normal 0.08 to 0.12seconds)  
QT interval: 0.36 seconds  
RR interval: 0.92 seconds  
VRR interval: 0.96  
QTc interval: 0.38 seconds (normal 0.36 to 0.45)

Waveforms:

P waves: No left or right atrial abnormalities  
Q waves: No significant contiguous Q waves  
QRS complex: Left ventricular hypertrophy (LVH)  
ST & T waves: Secondary changes due to LVH; cannot exclude lateral ischemia

ECG Diagnoses: Normal sinus rhythm

Left ventricular hypertrophy with secondary ST & T wave changes

Cannot exclude lateral ischemia

Clinical Diagnoses: Left ventricular hypertrophy