

Examination Questions on the ECG

1. Electrocardiography. The main founders of the method. Physiological basis of the electrocardiogram. Genesis of the normal ECG.
2. The characteristic features of the ECG-leads (standard limb leads, augmented limb leads, unipolar chest leads). Einthovens triangle from the point of the genesis of the standard leads.
3. The ECG-wave morphology. The main elements of the ECG in the norm. Duration and amplitude of the waves, characteristic features of PQ- and QT- intervals, measurement of heart rate.
4. The notion “electrical axis” and “ α -angle”. Definition, electrical axis positions, methods of electrical axis determination.
5. Approach to ECG analysis: consequence of the main steps, ECG-protocol filling in.
6. General ECG-signs of cardiac (atrial and ventricular) hypertrophy.
7. ECG-signs of the atrial hypertrophy (left atrial hypertrophy, right atrial hypertrophy).
8. ECG-signs of the left ventricular hypertrophy.
9. ECG-signs of the right ventricular hypertrophy.
10. General ECG-signs of the bundle branch block. ECG-signs of the right bundle branch block.
11. ECG-signs of the left bundle branch block and fascicular blocks in the left bundle system.
12. ECG-signs of the normal sinus rhythm. Sinus rhythm disturbances (sinus tachycardia, sinus bradycardia, sick sinus syndrome).
13. ECG-signs of the sinoatrial block (3 degrees of SA-block).
14. ECG-signs of the atrioventricular heart block (3 degrees of AV-block).
15. Pre-excitation syndromes (WPW- and LGL-syndromes). Mechanism of genesis, ECG-signs, clinical significance.
16. ECG-signs of supraventricular premature (ectopic) beats.
17. ECG-signs of ventricular premature (ectopic) beats.
18. ECG-signs of paroxysmal supraventricular tachycardia.
19. ECG-signs of paroxysmal ventricular tachycardia.
20. ECG-signs of atrial fibrillation and atrial flutter.
21. ECG-signs of ventricular fibrillation and ventricular flutter.
22. ECG-signs of ischemia, myocardial injury and necrosis. Q-wave and non-Q-wave myocardial infarction.
23. ECG-signs of the anterior myocardial infarction.
24. ECG-signs of the inferior myocardial infarction.
25. ECG-signs of the lateral myocardial infarction.