



Approved by:  
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Dean of Medical University Sofia

**MEDICAL QUESTIONARY**  
**DIAGNOSTIC IMAGING**  
**MEDICAL STUDENTS IV YEAR**

1. X-ray image formation. Image characteristics
2. Digital imaging. Retrieval and archiving of images
3. Radiation protection of the staff and patients
4. Computed tomography - principles. Applications
5. Ultrasound - principles. Applications
6. Magnetic resonance imaging (MRI). Applications
7. Contrast media - classification. Advantages and limitations
8. Interventional radiology
9. Lung imaging. Methods
10. Imaging anatomy of the respiratory system – X-ray, CT and MRI
11. Basic pathology and imaging findings of the respiratory systems
12. Imaging of inflammatory lung diseases
13. Pulmonary tuberculosis. Classification. Radiological appearance of primary and secondary pulmonary tuberculosis.
14. Tumors of the lung. Imaging and staging
15. Pulmonary embolism - current concepts of imaging
16. Pleural diseases - pneumothorax, inflammatory diseases, tumors.
17. Imaging of the mediastinum. Mediastinal tumors
18. Imaging of the heart, coronary arteries, great vessels and peripheral vessels.
19. Imaging anatomy of the cardio-vascular system
20. Imaging of the acquired and congenital valve diseases
21. Ischemic heart disease – current concepts of imaging
22. Imaging of the pericardial diseases
23. Aortic diseases. Peripheral vessels diseases. Acute aortic syndrome
24. Imaging methods for digestive system
25. Imaging anatomy of esophagus and stomach
26. Esophageal lesions - diverticula, stricture, tumors, varices
27. Imaging findings of the peptic ulcer disease
28. Carcinoma of the stomach. Staging
29. Imaging of the bowels. Colon carcinoma

30. Imaging of the liver. Focal and diffuse liver lesions
31. Imaging of the biliary tract. Gallstones
32. Imaging methods of the pancreas. Inflammatory diseases and tumors
33. Imaging of the "acute" abdomen.
34. Imaging of the urinary system and male reproductive system
35. Radiological anatomy of the urinary system. Variations and anomalies
36. Nephrolithiasis. Hydronephrosis
37. Renal cell carcinoma. Transitional cell carcinoma. Imaging and staging
38. Imaging in obstetrics and gynecology
39. Musculoskeletal imaging methods. Imaging anatomy
40. Imaging of the main bone pathology processes
41. Bone and joint trauma - fracture, fissures, luxations and subluxations
42. Osteomyelitis - acute, chronic. Atypical forms
43. Benign and malignant bone tumors
44. Degenerative and inflammatory disease of the joints
45. Avascular necrosis – Perthes disease
46. Imaging methods for the central nervous system. Imaging anatomy
47. Benign and malignant brain tumors
48. Imaging of the ischemic stroke
49. Imaging of the intracranial hemorrhage
50. Imaging methods for demyelinating disease of the central nervous system
51. Imaging of degenerative disease of the spine
52. Breast imaging. Benign and malignant breast tumors
53. Maxillofacial imaging

**Recommended books:**

1. Critical Observations in Radiology for Medical Students – K. R. Birchard, K. R. Busireddy, et al, Wiley Blackwell, 2015
2. Chest X-rays for medical students – Ch. Clarke, A.Dux; Wiley Blackwell, 2017
3. Abdominal X-rays for Medical Students – Ch. Clarke, A.Dux; Wiley Blackwell, 2015
4. Essential Radiology – R. B. Gunderman; Thieme, 2006
5. Imaging for students, D. A.Lisle, Hodder Arnold, 2012
6. Diagnostic imaging part I textbook Hr. Mihaylova , 2015

**Head of Department of Diagnostic Imaging:**

**(Prof. Dr Dorá Zlatareva, PhD)**