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### **Nervous system and sensations**

1. Types of neurons (neurocytes) in form and function. Processes of nerve cells. Dynamic polarization of neurons. The concept of gray and white matter.
2. Relief of the rhomboid fossa. Projection of the nuclei of the cranial nerves on rhomboid fossa.
3. Development of the brain, stages of the 3rd and 5th brain vesicles, their derivatives.
4. Fourth ventricle, walls, contents, connections.
5. Third ventricle, walls, contents, connections.
6. Features of the structure of the dura mater of the brain. Sinuses of the dura mater.
7. Meningeal spaces of the spinal canal and cranial cavity, contents.
8. Cranial nerves, fiber composition, exit points at the base of the brain and cranial cavity.
9. Medial lemniscus.
10. Lateral lemniscus.
11. Classification of pathways in the CNS. Commissural pathways.
12. Classification of pathways in the CNS. Association pathways.
13. Pyramid system. Main tracts.
14. Extrapyramidal system, main tracts.
15. Parts of the brain.
16. Cerebrospinal fluid circulation.
17. Lateral ventricles, walls, contents, connections.
18. Second signal system.
19. Superolateral surface of the cerebral hemispheres, sulci and gyrus, localization of functions.

20. Medial surface of the cerebral hemispheres, sulci and gyrus, localization of functions.
21. Midbrain, external and internal structure.
22. Medulla oblongata, external and internal structure.
23. Pons, external and internal structure.
24. Cerebellar peduncles, connections with brain regions, pathways.
25. Cerebellum, external and internal structure.
26. Basal nuclei and related structures: striatum, internal capsule.
27. Anatomy of the spinal cord. Localization, topography, external structure.
28. Anatomy of the spinal cord. External structure. The concept about segment, segment apparatus. Skeletopy of the segments.
29. Spinal nerve, formation, branches.
30. Columns of the white matter of the spinal cord, localization of pathways.
31. Gray matter of the spinal cord, localization of the nuclei.
32. Diencephalon brain. External structure, components.
33. Thalamus, gray and white matter.
34. Hypothalamus. Areas, gray and white matter.
35. Reticular formation. Structure, importance.
36. Pathways of exteroceptive types of sensitivity (pain, temperature, touch and pressure).
37. Layers of the eyeball.
38. Accessory structures of the eye: lacrimal apparatus, conjunctiva.
39. Accessory structures of the eye: external muscles of the eyeball, eyelids.
40. Visual analyzer.
41. Auditory analyzer.
42. Vestibular analyzer.
43. Cameras of the eyeball. Circulation of aqueous humor.
44. External (outer) ear. The structure of the auricle, external auditory canal, tympanic membrane.
45. Middle ear. Tympanic cavity: walls, contents, connections. auditory tube.

46. Inner ear. Bone labyrinth, membranous labyrinth.
47. The organ of taste. Subcortical and cortical centers.
48. Olfactory organ. Olfactory analyzer.
49. Olfactory brain. Parts.

### **Digestive system**

1. Oral cavity: parts, walls.
2. Anatomy of the hard and soft palate. Fauces.
3. Mouth glands: major and minor salivary glands.
4. Teeth: structure, formulas, times of eruption.
5. Tongue: position, parts, papillae, muscles.
6. Pharynx: skeletotopy, syntopy, parts, connections.
7. Waldeyer's tonsillar ring (pharyngeal lymphoid ring) of the pharynx.
8. Pharynx: wall structure.
9. Esophagus: skeletopy, syntopy, parts, structural features of walls, constrictions.
10. Stomach: syntopy, divisions, structural features of the wall.
11. Small intestine: parts. Anatomy of the duodenum.
12. Small intestine: parts. Anatomy of the jejunum and ileum. Meckel's diverticulum.
13. Pancreas. Skeletotopy, syntopy, parts. Excretory and endocrine functions.
14. Anomalies and malformations of internal organs. Examples.
15. Large intestine: parts, relations to the peritoneum, external signs of difference from the small intestine.
16. Anatomy of the caecum and appendix. Variations of location of the appendix.
17. Liver: syntopy, fixing elements, surfaces, ligaments.
18. Anatomy of the gallbladder. Extrahepatic bile ducts.
19. Rectum: position, bends, parts, wall structure, sphincters.
20. Abdominal cavity and peritoneal cavity. The relations of organs to the peritoneum, examples.



21. Morphofunctional features of the peritoneum. The cavity of the peritoneum, derivatives of the peritoneum.
22. The upper floor of the peritoneal cavity: bursae.
23. The middle floor of the peritoneal cavity: canals, sinuses, fossae.
24. The lower floor of the peritoneal cavity: depressions, gender differences.

### **Respiratory system**

1. Anatomy of the nose: parts, cartilages. Nasal cavity: divisions, areas, nasal septum.
2. Nasal cavity: nasal meatuses, paranasal sinuses, communications.
3. Larynx: skeletopy, syntopy, parts of the larynx cavity.
4. Larynx: cartilages, joints, classification of muscles.
5. Trachea: parts, wall structure, bifurcation, differences between the main bronchi.
6. Bronchial and alveolar tree. Acinus.
7. Pleura, pleural cavity, pleural sinuses. Borders of the pleura on the chest.
8. Mediastinum: definition, boundaries, parts, content.
9. The structure of the lungs. Borders of the lungs on the chest.

### **Urinary system**

1. Bladder: position, syntopy, parts, wall structure.
2. The structure of the kidney in section. The structural and functional unit of the kidney is the nephron. Features of the bloodstream of the kidney.
3. Ways of excretion of secondary urine.
4. Kidney: skeletopy, syntopy, fixing elements, external structure, segments of the kidney.
5. Ureter: parts, wall structure, constrictions.

### **Female reproductive system**

1. Uterus: position, parts, wall structure, fixing apparatus.
2. The structure of the external female genital organs.

3. The structure of the ovary. Fallopian tube: parts, wall structure.
4. Internal female genital organs: syntopy, anatomy of the vagina.

### **Male reproductive system**

1. Male urethra: parts, bends, constrictions and extensions, wall structure, sphincters.
2. Internal male genital organs: the structure of the testis, the vas deferens.
3. internal male genital organs: the structure of the prostate, seminal vesicle, bulbourethral glands.
4. External male reproductive organs. The structure of the penis.
5. External male reproductive organs. The structure of the scrotum.
6. Ways of excretion of the semen.

### **Perineum**

1. Perineum: urogenital diaphragm, layers of muscles and fascia.
2. Perineum: pelvic diaphragm, layers of muscles and fascia. ischioanal fossa.