

Group B: Vascular, lymphatic and peripheral nervous system – red

Arteries

1. Blood

- Main points: composition of the blood, formed blood elements, erythrocytes, leukocytes, platelets, blood count including the differential blood count
- Figures: membrane skeleton of an erythrocyte, types of leukocytes

2. Hemopoiesis

- Main points: monophyletic theory of the hemopoiesis, erythropoiesis, myelopoiesis, thrombopoiesis, development of the hemopoiesis
- Figures: schema of the hemopoiesis

3. Aorta and coronary arteries

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, branches and supplied areas, syntopy, aneurysm, bypass, catheterization and angioplasty
- Figures: scheme of the course and main branches

4. Abdominal aorta

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, branches and supplied areas, syntopy, aneurysm
- Figures: scheme of the course and main branches

5. Iliac arteries

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, branches and supplied areas, syntopy, aneurysm
- Figures: scheme of the course and main branches

6. External carotid artery

- Main points: general structure of the vascular wall; structure and development of the arteries; course, branches (main branches and their branches) and supplied areas, syntopy, course through the openings in the skull
- Figures: scheme of the course and main branches

7. Maxillary artery

- Main points: general structure of the vascular wall; structure and development of the arteries; course, parts, branches and supplied areas, syntopy, course through the openings in the skull, epidural bleeding
- Figures: scheme of the course and main branches

8. Internal carotid artery

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, course through the openings in the skull
- Figures: scheme of the course and main branches, ultrasound examination and palpation

9. Cerebral arterial circle

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, clinically important branches and consequences of the closures/bleedings, subarachnoid bleeding, aneurysm, supplied areas
- Figures: scheme and main branches, cortical supplied areas by the cortical arteries

10. Vertebral artery

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, course through the openings in the skull and vertebral column
- Figures: scheme of the course and main branches

11. Subclavian artery

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, scalene syndrome, subclavian steal syndrome
- Figures: scheme of the course and main branches

12. Arteries of the upper limbs

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, palpation, catheterization, dialysis fistulae
- Figures: scheme of the course and main branches

13. Arteries of the lower limb

- Main points: general structure of the vascular wall; structure, development and developmental defects of the arteries; course, parts, branches and supplied areas, syntopy, palpation, catheterization, bypasses
- Figures: scheme of the course and main branches

Veins

14. Dural venous sinuses and veins of the brain

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; list of sinuses, their tributaries and drainage area, syntopy, emissary veins, subdural bleeding
- Figures: lateral and superior view to the dural venous sinuses, frontal section of the cavernous sinus

15. Veins of the neck

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, central catheterization, emissary veins
- Figures: scheme of the course and main branches

16. Superior vena cava and its tributaries, cavo-caval anastomoses

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, central catheterisation, cavo-caval anastomoses
- Figures: scheme of the course and main branches

17. Inferior vena cava and its tributaries, cavo-caval anastomoses

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, cavo-caval anastomoses
- Figures: scheme of the course and main branches

18. Portal vein and porto-caval anastomoses

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, portal hypertension, porto-caval anastomoses
- Figures: scheme of the course and main branches

19. Veins of the thorax and porto-caval anastomoses

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, portal hypertension, porto-caval anastomoses
- Figures: scheme of the course and main branches

20. Superficial veins of the limbs and venous perforators

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and ; area, syntopy, venepuncture, perforators and their function, varices
- Figures: scheme of the course and main branches, scheme of a perforator, subinguinal venous confluence

21. Deep veins of the limbs and venous perforators

- Main points: general structure of the vascular wall; structure, development and developmental defects of the veins; course, tributaries and drainage area, syntopy, perforators and their function
- Figures: scheme of the course and main branches, scheme of a perforator

Lymphatic system

22. Spleen

- Main points: parts, structure, development and developmental defects, syntopy, course and branches of the vessels, blood supply and innervation, function, delayed rupture of spleen
- Figures: syntopy of the spleen, blood circulation of the spleen

23. Thymus, incompletely encapsulated and non-encapsulated lymphoid tissue

- Main points: parts, structure, development and developmental defects, syntopy, blood supply and innervation, function; tonsils – overview, structure and function; MALT
- Figures: pharyngeal lymphoid ring

24. Lymphatic vessels and trunks

- Main points: general structure of the vascular wall; structure and development of the lymphatic vessels, structure, function and development of the lymph nodes, developmental defects, course of the lymphatic vessels, tributaries, syntopy, drainage area
- Figures: scheme of the course and main branches, section through a lymph node

25. Lymphatic drainage of the head and neck

- Main points: structure, function and development of the lymph nodes, lymph nodes of the head and neck and their drainage areas, drainage of the organs (especially of the tongue), nodes of Virchow-Troisier, TNM staging system
- Figures: scheme of the lymph nodes of the head and neck, scheme of the lymphatic drainage of the tongue

26. Lymphatic drainage of the thorax and upper limbs

- Main points: structure, function and development of the lymph nodes, lymph nodes of the thorax and upper limbs and their drainage areas, drainage of the organs (especially of the lungs and mammary gland), node of Sargius, TNM staging system
- Figures: scheme of the lymph nodes of the thorax and upper limbs, scheme of the lymphatic drainage of the lungs and mammary gland

27. Lymphatic drainage of the abdomen

- Main points: structure, function and development of the lymph nodes, lymph nodes of the abdomen and their drainage areas, drainage of the organs (especially of the stomach and large intestine), TNM staging system
- Figures: scheme of the lymph nodes of the abdomen, scheme of the lymphatic drainage of the stomach and large intestine

28. Lymphatic drainage of the pelvis and lower limbs

- Main points: structure, function and development of the lymph nodes, lymph nodes of the pelvis and lower limbs and their drainage areas, drainage of the organs (especially of the ovary/testis, uterus, prostate, scrotum), node of Cabanas, TNM staging system

- Figures: scheme of the lymph nodes of the pelvis and lower limbs, scheme of the lymphatic drainage of the uterus

Peripheral nervous system

29. General structure of the spinal nerve and thoracic nerves

- Main points: scheme of the PNS; function, structure and branches of the spinal nerve; course, branches and types of impulses (modalities) of the thoracic nerves, syntopy, development, innervated area, herpes zoster
- Figures: scheme of the spinal nerve

30. Dermatomes, myotomes, peripheral nerve fields, Head's zones, ganglia

- Main points: definitions, examples, clinical importance, types and location of ganglia, structure and development of a sensory ganglion
- Figures: dermatomes of the body and limbs, sensory innervation of the head and limbs

31. Special sensory cranial nerves

- Main points: olfactory, optic and vestibulocochlear nerve, development, nuclei, types of impulses (modalities) , origin, course, course through the openings in the skull, branches, syntopy, function, clinical examination, reflexes, paralysis/irritation
- Figures: scheme of the course and main branches, olfactory, visual, auditory and vestibular pathway, internal acoustic meatus, scheme of the pupillary reflex

32. Oculomotor, trochlear and abducent nerves

- Main points: development, nuclei, types of impulses (modalities) , origin, course, course through the openings in the skull, branches, syntopy, function, clinical examination, reflexes, paralysis /irritation
- Figures: scheme of the course and main branches, frontal section of the cavernous sinus, scheme of the pupillary reflex

33. Trigeminal nerve

- Main points: development, nuclei, types of impulses (modalities) , origin, course, course through the openings in the skull, branches, syntopy, function, clinical examination, reflexes, palsy/irritation (neuralgia), anesthesia
- Figures: scheme of the course and main branches

34. Facial nerve

- Main points: development, nuclei, types of impulses (modalities) , origin, course, course through the openings in the skull, branches, syntopy, function, clinical examination, reflexes, central and peripheral paralysis
- Figures: scheme of the course and main branches, canalis nervi facialis

35. Glossopharyngeal, vagus and accessory nerves

- Main points: development, nuclei, types of impulses (modalities) , origin, course, course through the opening in the skull, branches, syntopy, function, clinical examination, reflexes, palsy/irritation
- Figures: scheme of the course and main branches, jugular foramen

36. Vagus nerve

- Main points: development, nuclei, types of impulses (modalities) , origin, course, course through the opening in the skull, branches, syntopy, function, clinical examination, reflexes, palsy/irritation
- Figures: scheme of the course and main branches, jugular foramen

37. Cervical plexus and hypoglossal nerve

- Main points: hypoglossal nerve: development, nuclei, types of impulses (modalities) , origin, course, course through the opening in the skull, branches, syntopy, function, clinical examination, reflexes, palsy/irritation; nerves of the plexus and their course, branches, types of impulses (modalities), syntopy and innervated areas, palsy/irritation, point of Jonáš
- Figures: scheme of the course and main branches

38. Brachial plexus

- Main points: nerves of the plexus and their course, branches, types of impulses (modalities) , syntopy and innervated areas, palsy/irritation, reflexes, regional anesthesia, entrapment syndromes, point of Erb; general structure of a nerve and developmental background
- Figures: scheme of the course and main branches, dermatomes and sensory innervation of the upper limb

39. Lumbar plexus

- Main points: nerves of the plexus and their course, branches, types of impulses (modalities), syntopy and innervated areas, palsy/irritation, reflexes, regional anesthesia, entrapment syndromes; general structure of a nerve and developmental background
- Figures: scheme of the course and main branches, dermatomes and sensitive innervation of the lower limb

40. Sacral plexus

- Main points: nerves of the plexus and their course, branches, types of impulses (modalities) , syntopy and innervated areas, palsy/irritation, reflexes, regional anesthesia, entrapment syndromes; general structure of a nerve and developmental background
- Figures: scheme of the course and main branches, dermatomes and sensitive innervation of the lower limb

41. Sympathetic trunk

- Main points: general function of the autonomic nervous system and its sympathetic part (mediators, receptors), structure, types of impulses (modalities) , location,

ganglia, branches, innervated areas, syntopy, function, general structure of a nerve and developmental background, Claude Bernard-Horner's syndrome, pupillary reflex

- Figures: general structure of the spinal nerve, scheme of the course and main branches, scheme of the pupillary reflex

42. Abdominal autonomic plexuses

- Main points: general function of the autonomic nervous system and sympathetic part (mediators, receptors), structure, types of impulses (modalities), location, ganglia, branches, innervated areas, syntopy, function, general structure of a nerve and developmental background, Cannon-Boehm's point
- Figures: scheme of the course and main branches

43. Cranial parasympathetic system

- Main points: general function of the autonomic nervous system and its parasympathetic part (mediators, receptors), structure, types of impulses (modalities), location, ganglia, branches, innervated areas, syntopy, function; general structure of a nerve and developmental background
- Figures: scheme of the course and main branches

44. Sacral parasympathetic system

- Main points: general function of the autonomic nervous system and its parasympathetic part (mediators, receptors), structure, types of impulses (modalities), location, ganglia, branches, innervated areas, syntopy, function, general structure of a nerve and developmental background, Cannon-Boehm's point
- Figures: scheme of the course and main branches