

Group A: Locomotion system (bones, joints, muscles) and Topography – blue

Bones

1. General structure and growth of a bone

- Main points: types of bones, parts of bones, histological structure, types of bone marrow, types of ossification, vascular supply of bones, growth and development of bones, developmental bone defects
- Figures: internal structure of bones, parts of bones, epiphysial plate

2. Bones of limbs

- Main points: bones of girdles, bones of the free part of extremities, important osseous structures and their function, development of limbs, developmental limb bone defects
- Figures: scheme of the carpal and tarsal bones

3. Skull

- Main points: demonstration of bones, openings, osseous structures and cranial fossae on the skull, their contents and function, development of skull, developmental skull defects
- Figures: contents of jugular foramen

4. Skull of newborn and temporomandibular joint

- Main points: relationship between neurocranium and viscerocranium, fonticuli and other characteristic marks, junctures of bones, development of skull, developmental skull defects, ossification; temporomandibular joint (type, shape, head, fossa, articular capsule, ligaments, other structures and movement), muscles providing movement in temporomandibular joint, topography of the temporomandibular joint
- Figures: superior and lateral view of the newborn skull, detail of the temporomandibular joint

5. Vertebral column, sternum and ribs

- Main points: common marks of the vertebrae, differences between cervical, thoracic and lumbar vertebrae, sacral bone, movements of the vertebral column, junctures of the vertebral column, vertebral canal and its contents, intercostal space and its contents, scalenic fissure, development of axial skeleton, developmental axial skeleton defects
- Figures: general structure of the vertebrae, ligaments of the vertebral column

Joints and corresponding regions

6. General structure of a joint

- Main points: types of junctures of the bones, general description of a joint, types of joints, other accessory joint structures, internal structure of a joint, structure of hyaline cartilage

- Figures: schematic cross-section of a joint, internal structure of a joint

7. Junctures of pectoral girdle

- Main points: examples of the junctures and their classification, internal structure of a joint
- Figures: cross-section of the sternoclavicular joint

8. Shoulder joint and axilla

- Main points: type, shape, head, fossa, articular capsule, ligaments, other joint structures, movements, middle position, muscles providing movement of the joint, topography of the joint; rotator cuff, internal structure of a joint; borders and contents of the axilla
- Figures: ligaments of the shoulder joint, contents of the axilla

9. Elbow joint and cubital fossa

- Main points: type, shape, head, fossa, articular capsule, ligaments, other joint structures, movements, middle position, muscles providing movement of the joint, topography of the joint, internal structure of a joint; borders and contents of the cubital region and cubital fossa
- Figures: ligaments and joint capsule of the elbow joint, contents of cubital fossa

10. Joints and topographical sites of hand

- Main points: types, shapes, heads, fossa, articular capsules, ligaments, other joint structures, movements, middle positions, muscles providing movement of the joints, topography of the joints, internal structure of a joint; description of the wrist joint and carpometacarpal joint of the thumb, borders and contents of the hand region and carpal canal
- Figures: scheme of the joints of the hand, cross-section of the carpal canal

11. Pelvis as a whole

- Main points: bones forming the pelvis, types of junctures, greater and lesser pelvis, planes and diameters of the pelvis, development and ossification of pelvic bones, pelvic contents
- Figures: junctures of the pelvis, planes and diameters

12. Hip and sacroiliac joint

- Main points: type, shape, head, fossa, articular capsule, ligaments, other joint structures, movements, middle position, muscles providing movement of the joints, topography of the joints, internal structure of a joint
- Figures: ligaments and joint capsule of the hip joint

13. Knee joint and popliteal fossa

- Main points: type, shape, head, fossa, articular capsule, ligaments, other joint structures, movements, middle position, muscles providing movement of the joint, topography of the joint, internal structure of a joint; borders and contents of the popliteal fossa, canalis adductorius

- Figures: ligaments and other structures of the knee joint (lateral and superior view), contents of the popliteal fossa

14. Ankle joint, joints of foot, foot arch and topographical sites of foot

- Main points: types, shapes, heads, fossa, articular capsule, ligaments, other joint structures, movements, middle position, muscles providing movement of the joints, topography of the joints, internal structure of a joint; description of the talocrural, Chopart's and Lisfranc's joints; arches of the foot, supporting ligaments and muscles
- Figures: ligaments and joint cavity of the talocrural joint (posterior view, frontal cross-section), scheme of the joints of the foot, foot arches

15. Joints of vertebral column and thorax

- Main points: junctures of the vertebral column, types, shapes, heads, fossae, ligaments, movements, muscles providing movement of the joint, topography of the joint, internal structure of a joint, structure of the intervertebral disc
- Figures: ligaments of the vertebral column, junctures between the skull and vertebral column

Muscles

16. General structure and innervation of a muscle

- Main points: types of muscles, structure of the skeletal muscle, parts and accessory structures of the muscle, types of contractions and fibres, innervation (nerve fibres and receptors) of the muscle, development of skeletal muscles and developmental defects of muscles
- Figures: structure of the muscle, sarcomere, innervation of the muscle

17. Masticatory and facial muscles, fasciae of head

- Main points: embryonal origin of the facial and masticatory muscles, overview of the facial muscles and their functions, modiolus anguli oris, origin, insertion, innervation and function of the masticatory muscles and buccinator muscle, fasciae of the head, internal structure of a muscle, development of the muscles of the head and developmental defects of muscles
- Figures: scheme of the facial muscles

18. Muscles and fasciae of neck

- Main points: muscle groups, origin, insertion, innervation and function of the muscles, cervical fascia and its layers, spaces of the neck (parapharyngeal, prestyloid, retrostyloid, retropharyngeal and visceral spaces), scalenic fissure, internal structure of a muscle, development of the muscles of the neck and developmental defects of muscles
- Figures: cervical muscles (anterior view), transversal cross-section of the neck (C6), scalenic fissure

19. Muscles and fasciae of thorax

- Main points: muscle groups, origin, insertion, innervation and function of the muscles, fasciae, description of respiration, inspiratory and expiratory muscles, explanation of pneumothorax, fasciae of the thorax, internal structure of a muscle, development of the muscles of the thorax and developmental defects of muscles
- Figures: thoracic muscles (anterior view), cross-section of the thoracic wall, intercostal space

20. Diaphragm and mechanism of breathing

- Main points: embryonal origin of the diaphragm, origin, insertion, innervation, function and topography of diaphragm, openings and their contents, description of respiration, inspiratory and expiratory muscles, explanation of pneumothorax, internal structure of a muscle, development of the diaphragm and developmental defects of muscles
- Figures: parts and openings of the diaphragm

21. Muscles and fasciae of abdomen

- Main points: origin, insertion, innervation and function of the muscles, layers of the abdominal wall, rectus sheath, fasciae, borders and contents of the inguinal canal, abdominal herniae, internal structure of a muscle, development of the muscles of the abdomen and developmental defects of muscles
- Figures: transversal cross-section of the abdominal wall through the rectus sheath above and below the umbilicus, inguinal canal

22. Pelvic and urogenital floors and their fasciae, ischioanal fossa

- Main points: origin, insertion, innervation and functions of the muscles of the pelvic and urogenital floors, internal structure of a muscle, development of the muscles of the pelvis and developmental defects of muscles, borders and contents of the ischioanal fossa, pudendal canal
- Figures: inferior view to the pelvic floor and urogenital floor, frontal cross-section of the lesser pelvis

23. Muscles, fasciae, regions and topographical sites of back

- Main points: muscle groups, origin, insertion, innervation and function of superficial muscles; systems and names of the deep back muscles, development, innervation and function, internal structure of a muscle, development of the muscles of the back and developmental defects of muscles; borders and contents of the suboccipital, superior and inferior lumbar triangles
- Figures: posterior view to the muscles of the back, suboccipital triangle

24. Muscles, fasciae, regions and topographical sites of pectoral girdle

- Main points: muscle groups, origin, insertion, innervation and function, vessels and nerves around shoulder, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; axillary fossa,

scapular notch, spinoglenoidal notch, humerotricipital and omotricipital foramina, deltopectoral triangle

- Figures: posterior view of the scapular muscles

25. Muscles, fasciae, regions and topographic sites of arm

- Main points: muscle groups, origin, insertion, innervation and function, compartments of the arm, vessels and nerves of the brachial region, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; cubital fossa, cubital canal, supinator canal, pronator canal
- Figures: cross-section of the arm

26. Muscles, fasciae, regions and topographical sites of forearm

- Main points: muscle groups, origin, insertion, innervation and function, compartments of the forearm, vessels and nerves of the antebrachial region, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; carpal canal, ulnar canal, Parona's space
- Figures: cross-section of the forearm

27. Muscles, fasciae, regions and topographical sites of hand

- Main points: muscle groups, origin, insertion, innervation and function, compartments of the hand, synovial vaginae of the palm and back of the hand, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; Guiot's space, radial foveola
- Figures: cross-section of the hand, synovial vaginae

28. Muscles, fasciae, regions and topographical sites of pelvic girdle

- Main points: muscle groups, origin, insertion, innervation and function, vessels and nerves of the hip and gluteal regions, fasciae, internal structure of muscle, development of limb muscles and developmental defects of muscles; greater and lesser sciatic foramina, vascular and muscular spaces
- Figures: posterior view of the pelvic muscles

29. Muscles, fasciae, regions and topographical sites of thigh

- Main points: muscle groups, origin, insertion, innervation and function, compartments of the thigh, vessels and nerves of the femoral region, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; vascular and muscular spaces, iliopectineal fossa, femoral triangle, adductor canal
- Figures: cross-section of the thigh, femoral triangle

30. Muscles, fasciae, regions and topographical sites of leg

- Main points: muscle groups, origin, insertion, innervation and function, compartments of the leg, vessels and nerves of the crural region, fasciae, internal structure of a muscle, development of the muscles of the limbs and

developmental defects of muscles; popliteal fossa, tendinous arch of soleus muscle, malleolar, fibular and musculofibular canals

- Figures: cross-section of the leg, structures behind medial and lateral malleoli

31. Muscles, fasciae, regions and topographical sites of foot

- Main points: muscle groups, origin, insertion, innervation and function, compartments, vessels and nerves of the foot region, fasciae, internal structure of a muscle, development of the muscles of the limbs and developmental defects of muscles; malleolar canal
- Figures: cross-section of the foot

Topography

32. Scalp and cranial vault, frontal and occipital regions

- Main points: layers of the scalp, vessels and nerves of the frontal and occipital regions; internal structure and brief development of individual components
- Figures: cross-section of the layers of the scalp

33. Orbit and nasal cavity

- Main points: borders and contents, passages and their contents, relations to the surrounding structures; development of the nasal and oral cavities, developmental defects of the face
- Figures: frontal cross-section of the nasal cavity (conchae and meatuses), direction of eye muscles contractions

34. Face, infratemporal and pterygopalatine fossae

- Main points: vessels and nerves of the face, from superficial to deeper layers; borders, passages and contents of the infratemporal and pterygopalatine fossae, relations to the surrounding structures, development of the face; internal structure and brief development of individual components
- Figures: vessels and nerves of the face

35. Regions, triangles and spaces of neck

- Main points: division, borders and contents of the regions, triangles and spaces of the neck (submental, submandibular, carotid, muscular, omoclavicular, omotrapezoid, Pirogov's triangles, Béclard's angle); internal structure and brief development of individual components
- Figures: cross-section of the neck at the level of the C6, overview of the cervical triangles

36. Inguinal canal, abdominal wall and herniae

- Main points: borders and contents of the inguinal canal, herniae
- Figures: layers of the abdominal wall at the level of inguinal canal, including its walls; internal structure and brief development of individual components

37. Topographical sites of upper limb

- Main points: fossa axillaris, incisura scapulae et spinoglenoidalis, foramen humerotricipitale et omotricipitale, trigonum deltopectorale, fossa cubitalis, canalis cubitalis, pronatorius, supinatorius, carpi et ulnaris, Parona's space, Guiot's space, foveola radialis; internal structure and brief development of individual components
- Figures: cross-section of the arm, forearm, wrist and hand

38. Topographical sites of lower limb

- Main points: foramen ischiadicum majus et minus, foramen suprapiriforme et infrapiriforme, lacuna vasorum et musculorum, fossa iliopectinea, trigonum femorale, canalis adductorius, fossa poplitea, arcus tendineus musculi solei, canalis malleolaris, canalis fibularis et musculofibularis; internal structure and brief development of individual components
- Figures: cross-section of the thigh, leg and foot, lacuna vasorum et musculorum, structures behind medial and lateral malleoli

39. Vertebral canal and its contents

- Main points: borders, communications and contents of the vertebral canal, spaces formed by spinal meninges, lumbar puncture; internal structure and brief development of individual components
- Figures: cross-section of the vertebral canal

40. Topography of male pelvis and male genital organs

- Main points: intraperitoneal and subperitoneal organs and their mesenteries, spaces in the peritoneal cavity, fasciae, pelvic and urogenital floors, perineal region; internal structure and brief development of individual components
- Figures: sagittal cross-section of the male pelvis

41. Topography of female pelvis and female genital organs

- Main points: intraperitoneal and subperitoneal organs and their mesenteries, spaces in the peritoneal cavity, fasciae, pelvic and urogenital floors, perineal region; internal structure and brief development of individual components
- Figures: sagittal cross-section of the male pelvis