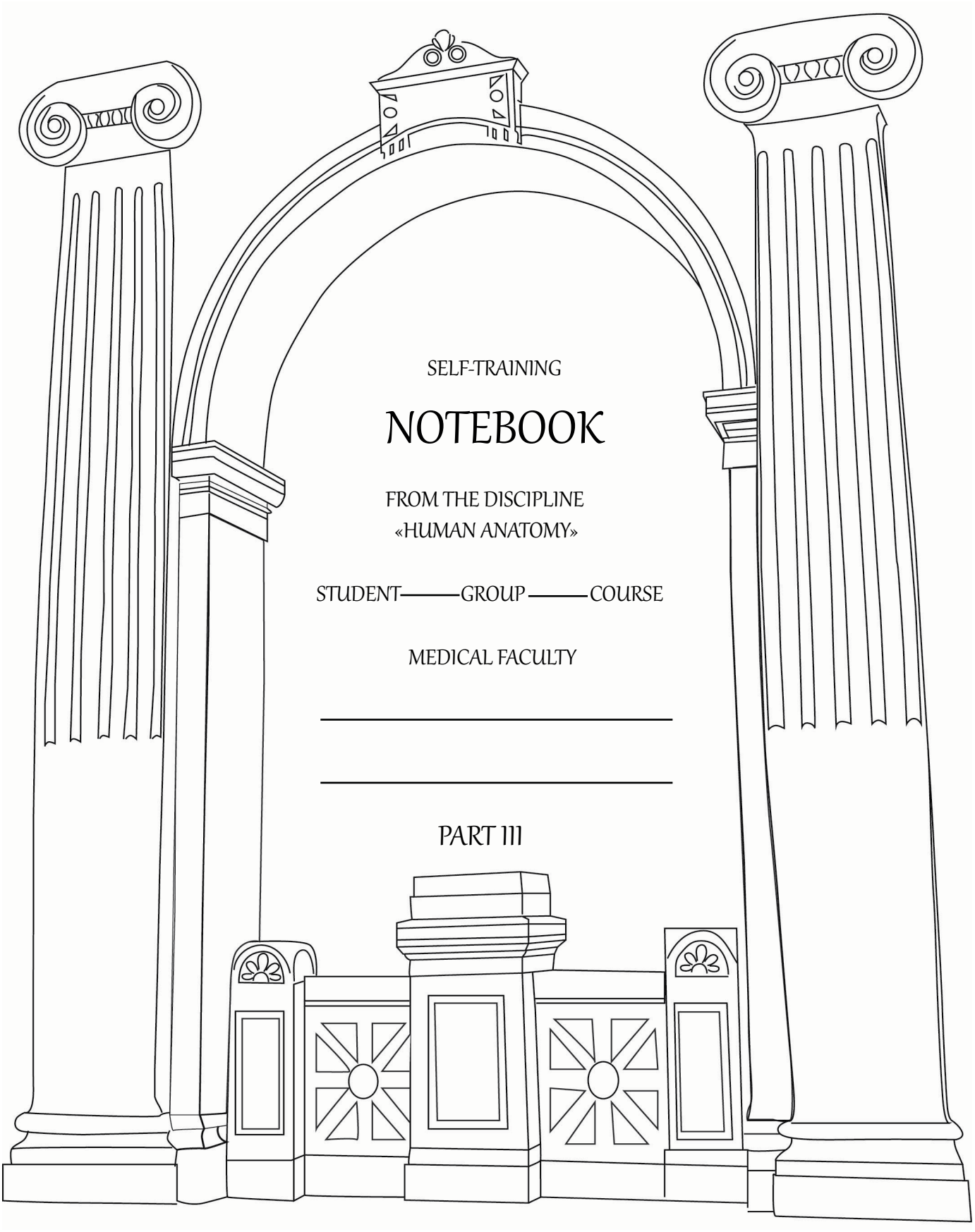
# ODESSA NATIONAL MEDICAL UNIVERSITY

## DEPARTMENT OF NORMAL AND PATHOLOGICAL CLINICAL ANATOMY



SELF-TRAINING

# NOTEBOOK

FROM THE DISCIPLINE
«HUMAN ANATOMY»

STUDENT——GROUP——COURSE

MEDICAL FACULTY

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PART III

УДК 611(076)
3-88

*Authors:*
N.V. Neskoromna, R.V. Prus, Ph.M. Matyushenko, N.A. Antonova, S.O. Chebotaryova, O.A. Kuznetsova, T.I. Kozhukharenko, O.Yu. Ursu, A.O. Ostapenko.

*Reviewers:*
O.G. Popadynets, Prof., Head Department of Human Anatomy.
Ivano-Frankivsk National Medical University;
I.Yu. Oliynyk, Professor of the Department of Pathological Anatomy
Bukovynian State Medical University.

*According to the general edition:*
O.L. Appelhans, Prof., Head Department of Normal and Pathological Clinical Anatomy.

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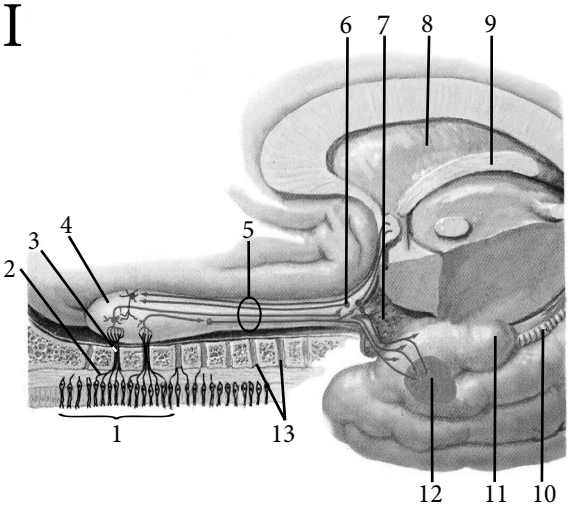
The self-study notebook is designed to improve the knowledge and practical skills of students of medical and dental faculties.
**УДК 611(076)**

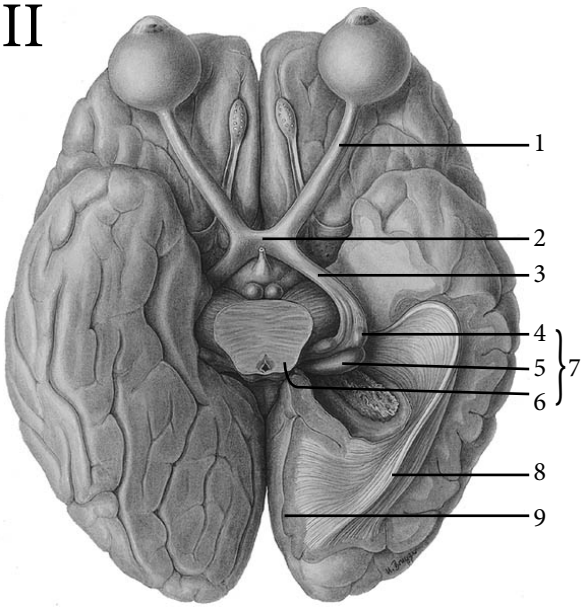
# 1. THE I, II, III, IV AND VI PAIRS OF CRANIAL NERVES

I



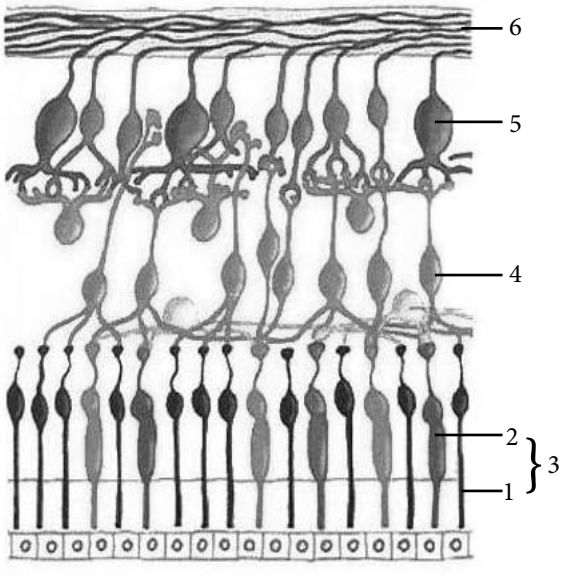

| I | The olfactory nerve |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |

II



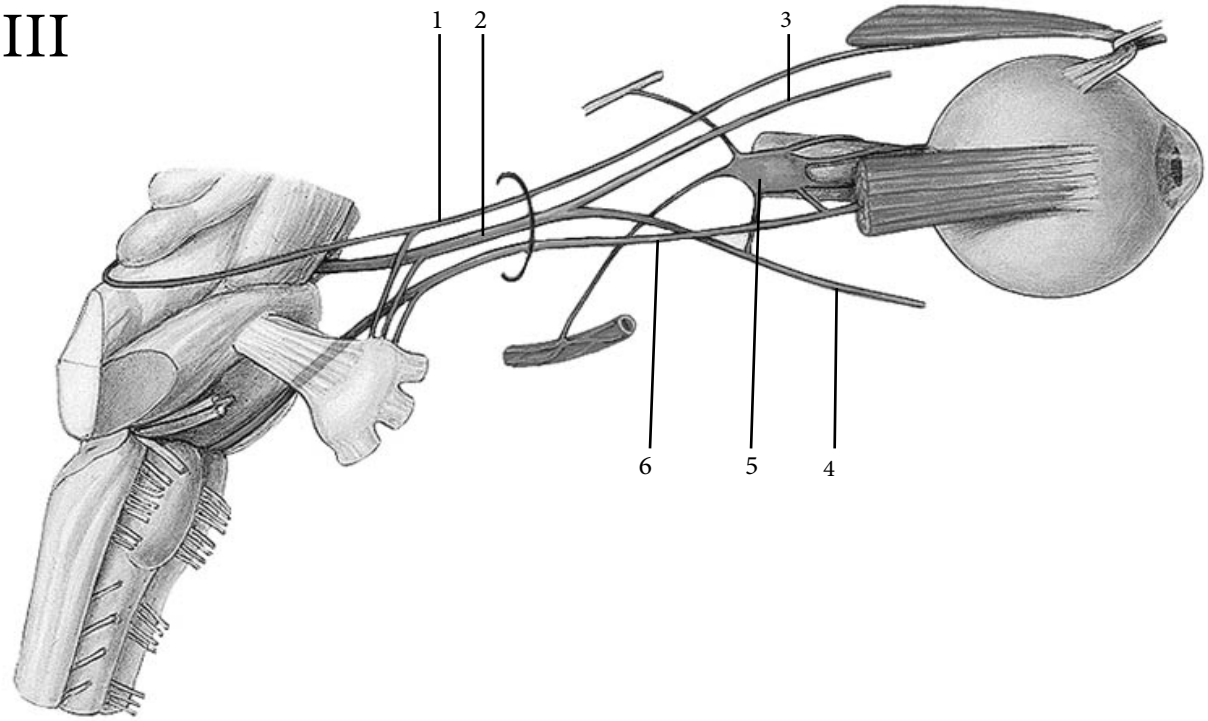

| II | The optic pathway |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

IIa




| IIa | The retina |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

III



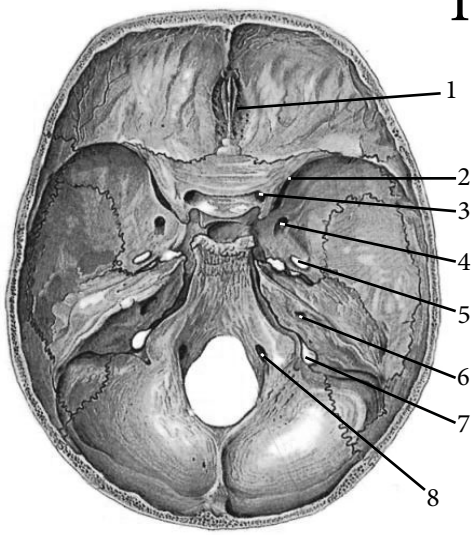

| III | The III, IV and VI pairs of cranial nerves |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

## GENERAL CHARACTERISTICS OF THE CRANIAL NERVES

| № pairs | The name of the nerve *(eng., lat.)* | Nucleus | Localization nuclei | Functions |
|---|---|---|---|---|
| III | | | | |
| IV | | | | |
| VI | | | | |

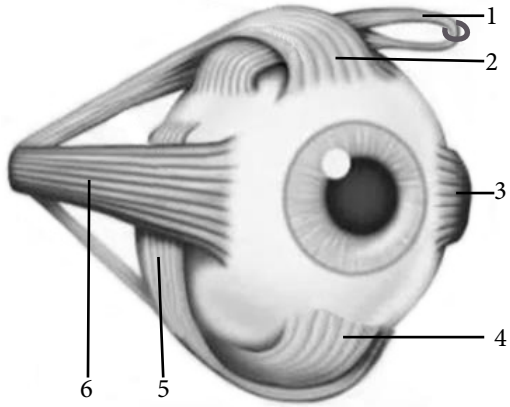
# MATERIAL FOR REPETITION

## I



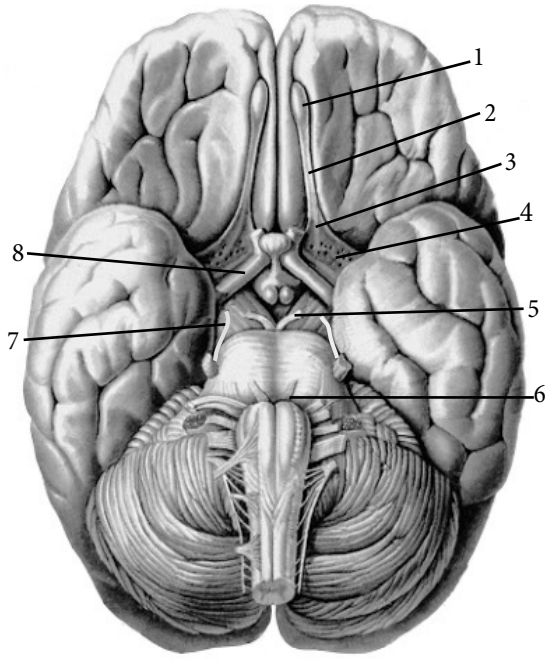

| I | Exits 12 pairs cranial nerves |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

## II




| II | The eyeball muscles |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

## III




| III | The basal surface of brain |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

# ANATOMICAL TERMINOLOGY

| |
|---|
| 1. Olfactory nerves — |
| 2. Olfactory bulb — |
| 3. Olfactory tract — |
| 4. Olfactory trigone — |
| 5. Optic nerve — |
| 6. Oculomotor nerve — |
| 7. Nucleus of oculomotor nerve — |
| 8. Accessory nucleus of oculomotor nerve — |
| 9. Superior and inferior branch of oculomotor nerve — |
| 10. Pulvinar of thalamus — |
| 11. Trochlear nerve — |
| 12. Nucleus of trochlear nerve — |
| 13. Inferior colliculi of tectal plate — |
| 14. Cerebral peduncles — |
| 15. Interpeduncular fossa — |
| 16. Calcarine sulcus — |
| 17. Lateral geniculate body — |
| 18. Superior rectus muscle of eyeball — |
| 19. Ciliary muscle — |
| 20. Sphincter pupillae — |

# TESTS «KROK - 1»

1. The optic nerve begins:
A - In the pigment layer of the retina
B - A layer of bipolar cells
C - A layer of rods and cones
D - A layer of multipolar (ganglionic) cells
E - Layer of retinal nerve fibers

2. The olfactory nerve begins with receptors:
A - Vestibule of nasal cavity
B - Inferior nasal concha
C - Inferior nasal meatus
D - Olfactory area of the nasal cavity
E - Respiratory area of the nasal cavity

3. Function of the oculomotor nerve:
A - Motor
B - Sensitive
C - Sympathetic
D - Parasympathetic
E - Mixed

4. Where are the nuclei of III and IV pairs of cranial nerves?
A - Mesencephalon
B - Diencephalon
C - Pons
D - Telencephalon
E - Rhinencephalon

5. What belongs to the II pair of cranial nerve on the basal surface of the brain?
A - Optic chiasm
B - Anterior perforated substance
C - Tuber cinereum
D - Mammillary body
E - Cerebral peduncles

6. The place of exit on the basis of the brain of the III pair of cranial nerve:
A - Anterior lateral sulcus
B - Between the pons and the pyramid of medulla oblongata
C - Lateral to the cerebral peduncles
D - Interpeduncular fossa
E - Posterior lateral sulcus

7. Optic chiasm is formed by fibers:
A - Medial lemniscus
B - II pairs of cranial nerves
C - Lateral lemniscus
D - III pairs of cranial nerves
E - Spinal lemniscus

8. Damage to the upper branch of the III pair of cranial nerves will be accompanied by dysfunction:
A - Pupil dilator
B - Superior rectus muscle of eyeball
C - Superior oblique muscle of eyeball
D - Inferior oblique muscle of eyeball
E - Lateral rectus muscle of the eyeball

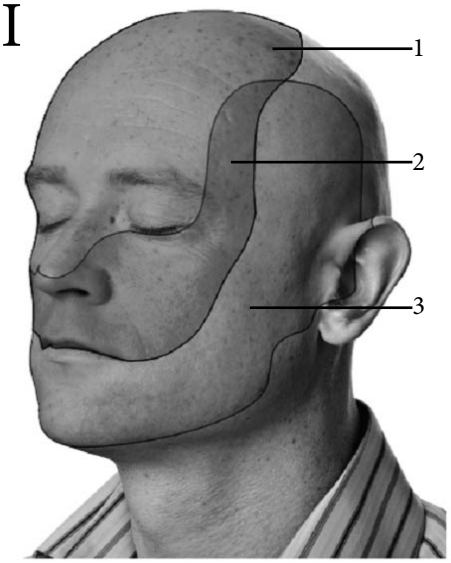
# 2. THE TRIGEMINAL NERVE

## I AND II BRANCHES

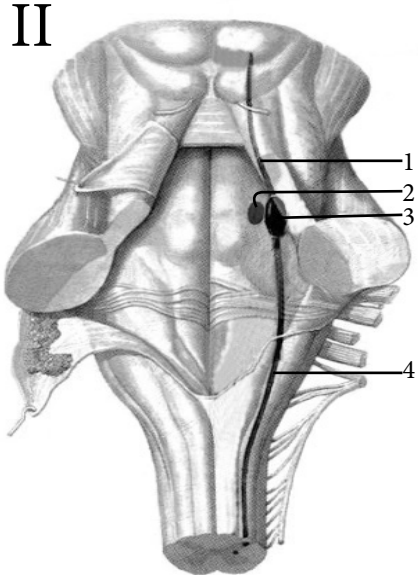
## GENERAL CHARACTERISTICS OF THE TRIGEMINAL NERVE

| | |
|---|---|
| By function | |
| I branch | |
| II branch | |
| III branch | |
| Nucleus | |
| Place of exit from the brain | |
| Places of exit from the skull | |

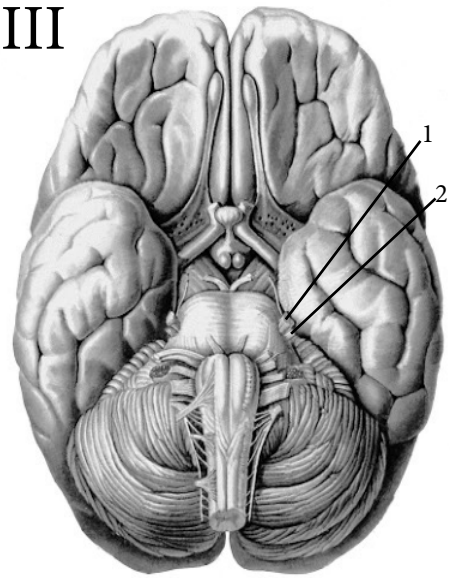
I




II



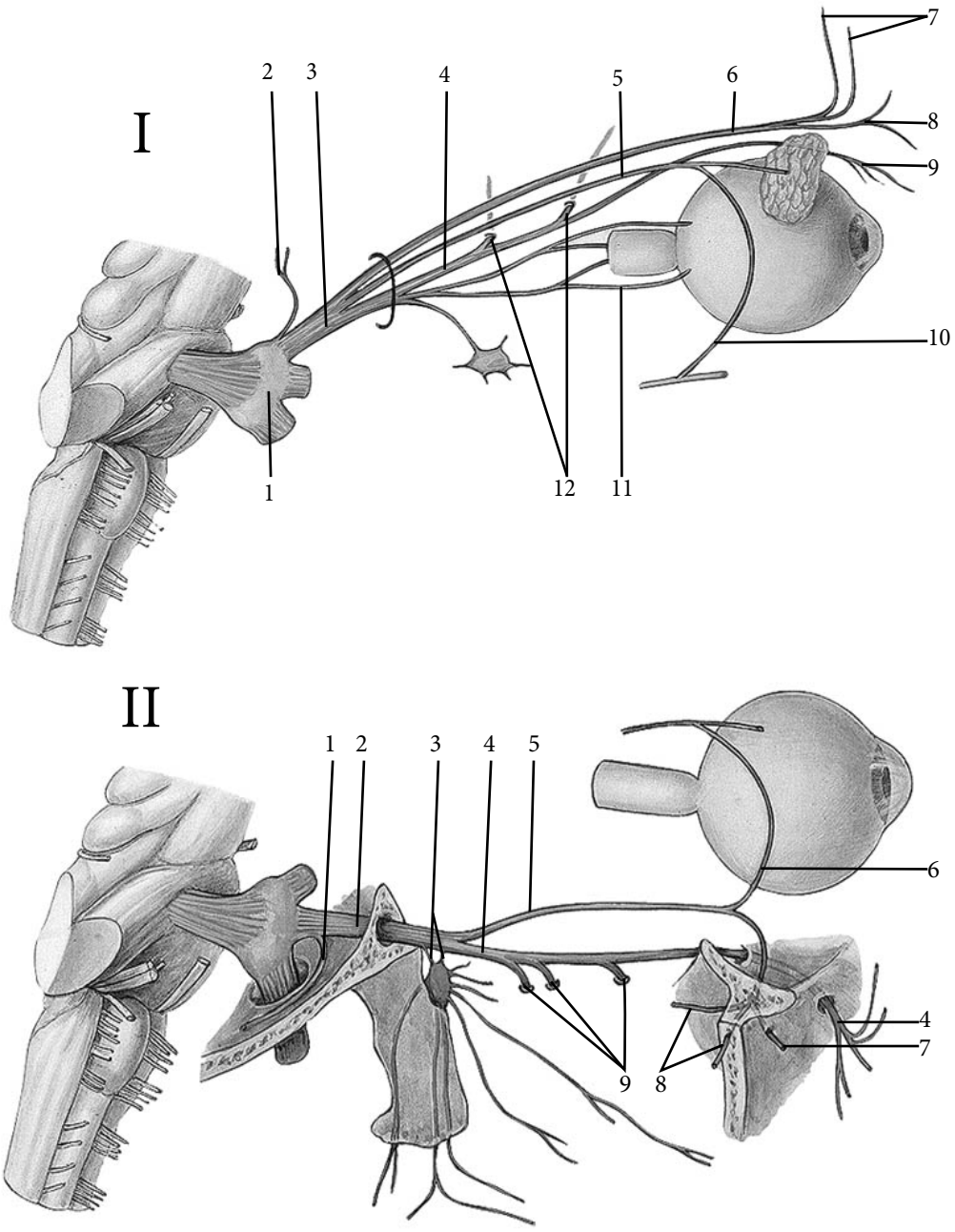

III




| I | Conformity branches zones innervation |
|---|---|
| 1 | |
| 2 | |
| 3 | |

| II | The nuclei of trigeminal nerve |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

| III | The roots of trigeminal nerve |
|---|---|
| 1 | |
| 2 | |




| I | The ophthalmic nerve - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

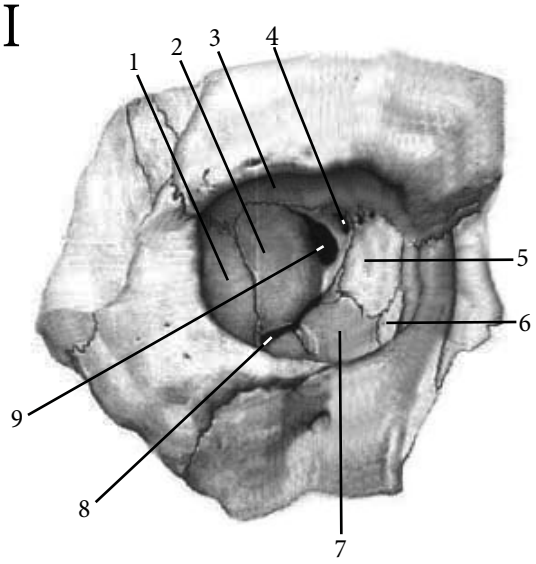
| II | The maxillary nerve - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

# I AND II BRANCHES OF TRIGEMINAL NERVE

| Nerve | Branches | Innervation |
|---|---|---|
| *IOphthalmic* | 1<br>2<br>3 | |
| *II Maxillary* | 1<br>2<br>3 | |

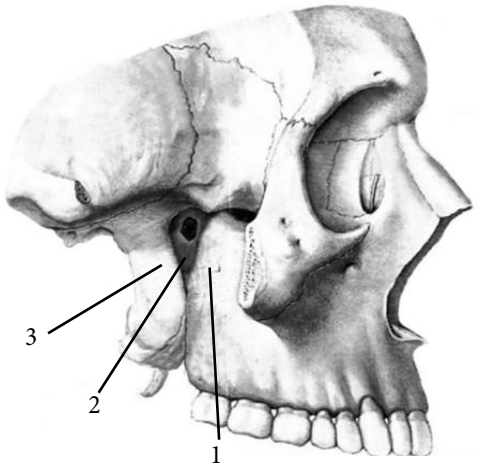
# MATERIALS FOR REPETITION

I




| I | The orbit - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

II




| II | The pterygopalatine fossa is limited |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| | The communication of the pterygopalatine fossa |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

| |
|---|
| 1. Principal sensory nucleus of trigeminal nerve — |
| 2. Mesencephalic nucleus of trigeminal nerve — |
| 3. Spinal nucleus of trigeminal nerve — |
| 4. Motor nucleus of trigeminal nerve — |
| 5. Trigeminal impression — |
| 6. Trigeminal ganglion — |
| 7. Trigeminal cavity — |
| 8. Ophthalmic nerve — |
| 9. Lacrimal nerve — |
| 10. Frontal nerve — |
| 11. Supraorbital nerve — |
| 12. Supratrochlear nerve — |
| 13. Nasociliary nerve — |
| 14. Anterior and posterior ethmoid nerves — |
| 15. Infratrochlear nerve — |
| 16. Ciliary ganglion — |
| 17. Maxillary nerve — |
| 18. Infra-orbital nerve — |
| 19. Zygomatic nerve — |
| 20. Superior dental plexus — |

# TESTS «KROK - 1»

1. The trigeminal nerve has nuclei:
A - One
B - Two
C - Three
D - Four
E - Five

2. Which nerve provides sensitive innervation of the middle part of the face?
A - Optic
B - Frontal
C - Nasociliary
D - Zygomatic
E - Infra-orbital

3. The optic nerve in the orbit is divided into the following nerves:
A - Ophthalmic, frontal, nasociliary
B - Lacrimal, frontal, nasociliary
C - Infraorbital, supratrochlear, nasociliary
D - Supraorbital, supratrochlear, long ciliary nerve
E - Nasal, lacrimal, frontal

4. The superior dental plexus with its branches innervates:
A - The mucous membrane of the soft palate
B - Teeth and gums of the maxilla
C - The mucous membrane of the maxillary sinus
D - The mucous membrane of the nasal cavity
E - The mucous membrane of the tongue

5. The infraorbital nerve emerges from the skull:
A - Through the superior orbital fissure
B - Through the infraorbital foramen
C - Through the inferior orbital fissure
D - Through the zygomaticoorbital foramen
E - Through the zygomaticofacial foramen

6. Through which foramen in the skull passes the maxillary nerve?
A - Ovale
B - Rotundum
C - Spinous
D - Lacerum
E - Jugular

7. The patient has pain in the root of the nose. Inflammation of the frontal sinus was found during the examination. Which nerve innervates this area?
A - I branch of the trgeminal nerve
B - II branch of the trigeminal nerve
C - III branch of the trigeminal nerve
D - Trochlear nerve
E - Okulomotor nerve

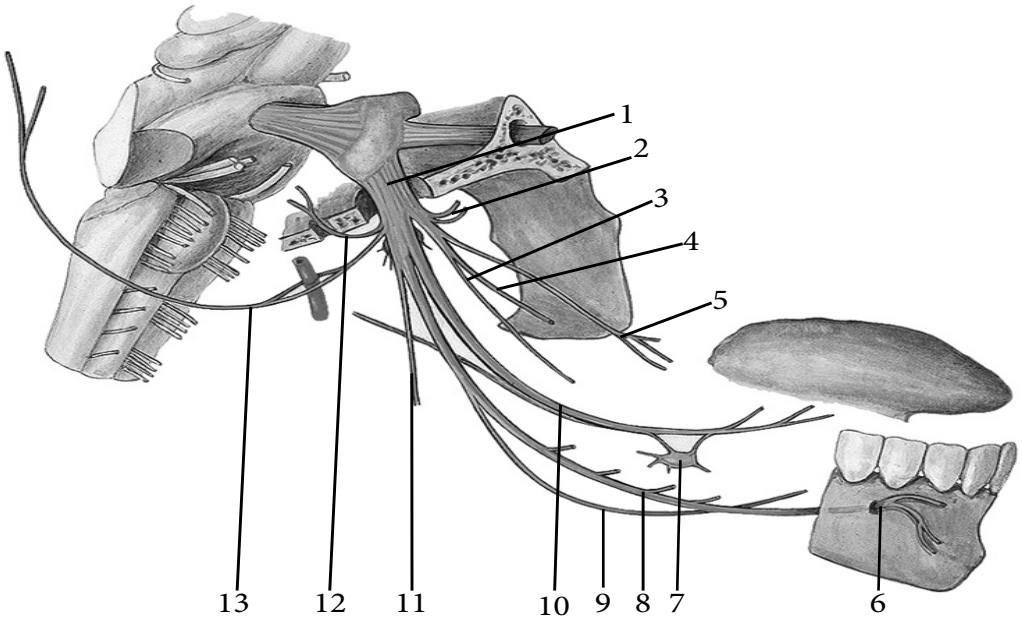
8. The patient has increased pain sensitivity in the area of the supraorbital foramen. Which nerve is it inflamed?
A - I branch of the trgeminal nerve
B - II branch of the trigeminal nerve
C - III branch of the trigeminal nerve
D - Trochlear nerve
E - Okulomotor nerve

# 3. THE TRIGEMINAL NERVE

## III BRANCH

| The mandibular nerve | Branches | Innervation |
|---|---|---|
| *The sensory branches* | 1<br>2<br>3<br>4 | |
| *The motor branches* | 1<br>2<br>3<br>4 | |

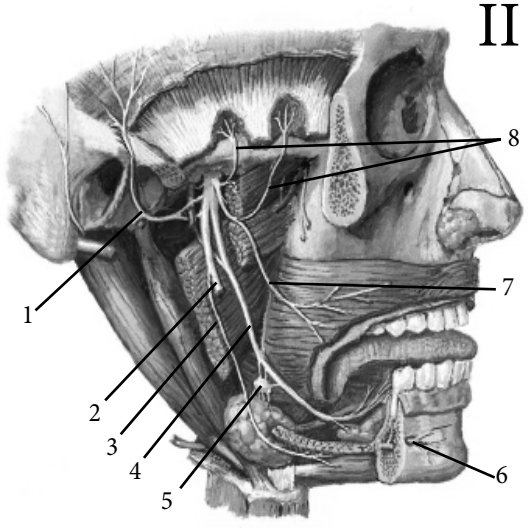
I




| I | The brances of mandibular nerve |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

| | |
|---|---|
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |

## II




| II | The mandibular nerve - |
|---|---|
| | |
| | |
| | |
| | |
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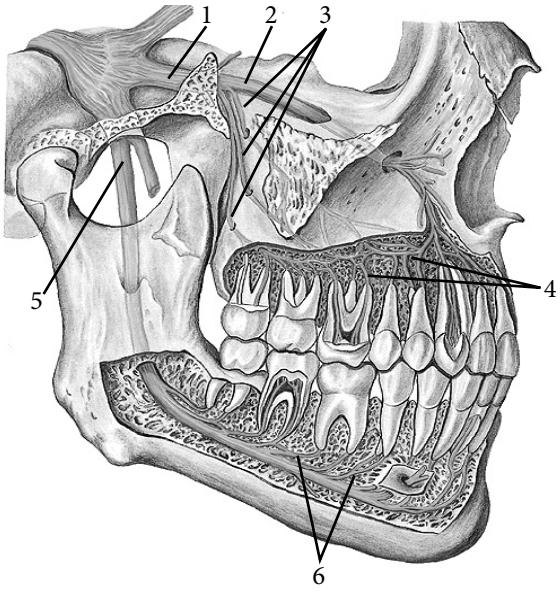
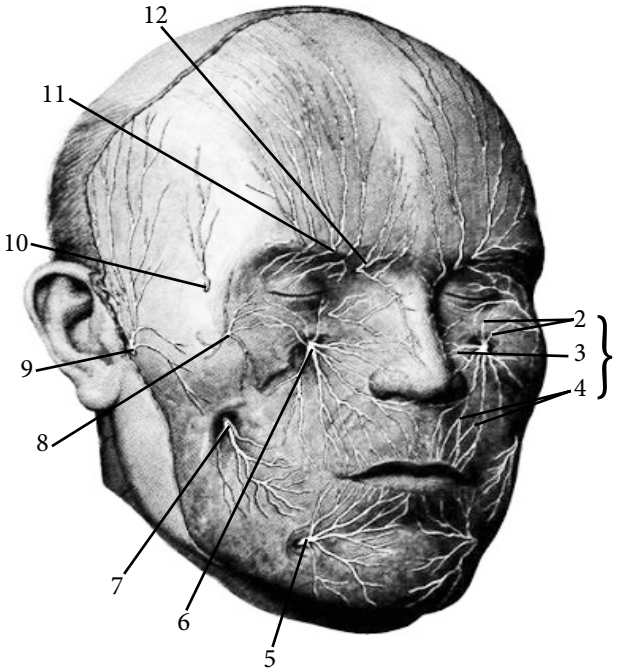
| | |
| | |
| | |

## III




| III | Innervation of teeth |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

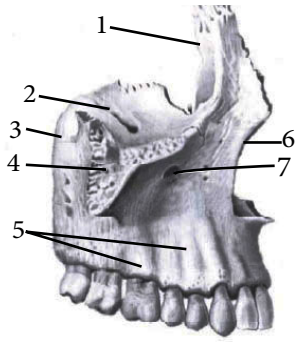
## IV




| IV | Innervation of facial skin |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

# MATERIALS FOR REPETITION

I

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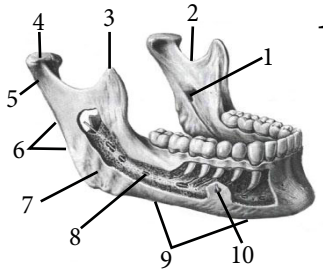


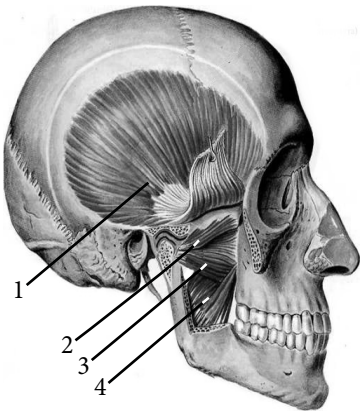


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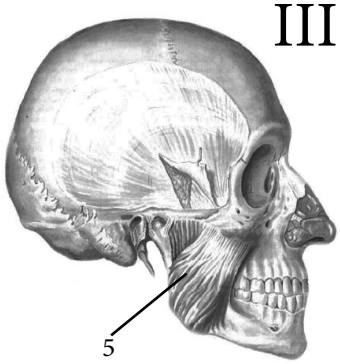


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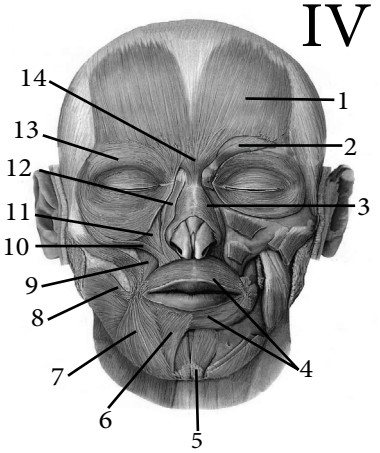



| | |
|---|---|
| I | The maxilla |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| II | The mandible |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| III | The masticatory muscles |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| IV | The mimic muscles |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |

| |
|---|
| 1. Mandibular nerve — |
| 2. Meningeal branch — |
| 3. Masseteric nerve — |
| 4. Deep temporal nerves — |
| 5. Nerve to lateral pterygoid — |
| 6. Nerve to medial pterygoid — |
| 7. Otic ganglion — |
| 8. Branches to otic ganglion — |
| 9. Inferior alveolar nerve — |
| 10. Inferior dental plexus — |
| 11. Mental nerve — |
| 12. Buccal nerve — |
| 13. Lingual nerve — |
| 14. Submandibular ganglion — |
| 15. Sublingual ganglion — |
| 16. Auriculotemporal nerve — |
| 17. Nerve to mylohyoid — |
| 18. Pterygopalatine ganglion — |
| 19. Sublingual ganglion — |
| 20. Submandibular ganglion — |

# TESTS «KROK - 1»

1. The patient has pain in the mucous membrane of the cheek. Which nerve is damaged?
A - Lingual
B - Buccal
C - Mental
D - Masseteric
E - Zygomatic

2. The patient has a violation of the act of chewing, because he can not push the lower jaw. The examination revealed paralysis pterygoid muscles. Which nerve is damaged?
A - Masseteric
B - Superficial temporal
C - Deep temporal
D - Medial and lateral pterygoid
E - Buccal

3. The patient complains that he has pain in the teeth of the mandible. Which nerve is inflamed?
A - Inferior alveolar
B - Anterior superior alveolar
C - Medial superior alveolar
D - Posterior superior alveolar
E - Mental

4. The patient has no sensitivity of the skin in the chin. Which nerve innervates this area?
A - Lingualis
B - Mental
C - Buccal
D - Zygomatic
E - Mylohyiod

5. The patient complains of pain in the temporomandibular joint. Which nerve is inflamed?
A - Auriculotemporal
B - Mental
C - Buccal
D - Zygomatic
E - Mylohyiod

6. The patient has impaired sensitivity in the lower lip. Which nerve function is impaired?
A - Langual
B - Mylohyiod
C - Buccal
D - Zygomatic
E - Mental

7. The patient has impaired general sensitivity of the tongue. What nerve provides it?
A - Lingual
B - Mental
C - Buccal
D - Zygomatic
E - Mylohyiod

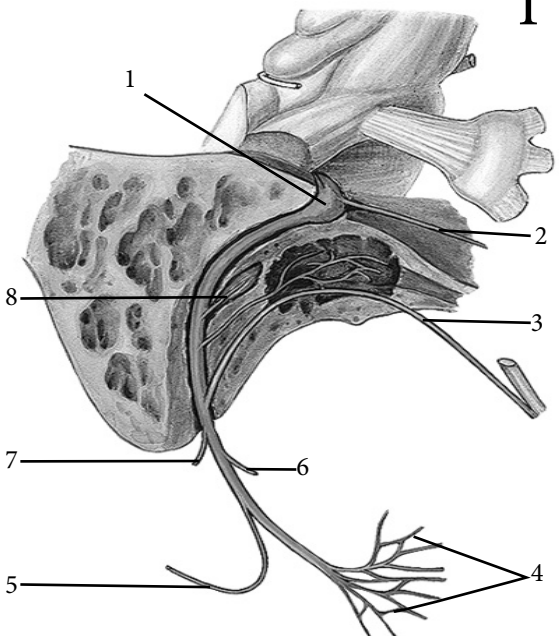
8. The patient complains that he has violated the act of chewing. Examination of the patient revealed a fracture of the zygomatic arch led to dysfunction of the masticatory muscle. Which nerve innervates this muscle?
A - Masseteric
B - Superficial temporal
C - Deep temporal
D - Medial and lateral pterygoid
E - Buccal

# 4. THE VII, VIII, IX, X PAIRS OF CRANIAL NERVES

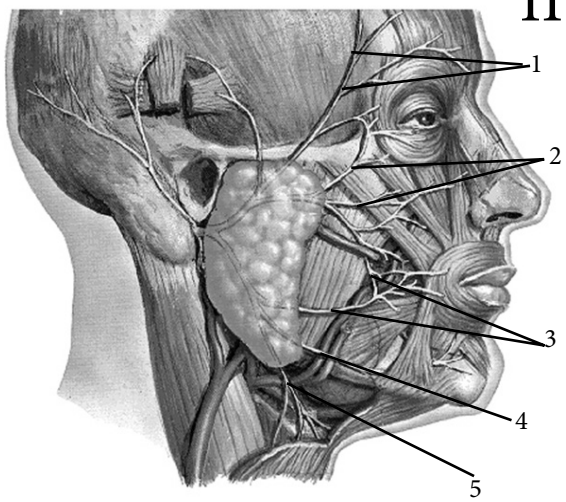
## GENERAL CHARACTERISTICS OF VII - X PAIRS

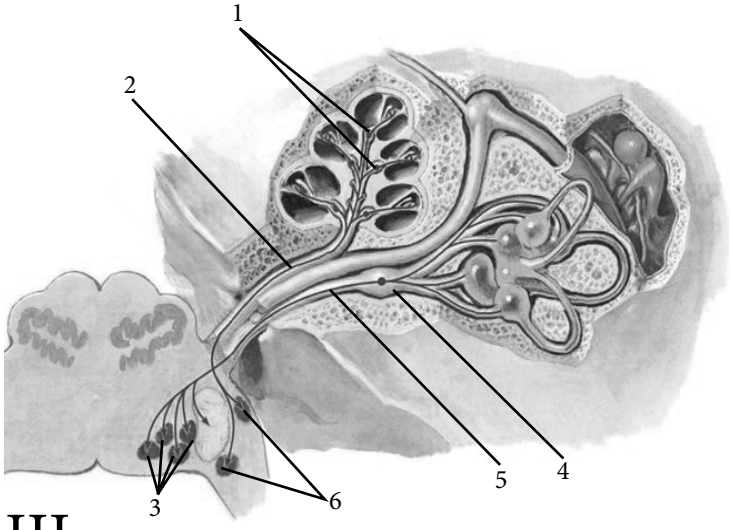
| Nerve, latin name, function | Nucleus | Branches and innervation |
|---|---|---|
| *VII pair*<br>*the facial nerve -* | | |
| *VIII pair*<br>*the vestibulocochlear nerve -* | | |
| *IX pair*<br>*the glossopharyngeal nerve -* | | |
| *X pair*<br>*the vagus nerve -* | | |

I

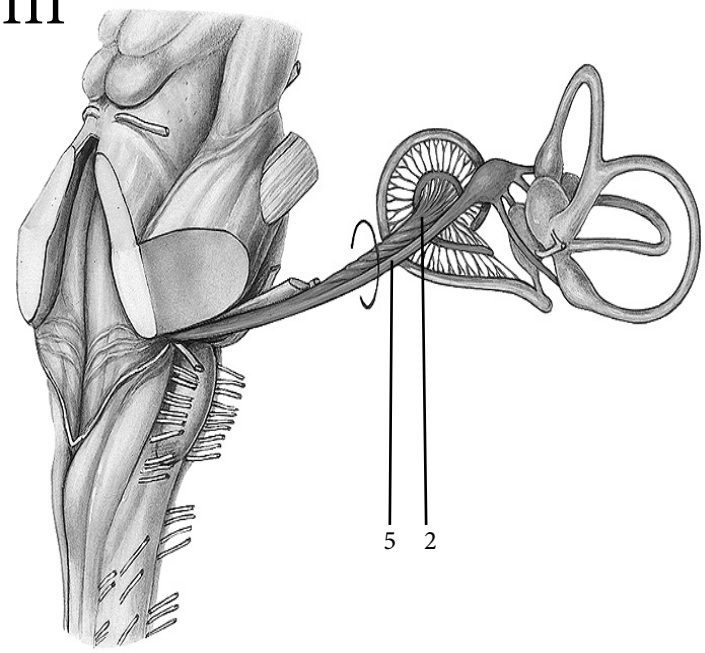



II




III

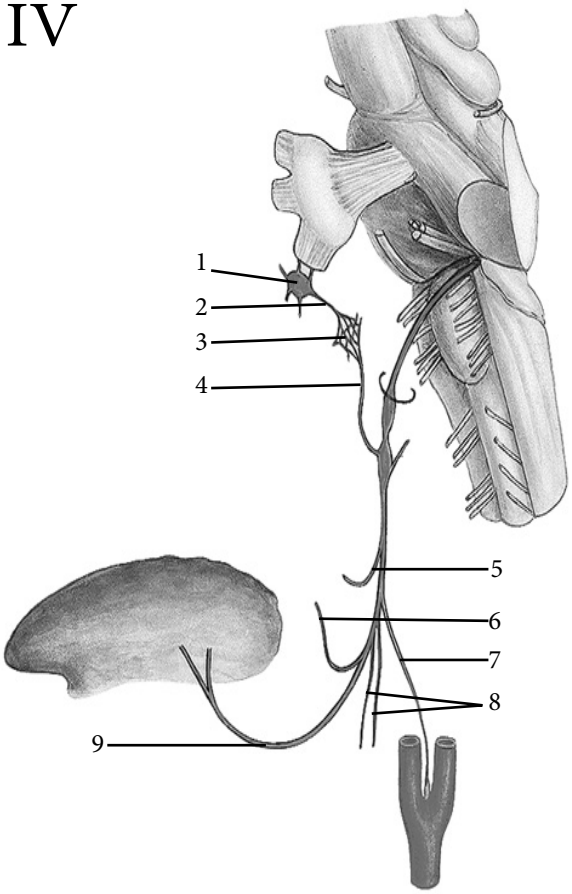



| I | The branches of the facial nerve |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

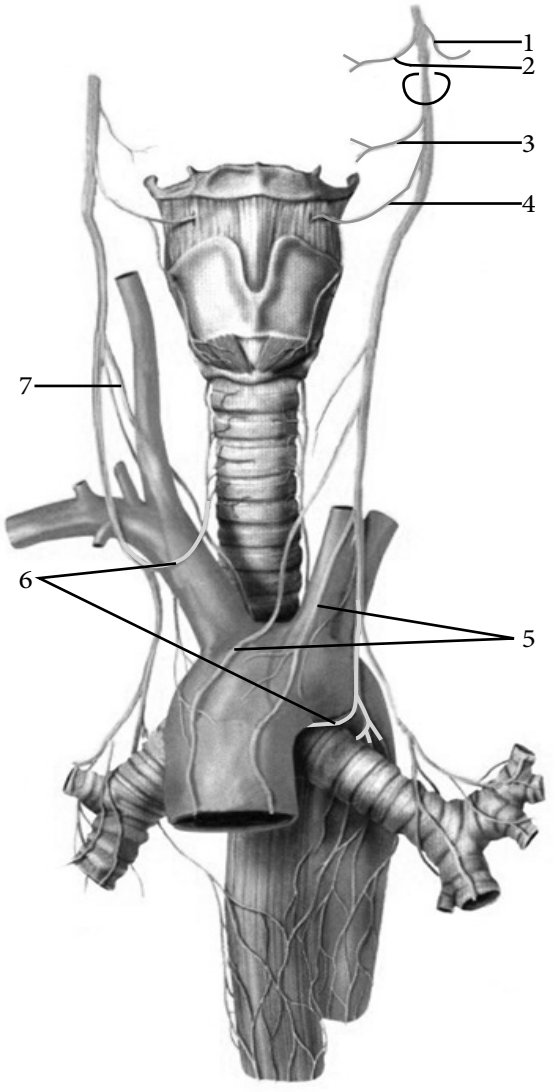
| II | The parotid plexus — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

| III | The vestibulocochlear nerve — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

# IV

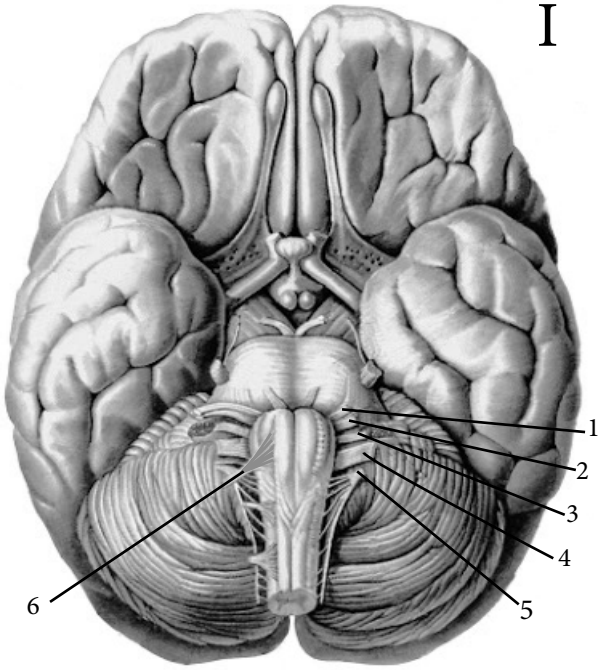



| IV | The glossopharyngeal nerve - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

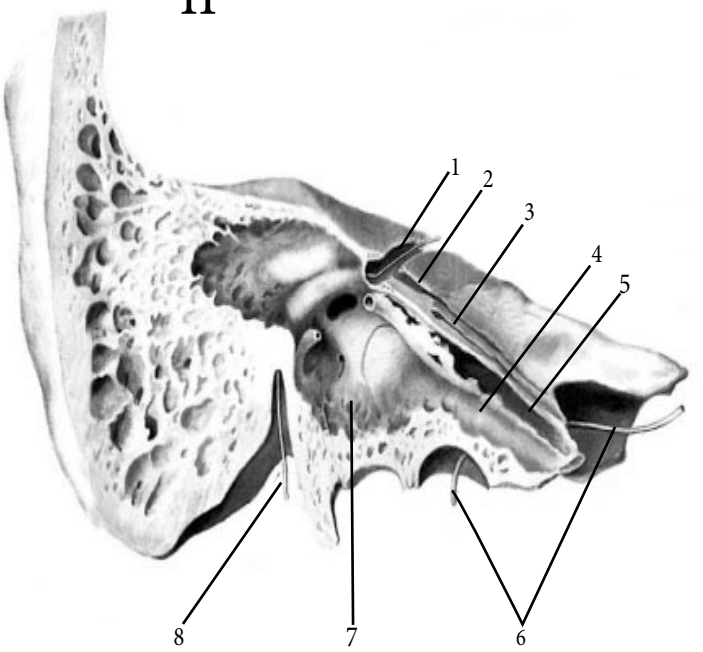



| V | The vagus nerve -<br>*(the cranial and cervical part)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

I




II




| I | The basal surface of the brain<br>*(places of exit of cranial nerves)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

| II | The temporal bone canals |
|---|---|
| 1, 8 | |
| 2 | |
| 3 | |
| 4, 5 | |
| 6 | |
| 7 | |

| |
|---|
| 1. Dorsal nucleus of vagus nerve — |
| 2. Nucleus of solitary tract — |
| 3. Superior salivatory nucleus — |
| 4. Parotid plexus — |
| 5. Intermediate nerve — |
| 6. Geniculate ganglion — |
| 7. Greater petrosal nerve — |
| 8. Vestibular nerve — |
| 9. Cochlear nerve — |
| 10. Spiral ganglion — |
| 11. Stylopharyngeal branch — |
| 12. Carotid branch — |
| 13. Tympanic nerve — |
| 14. Tympanic plexus — |
| 15. Lesser petrosal nerve — |
| 16. Meningeal branch of vagus nerve — |
| 17. Pharyngeal branch — |
| 18. Superior laryngeal nerve — |
| 19. Superior cervical cardiac branch — |
| 20. Recurrent laryngeal nerve — |

# TESTS «KROK - 1»

1. The patient underwent surgery on the pyramid of the temporal bone. After the operation, the function of the submandibular and sublingual salivary glands is impaired. Which nerve is damaged?
A - Greater petrosal
B - Stapedius
C - Chorda tympani
D - Digastric
E - Marginal mandibular branch

2. The patient complains of an increase in the size of the submandibular salivary gland. During the examination, the doctor identified him inflammation. Through which vegetative node of the head does the mandibular gland receive parasympathetic innervation?
A - Pterygopalatine
B - Otic
C - Ciliary
D - Submandibular
E - Sublingual

3. The patient has a damaged tympanic nerve. The innervation of what will be broken?
A - The mucous membrane of the tympanic cavity and auditory tube
B - The mucous membrane of the palatine tonsils and palatine arches
C - The mucous membrane of the tongue
D - The skin of the auricle
E - Parotid gland

4. The patient has hypersecretion of the thyroid gland. Which nerve will innervate this gland?
A - Chorda tympani
B - The vagus nerve
C - Small occipital nerve
D - The glossopharyngeal nerve
E - Sternocleidomastoid nerve

5. The patient has impaired stylopharyngeal muscle function. Which nerve is damaged?
A - The vagus nerve
B - Cervical plexus
C - Sublingual nerve
D - Ansa cervicalis
E - The glossopharyngeal nerve

6. The patient has a tumor of the larynx above the glottis. Which nerve can be damaged?
A - Pharyngeal branches of the vagus nerve
B - Superior cervical cardiac branches
C - Inferior cervical cardiac branches
D - The glossopharyngeal nerve
E - Superior laryngeal nerve

7. A patient at a doctor's appointment with a neurologist complained that he had a lowered corner of his mouth on the left. Which nerve is damaged?
A - Facial
B - Intermediate
C - Accessory
D - Vagus
E - Glossopharyngeal

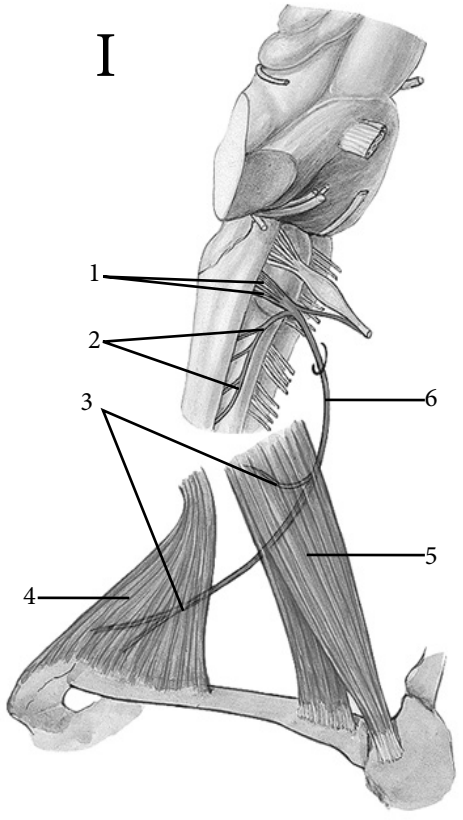
8. The parotid gland receives parasympathetic innervation through the auricle. Where is this node?
A - Pterygopalatine fossa
B - Anterior cranial fossa
C - Superficial base of the skull near the foramen ovale
D - Temporal fossa
E - Middle cranial fossa

# 5. THE XI, XII PAIRS OF CRANIAL NERVES

## GENERAL CHARACTERISTICS OF XI AND XII PAIRS

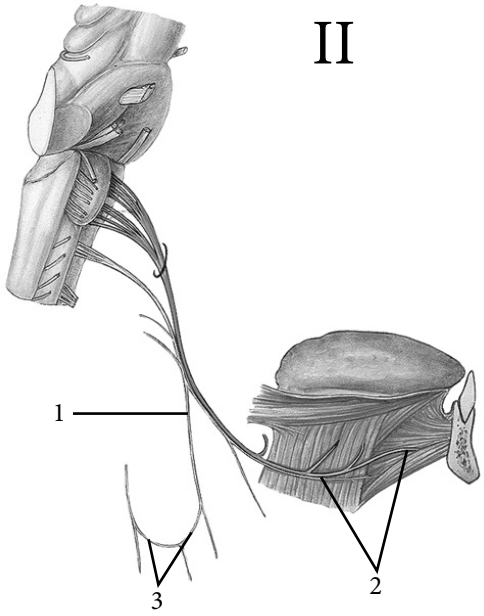
| Nerve, lat. name | General function | Nuclei | Innervation |
|---|---|---|---|
| *XI pair the accessory nerve -* | | | |
| *XII pair the hypoglossal nerve -* | | | |

I




| I | The hypoglossal nerve - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

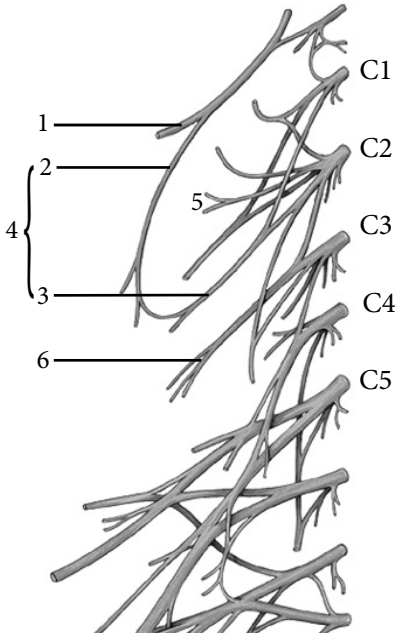
II

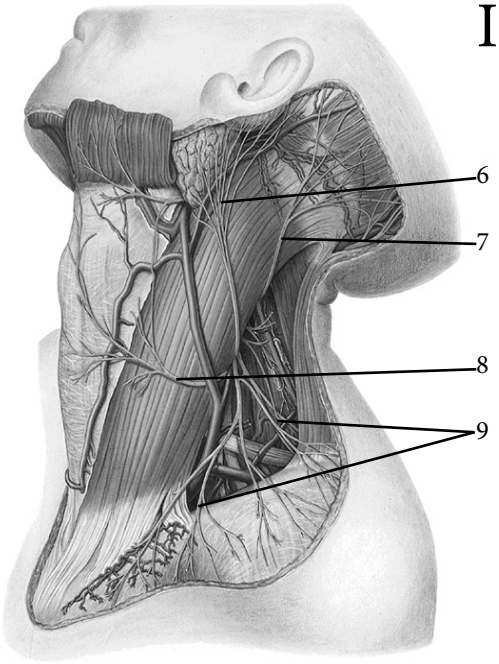


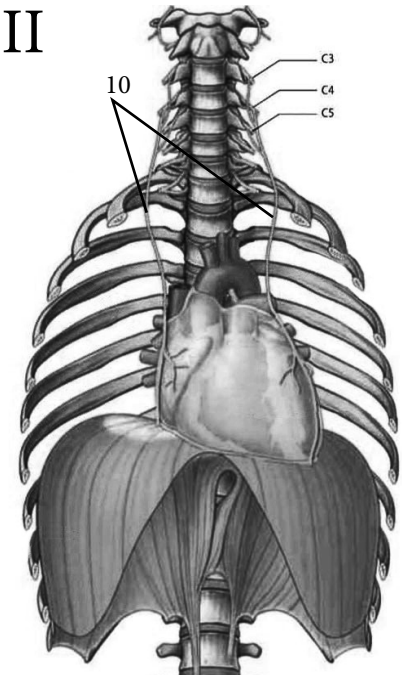

| II | The hypoglossal nerve - |
|---|---|
| 1 | |
| 2 | |
| 3 | |

## THE CERVICAL PLEXUS

III

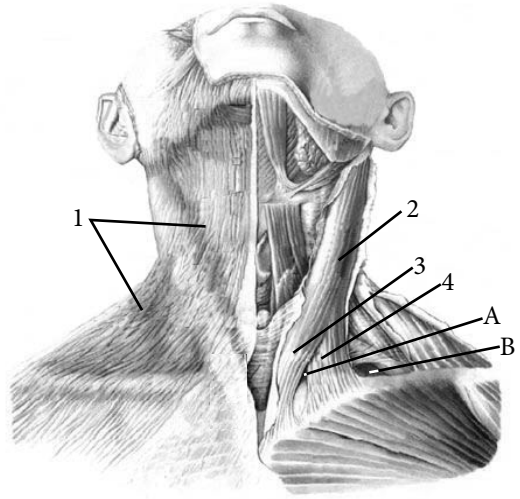


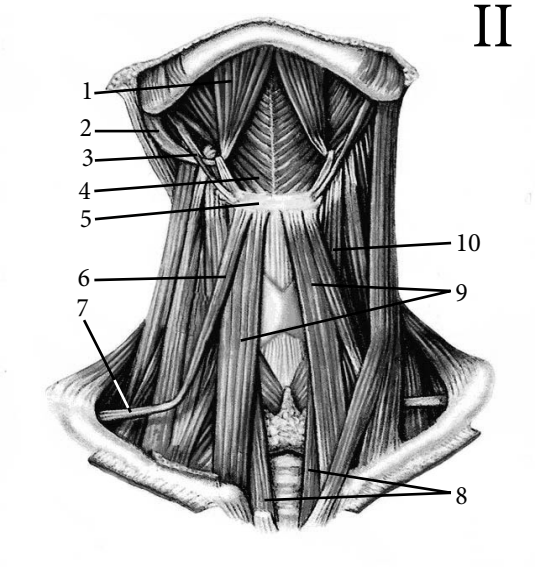

| III | The cervical plexus - |
|---|---|
| | *The motor (muscular) branches* |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| | *The cutaneous (sensory) branches* |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| | *The mixed branch* |
| 10 | |

## I



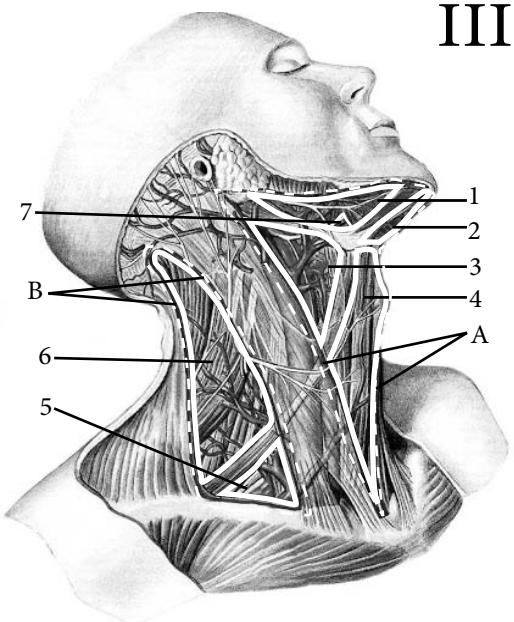

| I | The superficial muscles of the neck |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| A | |
| B | |

## II




| II | The middle muscles of the neck |
|---|---|
| | The suprahyoid muscle |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| | The infrahyoid muscle |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

## III




| III | The triangles of the neck |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| A | |
| B | |

| |
|---|
| 1. Accessory nerve — |
| 2. Nucleus of accessory nerve — |
| 3. Spinal roots — |
| 4. Cranial roots — |
| 5. Trunc of accessory nerve — |
| 6. Nucleus of hypoglossal nerve — |
| 7. Lingual branch — |
| 8. Descending branch — |
| 9. Spinal nerves — |
| 10. Trunk of spinal nerve — |
| 11. Suboccipital nerve — |
| 12. Greater occipital nerve — |
| 13. Cervical plexus — |
| 14. Lesser occipital nerve — |
| 15. Great auricular nerve — |
| 16. Transverse cervical nerve — |
| 17. Supraclavicular nerves — |
| 18. Phrenic nerve — |
| 19. Pericardial branch — |
| 20. Phrenico-abdominal branches — |

# TESTS «KROK - 1»

1. The patient has an anterior scalenus muscle injury. Which nerve can be damaged with it?
A - Vagus nerve
B - Phrenic nerve
C - Accessory nerve
D - Facial nerve
E - Glossopharyngeal nerve

2. As a result of the injury, the patient feel numbness of the skin above and below the clavicle. Which nerve is damaged?
A -Ansa cervicales
B - Lesser occipital nerve
C - The great auricular nerve
D - Transverse cervical nerve
E - Supraclavicular nerves

3. The accessory nerve is damaged. Which muscle is not working?
A - Platisma
B - Omohyoid
C - Sternothyroid
D - Sternocleidomastoid
E - Thyrohyoid

4. The patient cannot tilt his head to the left while turning his face to the right. Which nerve is damaged?
A - Hypoglossal nerve
B - Accessory nerve
C - Glossopharyngeal nerve
D - Vagus nerve
E - Facial nerve

5. The patient has limited movement of the tongue due to impaired innervation of the muscles of the tongue. Which nerve is damaged?
A - Chorda tympany
B - III branch of the trigeminal nerve
C - Glossopharyngeal nerve
D- Vagus nerve
E - Hypoglossal nerve

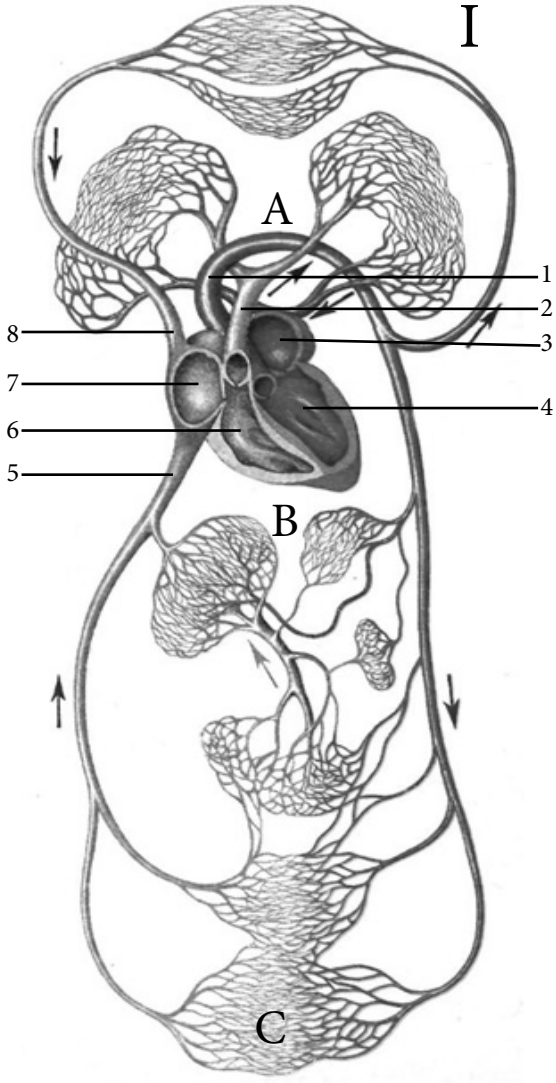
6. The patient has no sensitivity of the skin of the lateral part of the occipital region. Which nerve is damaged?
A - Great auricular nerve
B - Supraclavicular nerve
C - Lesser occipital nerve
D - Phrenic nerve
E - Transverse cervical nerve

7. The patient has no sensitivity of the anterior surface of the skin of the neck. Which nerve is damaged?
A - Great auricular nerve
B - Supraclavicular nerve
C - Lesser occipital nerve
D - Transverse  cervical nerve
E - Phrenic nerve

8. The patient has no sensitivity of the skin of the external acoustic meatus and auricle. Which nerve is damaged?
A - Great auricular nerve
B - Supraclavicular nerve
C - Lesser occipital nerve
D - Transverse cervical nerve
E - Phrenic nerve

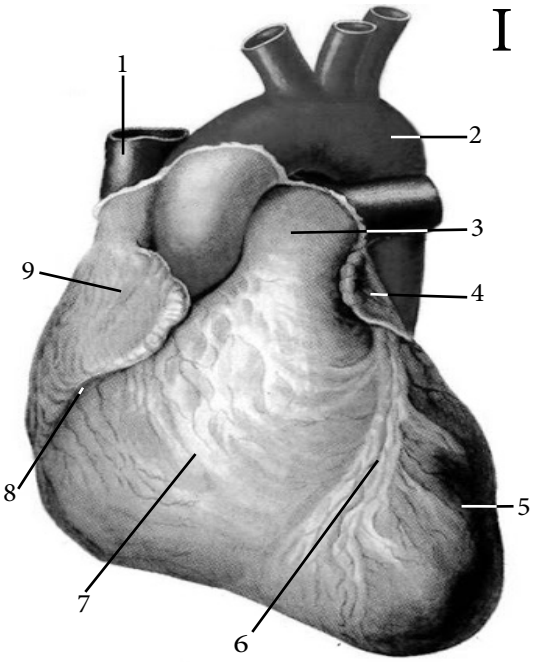
# 6. THE HEART

## EXTERNAL STRUCTURE, CHAMBERS, VALVES, THEIR TOPOGRAPHY




| I | The circulatory system |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| A | |
| B | |
| C | |

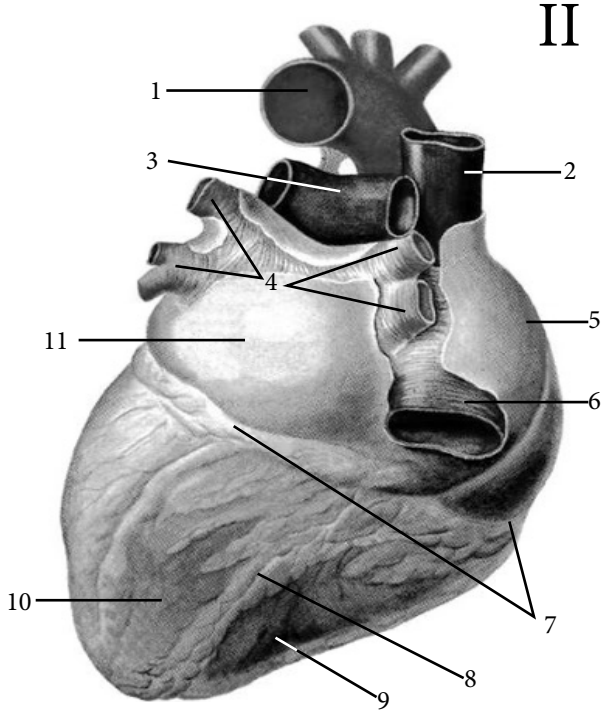
| Circles of blood circulation | Beginning | End |
|---|---|---|
| *Systemic* | | |
| *Pulmonary* | | |
| *Cardiac* | | |




## EXTERNAL STRUCTURE OF THE HEART

| I | Anterior surface *(sternocostal)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

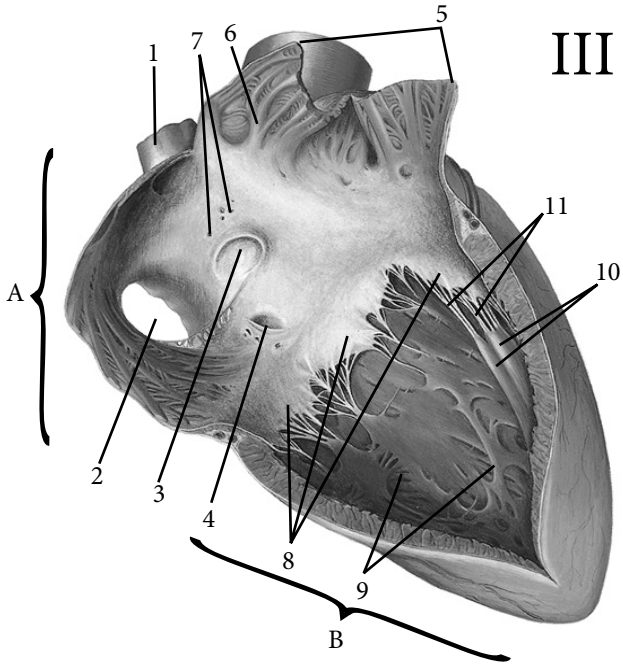
II




| II | Inferior surface - *(diaphragmatic)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

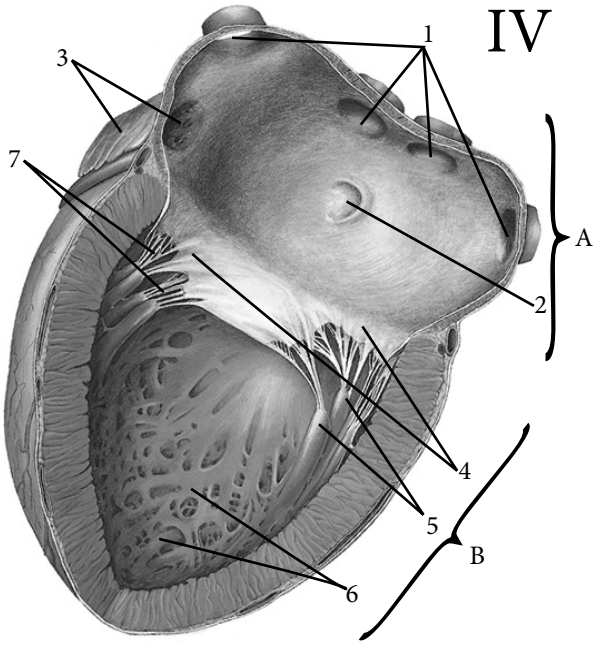
## INTERNAL STRUCTURE OF THE HEART

III




| III | Inner surface right half of the heart |
|---|---|
| A | |
| B | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

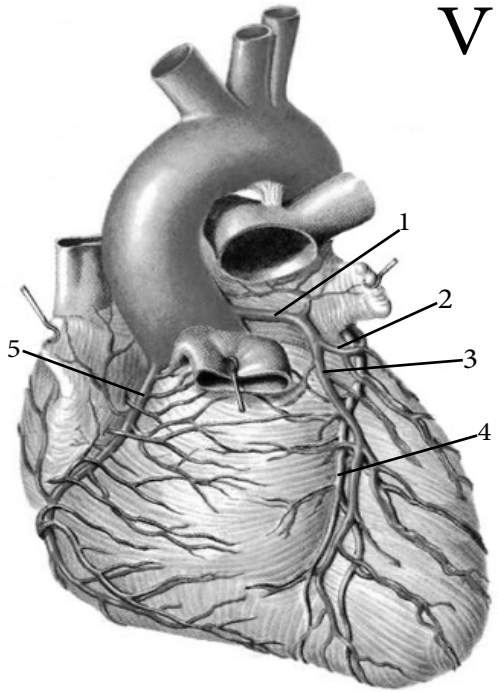
IV




| IV | Inner surface left half of the heart |
|---|---|
| A | |
| B | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

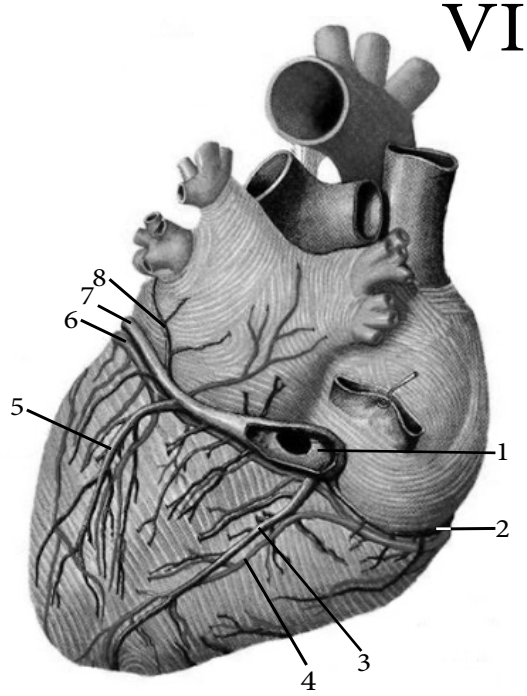
# VESSELS OF THE HEART

## V



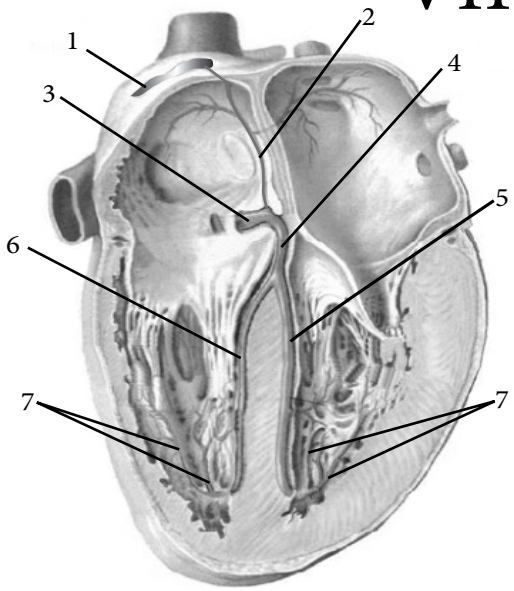

| V | The vessels of the anterior surface of the heart |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

## VI




| VI | The vessels of the lower surface of the heart |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

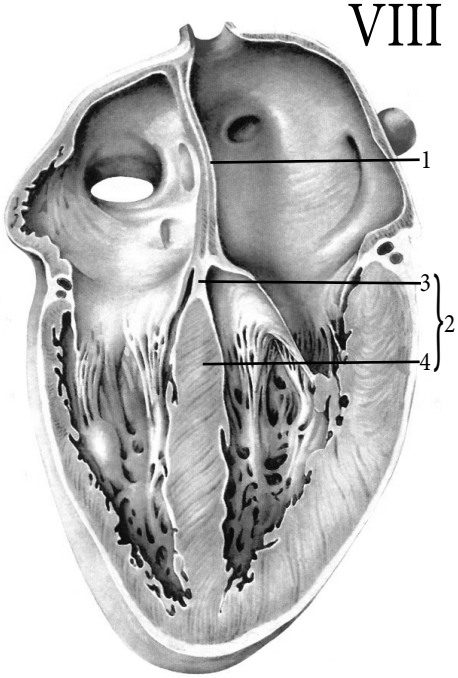
## VII



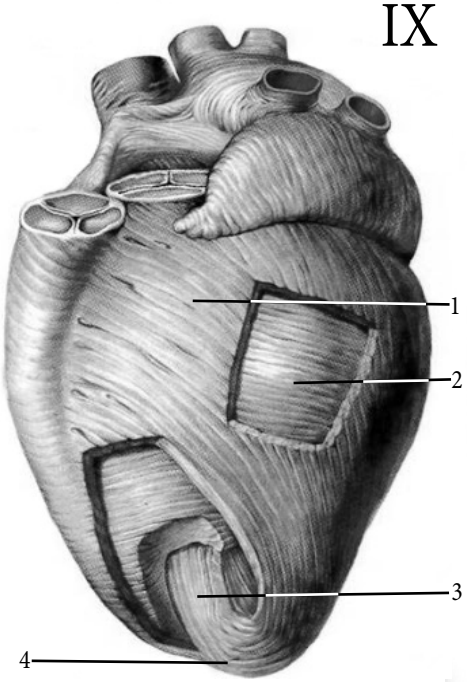

| VII | The conducting system of heart |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

# THE LAYERS OF THE HEART WALL

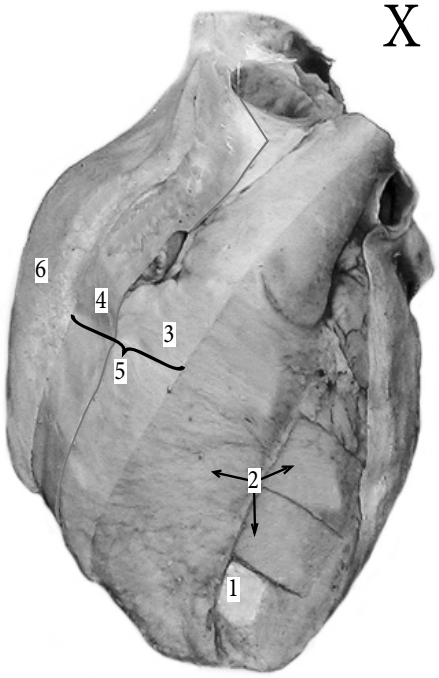
VIII




IX



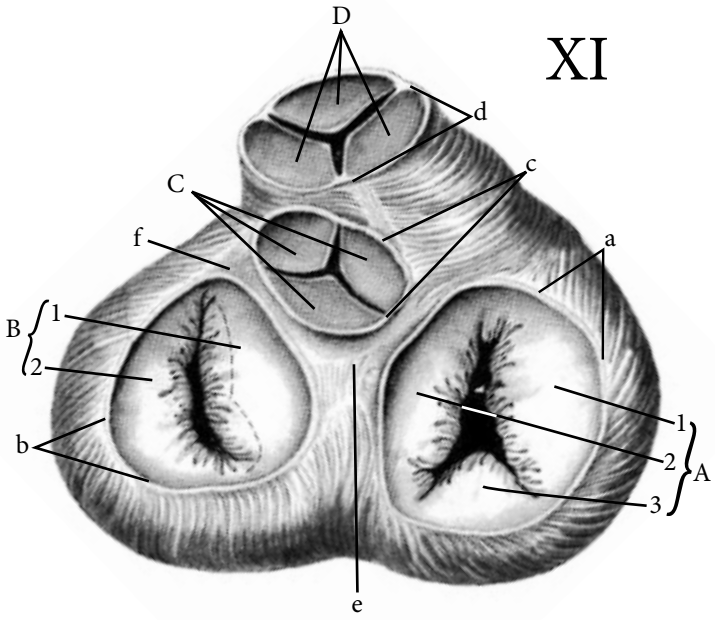

X




| VIII | Frontai section |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| IX | Layers of the myocardium |
| 1 | |
| 2 | |
| 3 | |
| 4 | |

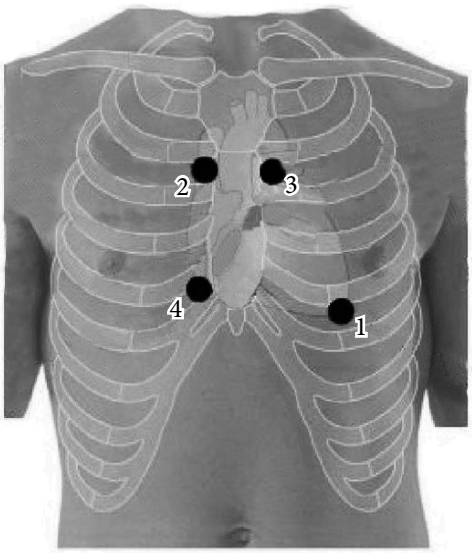
| X | The structure of the wall |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

XI



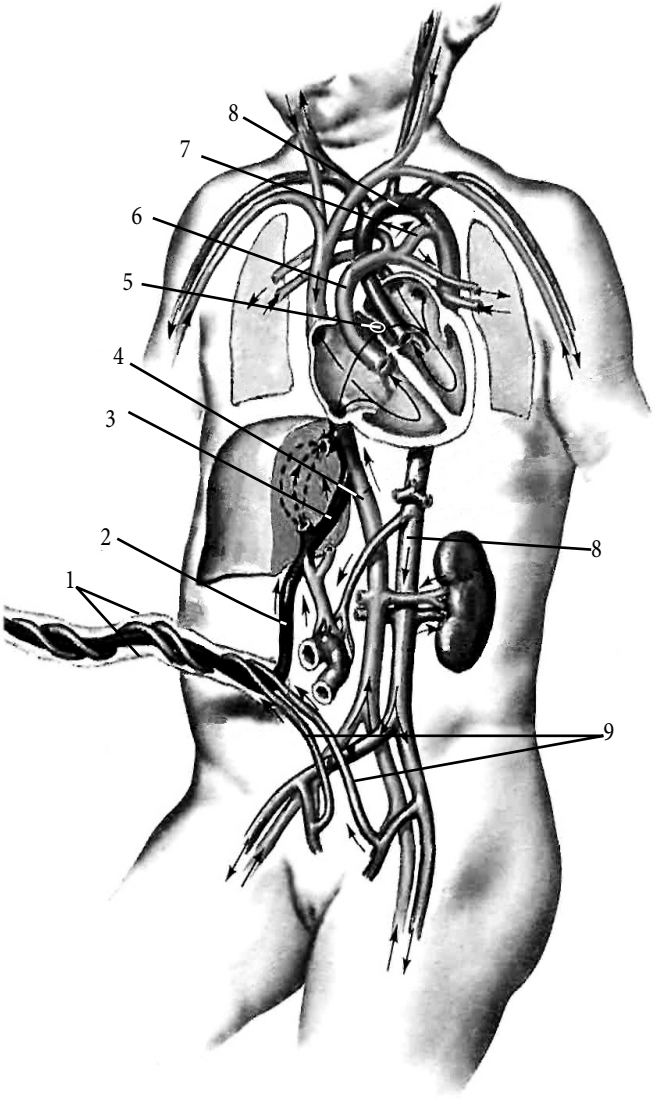

| XI | Valves and fibrous rings |
|---|---|
| A | |
| 1 | |
| 2 | |
| 3 | |
| B | |
| 1 | |
| 2 | |
| C | |
| D | |
| a | |
| b | |
| c | |
| d | |
| e | |
| f | |

# XII




| XII | The places and order listening to the valves |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

# XIII




| XIII | The fetal circulation |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

| |
|---|
| 1. Heart — |
| 2. Apex of heart — |
| 3. Auricles — |
| 4. Interatrial septum — |
| 5. Interventricular septum — |
| 6. Opening of superior and inferior vena cava — |
| 7. Sinus of vena cava — |
| 8. Pulmonary trunk — |
| 9. Right atrioventricular orifice — |
| 10. Foramen ovale — |
| 11. Valve of inferior vena cava — |
| 12. Semilunar cusp of pulmonary trunc — |
| 13. Coronary sinus — |
| 14. Opening of pulmonary veins — |
| 15. Tricuspid valve — |
| 16. Papillary muscles — |
| 17. Mitral (left) atrioventricular valve — |
| 18. Aortic sinus — |
| 19. Semilunar cusps — |
| 20. Vortex of heart — |

# TESTS «KROK - 1»

1. In rheumatism, the heart valves are deformed. From which layer of the heart are they formed?
A - Pericardium
B - Endocardium
C - Myocardium
D - Epicardium
E - All named

2. The patient has myocarditis. In which chamber of the heart do muscles form trabeculae cornea?
A - In the left atrium
B - In the right atrium
C - In both ventricles
D - In none of the cameras
E - In all cameras

3. The patient has myocarditis. How many layers does the myocardium of the atrium and ventricles have?
A - In the atrium - 3, ventricles - 2
B - In the atrium - 2, ventricles - 3
C - In the atrium - 2, ventricles - 2
D - In the atrium - 3, ventricles - 3
E - In the atrium - 1, ventricles - 2

4. Where does the pulmonary circle of blood circulation begin?
A - Left atrium
B - Right atrium
C - Left ventricle
D - Right ventricle
E - Coronary sinus

5. The patient has a defect of the membrane between the atriums - open the foramen ovale. From what tissue it is formed the membrane between the atriums?
A - Fibrous
B - Serous
C - Muscular
D - Endocardium
E - Epicardium

6. Where are the pectineal muscles?
A - In the left ventricle
B - In the right ventricle
C - In the auricles
D - In none of these
E - In all of the above

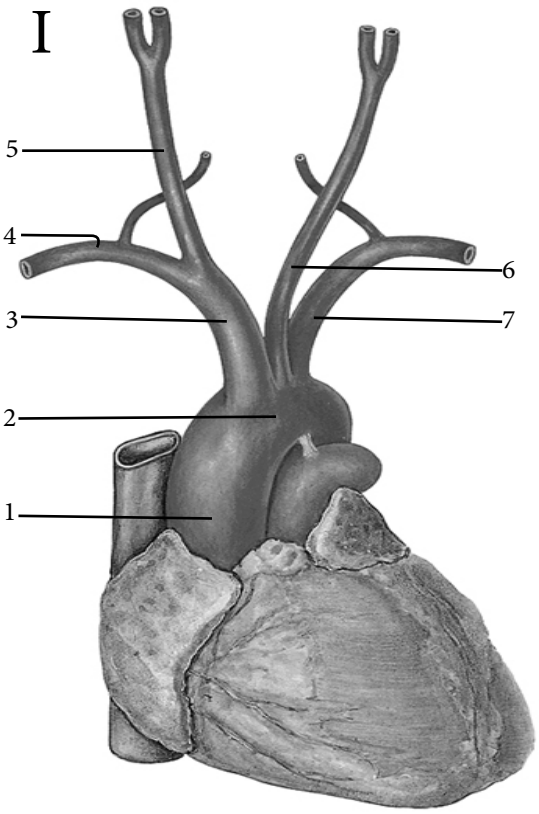
7. ECG shows the work of the conduction system of the heart. Where is the sinu- atrial node located?
A - Left atrium
B - Left ventricle
C - Right atrium
D - Right ventricle
E - Left auricle

8. Which vessels end the pulmonary circle of blood circulation?
A - Pulmonary trunk
B - Pulmonary arteries
C - Pulmonary veins
D - Coronary sinus
E - Superior and inferior vena cava

# 7. THE AORTA

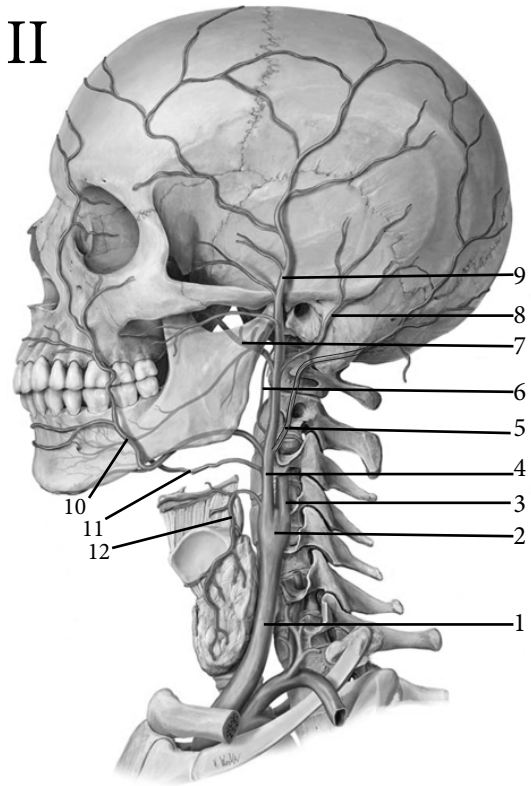
## BRANCHES OF THE EXTERNAL CAROTID ARTERY

I



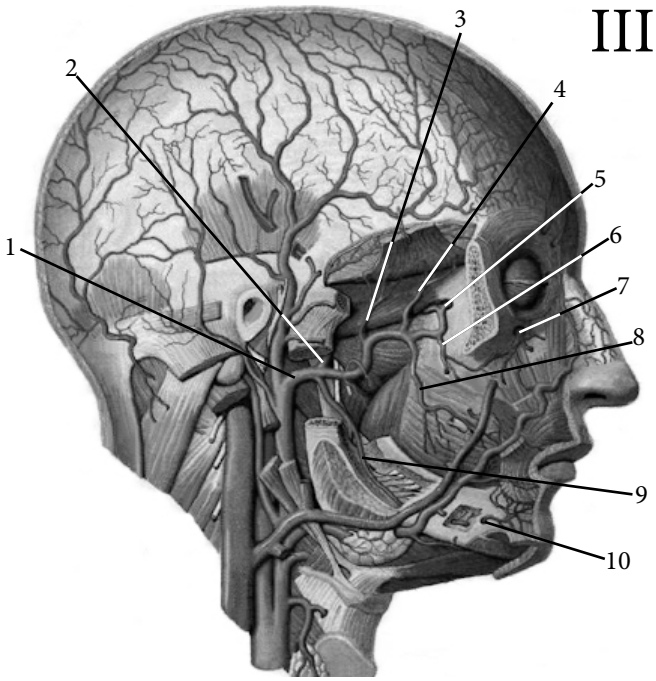

| I | The branches of the aortic arch |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

II




| II | The branches of external carotid artery |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

# THE BRANCHES OF MAXILLARY ARTERY

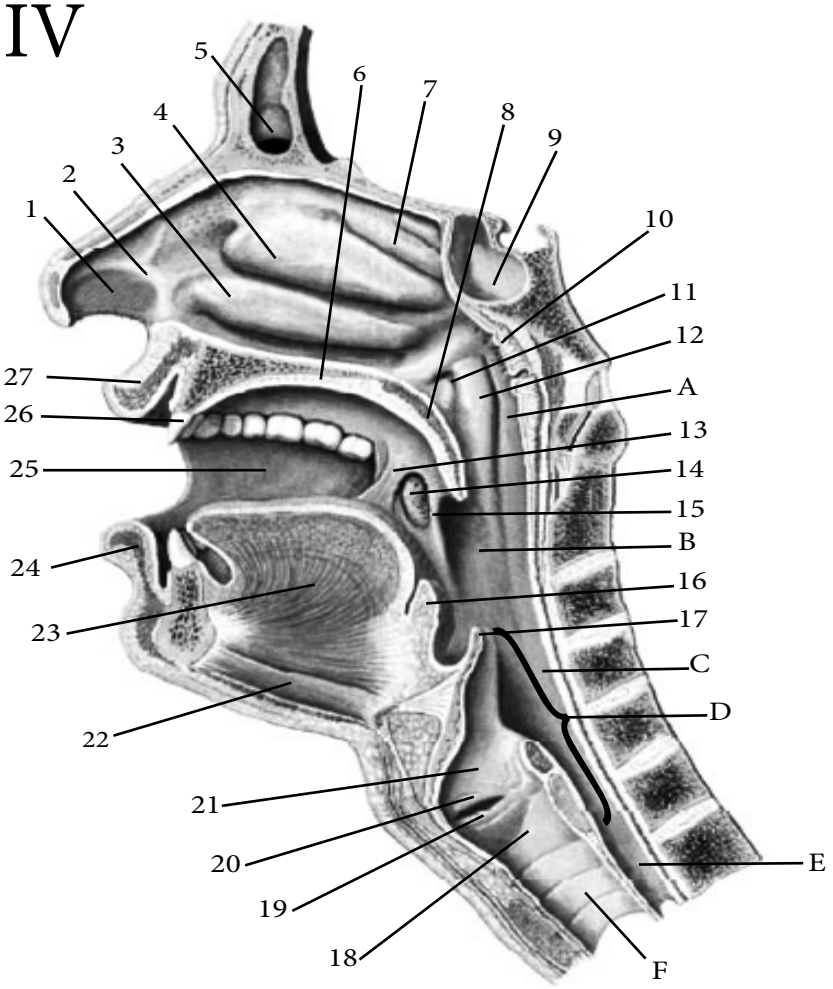



| III | The maxillary artery - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

# GENERAL CHARACTERISTICS OF BRANCHES EXTERNAL CAROTID ARTERY

| Anterior branches | Blood supply |
|---|---|
| 1. Superior thyroid artery | |
| 2. Lingual artery | |
| 3. Facial artery | |
| Posterior branches | |
| 1. Occipital artery | |
| 2. Posterior auricular artery | |
| 3. Sternocleidomastoid artery | |
| Medial and terminal branches | |
| 1. Ascending pharyngeal artery | |
| 2. Superficial temporal artery | |
| 3. Maxillary artery | |

# IV




| IV | Sagittal section of the head |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |

| | |
|---|---|
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| A | |
| B | |
| C | |
| D | |
| E | |
| F | |

| |
|---|
| 1. Aortic bulb — |
| 2. Arch of aorta — |
| 3. Brachiocephalic trunk — |
| 4. Common carotid artery — |
| 5. Left subclavian artery — |
| 6. Superior thyroid artery — |
| 7. Superior laryngeal artery — |
| 8. Angular artery — |
| 9. Submental artery — |
| 10. Occipital artery — |
| 11. Posterior auricular artery — |
| 12. Ascending pharyngeal artery — |
| 13. Superficial temporal artery — |
| 14. Transverse facial artery — |
| 15. Maxillary artery — |
| 16. Inferior alveolar artery — |
| 17. Middle meningeal artery — |
| 18. Superior posterior alveolar artery — |
| 19. Infra-orbital artery — |
| 20. Sphenopalatine artery — |

# TESTS «KROK - 1»

1. During the operation in the pharyngeal area, a blood vessel located on the pharyngeal wall was damaged. The blood supply to the pharynx, tonsils, soft palate, and auditory tube was disrupted. Which vessel was damaged?
A - Superior thyroid artery
B - Descending pharyngeal artery
C - Inferior laryngeal artery
D - Ascending pharyngeal artery
E - Vertebral artery

2. In which area can the common carotid artery be compressed to temporarily stop the bleeding?
A - At the level of the upper edge of the thyroid gland
B - In Pirogov's triangle
C - In the subclavian fossa
D - In the carotid triangle
E - There is no correct answer

3. During the operation on the sublingual salivary gland, the patient developed bleeding in the Pirogov triangle. What artery damaged?
A - Langual
B - Submandibular
C - Sublingual
D - Facial
E - Posterior auricular

4. The patient has bleeding in the angle of the mouth. Which artery is damaged?
A - Facial
B - Maxillary
C - Superior thyroid
D - Occipital
E - Superficial temporal

5. The patient bleeds after removal of a molar. Which artery is damaged?
A - Facial
B - Superior thyroid
C - Maxillary
D - Occipital
E - Sublingual

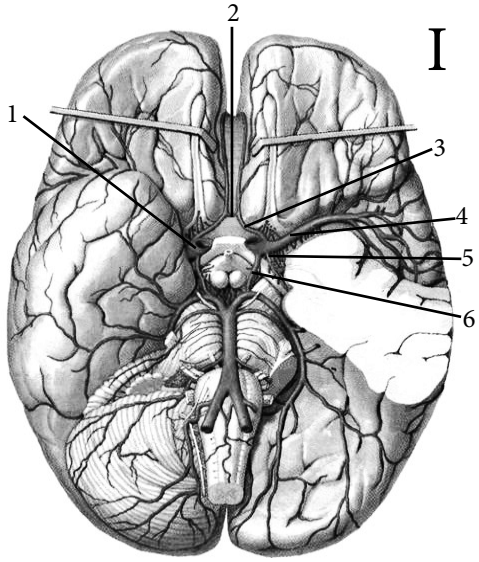
6. The patient has a tongue injury. Which artery should be ligated?
A - Lingual
B - Facial
C - Maxillary
D - Superior thyroid
E - Sublingual

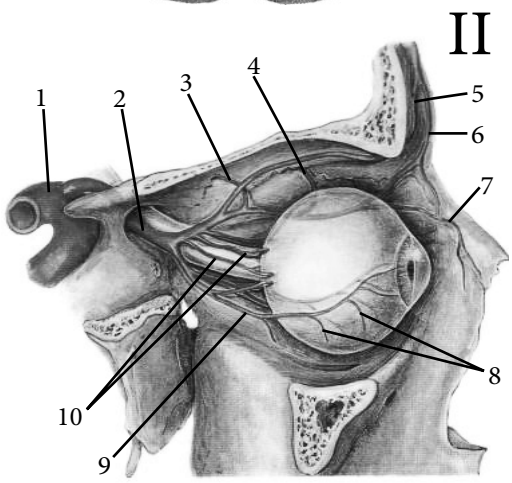
7. After an injury at the patient bleeding in a site of a back surface of an auricle. Which artery is damaged?
A - Facial
B - Posterior auricular
C - Occipital
D - Superficial temporal
E - Maxillary

8. The patient has an injury in the lower lip. Which artery is damaged?
A - Facial
B - Sublingual
C - Maxillary
D - Superficial temporal
E - Superior thyroid

# 8. THE AORTA

## THE BRANCHES OF INTERNAL CAROTID ARTERY




| I | The branches of the internal carotid artery |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| II | The branches of the ophthalmic artery artery |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

## GENERAL CHARACTERISTICS

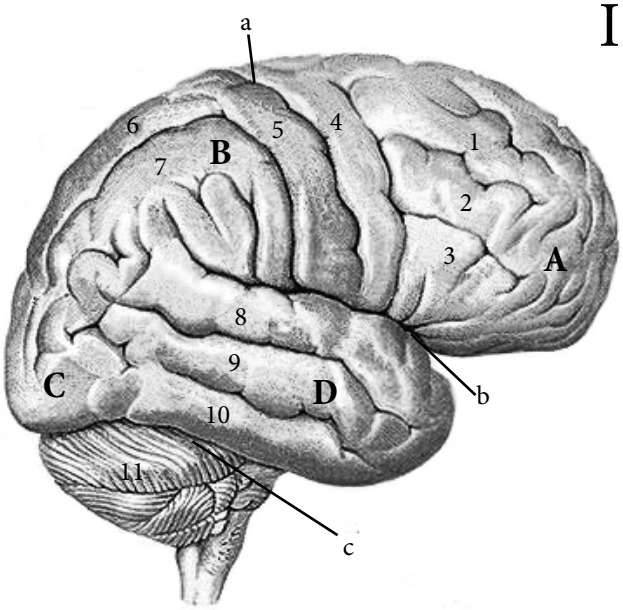
## BRANCHES OF THE INTERNAL CAROTID ARTERY

| Branches | Blood supply |
|---|---|
| 1. Ophthalmic artery | |
| 2. Anterior cerebral artery | |
| 3. Middle cerebral artery | |
| 4. Anterior communicating artery | |
| 5. Posterior communicating artery | |
| 6. Anterior choroidal artery | |

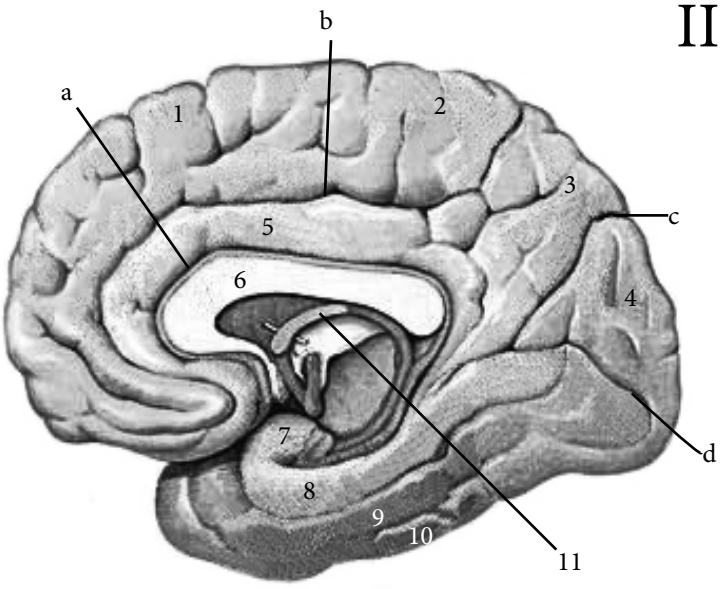
# MATERIALS FOR REPETITION

## THE SULCUSES AND GIRUSES OF THE BRAIN HEMISPHERE

I




II




| I | Superolateral surface |
|---|---|
| A | |
| B | |
| C | |
| D | |
| a | |
| b | |
| c | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

| II | Inferomedial surface |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| a | |
| b | |
| c | |
| d | |

| |
|---|
| 1. Internal carotid artery — |
| 2. Cervical part — |
| 3. Petrous part — |
| 4. Cavernous part — |
| 5. Cerebral part — |
| 6. Ophthalmic artery — |
| 7. Posterior ciliary arteries — |
| 8. Anterior ciliary arteries — |
| 9. Lacrimal artery — |
| 10. Lateral palpebral arteries — |
| 11. Anterior and posterior ethmoidal arteries — |
| 12. Anterior meningeal branch — |
| 13. Supra-orbital artery — |
| 14. Supratrochlear artery — |
| 15. Anterior cerebral artery — |
| 16. Anterior communicating artery — |
| 17. Middle cerebral artery — |
| 18. Posterior communicating artery — |
| 19. Anterior choroid artery — |
| 20. Cerebral arterial circle (of Willis) — |

# TESTS «KROK - 1»

1. The patient has hemorrhage in the left eye. Which artery is damaged?
A - Ophthalmic
B - Facial
C - Maxillary
D - Superficial temporal
E - Middle cerebral

2. Which branch of the artery does not function when the blood supply to the temporal lobe of the brain?
A - Middle cerebral artery
B - External carotid artery
C - Middle meningeal artery
D - Basilar artery
E - Superficial temporal

3. Due to inflammation of the nasal mucosa, the patient developed inflammation of the cells of the ethmoidal labyrinth. Which artery supplies blood to this area?
A - Superior hypophisial
B - Middle cerebral
C - Anterior cerebral
D - Anterior and posterior ethmoidal
E - Lacrimal

4. The patient's optic nerve is damaged due to injury. Which artery is damaged?
A - Lacrimal
B - Central retinal artery
C - Medial palpebral artery
D - Supratrochlear artery
E - Anterior ciliary arteries

5. Examination of the patient revealed a tumor in the lateral ventricles Which artery may be involved in the pathological process?
A - Superior hypophisial
B - Anterior choroidal
C - Posterior communicating
D - Ophthalmic artery
E - Anterior cerebral

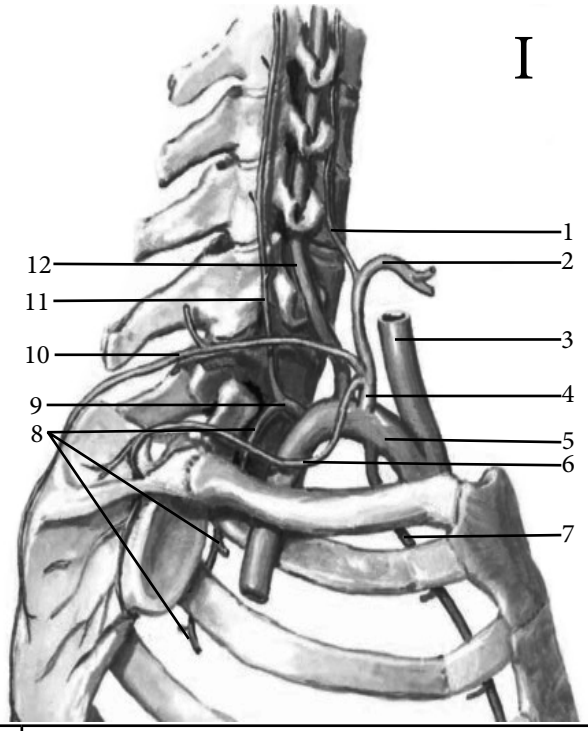
6. The patient was diagnosed with hemorrhage in the lateral sulcus of hemisphere. Which artery is damaged?
A - Middle cerebral
B - Anterior choroidal
C - Ophthalmic artery
D - Superior hypophisial
E - Anterior cerebral

7. As a result of a stroke, the patient was found to have hemorrhage in the area of the insula of the brain. Which artery is damaged?
A - Middle cerebral
B - Anterior cerebral
C - Anterior choroidal
D - Posterior communicating
E - Superior hypophisial

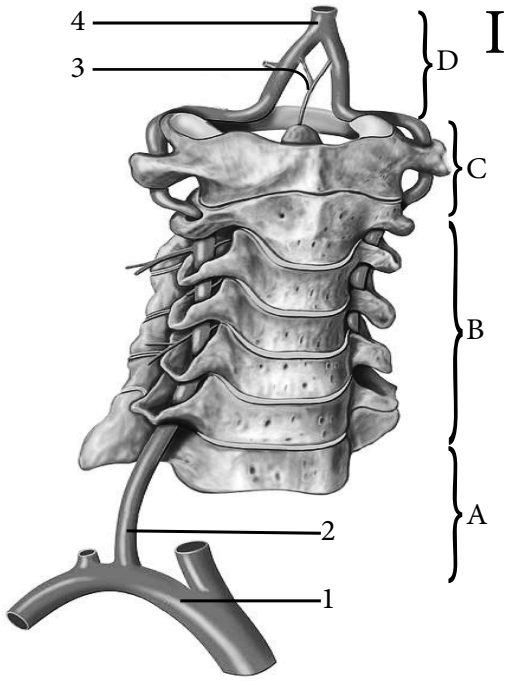
8. At inspection at the patient the tumor of a hypophysis is diagnosed. Which artery it supplies?
A - Anterior cerebral
B - Posterior communicating
C - Superior hypophisial
D - Anterior choroidal
E - Middle cerebral

# 9. THE BRANCHES OF THE SUBCLAVIAN ARTERY

I




II

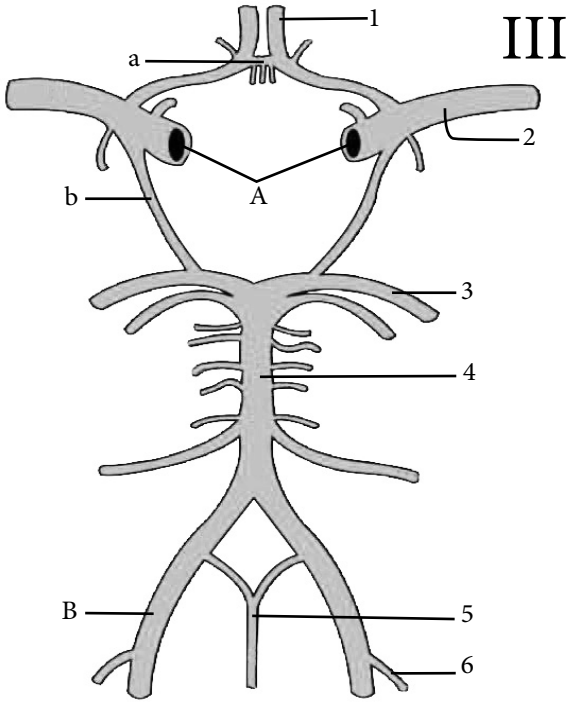


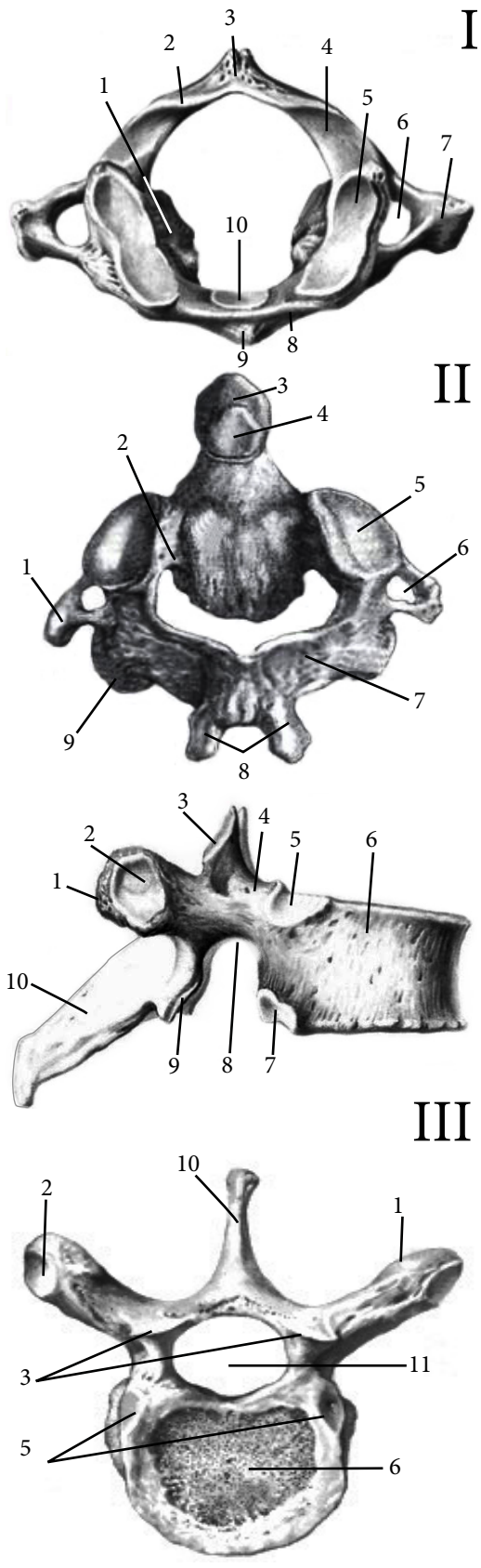

| I | The subclavian artery — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

| II | The vertebral artery — |
|---|---|
| A | |
| B | |
| C | |
| B | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |

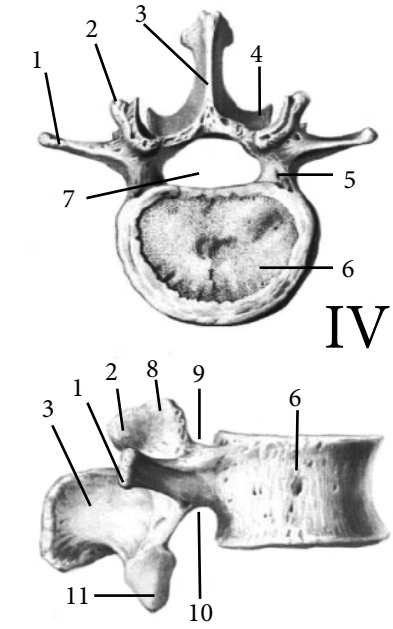
| III | The arterial circle of the brain — |
|---|---|
| A | |
| B | |
| a | |
| b | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

III

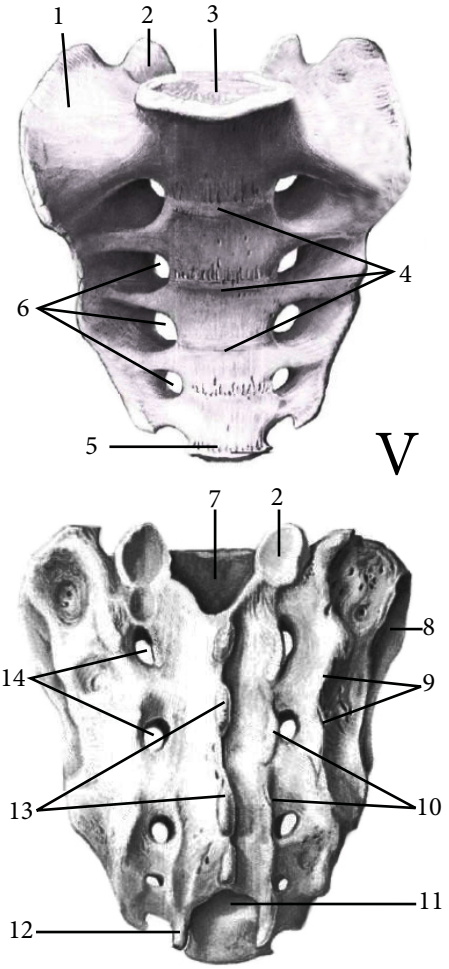





| | |
|---|---|
| I | The I cervical vertebra — |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| II | The II cervical vertebra — |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| III | The thoracic vertebrae — |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |




| IV | The lumbar vertebrae — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |




| V | The sacrum — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |

| |
|---|
| 1. Subclavian artery — |
| 2. Vertebral artery — |
| 3. Thyrocervical trunk — |
| 4. Internal thoracic artery — |
| 5. Basilar artery — |
| 6. Posterior spinal artery — |
| 7. Anterior inferior cerebellar artery — |
| 8. Superior cerebellar artery — |
| 9. Posterior inferior cerebellar artery — |
| 10. Anterior spinal artery — |
| 11. Posterior cerebral artery — |
| 12. Ascending cervical artery — |
| 13. Inferior thyroid artery — |
| 14. Suprascapular artery — |
| 15. Transverse cervical artery — |
| 16. Musculophrenic artery — |
| 17. Superior epigastric artery — |
| 18. Costocervical trunk — |
| 19. Deep cervical artery — |
| 20. Supreme intercostal artery — |

# TESTS «KROK - 1»

1. The patient has impaired arterial blood supply to the thyroid gland. Which vessel is dysfunctional?
A - Superior thyroid artery
B - Inferior thyroid artery
C - Both of the above
D - Internal thoracic artery
E - Sternocleidomastoid artery

2. At the patient at a knife wound the neirovascular bundle of the neck was damaged. In what triangle of the neck is it located?
A - Carotid triangle
B - Omoclavicular triangle
C - Omotrapezoid triangle
D - Submandibular triangle
E - Pirogov's triangle

3. The patient has an injury in the area of the carotid triangle. What anatomical formations are there?
A - The vagus nerve
B - Vagus nerve, internal jugular vein, common carotid artery
C - Internal jugular vein
D - Common carotid artery
E - Internal thoracic artery

4. Which artery is formed due to the merger of the right and left vertebral arteries at the level of the posterior edge of the pons?
A - Artery of the pons
B - Posterior cerebral artery
C - Siperior cerebellar artery
D - Internal carotid artery
E - Basilar artery

5. What sources form the arterial circle of the cerebrum?
A - External and internal carotid arteries
B - External carotid and subclavian arteries
C - Internal carotid and vertebral arteries
D - Vertebral artery and costovertebral trunk
E - Basilar and vertebral arteries

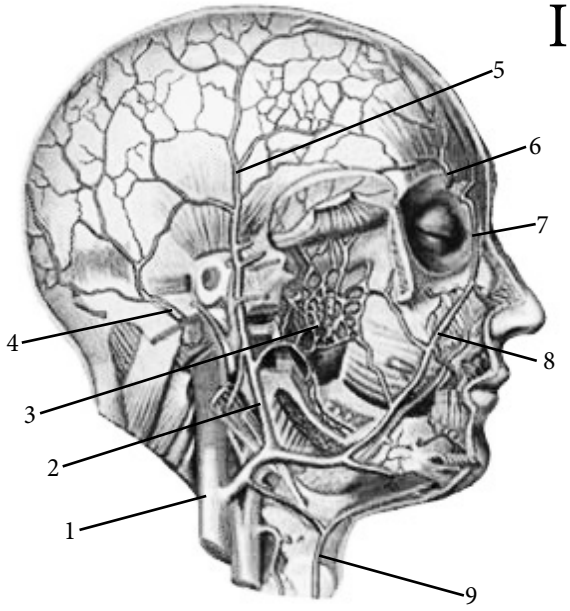
6. Examination of the patient revealed hemorrhage in the interscalenus space. Which artery can be damaged?
A - Basilar
B - Vertebral
C - Internal thoracic
D - Costovertebral trunk
E - Thyrocervical trunk

7. The patient has impaired blood supply to the upper abdominal wall. Which branch of the subclavian artery supplies to the rectus abdominis?
A - Thyrocervical trunk
B - Costocervical trunk
C - Vertebral artery
D - Internal thoracic artery
E - All of the above

8. The patient has thrombosis of the internal thoracic artery. Which organs may be affected?
A - Thymus
B - Trachea and bronchi
C - Esophagus and diaphragm
D - All of the above
E - None of the above

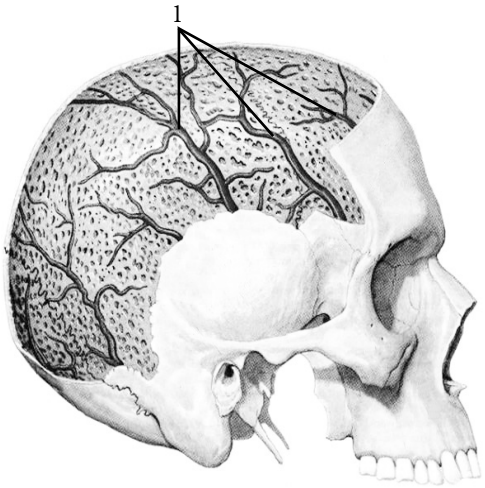
# 10. THE VEINS OF THE HEAD AND NECK

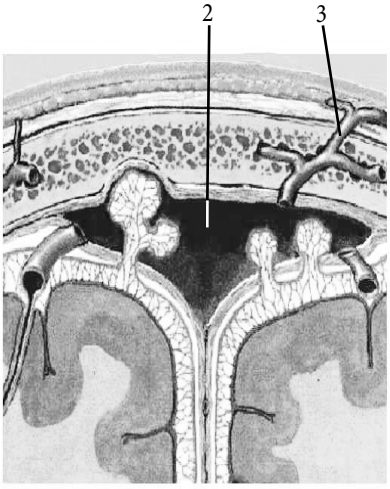
I

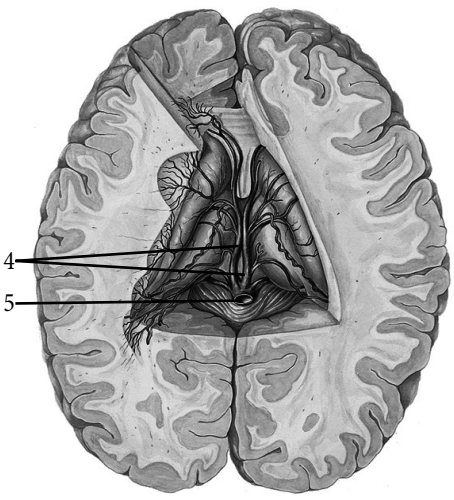


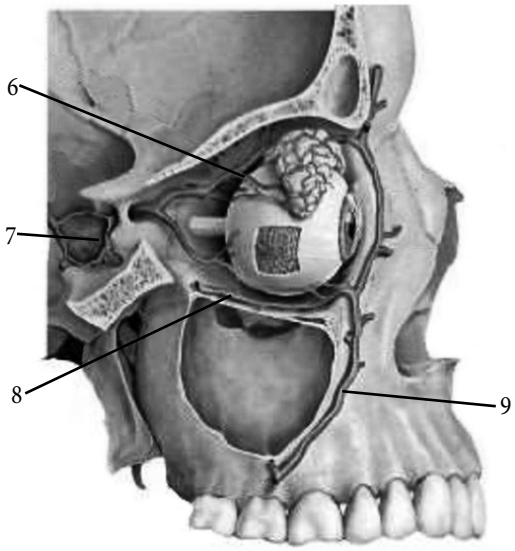

| I | The extracranial tributaries of the internal jugular vein |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

II



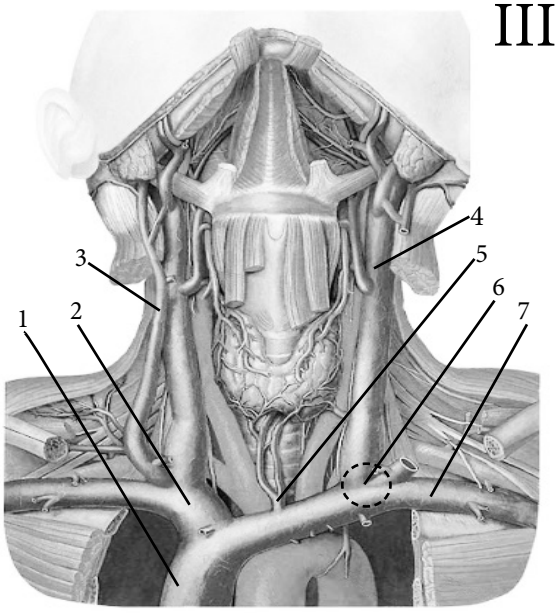




| II | The intracranial tributaries of the internal jugular vein |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

## III




| III | The neck veins |
|---|---|
| 1 | |
| 2 | |
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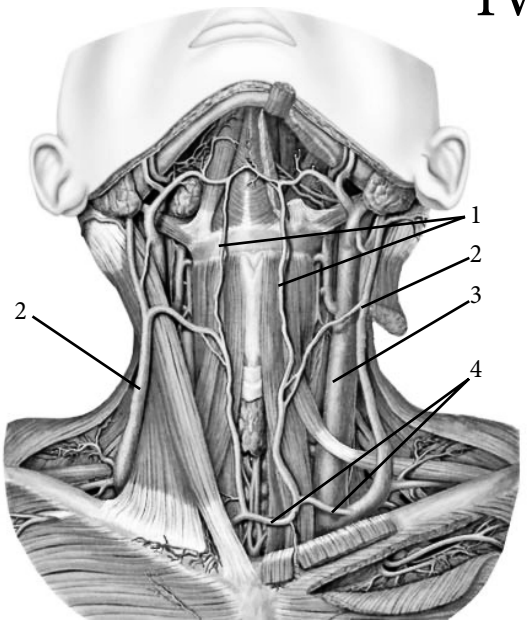
| 6 | |
| 7 | |

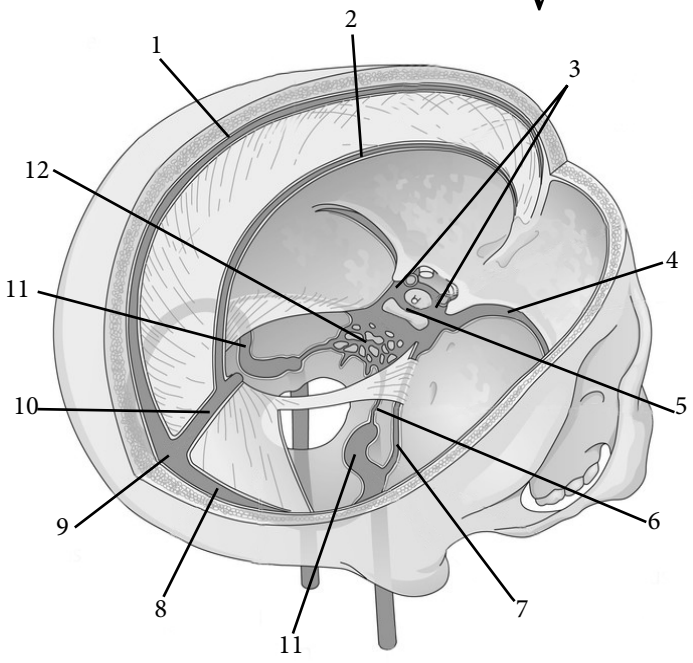
## IV




| IV | Formation of the jugular venous arch |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

MATERIALS FOR REPETITION

## V




| V | The dural venous sinuses |
|---|---|
| 1 | |
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| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

| |
|---|
| 1. Internal jugular vein — |
| 2. Diploic veins — |
| 3. Emissary veins — |
| 4. Suprficial cerebral vein — |
| 5. Great cerebral vein — |
| 6. Deep cerebral vein — |
| 7. Ophthalmic veins — |
| 8. Mastoid emissary vein — |
| 9. Parietal emissary vein — |
| 10. Condylar emissary vein — |
| 11. Facial vein — |
| 12. External jugular vein — |
| 13. Retromandibular vein — |
| 14. Pterygoid plexus — |
| 15. Basilar plexus — |
| 16. Superficial temporal veins — |
| 17. Maxillary vein — |
| 18. Anterior jugular vein — |
| 19. Deep facial vein — |
| 20. Jugular venous arch — |

# TESTS «KROK - 1»

1. Through which veins can an infection from the nasolabial triangle enter the intracranial veins?
A - Facial vein
B - Anterior jugular vein
C - Ophthalmic veins
D - Superficial temporal vein
E - Maxillary vein
‘

2. The patient has inflammation in the nasolabial triangle. During the examination, the doctor noticed a bulge in the eyeballs, redness of the eyelids and forehead. Which sinus thrombosis complicated the disease?
A - Superior sagittal sinus
B - Superior petrosal sinus
C - Inferior petrosal sinus
D - Inferior sagittal sinus
E - Cavernous sinus

3. The patient has a penetrating wound of the occipital bone scales, venous bleeding. Which sinus is damaged?
A - Transverse
B - Straight
C - Superior sagittal
D - Sigmoid
E - Inferior sagittal

4. How do the veins of the nasal cavity connect with the sinuses of the dura mater?
A - Through a emissary vein in the area of the foramen caecum
B - Through the ophthalmic vein
C - Through the facial vein
D - Through the retromandibular vein
E - Through the anterior ethmoid vein

5. The patient has a tumor in the area of the suprasternal interoneurotic space. What venous formation may be involved in the pathological process?
A - Pterygoid plexus
B - Jugular venous angle
C - Cavernous sinus
D - Jugular venous arch
E - Internal jugular vein

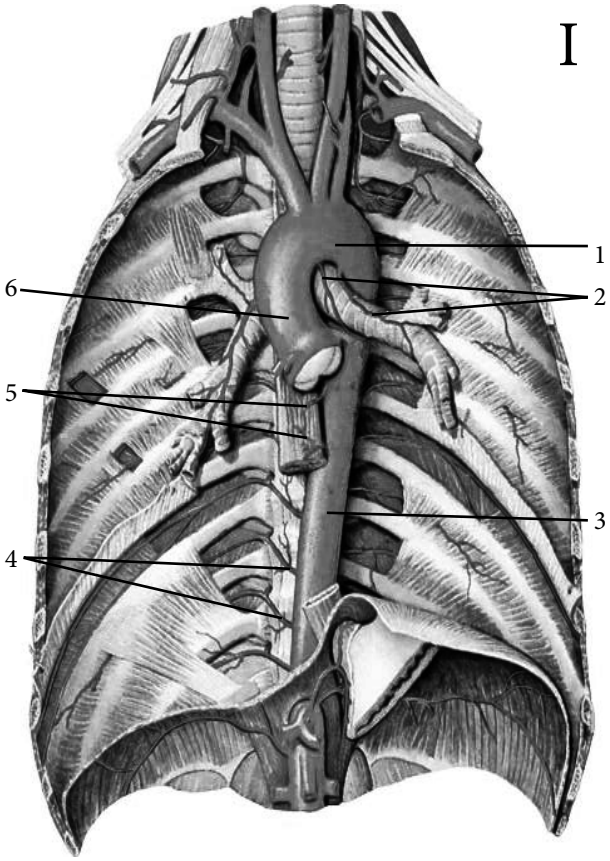
6. The patient has a purulent process in the skin of the parietal area. How can an infection get into the sinuses of the dura mater?
A - Through emissary veins that pass through the parietal foramen
B - Through the ophthalmic vein
C - Through the facial vein
D - Through the internal jugular vein
E - Through the retromandibular vein

7. The patient had a purulent process in the occipital region. How does the infection get into the sinuses of the dura mater?
A - Through the occipital emissary vein
B - Through the ophthalmic vein
C - Through the mandibular vein
D - Through the facial vein
E - Through the superficial temporal vein

8. Examination of the patient revealed an inflammatory process in the root of the nose. Through which anastomosis the infection can to get into a cavernous sinus?
A - Through the anastomosis between the angular vein and the superior and inferior ophthalmic
B - Through the facial vein
C - Through the occipital vein
D - Through the mandibular vein
E - Through the internal jugular vein

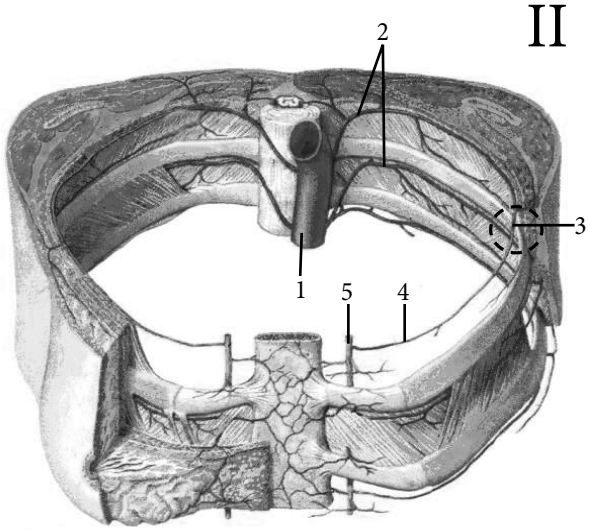
# 11. THE ARTERIES OF WALLS AND ORGANS OF THE THORACIC CAVITY

I




| I | The thoracic aorta - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

II



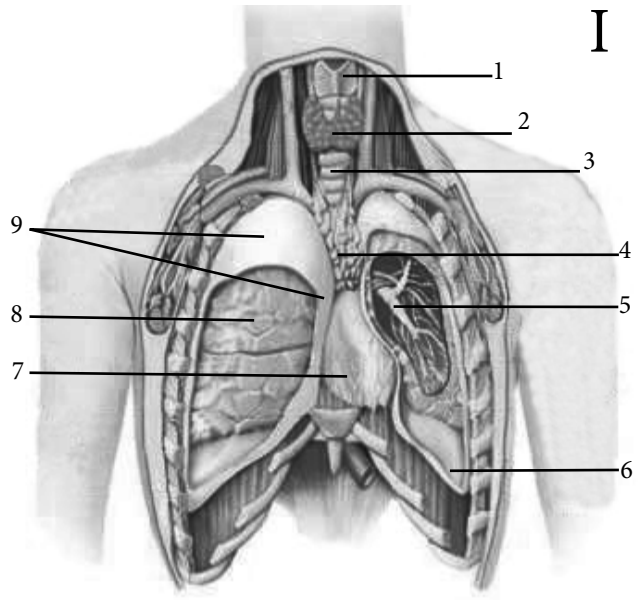

| II | The intercostal arteries - |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

# GENERAL CHARACTERISTICS THE BRANCHES OF THE THORACIC AORTA

| The parietal branches | Blood supply areas |
|---|---|
| 1. Bronchial | |
| 2. Esophageal | |
| 3. Pericardial | |
| 4. Mediastinal | |
| The visceral branches | |
| 1.Posterior intercostal | |
| 2. Superior phrenic | |

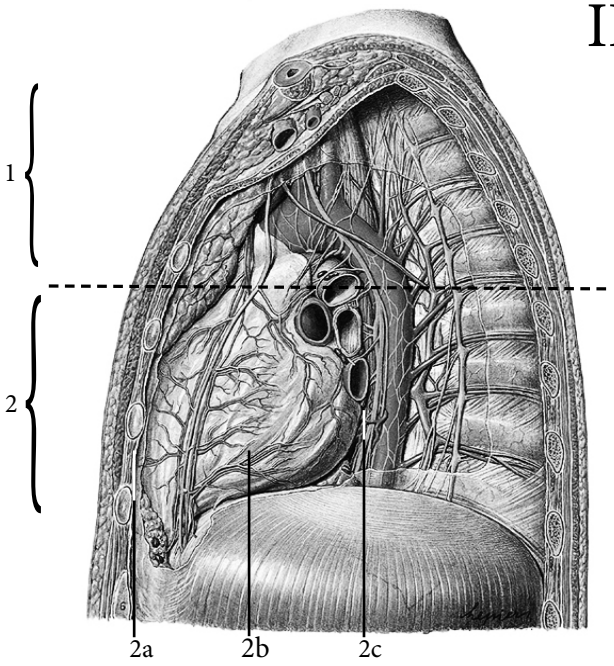
## MATERIALS FOR REPETITION

I




| I | Organs of the neck and thoracic cavity |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

II




| II | The mediastinum |
|---|---|
| 1 | |
| 2 | |
| 2a | |
| 2b | |
| 2c | |

| |
|---|
| 1. Descending aorta — |
| 2. Thoracic aorta — |
| 3. Parietal branches — |
| 4. Visceral branches — |
| 5. Bronchial branches — |
| 6. Esophageal branches — |
| 7. Pericardial branches — |
| 8. Mediastinal branches — |
| 9. Posterior intercostal arteries — |
| 10. Spinal branches — |
| 11. Dorsal branch — |
| 12. Subcostal arteries — |
| 13. Superior phrenic arteries — |
| 14. Thoracic cage — |
| 15. Thoracic cavity — |
| 16. Pulmonary grooves — |
| 17. Superior thoracic aperture — |
| 18. Costal arch — |
| 19. Inferior thoracic aperture — |
| 20. Infrasternal angle — |

# TESTS «KROK - 1»

1. Nutrition of lung tissue is disrupted by complicating blood flow in the following vessels:
A - Pulmonary artery
B - Thoracic aorta
C - Bronchial artery
D - Mediastinal arteries
E - All of the above

2. Examination of the patient revealed a tumor of the thoracic esophagus. Which branches of the aorta may be affected?
A - Bronchial branches
B - Esophageal branches
C - Pericardial branches
D - Mediastinal branches
E - All of the above

3. Impaired blood supply to the pericardium. Which vessels do not function?
A - Right coronary artery
B - Left coronary artery
C - Pericardiacophrenic artery
D - Musculophrenic artery
E - Internal thoracic artery

4. If the diaphragm is damaged by the thoracic cavity, which vessels can be damaged?
A - Superior phrenic artery.
B - Musculophrenic artery
C - Pericardiacophrenic artery
D - All listed
E - None of the above

5. At damage of which arterial trunk blood circulation in I and II intercostal spaces will be broken?
A - Anterior intercostal artery
B - Internal thoracic artery
C - Superior thoracic artery
D - Thyrocervical trunk
E - Costocervical trunk

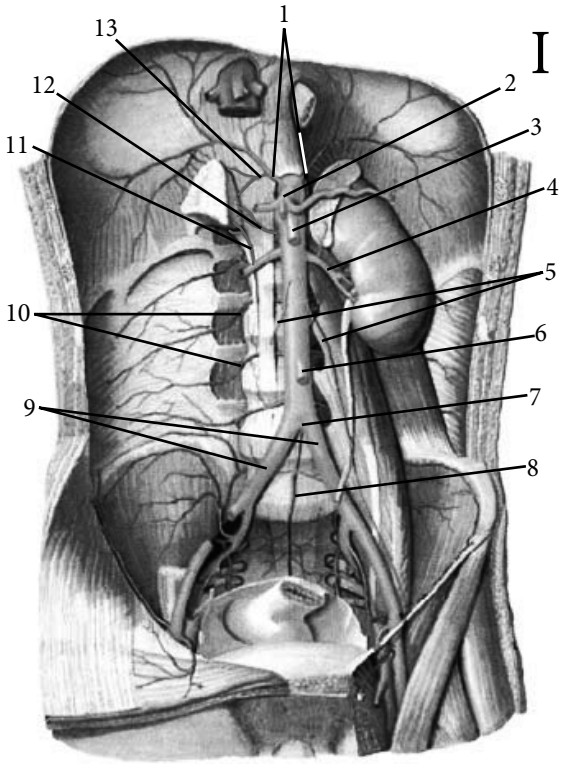
6. When applying a ligature to the internal thoracic artery on the left, in which anatomical formations will be impaired circulation?
A - In the left breast
B - In the intercostal spaces on the left
C - In the diaphragm on the left
D - In the superficial chest muscles on the left
E - All of the above

7. What intercostal spaces are supplied with blood by the posterior intercostal arteries?
A - I - II
B - II - IV
C - III - VII
D - III - IX
E - III - XI

8. The patient has impaired blood supply to the mediastinum. Which branches of the aorta do not function?
A - Mediastinal
B - Pericardial
C - Bronchial
D - Esophageal
E - Superior phrenic

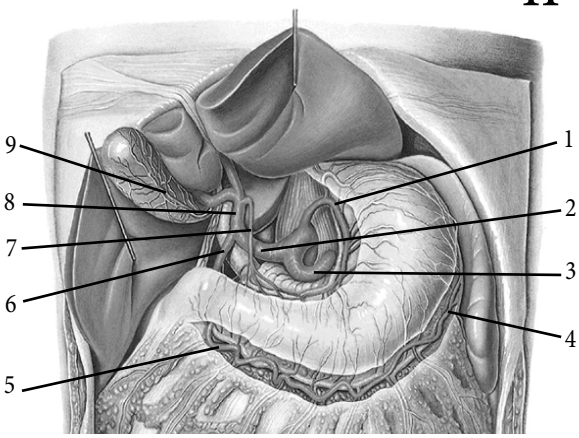
# 12. THE ABDOMINAL AORTA

I



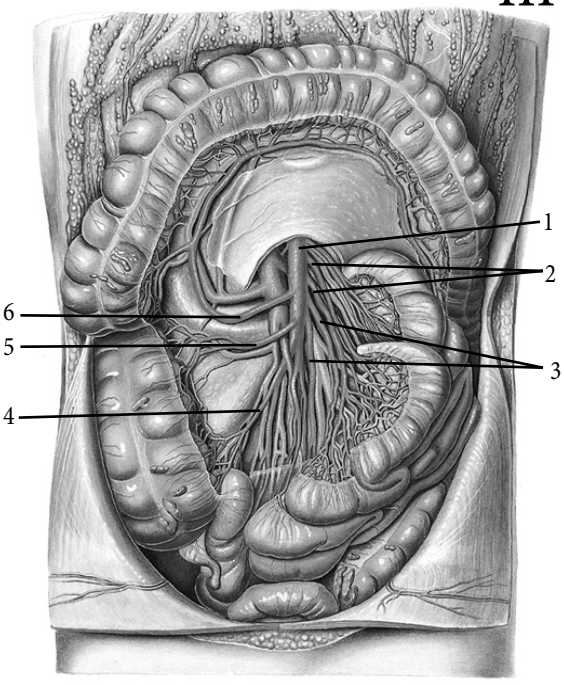

| I | The branches of abdominal aorta |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |

II



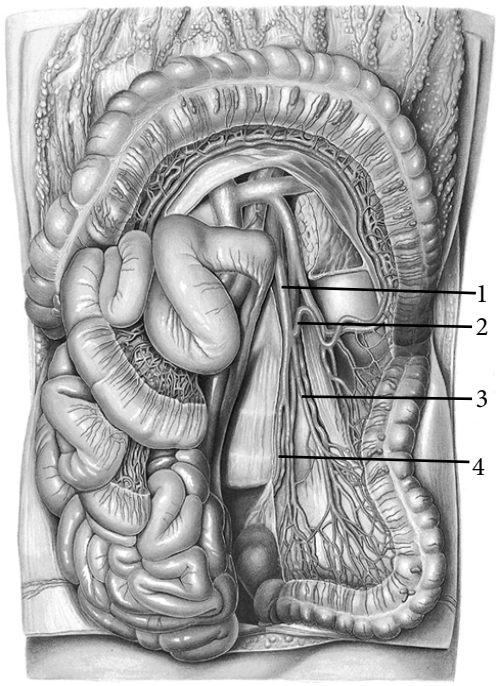

| II | The coeliac trunk and its branches |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

III




| III | The superior mesenteric artery and its branches |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

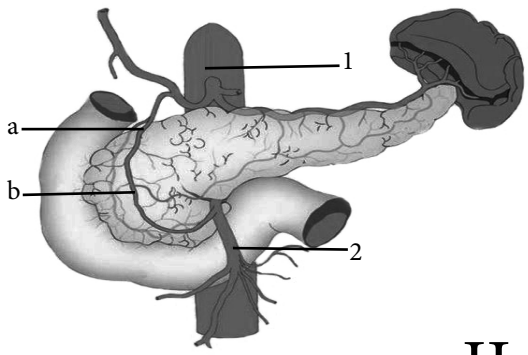
IV




| IV | The inferior mesenteric artery and its branches |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

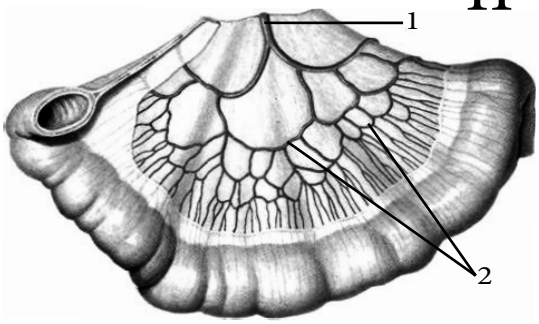
## ANASTOMOSIS BETWEEN THE MAIN BRANCHES OF THE ABDOMINAL AORTA

I



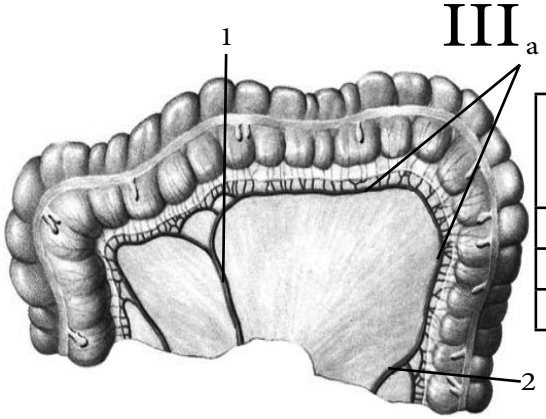

| I | Between the coeliac trunk and superior mesenteric artery |
|---|---|
| 1 | |
| 2 | |
| a | |
| b | |

II




| II | Between the intestinal branches superior mesenteric artery |
|---|---|
| 1 | |
| 2 | |

III



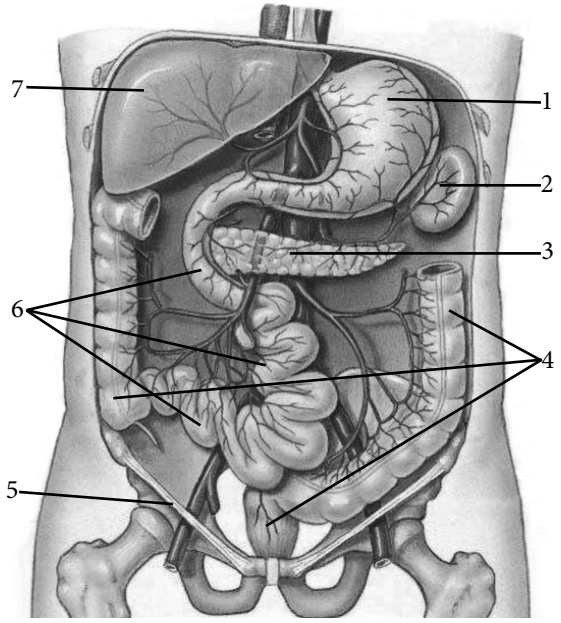

| III | Between the superior and inferior branches of mesenteric arteries |
|---|---|
| 1 | |
| 2 | |
| a | |

# BRANCHES OF THE ABDOMINAL AORTA

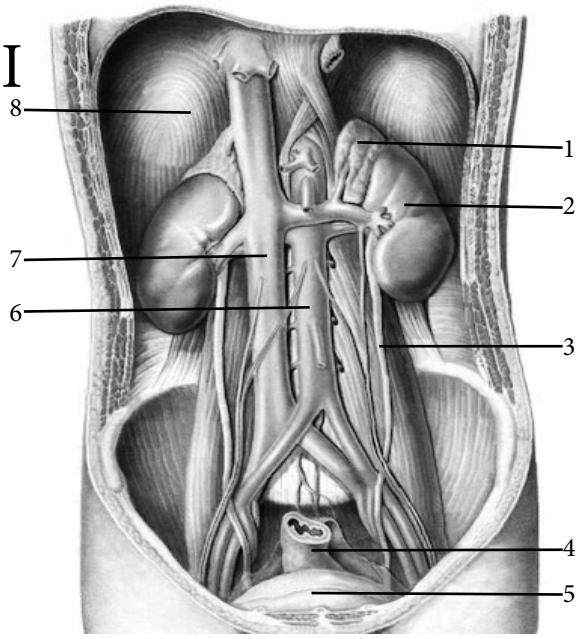
| The unpaired visceral branches | Blood supply |
|---|---|
| 1. The coeliac trunk | |
| — left gastric artery | |
| — splenic artery | |
| — common hepatic artery | |
| 2. The superior mesentric artery | |
| — inferior pancreaticoduodenal artery | |
| — jejunal arteries | |
| — ileal arteries | |
| — ileocolic artery | |
| — right colic artery | |
| — middle colic artery | |
| 3. The inferior mesentric artery | |
| — left colic artery | |
| — sigmoid arteries | |
| — superior rectal artery | |
| The paired visceral branches | |
| 1. Middle suprarenal artery | |
| 2. Renal artery | |
| 3. Testicular (ovarian) artery | |
| The parietal branches | |
| 1. Inferior phrenic artery | |
| 2. Lumbar arteries | |
| 3. Median sacral artery | |

# MATERIALS FOR REPETITION

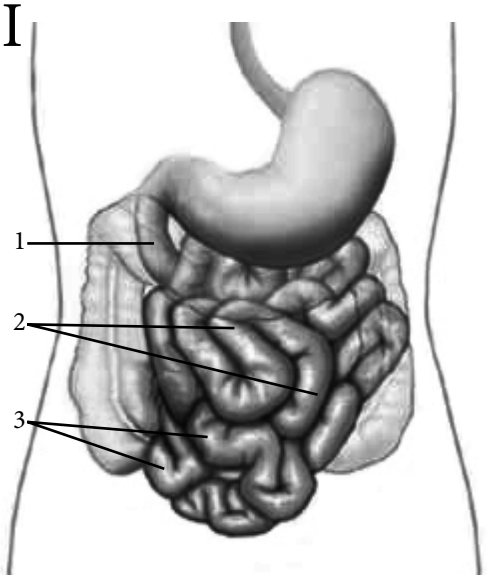
I



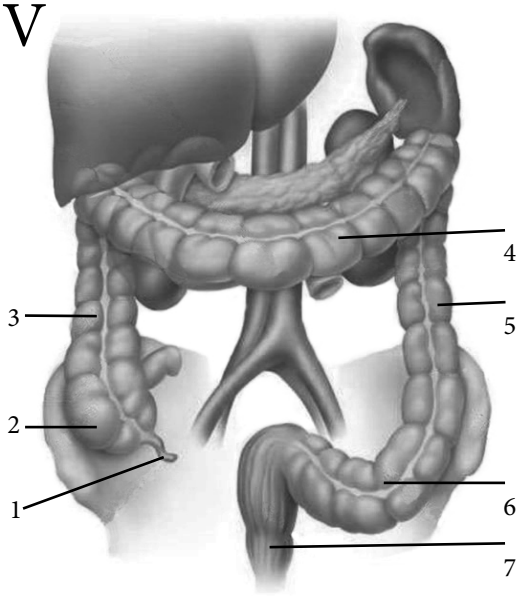

II




III




IV

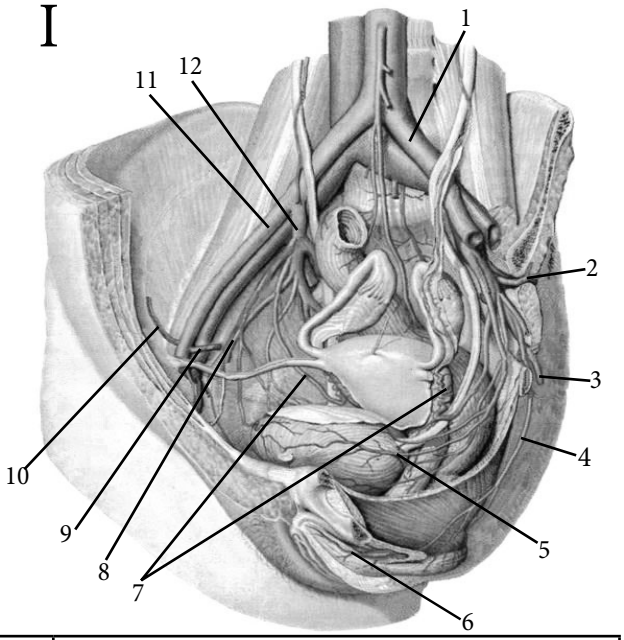



| I | The abdominal organs |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| II | The organs of retroperitoneal space |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| III | The parts of the small intestine |
| 1 | |
| 2 | |
| 3 | |
| IV | Segments of the colon |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

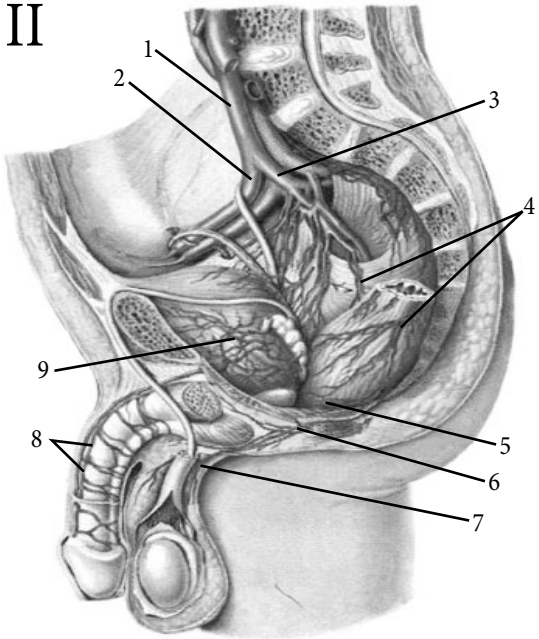
| |
|---|
| 1. Abdominal aorta — |
| 2. Aortic bifurcation — |
| 3. Coeliac trunk — |
| 4. Left gastric artery — |
| 5. Splenic artery — |
| 6. Common hepatic artery — |
| 7. Hepatic artery proper — |
| 8. Superior mesenteric artery — |
| 9. Inferior pancreaticoduodenal artery — |
| 10. Jejunal arteries — |
| 11. Ileal arteries — |
| 12. Ileocolic artery — |
| 13. Right colic artery — |
| 14. Middle colic artery — |
| 15. Inferior mesenteric artery — |
| 16. Left colic artery — |
| 17. Sigmoid artery — |
| 18. Superior rectal artery — |
| 19. Middle suprarenal artery — |
| 20. Testicular artery — |

# 13. THE ARTERIES OF WALLS AND PELVIC ORGANS

I




II




| I | The female pelvis |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

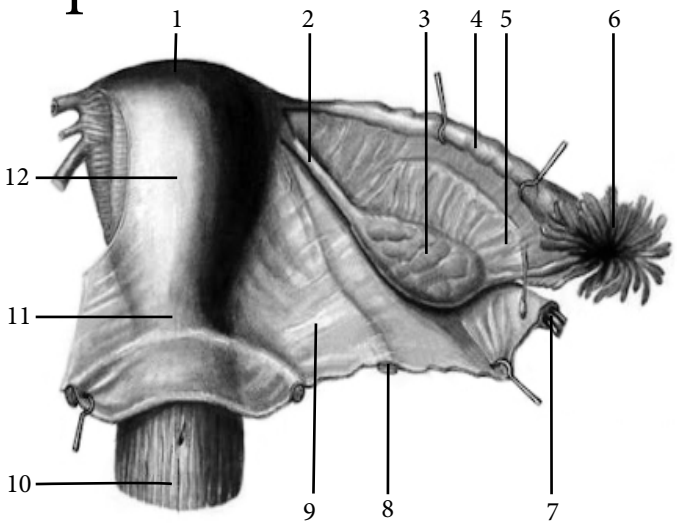
| II | The male pelvis |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

## THE BRANCHES OF THE INTERNAL ILIAC ARTERY

| The parietal branches | Blood supply |
|---|---|
| 1. Iliolumbar artery | |
| 2. Lateral sacral artery | |
| 3. Superior gluteal artery | |
| 4. Inferior gluteal artery | |
| 5. Obturator artery | |
| **The visceral branches** | |
| 1. Umbilical artery | |
| 2. Inferior vesical artery | |
| 3. Uterine artery | |
| 4. Vaginal branch | |
| 5. Middle rectal artery | |
| 6. Internal pudendal artery | |

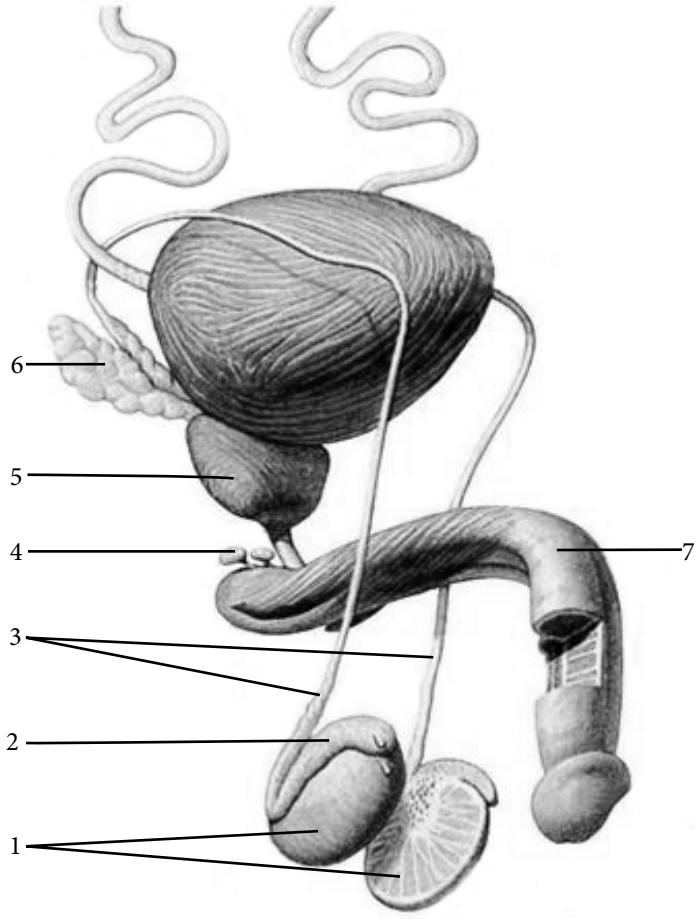
# MATERIALS FOR REPETITION

I




| I | The female genitalia |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

II




| II | The male genitalia |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

| |
|---|
| 1. Common iliac artery — |
| 2. Internal iliac artery — |
| 3. Iliolumbar artery — |
| 4. Lateral sacral artery — |
| 5. Superior gluteal artery — |
| 6. Inferior gluteal artery — |
| 7. Obturator artery — |
| 8. Pubic branch — |
| 8. Umbilical artery — |
| 9. Superior vesical artery — |
| 11. Inferior vesical artery — |
| 12. Uterine artery — |
| 13. Ovarian and tubal branches — |
| 13. Vaginal branch — |
| 14. Middle rectal artery — |
| 15. Internal pudendal artery — |
| 16. Inferior rectal artery — |
| 17. Perineal artery — |
| 19. Dorsal artery of penis (clitoris) — |
| 20. Deep artery of penis (clitoris) — |

# TESTS «KROK - 1»

1. In liver surgery, remember that the liver triad includes the following artery:
A - Common hepatic artery
B - Right hepatic artery
C - Left hepatic artery
D - Hepatic artery proper
E - None of the above

2. At operations in the field of a big curvature of a stomach, it is necessary to remember that there anastomose:
A - Left and right omental arteries
B - Left and right gastric arteries
C - Left gastric and right omental arteries
D - Right gastric and left omental arteries
E - The right gastric and right omental artery

3. If the inferior gluteal artery is damaged, which muscle will be disrupted?
A - Gluteus maximus
B - Gluteus medius
C - Gluteus minimus
D - Levator ani
E - Musculus cremaster

4. During the operation in the area of the suprapiriform foramen, the surgeon damaged the artery, which?
A - Medial sacral
B - Lateral sacral
C - Superior gluteal
D - Obturator
E - Inferior gluteal

5. When removing the appendix, the doctor must ligate the artery that supplies it. Which artery should the doctor ligate?
A - Ileocolic
B - Right colic
C - Middle colic
D - Left colic
E - Appendicular artery

6. During the operation in the cardiac part of the stomach, the surgeon damaged a blood vessel, which is located on his small curvature. Which vessel is damaged?
A - Splenic artery
B - Common hepatic artery
C - Left gastric artery
D - Right gastric artery
E - Gastroduodenal artery

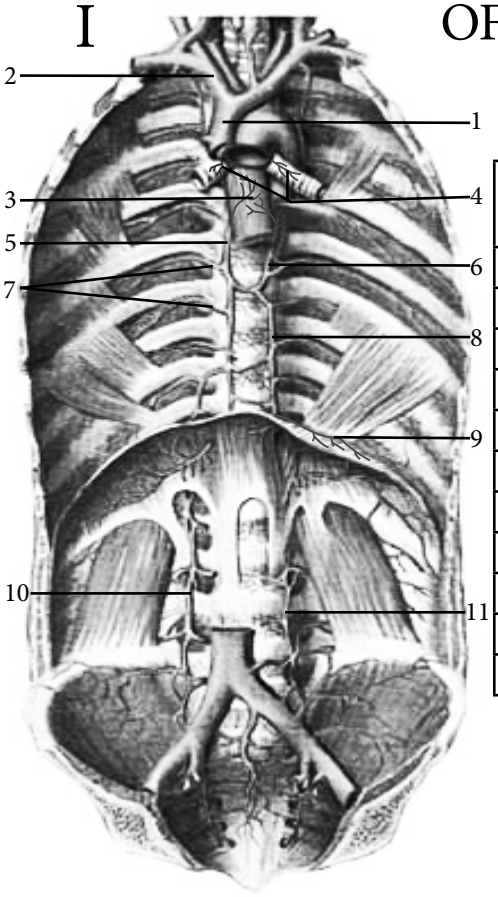
7. During surgery on the kidneys, the vessel that supplies to the adrenal gland and originates is damaged from the renal artery. Which vessel is damaged?
A - Superior suprarenal artery
B - Middle suprarenal artery
C - Inferior suprarenal artery
D - Renal artery
E - Inferior phrenic artery

8. The patient due to thrombosis of the superior mesenteric artery impaired blood supply to the pancreas. What the branch does not work?
A - Anterior superior pancreaticoduodenal artery
B - Inferior pancreaticoduodenal artery
C - Posterior superior pancreaticoduodenal artery
D - Gastroduodenal artery
E - Ileocolic artery

# 14. THE SUPERIOR VENA CAVA:

## VEINS OF THE WALLS AND ORGANS OF THE THORACIC CAVITY

I

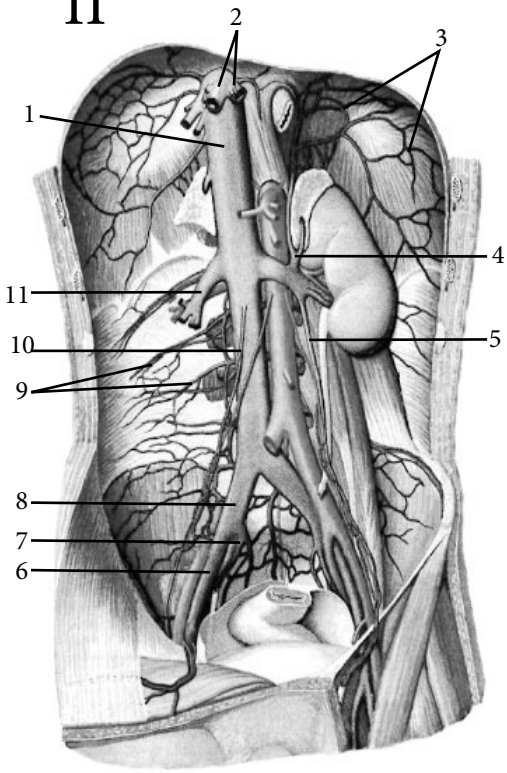



| I | The superior vena cava |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

# THE INFERIOR VENA CAVA:

## ITS TOPOGRAPHY, ROOTS AND TRIBUTARIES

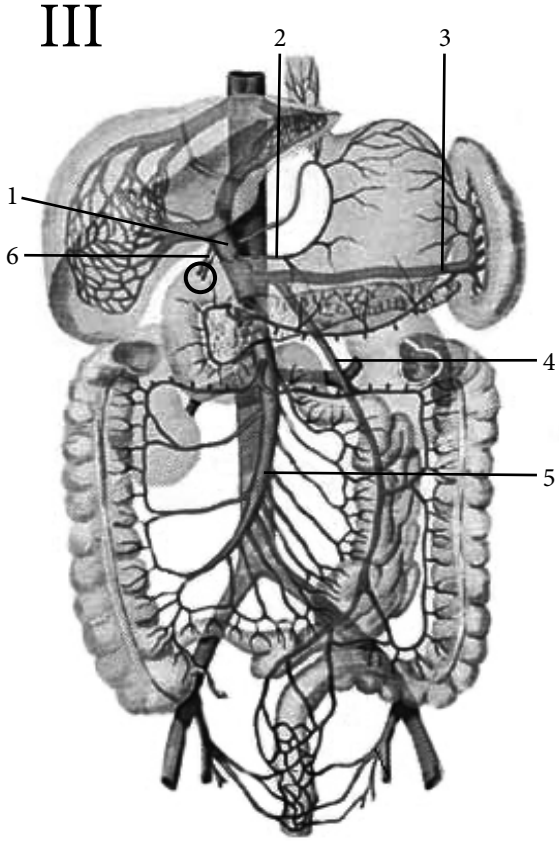
II




| II | The inferior vena cava |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

# THE HEPATIC PORTAL VEIN:
## ITS TOPOGRAPHY, ROOTS AND TRIBUTARIES

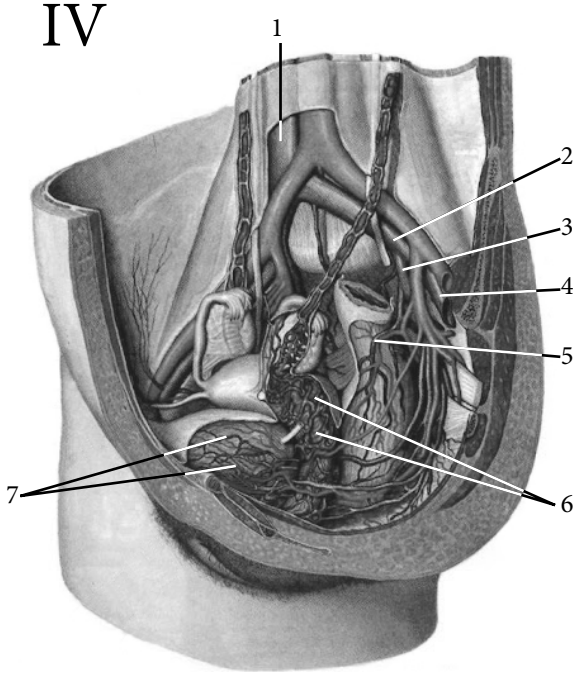
III




| III | The hepatic portal vein |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

## PELVIC VEINS

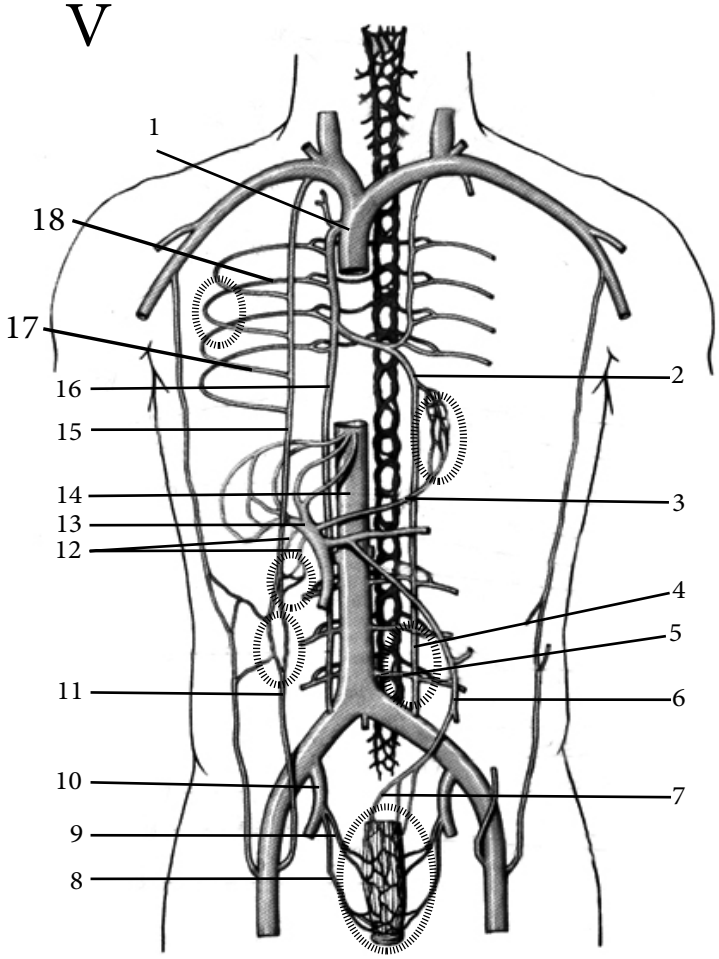
IV




| IV | The internal iliac vein |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

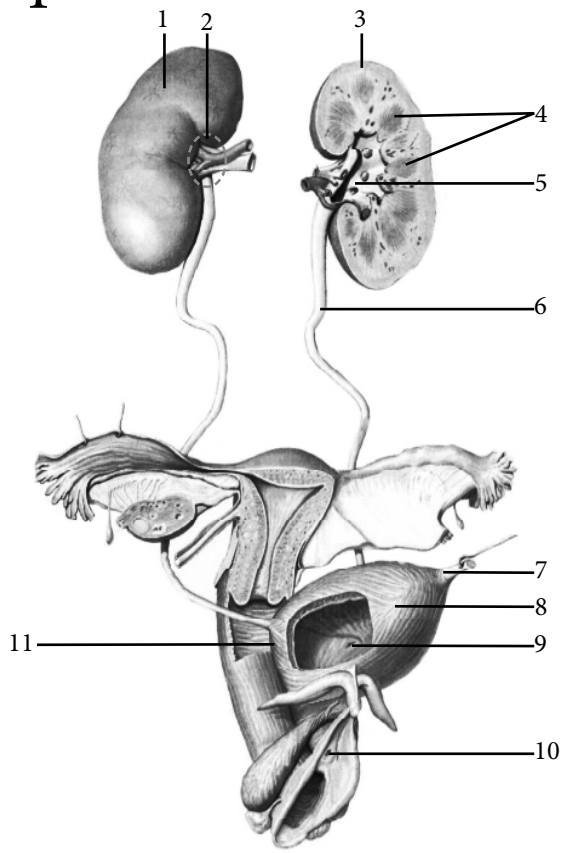
# THE CAVA-CAVAL AND PORTOCAVAL ANASTOMOSES

V



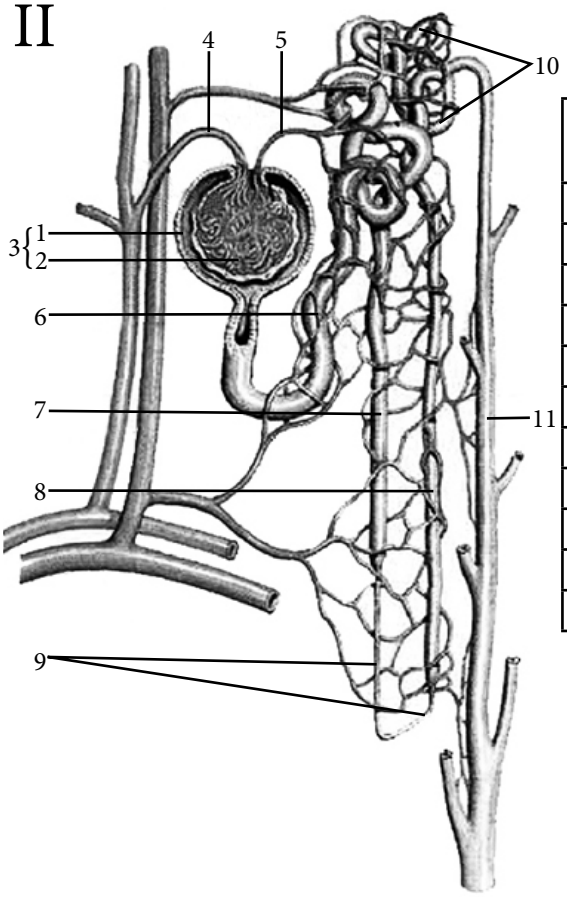

| V | The veins that form anastomoses |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |

I




| I | The urinary system |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

II




| II | The structure of the nephron |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

# ANATOMICAL TERMINOLOGY

| |
|---|
| 1. Superior vena cava — |
| 2. Azygos vein — |
| 3. Right ascending lumbar vein — |
| 4. Posterior intercostal veins — |
| 5. Hemi-azygos vein — |
| 6. Accessory hemi-azygos vein — |
| 7. Superior phrenic veins — |
| 8. Inferior vena cava — |
| 9. Inferior phrenic veins — |
| 10. Lumbar veins — |
| 11. Renal vein — |
| 12. Suprarenal vein — |
| 13. Testicular vein — |
| 14. Pampiniform plexus — |
| 15. Hepatic veins — |
| 16. Hepatic portal vein — |
| 17. Prepiloric vein — |
| 18. Para-umbilical veins — |
| 19. Superior mesentric vein — |
| 20. Splenic vein — |

# TESTS «KROK - 1»

1. A forensic examination revealed a bullet wound to the right lumbar region with damage to a large vessel to the right of the aorta. Which vessel is damaged?
A - The superior vena cava
B - The inferior vena cava
C - The portal vein
D - Splenic vein
E - The superior mesenteric vein

2. During hepato-duodenal ligament surgery, which vein can be damaged?
A - The superior mesenteric vein
B - The inferior mesenteric vein
C - Splenic vein
D - The portal vein
E - Hepatic veins

3. Examination of the patient revealed venous thrombosis of the rectal venous plexus. By what veins is it formed?
A - Superior and inferior rectal
B - Right and left rectal
C - Superior, middle and inferior rectal
D - Lateral sacral and superior rectal
E - Internal pudendal and inferior rectal

4. A nearby vessel was damaged during bile duct surgery. Which vessel is damaged?
A - Splenic vein
B - The portal vein
C - Hepatic veins
D - The superior mesenteric vein
E - The inferior mesenteric vein

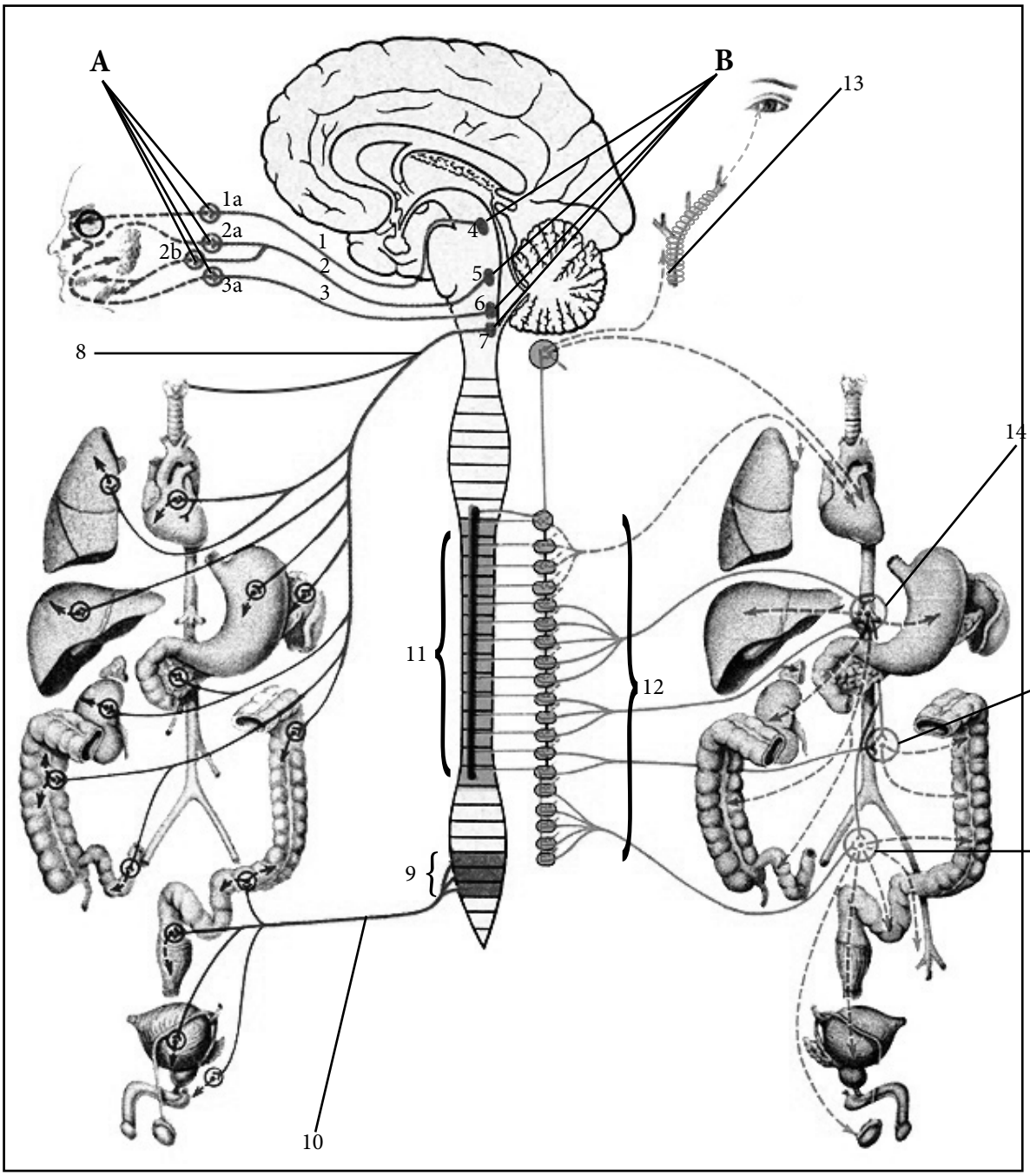
5. When performing surgery on the head of the pancreas, which vascular damage should be avoided?
A - The superior mesenteric vein
B - The inferior mesenteric vein
C - Splenic vein
D - All of the above
E - None of the above

6. The patient has a stab wound to the anterior-lateral surface of the torso at the level of IV-V lumbar vertebrae. At this dark bleeding. Which vessel is damaged?
A - Splenic vein
B - Lumbar veins
C - Right renal vein
D - The inferior vena cava
E - Left hepatic vein

7. During the operation in the perineum was observed dark bleeding. Which venous formation is damaged?
A - The inferior vesical vein
B - Internal pudendal vein
C - Venous vesical plexus
D - Venous prostatic plexus
E - Inferior rectal vein

8. At removal of a prostate gland which bleeding of a venous plexus can be observed?
A - Scrotal
B - Vesical
C - Prostatic
D - Rectal
E - Pampiniform

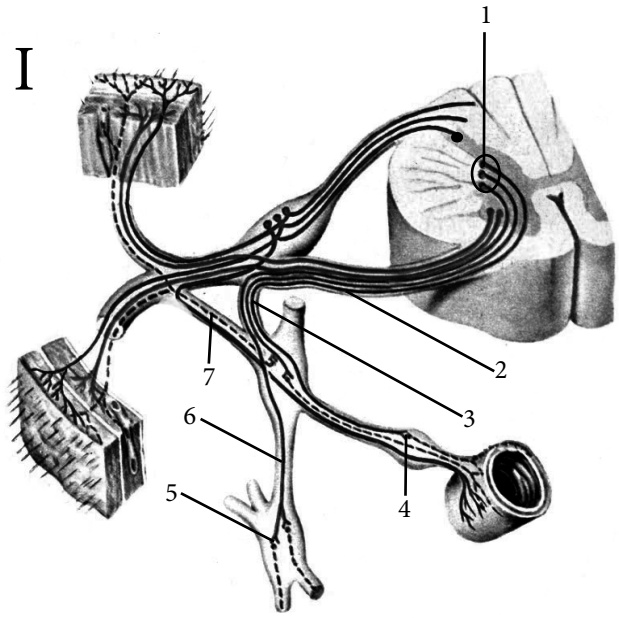
# 15. AUTONOMIC NERVOUS SYSTEM




| | |
|---|---|
| A | |
| 1 | |
| 1a | |
| 2 | |
| 2a | |
| 2b | |
| 3 | |
| 3a | |
| B | |
| 4 | |

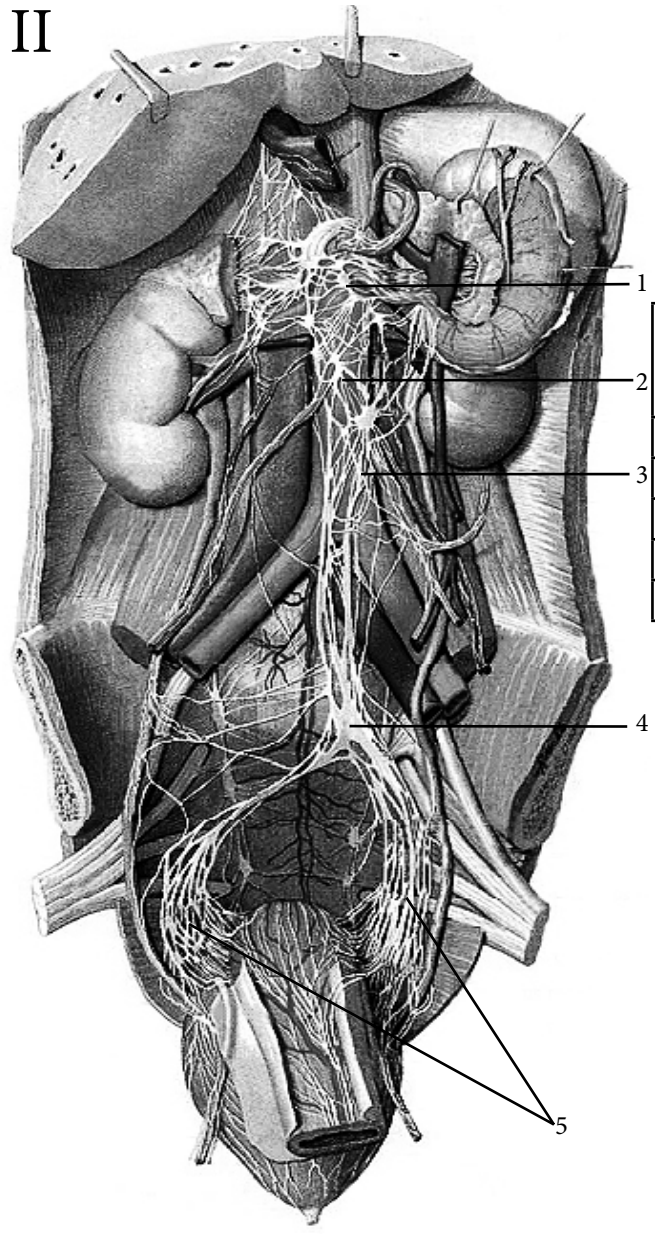
| | |
|---|---|
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |

I



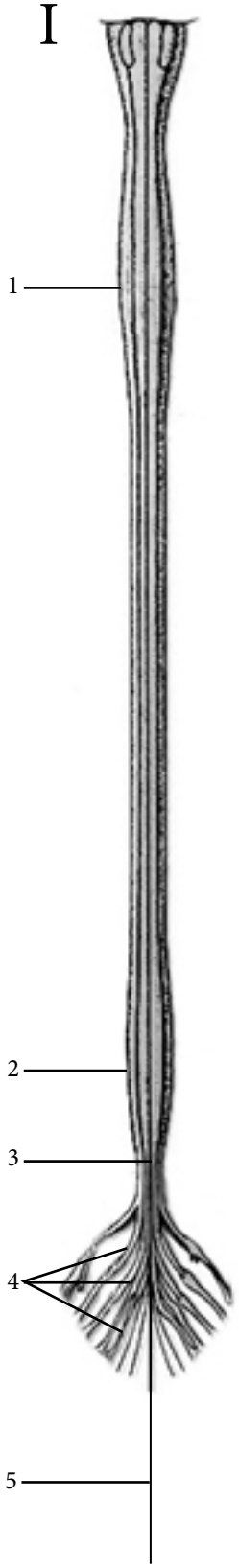

| I | Structure of the vegetative reflex arc |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

II

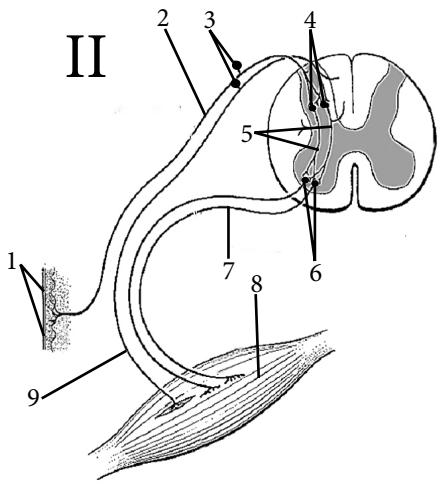



| II | The vegetative plexuses of the abdominal cavity and pelvis |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

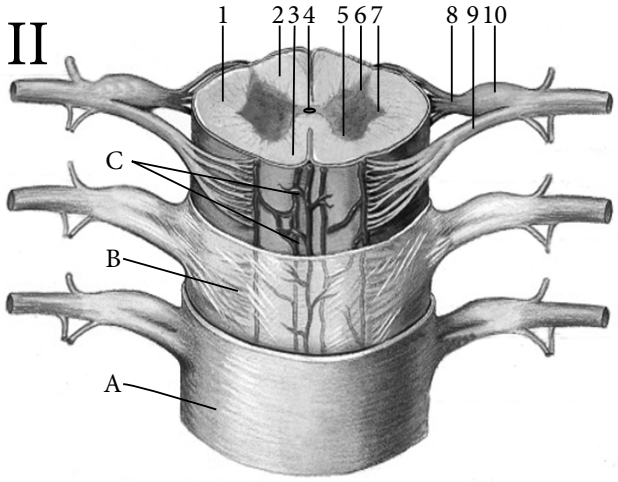
I




II




II




| I | The spinal cord — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| II | The structure of a simple reflex arc |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| III | The structure of the spinal cord |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| A | |
| B | |
| C | |

| |
|---|
| 1. Parasympathetic nervous system — |
| 2. Sympathetic nervous system — |
| 3. Preganglionic nerve fibers — |
| 4. Postganglionic nerve fibers — |
| 5. Ciliary ganglion — |
| 6. Pterygopalatine ganglion — |
| 7. Submandibular ganglion — |
| 8. Sublingual ganglion — |
| 9. Otic ganglion — |
| 10. Sympathetic trunk — |
| 11. White rami communicantes — |
| 12. Grey rami communicantes — |
| 13. Interganglionic branch — |
| 14. Stellate ganglion — |
| 15. Thoracic aortic plexus — |
| 16. Coeliac plexus — |
| 17. Superior and inferior mesentric plexuses — |
| 18. Superior and inferior hypogastric plexuses — |
| 19. Sacral parasympathetic nuclei — |
| 20. Pelvic splanchnic nerves — |

# TESTS «KROK - 1»

1. Due to the merger of the inferior cervical and superior thoracic ganglions of the sympathetic trunk in 75% of cases ganglion is formed. Which?
A - Ciliary
B - Pterygopalatine
C - Starellate
D - Impar
E - Cardiac

2. As a result of merging of roots of V - IX thoracic nodes of a sympathetic trunk the nerve which is a part of an abdominal plexus is formed. Which nerve is formed?
A - Greater splanchnic nerve
B - Lesser splanchnic nerve
C - Superior cervical cardiac nerve
D - Inferior cervical cardiac nerve
E - Phrenic nerve

3. During the operation, the surgeon operates in the area of the coeliac trunk. Which plexus should the doctor remember?
A - Coeliac
B - Hypogastric
C - Superior mesenteric
D - Inferior mesentery
E - Intermesentric

4. The central part of the parasympathetic nervous system (cranial part) includes the parasympathetic nuclei of the following cranial nerves:
A - III, VII, IX, X
B - III, IV, VI, VII
C - VII, VIII, IX, X
D - V, VI, VII, VIII
E - IV, V, VI, VII

5. The central part of the sympathetic nervous system includes the lateral grey column and the intermadiolateral nuclei, which located between the anterior and posterior horns of the gray matter of the spinal cord. In which segments7
A - Th1-Th12
B - L1 - L5
C - C1 - C8
D - S1 - S5
E - C8 - L2

6. As a result of spinal cord injury in the area of Th10-Th11, the patient developed acute renal failure. What a nerve injured?
A - Greater splanchnic nerve
B - Lesser splanchnic nerve
C - Vagus nerve
D - Phrenic nerve
E - Renal nerve

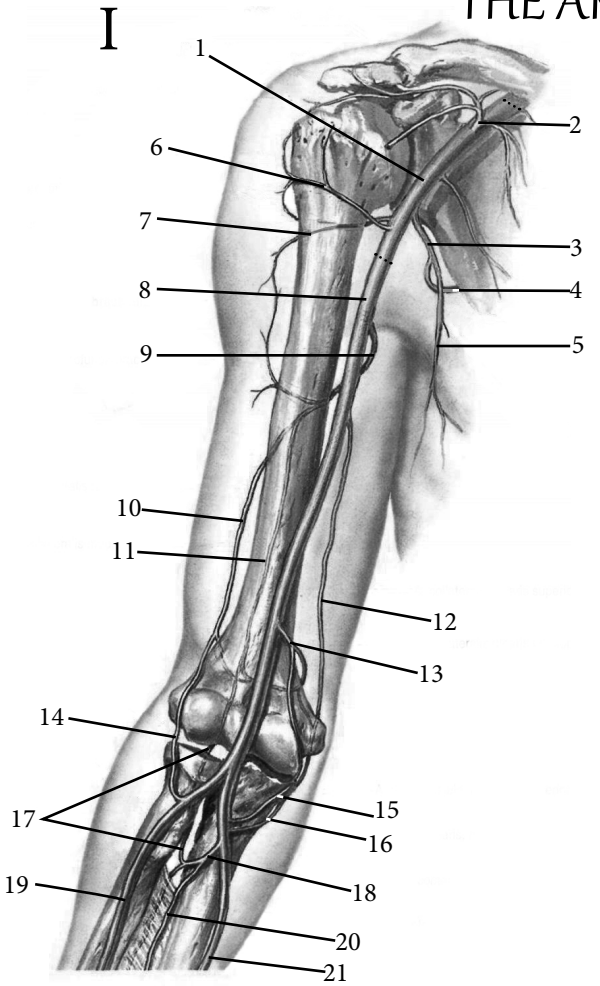
7. At the patient after of a craniocerebral trauma disturbance of peristalsis of intestines is observed. It due to damage:
A - Vagus nerve
B - Phrenic nerve
C - Duodenal nerve
D - Jejunal nerve
E - Iliac nerve

8. The source of parasympathetic innervation of the pelvic organs is:
A -Sacral plexus
B - Lumbar plexus
C - Coeliac plexus
D - Mesenteric plexus
E - Pelvic splanchnic nerves

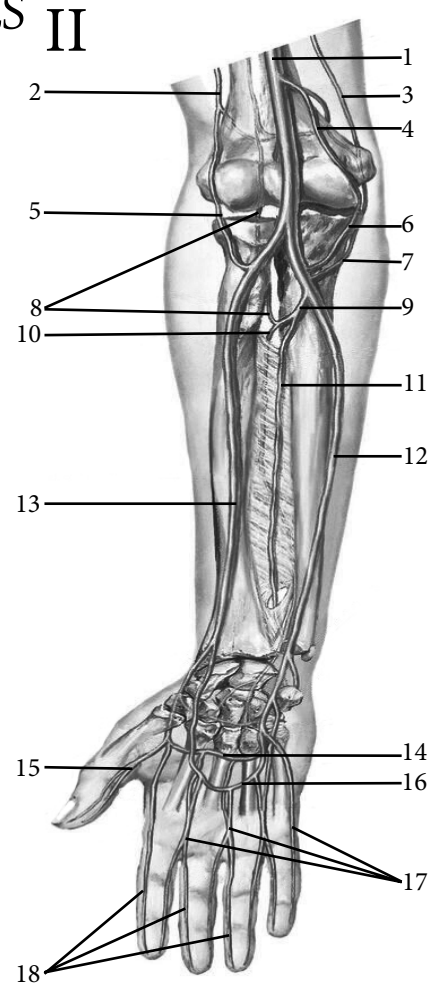
# 16. THE VESSELS OF THE UPPER LIMB

## THE ARTERIES

I



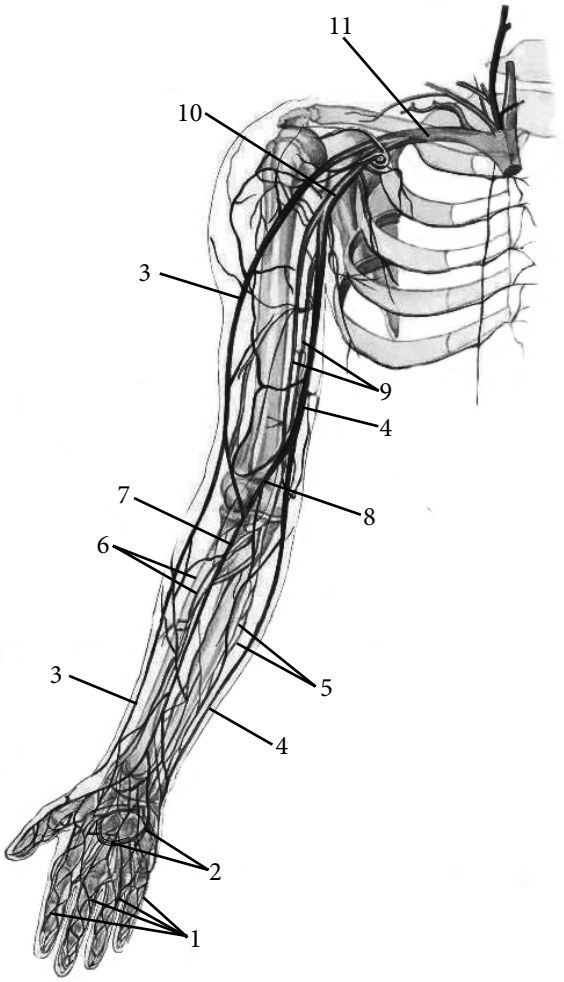

II




| I | The arteries of the shoulder |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |

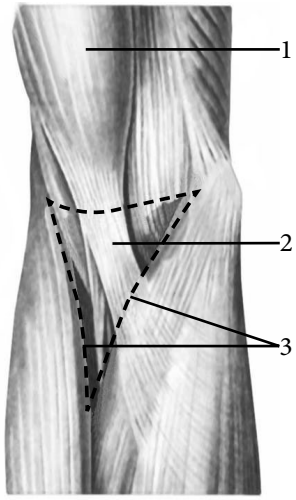
| II | The arteries of the forearm and the hand |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |

# THE VEINS

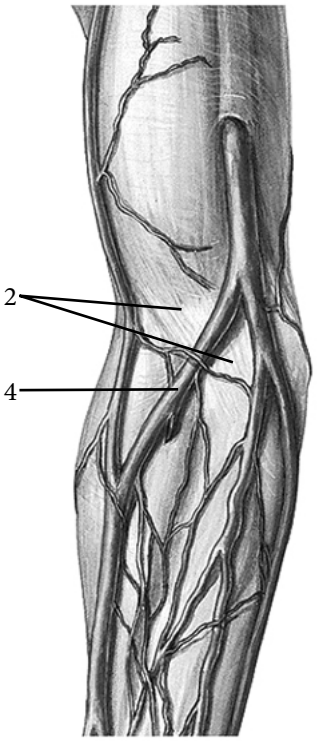



| III | The superficial and deep veins of the upper limb |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

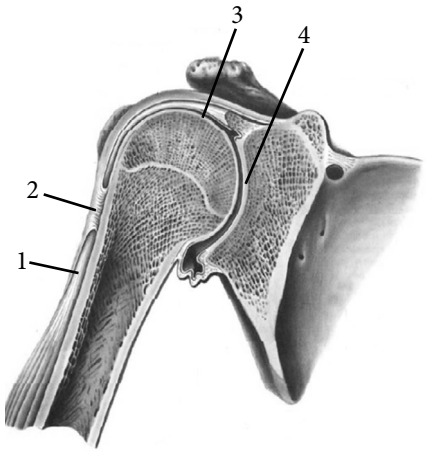
# THE CUBITAL FOSSA



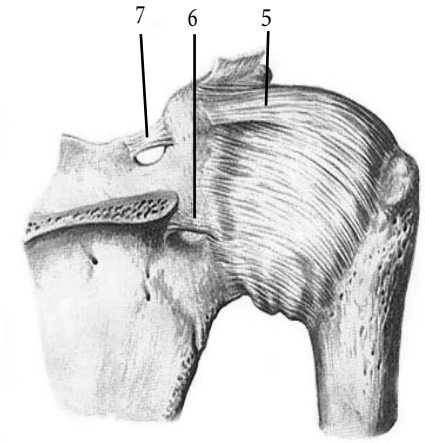

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |



# MATERIALS FOR REPETITION

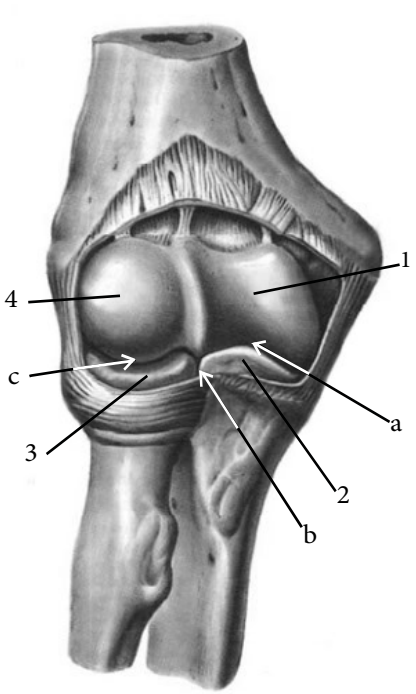


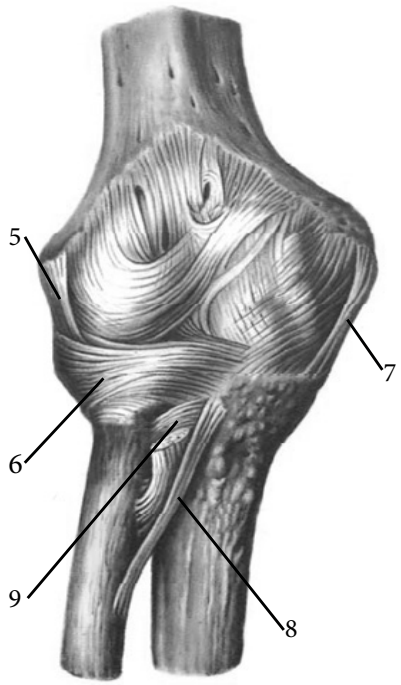

I




| I | The shoulder joint — |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| II | The elbow joint — |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| a | |
| b | |
| c | |

II



# ANATOMICAL TERMINOLOGY

| |
|---|
| 1. Axillary artery — |
| 2. Superior thoracic artery — |
| 3. Thoraco-acromial artery — |
| 4. Lateral thoracic artery — |
| 5. Subscapular artery — |
| 6. Anterior circumflex humeral artery — |
| 7. Brachial artery — |
| 8. Deep artery of arm — |
| 9. Superior ulnar collateral artery — |
| 10. Ulnar artery — |
| 11. Common interosseus artery — |
| 12. Radial artery — |
| 13. Recurrent radial artery — |
| 14. Deep palmar arch — |
| 15. Princeps pollicis artery — |
| 16. Superficial palmar arch — |
| 17. Cephalic vein — |
| 18. Basilic vein — |
| 19. Median cubital vein — |
| 20. Dorsal venous network of hand — |

# TESTS «KROK - 1»

1. The patient has an injury in the axillary area. There is arterial bleeding. Which artery is damaged?
A - a. profunda brachii
B - a. brachialis
C - a. axillaris
D - a. ulnaris
E - a. subciavia

2. The patient has bleeding from a wound on the anterior surface of the lateral forearm. Which artery is damaged?
A - a. radialis
B - a. ulnaris
C - a. brachiais
D - a. profunda brachii
E - a. interossea

3. The patient has arterial bleeding from a wound in the middle of the hand. Which vessel is damaged?
A - arcus palmaris superficialis
B - a. ulnaris
C - a. interossea communis
D - a. radialis
E - a. princeps policis

4. On which artery can you determine the pulse in the forearm?
A - a. ulnaris
B - a. radialis
C - a. brachialis
D - a. interosea anterior
E - a. posterior interest

5. As a result of the injury, the victim has arterial bleeding from the medial shoulder. What artery damaged?
A - a. brachialis
B - a. axillaris
C - a. radialis
D - a. ulnaris
E - a. interosea

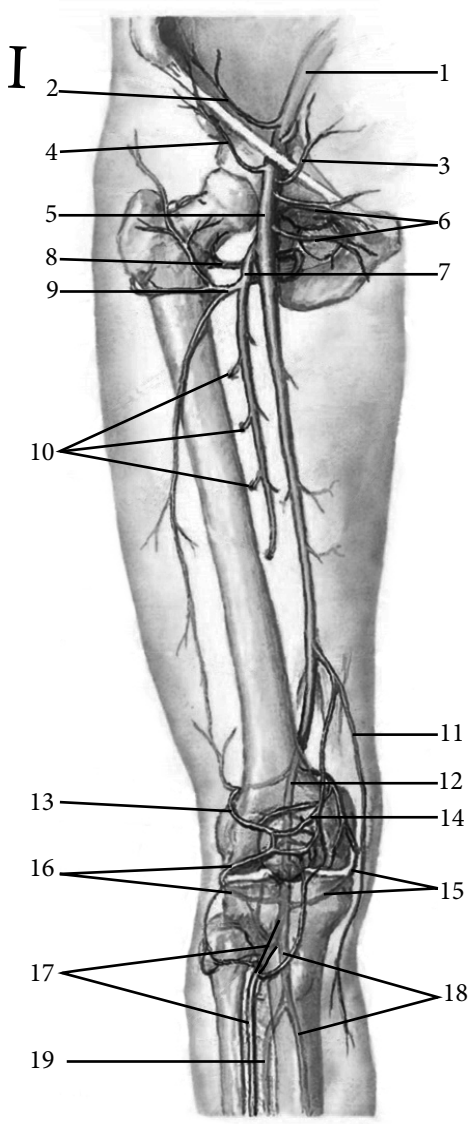
6. When the skin of the medial shoulder is injured, which vein can be damaged?
A - c. cephalica
B - c. basilica
C - v. median cubiti
D - v. brachialis
E - v. median antebrachii

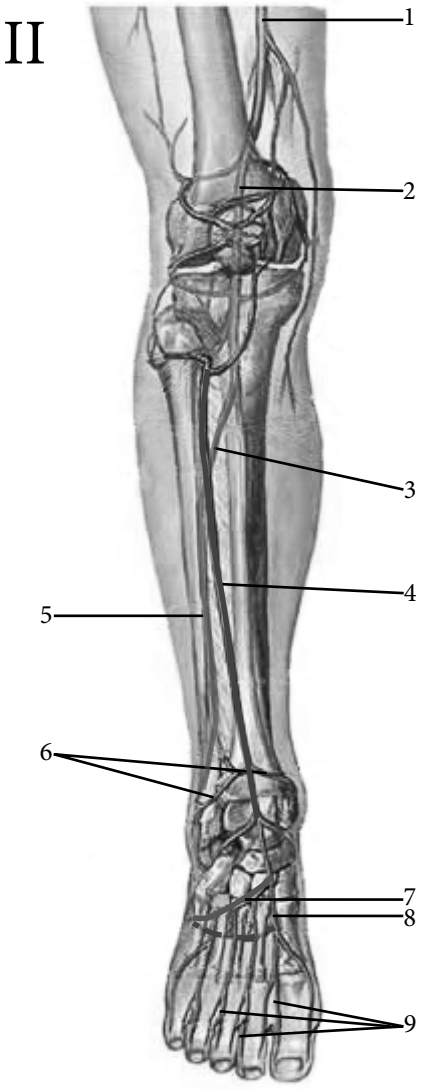
7. A patient with a wound in the deltoido-thoracic sulcus was hospitalized. Examination revealed venous bleeding. Which vein is damaged?
A - Cephalic vein
B - Basilic vein
C - Axillary vein
D - Subclavian vein
E - Brachial vein

8. With a superficial injury to the anterior surface of the forearm, which subcutaneous vein may be damaged?
A - v. cephalica
B - v. basilica
C - v. brachialis
D - v. profunda brachii
E - v. mediana antebrachii

# 17. THE VESSELS OF THE LOWER LIMB

## THE ARTERIES



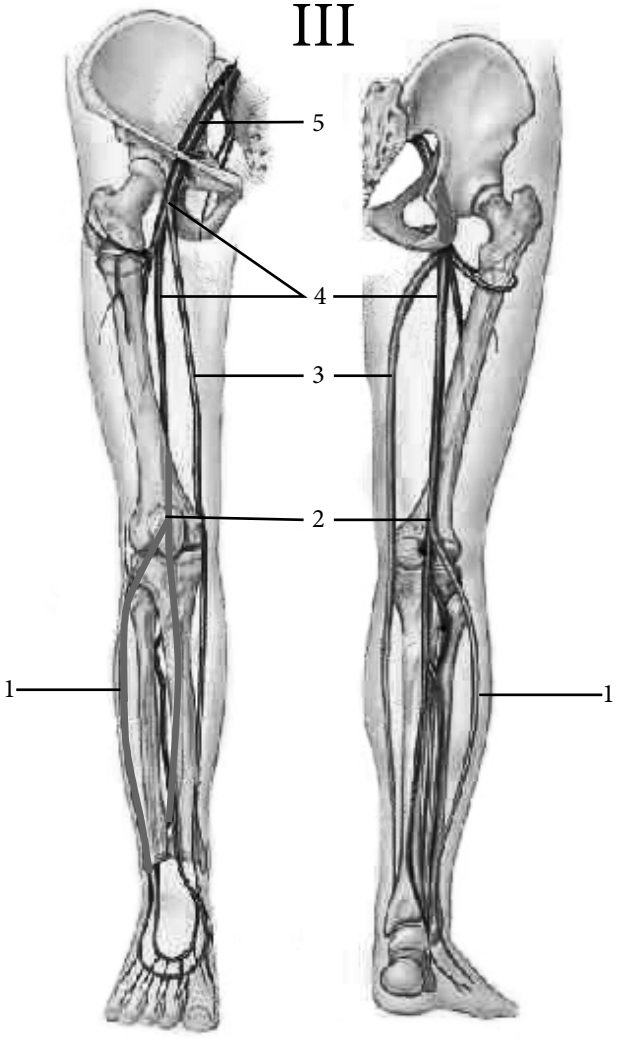




| I | The arteries of thigh |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 12 | |
| 13 | |
| 14 | |

| 15 | |
|---|---|
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| II | The arteries of leg and foot |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

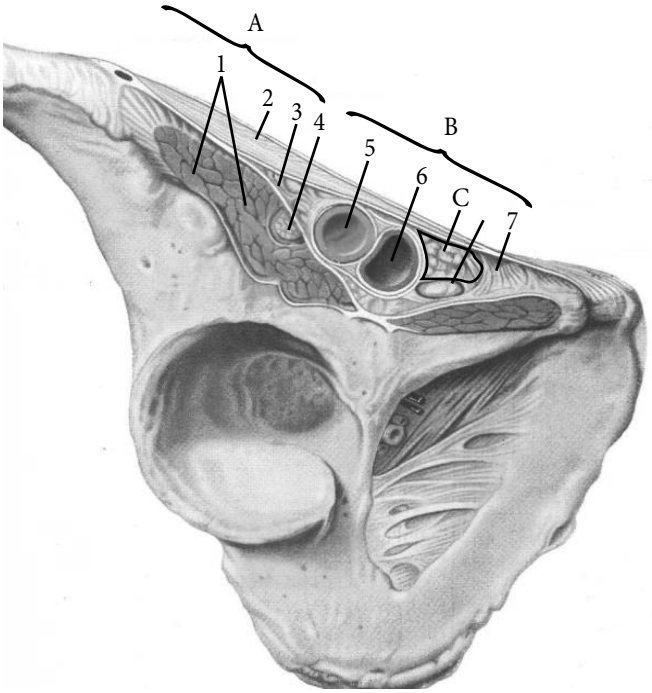
# THE VEINS

## III



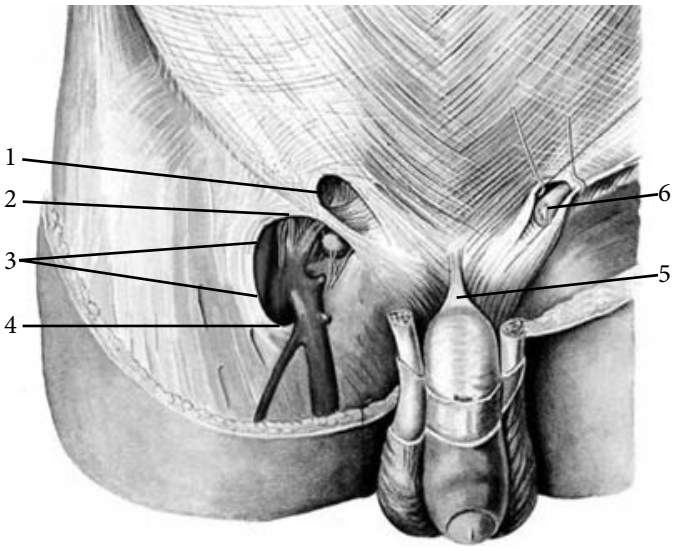

| III | The superficial and deep veins of the lower extremity |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

## IV



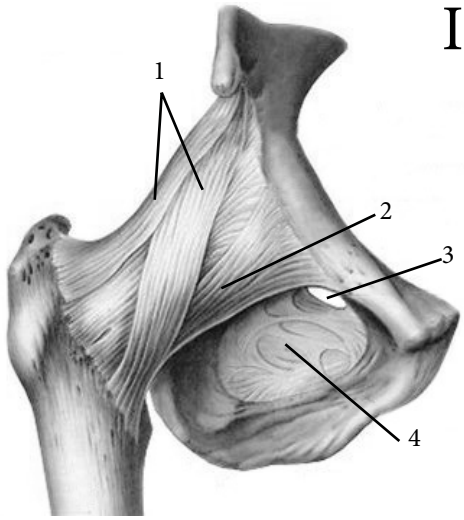

| IV | The muscular and vascular spaces |
|---|---|
| A | |
| B | |
| C | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| V | The inguinal area |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

## V

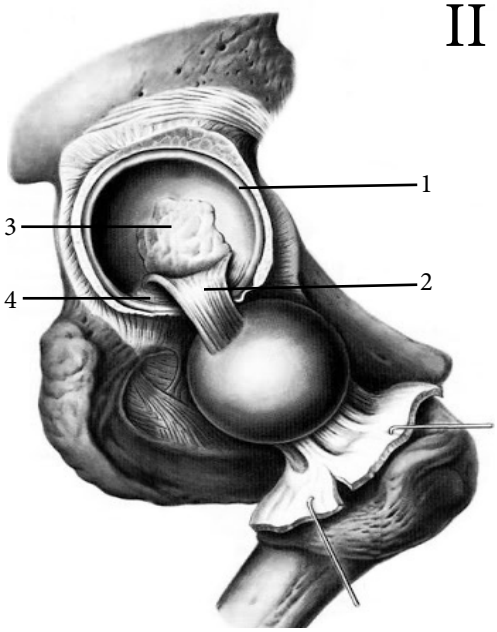


# MATERIALS FOR REPETITION

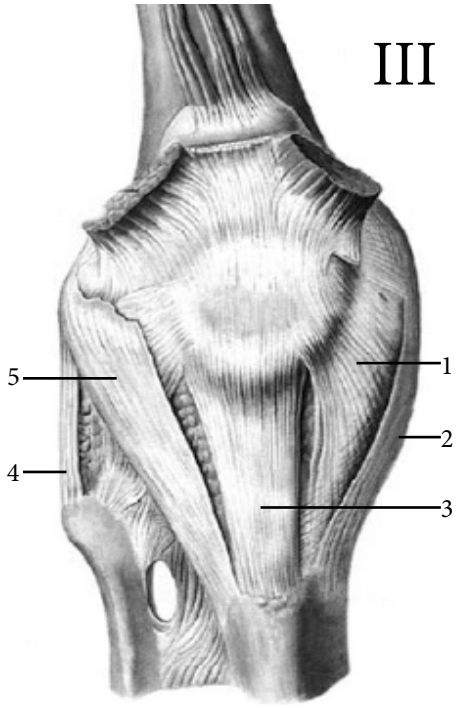
I



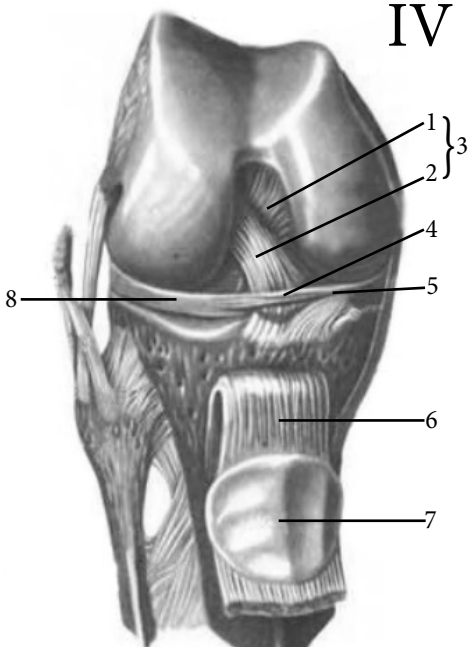

II




III




IV




| | |
|---|---|
| I | The hip joint — *(external structure)* |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| II | The hip joint *(internal structure)* |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| III | The knee joint — *(external structure)* |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| IV | The knee joint *(internal structure)* |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

| |
|---|
| 1. External iliac artery — |
| 3. Superficial circumflex iliac artery — |
| 4. Femoral artery — |
| 5. Superficial epigastric artery — |
| 6. External pudendal artery — |
| 7. Deep artery of thigh — |
| 8. Medial and lateral circumflex femoral artery — |
| 9. Descending genicular artery — |
| 10. Popliteal artery — |
| 11. Posterior tibial artery — |
| 12. Fibular artery — |
| 13. Anterior tibial artery — |
| 14. Dorsal artery of foot — |
| 15. Genicular anastomosis — |
| 16. Calcaneal anastomosis — |
| 17. Popliteal artery — |
| 18. Femoral vein — |
| 19. Great saphenous vein — |
| 20. Small saphenous vein — |

# TESTS «KROK - 1»

1. The patient was hospitalized with a stab wound to the buttocks. Examination of the wound revealed arterial bleeding in the area of the suprapiriform foramen. Which artery was damaged?
A - Lateral sacral
B - Obturator
C - Superior gluteal
D - Inferior gluteal
E - Iliolumbar

2. A patient with a stab wound to the anterio-medial thigh developed arterial bleeding. Which artery need to squeeze urgently?
A - Popliteal artery
B - Deep femoral artery
C - Femoral artery
D - Obturator artery
E - Abdominal aorta

3. A patient with a stab wound to the shin developed severe arterial bleeding. On examination in the lower corner a cut wound is observed in the popliteal fossa. Which artery should be squeezed to stop the bleeding?
A - Popliteal artery
B - Deep femoral artery
C - Femoral artery
D - Obturator artery
E - Abdominal aorta

4. The patient was hospitalized with a stab wound to the thigh. Examination revealed damage to the large arterial vessels in the vascular space under the inguinal ligament. Which vessel is damaged?
A - Aorta
B - Common iliac artery
C - External iliac artery
D - Internal iliac artery
E - Femoral artery

5. Examination of the patient revealed a tumor in the area of the saphenous opening. Which veins can be damaged?
A - Femoral and popliteal
B - Femoral and great saphenous
C - Femoral and small saphenous
D - Great and small saphenous
E - Popliteal and small saphenous

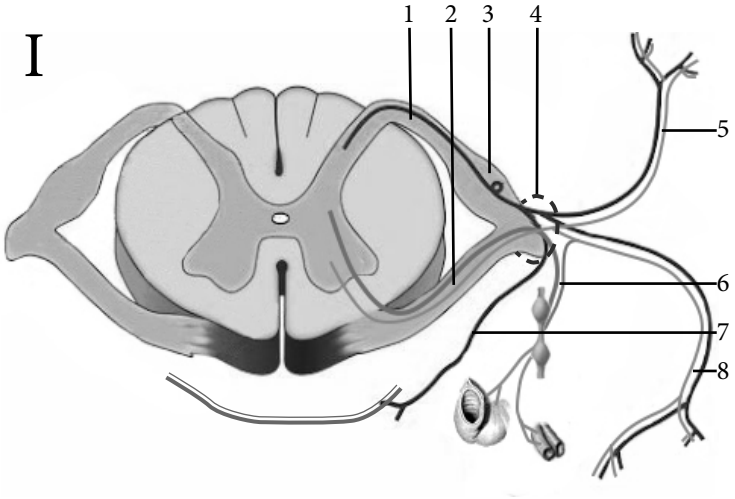
6. At the patient owing to a disease of vessels of the lower extremity, pulse on a back of foot is not defined. Which artery is not functioning?
A - Anterior tibial
B - Posterior tibial
C - Fibular
D - Lateral plantar
E - Dorsal artery of the foot

7. At the patient owing to a cut of skin of a lateral surface of a shin, venous bleeding is observed. Which vein is damaged?
A - Femoral
B - Popliteal
C - Great saphenous
D - Small saphenous
E - Fibular

8. Examination of the woman diagnosed with varicose veins located on the medial surface of the lower limbs. Which vein is affected?
A - Femoral
B - Popliteal
C - Great saphenous
D - Small saphenous
E - External iliac

# 18. THE SPINAL NERVES AND PLEXUSES

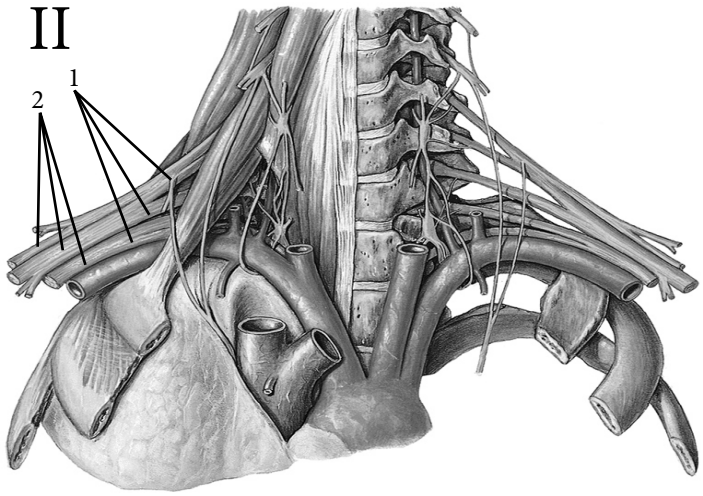
I



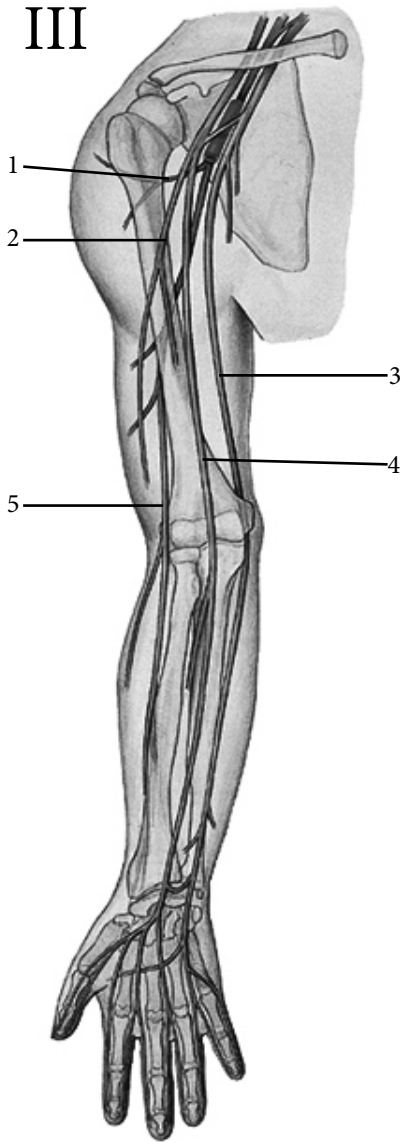

| I | Formation of the spinal nerve |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

## THE BRACHIAL PLEXUS

II



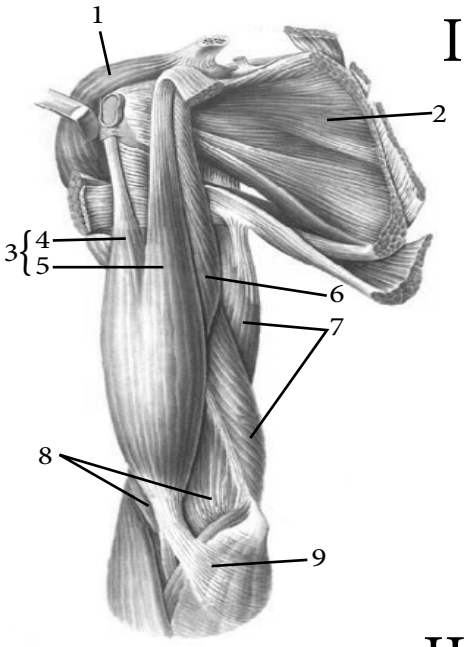

III




| II | General structure of the brachial plexus |
|---|---|
| 1 | |
| | |
| | |
| 2 | |
| | |
| | |
| **III** | **The main branches of the brachial plexus** |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

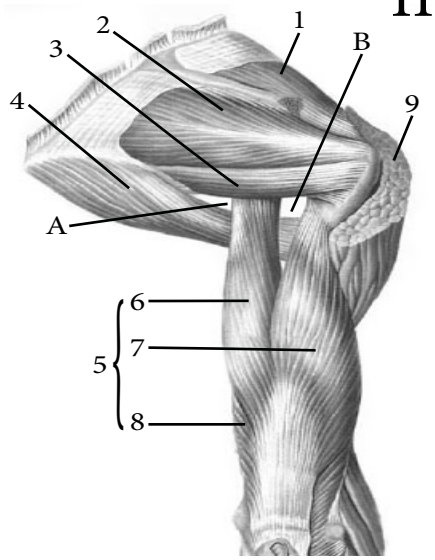
# MATERIALS FOR REPETITION

I



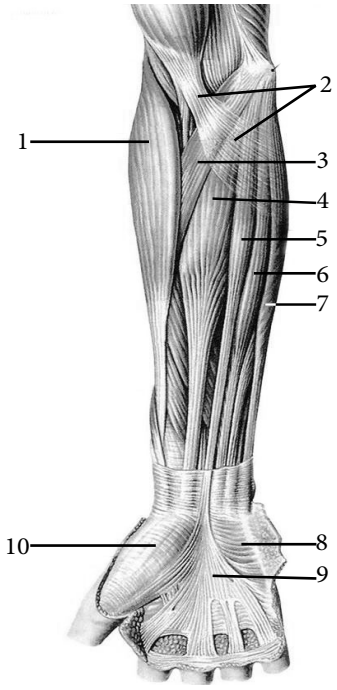

| I | The muscles of the shoulder girdle and the upper arm *(anterior group)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

II




| II | The muscles of the shoulder girdle and the upper arm *(posterior group)* |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| A | |
| B | |

III




| III | The antebrachial muscles |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

| |
|---|
| 1. Brachial plexus — |
| 2. Dorsal scapular nerve — |
| 3. Thoracodorsal nerve — |
| 4. Subclavian nerve — |
| 5. Long thoracic nerve — |
| 6. Lateral and medial pectoral nerves — |
| 7. Suprascapular nerve — |
| 8. Subscapular nerve — |
| 9. Axillary nerve — |
| 10. Median nerve — |
| 11. Ulnar nerve — |
| 12. Median cutaneous nerve of arm — |
| 13. Median cutaneous nerve of forearm — |
| 14. Musculocutaneous nerve — |
| 15. Radial nerve — |
| 16. Posterior cutaneous nerve of arm — |
| 17. Posterior cutaneous nerve of forearm — |
| 18. Lareral cutaneous nerve of forearm — |
| 19. Common palmar digital nerves — |
| 20. Proper palmar digital nerves — |

# TESTS «KROK - 1»

1. After the injury, the patient cannot raise his hand to a horizontal position. Which nerve is damaged?
A - N. axillaris
B - N. ulnaris
C - N. radialis
D - N. suprascapularis
E - N. medianus

2. After a stab wound to the front of the shoulder, the patient cannot bend the arm at the shoulder joint. What a nerve damaged?
A - N. musculocutaneus
B - N. radialis
C - N. ulnaris
D - N. thoracicus longus
E - N. cutaneus brachii medilais

3. After an injury to the axillary cavity, the patient can not unbend the forearm at the elbow joint. Which nerve is damaged?
A - N. medianus
B - N. ulnaris
C - N. radialis
D - N. dorsalis scapulae
E - N. axillaris

4. After a shoulder injury, the patient lost the sensitivity of the skin of the medial surface. Which nerve is damaged?
A - N. axillaris
B - N. ulnaris
C - N. thoracicus longus
D - N. radialis
E - N. cutaneus brachii medialis

5. After injury, the patient can not unbend the fingers of the hand. Which nerve is damaged?
A - Musculocutaneous
B - Radial
C - Ulnar
D - Median
E - Axillary

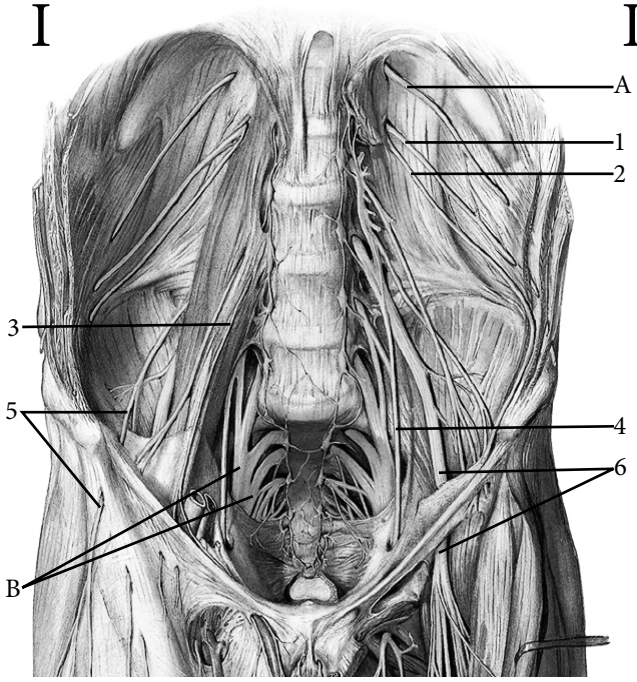
6. The patient has no sensitivity in the area of IV and V fingers of the hand. Which nerve is damaged?
A - N. cutaneus brachii medialis
B - N. cutaneus brachii lateralis
C - N. ulnaris
D - N. medianus
E - N. axillaris

7. The patient has no pain sensitivity of the lateral surface of the forearm. Which nerve is damaged?
A - N. cutaneus antebrachii lateralis
B - N. cutaneus antebrachii medialis
C - N. radialis
D - N. ulnaris
E - N. medianus

8. The patient has no skin sensitivity on the posterior surface of the forearm. Which nerve is damaged?
A - N. radialis
B - N. ulnaris
C - N. medianus
D - N. axillaris
E - N. musculocutaneus

# 19. THE LUMBAR AND SACRAL PLEXUSES

I

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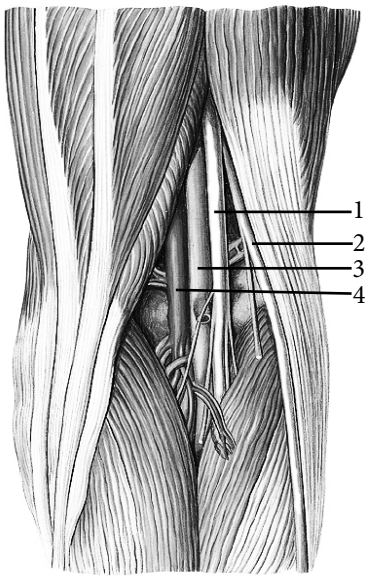
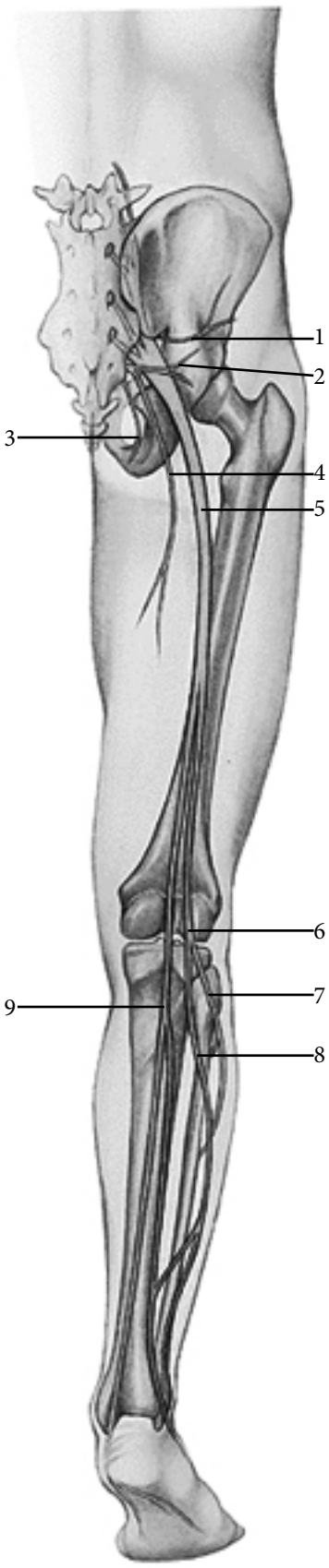
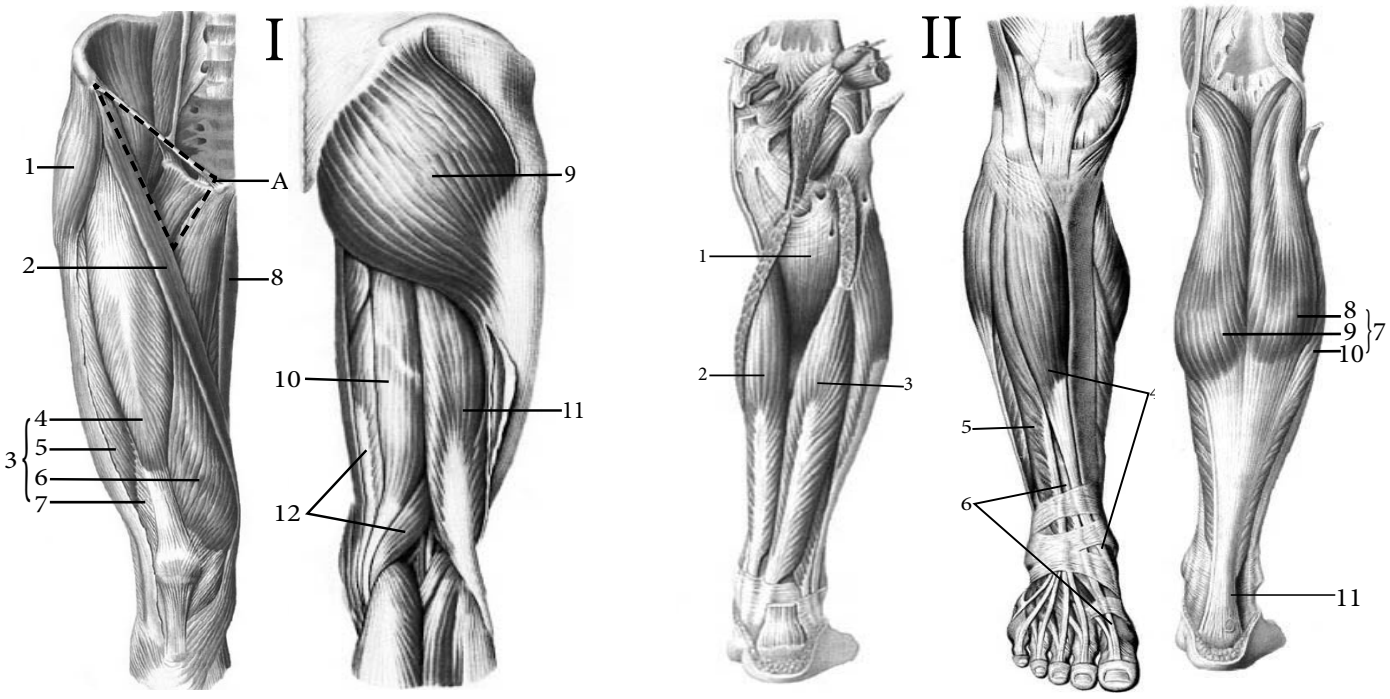



III




| I | Formation lumbar and sacral plexus |
|---|---|
| A | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| B | |
| II | The content of the popliteal fossa |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| III | The main branches of the sacral plexus |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |




| I | The muscles of the thigh |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| II | The muscles of the leg |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

| |
|---|
| 1. Lumbar plexus — |
| 2. Iliohypogastric nerve — |
| 3. Ilio-hypogastric nerve — |
| 4. Genitofemoral nerve — |
| 5. Lateral cutaneous nerve of thigh — |
| 6. Obturator nerve — |
| 7. Femoral nerve — |
| 8. Saphenous nerve — |
| 9. Sacral plexus — |
| 10. Superior gluteal nerve — |
| 11. Inferior gluteal nerve — |
| 12. Pudendal nerve — |
| 13. Dorsal nerve of penis (clitoridis) — |
| 14. Posterior cutaneous nerve of thigh — |
| 15. Sciatic nerve — |
| 16. Tibial nerve — |
| 17. Sural nerve — |
| 18. Common fibular nerve — |
| 19. Lateral sural cutaneous nerve — |
| 20. Superficial fibular nerve — |

# TESTS «KROK - 1»

1. The patient was hospitalized with a wound behind the medial malleolus. Examination revealed damage to the nerve passing behind the bone. Which nerve is damaged?
A - Deep fibular
B - Tibial
C - Gluteal
D - Femoral
E - Obturator

2. The patient received a deep wound in the head of the fibula. At inspection back bending of a foot is impossible, abduction and pronation of the foot, as well as extension of the toes. Which nerve is damaged?
A - Common fibular
B - Gluteal
C - Tibial
D - Femoral
E - Obturator

3. The patient has a wound in the popliteal fossa. During the examination there is no bending of the foot, as well as bending of the toes. Sensitivity skin is absent on the posterior surface of the leg. Which nerve is damaged?
A - Gluteal
B - Fibular
C - Tibial
D - Femoral
E - Obturator

4. The patient has a wound of the medial surface of the thigh. Examination revealed dysfunction of the quadriceps and sartorius muscles, no skin sensitivity. Which nerve is damaged?
A - Gluteal
B - Fibular
C - Tibial
D - Femoral
E - Obturator

5. The patient has no sensitivity to the outer surface of the thigh. Which nerve damage was diagnosed by a doctor?
A - Femoral
B - Gluteal
C - Pudendal
D - Obturator
E - Lateral cutaneous nerve of the thigh

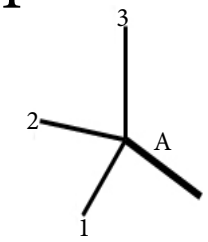
6. The victim has a wound in the lower abdomen in the area of the superficial inguinal ring. What a nerve it can be injured?
A - Iliohypogastric
B - Ilio-inguinal
C - Genitofemoral
D - Obturator
E - Femoral

7. The patient has an injury in the area of the medial surface of the thigh. Which nerve can be affected?
A - Iliohypogastric
B - Ilio-inguinal
C - Genitofemoral
D - Obturator
E - Lateral cutaneous nerve of the thigh

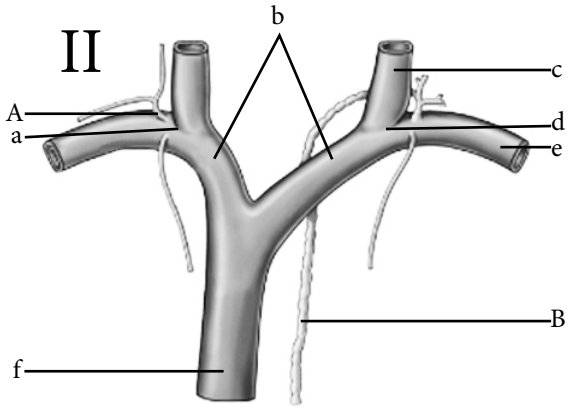
8. Which nerve passes through the musclar space?
A - Iliohypogastric
B - Ilio-inguinal
C - Genitofemoral
D - Obturator
E - Femoral

# 20. THE LYMPHOID SYSTEM

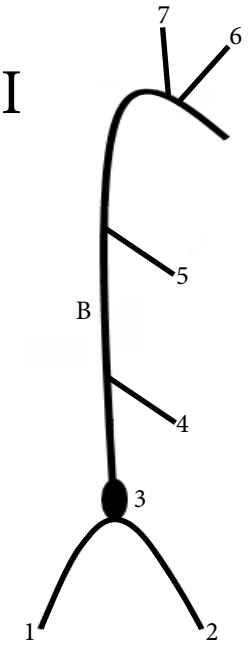
I



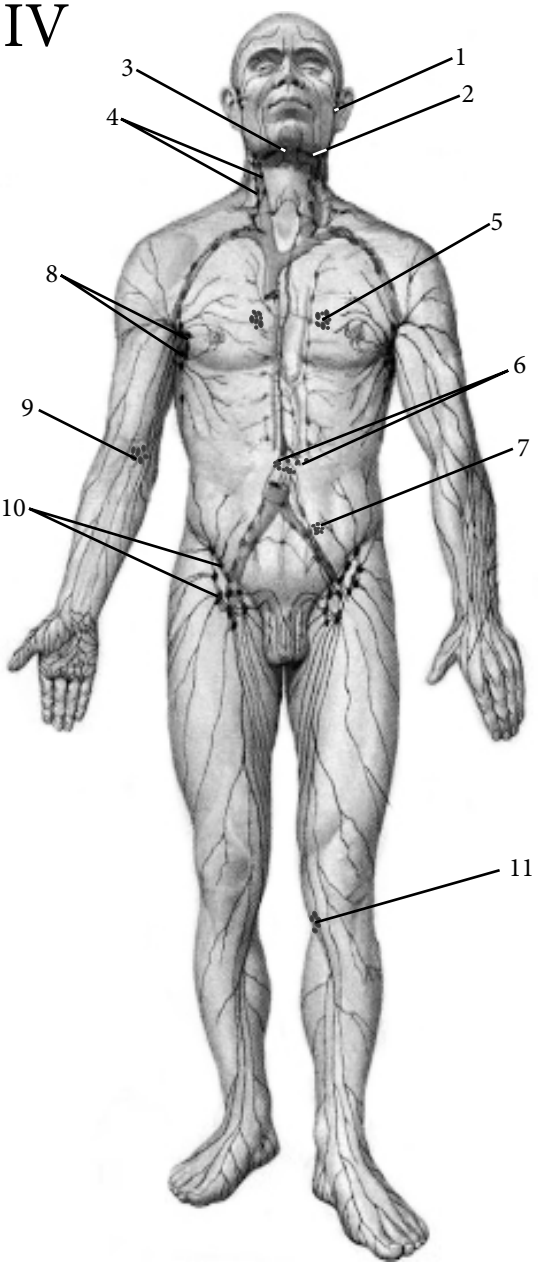

II




III

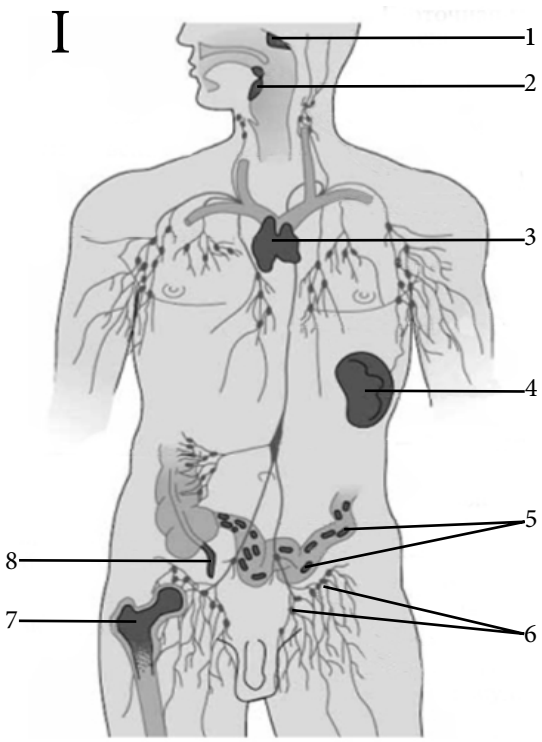



IV



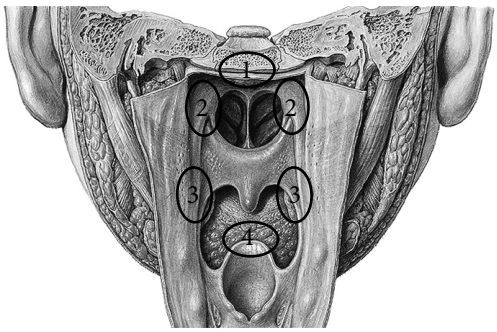

| | |
|---|---|
| I | The right lymphatic duct |
| A | |
| 1 | |
| 2 | |
| 3 | |
| II | Combination lymphatic and venous systems |
| A | |
| B | |
| a | |
| b | |
| c | |
| d | |
| e | |
| f | |
| III | The thoracic duct |
| B | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| IV | The main groups of lymph nodes |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |

I



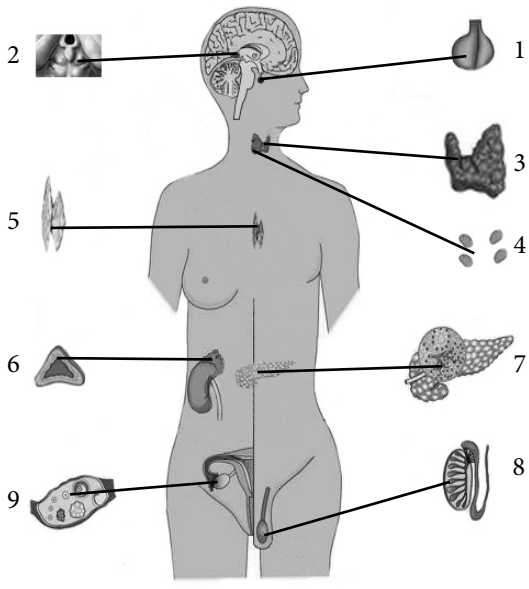

| I | The organs of immune system |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

II




| II | The lymphatic ring of pharynx |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

III




| III | The organs of endocrine system |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

| |
|---|
| 1. Lymphoid system — |
| 2. Red bone marrow — |
| 3. Yellow bone marrow — |
| 4. Thymus — |
| 5. Spleen — |
| 6. Pharyngeal lymphoid ring — |
| 7. Palatine tonsil — |
| 8. Lingual tonsil — |
| 9. Pharyngeal tonsil — |
| 10. Tubal tonsil — |
| 11. Solitary lymphoid nodules — |
| 12. Aggregated lymphoid nodules — |
| 13. Appendicular aggregated lymphoid nodules — |
| 14. Thoracic duct — |
| 15. Right lymphatic duct — |
| 16. Lumbar trunk — |
| 17. Intestinal trunks — |
| 18. Bronchomediastinal trunk — |
| 19. Subclavian trunk — |
| 20. Jugular trunk — |

# TESTS «KROK - 1»

1. The patient has a tumor in the posterior mediastinum. Which lymphatic vessel is most likely to be affected?
A - Lumbar trunk
B - Intestinal trunks
C - Subclavian trunk
D - Right lymphatic duct
E - Thoracic duct

2. What anatomical formation begins the thoracic lymphatic duct?
A - Bronchomediastinal trunk
B - Lumbar trunk
C - Cysterna chili
D - Intestinal trunks
E - Jugular trunk

3. From which parts of the body does the jugular trunk collect lymph?
A - Upper extremities
B - Lower extremities
C - Head and neck
D - Thoracic cavity
E - Abdominal and pelvic cavity

4. Through what anatomical formation of the thoracic lymphatic duct enters from the abdomen into the thoracic cavity?
A - Esophageal hiatus of the diaphragm
B - Aortic hiatus of the diaphragm
C - The opening of the vena cava
D - Central tendon
E - Sternocostal triangle

5. Which lymphatic duct will be infected with the left hand?
A - In the thoracic duct
B - In the right lymphatic duct
C - In the right jugular trunk
D - In the bronchomediastinal trunk
E - In the lumbar trunk

6. Primary lymphatic organs include:
A - Red bone marrow and thymus
B - Spleen
C - Lymphatic follicles of the intestine
D - Lymphatic ring of the pharynx
E - Yellow bone marrow

7. Secondary lymphatic organs include:
A - Spleen and lymph nodes
B - Red bone marrow
C - Thymus
D - Yellow bone marrow
E - None of the above

8. What is the name of the lymphatic vessel that collects lymph from the lower extremities of the pelvic organs and the abdominal cavity?
A - Thoracic duct
B - Lumbar trunk
C - Subclavian trunk
D - Bronchomediastinal trunk
E - Intestinal trunks

# CONTENT

# ПЕРЕЛІК ВИКОРИСТАНОЇ ЛІТЕРАТУРИ

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Навчальне видання

**НЕСКОРОМНА Наталія Владиславівна,**
**ПРУС Руслан Володимирович,**
**МАТЮШЕНКО Пилип Миколайович та ін.**

**ЗОШИТ САМОПІДГОТОВКИ**
**З ДИСЦИПЛІНИ «АНАТОМІЯ ЛЮДИНИ»**

*Частина ІІІ*
*(англійською мовою)*

Технічні редактори: ***П. М. Матюшенко, Г. О. Москва***

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