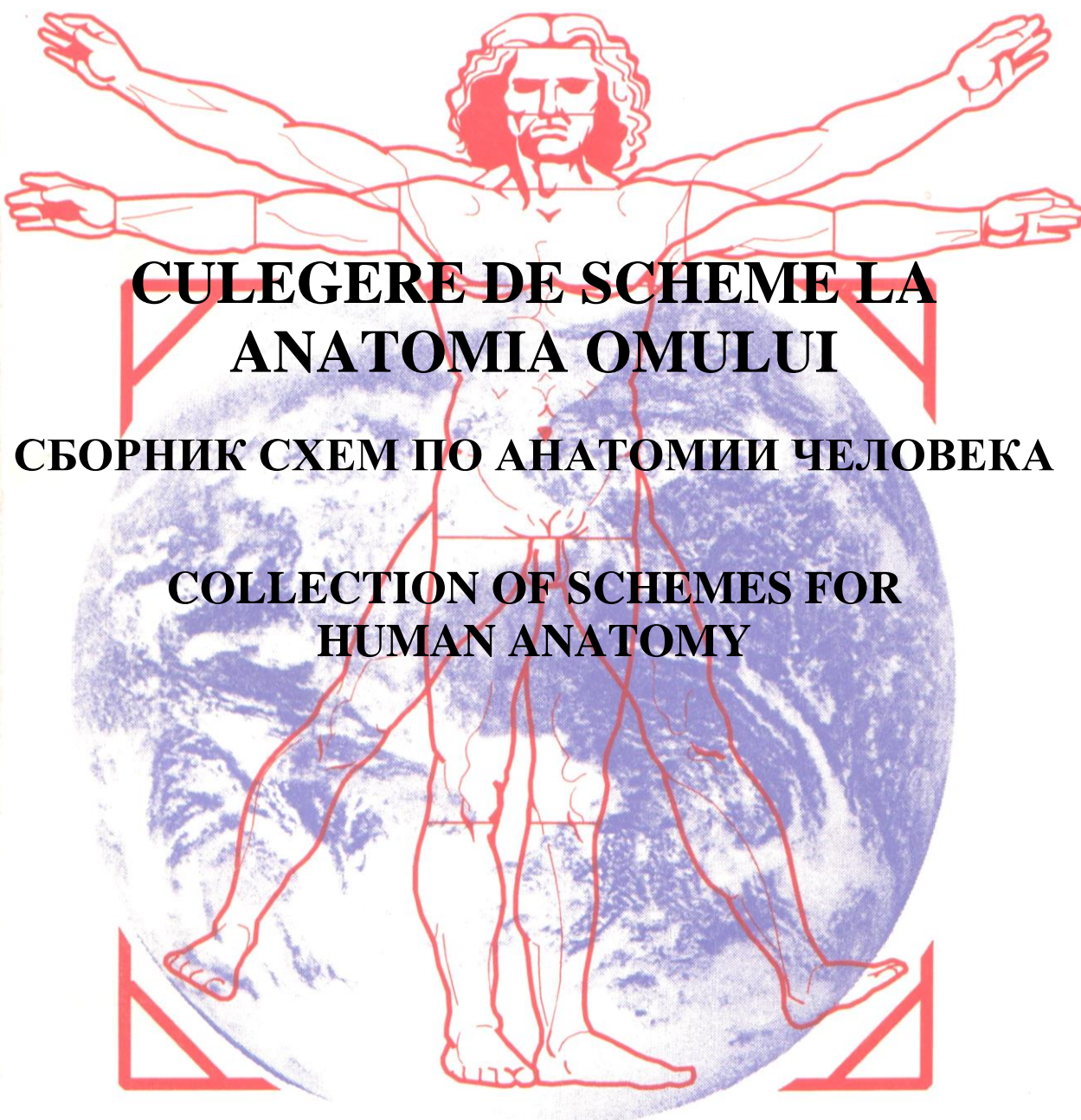


**UNIVERSITATEA DE STAT DE MEDICINĂ ȘI FARMACIE
NICOLAE TESTEMIȚANU**

**I.Catereniuc, M.Ștefanuț, T.Lupașcu, V. Andrieș, D.Batâr,
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ANATOMIA OMULUI**

СБОРНИК СХЕМ ПО АНАТОМИИ ЧЕЛОВЕКА

**COLLECTION OF SCHEMES FOR
HUMAN ANATOMY**

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Recenzenți: MC al AȘM din Belarus,
doctor habilitat în medicină,
profesor universitar, Om emerit

P. Lobko

doctor în medicină,
profesor universitar, Om emerit

I. Podubnâi

Redactor: doctor în medicină,
conferențiar universitar

T. Lupașcu

Redactor terminologie latină:

E. Ștefârța

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M. Tașnic

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Preambul

Prezenta culegere de scheme privind structura și raporturile formațiunilor anatomice urmărește scopul de a facilita studierea celei mai complicate și mai dificile discipline medicale fundamentale – anatomiei sistemice a omului. Schemele reproduse în ea au fost selectate din mai multe surse bibliografice moderne, o parte din ele fiind modificate sau elaborate de către colaboratorii catedrei. În alegerea schemelor ne-am condus atât de importanța cunoașterii structurilor pe care acestea le ilustrează cât și de rolul lor în studierea aprofundată a altor discipline medicale, evitându-se totodată aspectele discutabile sau ipotetice.

Necesitatea reeditării unei astfel de culegeri este evidentă deoarece aceasta, după cum ne-am convins, contribuie la economisirea timpului pentru expunerea materialului din cadrul prelegerilor și lucrărilor de laborator, la conștientizarea de către studenți a informației care ține de domeniul anatomiei omului și, nu în ultimul rând, la unificarea procesului de instruire la catedră. Dat fiind faptul că cunoașterea și reprezentarea grafică a structurii și raporturilor unor formațiuni anatomice sunt obligatorii, culegerea de față poate fi utilă privind pregătirea studenților pentru lucrările de laborator, totalizări și examene.

Nu pretindem la deținerea adevărului absolut, de aceea toate observațiile și sugestiile cititorilor vor fi binevenite și ne vor fi de un real folos.

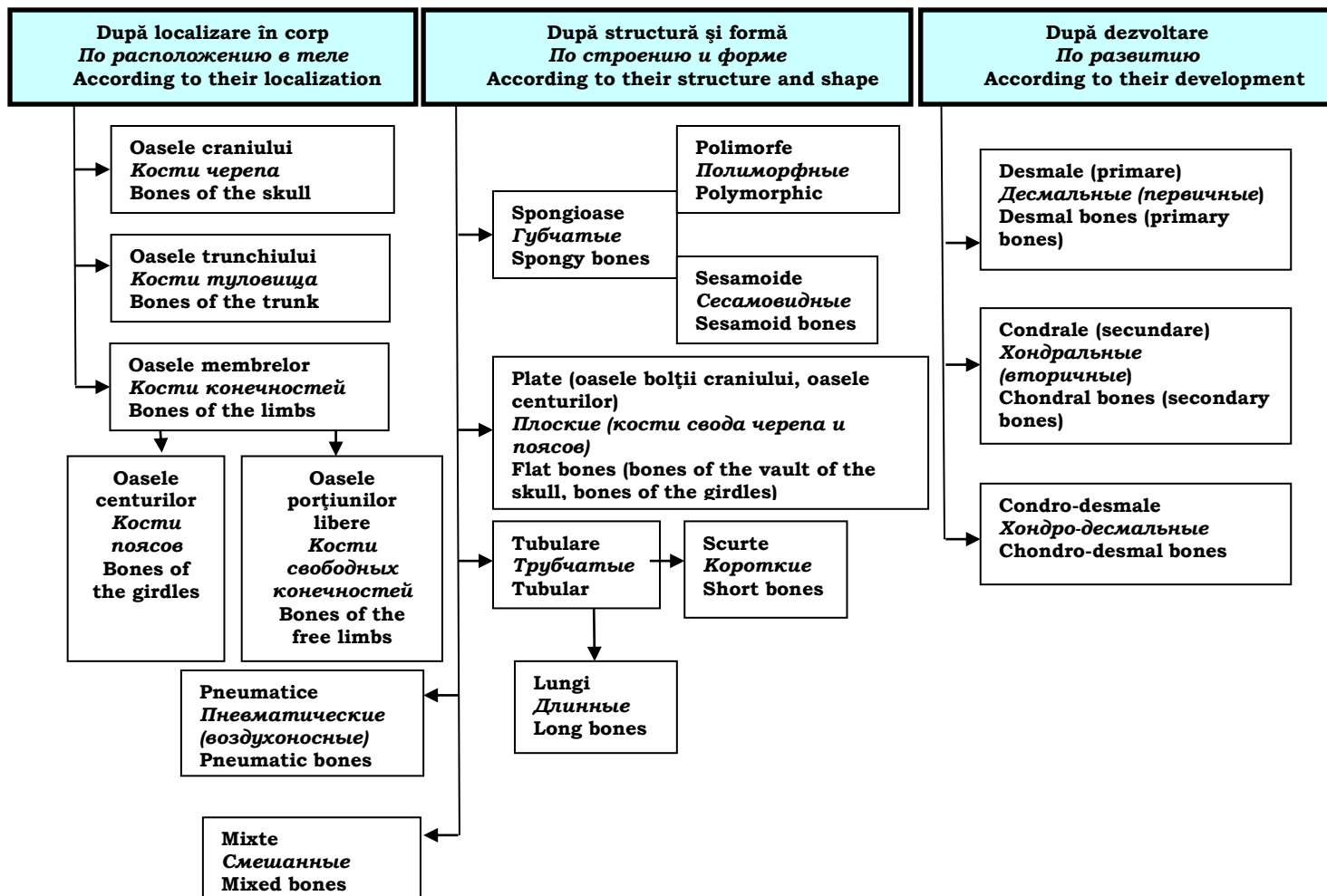
Cu profund respect și sincere cuvinte ne exprimăm recunoștința Dlui Ghenadie Fală, stomatolog, categorie superioară, Prisma-campion al Concursului Național (Chișinău, 2002) și Internațional [Poltava (Ucraina), 2002] de măiestrie profesională ("Felluci" SRL), Dlui Valeriu Fală, stomatolog, categorie superioară, dr. în medicină (IM "Fala-Dental" SRL), Dlui Andrei Șalin, stomatolog, categorie superioară ("Șalin-Dental" SRL), Dlui Ilie Mitric, manager, reprezentant oficial al Concernului "Kalina" în R. Moldova, Dnei Ala Ciobanu, manager, reprezentant al Companiei „ Hoffman-La Roche Ltd” în R. Moldova și Dnei Ala Tabârța, vicepreședinte "FinComBanc", care prin sprijin și bunăvoință au contribuit la editarea lucrării în cauză.

Autorii

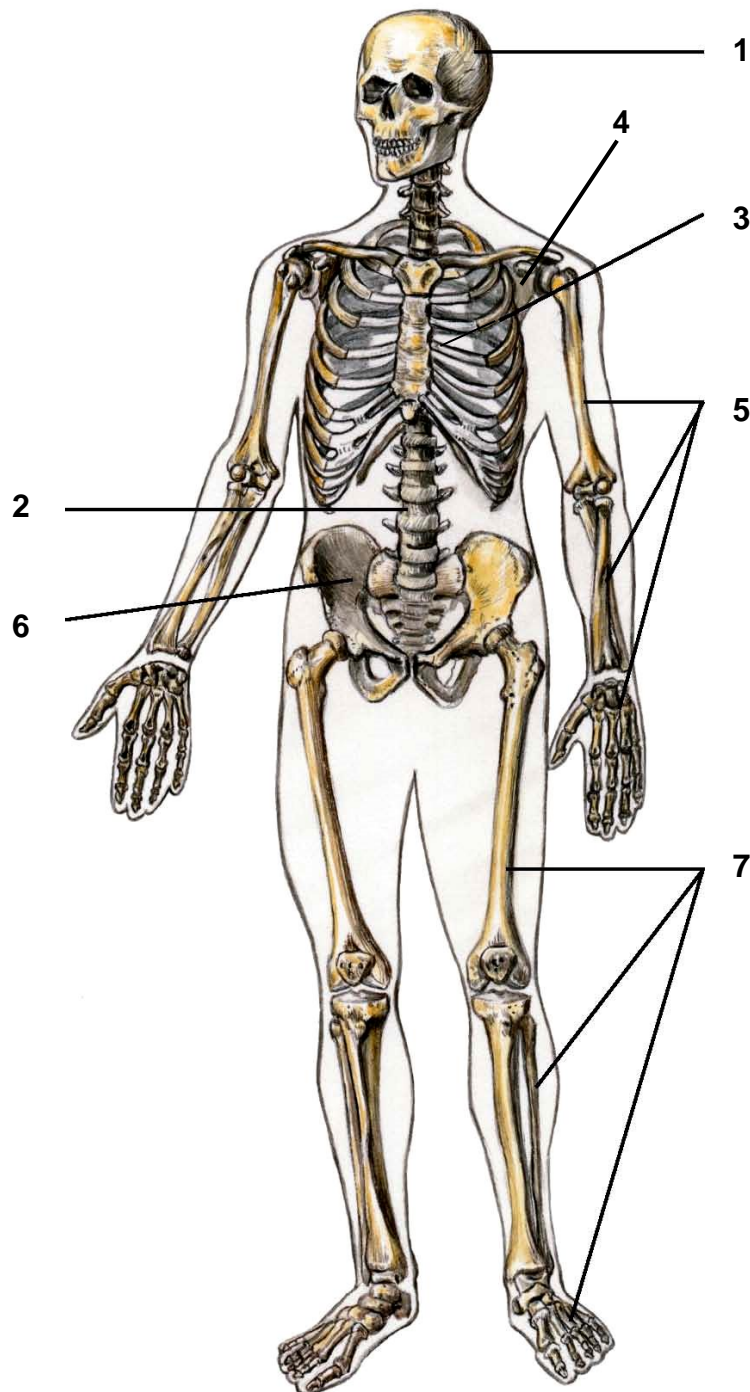
Clasificarea oaselor

Классификация костей

Classification of bones

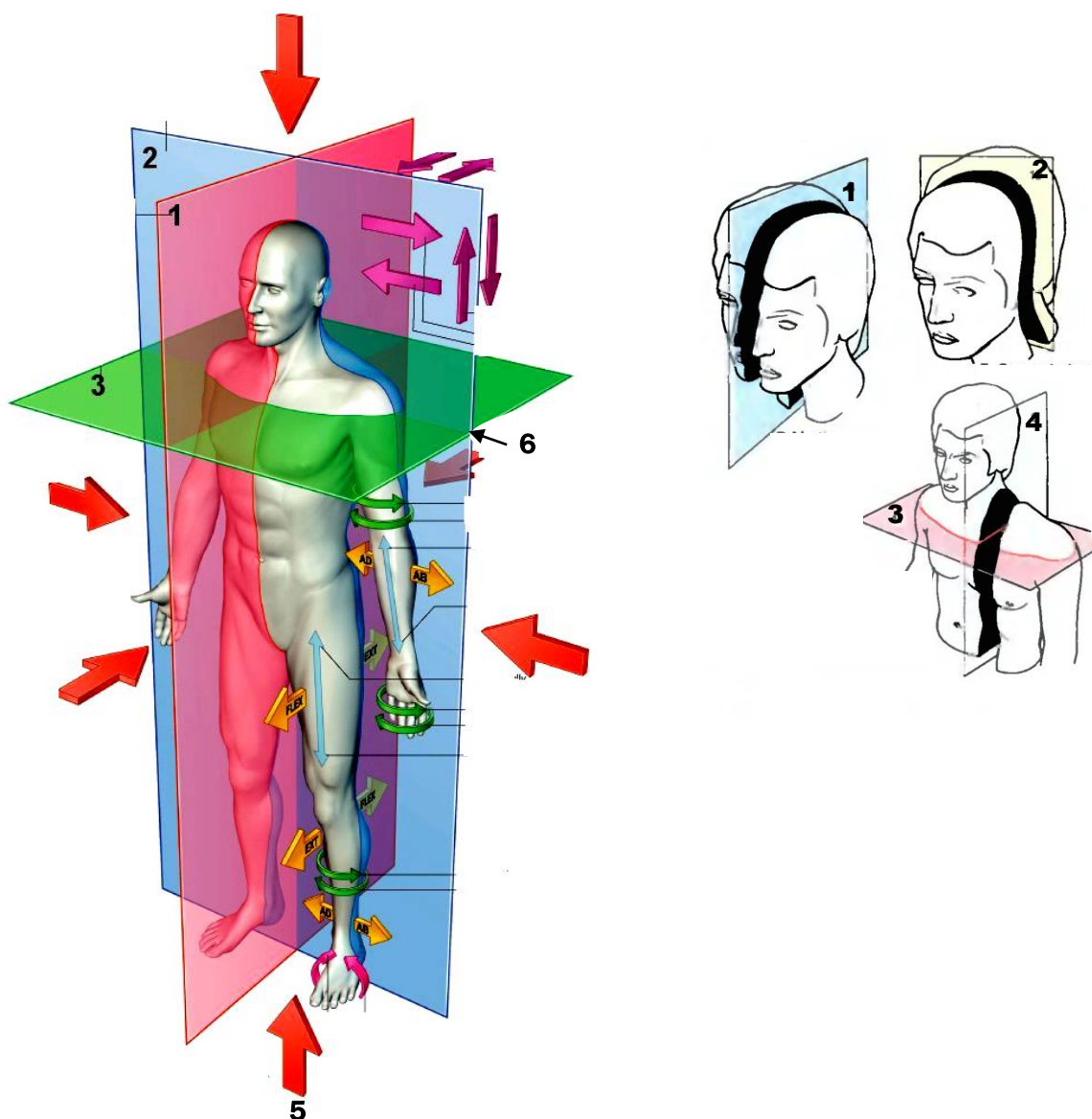


Oasele scheletului uman
Кости скелета человека
Bones of the human skeleton



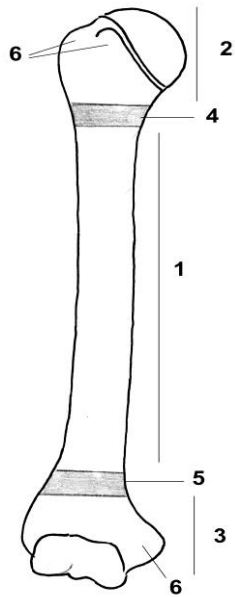
- 1 – ossa cranii;*
- 2 – columna vertebralis;*
- 3 – skeleton thoracis;*
- 4 – cingulum membri superioris (cingulum pectorale);*
- 5 – pars libera membri superioris (brachium, antebrachium, ossa manus);*
- 6 – cingulum membri inferioris (cingulum pelvicum);*
- 7 – pars libera membri inferioris (femur, crus, ossa pedis).*

Axele și planurile corpului uman
Оси и плоскости тела человека
Axes and planes of the human body



- 1 – *planum sagittale (medianum)*;
- 2 – *planum frontale (coronale)*;
- 3 – *planum transversum (horizontale)*;
- 4 – *planum paramedianum (sagittale)*;
- 5 – *axis verticalis*;
- 6 – *axis transversalis*.

Părțile unui os tubular lung
Части длинной трубчатой кости
Parts of a long tubular bone



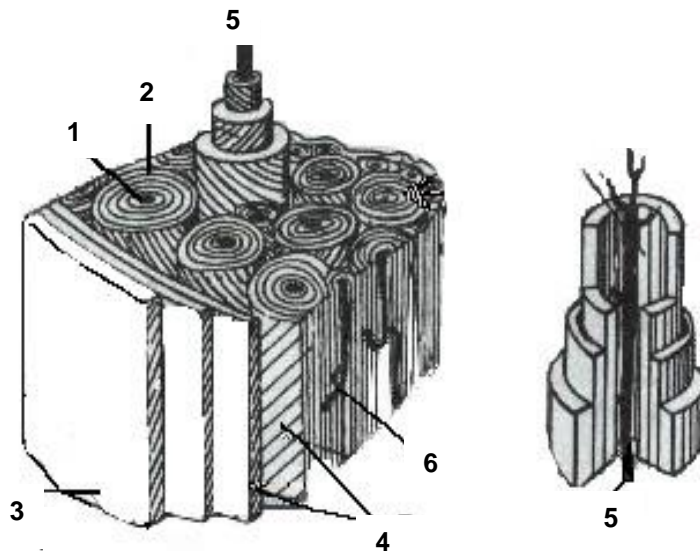
- 1 – *diaphysis*;
- 2 – *epiphysis proximalis*;
- 3 – *epiphysis distalis*;
- 4 – *metaphysis proximalis*;
- 5 – *metaphysis distalis*;
- 6 – *apophysis*.

Schema osteonului (sistemul Havers)

(după Н.К. Лысенков, 1958)

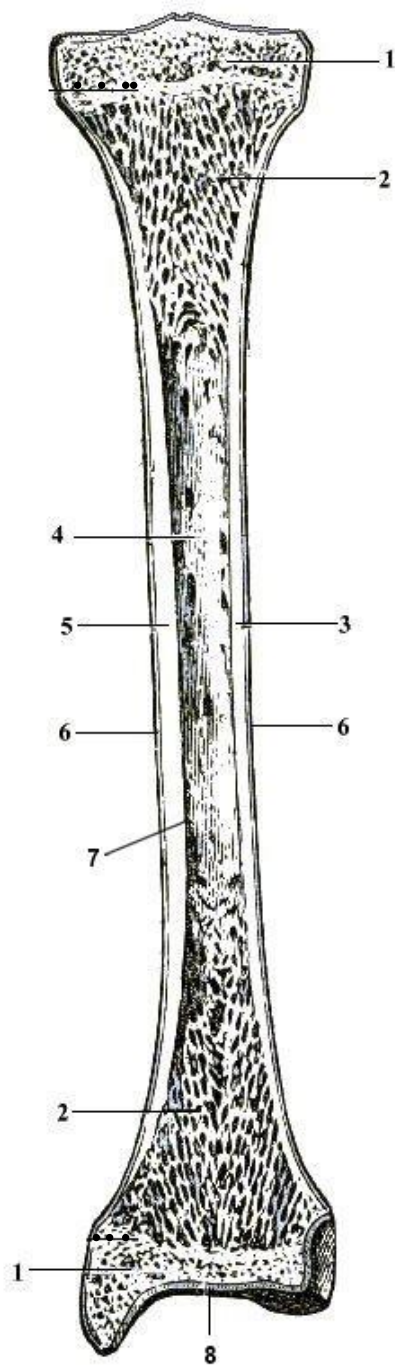
Схема остеона (Havers система)

The scheme of the osteon (Haversian system)



- 1 – *canalis osteoni*;
- 2 – *lamellae osseae circulares*;
- 3 – *periosteum*;
- 4 – *laminae generales externae*;
- 5 – *vas sanguineum (Havers)*;
- 6 – *canalis anastomoticus [perforans (ossis)] (Volkmann)*.

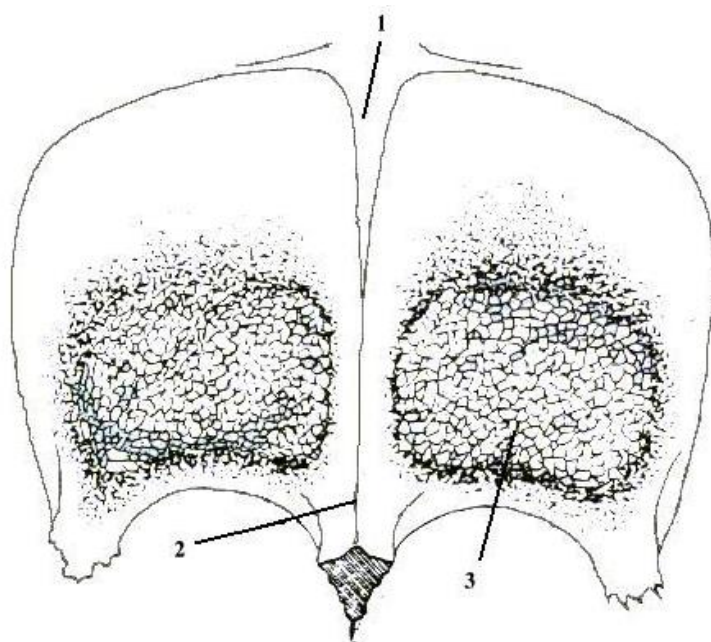
Structura osului în secțiune longitudinală
Строение кости на продольном разрезе
Structure of the bone in a longitudinal section



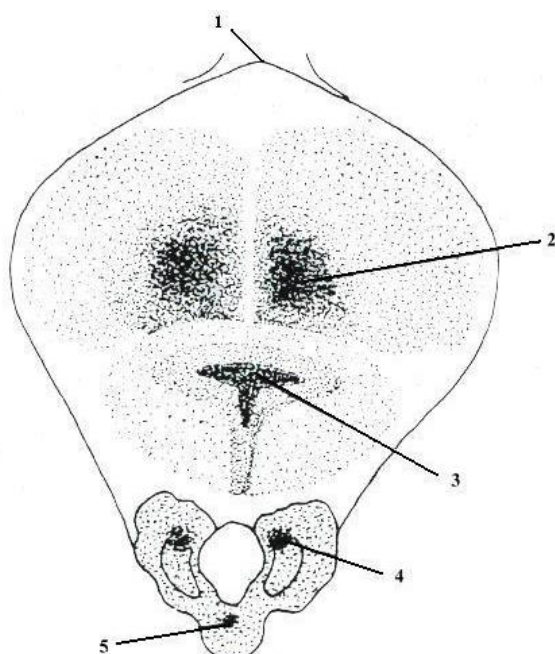
- 1, 2 – substantia spongiosa (trabecularis);*
- 3, 5 – substantia compacta;*
- 4 – cavitas medullaris;*
- 6 – periosteum;*
- 7 – endosteum;*
- 8 – cartilago epiphysialis.*

Centrii de osificare a osului frontal și osului occipital
(după A. Andronescu, 1972)

Точки окостенения лобной и затылочной костей
Ossification centres of the frontal and occipital bones



- 1 – fonticulus anterior (coronalis, bregmaticus);*
2 – sutura metopica;
3 – centrum ossificationis primarium;



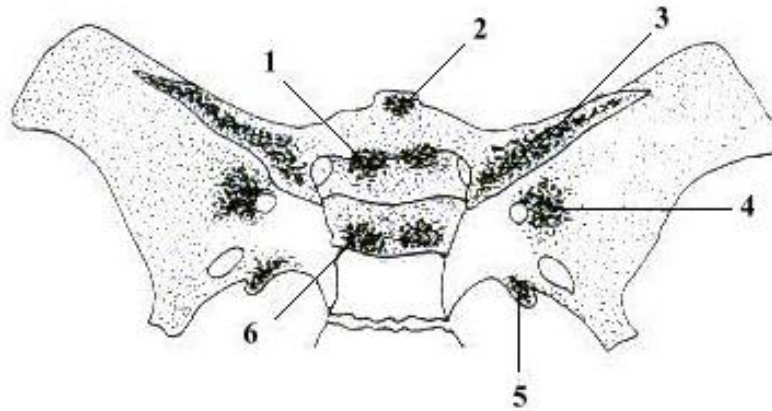
- 1 – fonticulus posterior (lambdoideus, astericus);*
2, 3 – centra squamae occipitalis;
4 – centra partium lateralium;
5 – centrum partis basilaris.

Centrii de osificare a osului sfenoid și a mandibulei

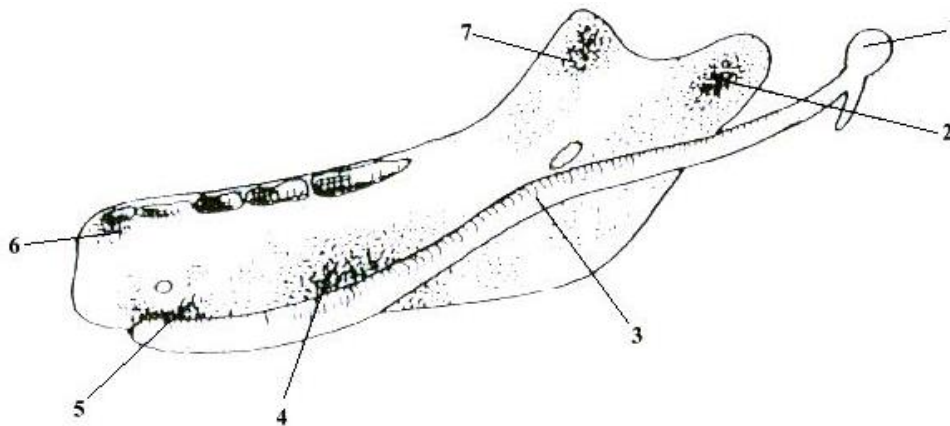
(după A. Andronescu, 1972)

Точки окостенения клиновидной кости и нижней челюсти

Ossification centres of the sphenoid bone and of the mandible



- 1 – *centrum presphenoidale*;
- 2 – *centrum rostrale*;
- 3 – *centrum alae minoris*;
- 4 – *centrum alae majoris*;
- 5 – *centrum ossis sphenoidalis (sphenoticum)*;
- 6 – *centrum basis ossis sphenoidalis*.

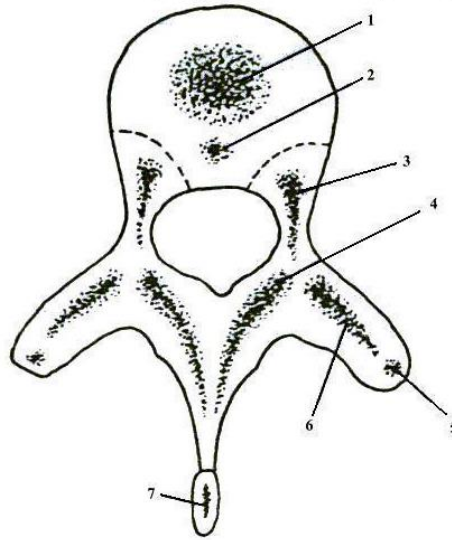


- 1 – *malleus*;
- 2 – *centrum condylare*;
- 3 – *cartilago Meckeli*;
- 4 – *centrum principale*;
- 5 – *centrum mentale*;
- 6 – *centrum incisivum*;
- 7 – *centrum processus coronoidei*.

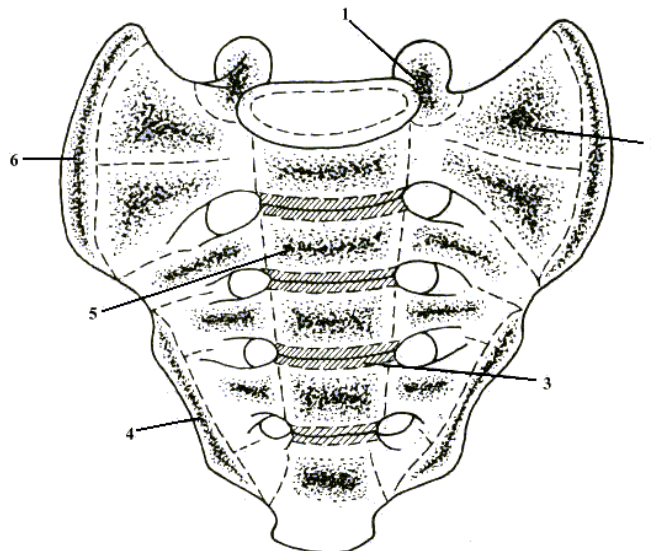
Centrii de osificare a unei vertebre de tip toracic și a sacrului

(după A. Andronescu, 1972)

Точки окостенения типичного грудного позвонка и крестца Ossification centres of a typical thoracic vertebra and of the sacrum



- 1 – *centrum ossificationis principale;*
- 2 – *centrum accessorium;*
- 3 – *centrum laterale anterius;*
- 4 – *centrum laterale posterius;*
- 5 – *centrum primarium transversale;*
- 6 – *centrum ossificationis secundarium;*
- 7 – *processus spinosus.*



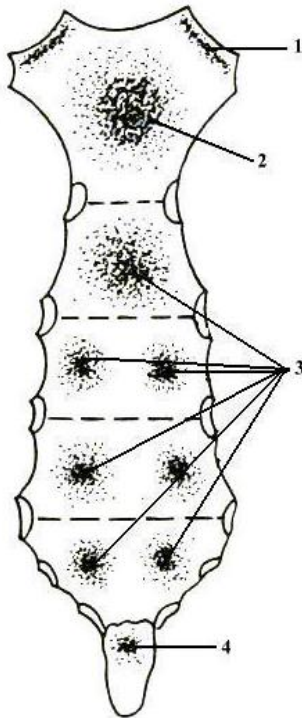
- 1 – *centrum ossificationis anterolaterale;*
- 2 – *centrum ossificationis transversum;*
- 3 – *anulus epiphysialis;*
- 4 – *lamina marginalis inferior;*
- 5 – *centrum ossificationis medianum;*
- 6 – *lamina marginalis superior.*

Centri de osificare a sternului, scapulei și claviculei

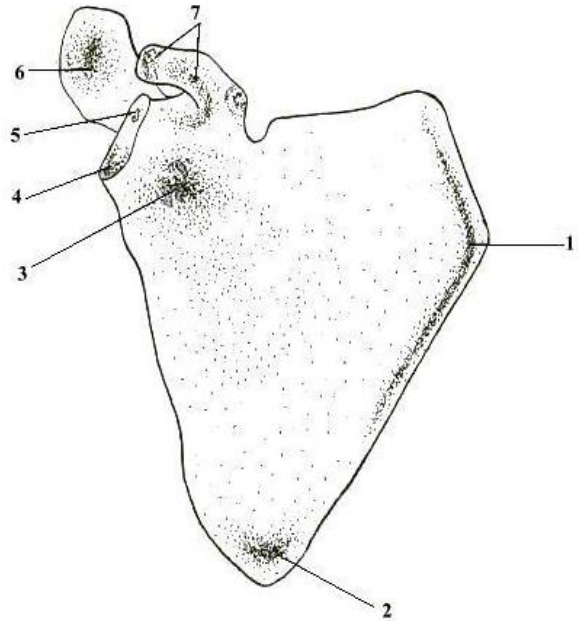
(după A. Andronescu, 1972)

Точки окостенения грудины, лопатки и ключицы

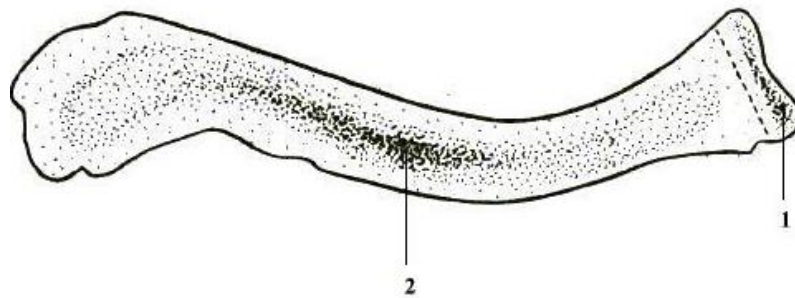
Ossification centres of the breastbone, of the scapula and of the clavicle



- 1 – centra incisurarum clavicularem;*
- 2 – centrum manubrii;*
- 3 – centra corporis sterni;*
- 4 – centrum xiphoideum.*



- 1 – centrum marginis vertebralis;*
- 2 – centrum anguli inferioris;*
- 3 – centrum subglenoidale;*
- 4 – centrum infraglenoidale;*
- 5 – centra supraglenoidalia;*
- 6 – centra acromii;*
- 7 – centra coracoidea.*



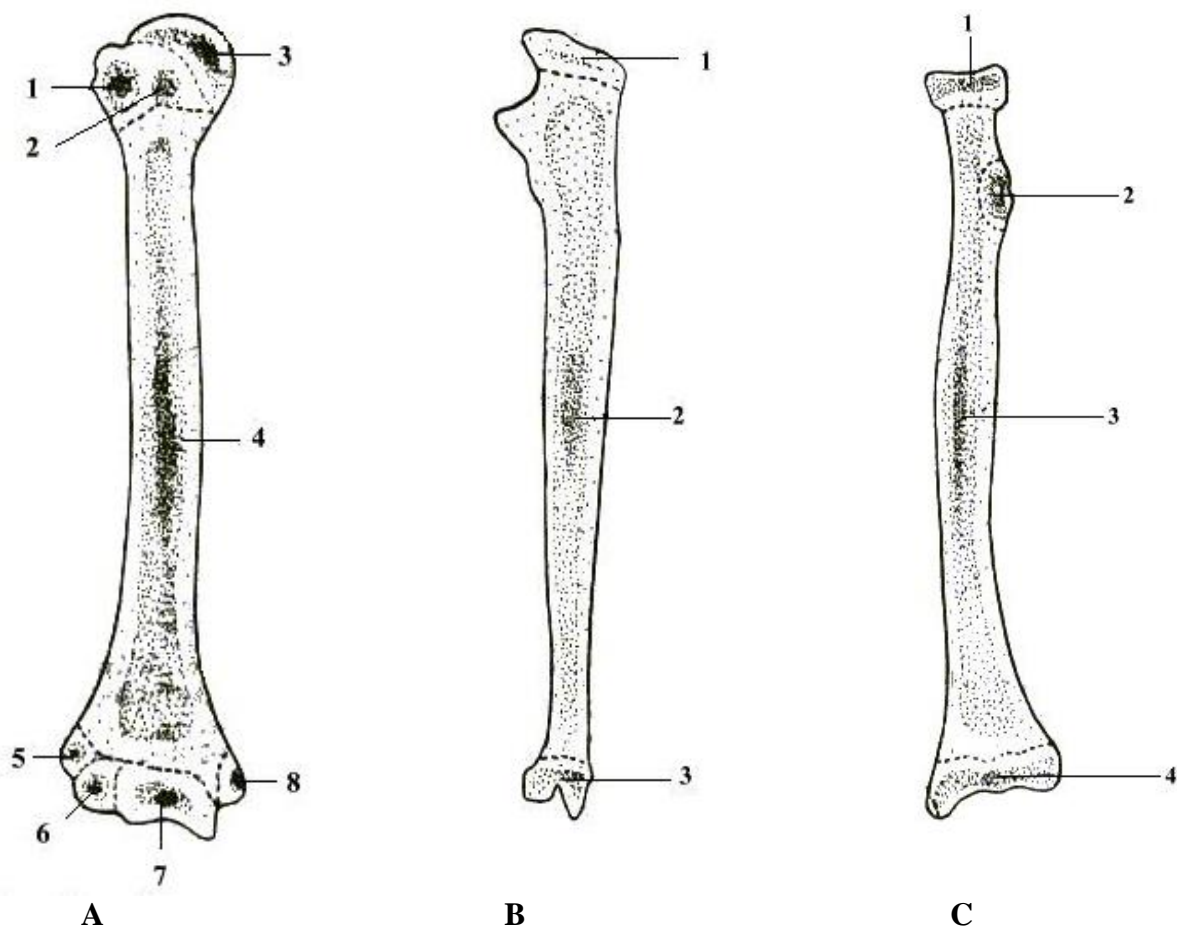
- 1 – centrum epiphysiale;*
- 2 – centrum diaphysiale.*

Centri de osificare a humerusului, ulnei și radiusului

(după A. Andronescu, 1972)

Точки окостенения плечевой, локтевой и лучевой костей

Ossification centres of the humerus, ulna and radius



A

- 1 – *centrum tuberculi majoris;*
- 2 – *centrum tuberculi minoris;*
- 3 – *centrum capituli humeri;*
- 4 – *centrum diaphysiale;*
- 5 – *centrum epicondyli lateralis;*
- 6 – *centrum capituli humeri;*
- 7 – *centrum trochleae humeri;*
- 8 – *centrum epicondyli medialis.*

B

- 1 – *centrum epiphysiale superius;*
- 2 – *centrum diaphysiale;*
- 3 – *centrum epiphysiale inferius.*

C

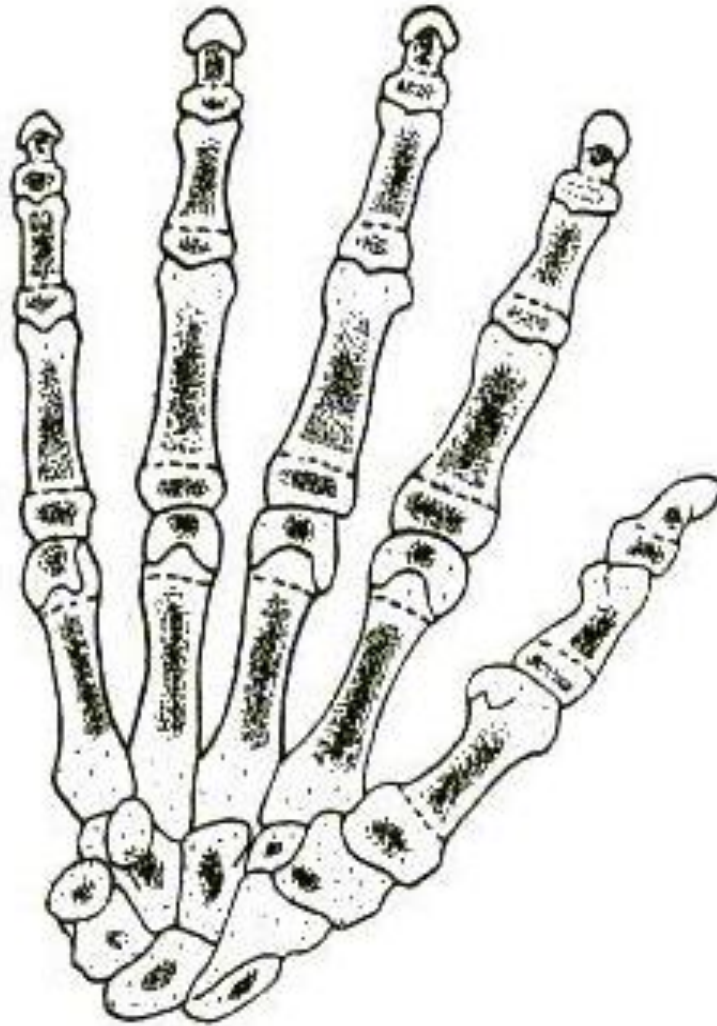
- 1 – *centrum epiphysiale superius;*
- 2 – *centrum tuberositatis radialis;*
- 3 – *centrum diaphysiale;*
- 4 – *centrum epiphysiale inferius.*

Centrii de osificare a oaselor carpiene, metacarpiene și falangelor

(după A. Andronescu, 1972)

Точки окостенения костей запястья, пястья и фаланг пальцев

Ossification centres of the carpal bones, metacarpal bones and of the phalanges.



Centra secundaria falangium in basis eorum velut ad primum os metacarpale apparent.

Centra secundaria aliorum ossium metacarpalium in fine lorum videntur.

Centrii secundari ai falangelor apar la baza acestora ca și pentru primul metacarpian. Centrii secundari pentru celelalte oase metacarpiene se văd la capete.

Вторичные точки окостенения фаланг пальцев появляются в их основаниях также как и для первой пястной кости. Вторичные точки окостенения для остальных пястных костей появляются в их головках.

Secondary ossification centres of the phalanges appear at the base of the phalanges, as well as for the first metacarpal bone. Secondary centres for other metacarpal bones can be seen in their heads.

**Termenii apariției și contopirii centrilor de osificare a oaselor
membrului superior**

(după A. Andronescu, 1972)

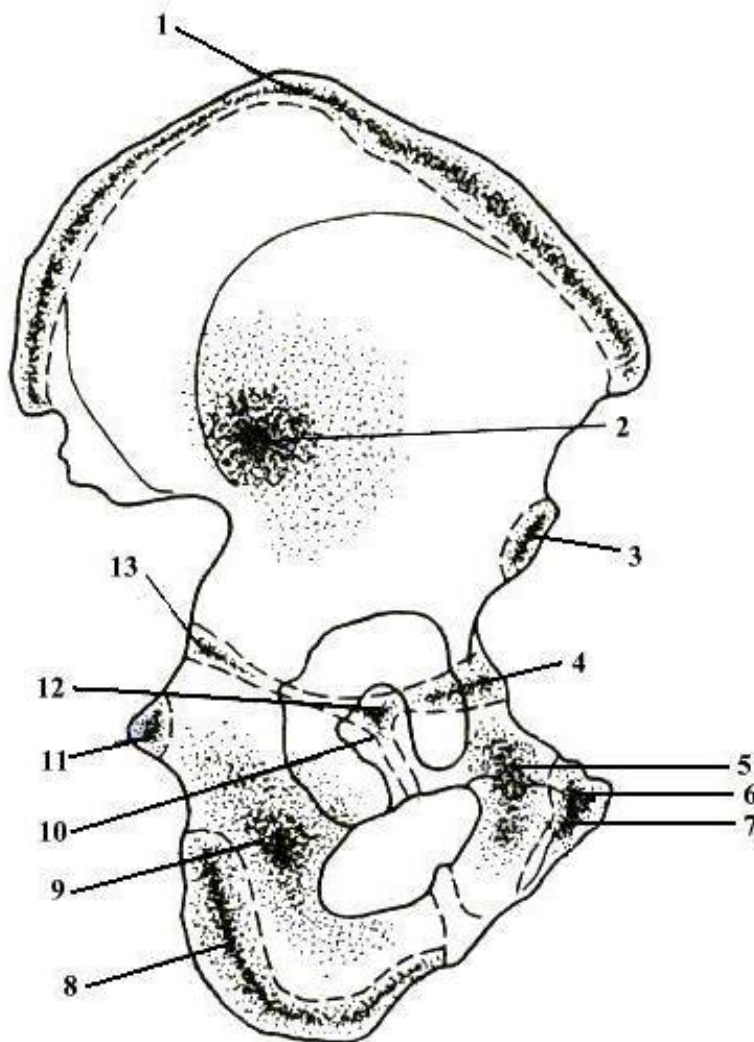
Ядра окостенения костей верхней конечности

**Terms of appearance and fusion of the ossification points in the bones
of the upper limb**

Osul Кость Bone	Centrii primari Первичные ядра Primary centres	Centrii secundari Вторичные ядра Secondary centres	Termenii contopirii centrilor secundari Время сращения вторичных ядер Terms of fusion of the secondary centres	Termenii contopirii centrilor secundari cu cei principali Время сращения основных и вторичных ядер Terms of fusion of the main and of the secondary centres
Scapula	45-60 dies	C. coracoideum principale C. coracoideum accessorium C. glenoidale superius C. glenoidale inferius C. acromiale (1-2) C. marginis vertebrae C. anguli inferioris	16-18 anni 10-12 anni 16-18 anni 14-18 anni 15-20 anni 16-18 anni	15-18 anni 16-18 anni 20 anni 18-20 anni 22-25 anni 22-25 anni
Clavicula	30 dies		18-22 anni	22-25 anni
Humerus	40-45 dies	C. cephalicum (interdum) C. tuberculi majoris C. tuberculi minoris C. capitatum C. trohleare C. epicondylis medialis C. epicondylis lateralis	3-6 menses 2-2,5 anni 3-4 anni 1-2 anni 8-15 anni 4-8 anni 10-12 anni	20-25 anni 17-20 anni
Radius	40 dies	C. cephalicum C. epiphysiale inferius C. bicipitale	3-6 anni 1 annus 13-14 anni	15-18 anni 17-25 anni 17 anni
Ulna	35-40 dies	C. olecrani C. cephalicum	9-14 anni 6-9 anni	16-20 anni 18-22 anni
Os scaphoideum Os lunatum Os pyramidale Os pisiforme Os trapezium Os trapezoideum	5-6 anni 3-5 anni 2-4 anni 8-11 anni 4,5-6 anni 4,5-6 anni			
Os magnum Os hamatum	4-5 menses 4-5 menses	C. apophysiale inconstans	9-11 anni	12 anni
Metacarpus I	3 menses	C. epiphysiale superius	3,5-4 anni	14-16 anni
Metacarpus II	3 menses	C. epiphysiale inferius	3-4 anni	
Metacarpus III	3 menses	C. epiphysiale inferius	1,5-2,5 anni	14-16 anni
Metacarpus IV	3 menses	C. epiphysiale inferius	3-4 anni	14-16 anni
Metacarpus V	3 menses	C. epiphysiale inferius	3,5-4 anni	14-16 anni
Phalanx I	2 menses		1-2,5 anni	16-20 anni
Phalanx II	2,5-3 menses		2,5-3 anni	16-20 anni
Phalanx III	2,5-3 menses			

C - centrum

Centri de osificare a coxalului
(după A. Andronescu, 1972)
Точки окостенения тазовой кости
Ossification centres of the hip bone



1 – centrum cristae iliacaе;
2 – centrum iliacum;
3 – centrum spinae iliacaе anterioris inferioris;
4 – centrum acetabuli anterioris;
5 – centrum ossis pubis;
6 – centrum tuberculi pubici;

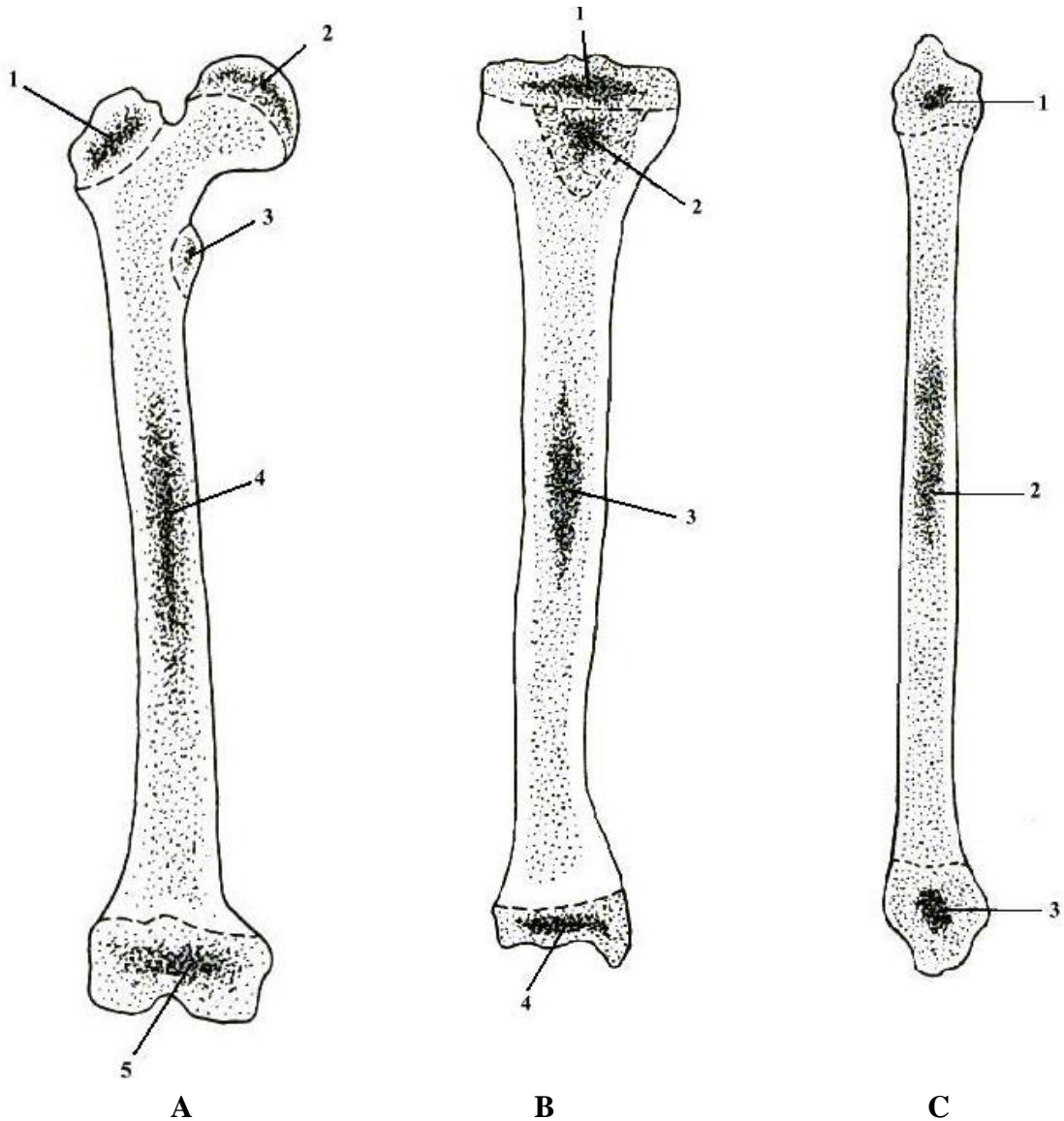
7 – centrum anguli ossis pubis;
8 – centrum tuberis ischiadici;
9 – centrum ischiadicum;
10 – cartilago;
11 – centrum spinae ischiadicae;
12 – centrum medianum;
13 – centrum acetabulare posterius.

Centri de osificare a femurului, tibiei și fibulei

(după A. Andronescu, 1972)

Точки окостенения бедренной, большеберцовой и малоберцовой костей

Ossification centres of the femur, tibia and fibula



A

- 1 – *centrum trochanteris majoris;*
- 2 – *centrum capitis femoris;*
- 3 – *centrum trochanteris minoris;*
- 4 – *centrum diaphysiale;*
- 5 – *centrum epiphysiale inferius.*

B

- 1 – *centrum epiphysiale superius;*
- 2 – *centrum tuberositatis tibiae;*
- 3 – *centrum diaphysiale;*
- 4 – *centrum epiphysiale inferius.*

C

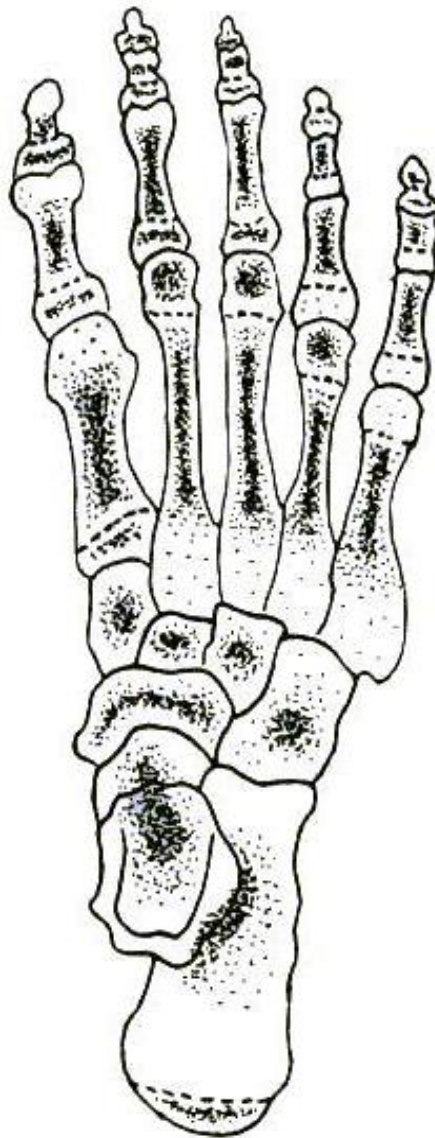
- 1 – *centrum epiphysiale superius;*
- 2 – *centrum diaphysiale;*
- 3 – *centrum epiphysiale inferius.*

Nucleii de osificare a oaselor tarsului, metatarsului și falangelor

(după A. Andronescu, 1972)

Точки окостенения костей предплюсны, плюсны и фаланг пальцев

Ossification centres of the tarsal and metatarsal bones, and of the phalanges of the toes



*Centra secundaria falangium in basi eorum velut ad primum os metatarsale aparent.
Centra secundaria aliorum ossium metatarsalium in fine eorum videntur.*

Centrii secundari ai falangelor apar la baza acestora ca și pentru primul metatarsian. Centrii secundari pentru celelalte oase metatarsiene se văd la capete.

Вторичные точки окостенения фаланг пальцев появляются в их основаниях также как и для первой плюсневой кости. Вторичные точки окостенения остальных плюсневых костей появляются в их головках.

Secondary ossification centres of the phalanges appear at their base, as well as for the first metatarsal bone. Secondary centres for other metatarsal bones can be seen in their heads.

**Termenii apariției și contopirii centrilor de osificare a oaselor
membrului inferior**

(după A. Andronescu, 1972)

Ядра окостенения костей нижней конечности

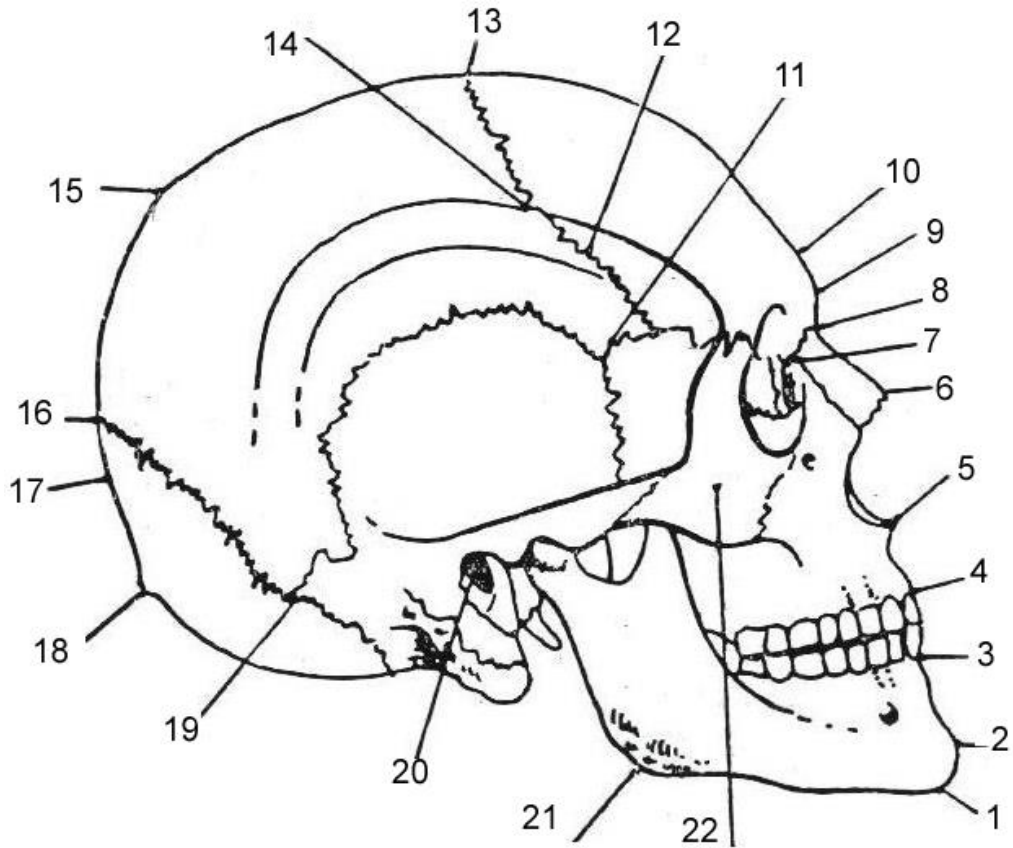
**Terms of appearance and fusion of the ossification points in the bones of the
lower limb**

Osul Кость Bone	Centrii primari Первичные ядра Primary centres	Centrii secundari Вторичные ядра Secondary centres	Termenii contopirii centrilor secundari Время сращения вторичных ядер Terms of fusion of the secondary centres	Termenii contopirii centrilor secundari cu cei principali Время сращения основных и вторичных ядер Terms of fusion of the main and of the secondary centres
Femur	40-50 dies intrauterinae	C. cephalicum 6-12 menses C. trochanteris majoris } 3-5 anni C. trochanteris minoris } 8-10 anni C. intercondylare 9 menses fetales		18-20 anni 16-18 anni 18-20 anni
Patella	2-4 anni		16-19 anni	
Tibia	45-60 dies intrauterinae	C. epiphysiale sup. 9 menses fetale C. tuberositatis 11-12 anni C. epiphysiale inf. 6-8 menses	13 anni	19-20 anni 18 anni 17-18 anni
Fibula	60-70 dies intrauterinae	C. epiphysiale sup. 3-5,5 anni C. epiphysiale inf. 8-12 menses		19-21 anni 17-20 anni
Talus	8-9 menses fetales	C. ossis trigoni 8 anni		
Calcaneus	5-6 menses fetales	7-9 anni		16-20 anni
Os naviculare	3-5 anni			
Os cuboideum	3-6 menses			
Os cuneiforme I Os cuneiforme II Os cuneiforme III	2-3 anni 2-3 anni 10-12 menses			
Ossa metatarsi	3 menses fetales	C. epiphysiale 3-4 anni		15-19 anni
Falanges	2,5-9 menses fetales	3-4 anni		15-22 anni

C - centrum

Schema punctelor craniometrice
(după N. Diaconescu, N. Rottemberg, V. Niculescu, 1979)

Схема краниометрических точек
The scheme of the craniometrical points



- 1 – gnathion;*
- 2 – spina mentalis;*
- 3 – punctum incisivum inferius;*
- 4 – punctum incisivum superius;*
- 5 – punctum nasospinale;*
- 6 – rhinion;*
- 7 – dakrion;*
- 8 – nasion;*
- 9 – glabella;*
- 10 – ophrion;*
- 11 – pterion;*

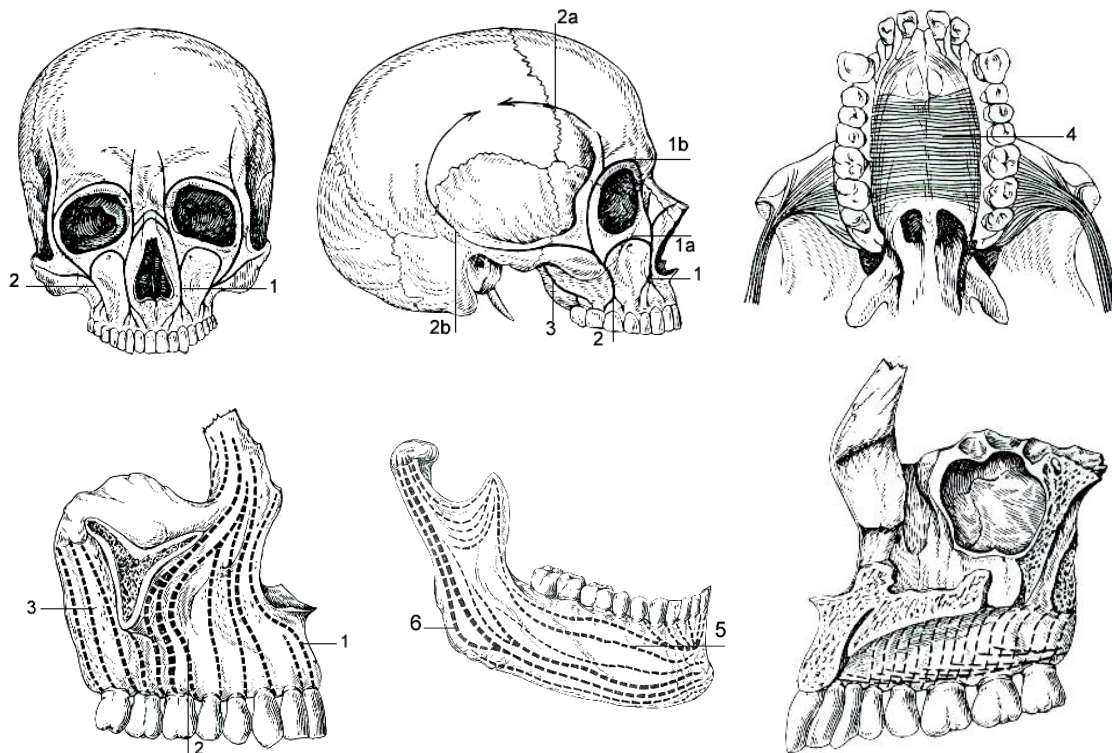
- 12 – sutura coronalis;*
- 13 – bregma;*
- 14 – stephanion;*
- 15 – obelion;*
- 16 – lambda;*
- 17 – opistocranium;*
- 18 – inion;*
- 19 – asterion;*
- 20 – punctum auriculare;*
- 21 – gonion;*
- 22 – punctum ossis zygomatici.*

Stâlpii și căpriorii de rezistență ai viscerocraniului

(după C.C. Михайлов, 1984)

Контрфорсы лицевого черепа

Presistance of pillars of the visceral cranium



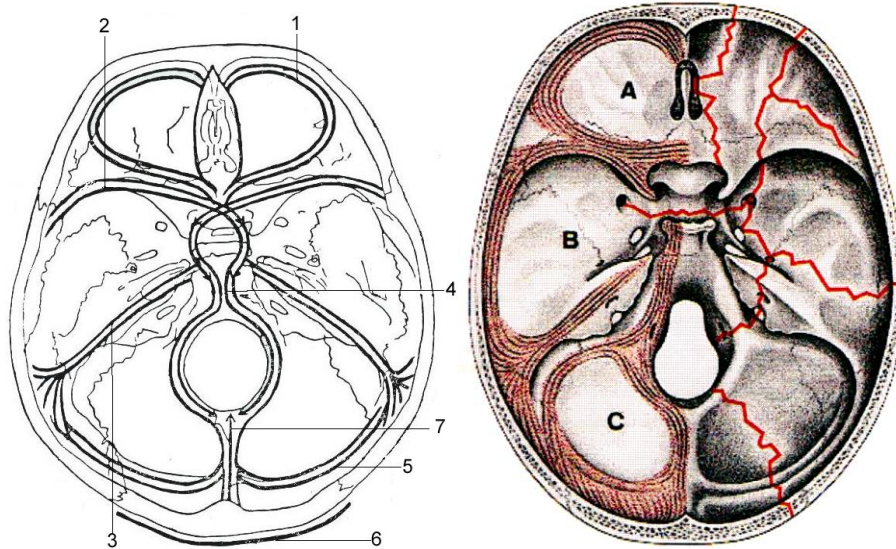
1. *Sustentaculum (columna, linea sustentaculi) anterius (caninum seu nasofrontale);*
1a. linea infraorbitalis;
1b. linea supraorbitalis;
2. *Sustentaculum medium (zygomaticum seu alveolo-zygomaticum);*
2a. linea anterior;
2b. linea posterior;
3. *Sustentaculum posterius (pterygopalatinum seu pterygoideum);*
4. *Linea resistentiae palati (palati ossei);*
5. *Linea trajecta alveolaris;*
6. *Linea trajecta ascendens.*

Căpriorii și arcurile de rezistență ale bazei craniului.

Liniiile celor mai frecvente fracturi

(după I.Pasat, 1995)

Контрфорсы основания черепа. Линии наиболее частых переломов
Structures of resistance of the base of the skull. The lines of most frequent fractures

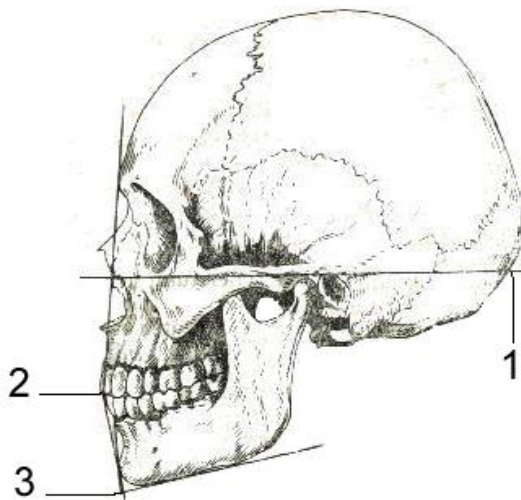


1. *Arcus orbitalis (arcus transversus I) (frontalis) [linea sustentaculi (resistentiae frontalis)];*
 2. *Jugum sphenoidale et alae minores ossis sphenoidalis (arcus transversus II, orbitosphenoidalis seu columna anterior);*
 3. *Margo inferior partium petrosarum temporalium (arcus transversus III, petromastoideus) posterior;*
 4. *Basis ossea mediosagittalis;*
 5. *Sinus transversus (arcus transversus IV);*
 6. *Linea resistentiae occipitalis.*
- A – fossa cranii anterior;
B – fossa cranii media;
C – fossa cranii posterior.

Orizontala Frankfurt, unghiul simfizian și unghiul maxilar

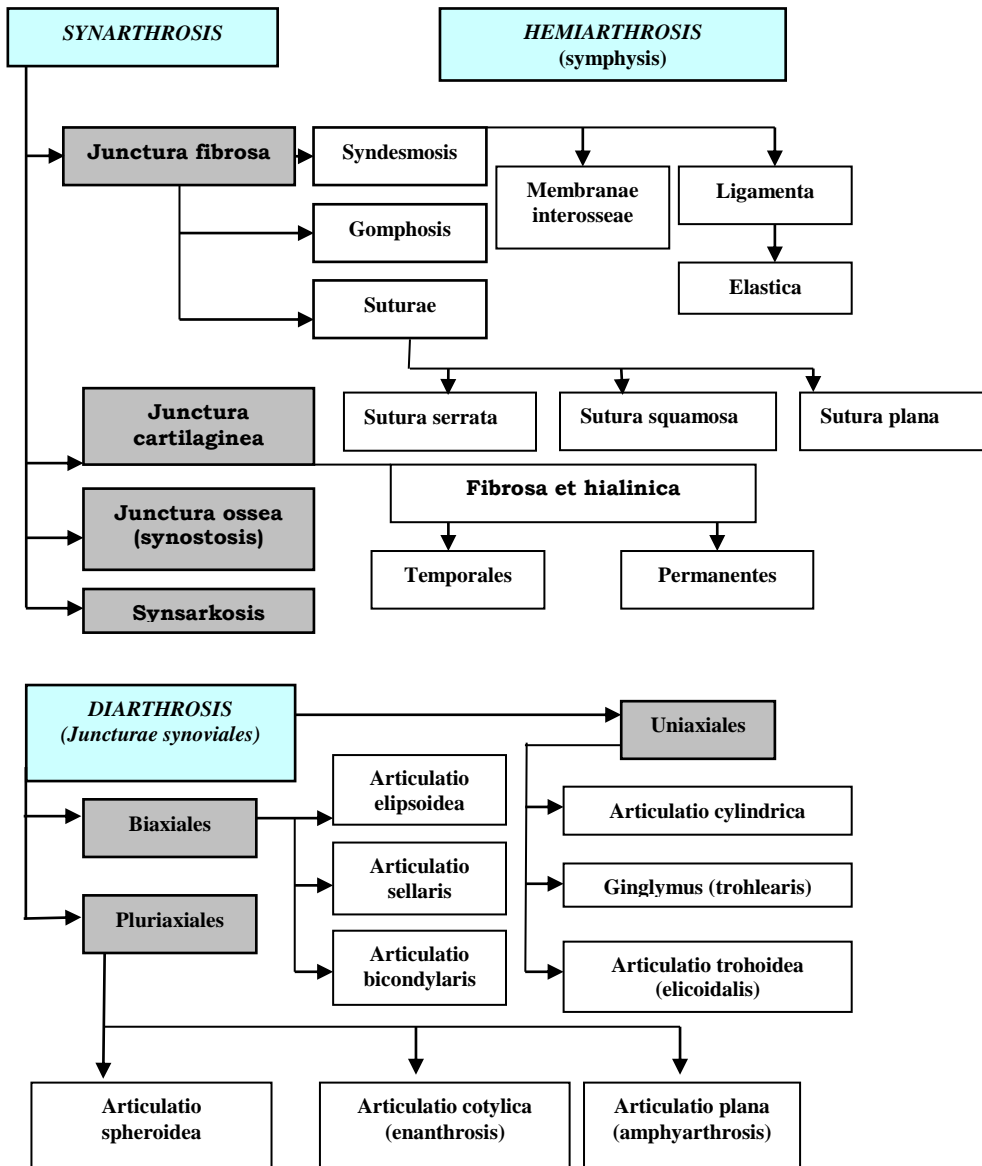
(după N. Diaconescu și coaut., 1979)

Франкфуртская горизонталь, симфизальный и челюстной углы
Frankfurt's horizontal line, the symphysial and maxillary angles



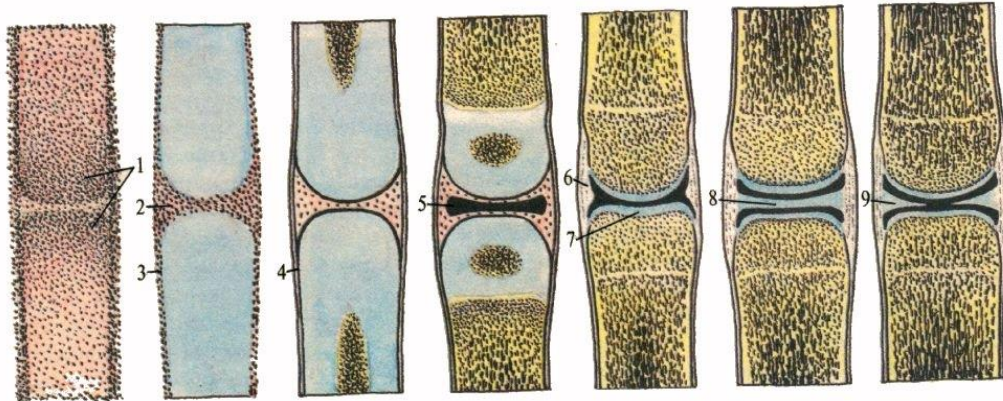
- 1 – *planum horizontale (Frankfurt);*
- 2 – *angulus maxillaris;*
- 3 – *angulus symphysialis.*

Clasificarea articulațiilor
Классификация соединений костей
Classification of the bone joining



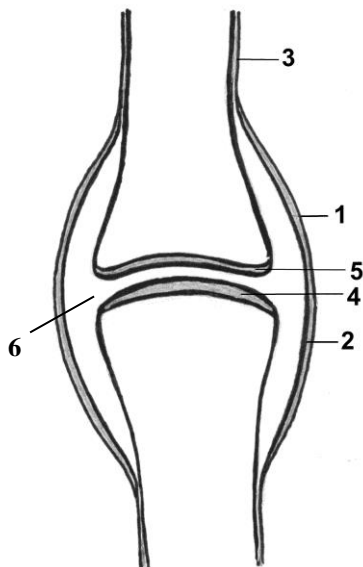
Dezvoltarea articulației (diartrozei)
 (după P.Д. Синельников, Я.Р. Синельников, 1989)

Развитие суставов
Development of joints

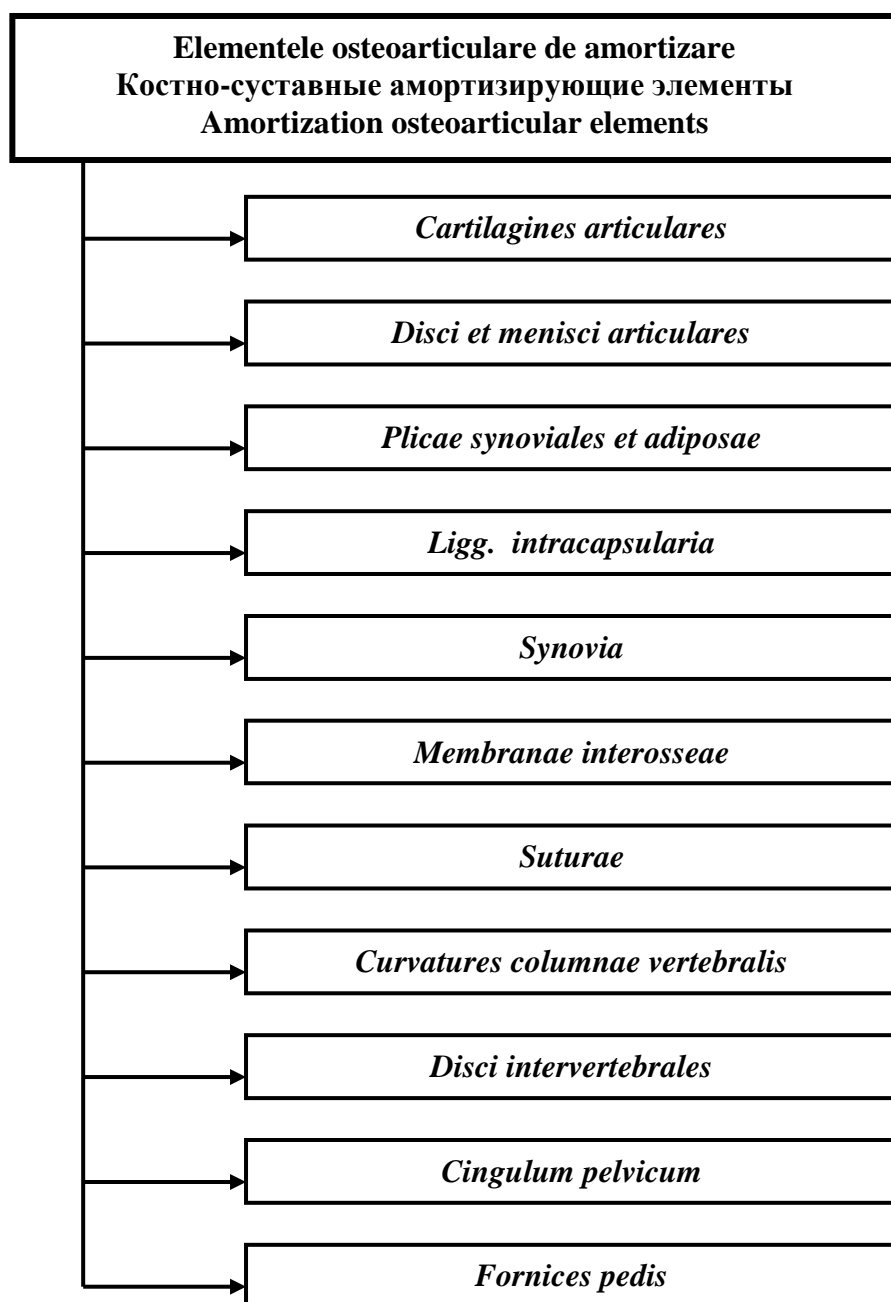
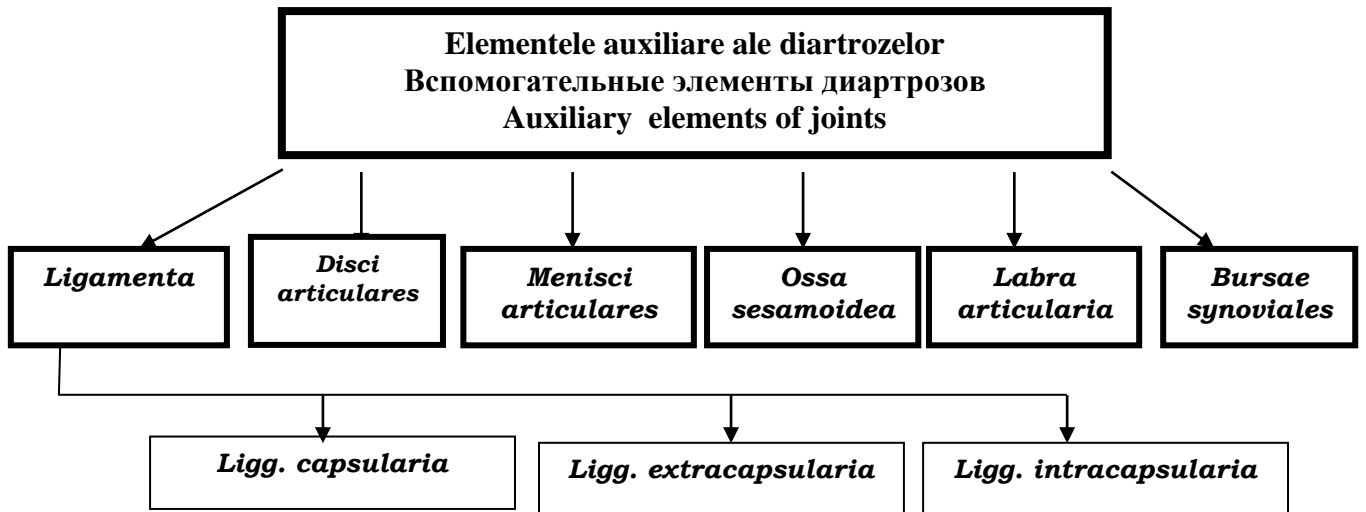


- 1 - *syncytium mesenchymatis (status praecartilaginosus)*;
- 2 - *locus cavitationis articulationis futurae*;
- 3 - *perichondrium*;
- 4 - *periosteum*;
- 5 - *cavum articulationis*;
- 6 - *capsula articularis*;
- 7 - *cartilago articularis*;
- 8 - *discus articularis*;
- 9 - *meniscus*.

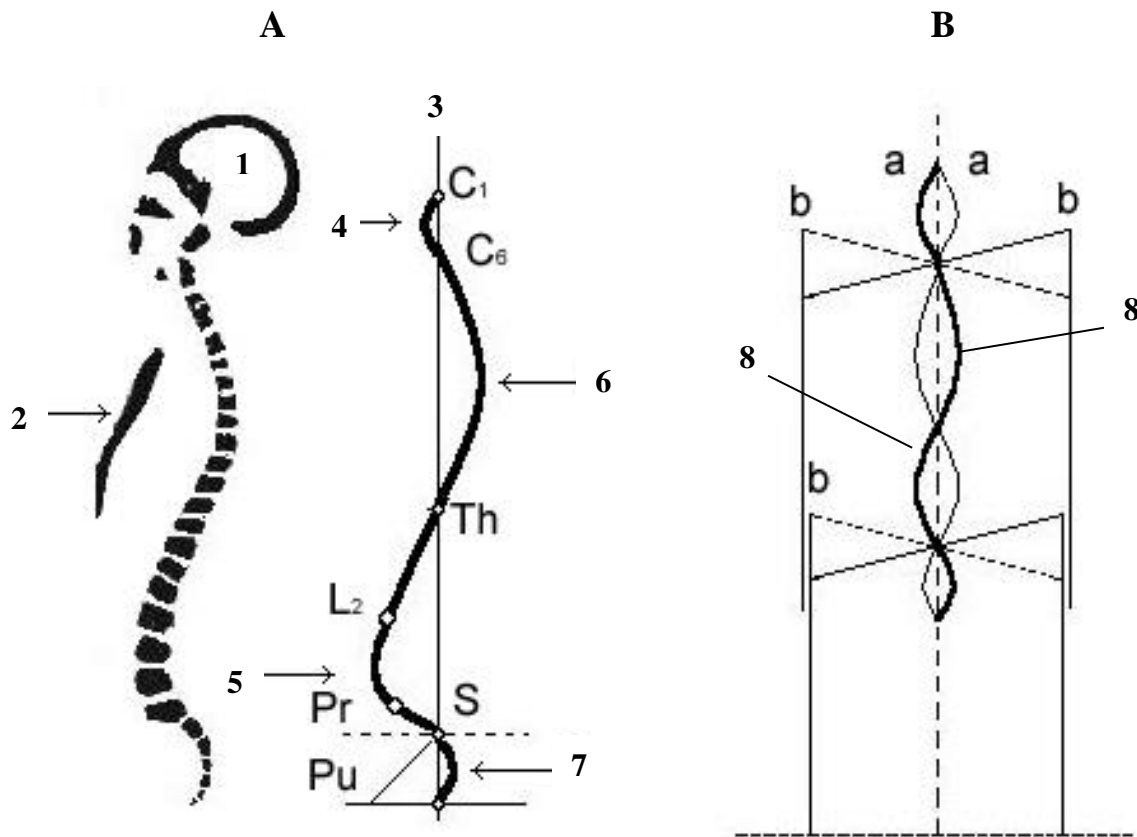
Elementele principale ale unei diartroze
Основные элементы диартроз
The main elements of a diarthrosis (joint)



- 1,2 - *membrana fibrosa (stratum fibrosum) et membrana synovialis (stratum synoviale) capsulae articularis*;
- 3 - *periosteum*;
- 4,5 - *facies articulares et cartilago articularis*;
- 6 - *cavitas articularis*.



Curburile coloanei vertebrale
(dura G.Ф. Иванов)
Изгибы позвоночного столба
Curvatures of the spinal column



A. Planum sagittale (lordosis et kyphosis)

- 1 – cranium;
- 2 – sternum;
- 3 – axis verticalis;
- 4 – lordosis cervicalis (lordosis colli);
- 5 – lordosis lumbalis;
- 6 – kyphosis thoracica;
- 7 – kyphosis sacralis.

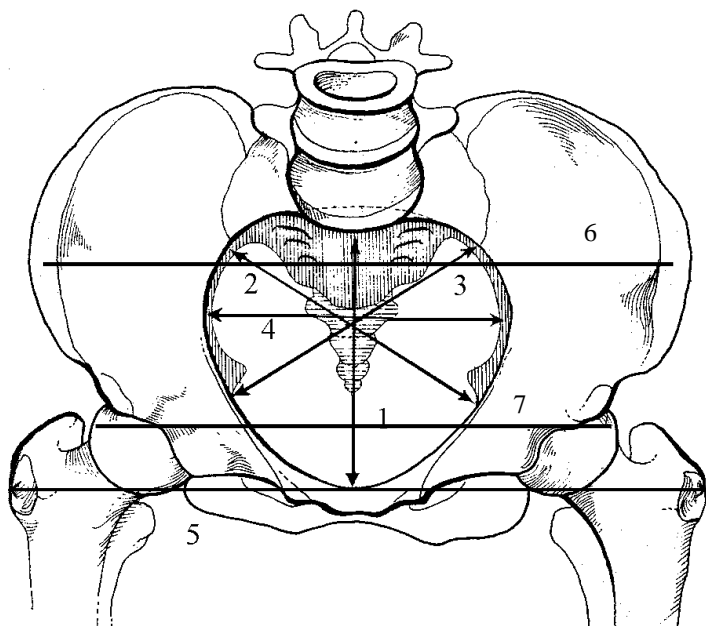
B. Planum frontale

- 8 – scoliosis;
- Pr. - promontorium;
- C. - regio cervicalis;
- L. - regio thoracica;
- Th.- regio lumbalis;
- S.- regio sacralis.

Diametrele bazinului (vedere superioară)

Размеры таза (вид сверху)

Diameters of the pelvis (superior view)

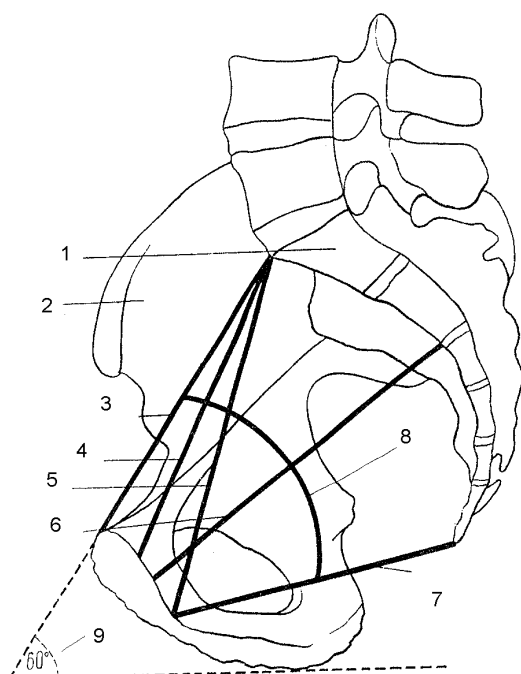


- 1 – *conjugatae*;
- 2 – *diameter obliqua sinistra (distantia obliqua sinistra)*;
- 3 – *diameter obliqua dextra (distantia obliqua dextra)*;
- 4 – *diameter transversa*;
- 5 – *distantia trochanterica*;
- 6 – *distantia cristarum*;
- 7 – *distantia spinarum*.

Diametrele bazinului (vedere laterală)

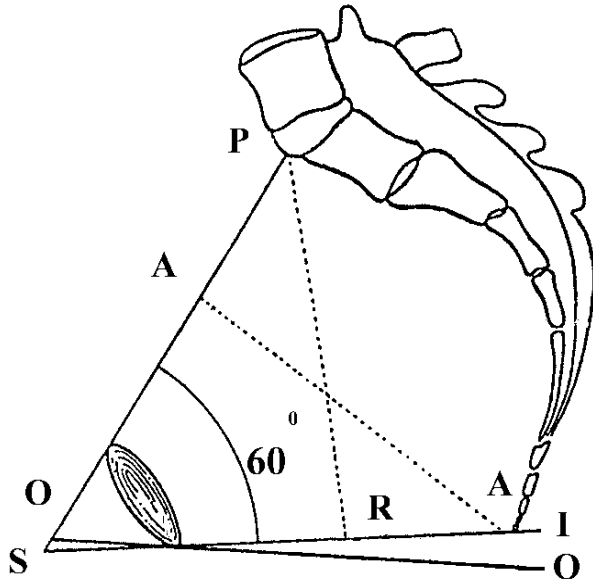
Размеры таза (сагиттальный распил)

Diameters of the pelvis (lateral view)



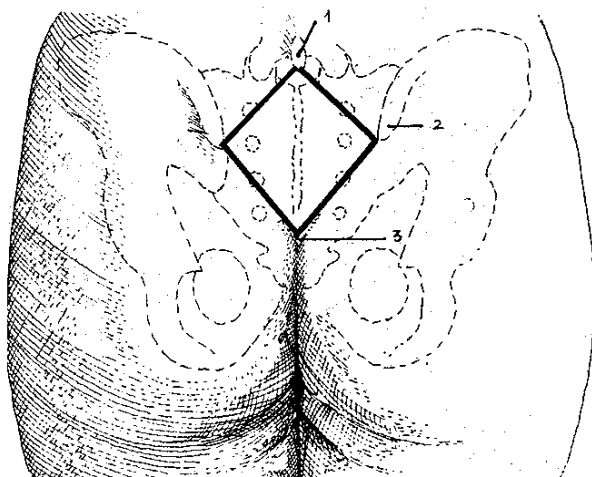
- 1 – *os sacrum*;
- 2 – *os coxae*;
- 3 – *conjugata anatomica*;
- 4 – *conjugata vera*;
- 5 – *conjugata diagonalis*;
- 6 – *conjugata recta cavitatis pelvis (diameter recta)*;
- 7 – *conjugata recta aperturae pelvis inferioris (diameter recta)*;
- 8 – *axis pelvici*;
- 9 – *inclinatio pelvis*.

Înclinația pelvisului
(după V.Papilian, 1998)
Наклон таза
Inclination of the pelvis



P.S. – *planum aperturae pelvis superioris*;
S. I. – *planum aperturae pelvis inferioris*;
O.O. – *planum horizontale*;
A.A. – *axis aperturae pelvis superioris*;
P.R. – *axis aperturae pelvis inferioris*.

Rombul lui Michaelis
(N.Diaconescu, N.Rottemberg, V.Niculescu, 1979)
Ромб Michaelis
Michaelis' rhomb

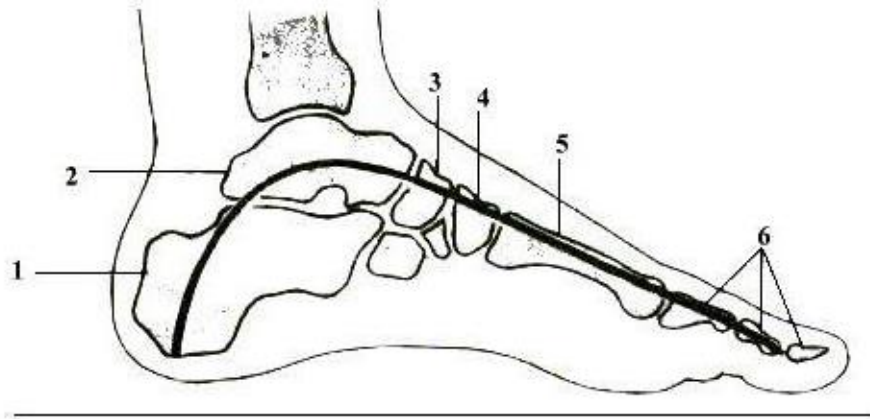


1 – *processus spinosus L₅*;
2 – *spina iliaca posterior superior*;
3 – *apex plicae intergluteae*.

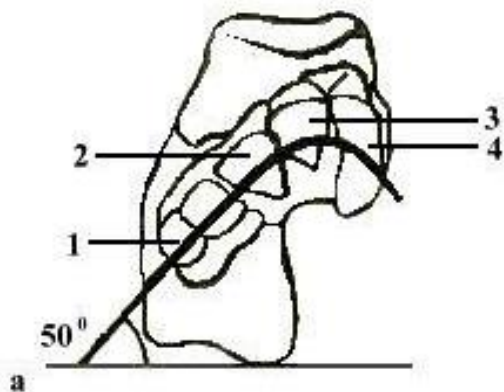
Boțiile longitudinală și transversală ale piciorului

(după H.K. Лысенков, 1958)

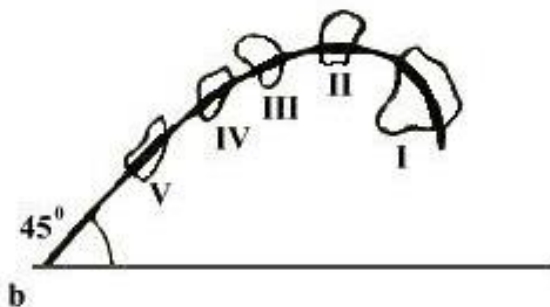
Продольный и поперечный своды стопы Longitudinal and transverse arches of the foot



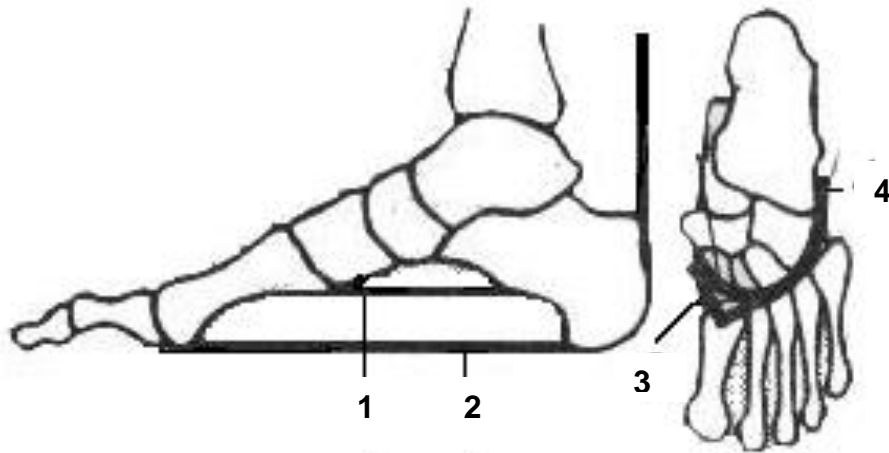
- 1 – calcaneus;
- 2 – talus;
- 3 – os naviculare;
- 4 – os cuneiforme intermedium;
- 5 – os metatarsi II;
- 6 – ossa (phalanges) digitorum II



- a. Sectio articulationum tarsometatarsalium;
- b. Sectio ossium metatarsalium;
- 1 – os cuboideum;
- 2,3,4 – ossa cuneiformia;
- I – V – ossa metatarsi.



“Tiranții” plantari
(după Л.В. Пупышев, 1999)
«Затяжки» сводов стопы
Plantar tightening devices of the foot



- 1 – lig. plantare longum;*
- 2 - aponeurosis plantaris;*
- 3 – tendo m. tibialis anterioris;*
- 4 – tendo m. fibularis (peronei) longi .*

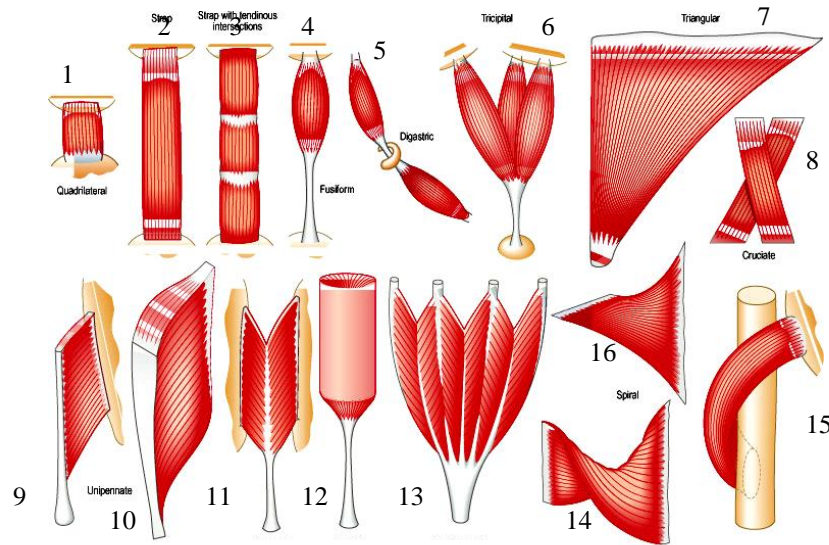
Clasificarea mușchilor
Классификация мышц
Classification of the muscles

I	II	III	IV	V	VI	VII
După geneză	După topografie	După funcție	După formă	După orientarea fibrelor musculare	În raport cu articulațiile	Sub aspect histologic
mm. autohtoni, mm. truncopetali, mm. truncofugali.	mm. capului și gâtului, mm. trunchiului, mm. membrelor.	mm. sinergiști, mm. antagoniști, mm. flexori, mm. extensori, mm. pronatori, mm. supinatori, mm. abductori, mm. adductori, mm. rotatori, mm. levatori, mm. depresori, mm. constrictori	mm. lungi, mm. scurți, mm. lați, mm. rotunzi, mm. pătrați, mm. triunghiulari, mm. piramidali, mm. dințați, mm. romboizi, mm. bicipitali, mm. tricipitali, mm. cvadricipitali, mm. biventerii.	mm. fusiformi, mm. recți, mm. oblici, mm. transversali, mm. orbiculari, mm. unipenați, mm. bipenați, mm. multipenați, mm. spiralați, mm. radiari, mm. circulari.	mm. nuliarticulari, mm. uniarticulari, mm. biarticulari, mm. multiarticulari.	mm. striați, mm. netezi, m. cardiac.

I	II	III	IV	V	VI	VII
According to their development	According to their topography	According to the function	According to their shape	According to the direction of the fibers	According to the relation to the joints	According to histological structure
Autochthonous muscles Truncipetal Muscles Truncifugal muscles	Muscles of the head and neck, Muscles of the trunk, Muscles of the limbs.	Synergetic, Antagonistic, Flexors, Extensors, Pronators, Supinators, Abductors, Adductors, Rotators, Levators, Depressors, Constrictors.	Long, Short, Broad, Rounded, Quadrate, Triangular, Pyramidal, Serrate, Rhomboid, Bicipital, Tricipital, Quadricipital, Biventer.	Fusiform, Straight, Oblique, Transverse, Orbicular, Unipennate, Bipennate, Multipennate, Spiral, Radial, Circular.	Nonarticular, Uniarticular, Biarticular, Multiarticular	Striped, Smooth, Cardiac.

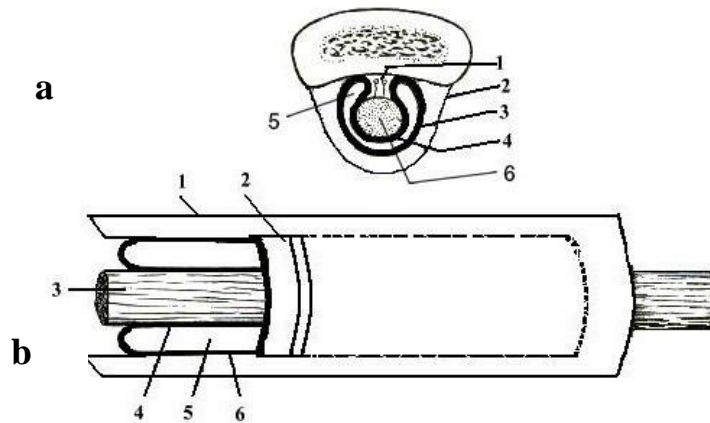
I	II	III	IV	V	VI	VII
Secundum genesim	Secundum topographiam	Secundum functionem	Secundum formam	Secundum directionem fibrarum musculorum	Secundum articulationem	Secundum structuram hystologicam
mm. autochthoni, mm. truncopetales mm. truncofugales.	mm. capitis et colli (cervicis), mm. trunci, mm. extremitatum (membrorum).	mm. synergici, mm. antagonisti, mm. flexores, mm. extensores, mm. pronatores, mm. supinatores, mm. abductores, mm. adductores, mm. rotatores, mm. levatores, mm. depressores, mm. constrictores	mm. longi, mm. breves, mm. lati, mm. teretes, mm. quadrati, mm. triangulares, mm. pyramidales, mm. serrati, mm. rhomboidei, mm. bicipites, mm. tricipites, mm. quadricipites, mm. biventri.	mm. fusiformmes, mm. recti, mm. obliqui, mm. transversi, mm. orbiculares, mm. unipennati, mm. bipennati, mm. multipennati, mm. spirales, mm. radiales, mm. circulares.	mm. uniarticulares, mm. biarticulares, mm. multiarticulares.	mm. striati, mm. plani, m. cardiacus.

Clasificarea mușchilor după orientarea fibrelor musculare
Классификация мышц по направлению мышечных волокон
Classification of muscles according to the orientation of the muscular fibers



- | | |
|--|----------------------------------|
| <i>1 – m. quadratus;</i> | <i>7 – m. triangularis;</i> |
| <i>2 – m. rectus;</i> | <i>8 – m. cruciformis;</i> |
| <i>3 – m. rectus (intersectiones tendineae);</i> | <i>9, 10 – m. unipennatus;</i> |
| <i>4 – m. fusiformis;</i> | <i>11 – m. bipennatus;</i> |
| <i>5 – m. biventer;</i> | <i>12 – m. radialis;</i> |
| <i>6 – m. triceps;</i> | <i>13 – m. multipennatus;</i> |
| | <i>14, 15, 16 – m. spiralis.</i> |

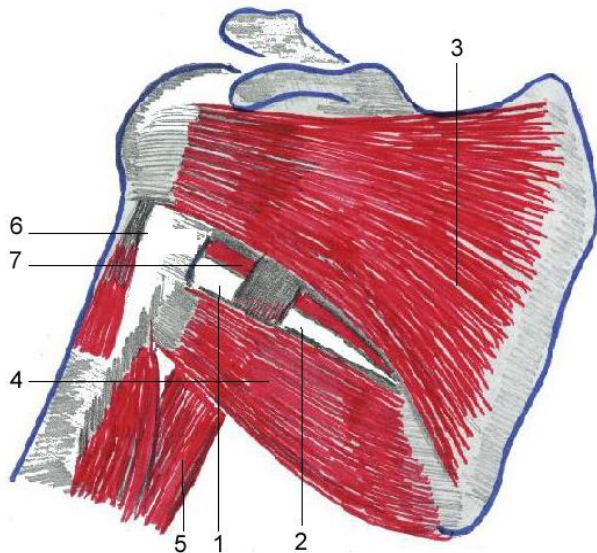
Structura tecilor sinoviale
Строение синовиальных влагалищ
Structure of the synovial sheaths



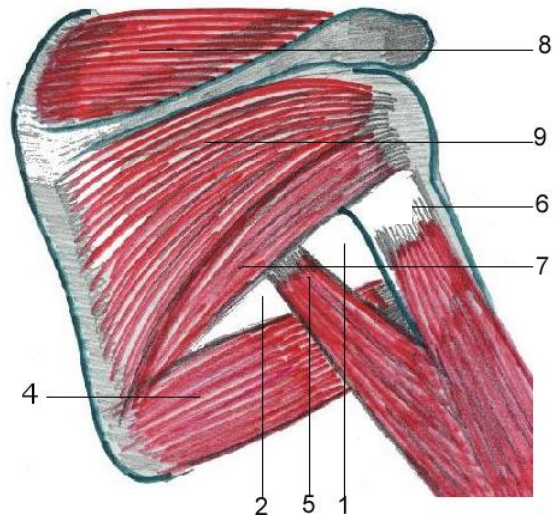
- | | |
|---|---|
| <i>a. Sectio transversalis</i> | <i>b. Sectio longitudinalis</i> |
| <i>1 - mesotendineum;</i> | <i>1 - vagina fibrosa tendinis;</i> |
| <i>2 - vagina osteofibrosis;</i> | <i>2 - vagina synovialis tendinis;</i> |
| <i>3 - lamina parietalis vaginae synovialis tendinis;</i> | <i>3 - tendo;</i> |
| <i>4 - lamina visceralis vaginae synovialis tendinis;</i> | <i>4 - lamina visceralis vaginae synovialis tendinis;</i> |
| <i>5 - cavitas vaginae synovialis;</i> | <i>5 - cavitas vaginae synovialis;</i> |
| <i>6 - tendo.</i> | <i>6 - lamina parietalis vaginae synovialis tendinis.</i> |

Orificiile trilater și patrulater
Четырех- и трехстороннее отверстия
Triangular and quadrangular orifices (openings)

A. Facies anterior



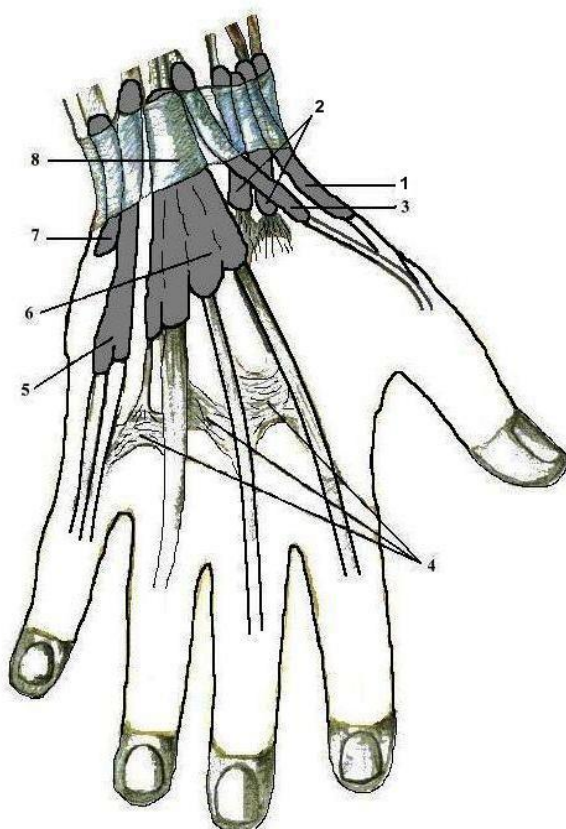
B. Facies posterior



- 1 – foramen quadrilaterum;*
- 2 – foramen trilaterum;*
- 3 – m. subscapularis;*
- 4 – m. teres major;*
- 5 – caput longum m. tricipitis brachii;*

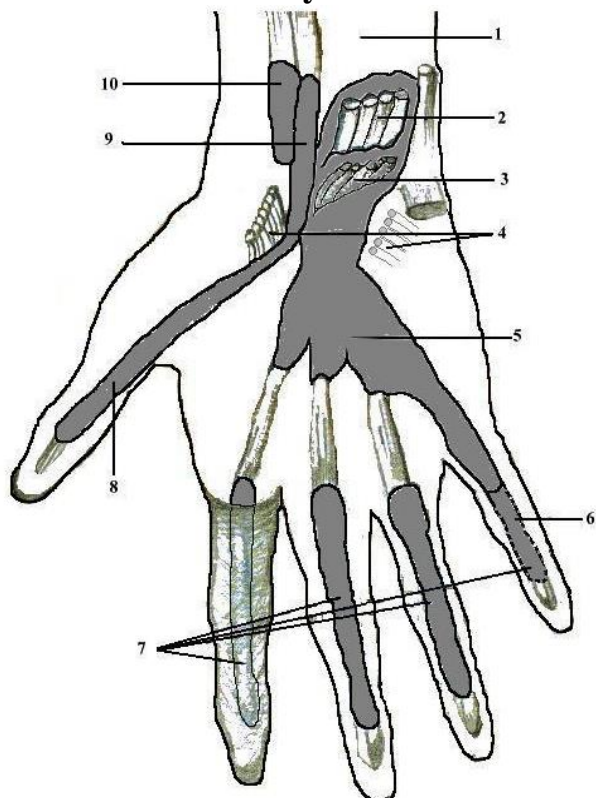
- 6 – collum chirurgicum humeri;*
- 7 – m. teres minor;*
- 8 – m. supraspinatus;*
- 9 – m. infraspinatus.*

Tecile sinoviale ale mâinii (vaginae synoviales tendinum) (fața dorsală)
Синовиальные влагалища кисти (тыльная поверхность)
Synovial sheaths of the hand (dorsal surface)



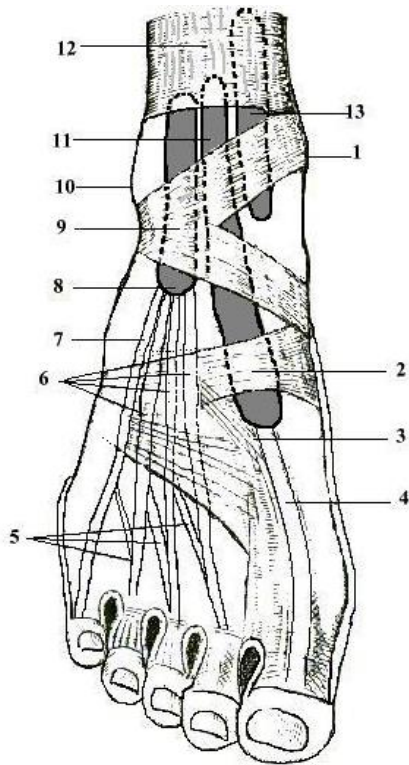
- 1 – vagina tendinum *mm. abductoris longi et extensoris brevis pollicis*;
- 2 – vagina tendinum *mm. extensorum carpi radialium (longi et brevis)*;
- 3 – vagina tendinis *m. extensoris pollicis longi*;
- 4 – *connexus intertendineus*;
- 5 – vagina tendinis *m. extensoris digiti minimi*;
- 6 – vagina tendinum *mm. extensoris digitorum et extensoris indicis*;
- 7 – vagina tendinis *m. extensoris carpi ulnaris*;
- 8 – *retinaculum extensorum*.

Tecile sinoviale ale mâinii (fața palmară)
Синовиальные влагалища кисти (ладонная поверхность)
Synovial sheaths of the hand (palmar surface)



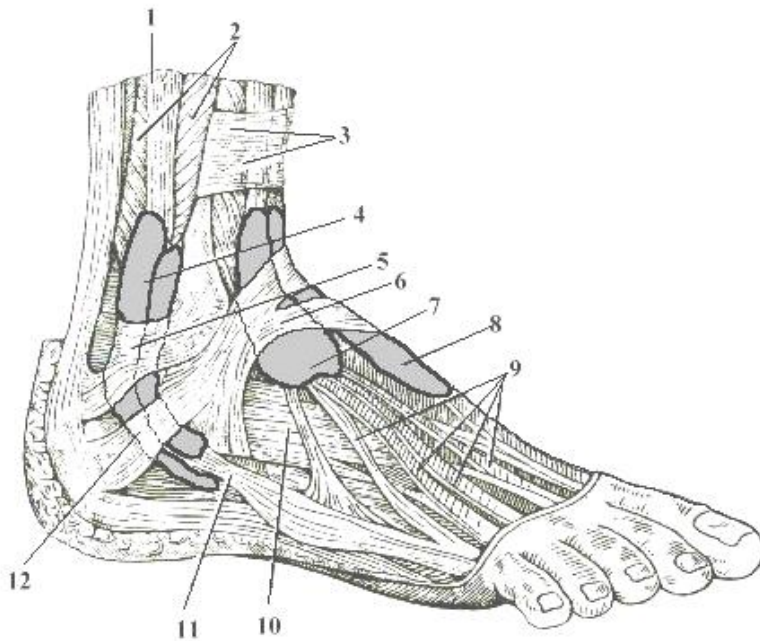
- 1 – *m. pronator quadratus*;
- 2 – *m. flexor digitorum profundus*;
- 3 – *m. flexor digitorum superficialis*;
- 4 – *retinaculum flexorum*;
- 5 – *vagina communis mm flexorum*;
- 6 – *vagina tendinum mm. flexorum digiti minimi*;
- 7 – *vagina tendinum digitorum manus*;
- 8, 9 – *vagina synovialis tendinis m. flexoris pollicis longi*;
- 10 – *vagina tendinis m. flexoris carpi radialis*.

Tecile sinoviale ale piciorului (fața dorsală)
Синовиальные влагалища стопы (тыльная поверхность)
Synovial sheaths of the foot (dorsal surface)



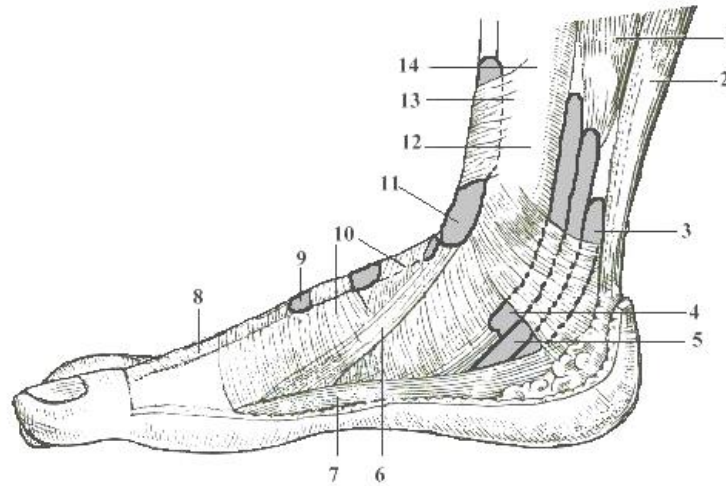
- 1 – malleolus medialis;
- 2 – fascia dorsalis pedis;
- 3 – tendo m. extensoris hallucis brevis;
- 4 – tendo m. extensoris hallucis longi;
- 5 – tendines m. extensoris digitorum brevis;
- 6 – tendines m. extensoris digitorum longi;
- 7 – tendo m. peronei (fibularis) tertii;
- 8 – vagina tendinum m. extensoris digitorum longi;
- 9 – retinaculum mm. extensorum inferius;
- 10 – malleolus lateralis;
- 11 – vagina tendinis m. extensoris hallucis longi;
- 12 – retinaculum mm. extensorum superius;
- 13 – vagina tendinis m. tibialis anterioris.

Tecile sinoviale ale piciorului (aspect lateral)
Синовиальные влагалища стопы (тыльно-латеральная поверхность)
Synovial sheaths of the foot (lateral view)



- 1 – m. peroneus (fibularis) longus;
- 2 – m. peroneus (fibularis) brevis;
- 3 – retinaculum mm. extensorum superius;
- 4 – vagina mm. peroneorum (fibularium) communis;
- 5 – retinaculum mm. peroneorum (fibularium) superius;
- 6 – retinaculum mm. extensorum inferius;
- 7 – vagina tendinum m. extensoris digitorum pedis longi;
- 8 – vagina tendinis m. extensoris hallucis longi;
- 9 – tendines m. extensoris digitorum longi;
- 10 – m. extensor digitorum brevis;
- 11 – tendo m. peronei (fibularis) brevis;
- 12 – retinaculum mm. peroneorum (fibularium) inferius.

Tecile sinoviale ale piciorului (fața medială)
Синовиальные влагалища стопы (медиальная поверхность)
Synovial sheaths of the foot (medial surface)



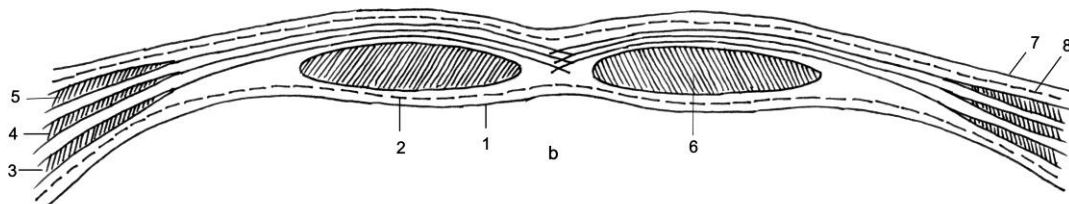
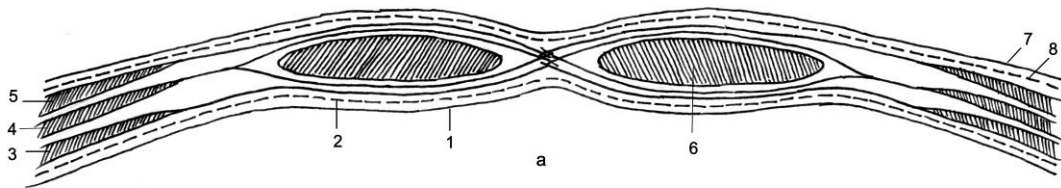
- 1 – *m. flexor digitorum longus*;
 2 – *tendo calcanei (Achillis)*;
 3 – *vagina tendinis m. flexoris hallucis longi*;
 4 – *vagina tendinis m. tibialis posterioris*;
 5 – *vagina tendinum m. flexoris digitorum pedis longi*;
 6 – *tendo m. tibialis anterioris*;
 7 – *m. abductor hallucis*;

- 8 – *tendo m. extensoris hallucis longi*;
 9 – *vagina tendinis m. extensoris hallucis longi*;
 10 – *retinaculum mm. extensorum inferius*;
 11 – *vagina tendinis m. tibialis anterioris*;
 12 – *malleolus medialis*;
 13 – *retinaculum mm. extensorum superius*;
 14 – *tibia*.

Secțiune transversală prin teaca mușchilui drept abdominal
(a. mai sus de ombilic; b. mai jos de ombilic)

Горизонтальный разрез через влагалища прямых мышц живота
(a. выше дугообразной линии (Douglas); b. ниже)

Transverse section through the sheath of the rectus abdominis muscle



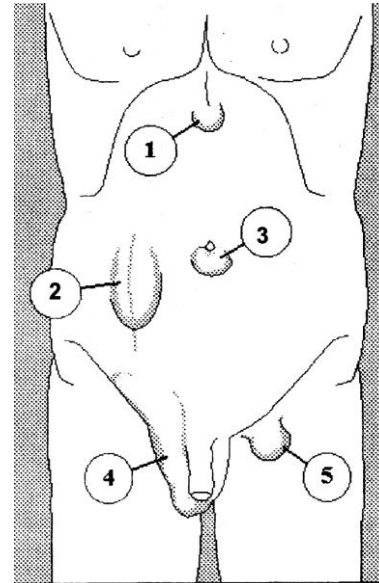
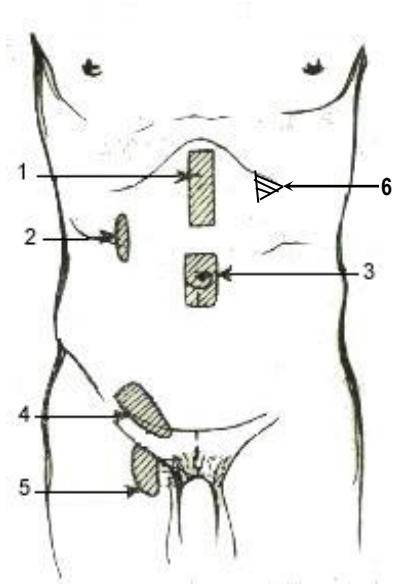
- 1 – *peritoneum parietale*;
 2 – *fascia transversalis*;
 3 – *m. transversus abdominis*;
 4 – *m. obliquus internus abdominis*;

- 5 – *m. obliquus externus abdominis*;
 6 – *m. rectus abdominis*;
 7 – *cutis*;
 8 – *fascia abdominalis superficialis*.

**Zonele slabe ale abdomenului (aspect ventral și dorsal) și unele tipuri de hernii
(după N. Diaconescu și coaut., 1979)**

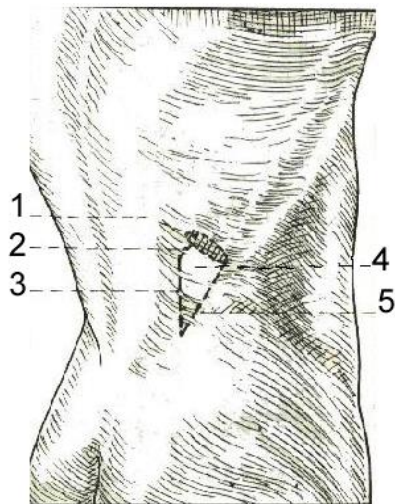
**Слабые места живота (передняя и задняя поверхности) и некоторые виды
грыж**

**Weak areas of the abdominal wall (ventral and dorsal aspects) and some types of
hernias**

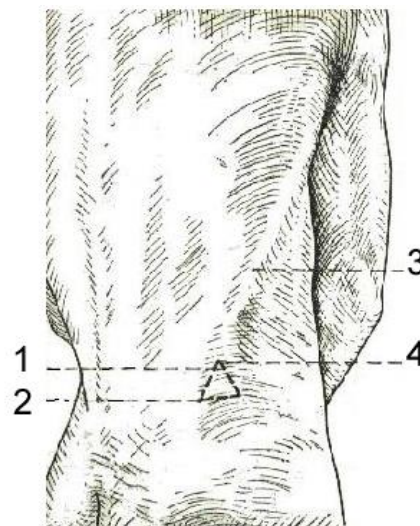


- 1 – *linea alba*;
2 – *linea semilunaris (Spigelius)*;
3 – *annulus umbilicalis*;
4 – *canalis inguinalis (paries posterior)*;
5 – *canalis femoralis (annulus femoralis)*;
6 – *trigonum subcostale (Валынский)*.

- 1 – *hernia lineae albae*;
2 – *hernia lineae semilunaris*;
3 – *hernia umbilicalis*;
4 – *hernia inguinalis*;
5 – *hernia femoralis*.

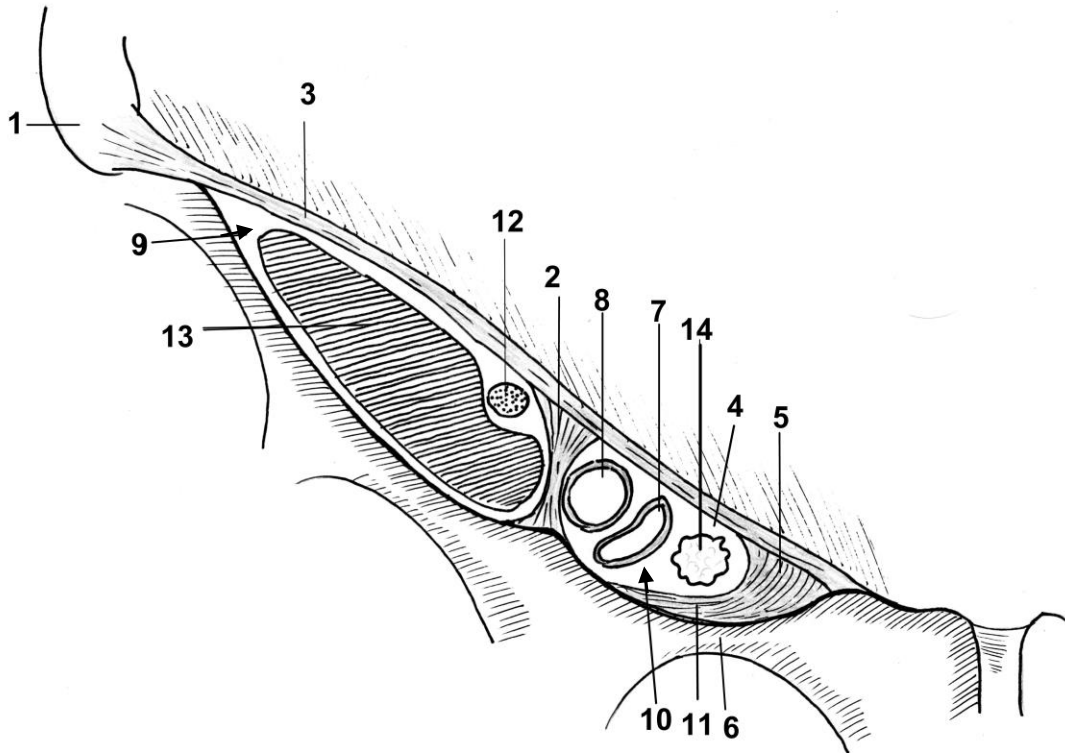


- 1 – *costae XII*;
2 – *m. serratus posterior inferior*;
3 – *m. erector spinae*;
4 – *tetragonum lumbale (Grynfeld – Лесгафт, Krause)*.



- 1 – *trigonum lumbale (Petit)*;
2 – *crista iliaca*;
3 – *margo anterior m. latissimi dorsi*;
4 – *margo posterior m. obliqui externi abdominis*.

Lacunele vasculară și musculară
(după Heinx Feneis, 1994, cu modificări)
Сосудистая и мышечная лакуны
Lacuna vasorum and lacuna musculorum

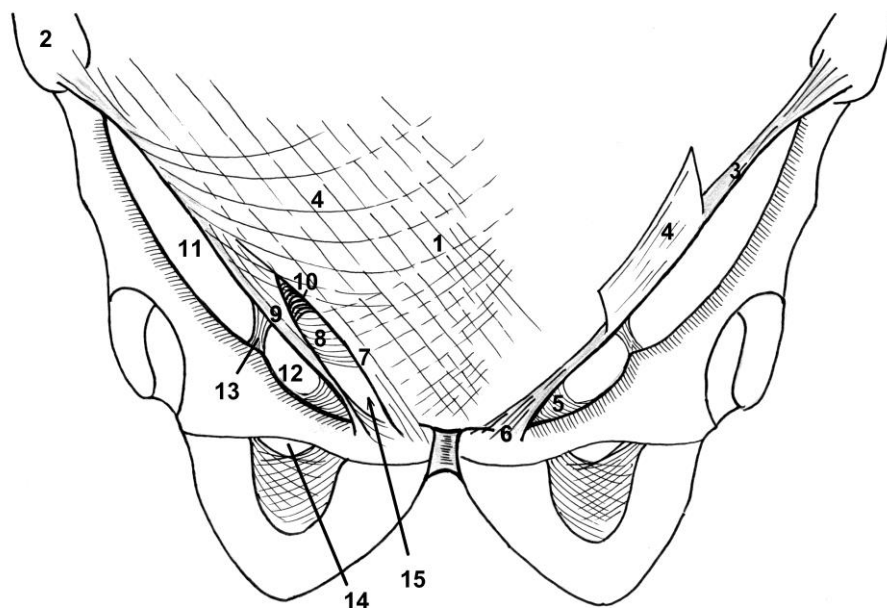


- 1** – *spina iliaca anterior superior;*
- 2** – *arcus iliopectineus;*
- 3** – *lig. inguinale (Pouparti);*
- 4** – *annulus femoralis;*
- 5** – *lig. lacunare (Gimbernati);*
- 6** – *ramus inferior ossis pubis;*
- 7** – *v. femoralis;*
- 8** – *a. femoralis;*
- 9** – *lacuna musculorum;*
- 10** – *lacuna vasorum;*
- 11** – *lig. pectineale (Cooperi);*
- 12** – *n. femoralis;*
- 13** – *m. iliopsoas;*
- 14** – *nodus lymphaticus Rosenmüller - Пупозов.*

Schema structurii ligamentului inghinal și a peretelui anterior al canalului inghinal

(modificată după L.P. Chevrel, 1994)

Схема строения паховой связки и наружной стенки пахового канала
The scheme of inguinal ligament and of anterior wall of the inguinal canal



1 – *linea alba*;

2 – *spina iliaca anterior superior*;

3 – *lig. inguinale (Poupart)*;

4 – *aponeurosis m. obliqui abdominis externi*;

5 – *lig. lacunare (Gimbernati)*;

6 – *tuberculum pubicum*;

7 – *crus superius*;

8 – *lig. reflexum (Collesi)*;

9 – *crus inferius*;

10 – *fibrae intercrurales*;

11 – *lacuna musculorum*;

12 – *lacuna vasorum*;

13 – *arcus iliopectineus*;

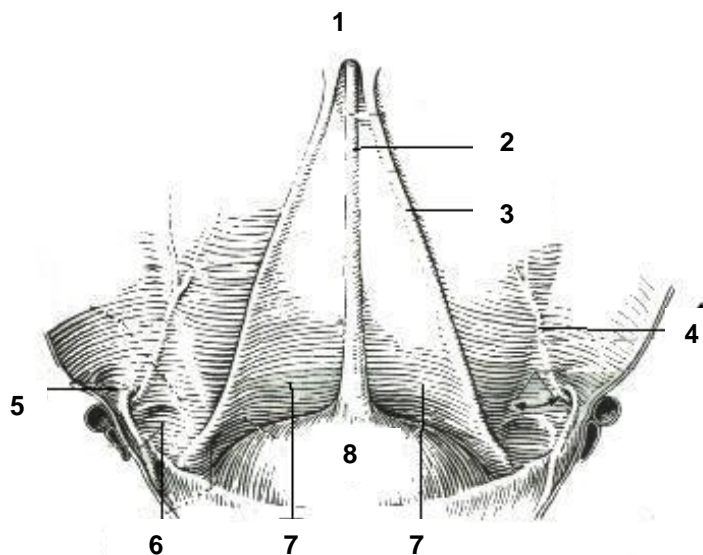
14 – *canalis obturatorius*;

15 – *annulus inguinalis superficialis*.

Fața posterioară a peretelui abdominal anterior

Задняя поверхность передней стенки живота

Posterior surface of the anterior abdominal wall



1 – *umbilicus*;

2 – *plica umbilicalis mediana*;

3 – *plica umbilicalis medialis*;

4 – *plica umbilicalis lateralis*;

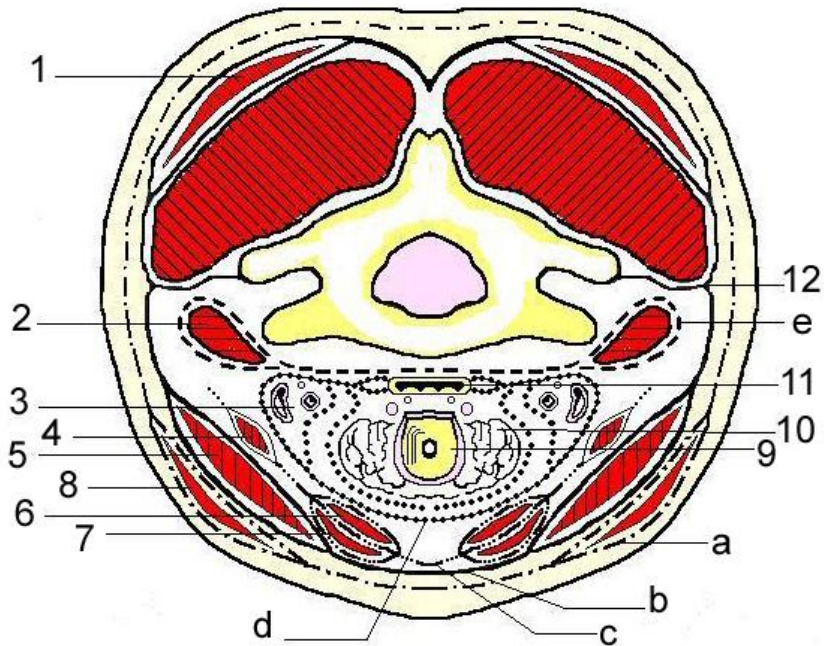
5 – *fossa inguinalis lateralis*;

6 – *fossa inguinalis medialis*;

7 – *fossa supravesicalis*;

8 – *vesica urinaria*.

Fasciile gâtului
(după V.H. Шевкуненко)
Фасции шеи
Fasciae of the neck



1 – *m. trapezius*;

2 – *mm. scaleni et mm. prevertebrales*;

3 – *fasciculus neurovascularis*;

4 – *m. omohyoideus*;

5 – *m. sternocleidomastoideus*;

6 – *m. thyreohyoideus*;

7 – *m. sternohyoideus*;

8 – *platysma*;

9 – *larynx*;

10 – *glandula thyroidea*;

11 – *oesophagus*;

12 – *septum intermusculare*.

a – *fascia colli superficialis (I)*;

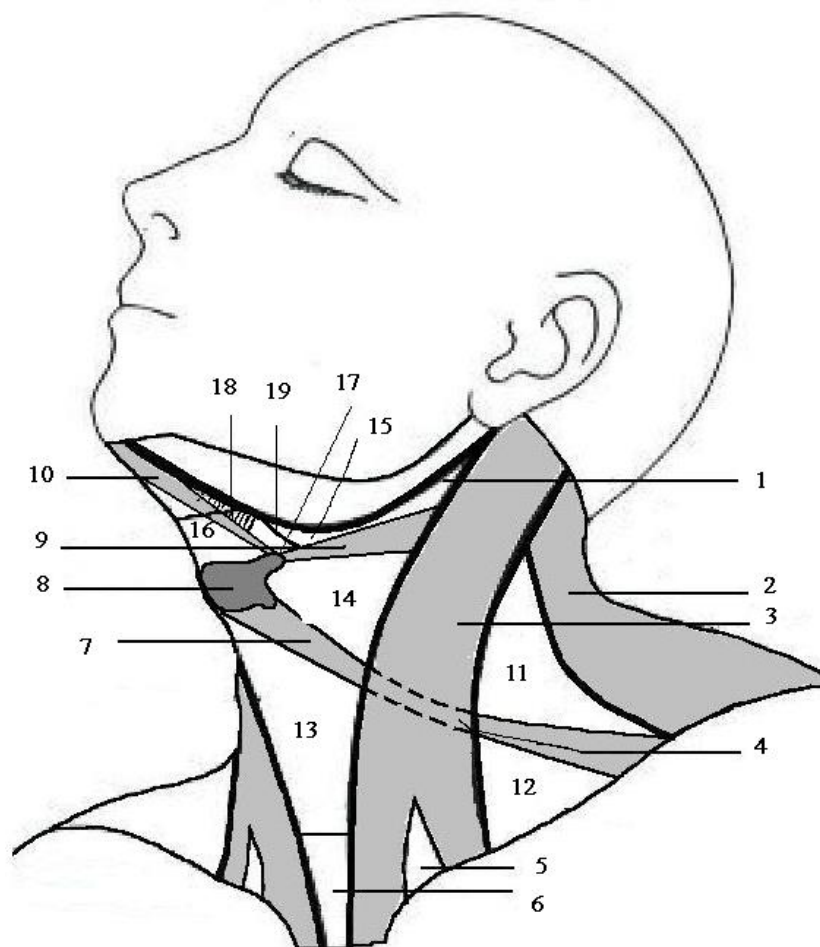
b – *lamina superficialis fasciae colli propriae (II)*;

c – *lamina profunda fasciae colli propriae (III)*;

d – *fascia endocervicalis (lamina parietalis et visceralis) (IV)*;

e – *fascia prevertebralis (V)*.

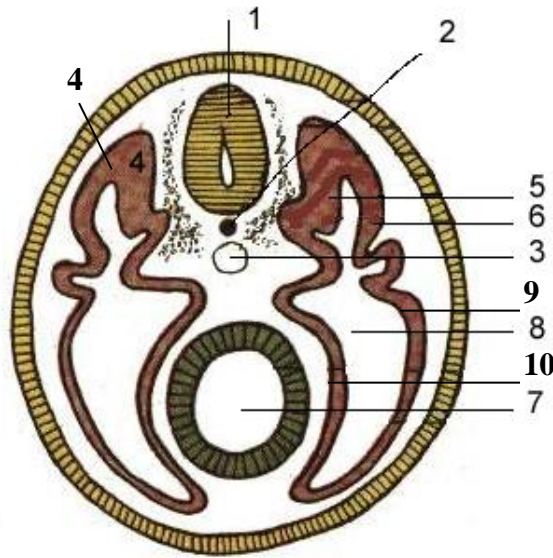
Triunghiurile gâtului
Треугольники шеи
Triangles of the neck



1 – fossa retromandibularis;
 2 – m. trapezius;
 3 – m. sternocleidomastoideus;
 4 – tendo m. omohyoidei;
 5 – fossa supraclavicularis minor;
 6 – fossa jugularis;
 7 – m. omohyoideus;
 8 – os hyoideum;
 9, 10 – m. digastricus (venter anterior et
 venter posterior);

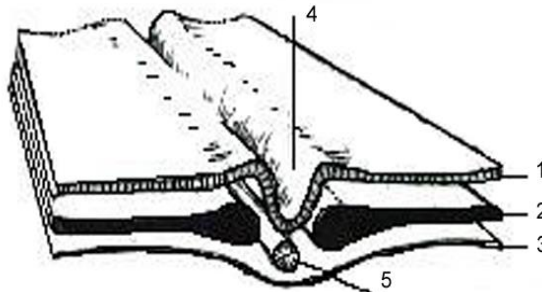
11 – trigonum omotrapezoideum;
 12 – trigonum omoclaviculare;
 13 – trigonum omotracheale;
 14 – trigonum caroticum;
 15 – trigonum submandibulare;
 16 – trigonum submentale;
 17 – trigonum a. lingualis (Пупозов);
 18 – m. mylohyoideus;
 19 – n. hypoglossus (XII).

Embrion în secțiune transversală
Поперечный разрез туловища зародыша
Transverse section through the embryonic trunk



- 1 – *tubulus neuralis*;
- 2 – *chorda dorsalis*;
- 3 – *aorta*;
- 4 – *sclerotom*;
- 5 – *myotom*;
- 6 – *dermatom*;
- 7 – *intestinum primarium*;
- 8 – *coeloma (cavitas corporis)*;
- 9 – *somatopleura*;
- 10 – *splanchnopleura*.

Foițele embrionare și derivatele lor
Зародышевые (эмбриональные) листки и их производные
Derivatives of the germ layers



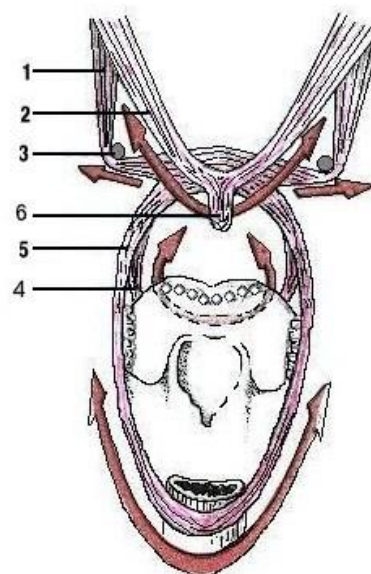
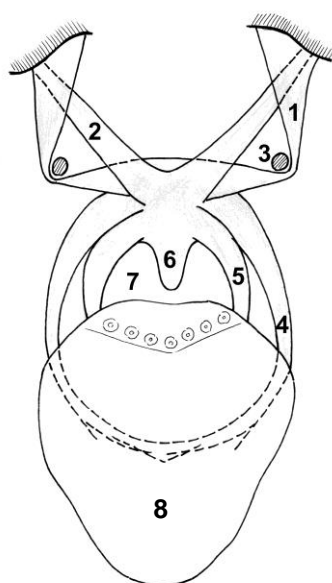
1. *Ectoderma: textus nervosus, tegmina.*
2. *Mesoderma: skeleton, musculi striati et plani (textus muscularis nonstriatus), tunica conjunctiva; apparatus renalis (urogenitalis), systema cardiovascularis, glandulae endocrinae (gll. suprarenales, gll. sexuales); tunicae serosae cavitatis trunci (pleura, pericardium, peritoneum, tunica vaginalis testis).*
3. *Endoderma: apparatus digestorius (systema digestorium) cum glandulis accessoriis, tunica mucosa apparatus respiratorii, glandulae endocrinae (gl. thyroidea, gll. parathyroideae, thymus and pancreas).*
4. *Sulcus neuralis.*
5. *Chorda dorsalis.*

Mușchii palatului moale. Vestibulul faringian

(după M.P. Сапин)

Мышцы мягкого неба. Перешеек зева [зев (fauces)]

The fauces or isthmus faucium



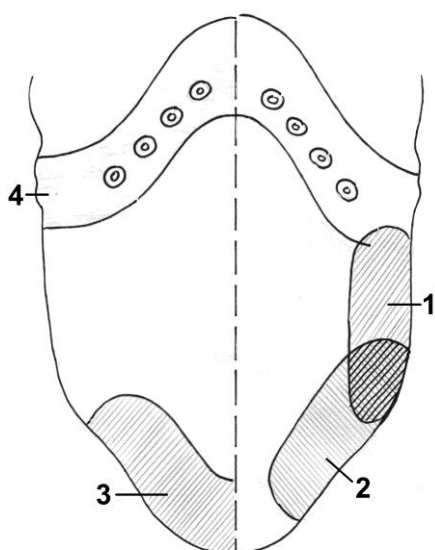
- 1 – *m. tensor veli palatini*;
- 2 – *m. levator veli palatini*;
- 3 – *hamulus pterygoideus*;
- 4 – *m. palatoglossus*;
- 5 – *m. palatopharyngeus*;
- 6 – *m. uvulae*;
- 7 – *isthmus faucium (fauces)*;
- 8 – *lingua*.

Ațiunea mușchilor din jurul vestibulului
 Действие мышц расположенных вокруг зева
Action of the muscles surrounding the fauces

Zonele de percepție gustativă ale limbii

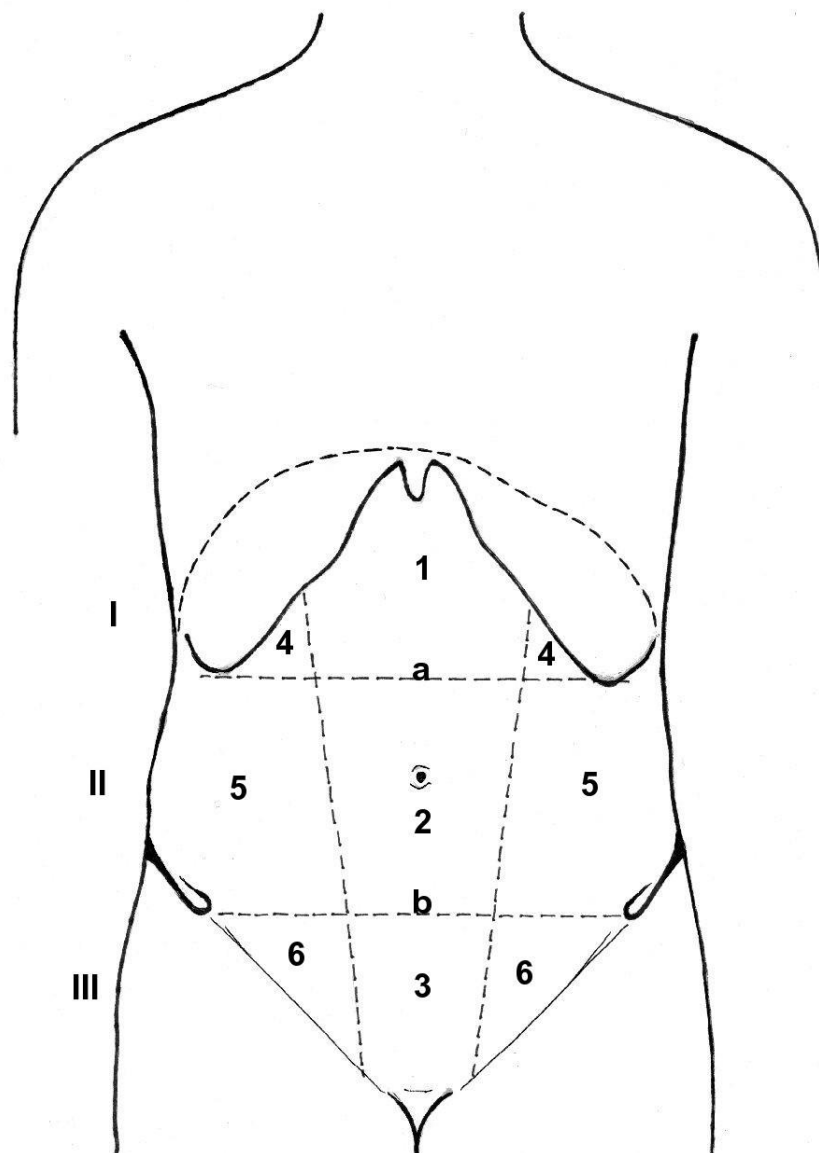
Вкусовые зоны языка

Gustatory zones of the tongue



- 1 – *gustus acidus*;
- 2 – *gustus salsus*;
- 3 – *gustus dulcis*;
- 4 – *gustus amarus*.

Regiunile clinico-topografice ale peretelui anterolateral al abdomenului
Клинико-топографические области передне-латеральной стенки живота
Clinicotopographical regions of the antero-lateral abdominal wall

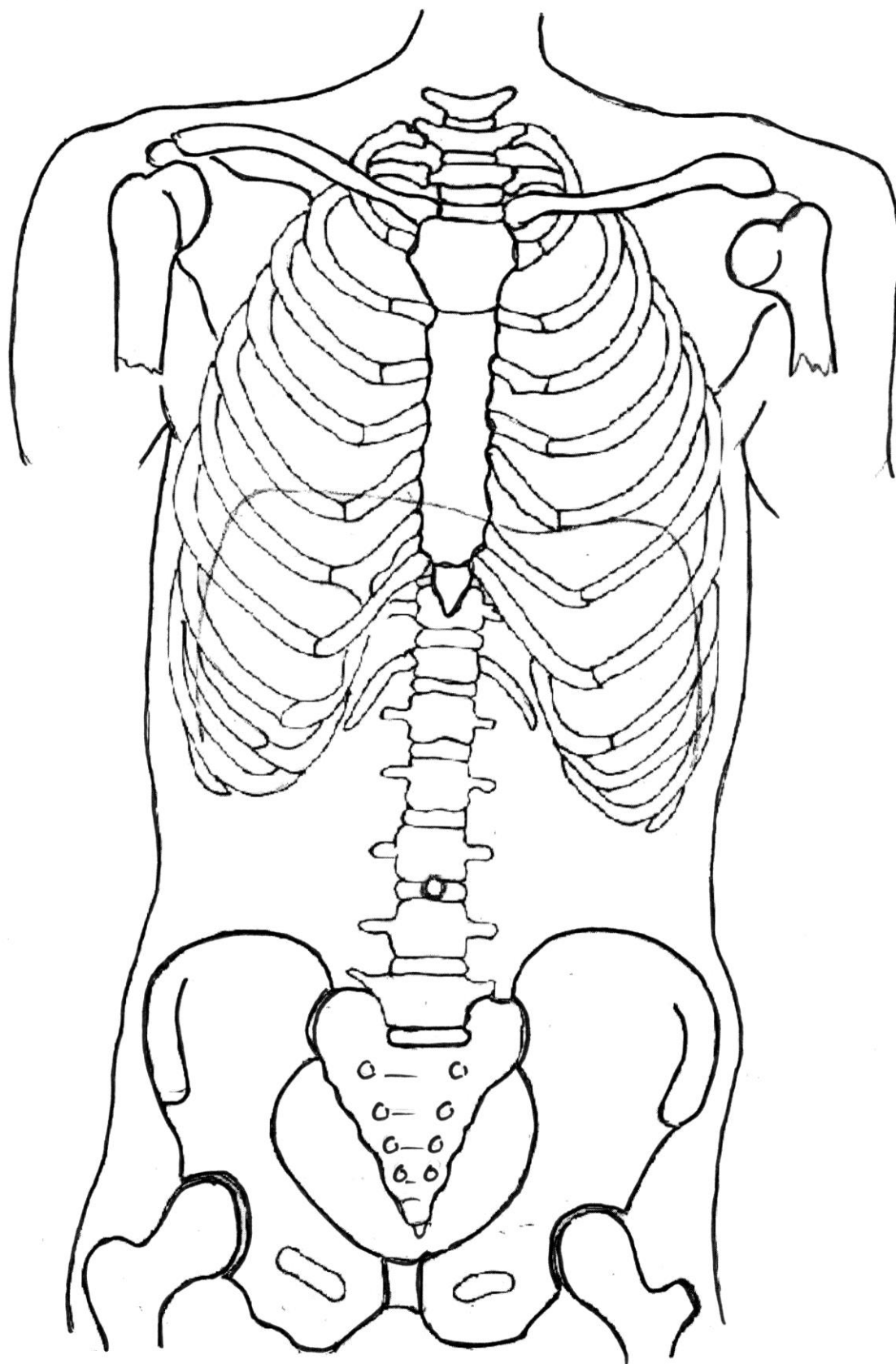


I. epigastrium;
II. mesogastrium;
III. hypogastrium.

a – linea bicostarum;
b – linea bispinarum.

1 – regio epigastrica;
2 – regio umbilicalis;
3 – regio pubica;
4 – regiones hypochondriacae dextra et sinistra;
5 – regiones abdominales dextra et sinistra;
6 – regiones inguinales dextra et sinistra.

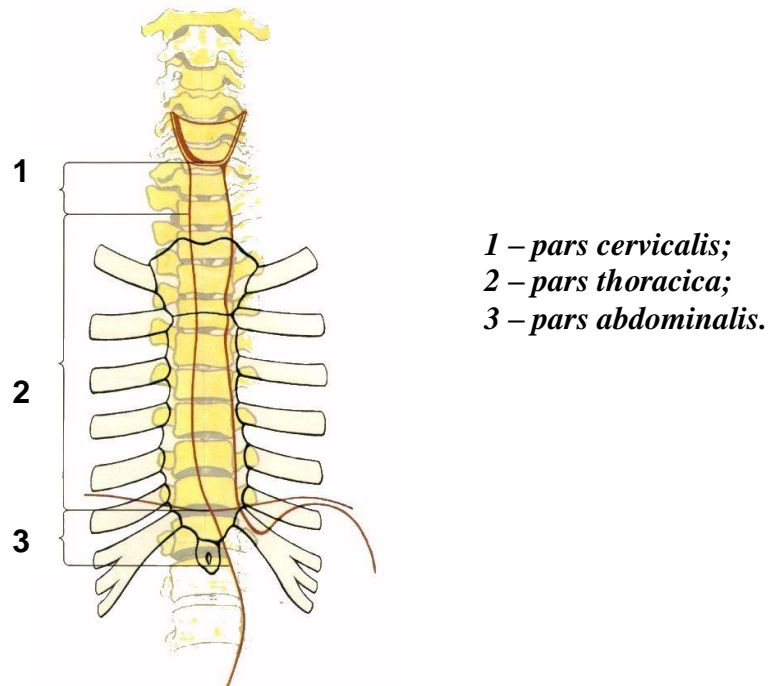
Șablon (schemă) pentru reprezentarea grafică a proiecției viscerelor
Шаблон (схема) для нанесения проекции органов
Scheme for the graphical representation of the projection of the viscera



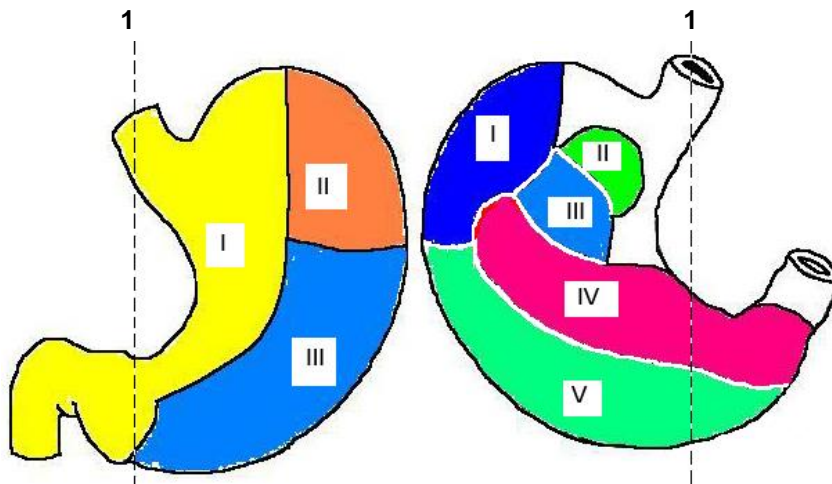
Scheletotopia esofagului

(după P.Д. Синельников, Я.Р. Синельников, 1990)

Скелетотопия пищевода Skeletotomy of the oesophagus



Ariile de contact ale stomacului cu organele învecinate (sintopia) Области соприкосновения желудка со смежными органами (синтопия) Contact areas of the stomach with the neighbouring organs



A – paries anterior

I. Area hepatica;

II. Area diaphragmatica;

III. Area libera.

B – paries posterior

I. Area lienalis;

II. Area suprarenalis;

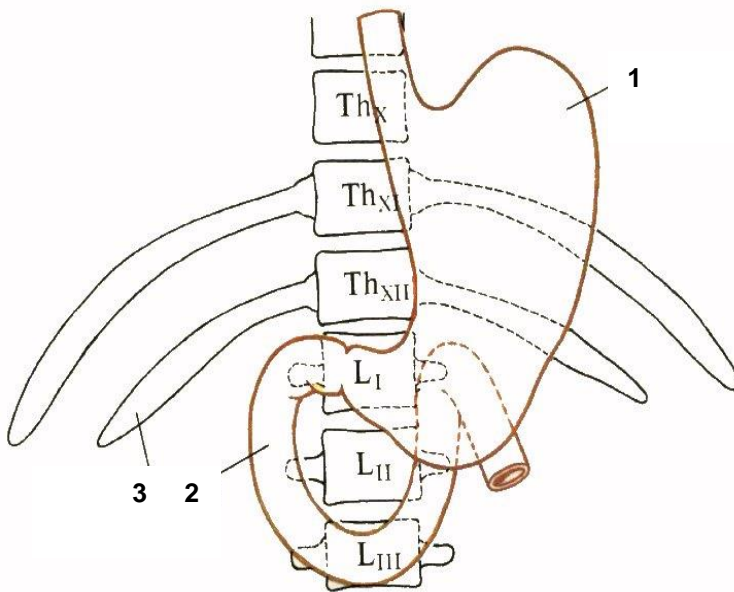
III. Area renalis;

IV. Area pancreatica;

V. Area colica.

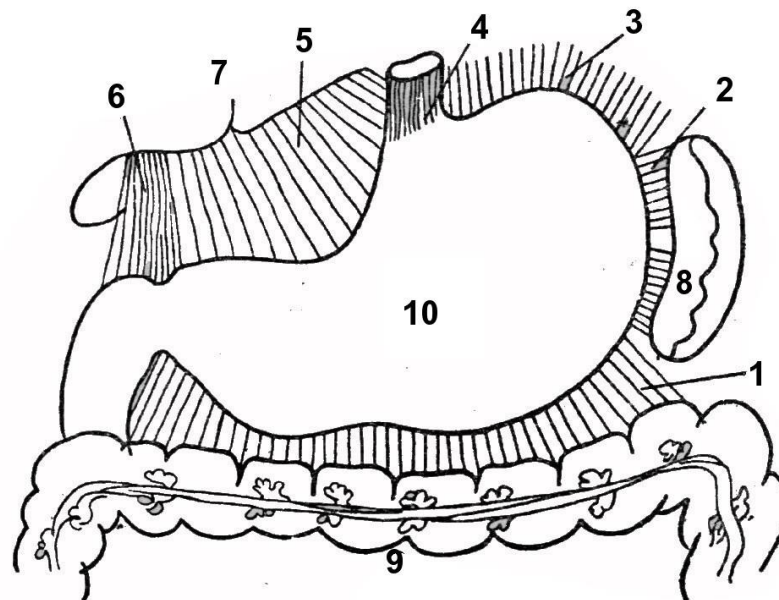
1 – planum mediosagittales (medianum).

Scheletotopia stomacului și duodenului
 (după P. Д. Синельников, Я.Р. Синельников, 1990)
Скелетотопия желудка и двенадцатиперстной кишки
Skeletotopy of the stomach and duodenum



*1 – ventriculus;
 2 – duodenum;
 3 – costae XII.*

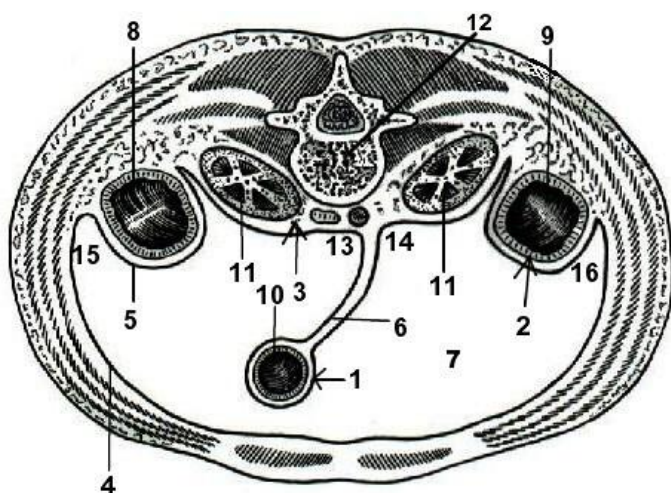
Ligamentele stomacului
Связки желудка
Stomach ligaments



*1 – lig. gastrocolicum;
 2 – lig. gastrolienale;
 3 – lig. gastrophrenicum;
 4 – lig. phrenicoesophageum;
 5 – lig. hepatogastricum;*

*6 – lig. hepatoduodenale;
 7 – hepar;
 8 – lien;
 9 – colon transversum;
 10 – gaster (ventriculus).*

Raportul organelor față de peritoneu (secțiune transversală L_{II-III})
Варианты отношения органов к брюшине (горизонтальный распил L_{II-III})
Relation of organs to the peritoneum (horizontal section L_{II-III})

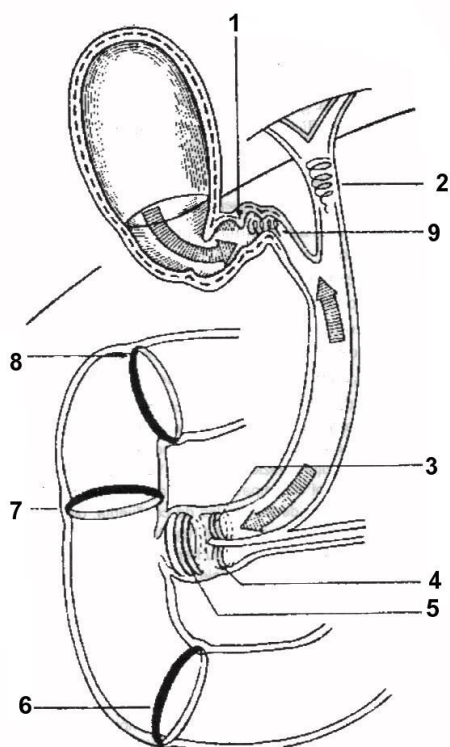


- 1 – *positio intraperitonealis*;
- 2 – *positio mesoperitonealis*;
- 3 – *positio extraperitonealis (retroperitonealis)*;
- 4 – *peritoneum parietale*;
- 5 – *peritoneum viscerale*;
- 6 – *mesenterium*;
- 7 – *cavitas peritonealis*;
- 8 – *colon ascendens*;
- 9 – *colon descendens*;
- 10 – *intestinum tenue*;
- 11 – *ren dexter et sinister*;
- 12 – *vertebrae lumbales (L_{II-III})*;
- 13 – *sinus mesentericus dexter*;
- 14 – *sinus mesentericus sinister*;
- 15 – *canalis paracolicus dexter*;
- 16 – *canalis paracolicus sinister*.

Sfincterele biliduodenale

(după V. Papilian, 1998)

Желчно-дуоденальные сфинктеры
Sphincters of the bile ways and of the duodenum



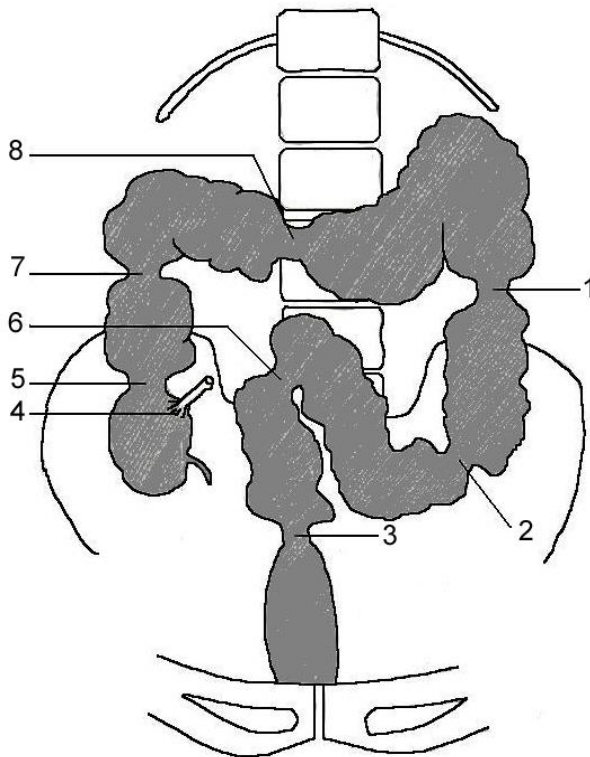
- 1 – *plica spiralis*;
- 2 – *m. sphincter ductus hepatici communis*;
- 3 – *m. sphincter ductus choledochi*;
- 4 – *m. sphincter ductus pancreatici*;
- 5 – *m. sphincter ampullae hepatopancreaticae (Oddi)*;
- 6 – *m. sphincter duodeni*;
- 7 – *m. sphincter medioduodeni*;
- 8 – *m. sphincter bulboduodeni*;
- 9 – *m. sphincter ductus cystici*.

Sfinctere funcționale ale intestinului gros

(după V.Papilian, 1998)

Функциональные сфинктеры толстой кишки

Functional sphincters of the large intestine

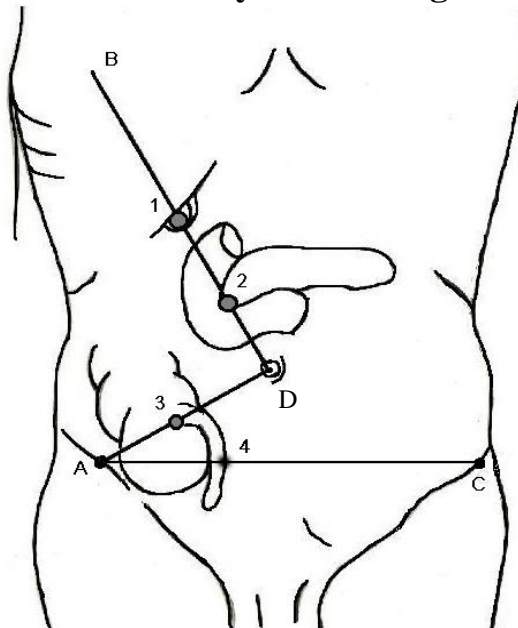


- 1 – *sphincter flexurae coli sinistrae (anguli lienalis) (Payr)*;
- 2 – *sphincter coli sigmoidei (Balli)*;
- 3 – *sphincter sigmoidorectalis (Moutier)*;
- 4 – *sphincter (valva) ileocaecalis (Keith, Varolio)*;
- 5 – *sphincter caecocolicus (Busi)*;
- 6 – *sphincter accessorius (Moutier-Rossi)*;
- 7 – *sphincter flexurae coli dextrae (anguli hepatici) (Hirsch)*;
- 8 – *sphincter coli transversi (Cannon-Böhm)*.

Proiecția cutanată a sensibilității unor organe abdominale

Кожная проекция чувствительности некоторых органов брюшной полости

Projection of the cutaneous sensibility of some organs of the abdominal cavity



- 1 – *punctum cholecysticum*;
- 2 – *punctum pancreaticum*;
- 3 – *punctum appendiculare (Mc. Burney)*;
- 4 – *punctum appendiculare (Lanz)*.

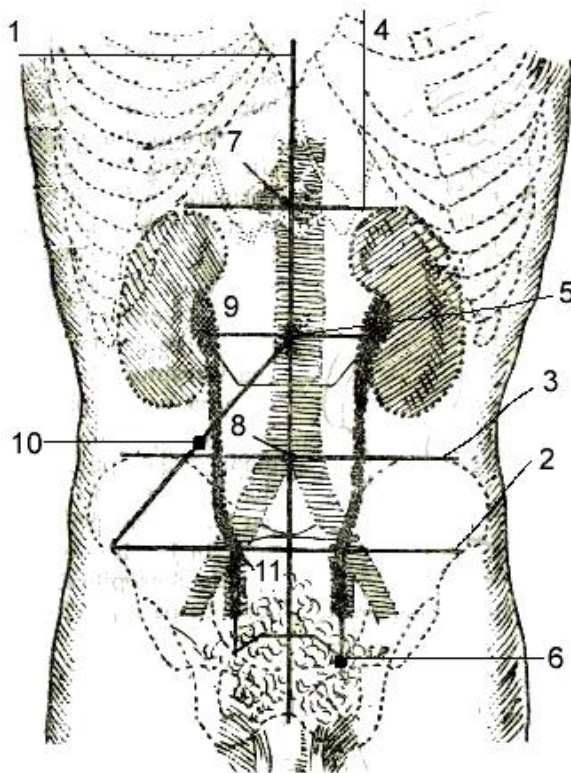
- AD – *linea umbilicoiliaca*;
- BD – *linea umbilicoaxillaris*;
- AC – *linea bispinoiliaca*.

Repere topografice pentru proiecția rinichilor și ureterelor

(după V. Papilian, 1998)

Топографические ориентиры проекции почек и мочеточников

Topographical reference points for the projection of the kidneys and ureters



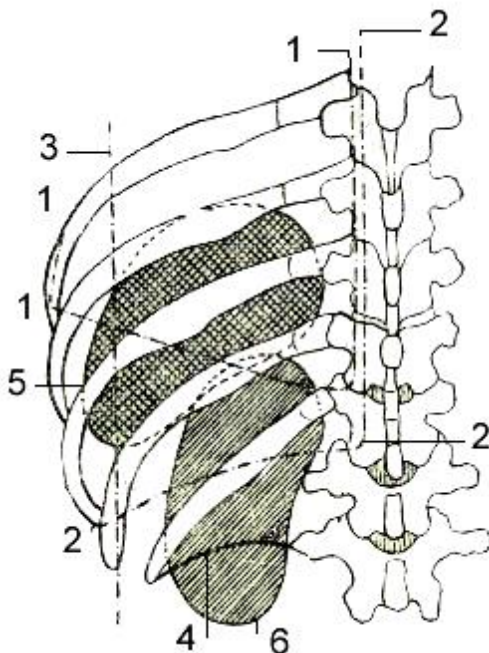
- 1 – *linea mediana;*
- 2 – *distantia spinarum;*
- 3 – *distantia cristarum;*
- 4 – *linea bicostarum (costae IX);*
- 5 – *umbilicus;*
- 6 – *tuberculum pubicum;*
- 7 – *punctum coeliacum;*
- 8 – *punctum aorticum;*
- 9 – *punctum uretericum superius (Bazy);*
- 10 – *punctum appendiculare (Mc Burney);*
- 11 – *punctum uretericum medium.*

Proiecția splinei și a rinichiului stâng (aspect posterior)

(după V. Papilian, 1998)

Проекция селезенки и левой почки (вид сзади)

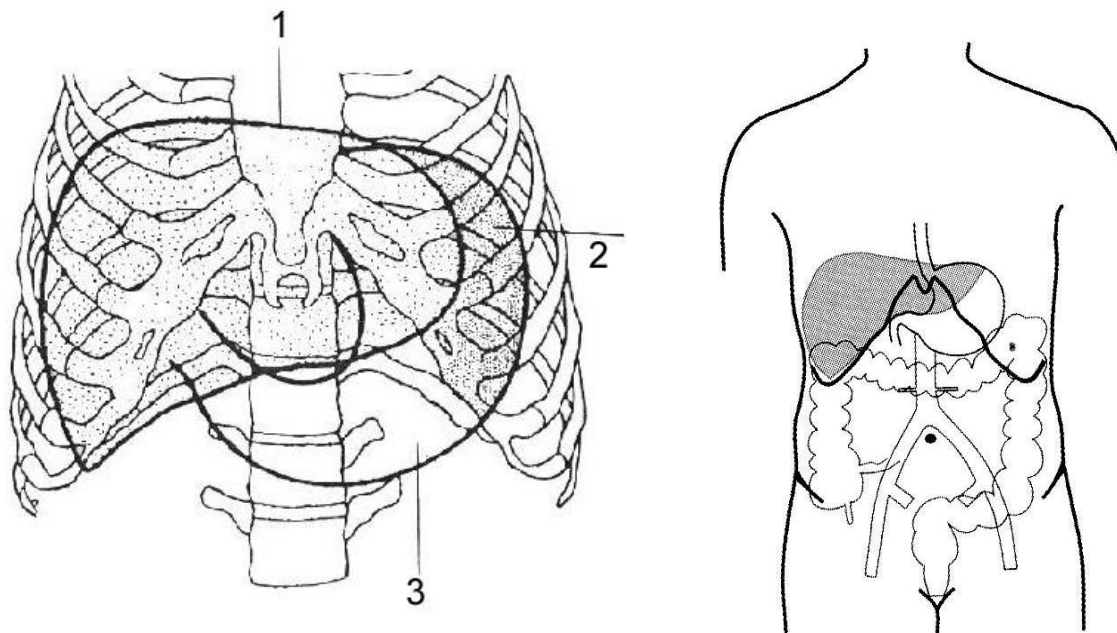
Projection of the spleen and of the left kidney



- 1 – *margo pulmonis sinistri;*
- 2 – *proectio sinuum costomediastinalis posterioris et costodiaphragmatici sinistri;*
- 3 – *linea axillaris posterior;*
- 4 – *arcus lumbocostalis sinister;*
- 5 – *lien;*
- 6 – *ren sinister.*

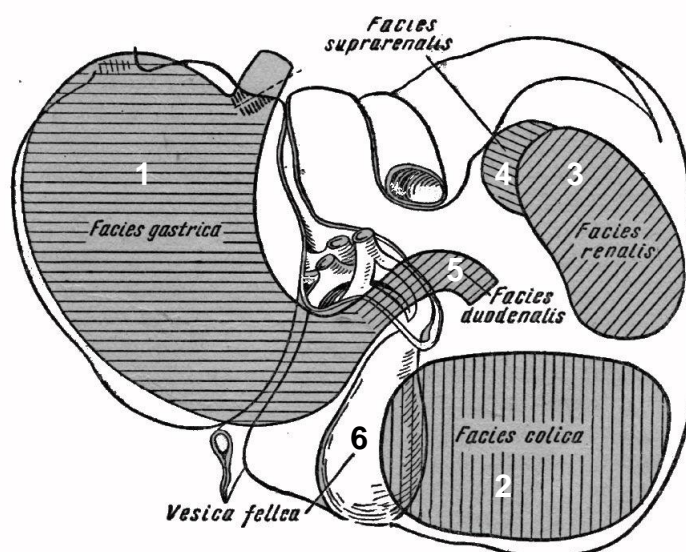
Proiecția stomacului și a ficatului pe peretele toraco-abdominal anterior
 (după V. Papilian, 1998)

Проекция желудка и печени на переднюю стенку туловища
Projection of the stomach and of the liver on the anterior wall of the trunk



- 1 – hepar;
 2 – ventriculus (regio thoracica, spatium semilunare, Traube);
 3 – ventriculus (regio abdominalis, trigonum Labbe).

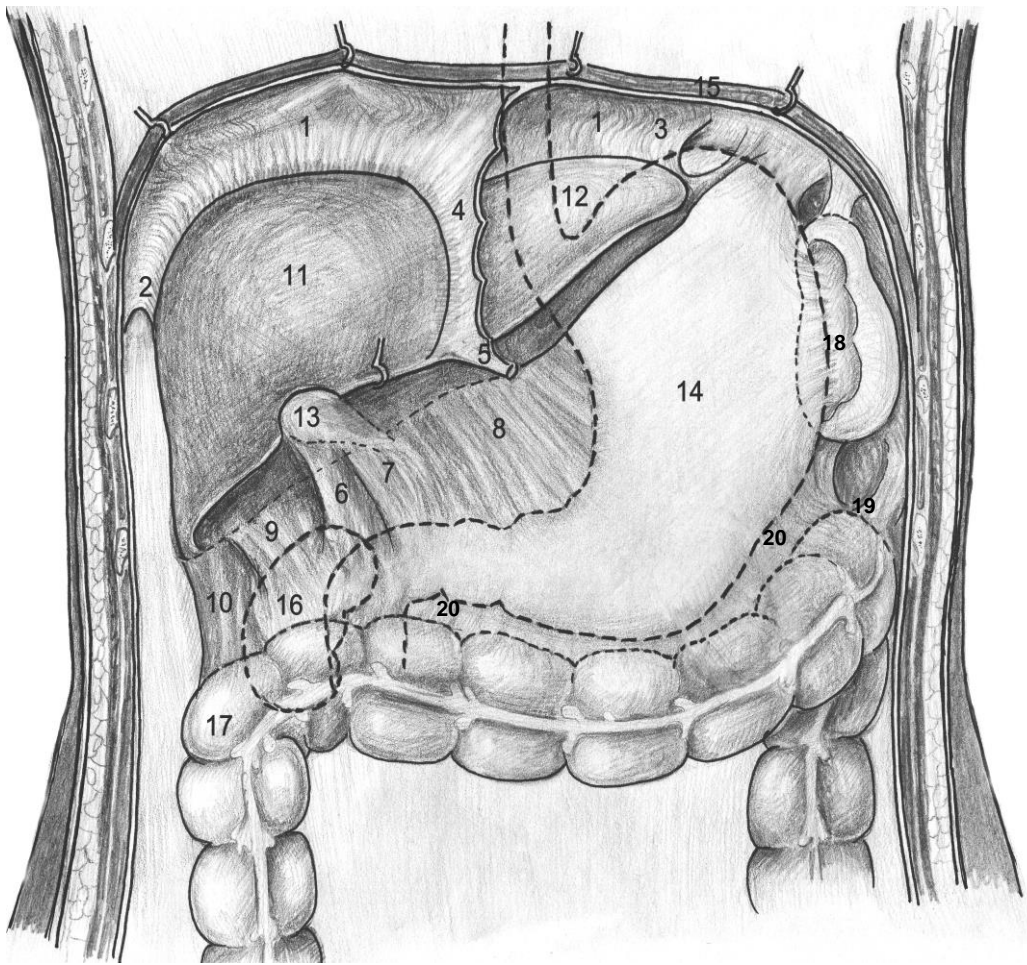
Sintopia feței viscerele a ficatului
Синтопия висцеральной поверхности печени
Contact areas of the liver with the neighbouring organs



- 1 – facies gastrica;
 2 – facies colica;
 3 – facies renalis;
 4 – facies suprarenalis;
 5 – facies duodenalis;
 6 – vesica fellea.

Ligamentele peritoneale ale etajului supravezocolic
(schema modificată după M. Ifrim, 1985)

Связки органов верхнего этажа брюшной полости
Peritoneal ligaments of the supramesocolic storey



1 – *lig. coronarium;*

2 – *lig. triangulare dextrum;*

3 – *lig. triangulare sinistrum;*

4 – *lig. falciforme hepatis;*

5 – *lig. teres;*

6 – *lig. hepatocystoduodenolicum;*

7 – *lig. hepatoduodenale omenti minoris;*

8 – *lig. hepatogastricum omenti minoris;*

9 – *lig. hepatorenale;*

10 – *lig. hepatocolicum;*

11-12 – *lobi hepatis (dexter et sinister);*

13 – *vesica fellea (biliaris);*

14 – *ventriculus;*

15 – *diaphragma;*

16 – *ren dexter;*

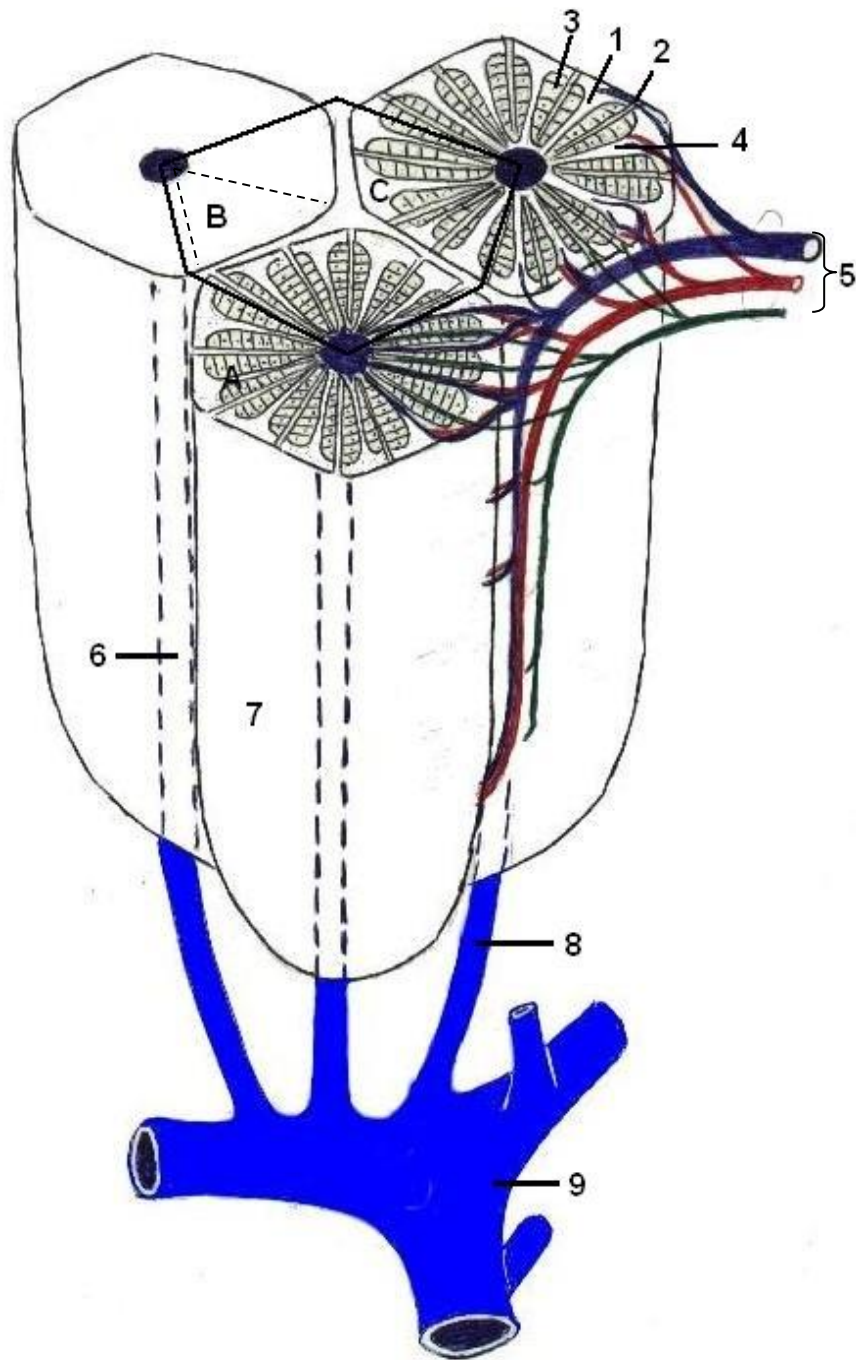
17 – *colon;*

18 – *lig. gastrolienale (gastrosplenicum);*

19 – *lig. phrenicocolicum;*

20 – *lig. gastrocolicum.*

Lobulul hepatic
(schema modificată după M. Ifrim, 1985)
Печеночная долька
The hepatic lobule

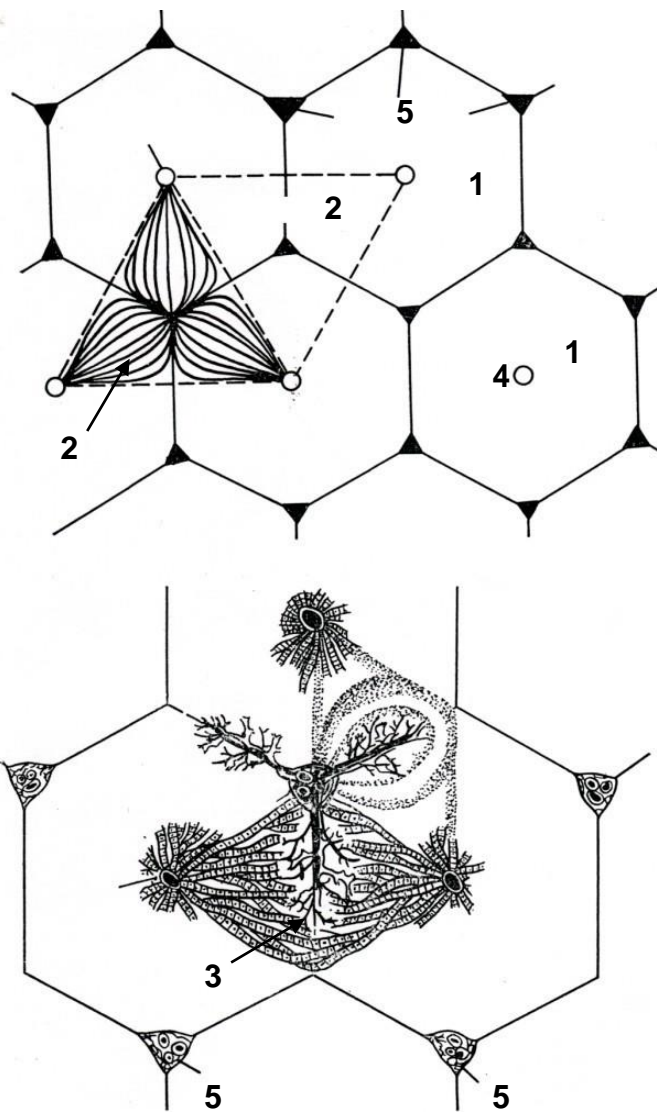


1 - canaliculi biliferi;
2 - ductuli biliferi;
3 - laminae (trabeculae) hepaticae;
4 - vasa sinusoidea;
5 - trias hepatica [arteria, venula, ductulus interlobularis (Glisson)];
6 - v. centralis;

7 - lobulus hepaticus;
8 - v. sublobularis;
9 - v. hepatica;

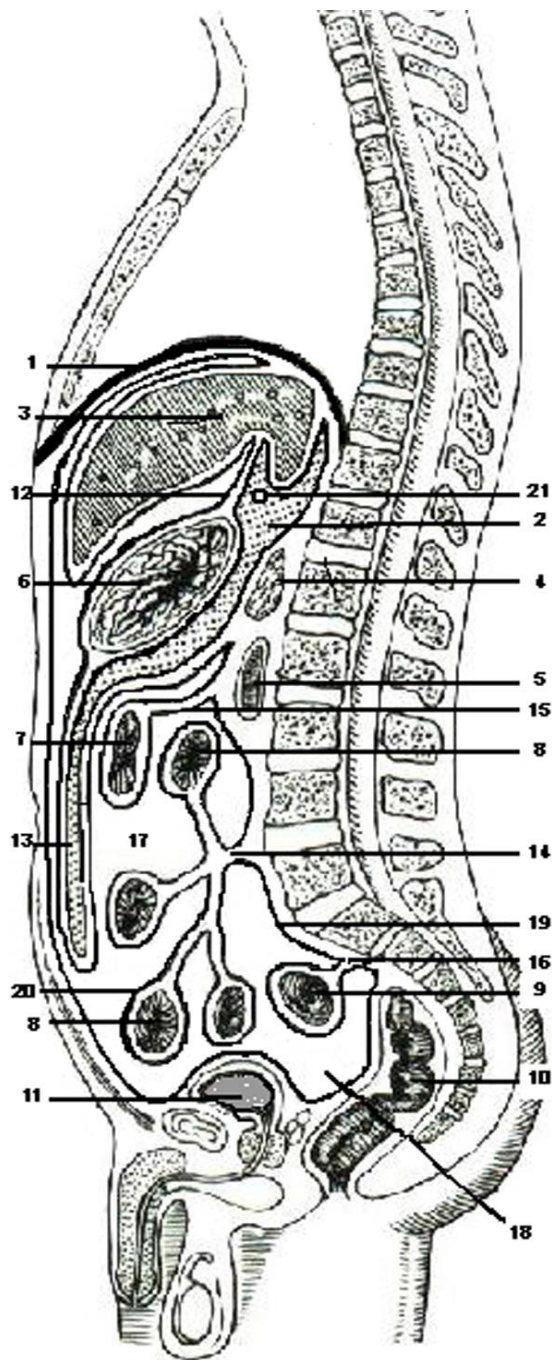
A - lobulus hepaticus;
B - acinus portalis (hepaticus);
C - lobulus portalis.

Structura lobulară și acinară a ficatului
(după Ham A., Korckmark D., 1983)
Дольковое и ацинарное строение печени
Lobular and acinous structure of the liver



- 1 – lobulus hepaticus classicus;*
- 2 – lobulus portalis;*
- 3 – acinus hepaticus portalis;*
- 4 – venae centrales;*
- 5 – spatium Dissé.*

Raporturile peritoneului la bărbat (secțiune sagitală)
Топография брюшины туловища у мужчины (срединно-сагитальный разрез)
Relations of organs to the peritoneum in male (sagittal section)



1 – diaphragma;

2 – bursa omentalis;

3 – hepar;

4 – pancreas;

5 – duodenum;

6 – ventriculus;

7 – colon transversum;

8 – jejunum/ileum;

9 – colon sigmoideum;

10 – rectum;

11 – vesica urinaria;

12 – omentum minus (lig. hepatogastricum
et lig. hepatoduodenale);

13 – omentum majus;

14 – radix mesenterii;

15 – mesocolon transversum;

16 – mesosigmoideum;

17 – cavitas peritonealis;

18 – excavatio rectovesicalis;

19 – peritoneum parietale;

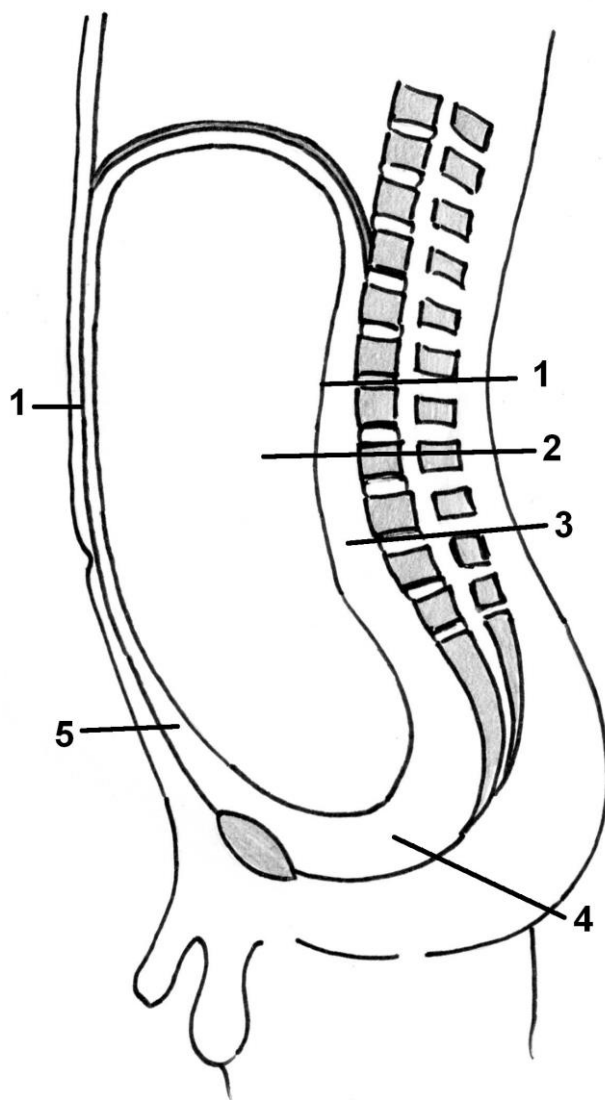
20 – peritoneum viscerale;

21 – foramen epiploicum (Winslow).

Cavitatea peritoneală și spațiile extraperitoneale (secțiune schematică medio-sagitală prin abdomen) (după V. Papilian, 1998)

Полость брюшины и экстраперитонеальное пространство (срединно – сагитальный разрез)

Peritoneal cavity and the extraperitoneal spaces (mediosagittal section through the abdomen)



1 – peritoneum parietale;

2 – cavitas peritonealis;

3 – spatium retroperitonealis;

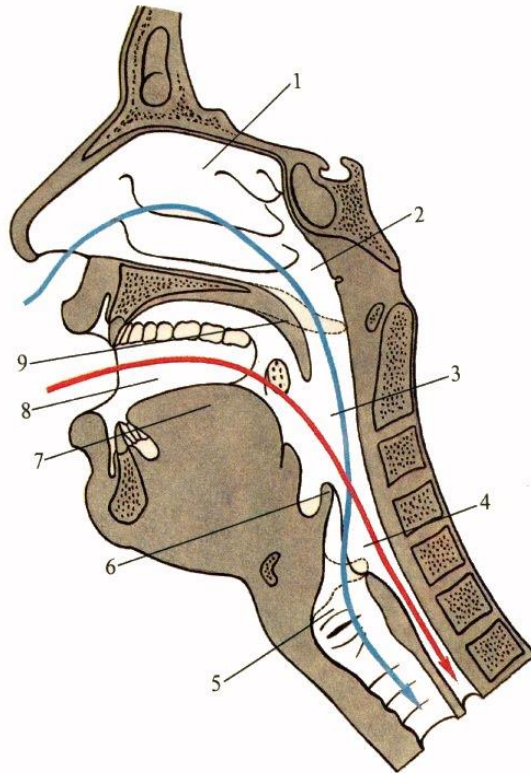
4 – spatium subperitoneale (pelvisubperitoneale);

5 – spatium preperitoneale

Intersectarea căilor respiratorii și digestive în faringe

(după P.Д. Синельников, Я.Р. Синельников, 1990)

Пересечение в области глотки дыхательного и пищеварительного путей
Intersection of the respiratory ways and alimentary tract within the pharynx



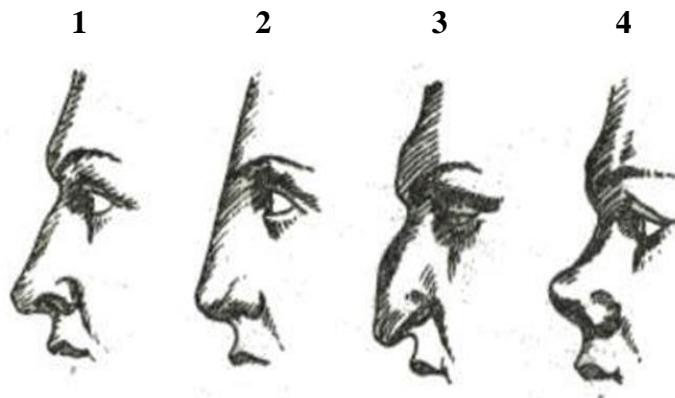
- 1 – *cavitas nasi*;
- 2 – *pars nasalis pharyngis*;
- 3 – *pars oralis pharyngis*;
- 4 – *pars laryngea pharyngis*;
- 5 – *cavitas laryngis*;
- 6 – *epiglottis*;
- 7 – *lingua*;
- 8 – *cavitas oris*;
- 9 – *palatum molle*.

Principalele tipuri de nas

(după N. Diaconescu, 1979)

Формы наружного носа

The main types of the external nose



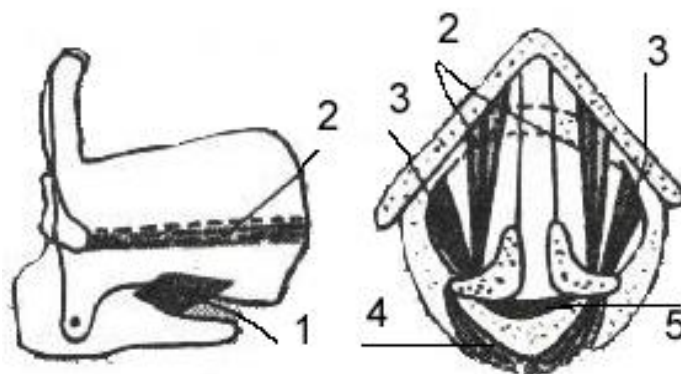
- 1 – *nasus rectus* (August);
- 2 – *nasus graecus* (Venus de Milo);
- 3 – *nasus aquilinus* (Dante);
- 4 – *nasus selliformis* (Socrate).

Formațiunile de fixare, încordare și relaxare a coardelor vocale

(după Л.В. Пупышев, 1999)

Структуры фиксирующие, напрягающие и расслабляющие голосовые
связки

Anatomical formations for the fixation, straining and relaxation of the vocal
folds



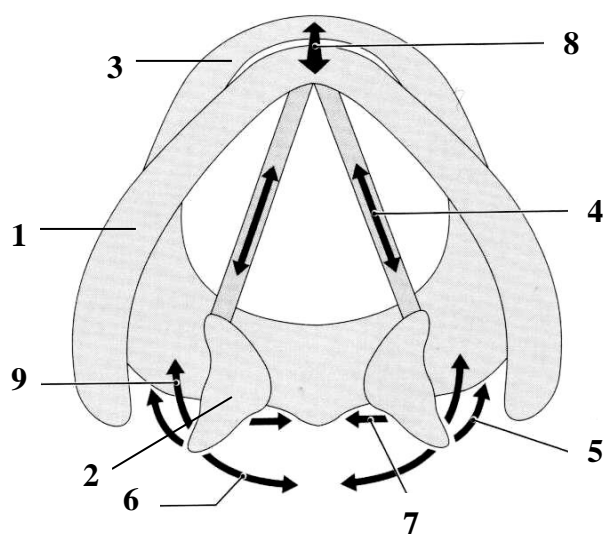
- 1 – *m. cricothyroideus*;
- 2 – *m. thyroarytenoideus*;
- 3 – *m. cricoarytenoideus lateralis*;
- 4 – *m. cricoarytenoideus posterior*;
- 5 – *m. arytenoideus transversus*.

Laringele în fonație

(după M. Schuenke)

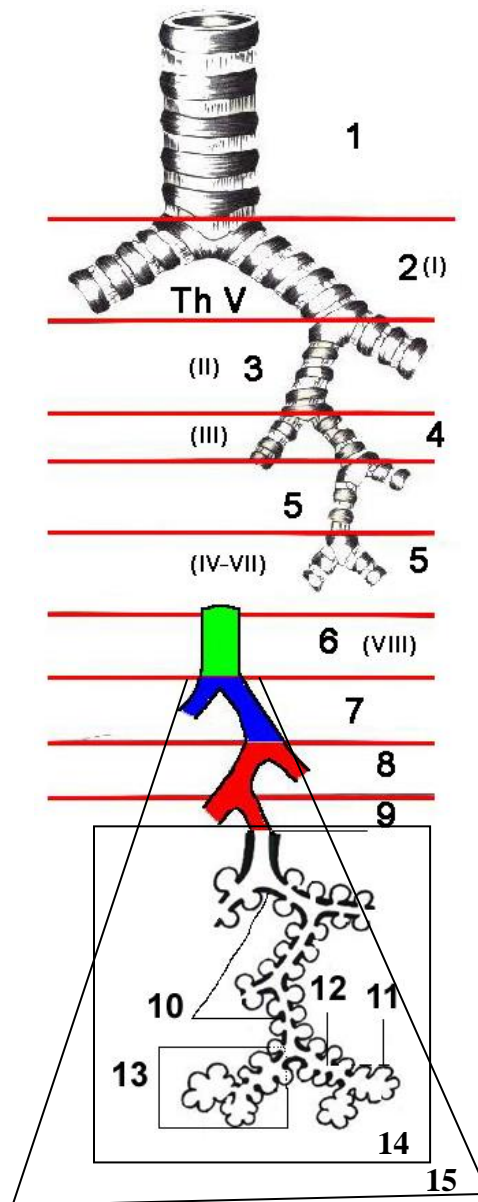
Гортань в акте звукообразования

The larynx in phonation



- 1 – *cartilago thyroidea*;
- 2 – *cartilago arytenoidea*;
- 3 – *cartilago cricoidea*;
- 4 – *m. vocalis*;
- 5 – *m. cricoarytenoideus lateralis*;
- 6 – *m. cricoarytenoideus posterior*;
- 7 – *m. arytenoideus transversus*;
- 8 – *m. cricothyroideus*;
- 9 – *m. thyroarythenoideus*.

Arborele bronhic
Бронхиальное дерево
Bronchial tree

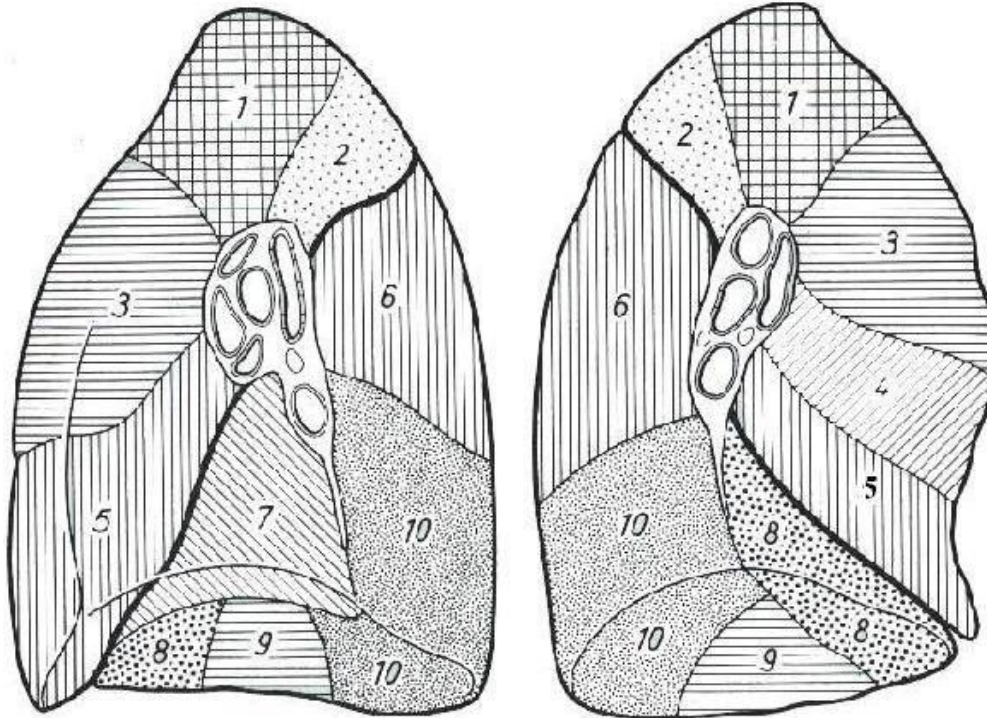


1 – trachea;
2 – bronchi principales dexter et sinister (primarii) (I);
3 – bronchi lobares (secundarii) (II);
4 – bronchi segmentales (tertii) (III);
5 – bronchi subsegmentales et interlobulares (IV-VII);
6 – bronchi intralobulares (lobulus pulmonis secundarius) (VIII-XVI);

7 – bronchioli terminales;
8 – bronchioli I;
9 – bronchioli II;
10 – bronchioli respiratorii (I-IV);
11 – sacculus alveolaris et alveoli pulmonis;
12 – ductuli alveolares;
13 – lobulus pulmonis primarius;
14 – acinus pulmonalis;
15 – lobus pulmonis secundarius.

Segmentele plămânilor
Бронхолегочные сегменты
Segments of the lungs

Fața mediastinală
Медиальная (медиастинальная) поверхность
Medial (mediastinal) surface



Pulmo dexter

Lobus superior

- 1 – segmentum apicale (S_I);*
- 2 – segmentum posterius (S_{II});*
- 3 – segmentum anterius (S_{III});*

Lobus medius

- 4 – segmentum laterale (S_{IV});*
- 5 – segmentum mediale (S_V);*

Lobus inferior

- 6 – segmentum apicale (S_{VI});*
- 7 – segmentum basale mediale (cardiacum) (S_{VII});*
- 8 – segmentum basale anterius (S_{VIII});*
- 9 – segmentum basale laterale (S_{IX});*
- 10 – segmentum basale posterius (S_X).*

Pulmo sinister

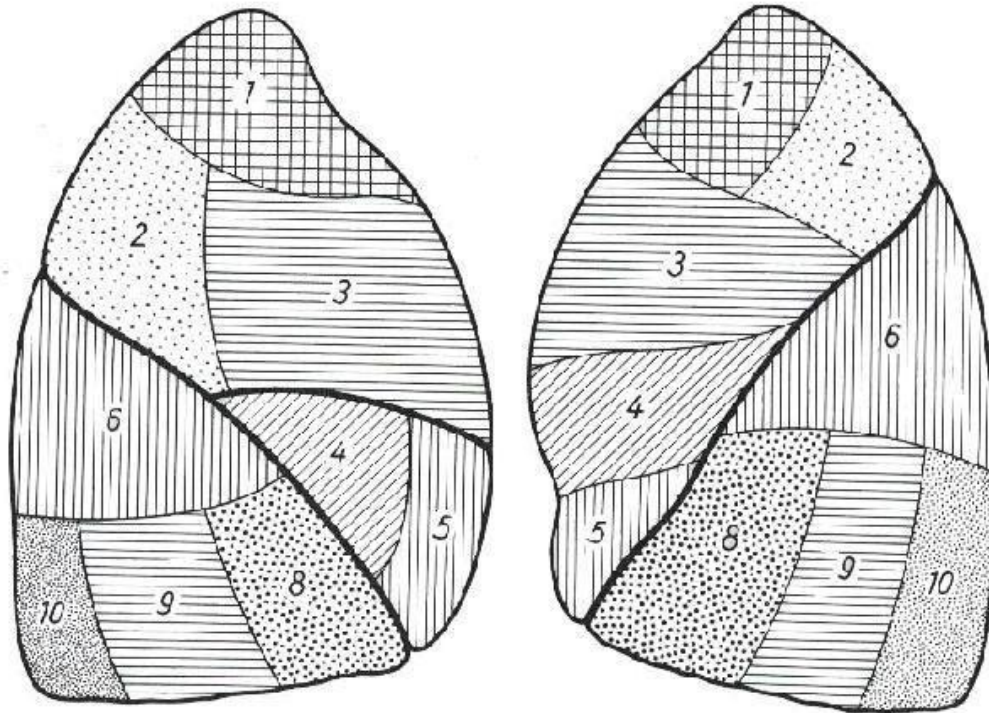
Lobus superior

- 1, 2 – segmentum apicoposterius (S_{I-II});*
- 3 – segmentum anterius (S_{III});*
- 4 – segmentum lingulare superius (S_{IV});*
- 5 – segmentum lingulare inferius (S_V);*

Lobus inferior

- 6 – segmentum apicale (S_{VI});*
- 7 – segmentum basale mediale (cardiacum) (S_{VII});*
- 8 – segmentum basale anterius (S_{VIII});*
- 9 – segmentum basale laterale (S_{IX});*
- 10 – segmentum basale posterius (S_X).*

Fața costală
Реберная поверхность
Costal surface



Pulmo dexter

Lobus superior

- 1 – segmentum apicale (S_I);*
- 2 – segmentum posterius (S_{II});*
- 3 – segmentum anterius (S_{III});*

Lobus medius

- 4 – segmentum laterale (S_{IV});*
- 5 – segmentum mediale (S_V);*

Lobus inferior

- 6 – segmentum apicale (S_{VI});*
- 7 – segmentum basale mediale (cardiacum) (S_{VII});*
- 8 – segmentum basale anterius (S_{VIII});*
- 9 – segmentum basale laterale (S_{IX});*
- 10 – segmentum basale posterius (S_X).*

Pulmo sinister

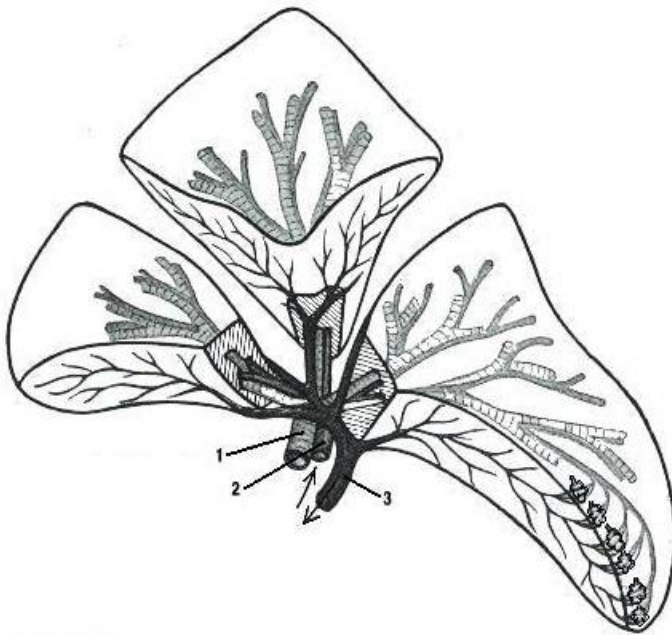
Lobus superior

- 1, 2 – segmentum apicoposterius (S_{I-II});*
- 3 – segmentum anterius (S_{III});*
- 4 – segmentum lingulare superius (S_{IV});*
- 5 – segmentum lingulare inferius (S_V);*

Lobus inferior

- 6 – segmentum apicale (S_{VI});*
- 7 – segmentum basale mediale (cardiacum) (S_{VII});*
- 8 – segmentum basale anterius (S_{VIII});*
- 9 – segmentum basale laterale (S_{IX});*
- 10 – segmentum basale posterius (S_X).*

Segmentul bronhopulmonar
Бронхолегочной сегмент
The bronchopulmonary segment

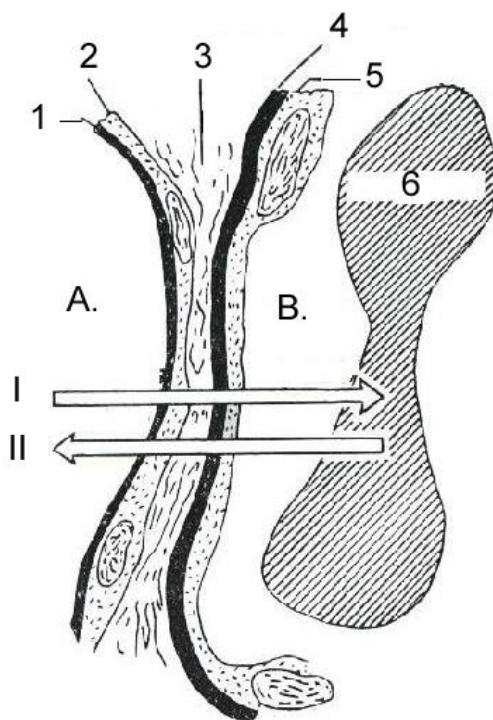


- 1 – bronchus segmentalis (tertius) (III);*
2 – a. pulmonalis (segmentalis);
3 – v. pulmonalis.

Complexul structural alveolocapilar

(după I. Haulică, 1998)

Альвеоло-капиллярный структурный комплекс
The alveolo-capillary structural complex



- A. alveolus;*
B. capillus.
I. diffusio O₂;
II. diffusio CO₂;

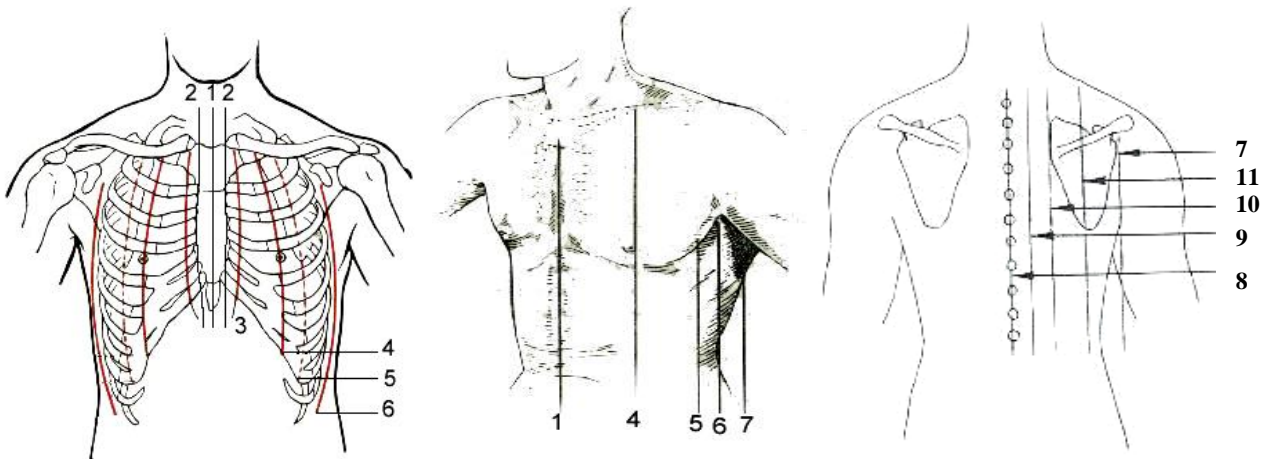
- 1 – membranula surfactans;*
2 – epithelium alveolare;
3 – substantia fundamentalis
(spatium interstitiale);
4 - lamina basalis;
5 - cellulae endotheliales capilli;
6 – erythrocytus.

Linii topografice trasate pe torace (vedere anterioară și posterioară)

Топографические линии на поверхности грудной клетки

(вид спереди и сзади)

Topographical lines traced on the thorax (anterior and posterior view)



- 1 – *linea mediana anterior;*
- 2 – *linea sternalis;*
- 3 – *linea parasternalis;*
- 4 – *linea mamillaris (medioclavicularis);*
- 5 – *linea axillaris anterior;*
- 6 – *linea axillaris media;*

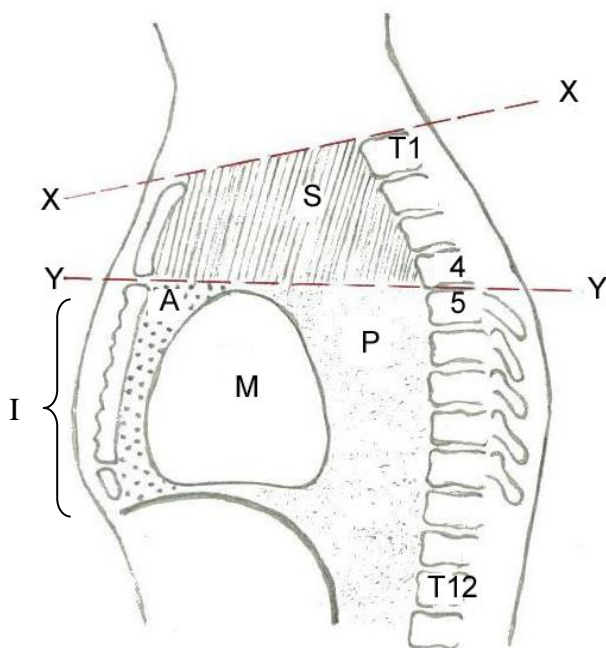
- 7 – *linea axillaris posterior;*
- 8 – *linea mediana posterior;*
- 9 – *linea vertebralis;*
- 10 – *linea paravertebralis;*
- 11 – *linea scapularis.*

Secțiune medio – sagitală prin mediastin (PNA)

(după V. Papilian, 1998)

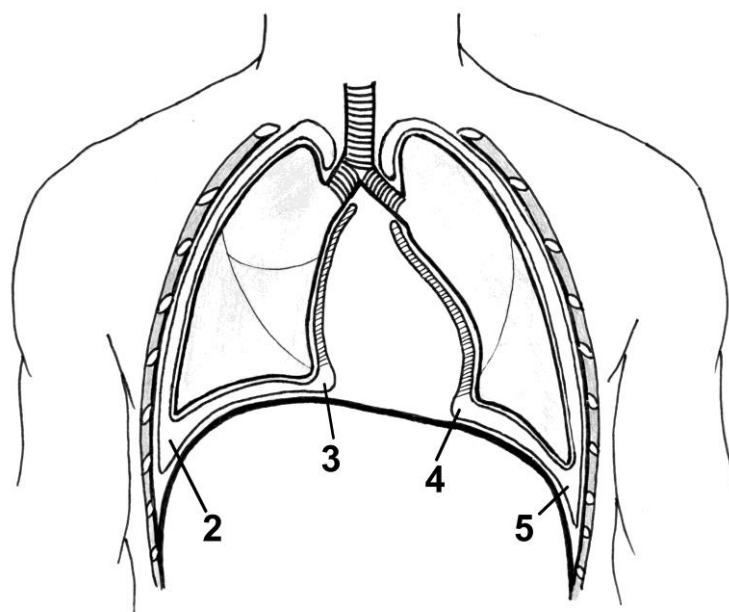
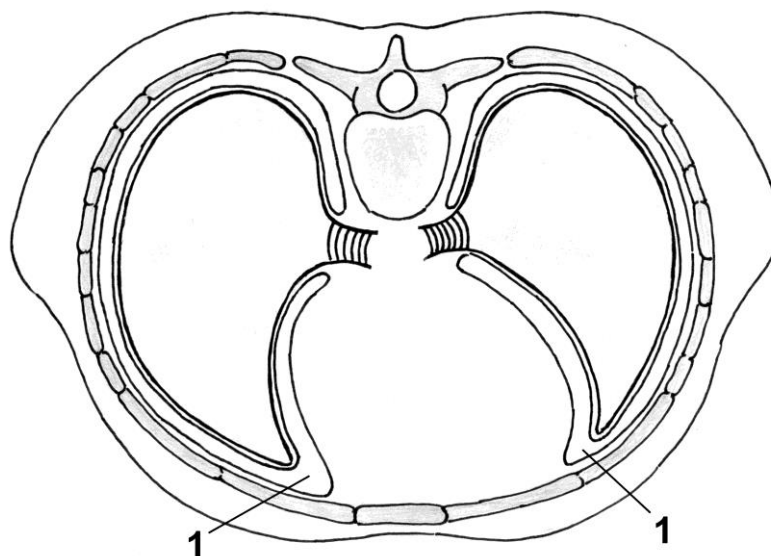
Срединный разрез через средостение

Mediosagittal section through the mediastinum (PNA)



- S – mediastinum superius;*
- I – mediastinum inferius;*
- A – mediastinum anterius;*
- M – mediastinum medium;*
- P – mediastinum posterius;*
- XX – apertura thoracis superior;*
- YY – planum: angulus sterni – Th₄₋₅.*

Cavitățile pleurale
Плевральные полости
Pleural cavities



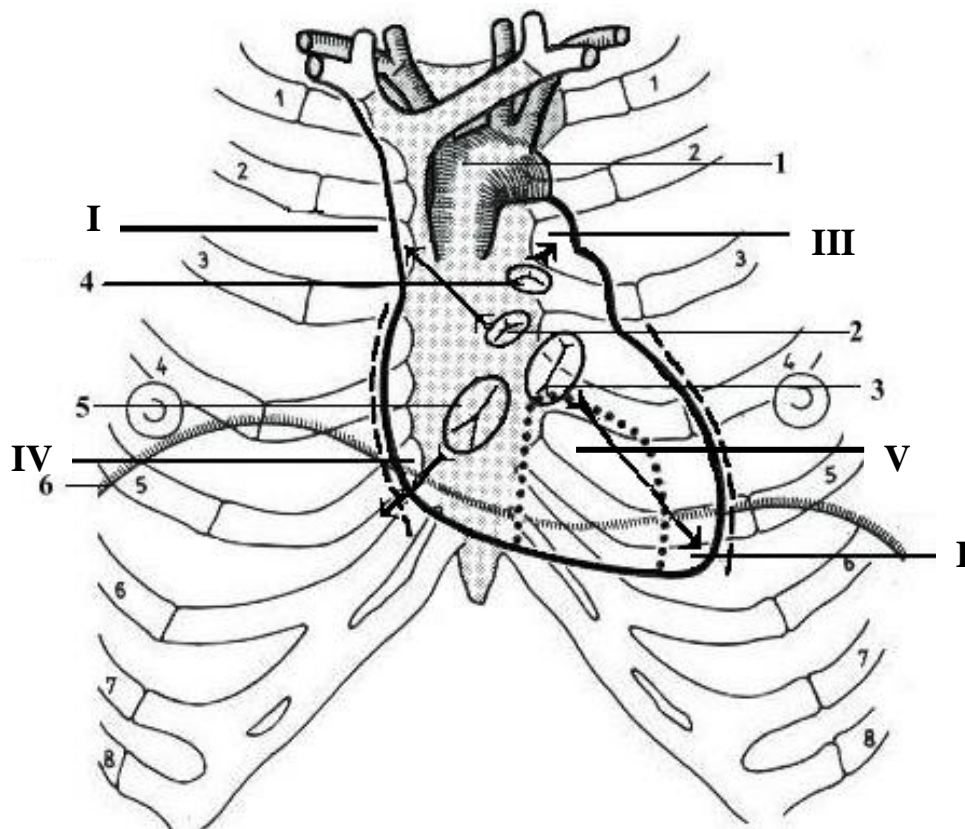
- 1 – recessus costomediastinales (dexter et sinister);*
2, 5 – recessus costodiaphragmaticus (dexter et sinister);
3, 4 – recessus phrenicomediales (dexter et sinister).

Proecția liniilor limitrofe ale inimii, a valvelor și focarele de auscultație a zgomotelor cardiace

(după V. Papilian, 1995)

Проекция границ, клапанов и места наилучшего выслушивания тонов сердца

Projection on the chest of the borders, valves and of the points of auscultation of the heart



1 – arcus aortae;

2 – valva aortae;

3 – valva bicuspidalis (mitralis);

4 – valva trunci pulmonalis;

5 – valva tricuspidalis;

6 – diaphragma;

I. punctum valvae atrioventricularis sinistrae (valva bicuspidalis sive mitralis);

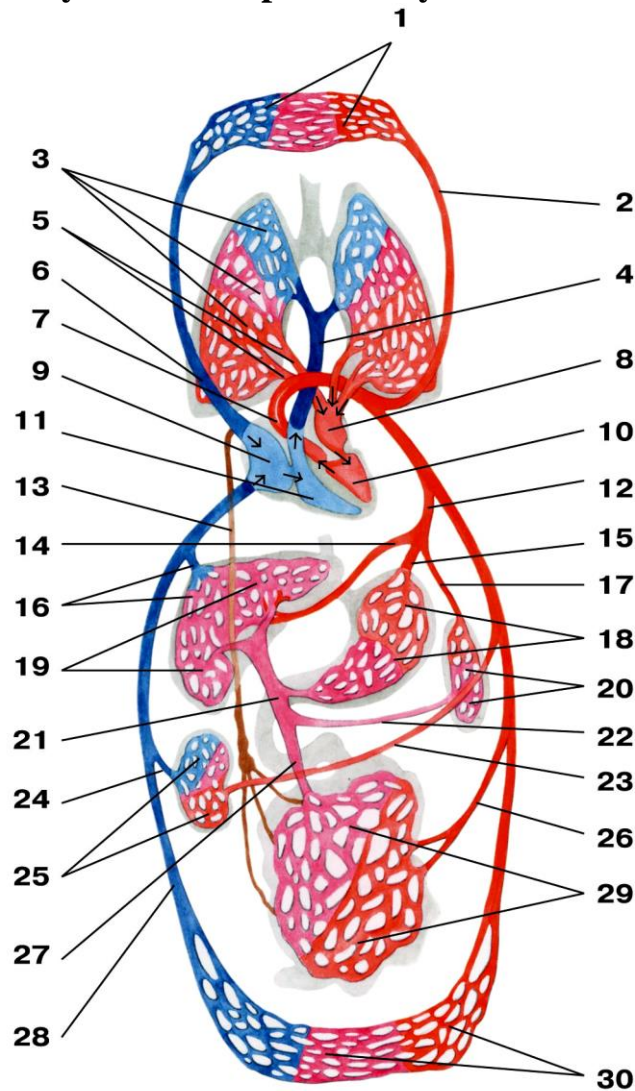
II. punctum valvae aortae;

III. punctum valvae trunci pulmonalis;

IV. punctum valvae atrioventricularis dextrae (valva tricuspidalis);;

V. punctum valvae aortae auxiliare (accessorium) Erb – Боткин (medium distantiae inter puncta I et II).

Circulația corporală (sistemică) și pulmonară
Большой и малый круги кровообращения
Systemic and pulmonary circulation



1 – capilli capitis, colli, partium trunci superiorum et membrorum superiorum;

2 – a. carotis communis;

3 – capilli pulmonis;

4 – truncus pulmonalis;

5 – vv. pulmonales dextrae;

6 – v. cava superior;

7 – aorta;

8 – atrium sinistrum;

9 – atrium dextrum;

10 – ventriculus sinister;

11 – ventriculus dexter;

12 – truncus coeliacus;

13 – ductus thoracicus;

14 – a. hepatica communis;

15 – a. gastrica;

16 – vv. hepaticae;

17 – a. splenica (lienalis);

18 – capilli gastris;

19 – capilli hepatis;

20 – capilli lienis;

21 – v. portae;

22 – v. splenica (lienalis);

23 – a. renalis;

24 – v. renalis;

25 – capilli renis;

26 – a. mesenterica;

27 – v. mesenterica;

28 – v. cava inferior;

29 – capilli intestini;

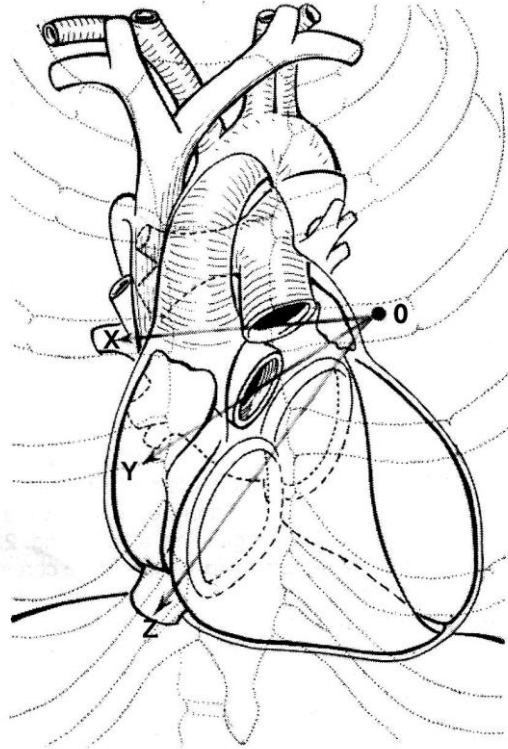
30 – capilli partium trunci inferiorum et membrorum inferiorum.

Proiecția orificiilor inimii pe perețele toracic

(după Merkel)

Проекция отверстий сердца на грудную клетку

Projection of the orifices of the heart on the thoracic wall



OX – linea foraminis arteriae pulmonalis;

OY – linea foraminis aortae;

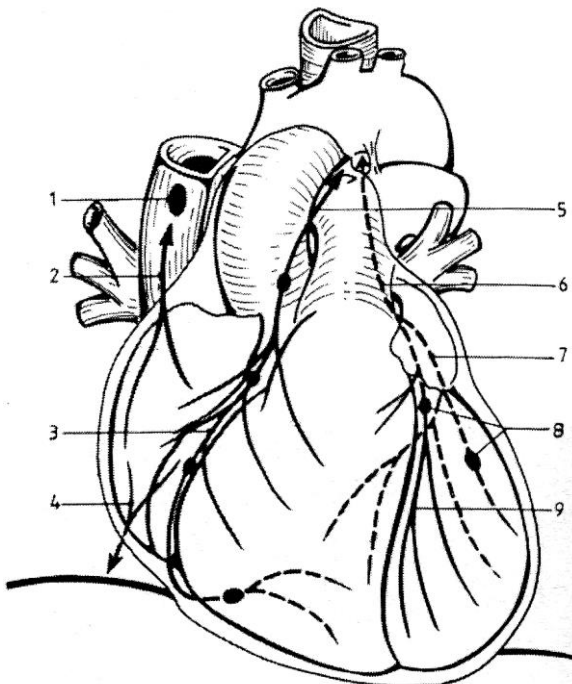
OZ – linea foraminum atrioventricularium dextrum et sinistrum.

Circulația limfatică a inimii și a pericardului

(după L. Bejan, 1999)

Лимфатическая циркуляция сердца и перикарда

Lymph circulation of the heart and of the pericardium



1 – nodulus lymphaticus Beartes;

2 – truncus lymphaticus arterialis ascendens;

3 – truncus lymphaticus ventriculi dextri;

4 – truncus lymphaticus arterialis descendens;

5 – truncus collectus lymphaticus dexter;

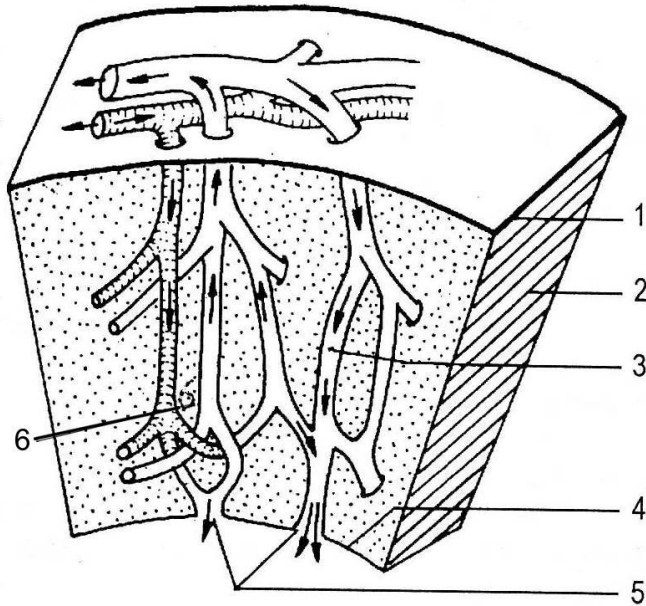
6 – truncus collectus lymphaticus sinister;

7 – afluentia lymphatica posterior;

8 – noduli lymphatici Rainer;

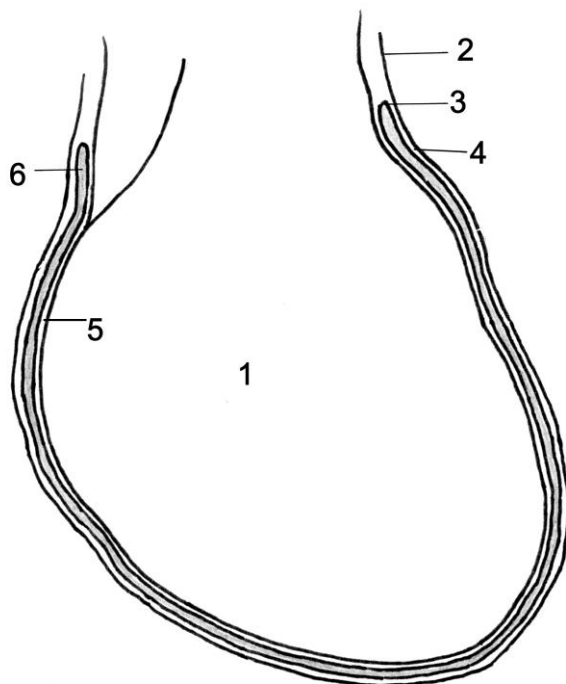
9 – afluentia lymphatica anterior.

Venele Thebesius
(după L. Bejan, 1999)
Вены Thebesius
Thebesius' veins



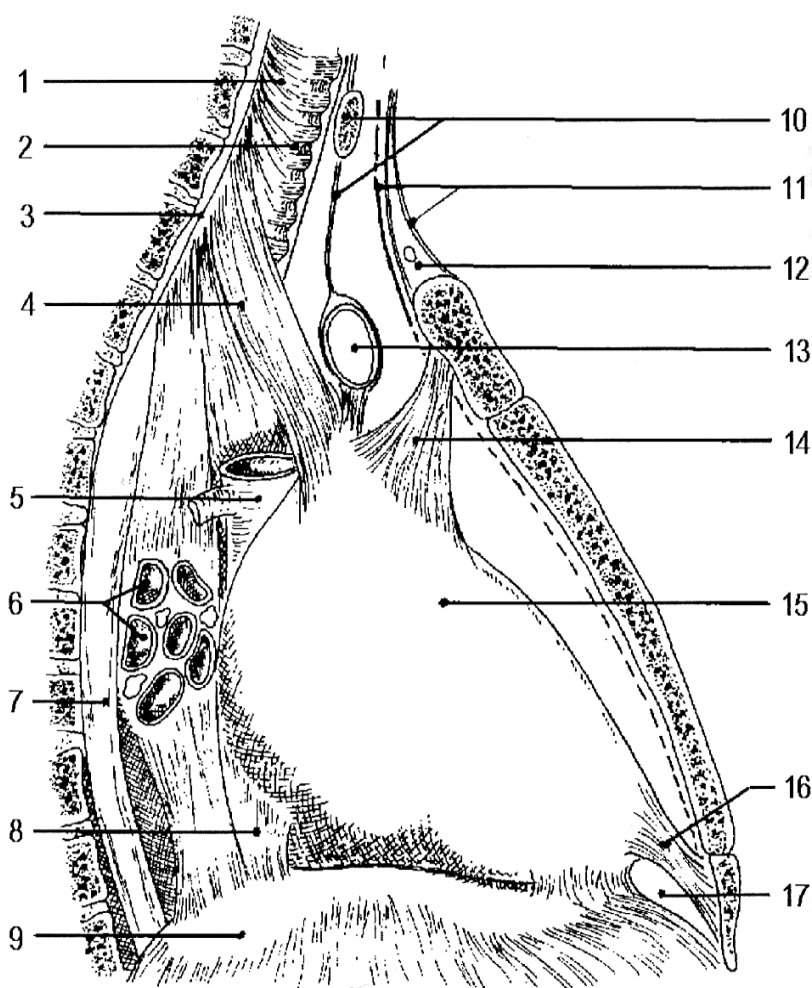
- 1 – *epicardium*;
 2 – *myocardium*;
 3 – *canalis Thebesius*;
 4 – *endocardium*;
 5 – *foramina venarum minimarum (Lannelongue)*;
 6 – *rete capillare*.

Structura pericardului
Строение перикарда
The pericardium structure



- 1 – *cor*;
 2 – *pericardium fibrosum*;
 3 – *pericardium serosum*;
 4 – *lamina parietalis*;
 5 – *lamina visceralis (epicardium)*;
 6 – *cavitas pericardiaca*.

Ligamentele pericardului
(după L. Bejan, 1999)
Связки перикарда
Ligaments of the pericardium



- 1 – *lig. vertebroviscerale;*
- 2 – *traheea;*
- 3 – *lamina (fascia) prevertebralis;*
- 4 – *lig. vertebropericardiacum sinistrum*
(Beraud);
- 5 – *vena cava superior;*
- 6 – *bronchus lobaris + bronchus intermedius*
dexter;
- 7 – *oesophagus;*
- 8 – *ligg. phrenicopericardiaca;*
- 9 – *diaphragma;*

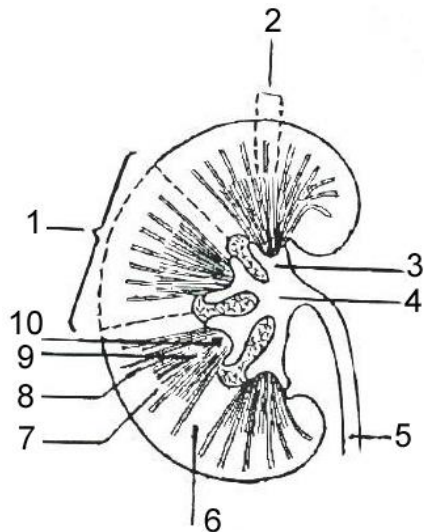
- 10 – *isthmus gl. thyroideae + lig.*
thyroaortopericardiacum;
- 11 – *fascia cervicalis + fascia*
omoclavicularis;
- 12 – *spatium suprasternale;*
- 13 – *v. brachiocephalica sinistra;*
- 14 – *lig. sternopericardiacum;*
- 15 – *pericardium fibrosum;*
- 16 – *lig. sternopericardiacum inferius;*
- 17 – *spatium Barbier.*

Structura internă a rinichiului

(după V. Papilian, 1995)

Внутреннее строение почки

Internal structure of the kidney

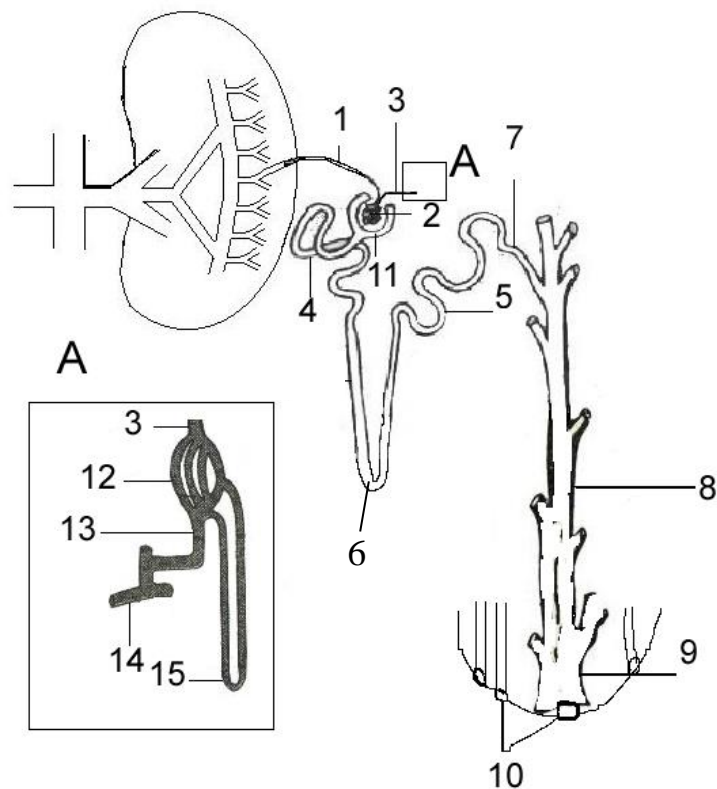


- 1 – lobus renalis;
- 2 – lobulus corticalis;
- 3 – calyx renalis;
- 4 – pelvis renalis;
- 5 – ureter;
- 6 – columnae renales (Bertini);
- 7 – pars convoluta;
- 8 – pars radiata;
- 9 – pyramides renales (Malpighi);
- 10 – papillae renales.

Schema nefronului

Схема нефрона

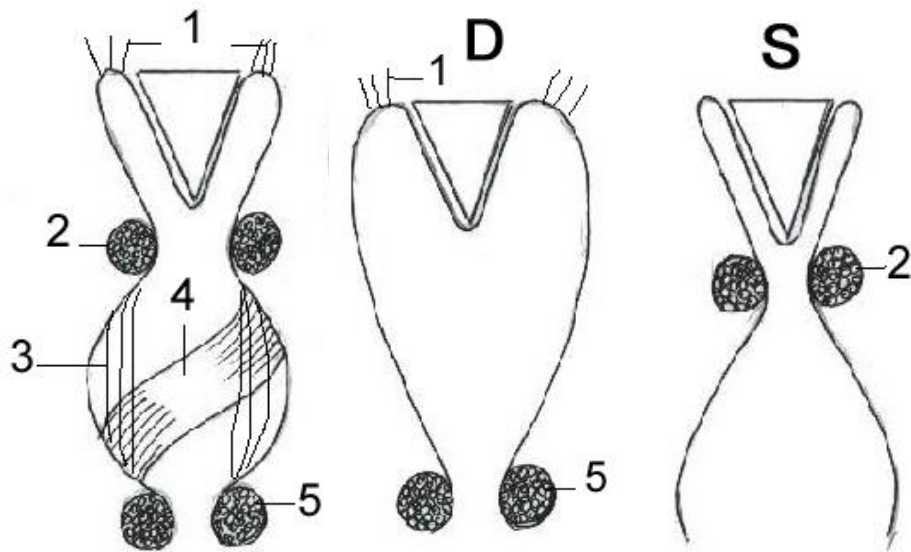
Scheme of the nephron



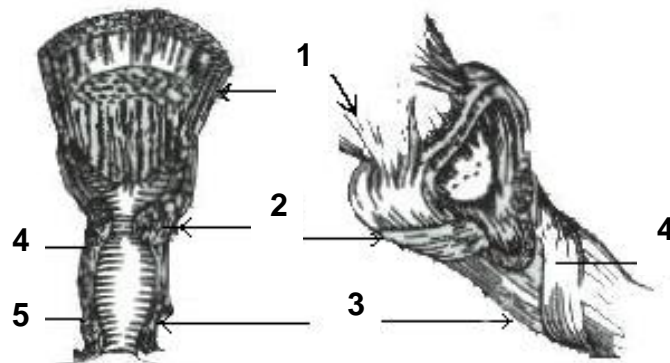
- 1 – vas afferens (arteriolae);
- 2 – glomerulus corpusculi renalis (Malpighi - Шумлянский);
- 3 – vas efferens;
- 4 – pars proximalis tubuli nephroni contorti;
- 5 – pars distalis tubuli nephroni contorti;
- 6 – ansa nephroni (Henle);
- 7 – tubulus conexionis;
- 8 – tubuli renales colligentes;

- 9 – ductus papillaris;
- 10 – foramina papillaria;
- 11 – capsula glomeruli (Шумлянский - Bowman);
- 12 – capilli peritubulares;
- 13 – venulae;
- 14 – v.v. arcuatae;
- 15 – vasa recta.

Aparatul fornicial al rinichiului
Форникальный аппарат почек
Fornical apparatus of the kidney (calyces)



- S** – systole;
D – diastole;
1 – *m. levator fornicis*;
2 – *m. sphincter fornicis*;
3 – *m. longitudinalis calycis*;
4 – *m. spiralis calycis*;
5 – *m. sphincter calycis*.

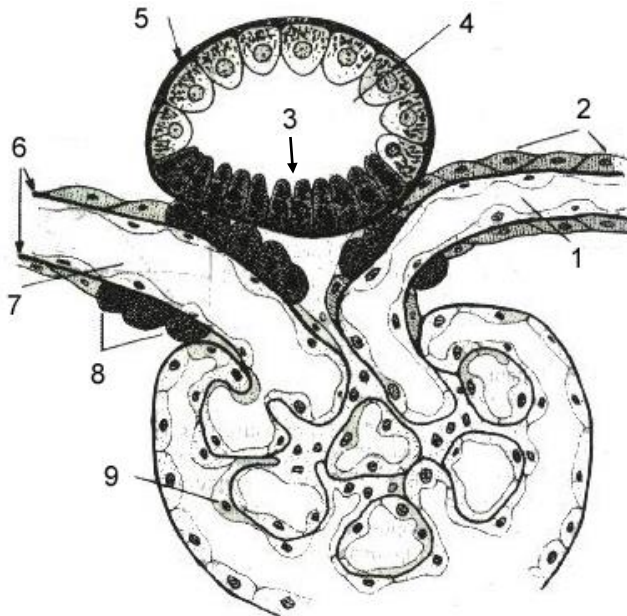


- 1** – *m. levator fornicis*;
2 – *m. sphincter fornicis*;
3 – *m. longitudinalis calycis*;
4 – *m. spiralis calycis*;
5 – *m. sphincter calycis*.

Structura aparatului juxtaglomerular

(după A. Guyton, 1997)

Структура юкстагломерулярного аппарата Structure of the juxtaglomerular apparatus

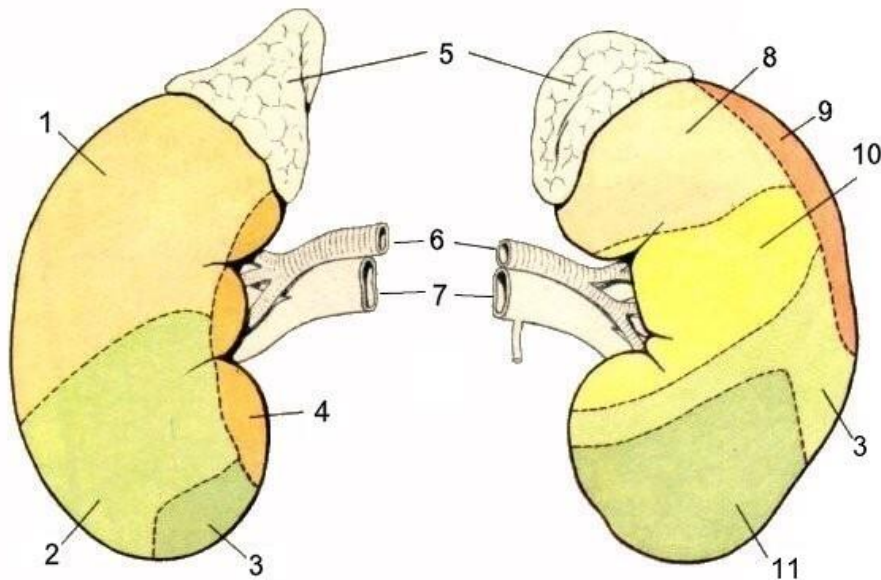


- 1 – vas efferens;
- 2 – cellulae musculares planae;
- 3 – macula densa;
- 4 – pars distalis tubuli contorti nephroni;
- 5 – membrana basalis;
- 6 – lamina elastica interna;
- 7 – vas (arteriola) afferens;
- 8 – cellulae juxtaglomerulares;
- 9 – epithelium glomeris.

Sintopia rinichilor

Синтопия почек

Syntopy of the kidneys



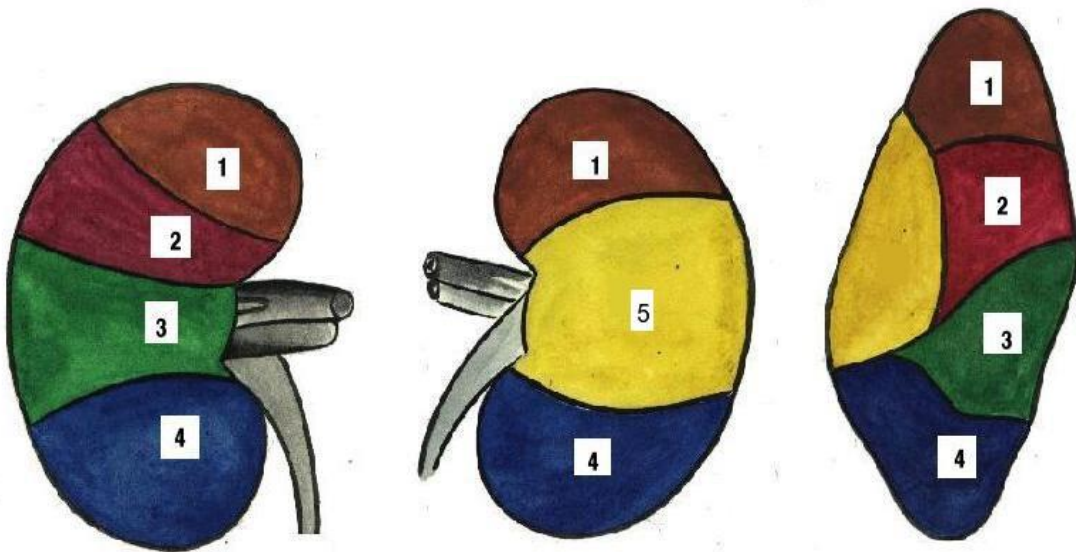
- 1 – area hepatica;
- 2 – area colica;
- 3 – area jejunalis;
- 4 – area duodenalis;
- 5 – glandulae suprarenales;
- 6 – aa. renales;

- 7 – vv. renales;
- 8 – area gastrica;
- 9 – area lienalis;
- 10 – area pancreatica;
- 11 – area colica.

Segmentele renale (*segmenta relalia*)

Сегменты почек

Segments of the kidneys



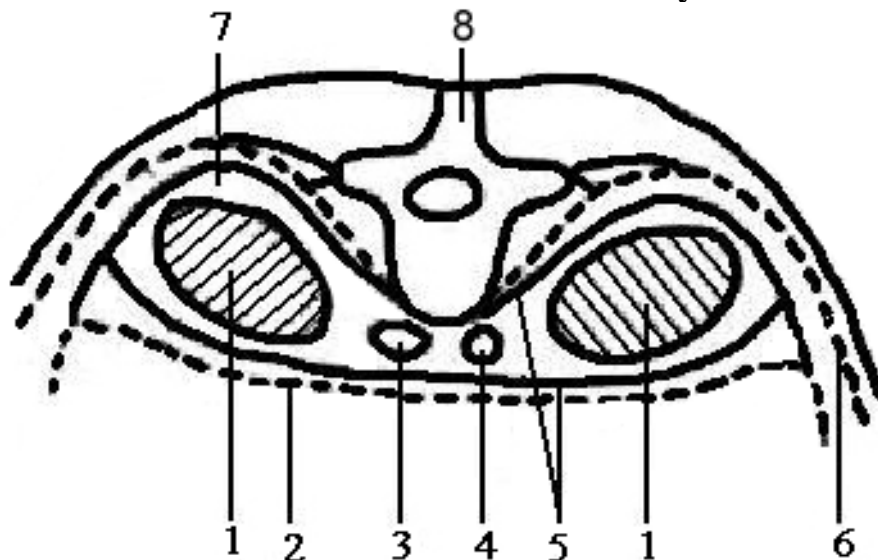
- 1 – *segmentum superius*;
- 2 – *segmentum anterius superius*;
- 3 – *segmentum anterius inferius*;
- 4 – *segmentum inferius*;
- 5 – *segmentum posterius*.

Schema învelișurilor rinichiului

(după H.V. Крылов, А.И. Искренко, 1986)

Схема оболочек почек

Scheme of the coats of the kidneys

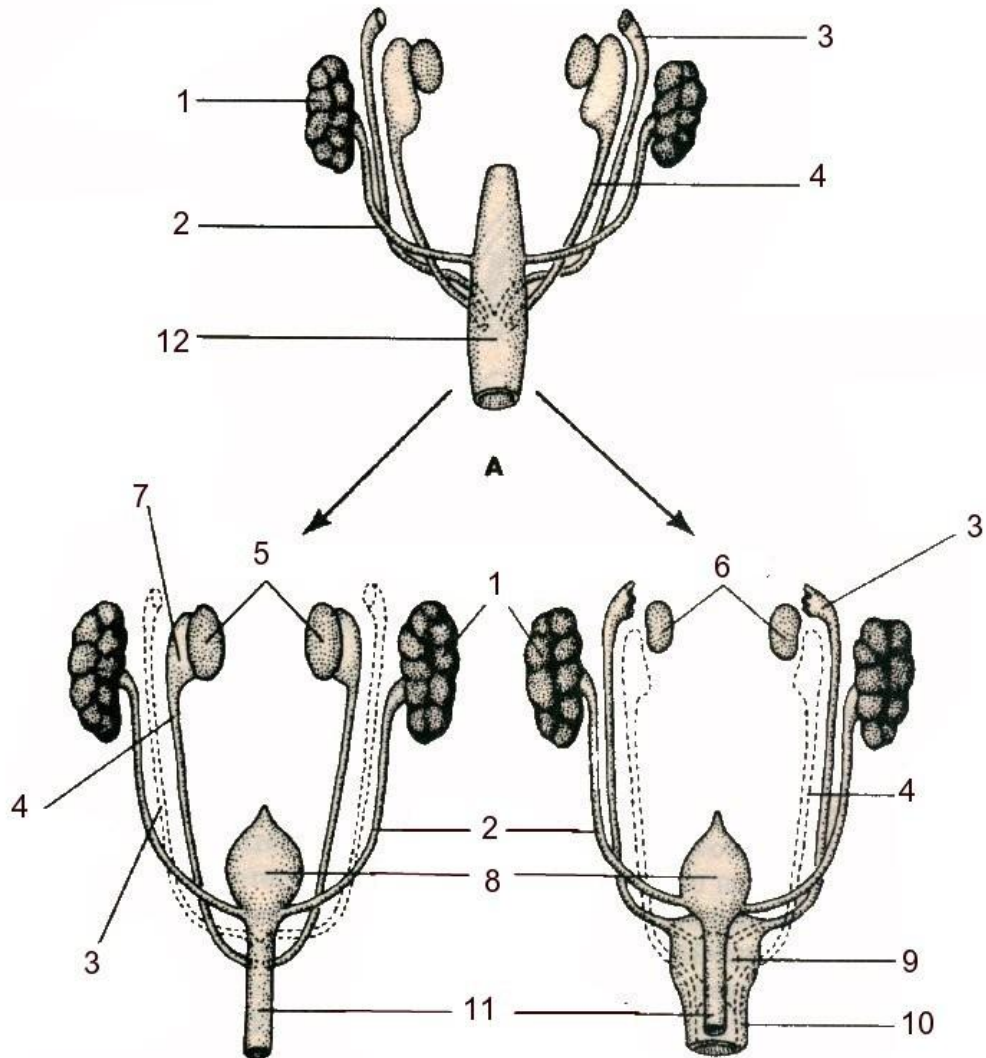


- 1 – *ren et capsula fibrosa*;
- 2 – *peritoneum parietale*;
- 3 – *v. cava inferior*;
- 4 – *aorta*;
- 5 – *fascia renalis (lamina pre- et retrorenalis)*;

- 6 – *fascia transversalis (retroperitonealis, endoabdominalis)*;
- 7 – *capsula adiposa (Gerota)*;
- 8 – *vertebra lumbalis*.

Diferențierea gonadelor
 (după Э.Г. Улумбеков, Ю.А. Чельшев, 1997)

Половая дифференцировка гонад
Differentiation of the gonads

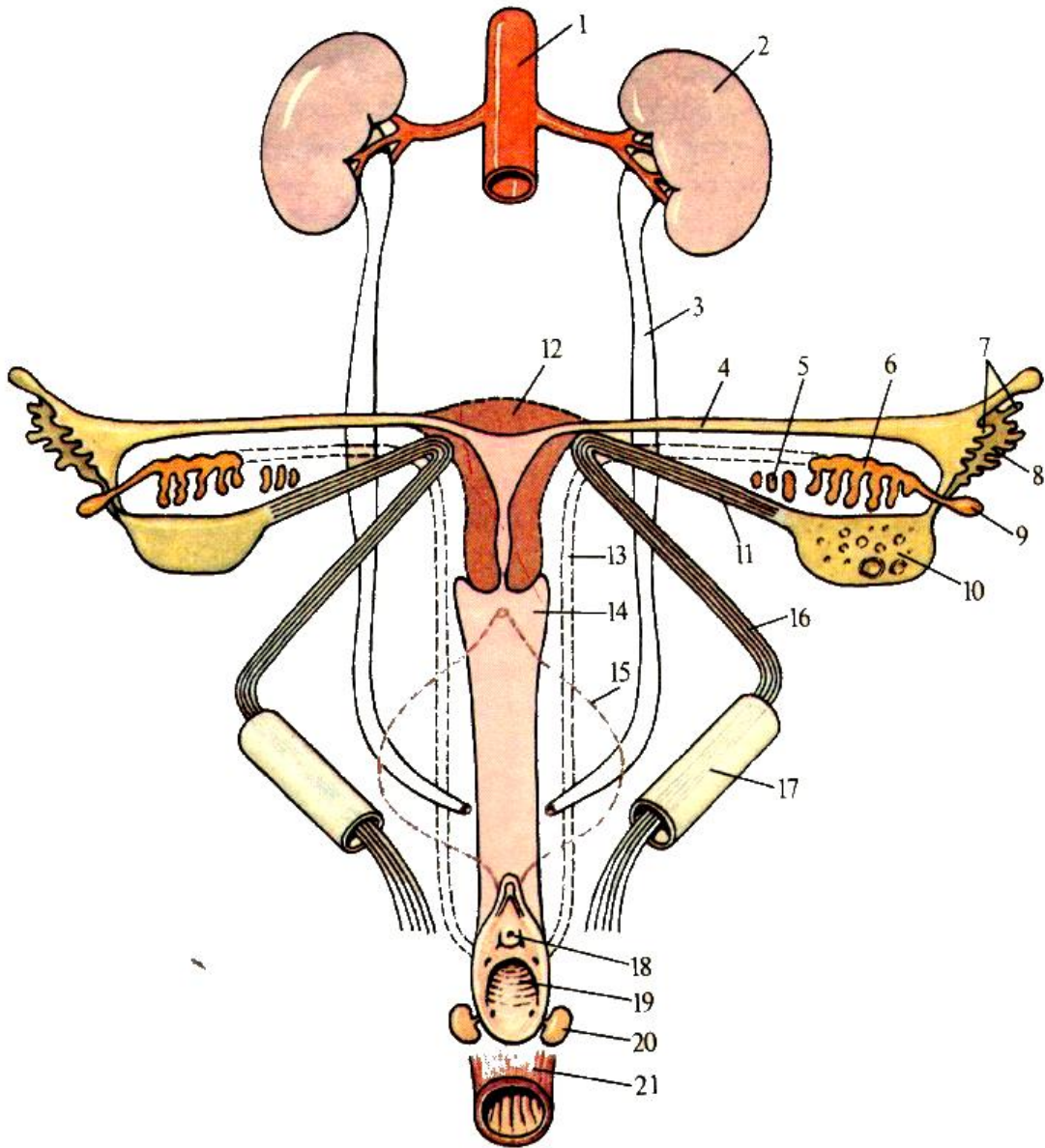


- 1 – renes;
- 2 – ureter;
- 3 – ductus paramesonephricus (Müller);
- 4 – ductus mesonephricus (Wolff);
- 5 – testes;
- 6 – ovaria;

- 7 – epididymis;
- 8 – vesica urinaria;
- 9 – uterus;
- 10 – pars superior vaginae;
- 11 – urethra;
- 12 – cloaca.

Schema dezvoltării organelor genitale feminine
 (după P.Д. Синельников, Я.Р. Синельников, 1990)

Схема развития внутренних женских половых органов
Scheme of the development of the internal female genital organs



- 1 – aorta;
- 2 – ren;
- 3 – ureter;
- 4 – tuba uterina;
- 5 – paroöphoron;
- 6 – epoöphoron;
- 7 – fimbriae tubae;
- 8 – ostium abdominale tubae uterinae;
- 9 – appendix vesiculosa;
- 10 – ovarium;
- 11 – lig. ovarii proprium;

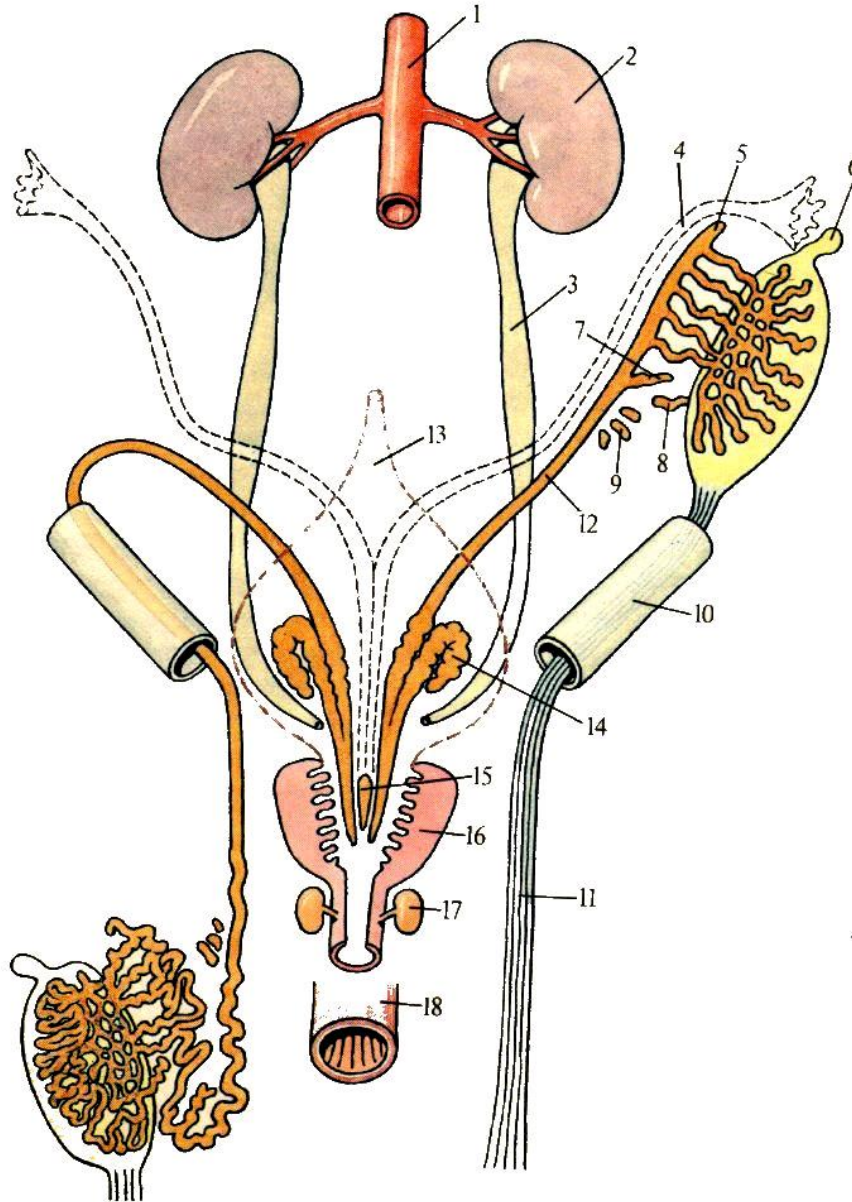
- 12 – uterus;
- 13 – ductus mesonephricus (Wolff);
- 14 – vagina;
- 15 – vesica urinaria;
- 16 – lig. teres uteri;
- 17 – canalis inguinalis;
- 18 – ostium urethrae;
- 19 – ostium vaginae;
- 20 – glandula vestibularis;
- 21 – rectum.

Schema dezvoltării organelor genitale masculine

(după P.Д. Синельников, Я.Р. Синельников, 1990)

Схема развития внутренних мужских половых органов

Scheme of the development of the internal male genital organs



1 – aorta;

2 – ren;

3 – ureter;

4 – ductus paramesonephricus (Müller);

5 – appendix epididymidis;

6 – appendix testis;

7 – ductus aberrans;

8 – ductus aberrans superior;

9 – paradidymis;

10 – canalis inguinalis;

11 – gubernaculum testis (BNA);

12 – ductus mesonephricus;

13 – vesica urinaria;

14 – vesicula seminalis;

15 – utriculus prostaticus;

16 – prostata;

17 – glandula bulbourethralis;

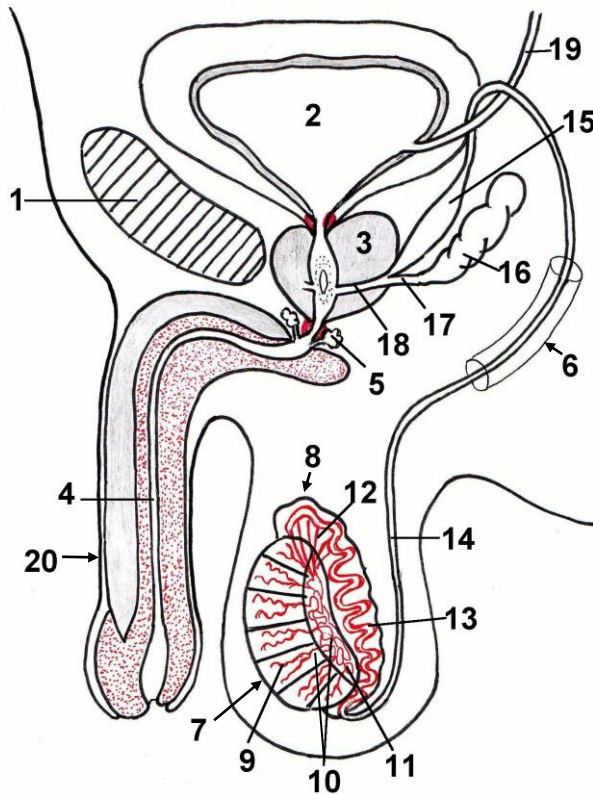
18 – rectum.

Organele genitale masculine. Căile de evacuare a spermei

(după V.Papilian, 1998, cu modificări)

Мужские половые органы. Семьявыносящие пути

Male genital organs. Seminiferous ways

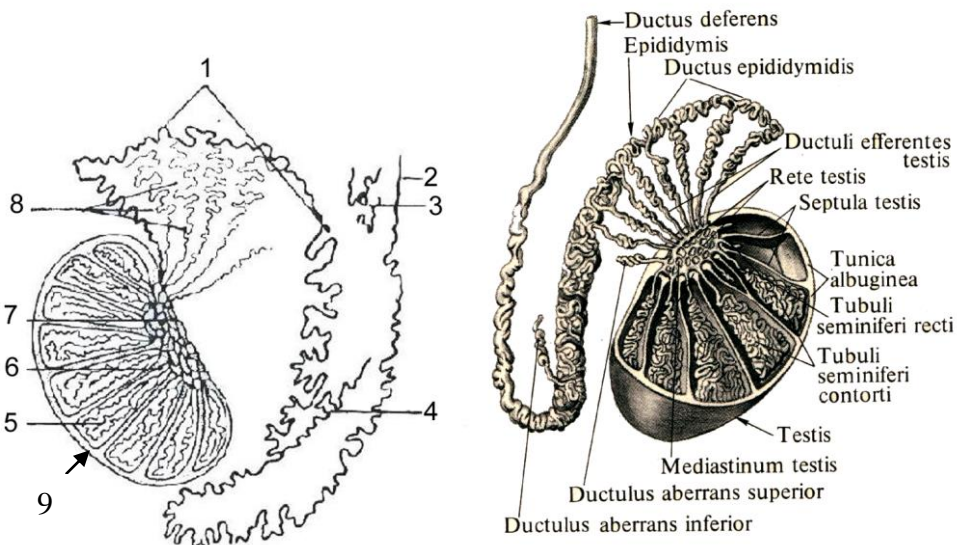


- 1 – symphysis pubica;
- 2 – vesica urinaria;
- 3 – prostata;
- 4 – urethra;
- 5 – glandulae bulbourethrales (Cooperi);
- 6 – canalis inguinalis;
- 7 – testis;
- 8 – epididymis;
- 9 – tubuli seminiferi contorti;
- 10 – tubuli seminiferi recti;
- 11 – rete testis;
- 12 – ductuli efferentes;
- 13 – ductus epididymidis;
- 14 – ductus deferens;
- 15 – ampulla ductus deferentis;
- 16 – vesicula seminalis;
- 17 – ductus excretorius;
- 18 – ductus ejaculatorius;
- 19 – ureter;
- 20 – penis.

Canaliculele secretorii și excretorii ale testiculului și epididimului

Выделяющие и выносящие каналцы яичка и его придатка

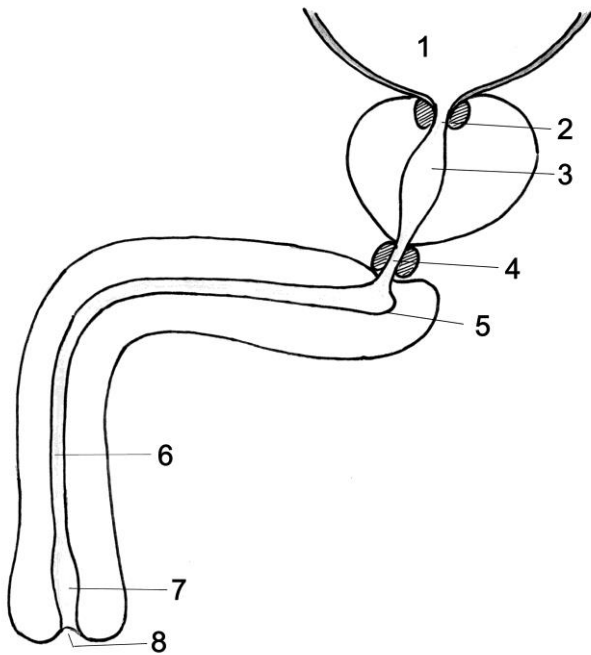
Secretory and excretory canalicles of the testis and of the epididymis



- 1 – ductus epididymidis;
- 2 – ductus deferens;
- 3 – paradidymis;
- 4 – ductuli aberrantes;
- 5 – tubuli seminiferi contorti;

- 6 – tubuli seminiferi recti;
- 7 – rete testis;
- 8 – ductuli efferentes testis;
- 9 – tunica albuginea.

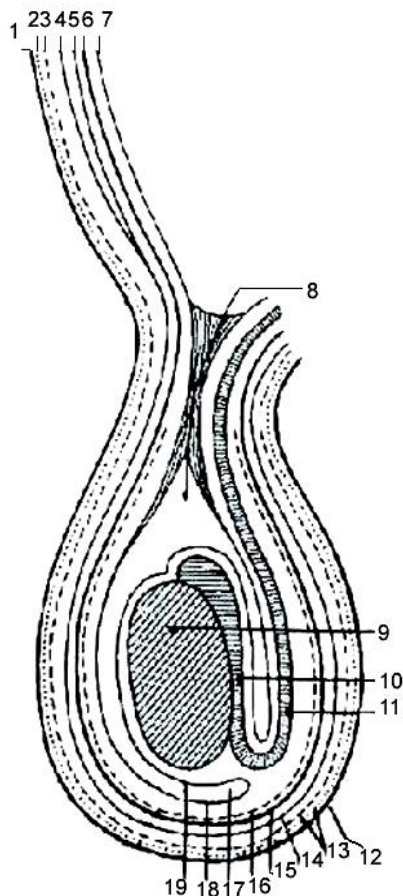
Curburile și calibrul uretrei masculine
Изогнутости (изгибы) и диаметры мужского мочеиспускательного канала
Curvatures and diameter of the male urethra



- 1 – vesica urinaria;
- 2 – ostium urethrae internum;
- 3 – dilatatio prostatica urethrae;
- 4 – structura partis membranaceae urethrae;
- 5 – bulbus penis (fundus sacculi urethrae);
- 6 – pars spongiosa;
- 7 – fossa navicularis urethrae;
- 8 – ostium urethrae externum.

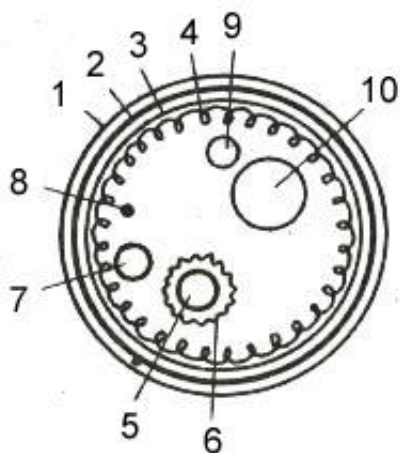
Învelișurile testiculului și ale funiculului spermatic
(după Kiss-Szentágothai)

Оболочки яичка и семеного канатика
Coats of the testis and of the spermatic cord



- 1 – cutis;
- 2 – tela subcutanea;
- 3 – m. obliquus externus abdominis;
- 4 – m. obliquus internus abdominis;
- 5 – m. transversus abdominis;
- 6 – fascia transversalis;
- 7 – peritoneum parietale;
- 8 – fossa inguinalis lateralis et recessus vaginalis;
- 9 – testis;
- 10 – epididymis;
- 11 – ductus deferens;
- 12 – cutis scroti;
- 13 – tunica dartos;
- 14 – fascia spermatica externa;
- 15 – fascia cremasterica et m. cremaster;
- 16 – fascia spermatica interna;
- 17 – tunica vaginalis testis (cavum vaginale);
- 18 – lamina parietalis tunicae vaginalis testis;
- 19 – lamina visceralis tunicae vaginalis testis.

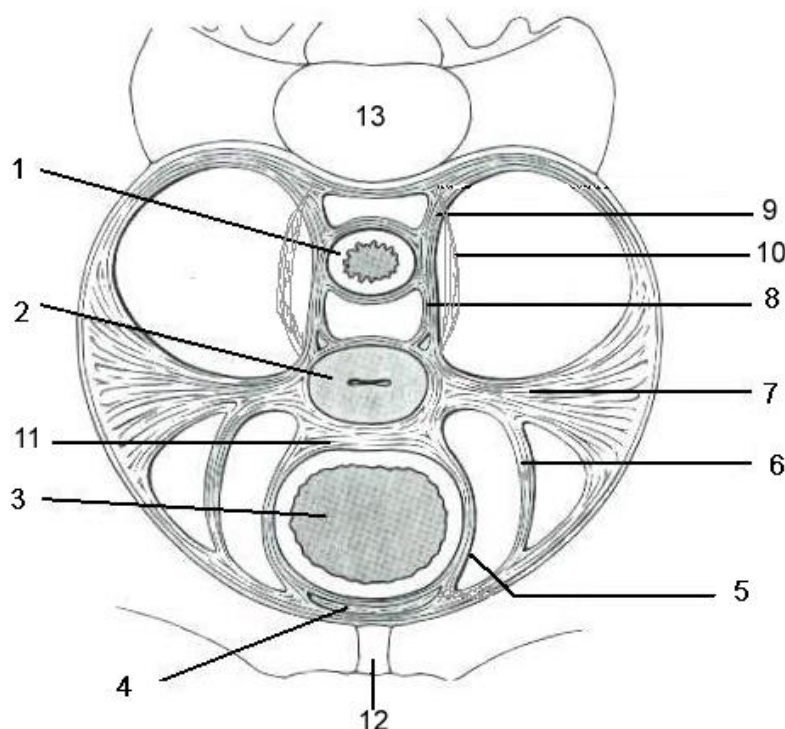
Elementele componente ale funiculului spermatic (secțiune transversală)
Составные элементы семенного канатика (поперечный разрез)
Component elements of the spermatic cord (transverse section)



- 1 – fascia cremasterica;
- 2 – m. cremaster;
- 3 – fascia spermatica interna;
- 4 – plexus pampiniformis;
- 5 – a. testicularis;
- 6 – plexus testicularis;
- 7 – a. cremasteria;
- 8 – ramus genitalis n. genitofemoralis;
- 9 – a. ductus deferentis;
- 10 – ductus deferens.

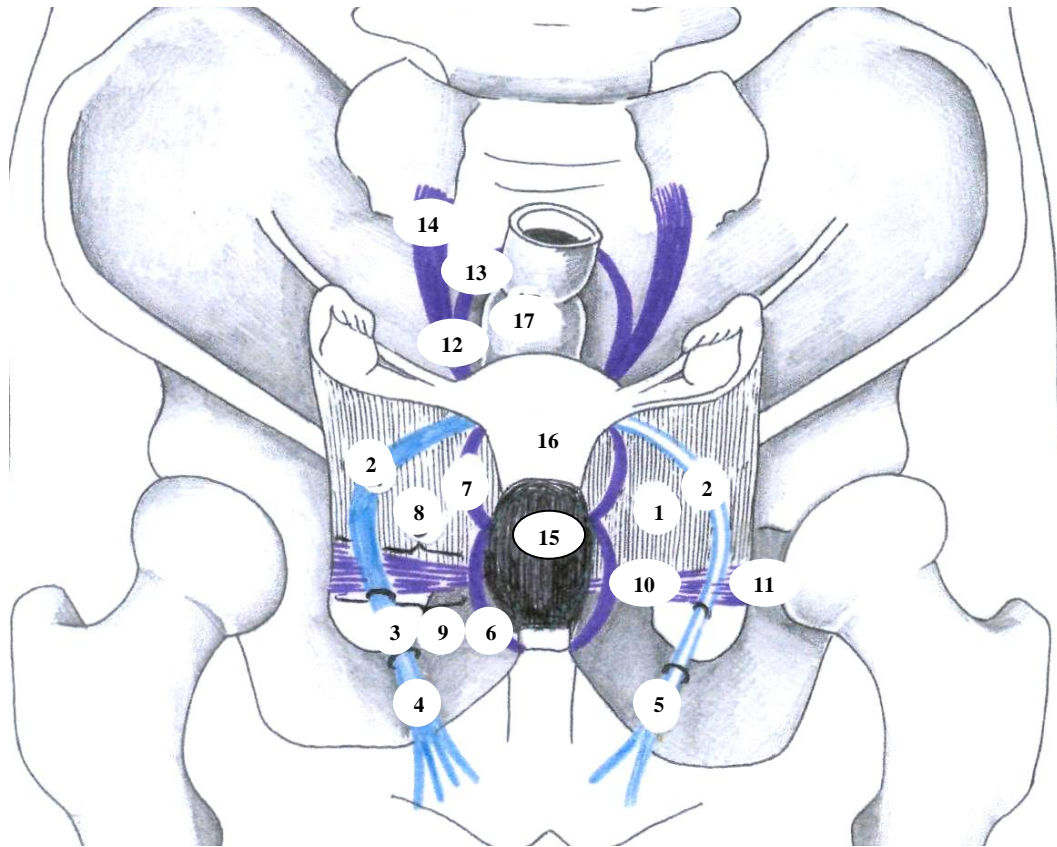
Elementele de fixare a organelor pelviene
(schema după R.M.H.McMinn, R.T.Hutchings, 1977)

Фиксирующий аппарат органов таза
Fixation apparatus of the pelvic organs



- 1 – rectum;
- 2 – uterus;
- 3 – vesica urinaria;
- 4 – spatium retropubicum;
- 5 – lig. pubovesicale;
- 6 – lig. teres uteri;
- 7 – lig. cardinale;
- 8 – lig. rectouterinum;
- 9 – lig. sacrorectale;
- 10 – lig. sacrouterinum;
- 11 – lig. vesicouterinum;
- 12 – symphysis pubica;
- 13 – os sacrum.

Aparatul ligamentar al uterului
Связочный аппарат матки
Ligamentary apparatus of the uterus



1 – lig. latum;

2, 3, 4, 5 – lig. teres:

2 – segmentum pelvinum;

3 – segmentum inguinale;

4, 5 – segmentum postinguinale;

6 – lig. pubovesicale;

7 – lig. vezicouterinum;

8, 9, 10 11 – lig. cardinale:

8 – pars superior;

9 – pars inferior;

10 – pars medialis;

11 – pars lateralis;

12, 13, 14 - lig. sacrouterinum:

12 – pars uterina;

13 – pars rectalis;

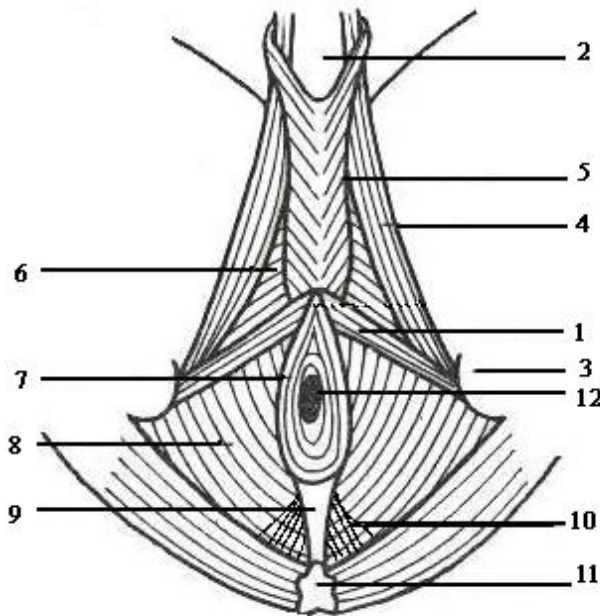
14 – pars sacralis;

15 - vesica urinaria;

16 – uterus;

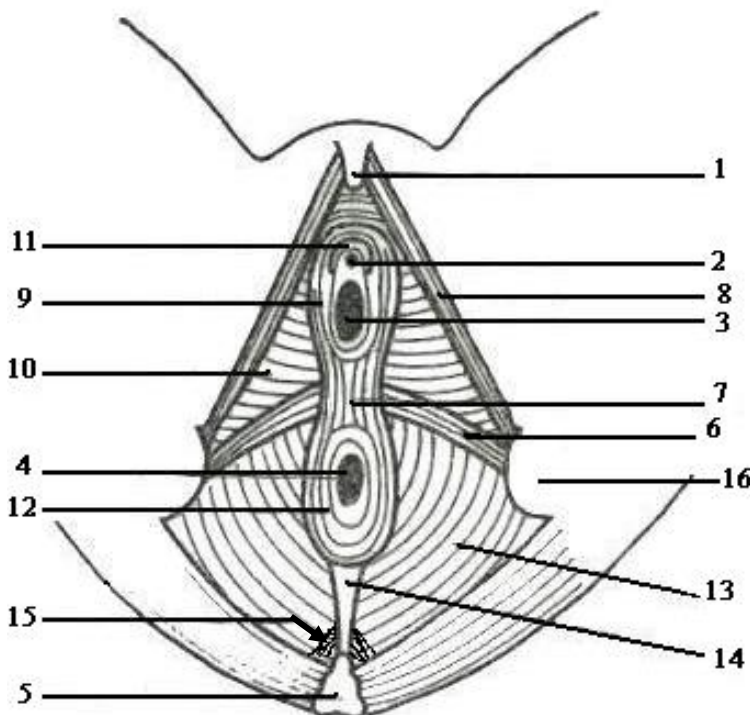
17 – intestinum rectum.

Mușchii perineului la bărbat
 (după H.V. Крылов, А.И. Искренко, 1986)
Мышцы мужской промежности
Muscles of the male perineum



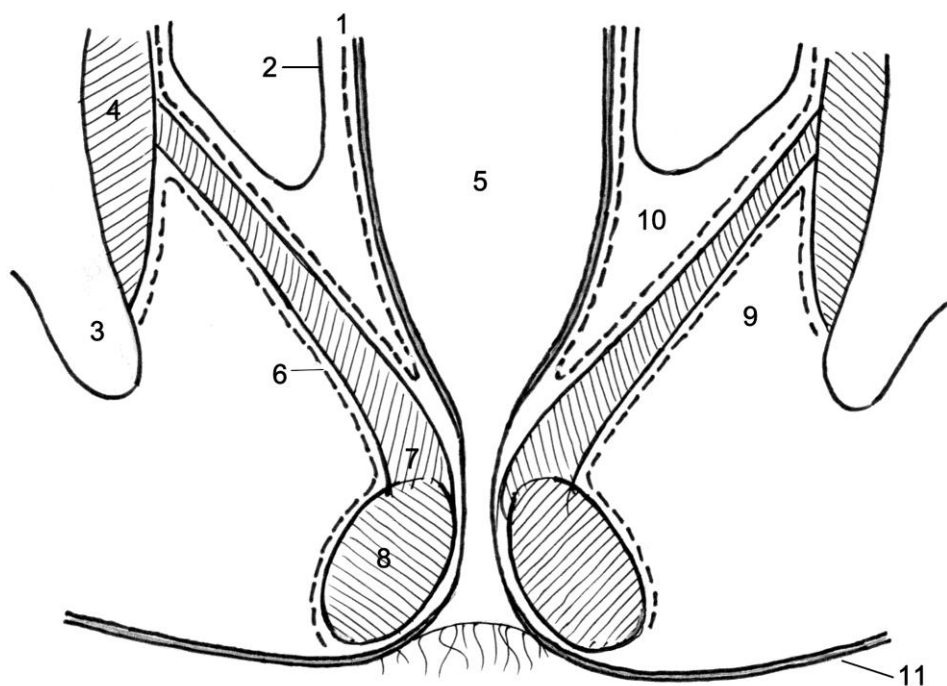
- 1 – *m. transversus perinei superficialis*;
- 2 – *symphysis pubica*;
- 3 – *tuber ischii*;
- 4 – *m. ischiocavernosus*;
- 5 – *m. bulbospongiosus*;
- 6 – *m. transversus perinei profundus*;
- 7 – *m. sphincter ani externus*;
- 8 – *m. levator ani*;
- 9 – *lig. anococcygeum*;
- 10 – *m. coccygeus*;
- 11 – *os coccygis*;
- 12 – *anus*.

Mușchii perineului la femeie
 (după H.V. Крылов, А.И. Искренко, 1986)
Мышцы женской промежности
Muscles of the female perineum



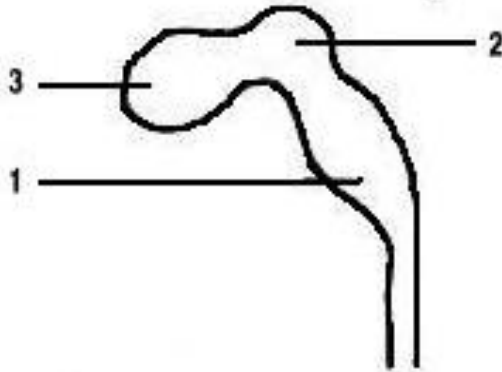
- 1 – *glans clitoridis*;
- 2 – *ostium urethrae externum*;
- 3 – *ostium vaginae*;
- 4 – *anus*;
- 5 – *os coccygis*;
- 6 – *m. transversus perinei superficialis*;
- 7 – *centrum tendineum perinei*;
- 8 – *m. ischiocavernosus*;
- 9 – *m. bulbospongiosus*;
- 10 – *m. transversus perinei profundus*;
- 11 – *m. sphincter urethrae*;
- 12 – *m. sphincter ani externus*;
- 13 – *m. levator ani*;
- 14 – *lig. anococcygeum*;
- 15 – *m. coccygeus*;
- 16 – *tuber ischii*.

Fasciile și spațiile celuloadipoase ale pelvisului
Фасции и клетчаточные пространства таза
Fasciae and adipose spaces of the pelvis

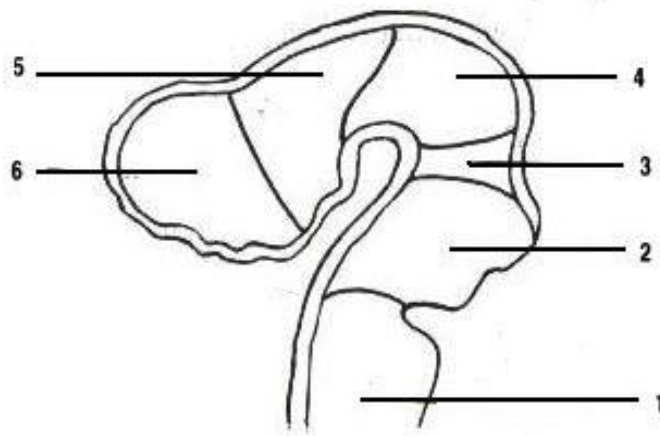


- 1 – fascia diaphragmatis pelvis superior;*
- 2 – peritoneum;*
- 3 – os coxae;*
- 4 – m. obturatorius internus;*
- 5 – ampulla recti;*
- 6 – fascia diaphragmatis pelvis inferior;*
- 7 – m. levator ani;*
- 8 – m. sphincter ani externus;*
- 9 – fossa ischiorectalis;*
- 10 – spatium pelvisubperitoneale;*
- 11 – cutis.*

Modificările extremității cefalice a tubului neural
(după Н.В. Крылова, И.А Искренко, 1986)
Изменения головного отдела мозговой трубки
Modifications of the cephalic end of the neural tube

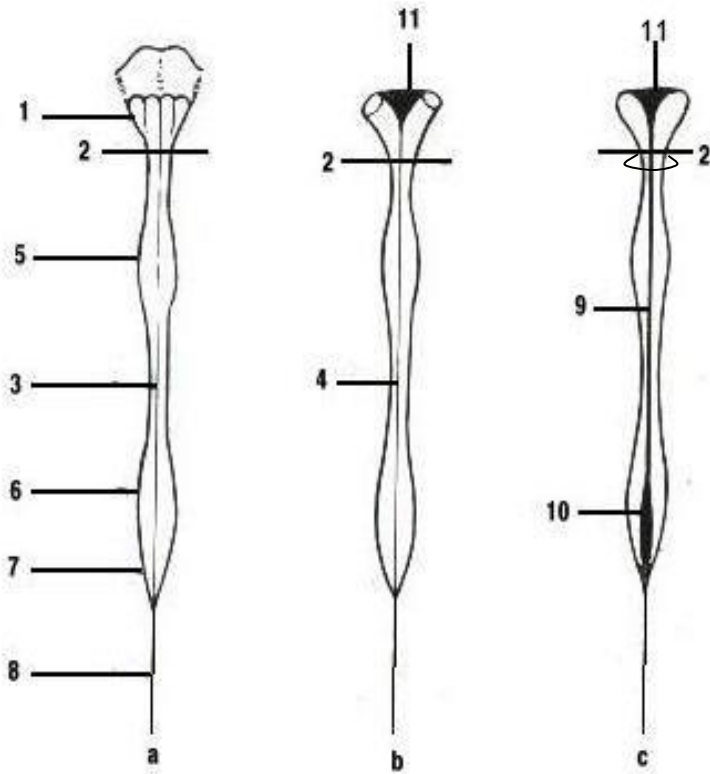


- 1 – rhombencephalon;*
- 2 – mesencephalon;*
- 3 – prosencephalon.*



- 1 – myelencephalon;*
- 2 – metencephalon (pons et cerebellum);*
- 3 - isthmus rhombencephali;*
- 4 – mesencephalon;*
- 5 – diencephalon;*
- 6 – telencephalon.*

Conformația externă a măduvei spinării
Наружное строение спинного мозга
External structure of the spinal cord

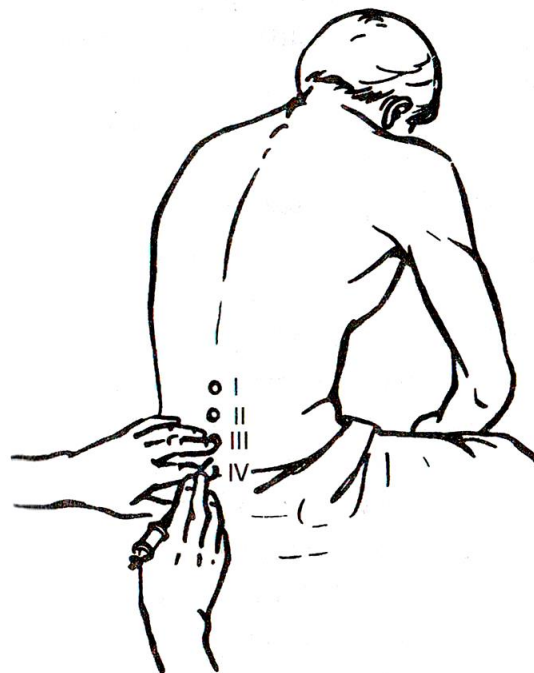


a – facies anterior;
b – facies posterior;
c – sectio frontalis mediana.

- 1 – medulla oblongata (myelencephalon);*
- 2 – foramen occipitale magnum;*
- 3 – fissura mediana anterior;*
- 4 – sulcus medianus posterior;*
- 5 – intumescencia cervicalis (C₂ – Th₂);*
- 6 – intumescencia lumbalis (Th₁₀ – conus medullaris);*
- 7 – conus medullaris;*
- 8 – filum terminale;*
- 9 – canalis centralis;*
- 10 – ventriculus terminalis;*
- 11 – ventriculus quartus (IV).*

Stabilirea punctului pentru puncția lombară
(după B.K. Гостинцев, 2003)

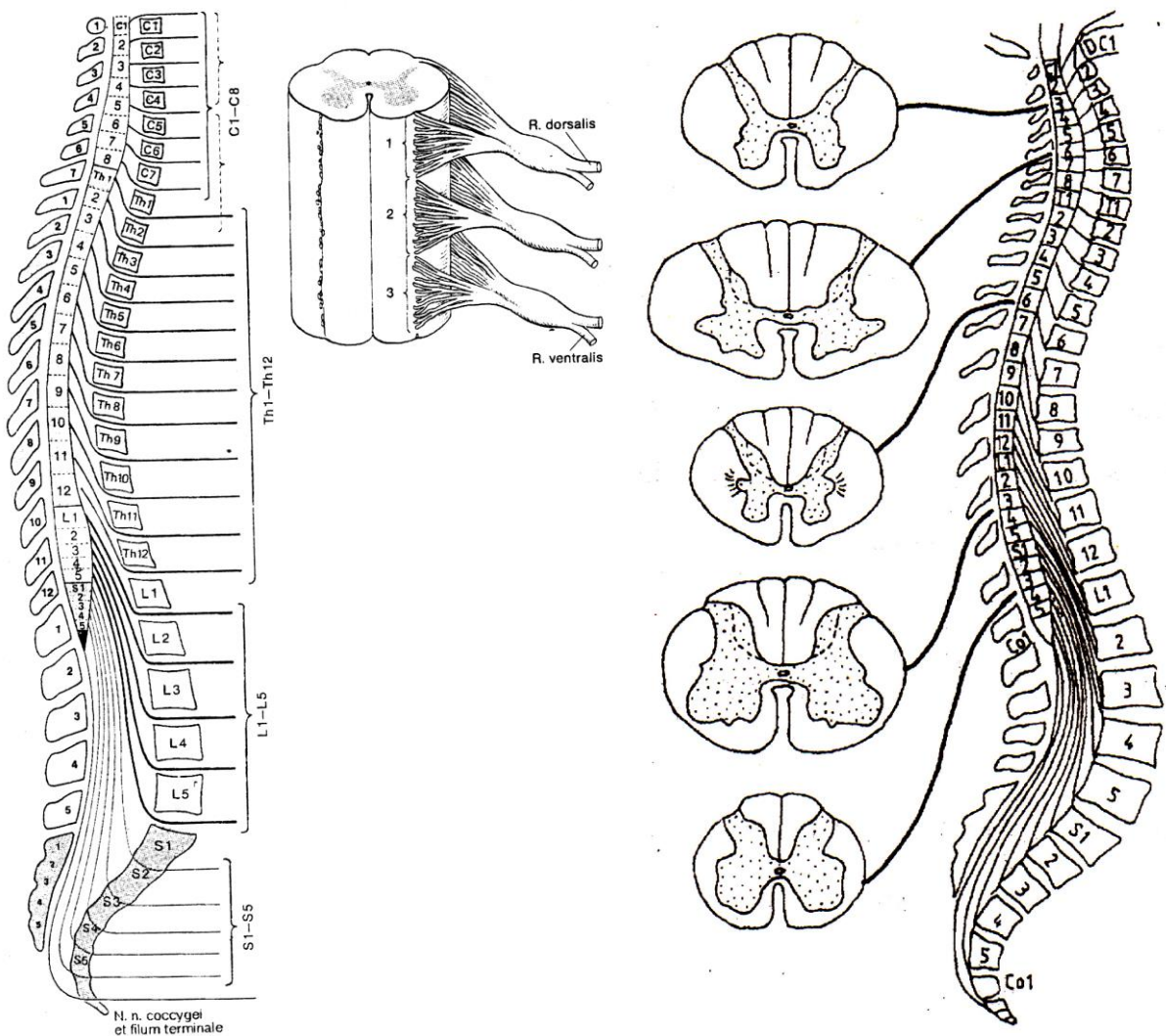
Определение места спинномозговой пункции
Determination of spinal canal puncture



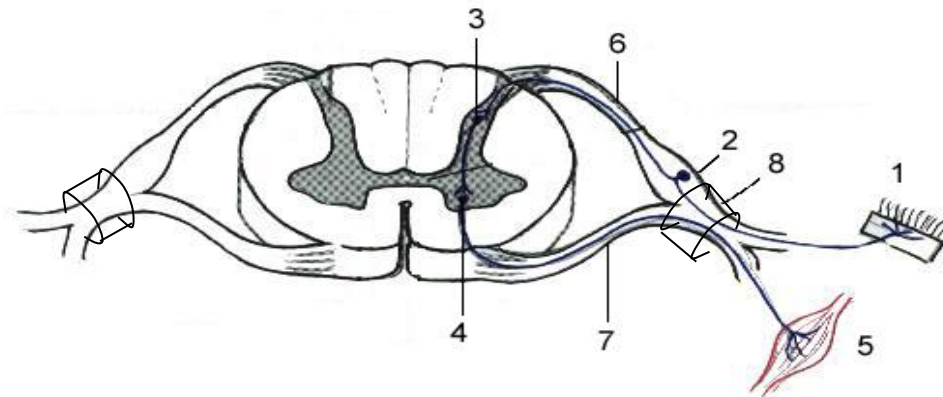
Raporturile dintre segmentele măduvei spinării cu rădăcinile nervilor spinali și corpurile vertebrelor. Variații regionale ale substanței cenușii și albe de-a lungul măduvei spinării

Соотношение между сегментами спинного мозга с выходящими из них корешками и телами позвонков. Региональные взаимоотношения между белым и серым веществом на протяжении спинного мозга

Correlations between the segments of the spinal cord with the roots of the spinal nerves and the bodies of the vertebrae. Regional interrelations between the white and grey mater of the spinal cord.



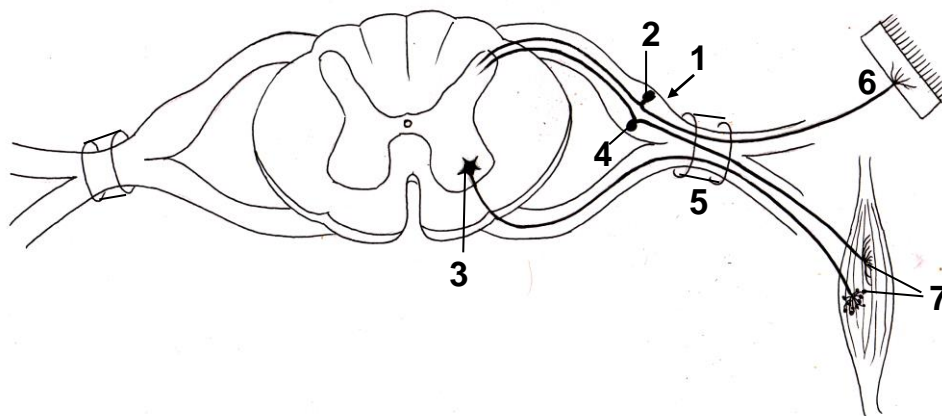
Arcul reflex simplu și formarea nervului spinal
Простая (трехнейронная) рефлекторная дуга и образование
спинномозгового нерва
Simple reflex arc and formation of the spinal nerve



1 – receptor cutis;
2 – ganglion spinale (neuronum pseudounipolare) (neuronum I);
3 – neuronum sensitivum, associationis (cornu posterius) (neuronum II);

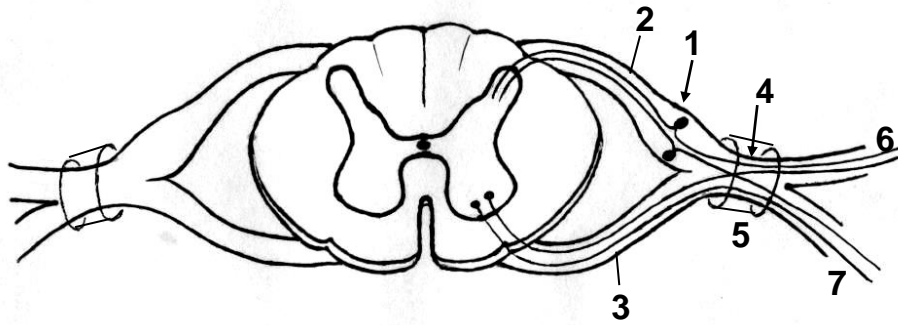
4 – neuronum motorius (cornu anterior) (neuronum III);
5 – musculus striatum;
6 – radix dorsalis (posterior);
7 – radix ventralis (anterior);
8 – nervus spinalis.

Schema arcului reflex simplu cu legătură inversă
Схема простой рефлекторной дуги с обратной связью
The scheme of the simple reflex arc with feedback loop



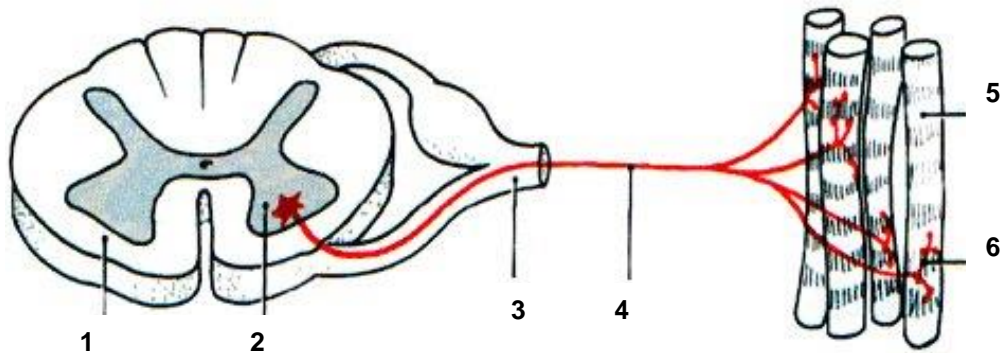
1 – ganglion spinale;
2 – neuronum sensitivum;
3 – neuronum motorium;
4 – neuronum cum conexione praepostera (feedback);
5 – foramen intervertebrale;
6 – receptor cutis;
7 – receptor et effector musculorum.

Schema formării nervului spinal
Схема формирования спинномозгового нерва
The scheme of the formation of the spinal nerve



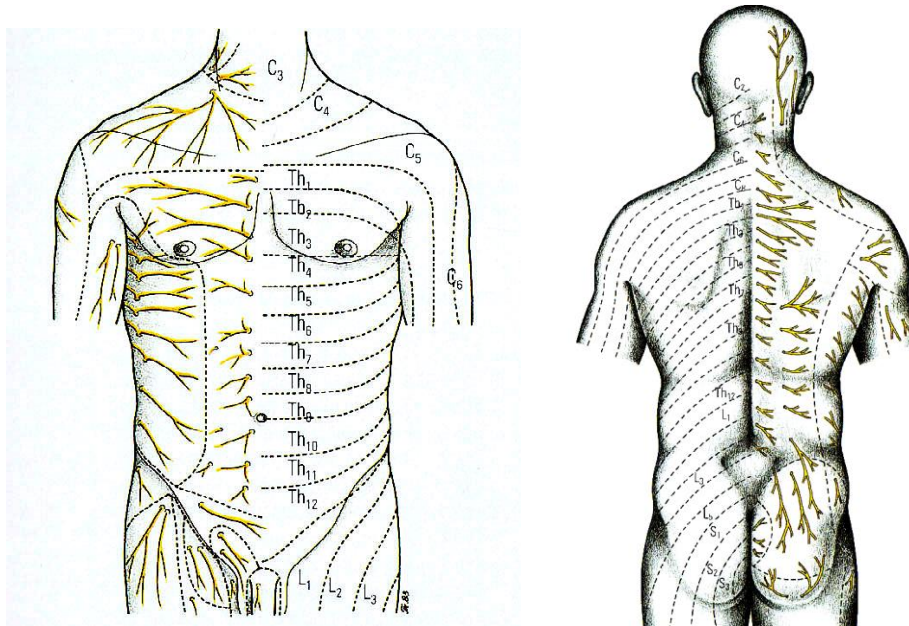
- 1 – *ganglion spinale*;
- 2 – *radix dorsalis*;
- 3 – *radix ventralis*;
- 4 – *truncus nervi spinalis*;
- 5 – *foramen intervertebrale*;
- 6 – *ramus dorsalis*;
- 7 – *ramus ventralis*.

Schema unității neuromotorie (mion)
Схема нервнoдвигательной единицы
Diagram of the neuromotor unit (mion)

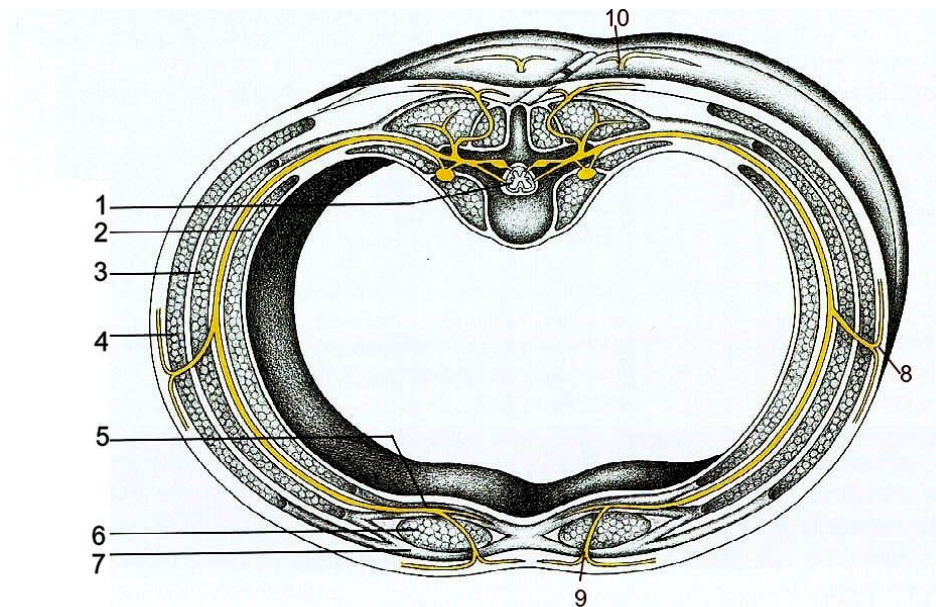


- 1 – *funiculus anterior*;
- 2 – *nuclei motorii (corpus neuroni, pericaryon)*;
- 3 – *nervus spinalis*;
- 4 – *neurofibrae motoricae*;
- 5 – *fibrae musculares*;
- 6 – *terminationes nervorum*.

Schema distribuirii ramurilor nervilor spinali în pielea trunchiului
Схема распределения ветвей спинномозговых нервов в коже туловища
The scheme of distribution of the branches of the spinal nerves in the skin of the trunk



Ramificarea unui nerv spinal toracic
Ветвление грудного спинномозгового нерва
Branches of the thoracic spinal nerve



- 1 – medulla spinalis;
- 2 – m. transversus abdominis;
- 3 – m. obliquus internus abdominis;
- 4 – m. obliquus externus abdominis;
- 5 – aponeurosis m. transversi abdominis;
- 6 – musculus rectus abdominis;

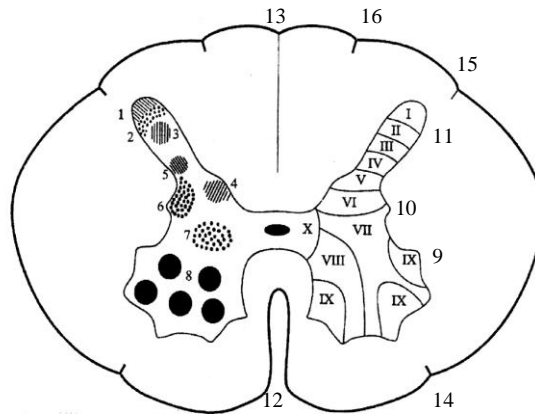
- 7 – aponeurosis m. obliqui interni abdominis;
- 8 – ramus externus nervi intercostalis;
- 9 – ramus anterior nervi intercostalis;
- 10 – ramus posterior nervi intercostalis.

Nucleele și structura laminară a substanței cenușii a măduvei spinării

(după F. G. Sido, 2004)

Ядра и пластинчатая структура серого вещества спинного мозга

Nuclei of the spinal cord



- 1 – *stratum zonale* (Waldeyer);
- 2 - *substantia gelatinosa* (Rolando);
- 3 - *nuclei proprii*;
- 4 – *nucleus thoracicus* (T₁ -L₃)(Clarke-Stilling);
- 5 – *nucleus lateralis* (Бехмевев);
- 6 - *nucleus intermediolateralis* (C₈, Th₁₋₁₂, L₁₋₃) (Бехмевев);
- 7 - *nucleus intermediocentralis*;
- 8 - *nuclei motorii*;

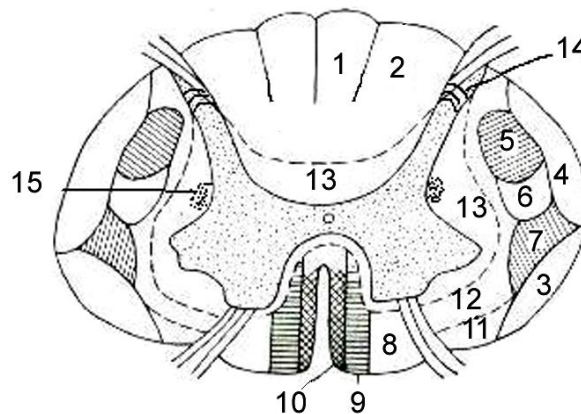
- 9 – *cornu anterius*;
- 10 – *cornu laterale* (C₈, Th₁₋₁₂, L₁₋₃);
- 11 - *cornu posterius*;
- 12 - *fissura mediana anterior*;
- 13 – *sulcus medianus posterior*;
- 14 – *sulcus lateralis anterior*;
- 15 – *sulcus lateralis posterior*;
- 16 – *sulcus intermedius posterior*;
- I–X – *laminae* (apud Rexed).

Căile de conducere ale măduvei spinării

(modificată după Н.В. Крылова, И.А. Искренко, 1986)

Проводящие пути спинного мозга

Pathways of the spinal cord

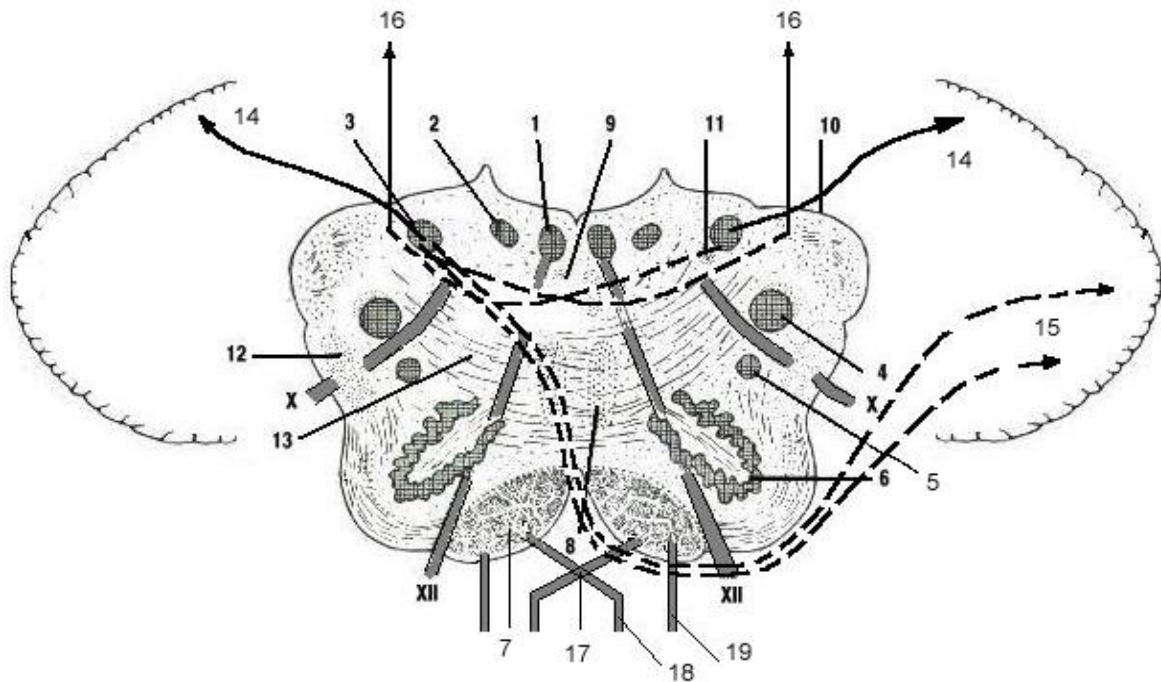


- 1 – *fasciculus gracilis* (Goll);
- 2 – *fasciculus cuneatus* (Burdach);
- 3 – *tractus spinocerebellaris anterior* (Gowers);
- 4 - *tractus spinocerebellaris posterior* (Flechsig);
- 5 – *tractus corticospinalis lateralis*;
- 6 – *tractus rubrospinalis* (Monakow);
- 7 – *tractus spinothalamicus lateralis*;

- 8 – *tractus spinothalamicus anterior*;
- 9 – *tractus corticospinalis anterior*;
- 10 – *tractus tectospinalis*;
- 11 – *tractus vestibulospinalis*;
- 12 – *tractus reticulospinalis*;
- 13 – *fasciculi proprii*;
- 14 – *substantia gelatinosa* (Rolando);
- 15 – *formatio reticularis*.

Schema unei secțiuni frontale prin bulbul rahidian
 (modificată după H.V. Крылова, И.А. Искренко, 1986)

Схема фронтального сечения продолговатого мозга
Diagram of the frontal section through the medulla oblongata



- 1 – nucleus nervi hypoglossi (XII);
- 2 – nucleus dorsalis nervi vagi (X);
- 3 – nucleus cuneatus;
- 4 – nucleus tractus spinalis n. trigemini (V);
- 5 – nucleus ambiguus (IX, X, XI);
- 6 – nucleus olivaris;
- 7 – tractus pyramidalis;
- 8 – decussatio lemniscorum et lemniscus medialis;
- 9 – fasciculus longitudinalis medialis;
- 10 – pedunculus cerebellaris inferior;
- 11 – tractus solitarius;

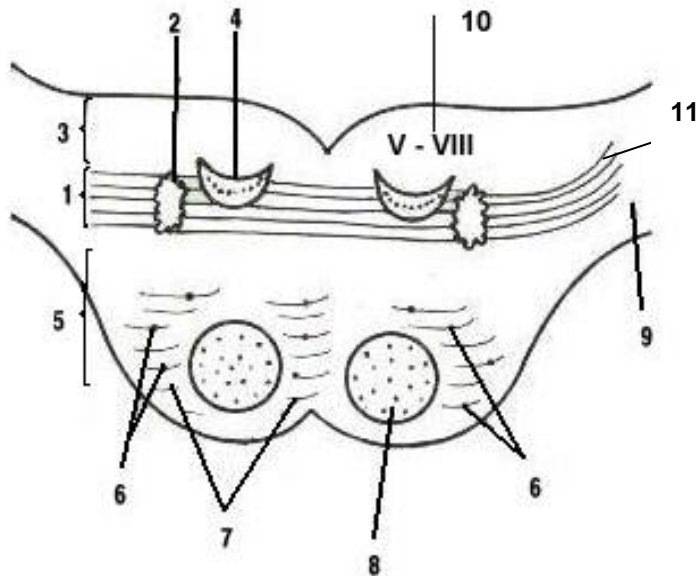
- 12 – tractus rubrospinalis, tectospinalis et spinocerebellaris anterior;
- 13 – fibrae arcuatae internae;
- 14 – fibrae arcuatae externae dorsales (posteriores);
- 15 – fibrae arcuatae externae ventrales (anteriores);
- 16 – tractus bulbothalamicus;
- 17 – decussatio pyramidum;
- 18 – tractus corticospinalis anterior;
- 19 – tractus corticospinalis lateralis;
- X – n. vagus;
- XII – n. hypoglossus.

Structura internă a punții (secțiune frontală)

(după H.V. Крылова, И.А. Искренко, 1986)

Внутреннее строение моста на фронтальном разрезе

Internal structure of the pons (frontal section)



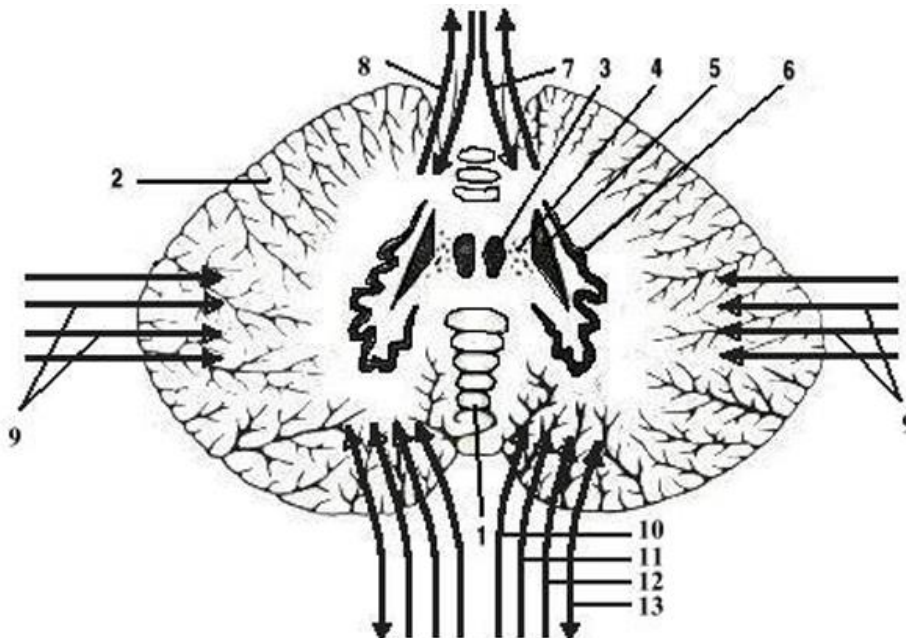
- 1 – corpus trapezoideum;
- 2 – nucleus dorsalis corporis trapezoidei seu nucleus olivaris superior;
- 3 – pars dorsalis pontis;
- 4 – lemniscus medialis;
- 5 – pars ventralis pontis;
- 6 – nuclei pontis;
- 7 – fibrae pontis transversae;
- 8 – tractus pyramidalis;
- 9 – pedunculus cerebellaris medius;
- 10 – nuclei n.n. V – VIII;
- 11 – lemniscus lateralis.

Nucleele cerebelului și componentele pedunculilor cerebeloși

(modificată după H.V. Крылова, И.А. Искренко, 1986)

Ядра мозжечка и проводящие пути мозжечковых ножек

Nuclei of the cerebellum and pathways of the cerebellar peduncles

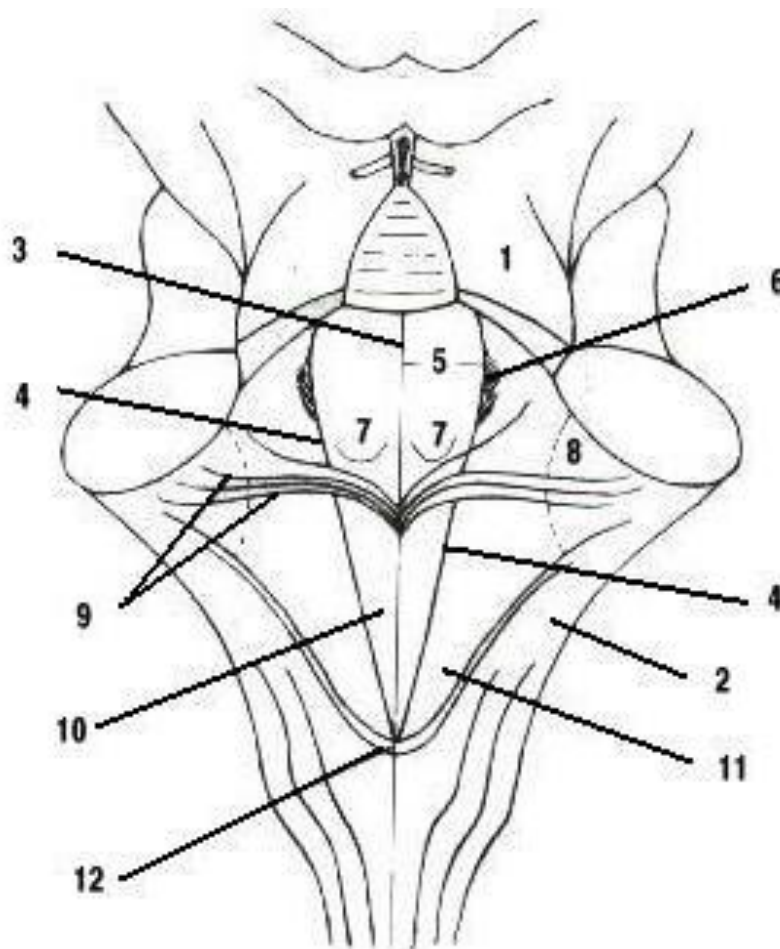


- 1 – vermis;
- 2 – hemispherium cerebelli;
- 3 – nucleus fastigii;
- 4 – nucleus globosus;
- 5 – nucleus emboliformis;
- 6 – nucleus dentatus;
- 7 – tractus spinocerebellaris anterior (Gowers);
- 8 – tractus cerebellotegmentalis;
- 9 – tractus pontocerebellaris;
- 10 – tractus spinocerebellaris posterior (Flechsig);
- 11 – fibrae arcuatae externae;
- 12 – fibrae olivocerebellares;
- 13 – tractus vestibulospinalis.

Relieful fosei romboide

(diră Н.В. Крылова, И.А. Искренко, 1986)

Рельеф ромбовидной ямки Relief of the rhomboid fossa

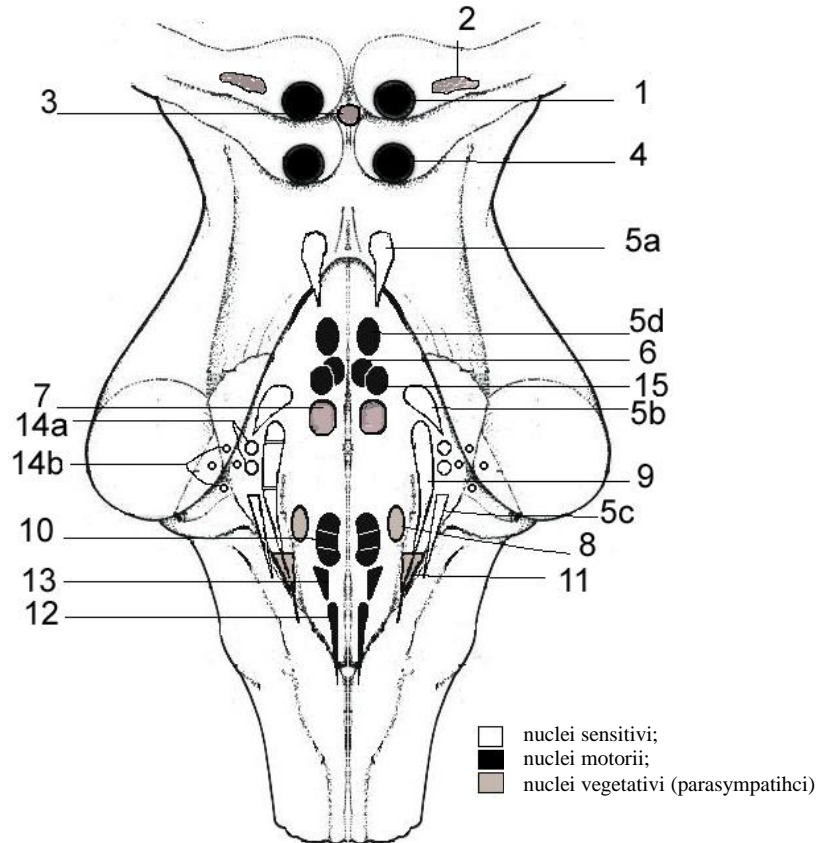


- 1 – *pedunculus cerebellaris superior*;
- 2 – *pedunculus cerebellaris inferior*;
- 3 – *sulcus medianus*;
- 4 – *sulcus limitans*;
- 5 – *eminentia medialis*;
- 6 – *locus coeruleus*;
- 7 – *colliculus facialis*;
- 8 – *area vestibularis*;
- 9 – *striae medullares ventriculi quarti*;
- 10 – *trigonum nervi hypoglossi*;
- 11 – *trigonum nervi vagi*;
- 12 – *obex*.

**Proiecția nucleelor nervilor cranieni pe fața dorsală a trunchiului cerebral
(fosa romboidă)**

**Проекция ядер черепных нервов на дорсальную поверхность ствола мозга
(ромбовидная ямка)**

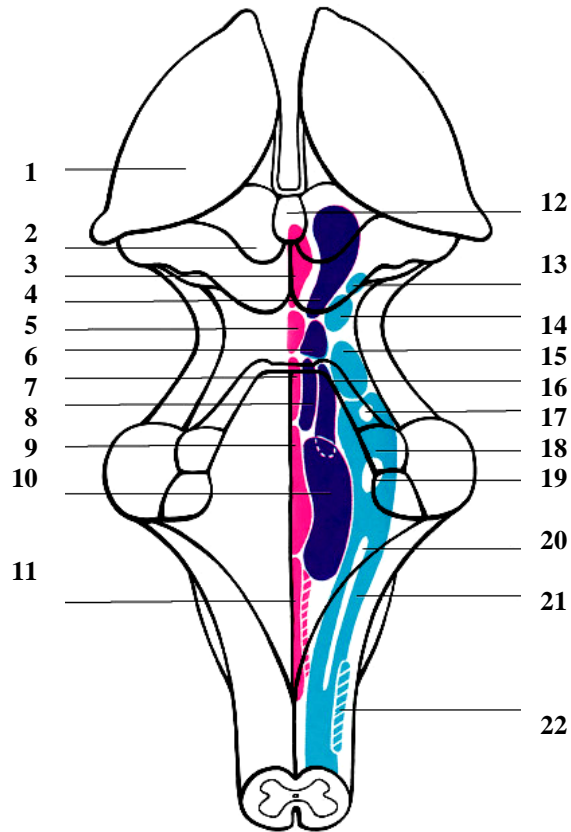
**Projection of the nuclei of the cranial nerves on the dorsal surface of the brain
stem (the romboid fossa)**



- 1 – *nucl. n. (nucleus nervi) oculomotorii (III)*;
 2 – *n. accessorius (Якубович-Westphal-Edinger) (III)*;
 3 – *n. anteromedialis (impar)(Perl)(III)*;
 4 – *nucl. n. trochlearis (IV)*;
 5a – *n. mesencephalicus nervi trigemini (V)*;
 5b – *n. pontinus (n. principalis nervi trigemini) (V)*;
 5c – *n. spinalis nervi trigemini (V)*;
 5d – *n. motorius n. trigemini (V)*;
 6 – *nucl. n. abducentis (VI)*;
 7 – *n. salivatorius superior (VII)*;
 8 – *n. salivatorius inferior (IX)*;
 9 – *n. tractus solitarii (VII, IX, X)*;
 10 – *n. ambiguus [IX, X, XI (pars cranialis)]*;
 11 – *n. dorsalis n. vagi (X)*;
 12 – *n. spinalis n. accessorii (XI)*;
 13 – *nucl. n. hypoglossi (XII)*;
 14 a – *pars cochlearis n. vestibulocochlearis (nucleus cochlearis posterior et nucleus cochlearis anterior)*;
 14 b – *pars vestibularis n. vestibulocochlearis [n.n. vestibulares: superior (Бехмеве), inferior (Roller), lateralis (Deiters), medialis (Schwalbe)]*;
 15 – *nucl. n. facialis (VII)*.

Nucleele formațiunii reticulate
(după Gray)

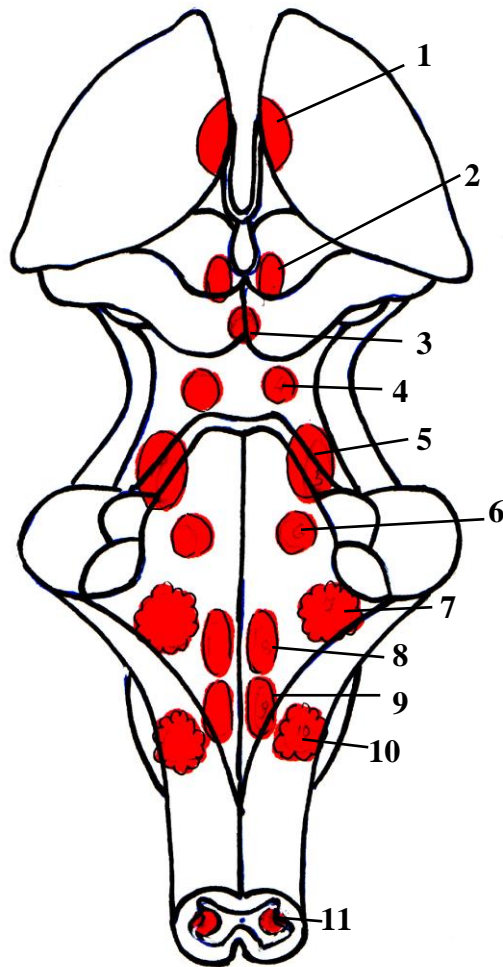
Ядра ретикулярной формации
Nuclei of the reticular formation



- 1 - *thalamus dorsalis*;
- 2 - *colliculus cranialis (superior)*;
- 3 - *nucleus raphae dorsalis*;
- 4 - *nuclei cuneatus et subcuneatus*;
- 5 - *nucleus centralis superior*;
- 6 - *nucleus reticularis pontinus*;
- 7 - *raphe (mediana pontina)*;
- 8 - *nucleus reticularis tegmentalis pontinus (Бехтеев)*;
- 9 - *nucleus raphae magnus*;
- 10 - *nucleus gigantocellularis (magnocellularis)*;
- 11 - *nucleus raphae obscurus et pallidus*;
- 12 - *corpus pineale*;

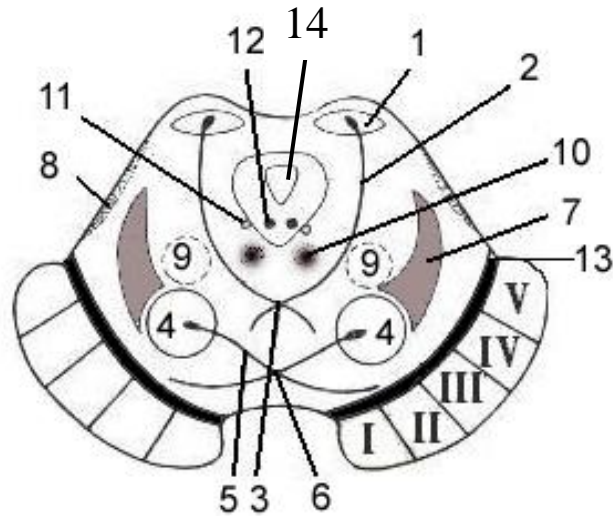
- 13 - *nucleus tegmentalis pedunculopalatinus partes compactae*;
- 14 - *nucleus parabrachialis lateralis*;
- 15 - *nucleus parabrachialis medialis*;
- 16 - *nucleus reticularis pontinus caudalis*;
- 17 - *nucleus motorius nervi trigemini*;
- 18 - *nucleus pontinus centralis*;
- 19 - *nucleus motorius n. facialis*;
- 20 - *nucleus ambiguus*;
- 21 - *nucleus centralis medullae oblongatae*;
- 22 - *nucleus funicularis lateralis (nucleus reticularis lateralis medullae oblongatae)*;

Nucleele formațiunii reticulate
Ядра ретикулярной формации
Nuclei of the reticular formation



- 1 – nucleus reticularis medialis thalami (Бурденко);*
2 – substantia grisea centralis aquaeductus cerebri (Silvius);
3 – nucleus reticularis impar mesencephali;
4 – nucleus reticularis oralis pontis;
5 – nucleus tegmentalis peduncolopontinus (Бехтерева);
6 – nucleus reticularis caudalis pontis;
7 – nucleus gigantocellularis;
8 – nucleus reticularis ventralis;
9 – nucleus reticularis dorsalis;
10 – nucleus reticularis microcellularis;
11 – nucleus reticularis spinalis.

Structura internă a mezencefalului
Внутреннее строение среднего мозга
Internal structure of the midbrain

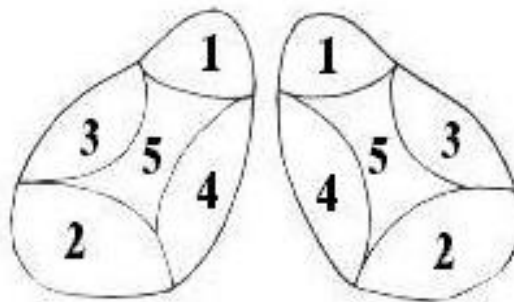


- 1 – *nucleus colliculi inferioris*;
 2 – *tractus tectospinalis*;
 3 – *decussatio dorsalis tegmenti (Meynert)*;
 4 – *nucleus ruber*;
 5 – *tractus rubrospinalis (Monakow)*;
 6 – *decussatio ventralis tegmenti (Forel)*;
 7 – *lemniscus medialis*;
 8 – *lemniscus lateralis*;
 9 – *formatio reticularis*;
 10 – *fasciculus longitudinalis medialis*;
 11 – *nucleus tractus mesencephalici nervi trigemini (V)*;

- 12 – *nucleus nervi trochlearis (IV)*;
 13 – *substantia nigra (Sömmering)*;
 14 – *aqueductus cerebri (Silvius)*;

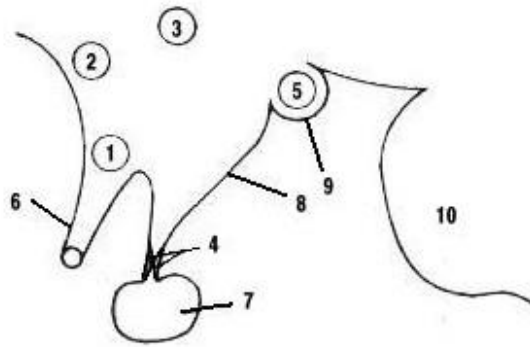
- I – *tractus corticopontinus frontalis seu frontopontinus*;
 II – *tractus corticonuclearis*;
 III – *tractus corticospinalis lateralis*;
 IV – *tractus corticospinalis anterior*;
 V – *tractus occipitotemporopontinus*.

Топография ядер таламусului
Топография ядер зрительного бугра
Topography of the thalamic nuclei



- 1 – *nuclei anteriores thalami (olfactorii)*;
 2 – *nuclei dorsales thalami (optici)*;
 3 – *nuclei laterales thalami (sensus generalis)*;
 4 – *nuclei mediales thalami (systema extrapyramidale)*;
 5 – *nuclei centrales (intralaminares) thalami (formatio reticularis)*.

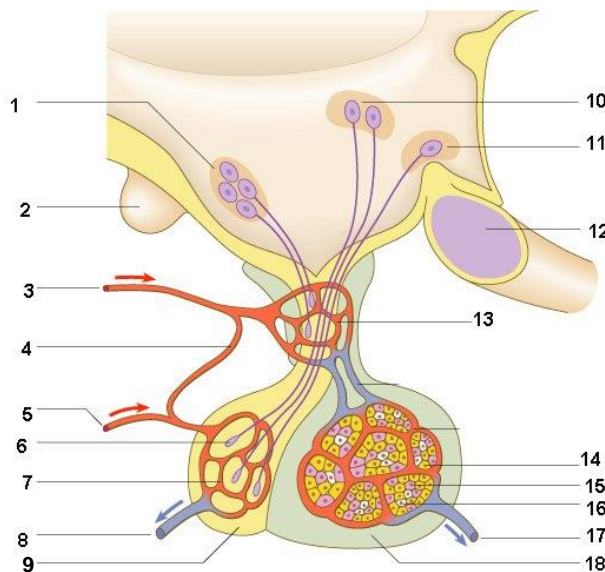
Nucleele neurosecretoare ale hipotalamusului
Нейросекреторные ядра подбугорной (подталамической) области
Neurosecretory nuclei of the hypothalamus



- | | |
|---|-------------------------------|
| <i>1 – nucleus supraopticus;</i> | <i>6 – chiasma opticum;</i> |
| <i>2 – nucleus preopticus;</i> | <i>7 – hypophysis;</i> |
| <i>3 – nucleus paraventricularis hypothalami;</i> | <i>8 – tuber cinereum;</i> |
| <i>4 – nucleus infundibularis;</i> | <i>9 – corpus mammillare;</i> |
| <i>5 – nuclei corporis mammillaris;</i> | <i>10 – pons (Varolio).</i> |

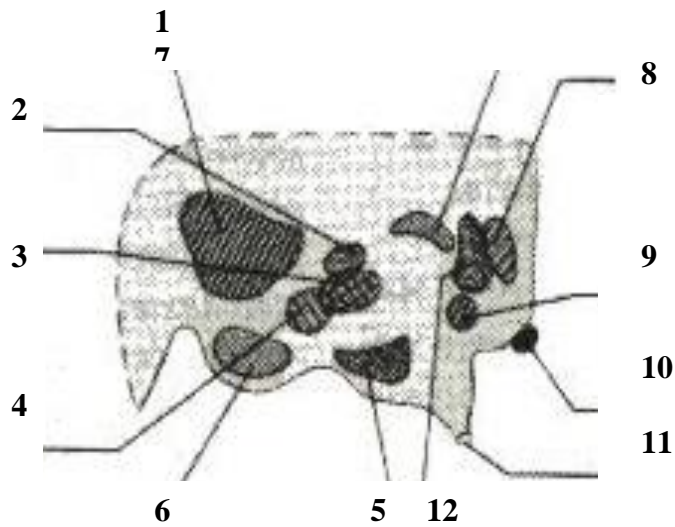
Sistemul portal hipotalamohipofizar
(după Gray)

Гипоталамогипофизарная портальная система
Hypothalamohypophyseal portal system



- | | |
|--|---|
| <i>1 – nuclei hypothalami;</i> | <i>11 – nucleus supraopticus;</i> |
| <i>2 – corpus mammillare;</i> | <i>12 – chiasma opticum;</i> |
| <i>3 – arteria hypophysialis superior;</i> | <i>13 – systema hypothalamohypophysiale</i>
<i>(plexus capillaris primarius, venae portales,</i>
<i>plexus capillaris secundarius);</i> |
| <i>4 – artera trabecularis;</i> | <i>14 – acidophilus;</i> |
| <i>5 – arteria hypophysialis inferior;</i> | <i>15 – basophilus;</i> |
| <i>6 – terminatio axonis;</i> | <i>16 – chromophobus;</i> |
| <i>7 – plexus capillares lobi posterioris;</i> | <i>17 – vena hypophysialis;</i> |
| <i>8 – vena hypophysialis;</i> | <i>18 – lobus anterior.</i> |
| <i>9 – lobus neuralis seu posterior;</i> | |
| <i>10 – nucleus paraventricularis;</i> | |

Centri funcționali ai hipotalamusului
Функциональные центры гипоталамуса
Neurosecretory nuclei of the hypothalamus



Posterior

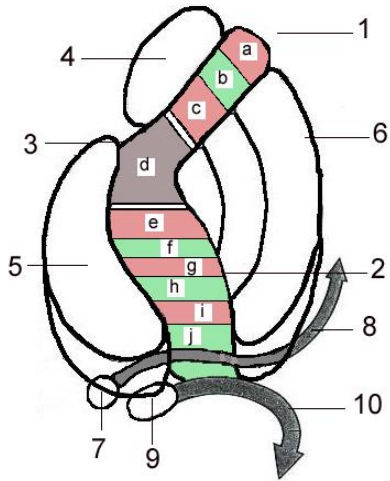
1. *Hypothalamus posterior (hypertensio, dilatatio pupillae, spasmi, convulsiones);*
2. *Nucleus dorsalis medialis (stimulatio gastrointestinalis);*
3. *Nucleus perifornicalis (fames, hypertensio, furor);*
4. *Nucleus ventralis medialis (saturatio, consultatio neuroendocrina);*
5. *Corpus mammillare (reflexus nutritionis);*
6. *Nucleus arcuatus et regio periventricularis (consultatio neuroendocrina).*

Anterior

7. *Nucleus paraventricularis (eliminatio et secretio oxytocini, conservatio aquae);*
8. *Area preoptica medialis (contractio vesicae urinariae, bradycardia, hypotensio);*
9. *Nucleus supraopticus (eliminatio et secretio ADH);*
10. *Chiasma opticum;*
11. *Infundibulum;*
12. *Area preoptica posterior et area hypothalamica anterior (moderatio temperaturae corporis, polypnoë, transpiratio, inhibitio, eliminatio thyrotropini).*

Componentele capsulei interne
 (după Williams P.L., Warwick R., 1989, cu modificări)

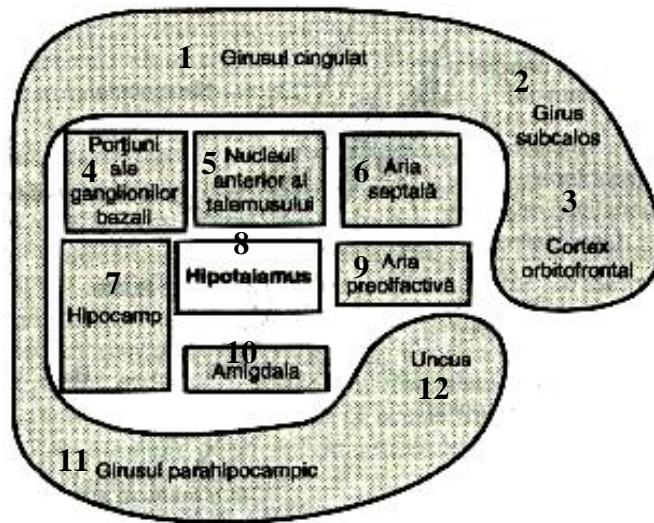
Компоненты внутренней капсулы
Components (pathways) of the internal capsule



a – tractus frontothalamicus;
b – tractus frontorubralis;
c – tractus frontopontinus;
d – tractus corticonuclearis;
e – tractus corticospinalis;
f – tractus bulbothalamicus et
spinothalamicus;
g – tractus corticothalamicus;
h – tractus
parietooccipitopontinus et
occipitotemporopontinus;
i – radiatio acustica;
j – radiatio optica (tractus
occipitohalamicus, Gratiolet).

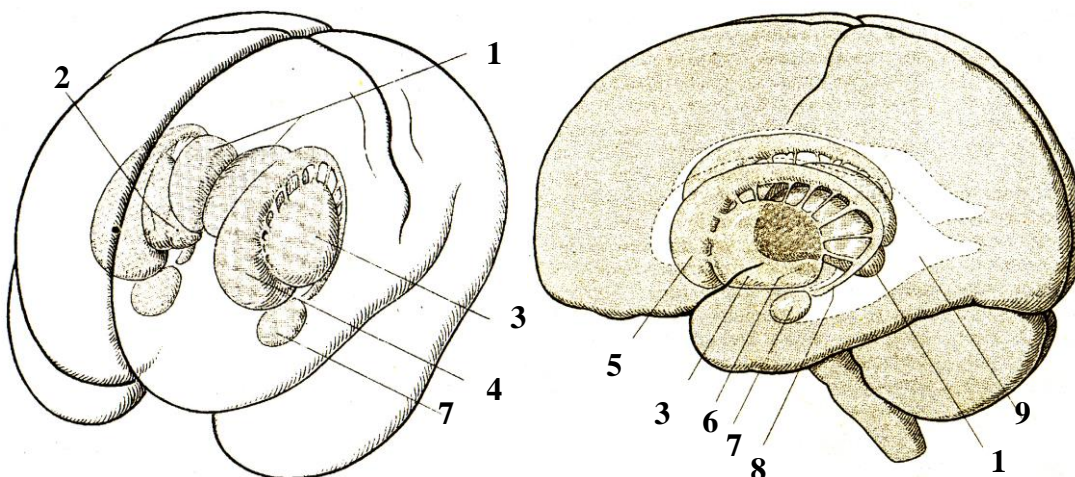
1 – crus anterior capsulae internaе;
2 – crus posterior capsulae
internaе;
3 – genu capsulae internaе;
4 – caput nuclei caudati;
5 – thalamus;
6 – nucleus lentiformis;
7 – corpus geniculatum
mediale;
8 – radiatio acustica;
9 – corpus geniculatum
laterale;
10 – radiatio optica.

Sistemul limbic
(după A. Guyton, 1997)
Лимбическая система
The limbic system



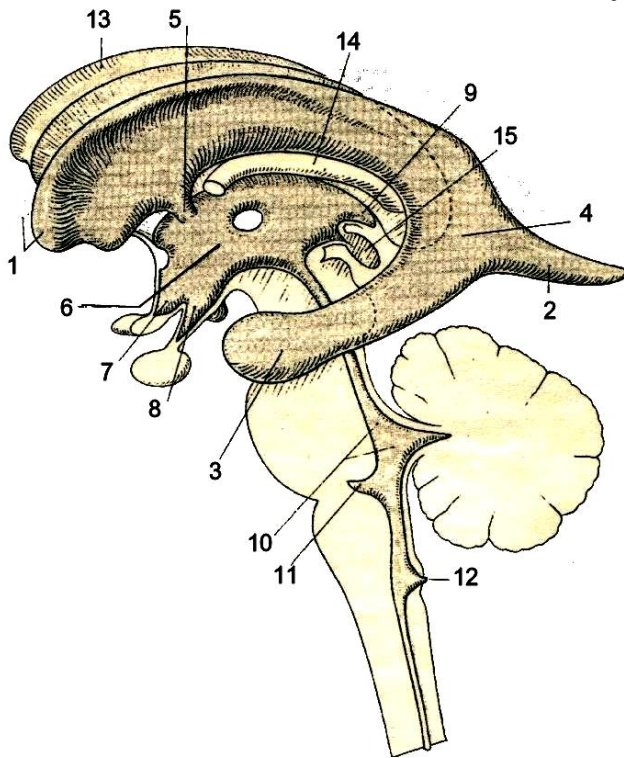
- | | |
|-------------------------------|-------------------------------|
| 1 – gyrus cinguli; | 7 – hippocampus; |
| 2 – gyrus subcallosus; | 8 – hypothalamus; |
| 3 – cortex orbitofrontalis; | 9 – area preolfactivă; |
| 4 – nuclei basales; | 10 – amygdale; |
| 5 – nucleus thalami anterior; | 11 – gyrus parahippocampalis; |
| 6 – septum pellucidum; | 12 – uncus. |

Interrelațiile topografice ale nucleilor bazali cu sistemul ventricular
Топографические взаимоотношения базальных ганглиев с желудочковой системой
Topographical relations between basal nuclei and ventricular system



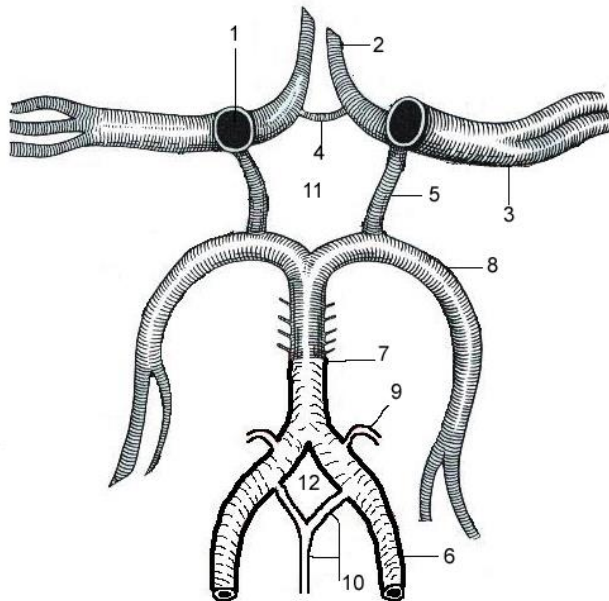
- | | |
|---------------------------|----------------------------|
| 1 – thalamus; | 6 – nucleus subthalamicus; |
| 2 – globus pallidus; | 7 – corpus amygdaloideum; |
| 3 – putamen; | 8 – cauda nuclei caudati; |
| 4 – nucleus caudatus; | 9 – ventriculus lateralis. |
| 5 – caput nuclei caudati; | |

Sistemul ventricular
Система желудочков головного мозга
Ventricular system



- 1 - *cornu anterius (ventriculi lateralis);*
- 2 - *cornu posterius (ventriculi lateralis);*
- 3 - *cornu inferius (ventriculi lateralis);*
- 4 - *trigonum collaterale;*
- 5 - *foramen interventriculare (Monro);*
- 6 - *ventriculus tertius;*
- 7 - *recessus opticus;*
- 8 - *recessus infundibuli;*
- 9 - *recessus suprapinealis;*
- 10 - *aquaeductus cerebri et ventriculus quartus;*
- 11 - *recessus lateralis et apertura lateralis ventriculi quarti (Luschka);*
- 12 - *apertura mediana ventriculi quarti (Magendie);*
- 13 - *corpus callosum;*
- 14 - *fornix;*
- 15 - *corpus pineale.*

Poligonul arterial al encefalului (Th.Willis)
Артериальное кольцо основания мозга
Circulus arteriosus cerebri (arterial ring of the brain Willis' circle)



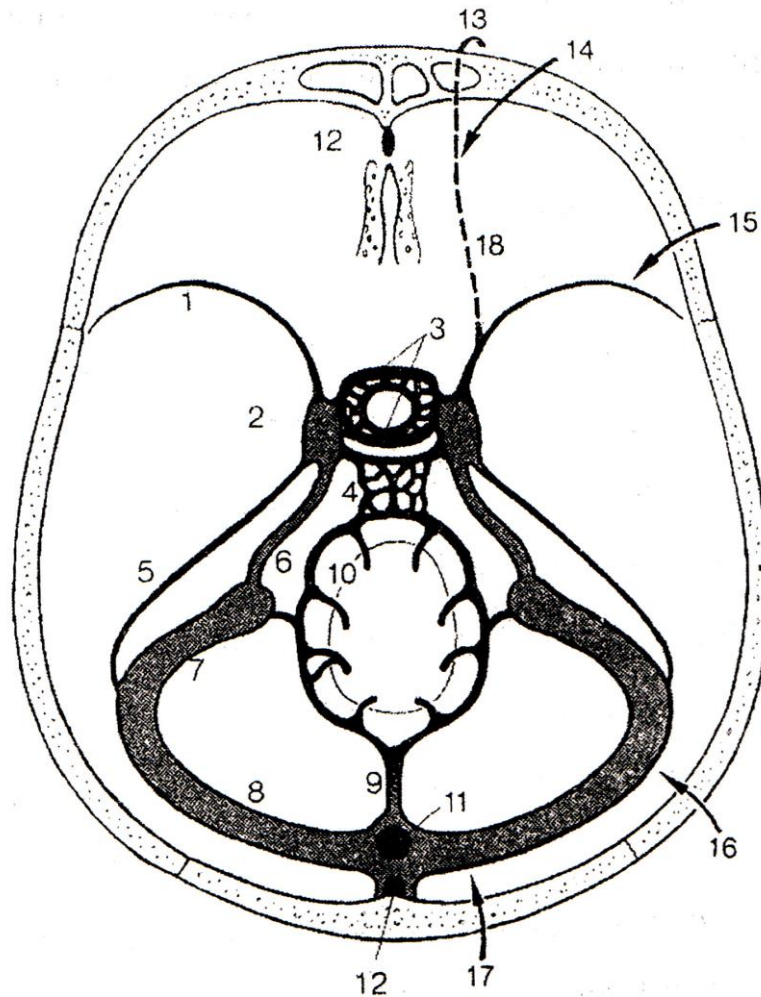
- 1 - *arteria carotis interna;*
- 2 - *arteria cerebri anterior;*
- 3 - *arteria cerebri media;*
- 4 - *arteria communicans anterior;*
- 5 - *arteria communicans posterior;*
- 6 - *arteria vertebralis;*
- 7 - *arteria basilaris;*
- 8 - *arteria cerebri posterior;*
- 9 - *arteria spinalis posterior;*
- 10 - *arteria spinalis anterior;*
- 11 - *circulus arteriosus cerebri (major) (Willis);*
- 12 - *circulus arteriosus (minor) (Захарченко).*

Sinusurile venoase ale durei mater

(după F. G. Sido, 2004)

Венозные синусы твердой оболочки головного мозга

Venous sinuses of dura mater of the brain



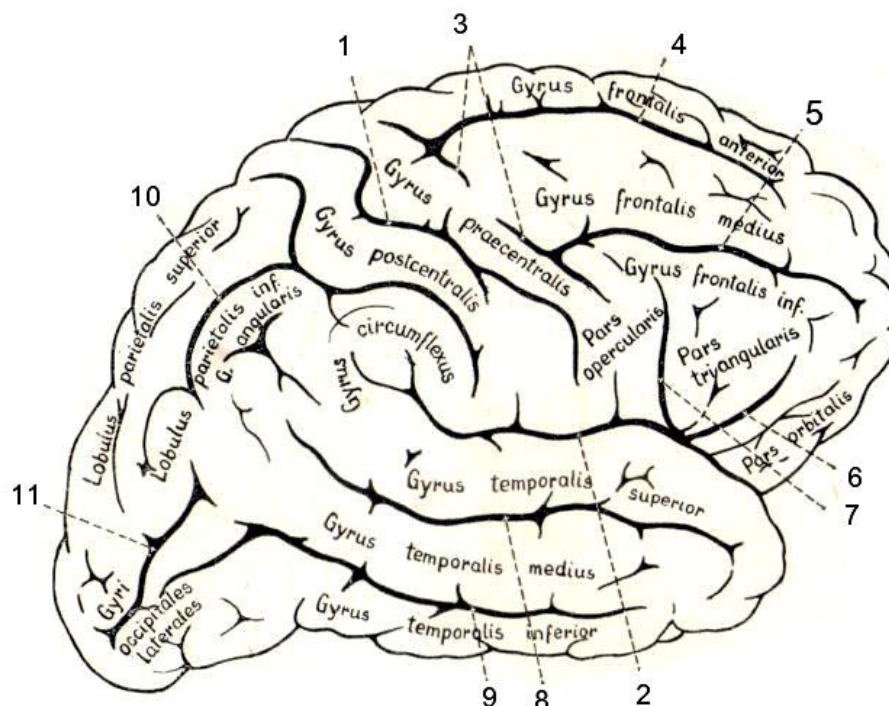
- 1 – sinus sphenoparietalis;
- 2 – sinus cavernosus;
- 3 – anastomosis intercavernosa;
- 4 – plexus venosus basilaris;
- 5 – sinus petrosus superior;
- 6 – sinus petrosus inferior;
- 7 – sinus sigmoideus;
- 8 – sinus transversus;
- 9 – sinus occipitalis;
- 10 – plexus venosus vertebralis internus;
- 11 – sinus rectus;
- 12 – sinus sagittalis superior (sectio horisontalis);
- 13 – vena angularis;
- 14 – vena diploica frontalis;
- 15 – vena diploica temporalis anterior;
- 16 – vena diploica temporalis posterior;
- 17 – vena diploica occipitalis;
- 18 – vena ophthalmica superior.

Relieful feței dorsolaterale a emisferei cerebrale drepte

(după F. Kiss, J. Szentagothai)

Борозды и извилины вернелатеральной поверхности правого полушария мозга

The relief of the dorsolateral surface of the right cerebral hemisphere



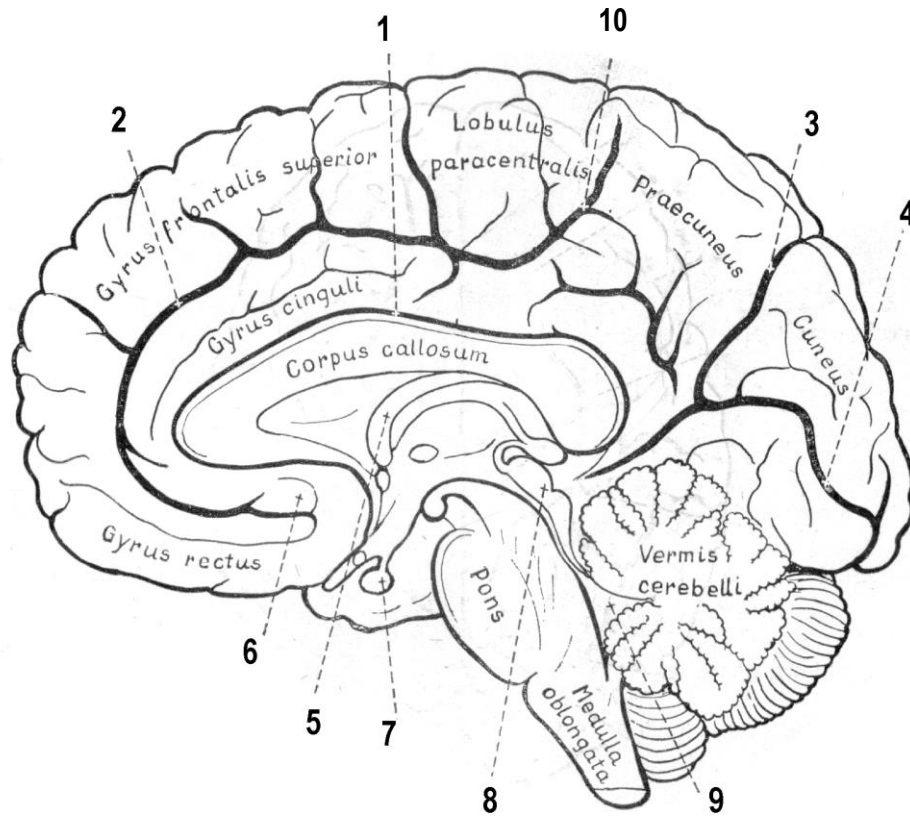
- 1 - sulcus centralis;
- 2 - fissura cerebri lateralis;
- 3 - sulcus praecentralis;
- 4 - sulcus frontalis superior;
- 5 - sulcus frontalis inferior;
- 6 - ramus anterior;
- 7 - ramus ascendens;
- 8 - sulcus temporalis superior;
- 9 - sulcus temporalis inferior;
- 10 - sulcus interparietalis;
- 11 - sulcus occipitalis lateralis.

Relieful feței mediale a emisferei cerebrale drepte

(după F. Kiss, J. Szentagothai)

Борозды и извилины медиальной поверхности правого полушария мозга

The relief of the medial surface of the right cerebral hemisphere



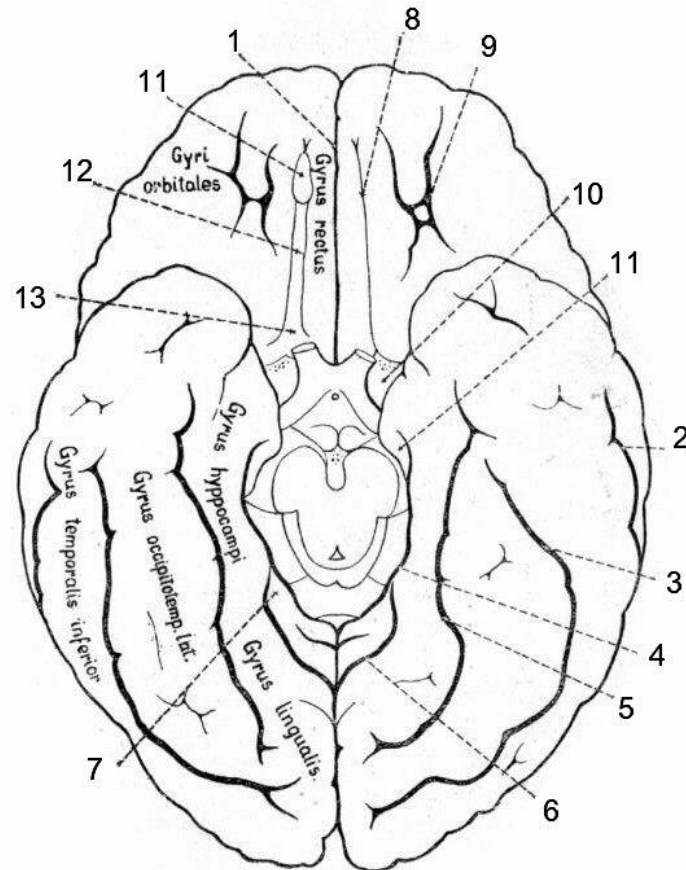
- 1 - sulcus corporis callosi;
- 2 - sulcus cinguli;
- 3 - fissura parietooccipitalis;
- 4 - fissura calcarina;
- 5 - fornix;
- 6 - area parolfactoria;
- 7 - hypophysis;
- 8 - lamina quadrigemina;
- 9 - ventriculus quartus;
- 10 - ramus marginalis sulci cinguli.

Relieful feței inferioare a emisferelor cerebrale

(după F. Kiss, J. Szentagothai)

Борозды и извилины нижней (базальной) поверхности полушарий мозга

The relief of the inferior surface of cerebral hemispheres



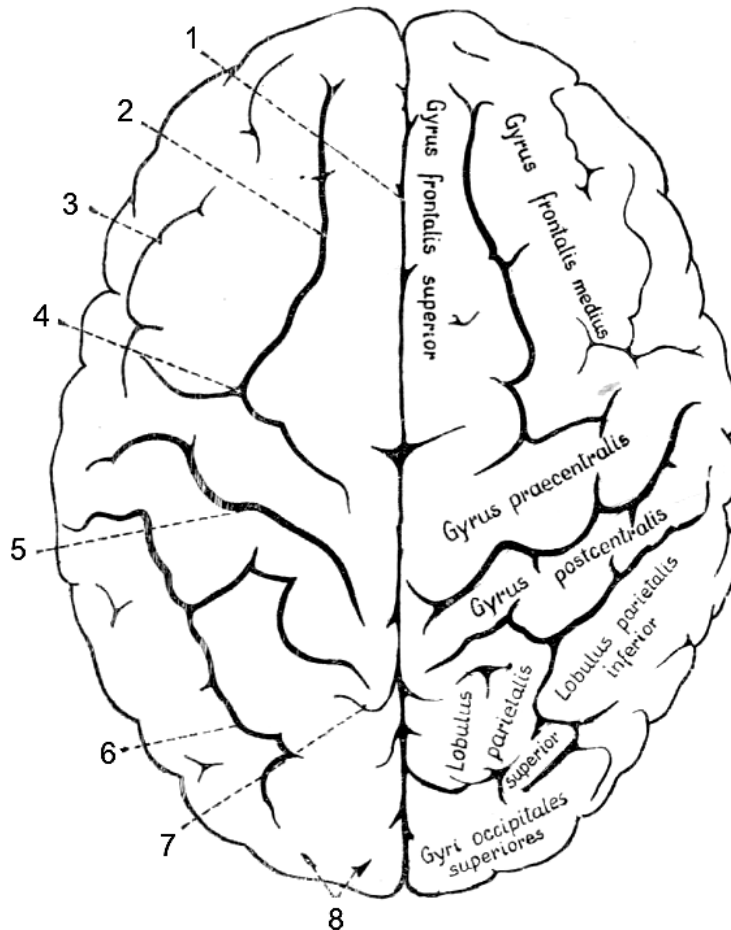
- 1 - *fissura longitudinalis*;
- 2 - *sulcus temporalis inferior*;
- 3 - *sulcus temporalis medius*;
- 4 - *fissura hippocampi*;
- 5 - *fissura collateralis*;
- 6 - *fissura calcarina*;
- 7 - *cuneus*;
- 8 - *sulcus olfactorius*;
- 9 - *gyri orbitales*;
- 10 - *substantia perforata anterior*;
- 11 - *bulbus olfactorius*;
- 12 - *tractus olfactorius*;
- 13 - *trigonum olfactorium*.

Relieful feței superioare a emisferelor cerebrale

(după F. Kiss, J. Szentagothai)

Борозды и извилины верхней поверхности полушарий мозга

The relief of the upper surface of the cerebral hemispheres

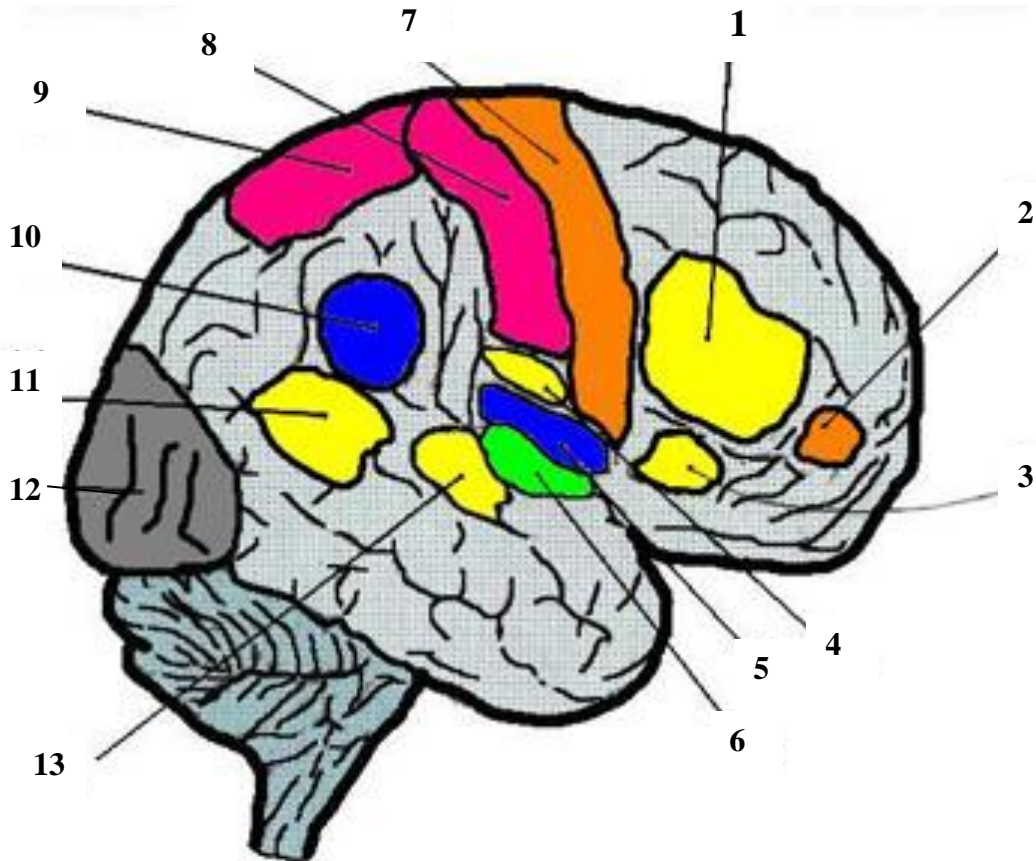


- 1 - *fissura longitudinalis*;
- 2 - *sulcus frontalis superior*;
- 3 - *sulcus frontalis inferior*;
- 4 - *sulcus paracentralis*;
- 5 - *sulcus centralis*;
- 6 - *sulcus interparietalis*;
- 7 - *pars marginalis sulci cinguli*;
- 8 - *sulci occipitales superior*.

Localizarea funcțiilor în scoarța emisferelor mari
(fața dorsolaterală)

Локализация функций в коре полушарий большого мозга
(верхнелатеральная поверхность)

Localization of functions in the cerebral cortex
(superolateral surface)



1. Analizatorul motor al limbajului scris.
2. Nucleul analizatorului ce asigură mișcarea concomitentă a capului și ochilor în sens opus.
3. Nucleul analizatorului motor al vorbirii articulate (girus Brocá).
4. Nucleul analizatorului gustativ.
5. Nucleul analizatorului impulsurilor de la viscere și vase.
6. Nucleul analizatorului auditiv (girus temporalis superior).
7. Nucleul analizatorului motor (coordonarea mișcărilor).
8. Nucleul analizatorului cortical al sensibilității generale.
9. Nucleul analizatorului stereognoziei.
10. Nucleul praxiei.
11. Nucleul analizatorului optic al limbajului scris (girus angularis).
12. Nucleul optic.
13. Nucleul analizatorului acustic al vorbirii orale (girus temporalis superior, centrul Wernicke).

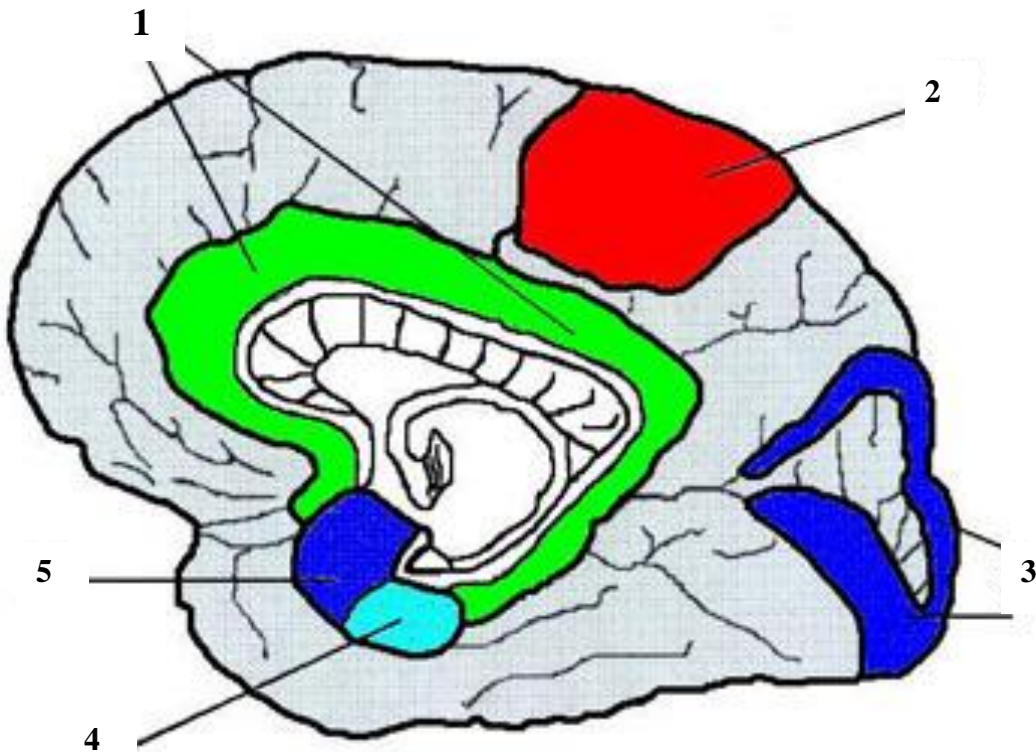
1. Ядро двигательного анализатора письменной речи.
2. Ядро двигательного анализатора сочетанного поворота головы и глаз в противоположную сторону.
3. Ядро двигательного анализатора артикуляции речи (girus Brocá).
4. Ядро вкусового анализатора.
5. Ядро анализатора импульсов от внутренностей и сосудов.
6. Ядро слухового анализатора (girus temporalis superior).
7. Ядро двигательного анализатора (координация движений).
8. Ядро анализатора общей чувствительности (кожного анализатора).
9. Ядро анализатора стереогнозии.
10. Ядро праксии (целенаправленных движений).
11. Ядро зрительного анализатора письменной речи (girus angularis).
12. Ядро зрительного анализатора.
13. Ядро слухового анализатора устной речи (girus temporalis superior, центр Wernicke).

1. Nucleus of the motor analyser of the written speech.
2. Nucleus of the motor analyser concerned with concord turning of the head and eyes in the opposite direction.
3. Nucleus of the motor analyser of speech articulation (Broca's speech area).
4. Nucleus of the taste analyser.
5. Nucleus of the analyser of impulses passing from the viscera and vessels.
6. Nucleus of the auditory analyser.
7. Nucleus of the motor analyser.
8. The nucleus of the skin analyser (the sense of touch, pain, and temperature).
9. Nucleus of the stereognosis.
10. The nucleus of the motor analyser (by means of which habitual purposeful combined movements are synthesized).
11. The nucleus of the visual analyser of the written speech.
12. The nucleus of the visual analyser.
13. The nucleus of the auditory analyser of spoken speech (Wernicke's center).

Localizarea funcțiilor în scoarța emisferelor mari
(fața medială și inferioară)

Локализация функций в коре полушарий большого мозга
(медиальная и нижняя поверхности)

Localization of functions in the cerebral cortex
(medial and inferior surfaces)

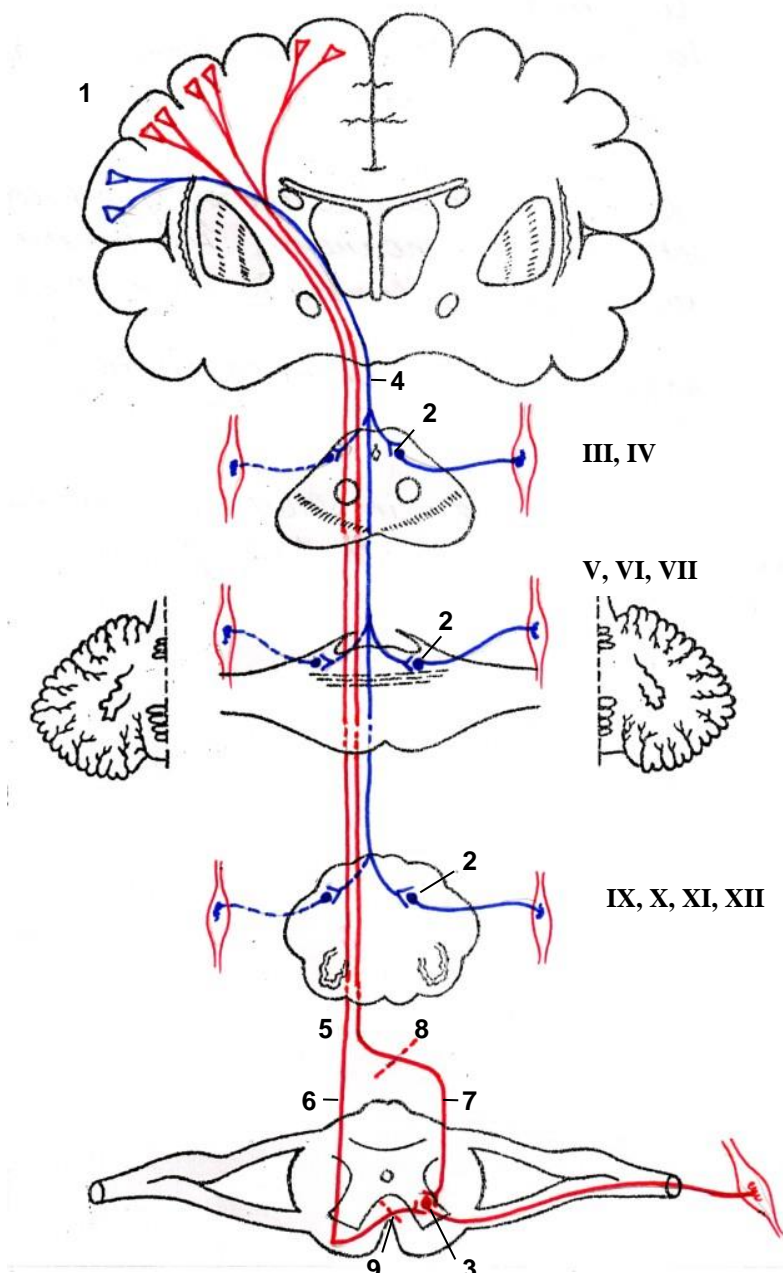


1. Centrul sistemului limbic, centrul superior vegetativ, emotiv și motivațional (girus fornicatus).
2. Nucleul analizatorului motor (lobus paracentralis Betz) .
3. Nucleul analizatorului optic (lobus occipitalis).
4. Nucleul analizatorului olfactiv (uncus).
5. Nucleul analizatorului gustativ (uncus).

1. Центр лимбической системы, высший вегетативный центр эмоций и мотиваций (girus fornicatus).
2. Ядро двигательного анализатора (lobus paracentralis Betz) .
3. Ядро зрительного анализатора (lobus occipitalis).
4. Ядро обонятельного анализатора (uncus).
5. Ядро вкусового анализатора (uncus).

1. The cortical center of the limbic system, the superior vegetative center of emotions and motivations (the gyrus fornicatus).
2. Nucleus of the motor analyser (the paracentral lobule Beitz).
3. The nucleus of the visual analyser (occipital lobe).
4. The nucleus of the olfactory analyser (uncus).
5. Nucleus of the taste analyser (uncus).

Sistemul piramidal (principala cale motoare)
Пирамидная система (главный двигательный путь)
Pyramidal system (the main motor tract)

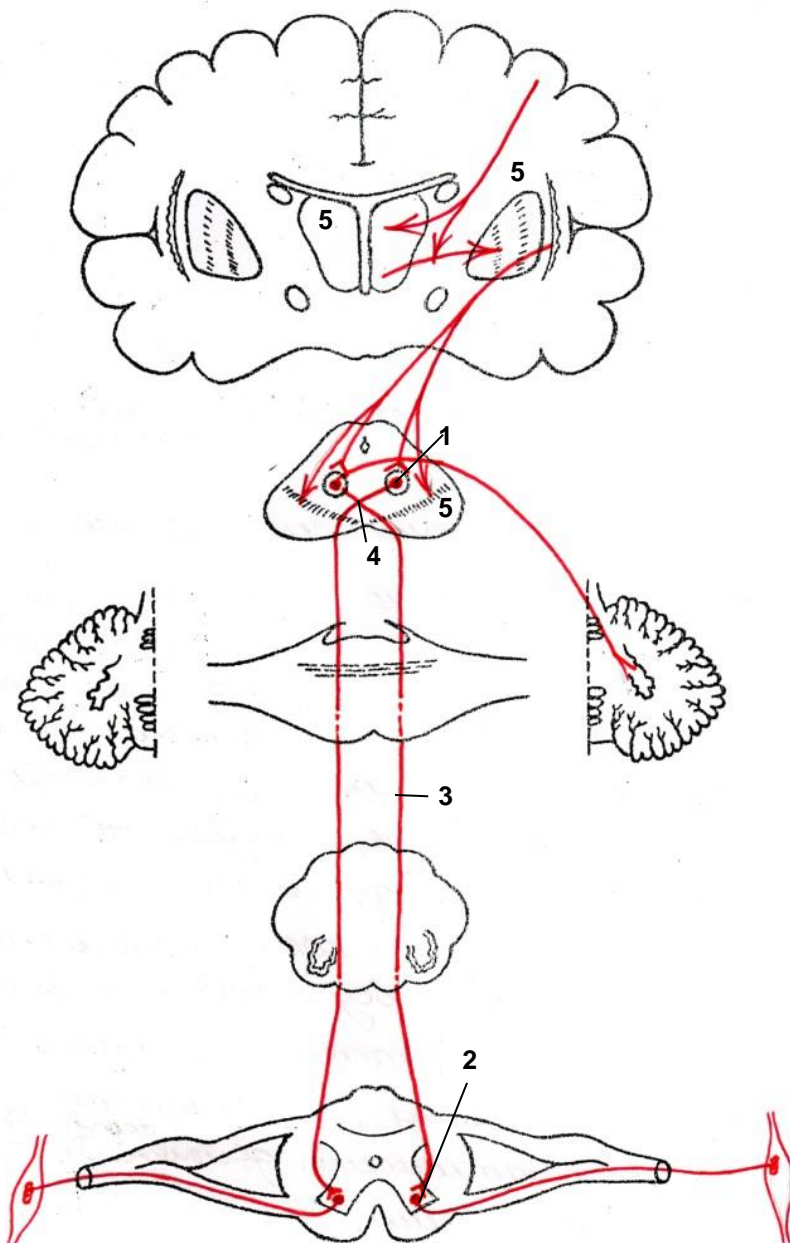


- 1 – neuronum I (neurocytus pyramidalis magnus, Betz);*
2 – neuronum II (nuclei motorii III, IV, V, VI, VII, IX, X, XI, XII);
3 – neuronum II (nuclei motorii cornus anterioris medullae spinalis);
4 – tractus corticonuclearis;
5 – tractus corticospinalis;
6 – tractus corticospinalis anterior (19%);
7 – tractus corticospinalis lateralis (80%);
8 – decussatio pyramidum;
9 – comissura alba.

**Principala cale a sistemului extrapiramidal (tractul rubrospinal)
(fasciculul von Monakow)**

**Главный путь экстрапирамидной (стриопаллидарной) системы
(красноядерно – спинномозговой путь) (von Monakow)**

**The main extrapyramidal and striopallidal system tract (rubrospinal tract)
(Monakow's bundle)**



1 – neuronum I (nucleus ruber);

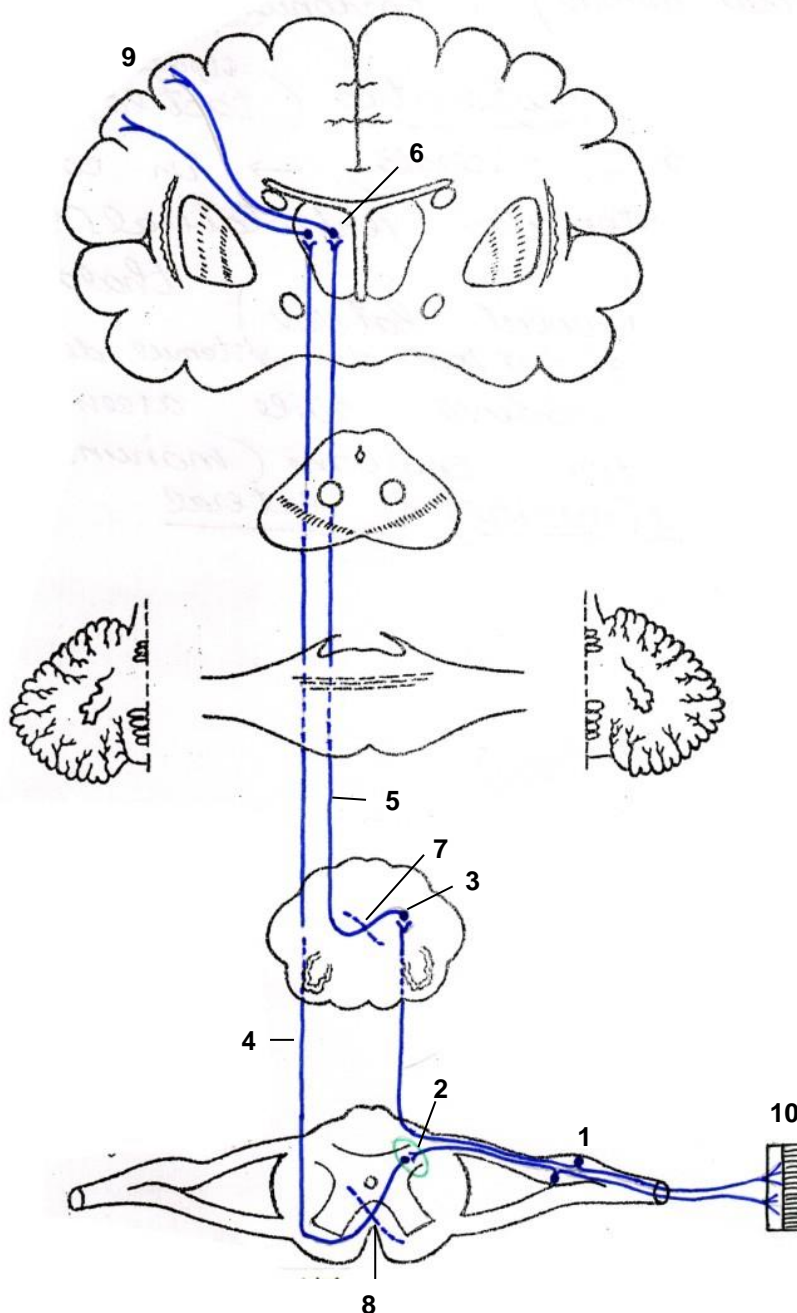
2 – neuronum II (nuclei motorii cornus anterioris medullae spinalis);

3 – tractus rubrospinalis;

4 – decussatio tegmenti ventralis (Forel);

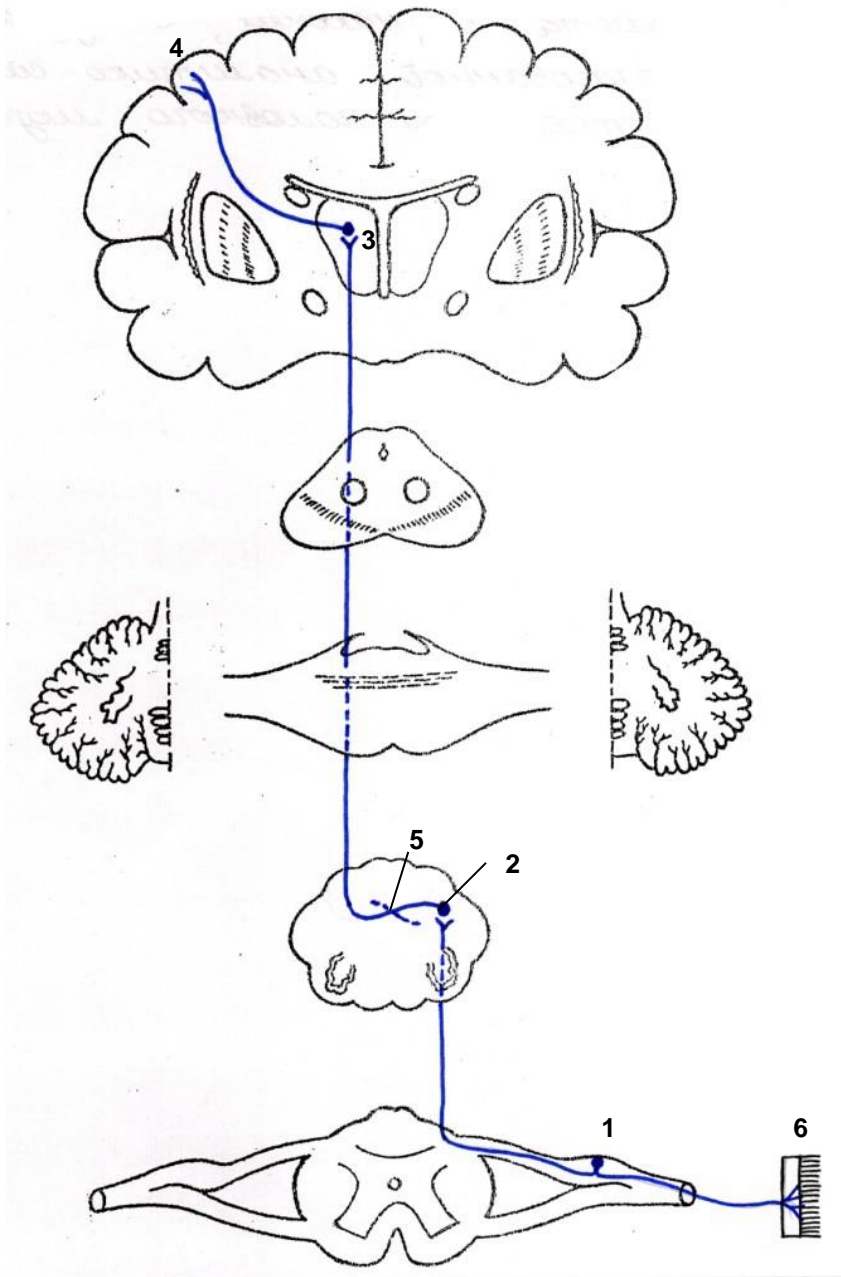
5 – corpus striatum, thalamus, corpus subthalamicum Luys, nuclei formationis reticularis, substantia nigra etc.

Căile voluntare ale sensibilității tactile și de presiune
Путь сознательной тактильной чувствительности
(чувство осязания, прикосновения, давления)
The conducting tracts of the skin tactile sense
(sense of touch and pressure)



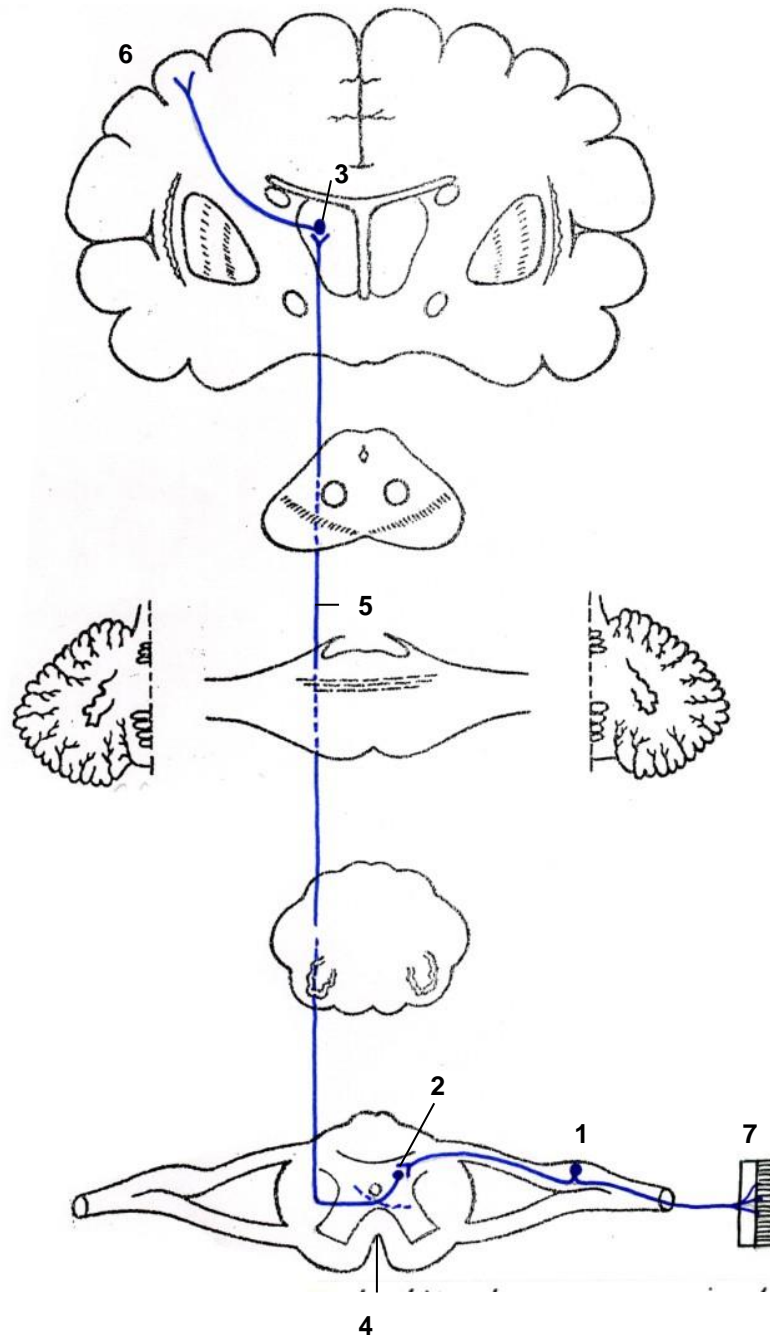
- 1 – neuronum I (ganglion spinale);*
2 – neuronum II (substantia gelatinosa, Rolandi);
3 – neuronum II [nucleus gracilis (Goll) et nucleus cuneatus (Burdach)];
4 – tractus spinothalamicus anterior;
5 – tractus bulbothalamicus;
6 – neuronum III (thalamus);
7 – decussatio lemniscorum;
8 – commissura alba;
9 – gyrus postcentralis;
10 – cutis, terminationes nervorum.

Calea de conducere a stereognoziei (sensibilitatea cutanată spațială)
Путь пространственной кожной чувствительности (стереогноза)
The conducting tracts of three-dimensional skin sense, stereognosis



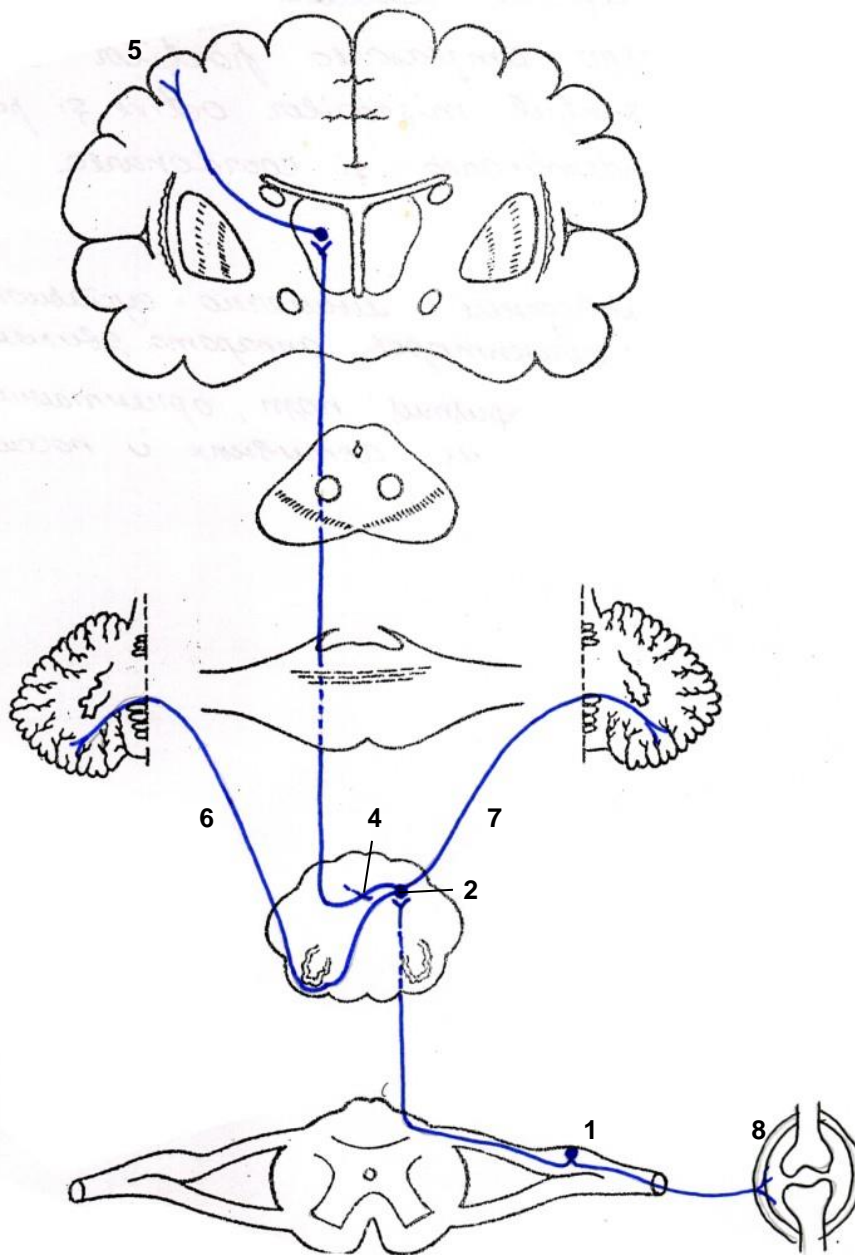
- 1 – neuronum I (ganglion spinale);*
2 – neuronum II [nucleus gracilis (Goll) et nucleus cuneatus (Burdach)];
3 – neuronum III (thalamus);
4 – lobulus parietalis superior;
5 – decussatio lemniscorum;
6 – cutis, terminationes nervorum.

Calea conductoare a sensibilității dureroase și termice
Проводящий путь температурной и болевой чувствительности
The conducting tracts of pain and temperature sense



- 1 – neuronum I (ganglion spinale);*
- 2 – neuronum II (nuclei proprii cornus posterioris medullae spinalis);*
- 3 – neuronum III (thalamus);*
- 4 – commissura grisea anterior;*
- 5 – tractus spinothalamicus lateralis;*
- 6 – gyrus postcentralis;*
- 7 – cutis, terminationes nervorum.*

**Calea proprioceptivă de direcție corticală
(sensibilitatea proprioceptivă conștientizată)**
**Проприоцептивный сознательный путь коркового направления
(мышечно-суставное чувство)**
The proprioceptive tract to the cerebral cortex

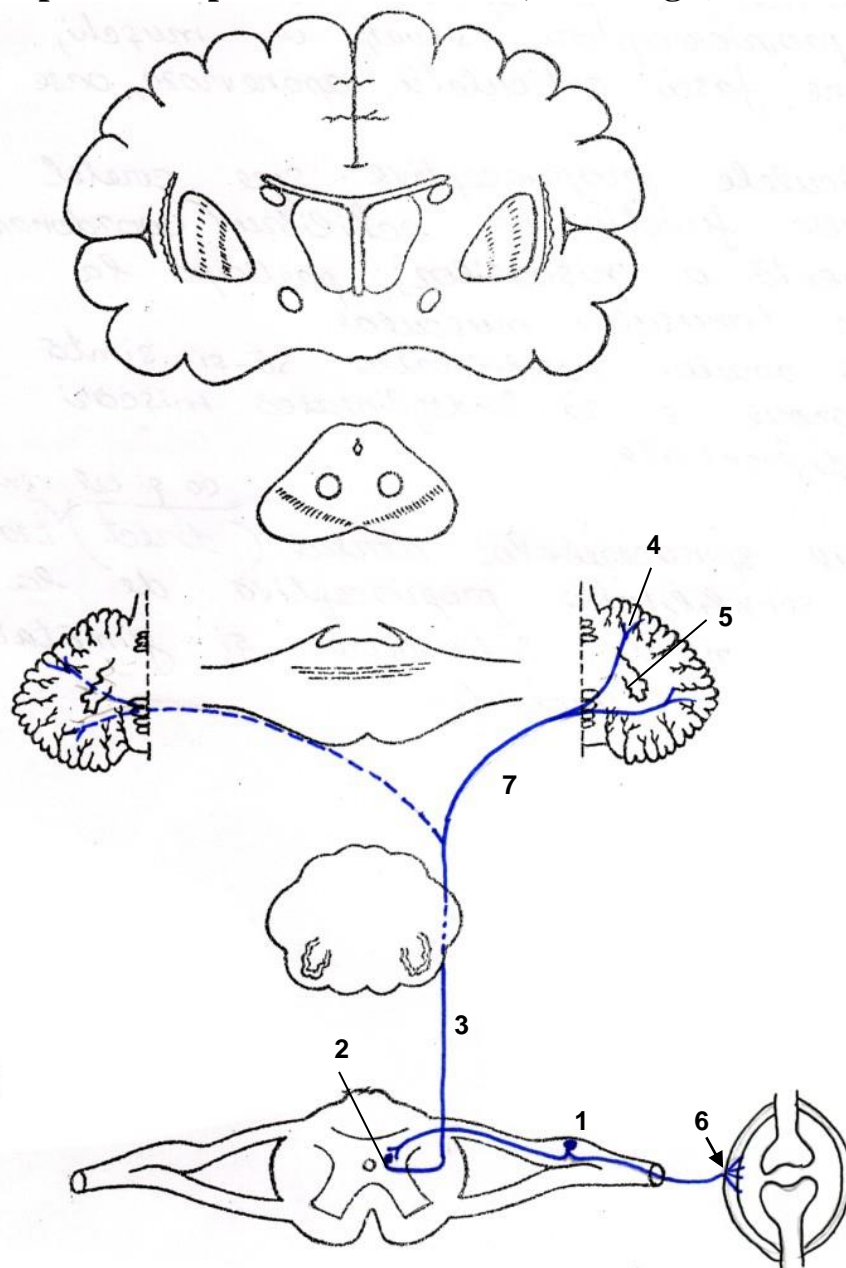


- 1 – neuronum I (ganglion spinale);
 2 – neuronum II [nucleus gracilis (Goll) ($C_0, S_5-S_1, L_5-L_1, Th_{12}-Th_5$) et nucleus cuneatus (Burdach) ($Th_4 - Th_1, C_8-C_1$)];
 3 – neuronum III (thalamus);
 4 – decussatio lemniscorum;
 5 – gyrus precentralis;
 6 – fibrae arcuatae externae anteriores;
 7 – fibrae arcuatae externae posteriores;
 8 – proprioceptores.

**Calea sensibilității proprioceptive inconștiente (directă) de direcție cerebeloasă
(tractul spinocerebelos posterior Flechsig)**

**Проприоцептивный путь мозжечкового направления (прямой,
неперекрещенный) (задний спинномозжечковый путь, Flechsig)**

**The proprioceptive subconscious tract to the cerebellum
(posterior spinocerebellar tract, Flechsig's)**

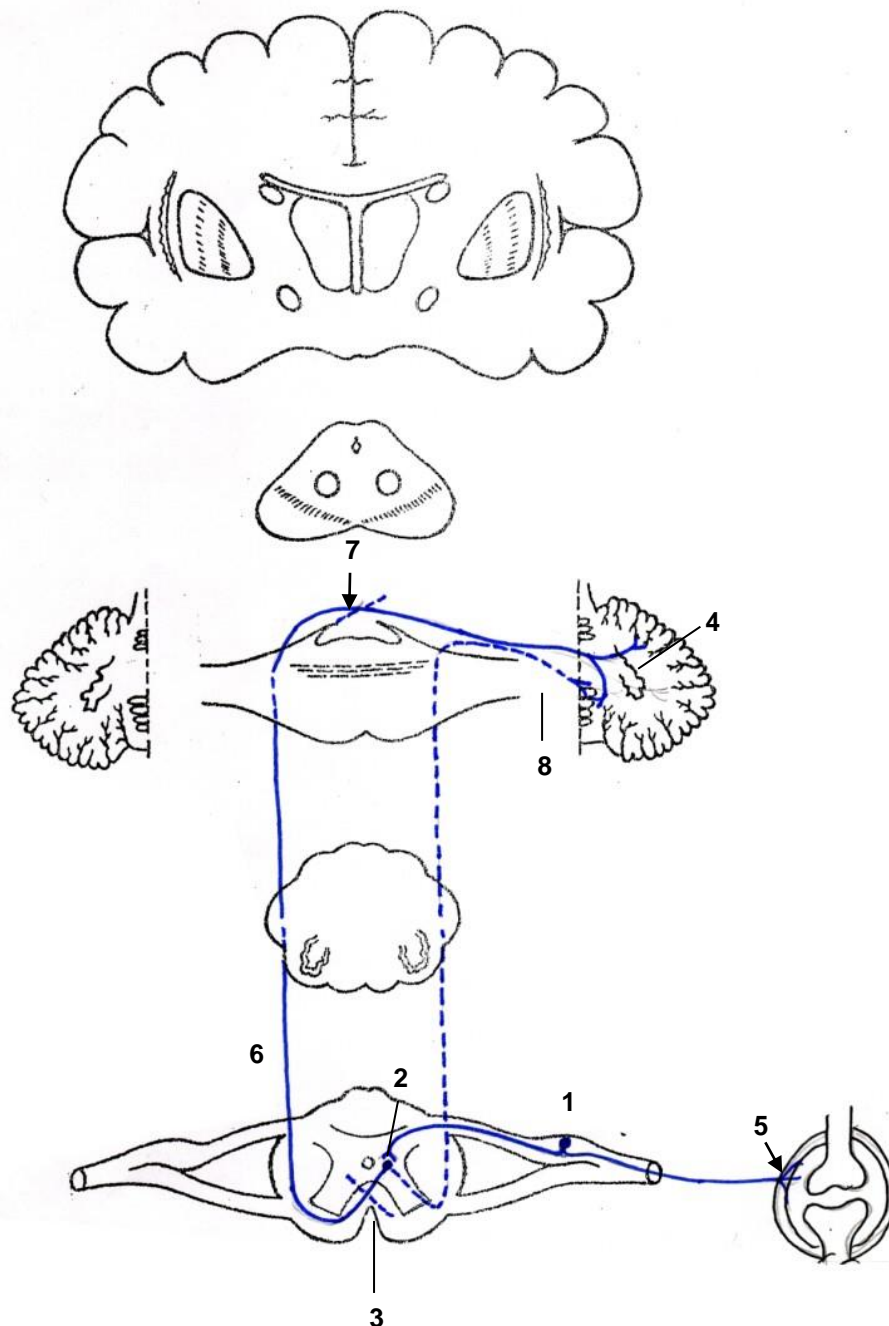


- 1 – neuronum I (ganglion spinale);*
- 2 – neuronum II [nucleus thoracicus, Clarke-Stilling (C₈-L₃)];*
- 3 – tractus spinocerebellaris posterior, Flechsig;*
- 4 – cortex cerebelli [vermis cerebelli (paleocerebellum)];*
- 5 – nucleus dentatus;*
- 6 – proprioceptores;*
- 7 – pedunculi cerebellaris inferior.*

**Calea proprioceptivă inconștientă de direcție cerebeloasă (indirectă)
(tractul spinocerebelos anterior) (Gowers)**

**Проприоцептивный, бессознательный путь мозжечкового направления
(непрямой) (передний спинномозжечковый путь, Gowers)**

**The proprioceptive subconscious tract to the cerebellum
(anterior spinocerebellar tract, Gowers')**



1 – neuronum I (ganglion spinale);

2 – neuronum II (nucleus intermediocentralis, Бехмеве);

3 – commissura alba;

4 – cortex cerebelli [vermis cerebelli (paleocerebellum)];

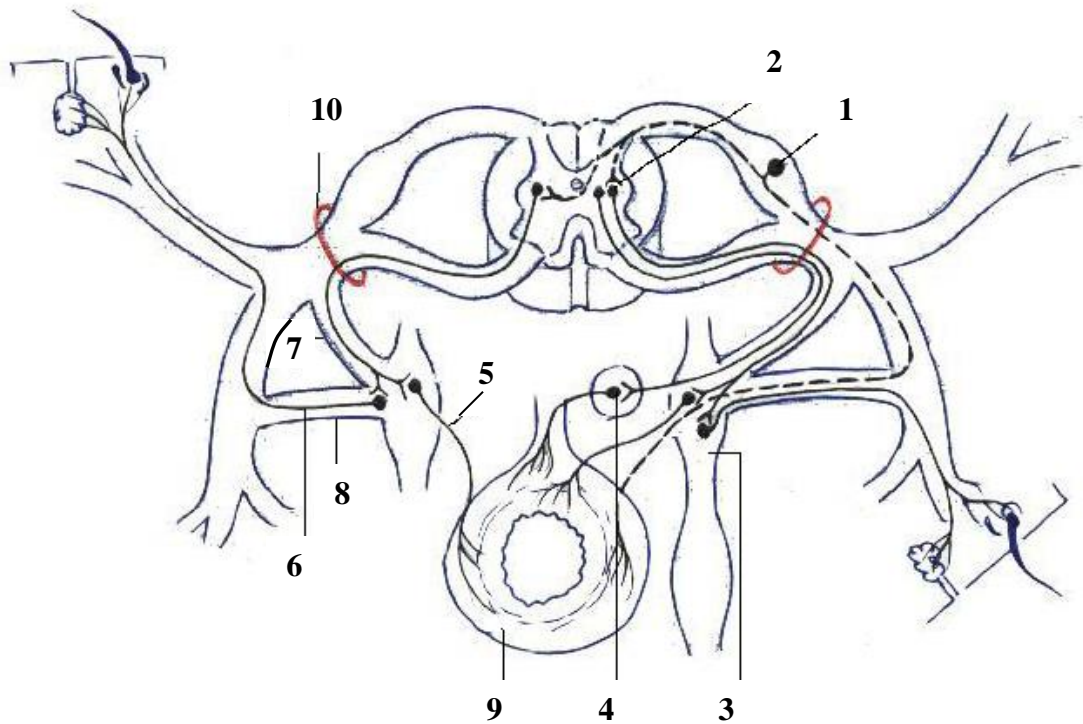
5 – proprioreceptores;

6 – tractus spinocerebellaris anterior (Gowers);

7 – vellum medullare superior;

8 – pedunculi cerebellares superiores.

Arcul reflex al sistemului nervos vegetativ (simpatic)
Рефлекторная дуга вегетативной (симпатической) нервной системы
Vegetative (sympathetic) reflex arc



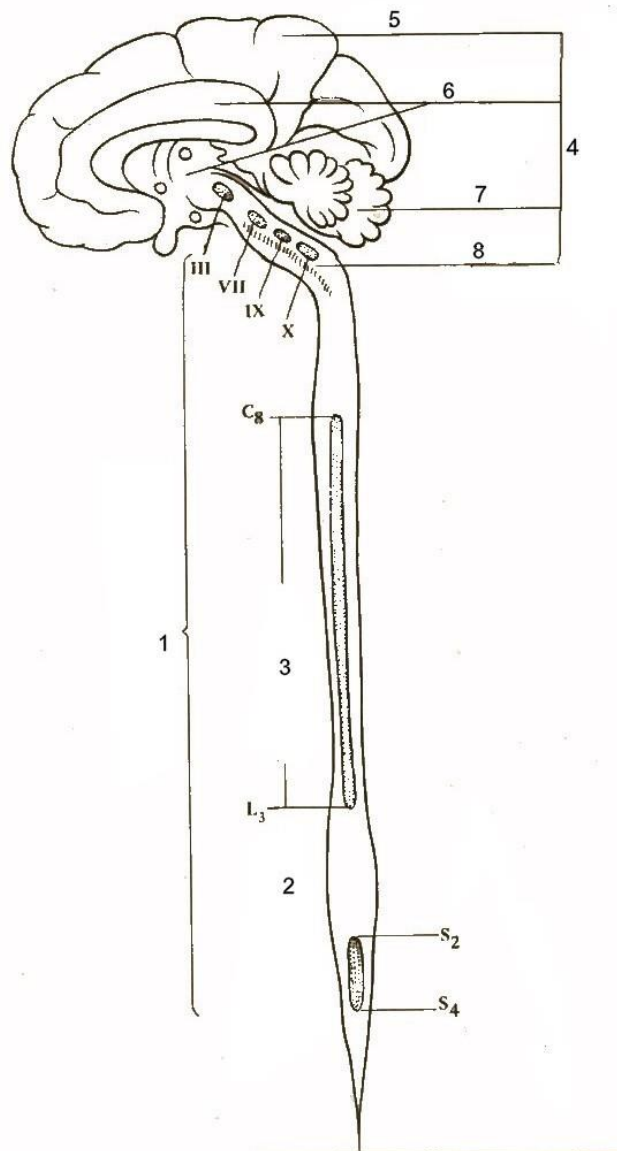
- 1 – ganglion spinale (neuronum I);*
- 2 – cornu laterale, nucleus intermediolateralis (C₈, Th₁₋₁₂, L₁₋₃) (neuronum II);*
- 3 – ganglion trunci sympatici (neuronum III);*
- 4 – ganglion praevertebrale (neuronum III);*
- 5 – pars visceralis;*
- 6 – pars somatica;*
- 7 – ramus communicans albus;*
- 8 – ramus communicans griseus;*
- 9 – viscerus;*
- 10 – foramen intervertebrale.*

Schema topografie centrilor vegetativi segmentari

(după П.И. Лобко и др., 1988)

Схема топографии сегментарных вегетативных центров

The diagram of topography of the segmentary vegetative centers



1 - centra vegetativa segmentaria;

2 - centra parasympathica medullae spinalis;

3 - centra sympathica medullae spinalis;

4 - centra vegetativa suprasedgmentaria;

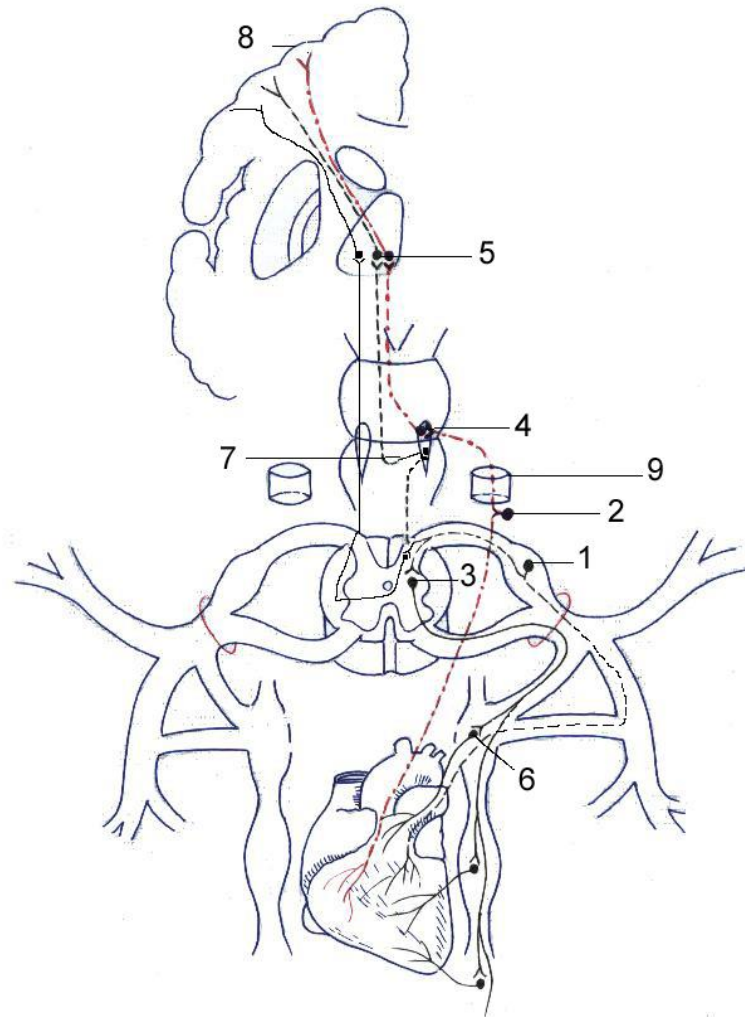
5- cortex;

6- systema limbicum (hypothalamus, cerebrum olfactorium etc.);

7 - cerebellum;

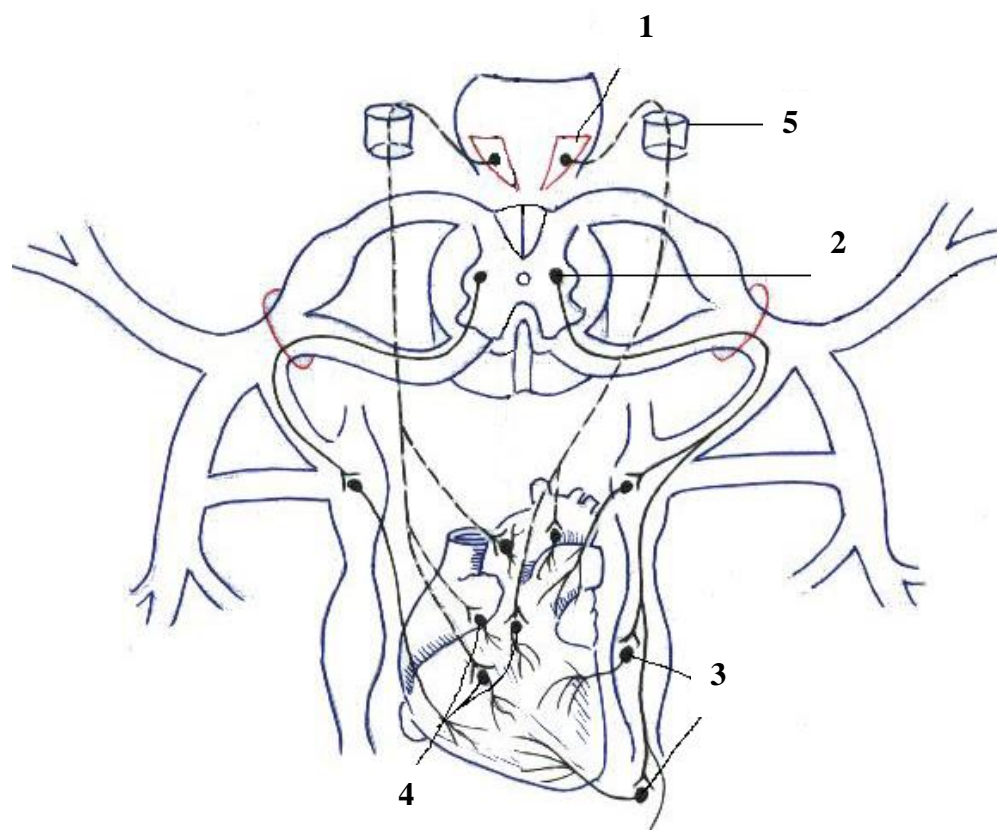
8 - formatio reticularis.

Inervația aferentă a inimii
Афферентная иннервация сердца
Afferent innervation of the heart



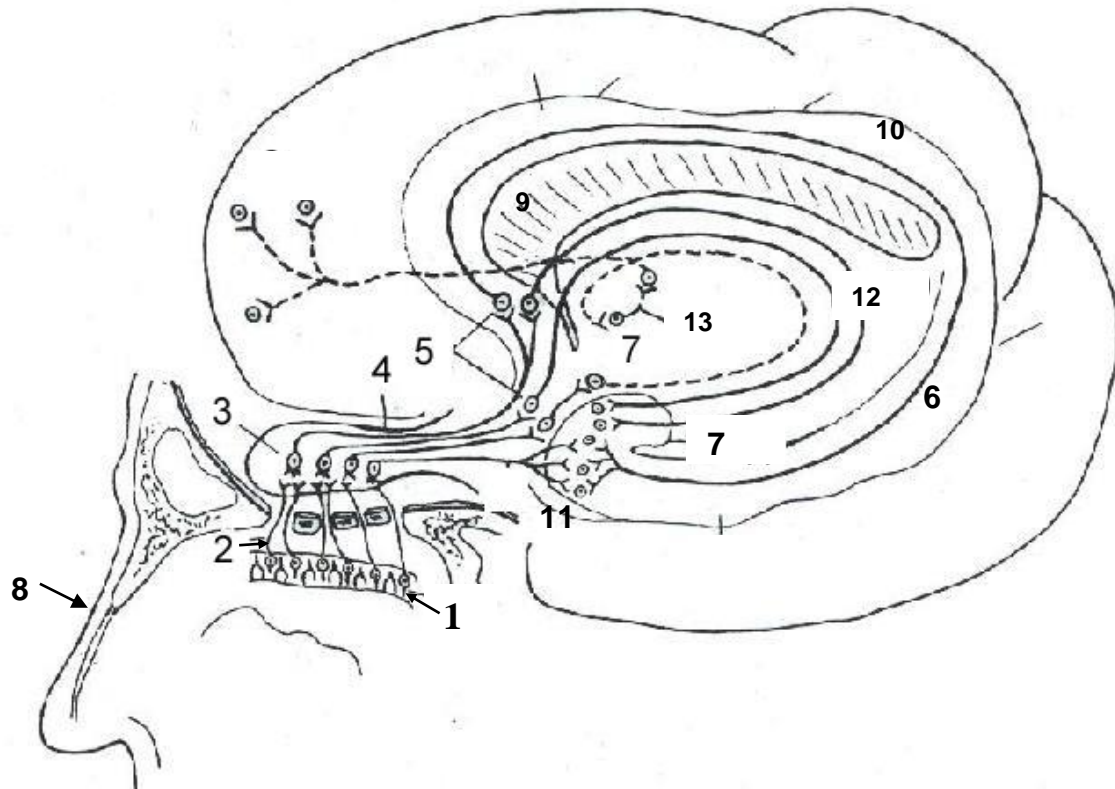
- 1 – neuronum I (ganglion spinale);**
- 2 – neuronum I [(ganglion inferius n. vagi (X));**
- 3 – neuronum II (nucleus intermediolateralis);**
- 4 – neuronum II (nucleus tractus solitarii);**
- 5 – neuronum III (thalamus);**
- 6 – neuroni gangliorum praevertebraliu;**
- 7 – tractus ganglio-spino-thalamo-corticalis et tractus ganglio-bulbo-thalamo-corticalis;**
- 8 – gyrus postcentralis;**
- 9 – foramen jugulare.**

Inervația eferentă vegetativă a inimii
Эфферентная иннервация сердца
Efferent innervation of the heart



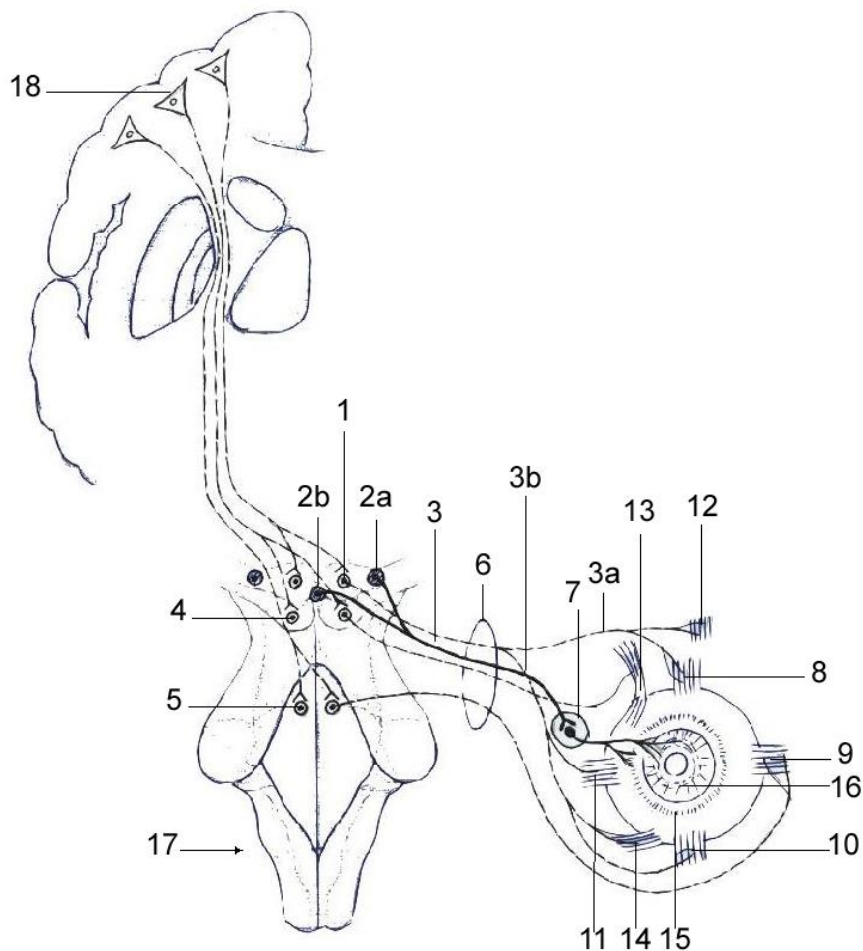
- 1 – nucleus dorsalis n. vagi (X) (parasympathicus);*
2 – nucleus intermediolateralis (sympathicus);
3 – ganglia paravertebralia;
4 – ganglia intramuralia;
5 – foramen jugulare.

Calea conductoare a analizatorului olfactiv
Проводящий путь обонятельного анализатора
Conducting pathways of the olfactory analyzer



- 1 – neuronum I (cellulae bipolares neurosensoriales);*
- 2 – filae olfactoriae;*
- 3 – neuronum II (cellulae mitrales bulbi olfactorii);*
- 4 – tractus olfactorius;*
- 5 – neuronum III (trigonum olfactorium, substantia perforata anterior, septum pellucidum);*
- 6 – gyrus parahippocampalis;*
- 7 – uncus, corpus amygdaloideum et area subcallosa;*
- 8 – nasus externus;*
- 9 – corpus callosum;*
- 10 – gyrus cinguli;*
- 11 – gyrus dentatus;*
- 12 – fornix;*
- 13 – thalamus.*

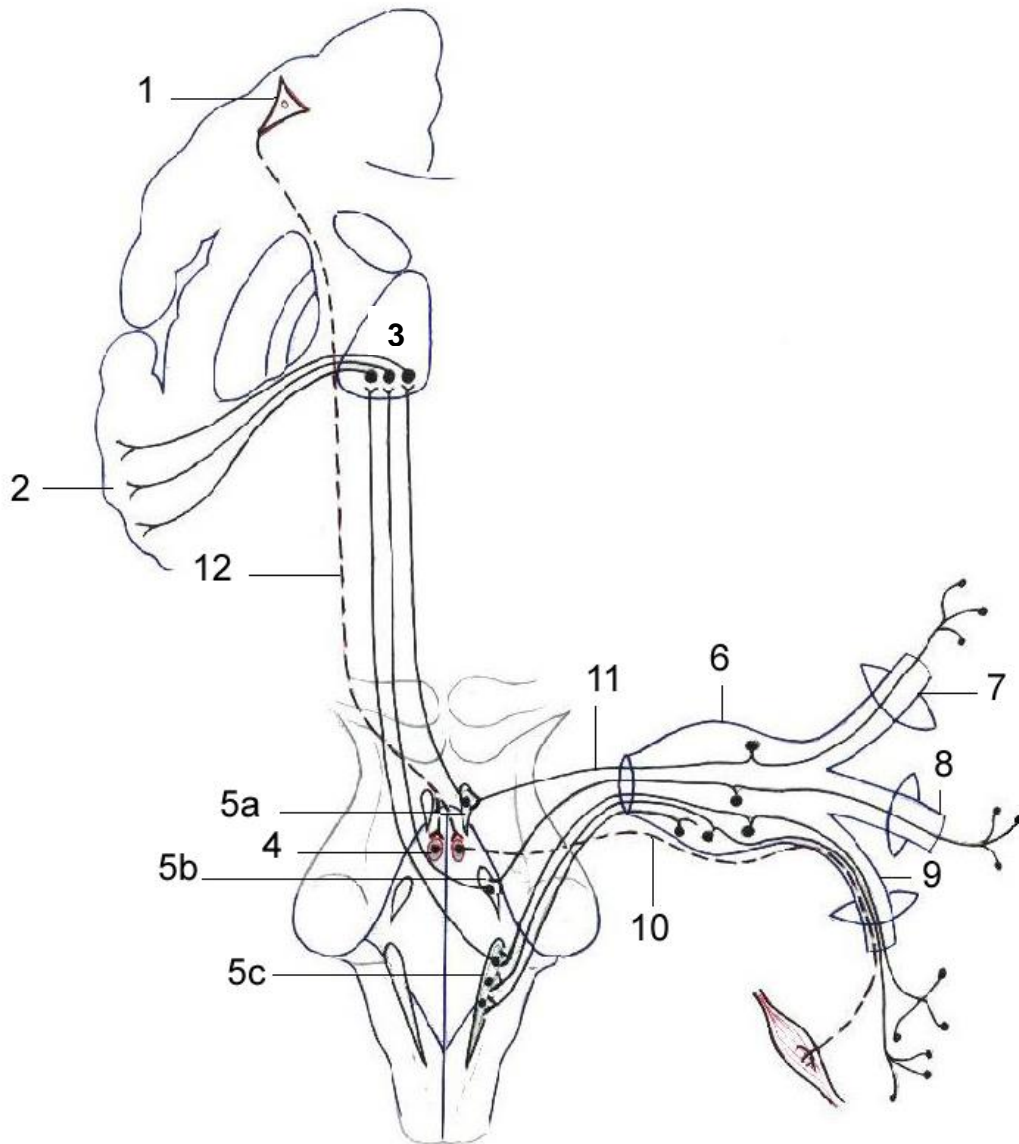
Schema inervației mușchilor globului ocular
 (căile conductoare ale nervilor cranieni III, IV, VI)
Иннервация мышц глазного яблока
 (проводящие пути III, IV, VI пар черепных нервов)
Innervation of the muscles of the eyeball



1 – *nucl. n. oculomotorii (III)*;
 2a – *n. accessorius (Якубович-Edinger-Westfal)*;
 2b – *nucleus impar (Perl) (III)*;
 3 – *nervus oculomotorius*:
 3a – *ramus superior*;
 3b – *ramus inferior*;
 4 – *nucl.n. trochlearis (IV)*;
 5 – *nucl.n. abducentis(VI)*;
 6 – *fissura orbitalis superior*;
 7 – *ganglion ciliare*;

8 – *m. rectus superior*;
 9 – *m. rectus lateralis*;
 10 – *m. rectus inferior*;
 11 – *m. rectus medialis*;
 12 – *m. levator palpebrae superioris*;
 13 – *m. obliquus superior*;
 14 – *m. obliquus inferior*;
 15 – *m. ciliaris*;
 16 – *m. sphincter pupillae*;
 17 – *truncus cerebri*;
 18 – *neurocytus pyramidalis magnus (Betz)*.

Calea conductoare a nervului trigemen (V)
Проводящий путь тройничного нерва (V)
Conducting pathways of the trigeminal nerve (V)



1 – neuronum I (neurocytus pyramidalis magnus, Betz) (gyrus precentralis);

2 – gyrus postcentralis;

3 – neuronum III (thalamus opticus):

4 – nucl. n. trigemini (V);

5 – nuclei sensoriales n. trigemini (V);

5a – nucl. mesencephalicus n. trigemini (V);

5b – nucl. pontinus (V);

5c – nucl. spinalis nervi trigemini (V);

6 – ganglion trigeminale (Gasser);

7 – n. ophthalmicus;

8 – n. maxillaris;

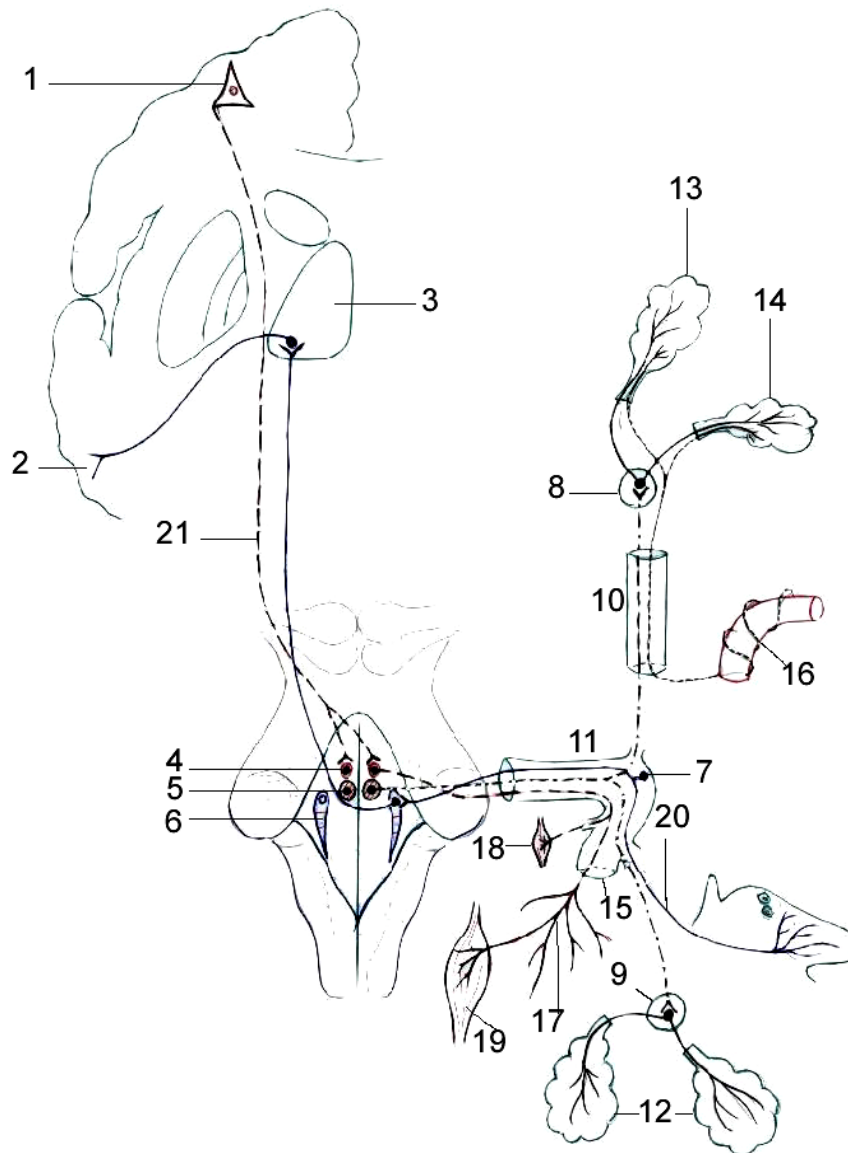
9 – n. mandibularis;

10 – radix motoria n. trigemini;

11 – radix sensoria n. trigemini;

12 – tractus corticonuclearis.

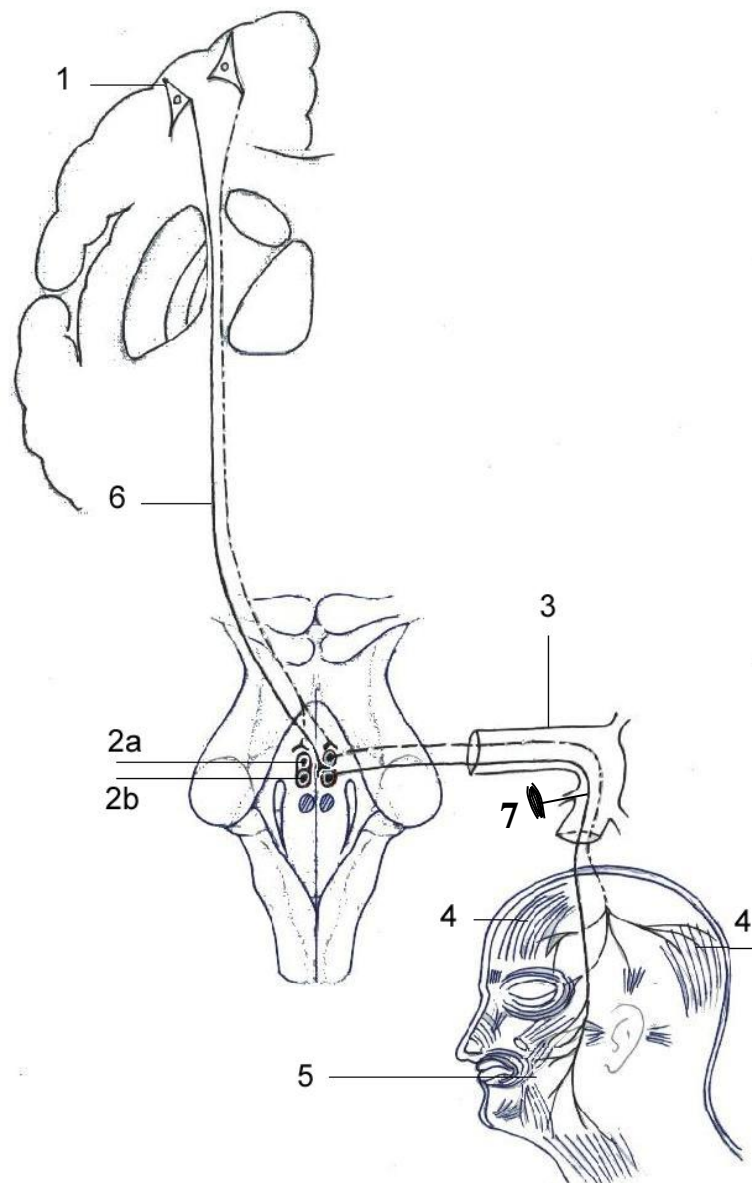
Calea conductoare a nervului facial (VII)
Проводящий путь лицевого нерва (VII)
Conducting pathways of the facial nerve (VII)



1 – neuronum I (neurocytus pyramidalis magnus, Betz) (gyrus precentralis);
2 – girus parahipocampalis et uncus;
3 – thalamus opticus;
4 – nucl. n. facialis (motorius) (neuronum II) (VII);
5 – n. salivatorius superior (VII);
6 – n. tractus solitarii (VII);
7 – ganglion geniculi;
8 – ganglion pterygopalatinum;
9 – ganglia submandibularia et sublingualia;
10 – canalis pterygoideus;

11 – canalis n. facialis (Fallopianus);
12 – glandulae sublingualis et submandibularis;
13 – glandula lacrimalis;
14 – glandulae nasales;
15 – foramen stylomastoideum;
16 – plexus caroticus internus;
17 – plexus parotideus;
18 – m. stapedius;
19 – mm. faciei;
20 – chorda tympani;
21 – tractus corticonuclearis.

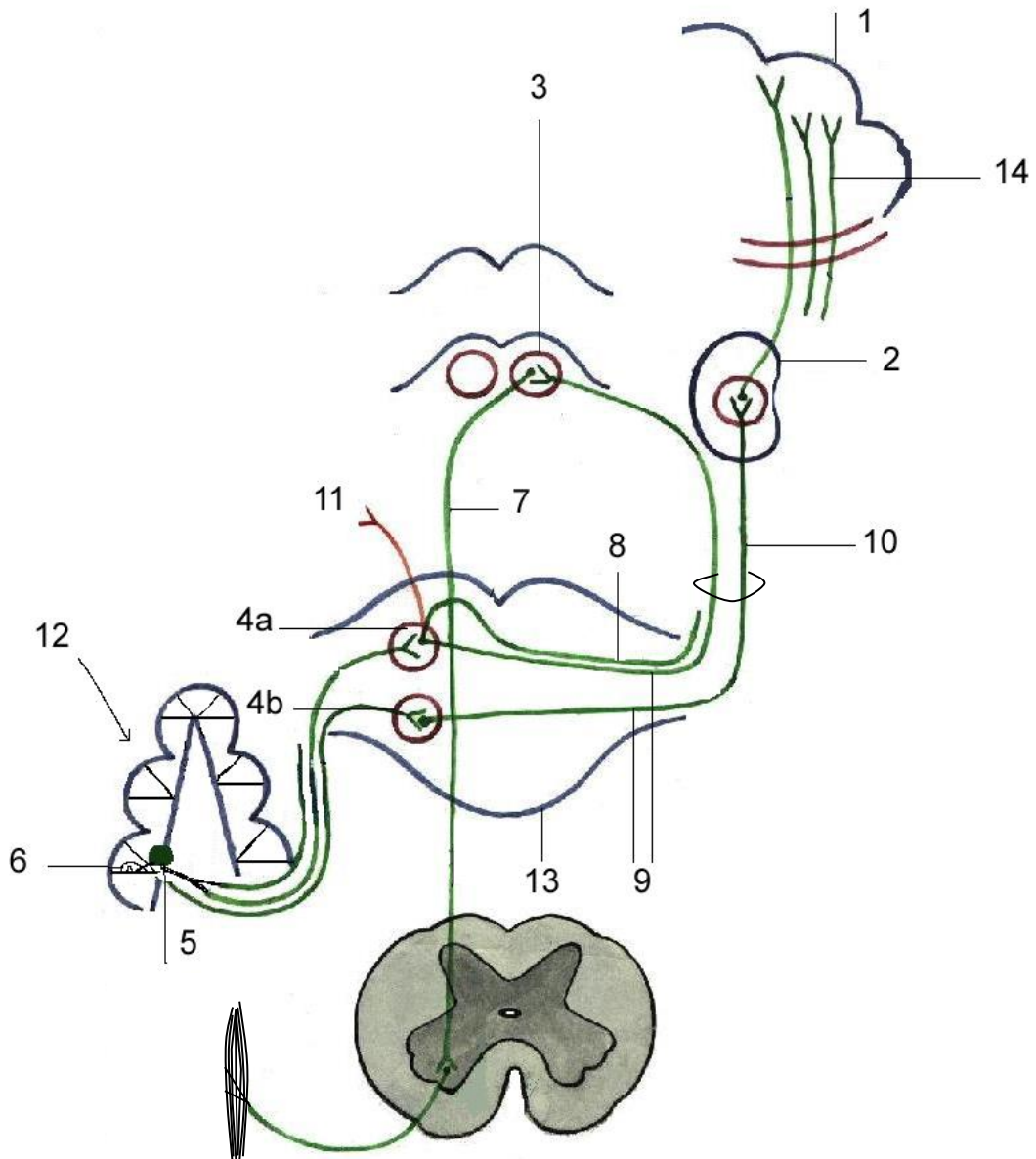
Calea eferentă, somatomotorie a n. facial (VII)
Эфферентный, двигательный путь лицевого нерва (VII)
Efferent, motor pathways of the facial nerve (VII)



1 – neuronum I (neurocytus pyramidalis magnus, Betz) (girus precentralis);
2 – neuronum II (nucl. n. facialis, motorius) (VII);
2a – pars superior;
2b – pars inferior;

3 – canalis n. facialis;
4 – mm. faciei superiores;
5 – mm. faciei inferiores;
6 – tractus corticonuclearis;
7 – m. stapedius.

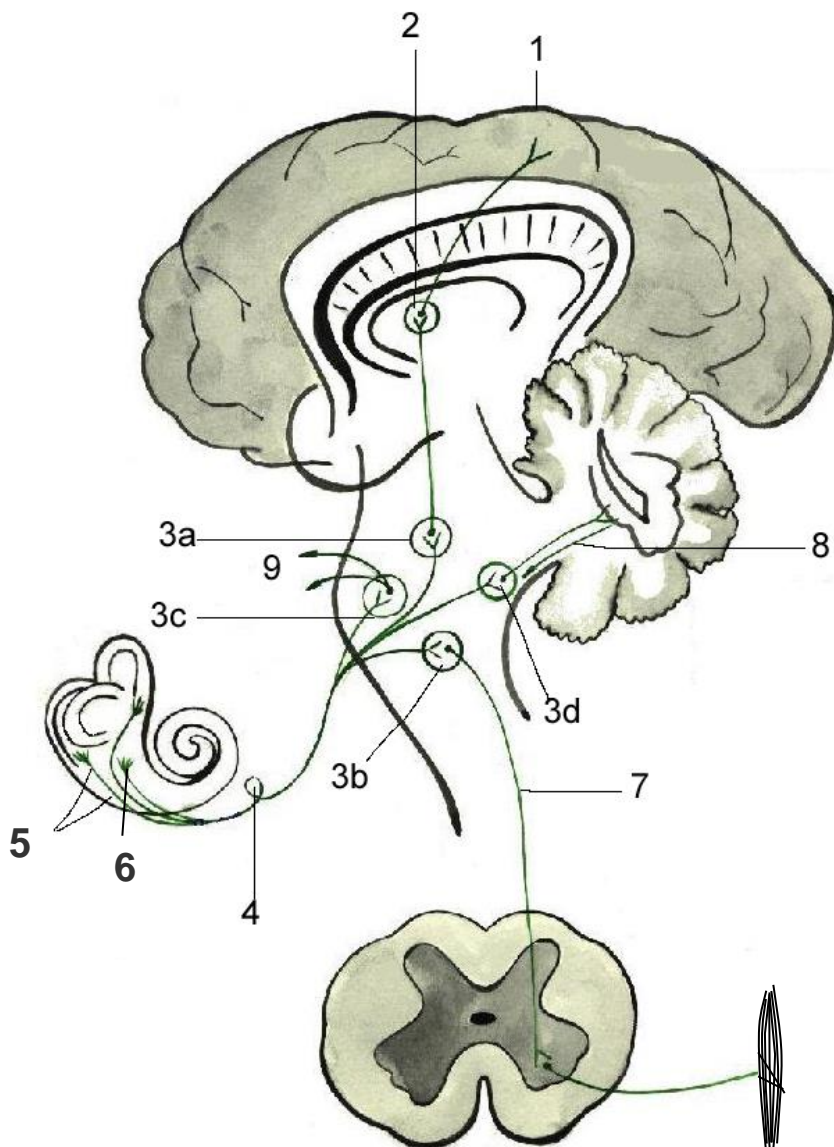
Calea conductoare a analizatorului auditiv
Проводящий путь слухового анализатора
Conducting pathways of the auditory analyzer



1 – gyri temporales transversi (Heschl)
 (gyrus temporalis superior);
 2 – neuronum III (corpus geniculatum
 mediale);
 3 – neuronum III (colliculus inferior tecti
 mesencephali);
 4 – neuronum II (nuclei partes cochlearis n.
 vestibulocochlearis);
 4a – nucleus dorsalis;
 4b – nucleus ventralis;
 5 – neuronum I [ganglion spirale (Corti)];

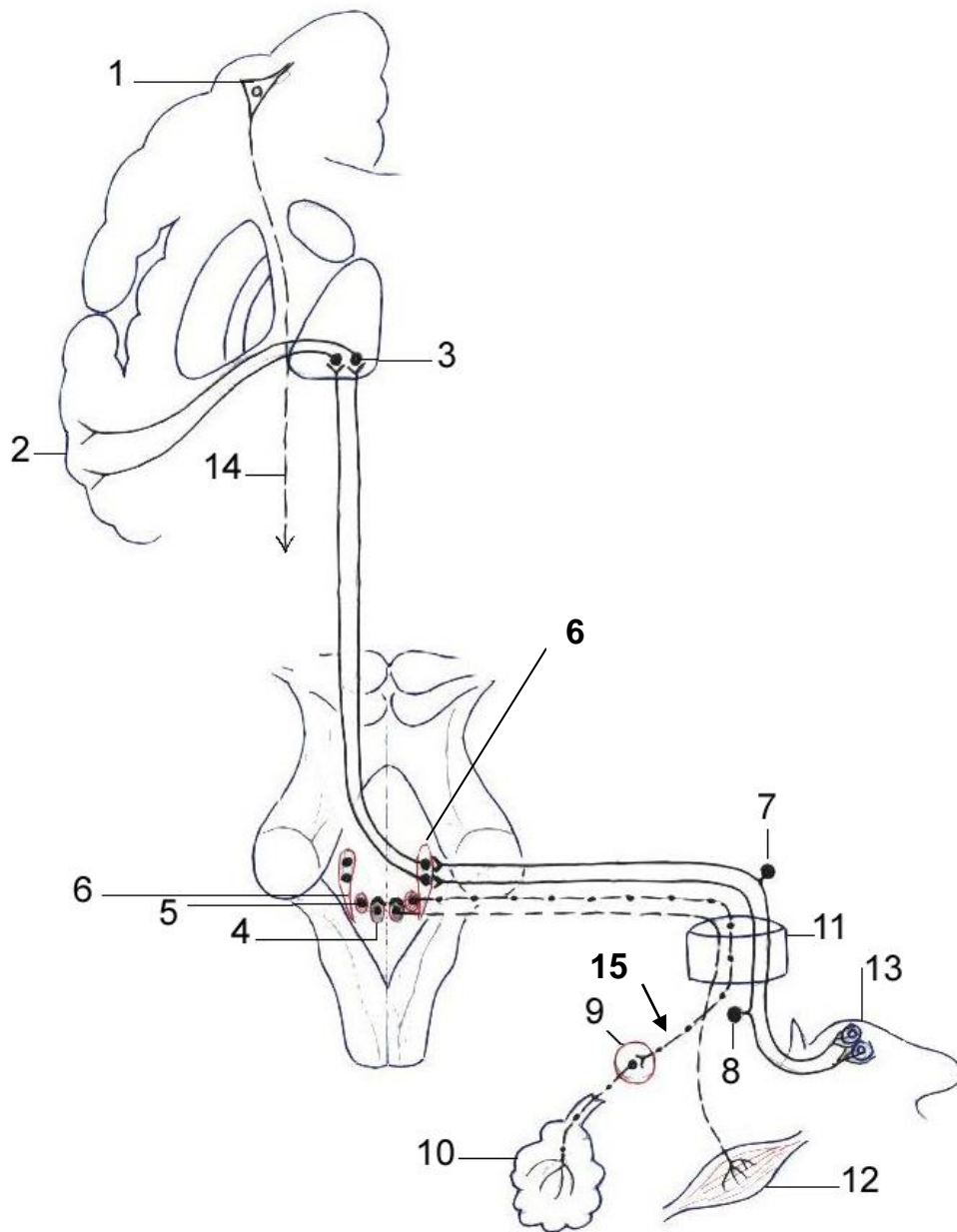
6 – organum Corti (epitheliocytus
 neurosensorius);
 7 – tractus tectospinalis;
 8 – striae medullares;
 9 – corpus trapezoideum;
 10 – lemniscus lateralis;
 11 – conexiones ad nervos III, IV, VI;
 12 – cochlea (labyrinthus osseus);
 13 – pons Varolio;
 14 – radiatio acustica.

Calea conductoare a analizatorului vestibular
Проводящий путь вестибулярного анализатора
Conducting pathways of the vestibular analyzer



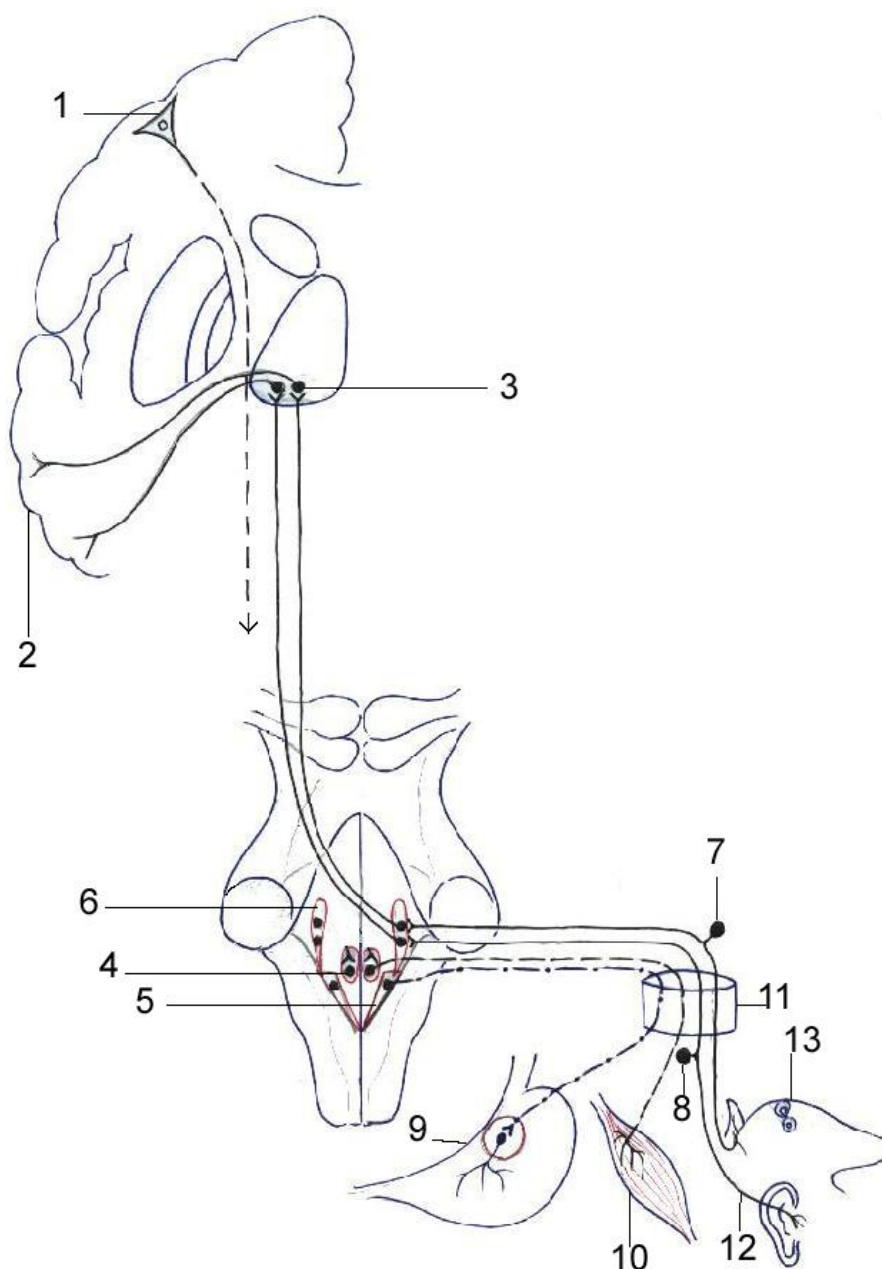
- 1 – lobus temporalis;*
2 – neuronum III (thalamus opticus);
3 – neuronum II (nuclei vestibulares n. vestibulocochlearis):
a – superior (Бехмевес);
b – inferior (Roller);
c – lateralis (Deiters);
d – medialis (Schwalbe);
4 – ganglion vestibulare (Scarpa) (neuronum I);
5 – cristae ampullares ductuum semicircularium;
6 – macula utriculi et macula sacculi;
7 – tractus vestibulospinalis (Levental);
8 – tractus vestibulocerebellaris et tractus cerebellovestibularis;
9 – conexiones ad nervos craniales IX, X et III, IV, VI.

Calea conductoare a nervului glosfaringian (IX)
Проводящий путь языкоглоточного нерва (IX)
Conducting pathways of the glossopharyngeal nerve (IX)



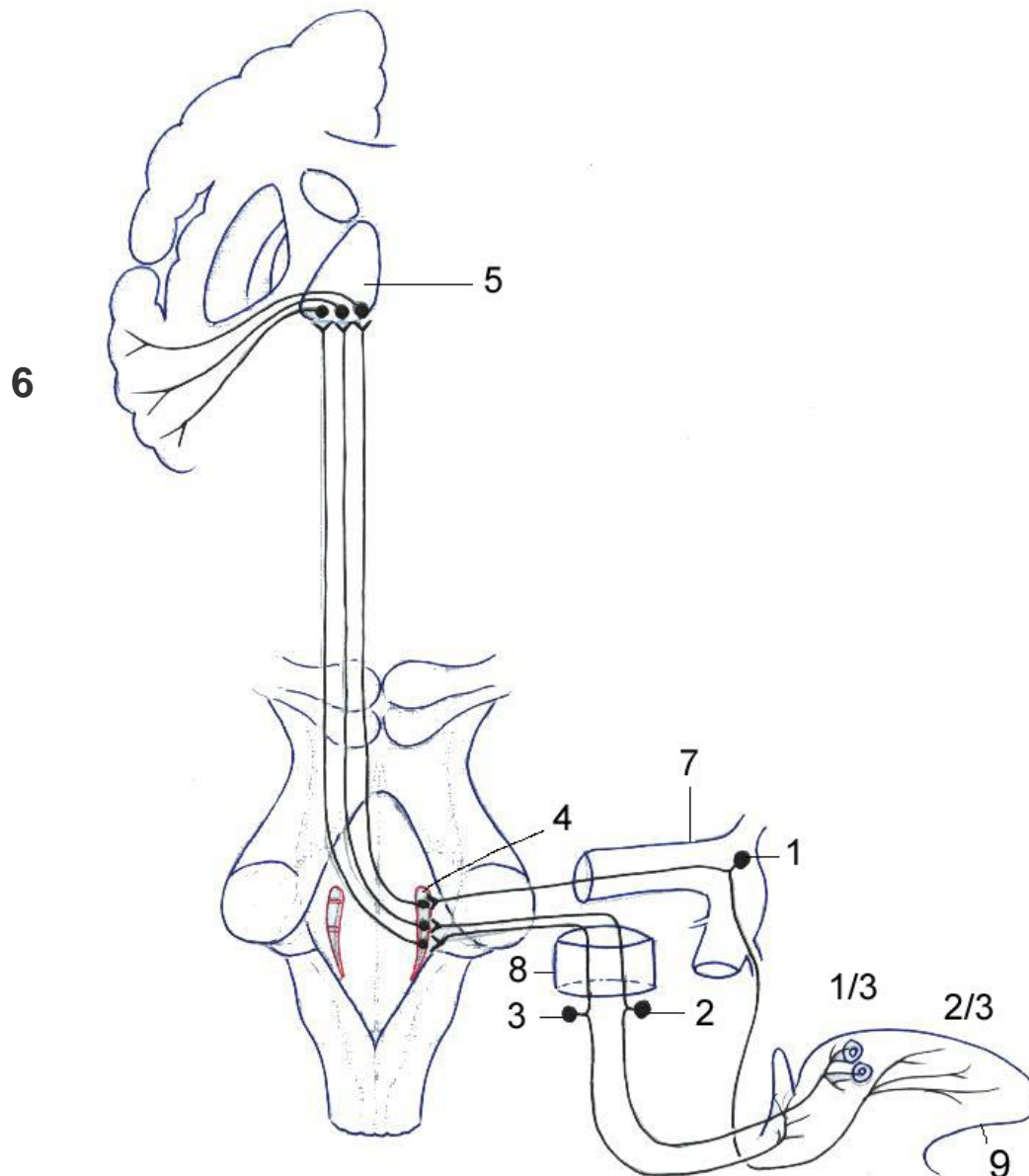
- 1 – neuronum I (motorium) (gyrus precentralis, neurocytus pyramidalis magnus, Betz);
 2 – uncus et gyrus postcentralis;
 3 – neuronum III (thalamus opticus);
 4 – neuronum II (motorium) (nucleus ambiguus);
 5 – nucleus salivatorius inferior (neuronum I);
 6 – neuronum II (sensitivum) (nucleus tractus solitarii);
 7 – neuronum I (sensitivum) (ganglion superius);
 8 – neuronum I (sensitivum) (ganglion inferius, nodosum);
 9 – ganglion oticum (neuronum II);
 10 – glandula parotis;
 11 – foramen jugulare;
 12 – ramus musculi stylopharyngei;
 13 – 1/3 posterior linguae (papillae valatae);
 14 – tractus corticonuclearis;
 15 – nervus tympanicus.

Calea conductoare a nervului vag (X)
Проводящий путь блуждающего нерва (X)
Conducting pathways of the vagus nerve (X)



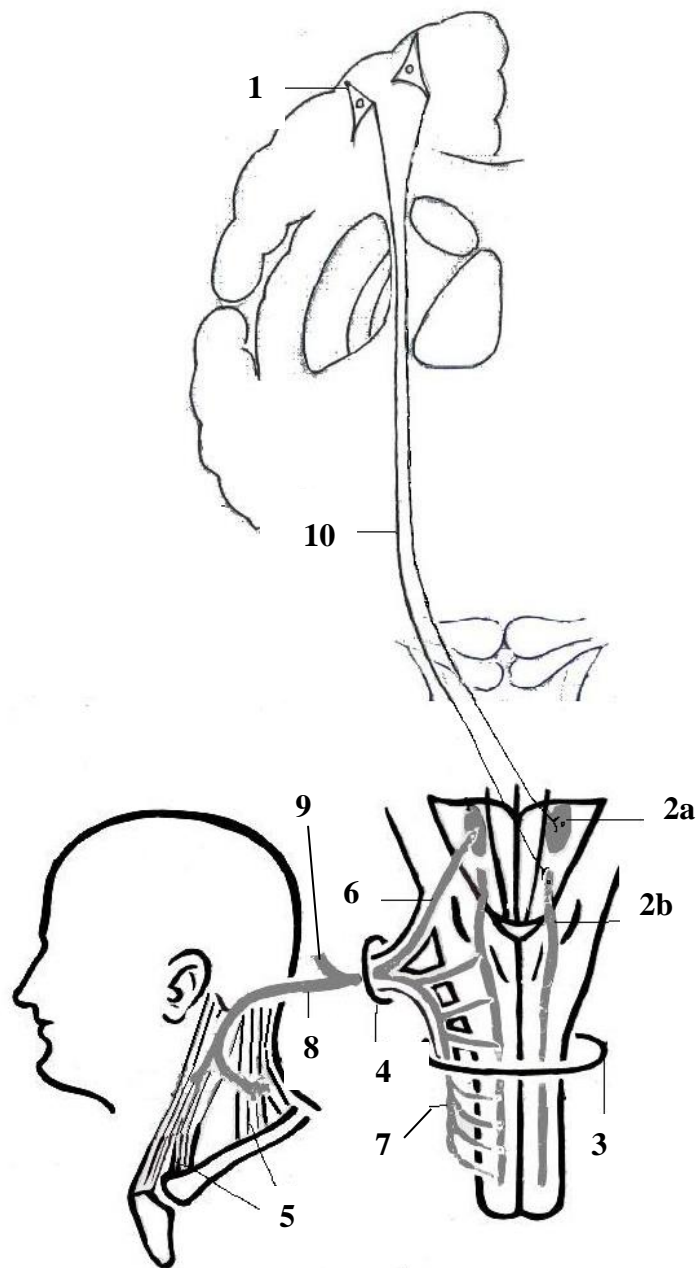
- 1 – neuronum I (motorium) (gyrus precentralis, neurocytus pyramidalis magnus, Betz);
 2 – uncus et gyrus postcentralis;
 3 – neuronum III (sensitivum) (thalamus opticus);
 4 – neuronum II (motorium) (nucleus ambiguus);
 5 – nucleus dorsalis nervi vagi (neuronum I);
 6 – neuronum II (sensitivum) (nucleus tractus solitarii);
 7 – neuronum I (sensitivum) (ganglion superius, jugulare);
 8 – neuronum I (sensitivum) (ganglion inferius, nodosum);
 9 – ganglia intravisceralia et paravisceralia (neuronum II);
 10 – mm. pharyngis, laryngis, palati mollii etc.;
 11 – foramen jugulare;
 12 – nervus auricularis posterior;
 13 – radix linguae.

Calea conductoare a analizatorului gustativ
Проводящий путь вкусового анализатора
Conducting pathways of the taste analyzer



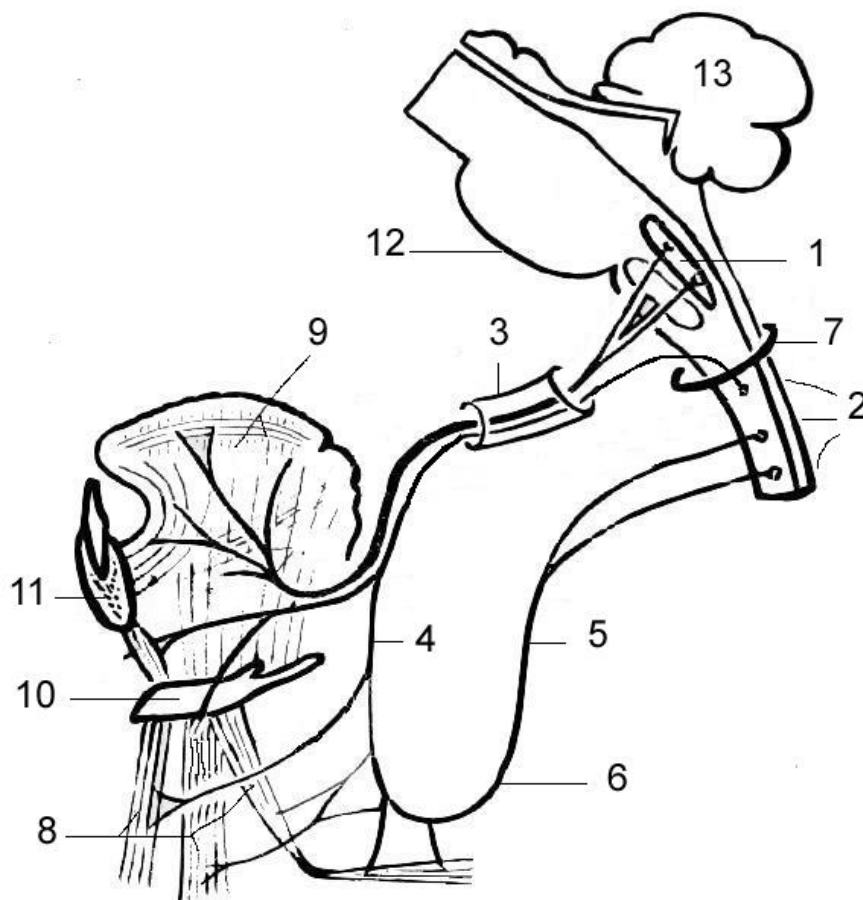
- 1 – neuronum I (ganglion geniculi, VII);*
2 – neuronum I (ganglion inferius, IX);
3 – neuronum I (ganglion inferius, X);
4 – neuronum II [nucleus tractus solitarii (VII, IX, X)];
5 – neuronum III (thalamus opticus);
6 – gyrus parahippocampalis et uncus;
7 – canalis nervi facialis (Fallopian);
8 – foramen jugulare;
9 – lingua.

Calea conductoare a nervului accesoriu (XI)
Проводящий путь добавочного нерва (XI)
Conducting pathways of the accessory nerve (XI)



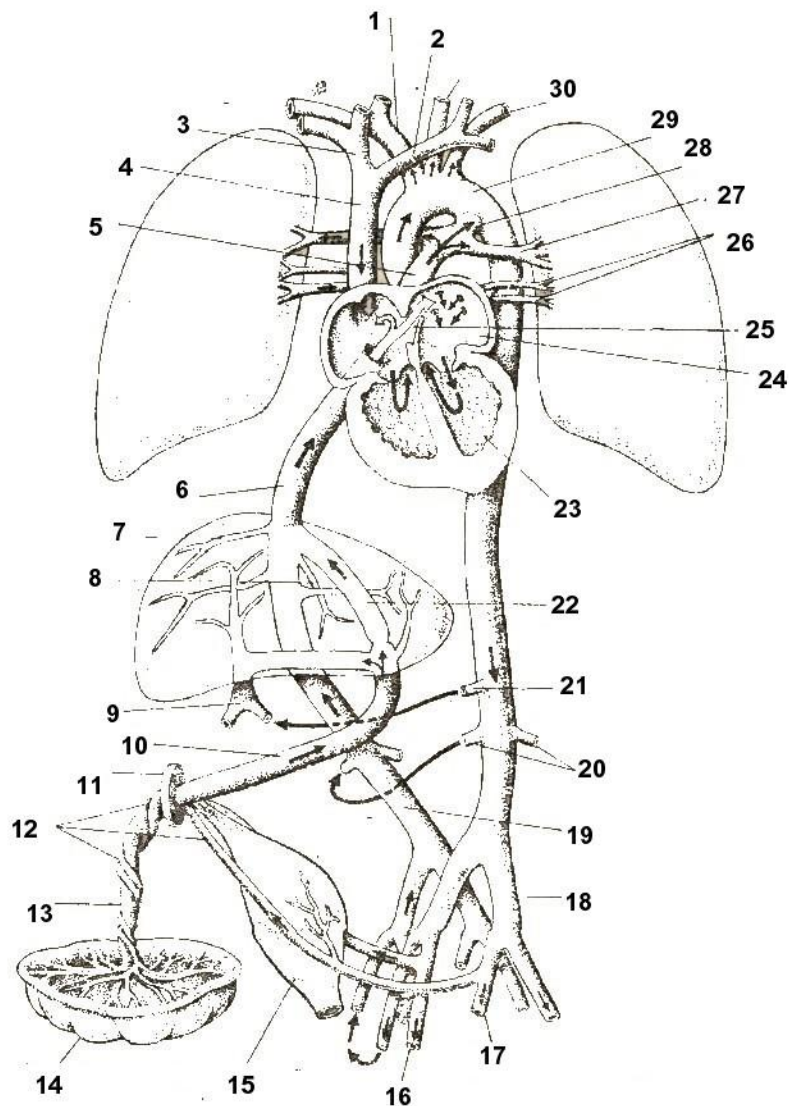
- 1 – neuronum I (gyrus precentralis, neurocytus pyramidalis magnus, Betz);*
2 – neuronum II [nuclei motorii n. accessorii:
a – nucleus ambiguus (IX, X, XI);
b – nucleus spinalis (XI);
3 – foramen occipitale magnum;
4 – foramen jugulare;
5 – mm. sternocleidomastoideus et trapezius;
6 – radices craniales nervi accessorii;
7 – radices spinales nervi accessorii;
8 – ramus externus;
9 – ramus internus;
10 – tractus corticonuclearis.

Calea conductoare a nervului hipoglos (XII)
Проводящий путь подъязычного нерва (XII)
Conducting pathways of the hypoglossal nerve (XII)



- 1 – nucleus nervi hypoglossi;**
2 – medulla spinalis (segmenti C₁, C₂, C₃);
3 – canalis hypoglossus;
4 – radix superior ansae cervicalis;
5 – radix inferior ansae cervicalis;
6 – ansa cervicalis;
7 – foramen magnum;
8 – mm. infrahyoidei;
9 – rami linguales (musculi linguae);
10 – os hyoideum;
11 – mandibula;
12 – truncus cerebri;
13 – cerebellum.

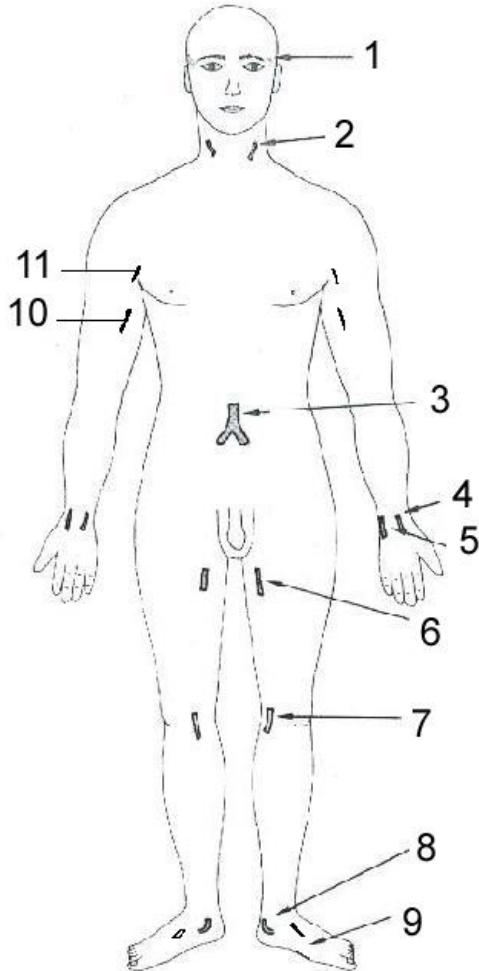
Circulația fetoplacentară
(după V. Ranga, 1990)
Схема кровообращения плода
Blood circulation in foetus



1 – *truncus brachiocephalicus*;
 2 – *v. brachiocephalica sinistra*;
 3 – *v. brachiocephalica dextra*;
 4 – *v. cava superior*;
 5 – *v. cava inferior*;
 6 – *truncus pulmonalis*;
 7 – *v. hepatica dextra*;
 8 – *v. hepatica sinistra*;
 9 – *v. portae*;
 10 – *v. umbilicalis*;
 11 – *umbilicus*;
 12 – *aa. umbilicales*;
 13 – *placenta*;
 14 – *vesica urinaria*;
 15 – *a. cystica superior*;
 16 – *a. iliaca interna sinistra*;

17 – *a. iliaca interna dextra*;
 18 – *a. iliaca communis sinistra*;
 19 – *v. cava inferior*;
 20 – *a. renalis*;
 21 – *truncus coeliacus*;
 22 – *ductus venosus (Aranzi)*;
 23 – *ventriculus sinister*;
 24 – *atrium sinistrum*;
 25 – *foramen ovale*;
 26 – *vv. pulmonales dextrae*;
 27 – *a. pulmonalis sinister*;
 28 – *ductus arteriosus*;
 29 – *arcus aortae*;
 30 – *a. subclavia sinistra*;
 31 – *a. carotis communis sinistra*;

Proiecția unor puncte de palpate a pulsului
Проекция некоторых точек пальпации пульса
Projection of some points of palpation of the pulse



(după B.K. Гостушев, 2003)



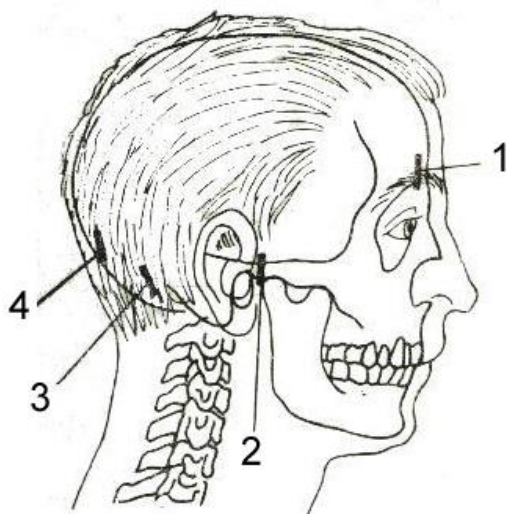
- 1 – *a. temporalis superficialis*;
- 2 – *a. carotis communis*;
- 3 – *aorta abdominalis*;
- 4 – *a. radialis*;
- 5 – *a. ulnaris*;
- 6 – *a. femoralis*;
- 7 – *a. poplitea*;
- 8 – *a. tibialis posterior*;
- 9 – *a. dorsalis pedis*;
- 10 – *a. brachialis*;
- 11 – *a. axillaris*

Punctele de palpate a unor artere și nervi ai capului

(după N. Diaconescu și coaut., 1979)

Точки пальпации некоторых артерий и нервов головы

Points of palpation of some arteries and nerves of the head



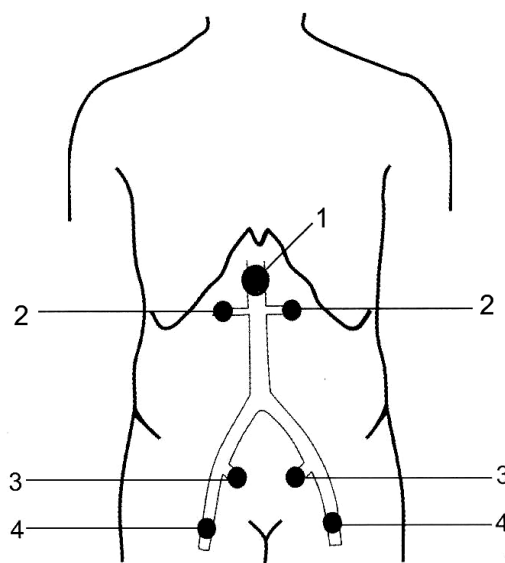
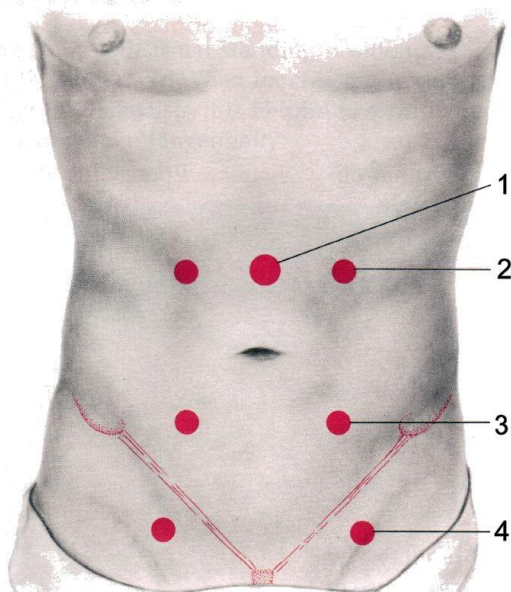
- 1 – *a. supraorbitalis*;
- 2 – *a. temporalis superficialis*;
- 3 – *a. occipitalis*;
- 4 – *n. occipitalis (Arnald)*.

Proiecția unor puncte de palpate a pulsului pe peretele anterior al abdomenului și fața anterioară a coapsei

(după B. Bates, 1991)

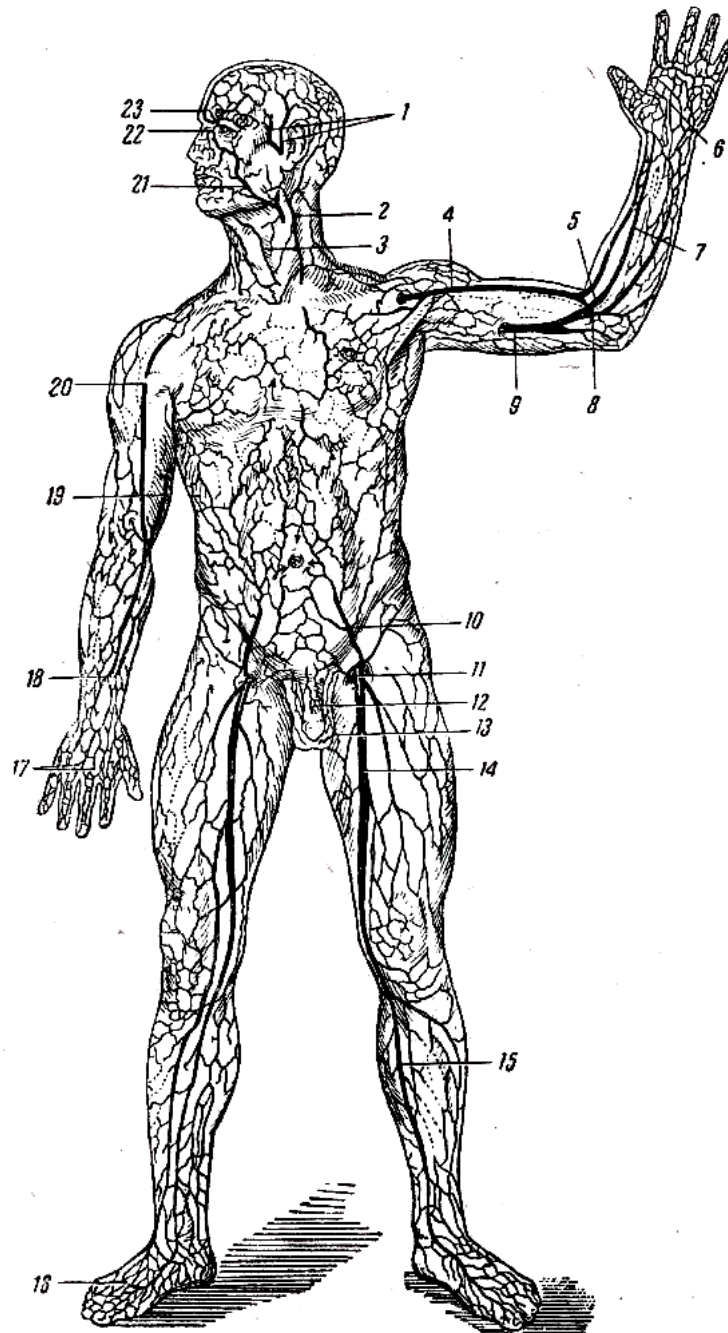
Проекция некоторых точек пальпации пульса на передней поверхности живота и бедра

Projection of some points of palpation of the pulse on the anterior surface of the abdomen and of the thigh



- 1 - *aorta*;
- 2 - *a. renalis*;
- 3 - *a. iliaca*;
- 4 - *a. femoralis*.

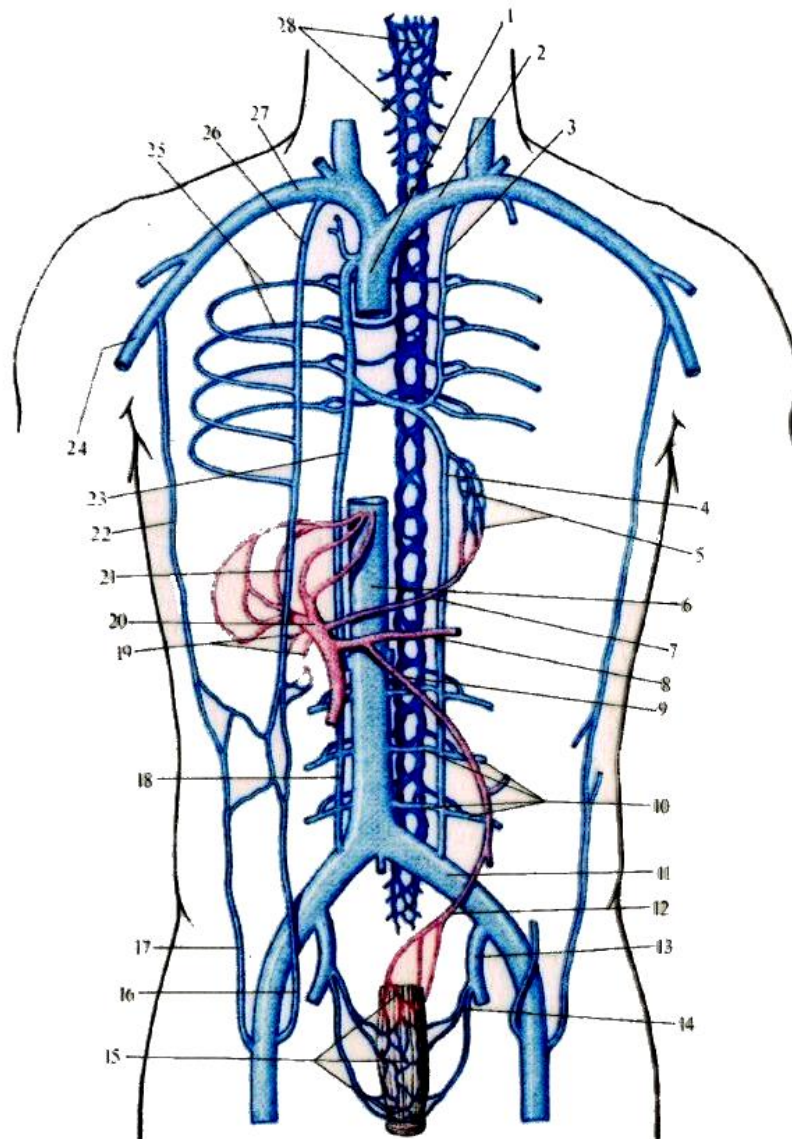
Venele subcutanate ale corpului uman
 Подкожные вены тела человека
 Subcutaneous veins of the human body



1 – vv. temporales superficiales;
 2 – v. jugularis externa;
 3 – v. jugularis anterior;
 4 – v. cephalica;
 5 – v. mediana cephalica,
 6 – rete venosum volare;
 7 – v. mediana antebrachii;
 8 – v. mediana cephalica;
 9 – v. basilica;
 10 – v. epigastrica superficialis;
 11 – v. pudenda externa;

12 – v. dorsalis penis subcutanea;
 13 – vv. scrotales;
 14 – 15 – v. saphena magna;
 16 – arcus venosus dorsalis pedis;
 17 – vv. metacarpeae dorsales;
 18 – v. cephalica;
 19 – v. basilica;
 20 – v. cephalica;
 21 – v. facialis anterior;
 22 – v. angularis;
 23 – v. frontalis.

Anastomozele dintre vena portă și venele cave superioară și inferioară
Анастомозы между воротной веной, верхней и нижней полыми венами
Anastomoses of the portal vein with the superior and inferior vena cava

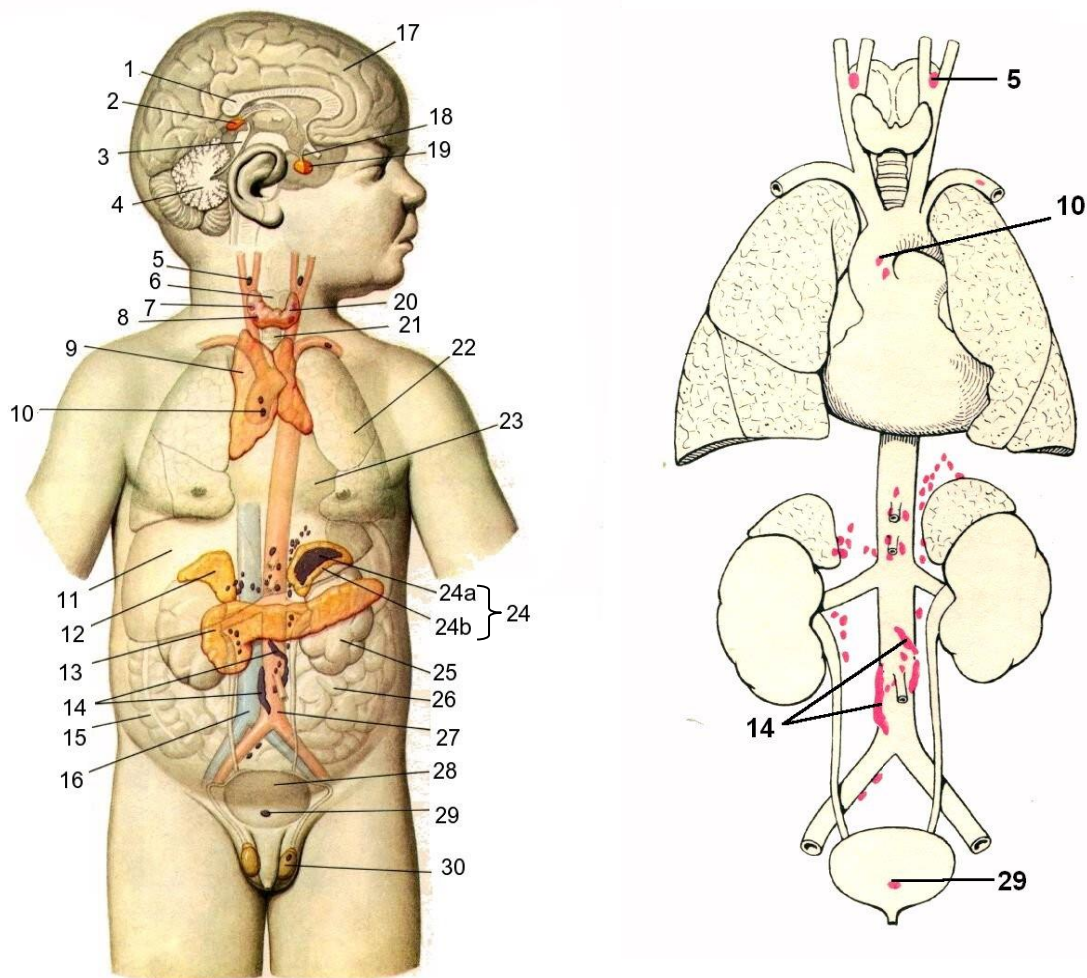


- | | |
|--|--|
| 1 - v.cava superior; | 15 - plexus venosus rectalis; |
| 2 - v. brachiocephalica sinistra; | 16 - v. epigastrica inferior; |
| 3 - v. hemiazygos accessoria; | 17 - v. epigastrica superior; |
| 4 - v hemiazygos; | 18 - v. lumbalis ascendens; |
| 5 - plexus venosus oesophageus; | 19 - v. paraumbilicalis; |
| 6 - v. cava inferior; | 20 - v. portae; |
| 7 - v. gastrica dextra; | 21 - v. epigastrica superior; |
| 8 - v. lienalis; | 22 - v. thoracoepigastrica; |
| 9 - v. mesenterica inferior; | 23 - v. azygos; |
| 10 - vv. lumbales; | 24 - v. axillaris; |
| 11 - v. iliaca communis; | 25 - vv. intercostales posteriores; |
| 12 - v. rectalis superior; | 26 - v. thoracica interna; |
| 13 - v. iliaca interna; | 27 - v. subclavia; |
| 14 - v. rectalis media; | 28 - plexus venosus vertebralis. |

Glandele endocrine și localizarea paraganglionilor

(după P.Д. Синельников, Я.Р. Синельников, 1990)

Эндокринные железы и расположение хромаффинных параганглиев The endocrine glands and localization of the chromaffin bodies (paraganglia)



- 1 - corpus callosum;
- 2 - corpus pineale;
- 3 - tectum mesencephali;
- 4 - cerebellum;
- 5 - glomus caroticum;
- 6 - larynx;
- 7 - glandula parathyroidea superior;
- 8 - glandula parathyroidea inferior;
- 9 - thymus;
- 10 - corpora paraaortica;
- 11 - hepar;
- 12 - glandula suprarenalis dextra;
- 13 - pancreas;
- 14 - glomus aorticum;
- 15 - intestinum crassum;
- 16 - v. cava inferior;

- 17 - hemispherium cerebrale;
- 18 - infundibulum;
- 19 - hypophysis;
- 20 - glandula thyroidea;
- 21 - trachea;
- 22 - pulmo;
- 23 - pericardium;
- 24 - glandula suprarenalis sinistra:
- 24 a - medulla;
- 24 b - cortex;
- 25 - ren;
- 26 - intestinum tenue;
- 27 - aorta;
- 28 - vesica urinaria;
- 29 - glomus coccygeum;
- 30 - testis.