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# Pocket Atlas of Radiographic Anatomy

Torsten B. Moeller  
Emil Reif

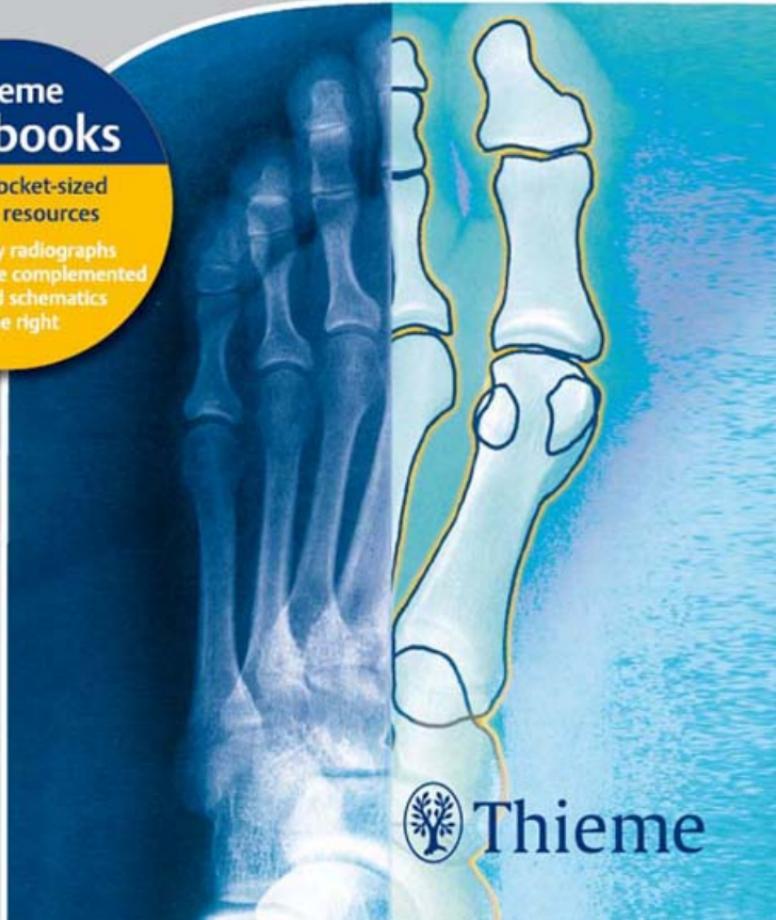
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on the right.



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# **Pocket Atlas of Radiographic Anatomy**

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3rd edition

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*For my American relatives, Bernie  
and Arlene, Bryan, Nancy, Rick and  
Bill, Shirley, Mike, Michael, Austin  
and Amanda, Audrey, Mike, Kristin  
and Katelyn, Claudia, Dale, Bryan  
and Jamie, Meghan and Jason*

Despite the availability of digital radiography for over a decade, the process of obtaining and evaluating radiographic images has not changed significantly, nor has the importance of having a good knowledge of the anatomic details seen in conventional radiographs. This book is a case in point. We were very pleased with the wide popularity of the previous editions, which has been an additional incentive to add new material.

The structure of the third edition strictly follows that of *Normal Findings in Radiology* and *Pocket Atlas of Radiographic Positioning*. Our intention in this is to present clearly and concisely each respective chapter of conventional diagnostic radiography, avoiding unnecessary repetition. At the same time, we give the reader the opportunity to examine different aspects of the same material with the same degree of clarity, which may prove important on another occasion. We have employed a consistent style and the same radiographs to structure the material and make it more readily accessible for reading, learning, or reference purposes.

*Torsten B. Moeller  
Emil Reif*

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Skeletal Imaging:  
Spine

Skeletal Imaging:  
Upper Extremities

Skeletal Imaging:  
Lower Extremities

Anatomy of Miscellaneous  
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Contrast Studies

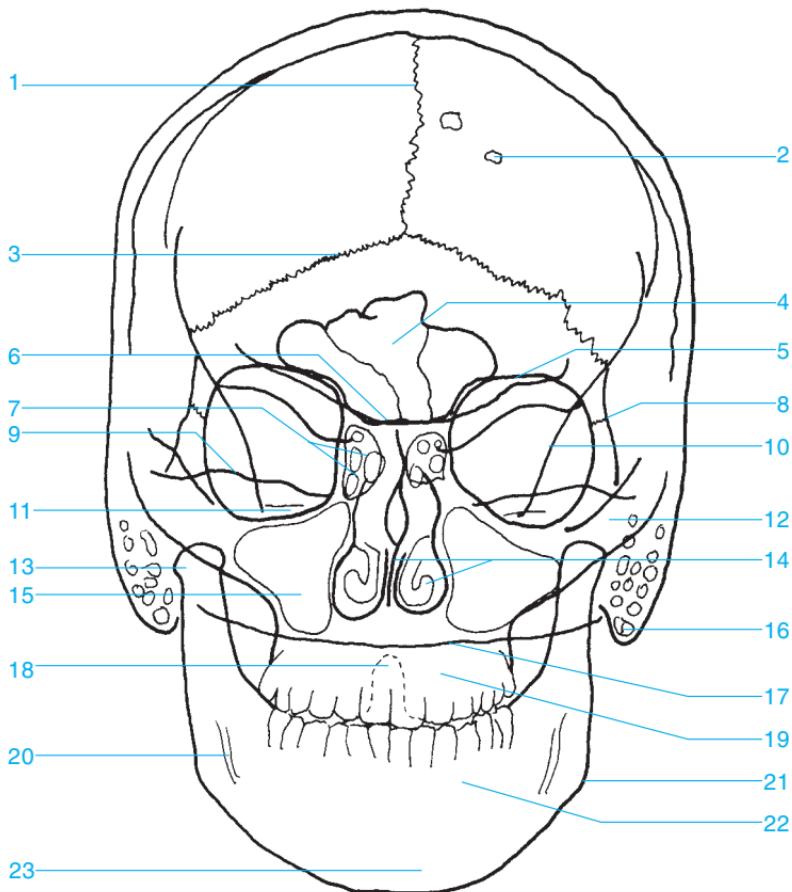
Special Studies



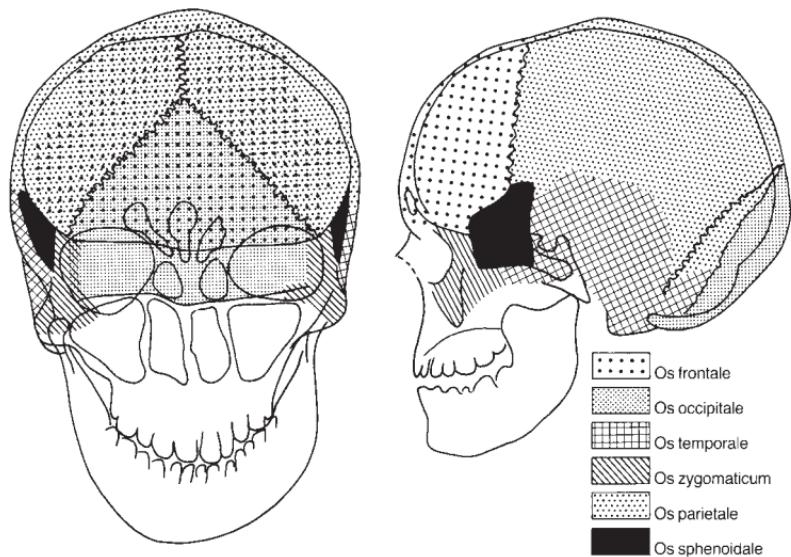
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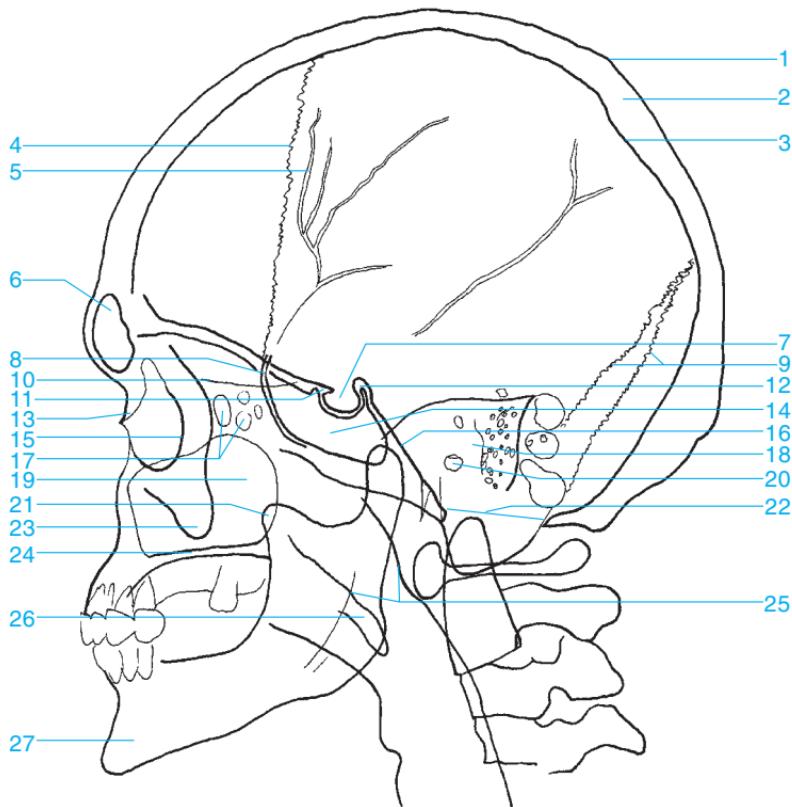




- |                            |  |
|----------------------------|--|
| 1 Sagittal suture          | 13 Condylar process of the mandible      |
| 2 Pacchionian granulations | 14 Nasal septum and inferior nasal bones |
| 3 Lambdoid suture          | 15 Maxillary sinus                       |
| 4 Frontal sinus            | 16 Mastoid process                       |
| 5 Roof of the orbit        | 17 Occiput                               |
| 6 Sphenoid                 | 18 Dens of the axis                      |
| 7 Ethmoid sinus            | 19 Maxilla                               |
| 8 Frontozygomatic suture   | 20 Mandibular canal                      |
| 9 Petrous ridge            | 21 Angle of the mandible                 |
| 10 Innominate line         | 22 Mandible                              |
| 11 Internal auditory canal | 23 Mental protuberance                   |
| 12 Zygomatic arch          |  |

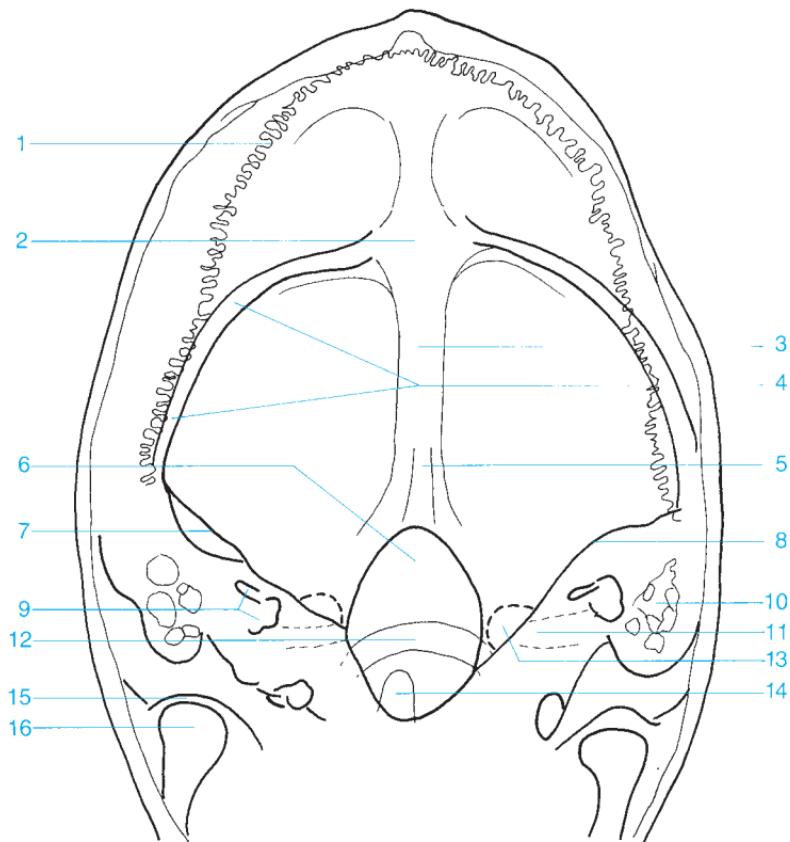


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|----------------------------|----------------|
| [dotted pattern]           | Os frontale    |
| [diagonal lines pattern]   | Os occipitale  |
| [horizontal lines pattern] | Os temporale   |
| [cross-hatching pattern]   | Os zygomaticum |
| [dotted pattern]           | Os parietale   |
| [solid black area]         | Os sphenoidale |



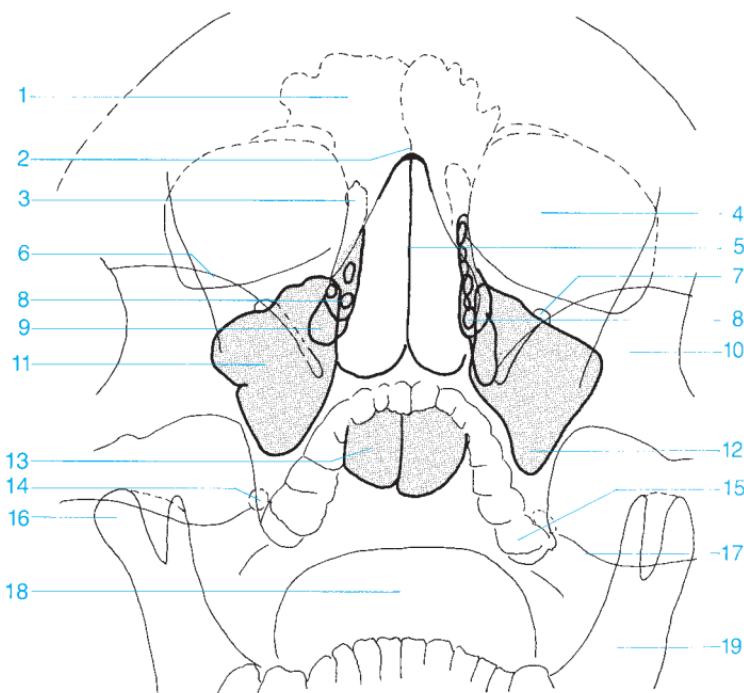
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|---|---|
| 1 Outer table of the parietal bone      | 15 Zygomatic bone (lateral wall of the orbit) |
| 2 Diploe                                | 16 Clivus                                     |
| 3 Inner table of the parietal bone      | 17 Ethmoid sinus                              |
| 4 Coronal suture                        | 18 Petrous portion of the temporal bone       |
| 5 Groove of the middle meningeal artery | 19 Maxillary sinus                            |
| 6 Frontal sinus                         | 20 Opening of the external auditory canal     |
| 7 Pituitary fossa                       | 21 Coronoid process of the mandible           |
| 8 Greater wing of the sphenoid          | 22 Foramen magnum                             |
| 9 Lambdoid suture                       | 23 Zygomatic process                          |
| 10 Cribiform plate                      | 24 Hard palate                                |
| 11 Anterior clinoid process             | 25 Nasopharynx                                |
| 12 Posterior clinoid process            | 26 Soft palate                                |
| 13 Nasal bone                           | 27 Mandible                                   |
| 14 Sphenoid sinus                       |   |





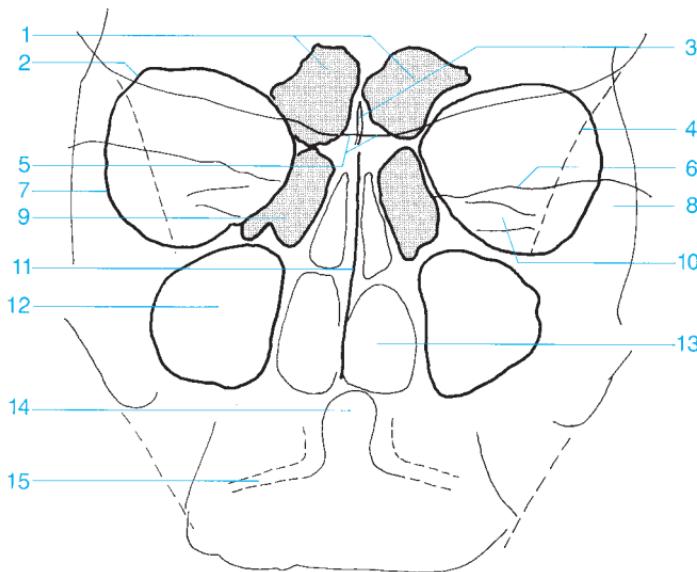
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|---|--------------------------------|
| 1 Lambdoid suture                                 | 9 Semicircular canals          |
| 2 Occipital protuberances (external and internal) | 10 Mastoid air cells           |
| 3 Occipital bone                                  | 11 Internal auditory canal     |
| 4 Sulcus of the transverse sinus                  | 12 Posterior arch of the atlas |
| 5 Occipital crest                                 | 13 Jugular foramen             |
| 6 Foramen magnum                                  | 14 Dens                        |
| 7 Petrous bone                                    | 15 Temporomandibular joint     |
| 8 Arcuate eminence                                | 16 Condyle of the mandible     |





- |                                 |                                     |
|---------------------------------|-------------------------------------|
| 1. Frontal sinus                | 11. Maxillary sinus                 |
| 2. Nasal bone                   | 12. Alveolar recess of the maxilla  |
| 3. Anterior ethmoid sinus       | 13. Sphenoid sinus                  |
| 4. Orbit                        | 14. Foramen ovale                   |
| 5. Nasal septum                 | 15. Alveolar process of the maxilla |
| 6. Greater wing of the sphenoid | 16. Condyle of the mandible         |
| 7. Infraorbital foramen         | 17. Petrous ridge                   |
| 8. Foramen rotundum             | 18. Tongue                          |
| 9. Posterior ethmoid sinus      | 19. Mandible                        |
| 10. Zygomatic bone              |                                     |

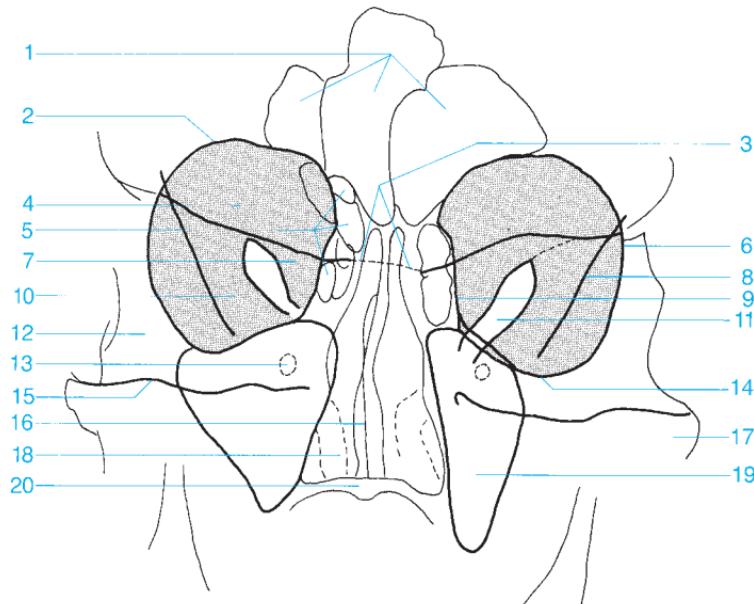




- 1 Frontal sinus
- 2 Roof of the orbit
- 3 Crista galli
- 4 Innominate line
- 5 Sphenoid
- 6 Petrous ridge
- 7 Lateral wall of the orbit
- 8 Zygomatic bone

- 9 Anterior ethmoid sinus
- 10 Internal auditory canal
- 11 Nasal septum
- 12 Maxillary sinus
- 13 Nasal cavity
- 14 Dens
- 15 Atlantoaxial joint





- 1 Frontal sinus
- 2 Roof of the orbit
- 3 Sphenoid
- 4 Orbit (gray background)
- 5 Ethmoid sinus
- 6 Lateral wall of the orbit
- 7 Lesser wing of the sphenoid
- 8 Innominate line
- 9 Orbital plate
- 10 Greater wing of the sphenoid
- 11 Superior orbital fissure

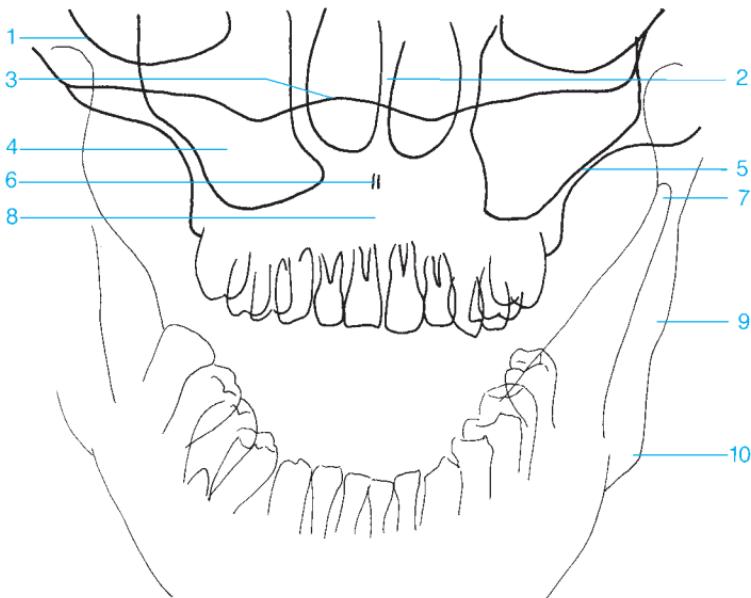
- 12 Frontal process of the zygomatic bone
- 13 Foramen rotundum
- 14 Floor of the orbit
- 15 Petrous ridge
- 16 Nasal septum
- 17 Zygomatic arch
- 18 Inferior turbinate
- 19 Maxillary sinus
- 20 Hard palate





- |  |   |
|--|---|
| <b>1</b> Frontal sinus                     | <b>8</b> Lateral wall of the orbit                |
| <b>2</b> Roof of the orbit                 | <b>9</b> Superior orbital fissure                 |
| <b>3</b> Left lesser wing of the sphenoid  | <b>10</b> Sphenoid sinus                          |
| <b>4</b> Right lesser wing of the sphenoid | <b>11</b> Zygomatic arch                          |
| <b>5</b> Sphenoid                          | <b>12</b> Petrous portion of the temporal<br>bone |
| <b>6</b> Ethmoid sinus                     | <b>13</b> Maxillary sinus                         |
| <b>7</b> Optic canal                       |   |

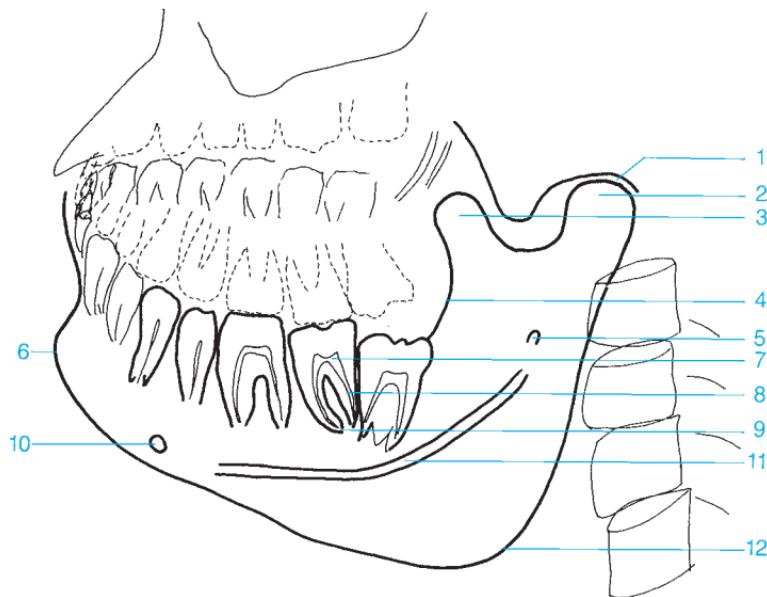




- 1 Floor of the orbit
- 2 Nasal septum
- 3 Base of the skull
- 4 Maxillary sinus
- 5 Lateral wall of the maxilla

- 6 Anterior nasal spine
- 7 Coronoid process
- 8 Maxilla
- 9 Ramus of the mandible
- 10 Angle of the mandible

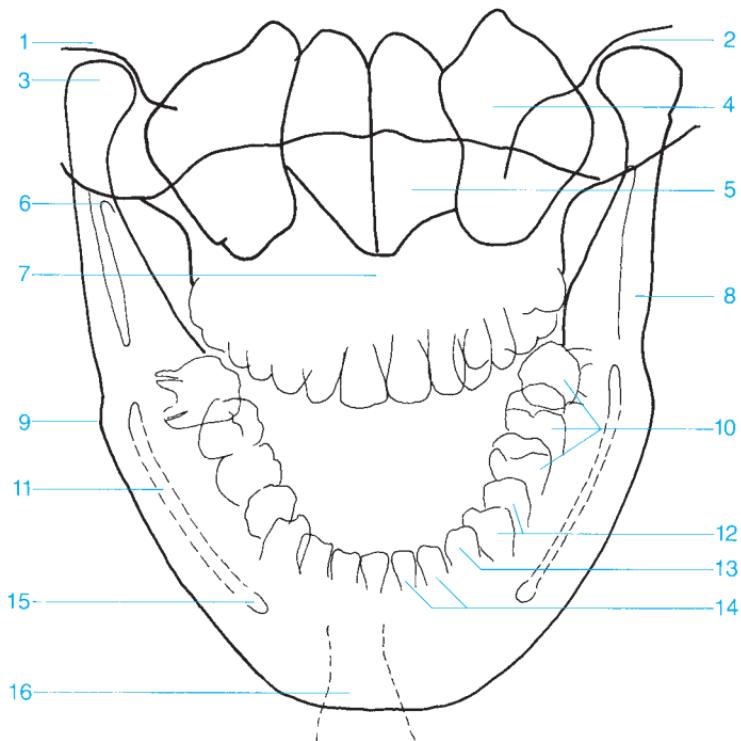




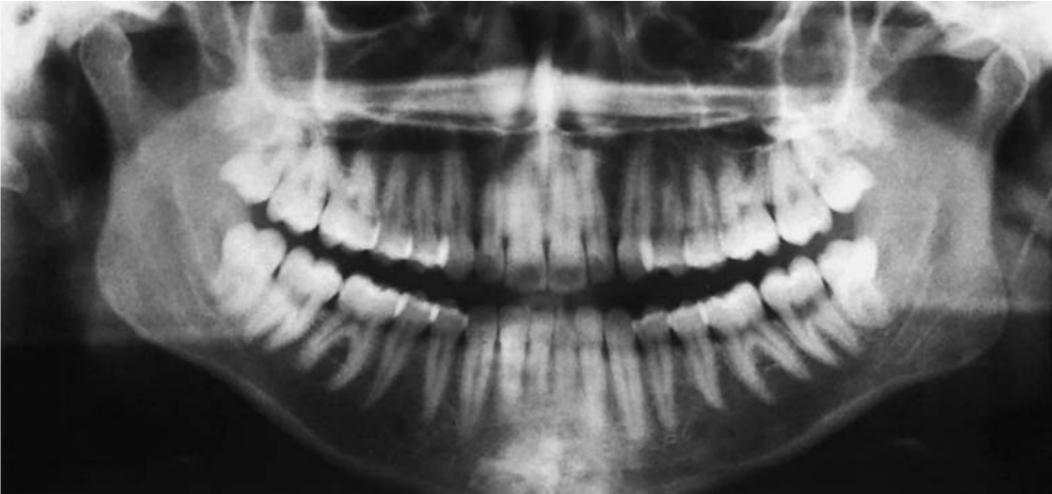
- 1 Temporomandibular joint
- 2 Condyle of the mandible
- 3 Coronoid process
- 4 Cortex of ramus of the mandible
- 5 Mandibular foramen
- 6 Mental protuberance

- 7 Pulp cavity
- 8 Root canal
- 9 Apical foramen of the tooth
- 10 Mental foramen
- 11 Mandibular canal
- 12 Angle of the mandible



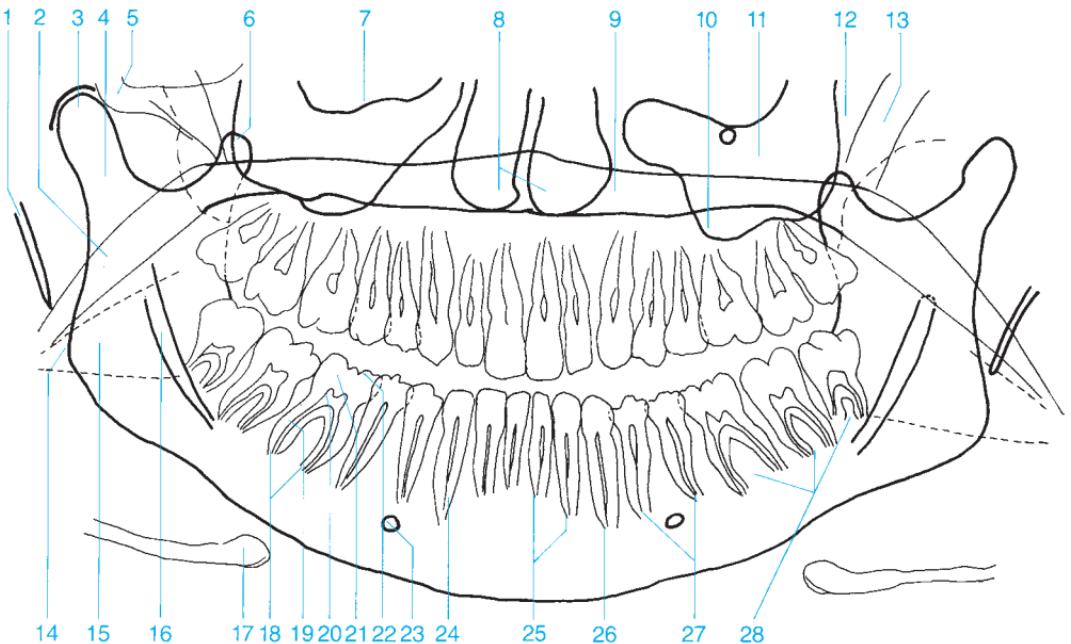


- |                                  |  |
|----------------------------------|--|
| <b>1</b> Temporal bone           | <b>10</b> Molars   |
| <b>2</b> Temporomandibular joint | <b>11</b> Mandibular canal   |
| <b>3</b> Condyle of the mandible | <b>12</b> Premolars  |
| <b>4</b> Maxillary sinus         | <b>13</b> Canines  |
| <b>5</b> Nasal cavity            | <b>14</b> Incisors   |
| <b>6</b> Coronoid process        | <b>15</b> Mental foramen   |
| <b>7</b> Maxilla                 | <b>16</b> Mental protuberance (trachea superimposed as radiolucent band) |
| <b>8</b> Ramus of the mandible   |  |
| <b>9</b> Angle of the mandible   |  |

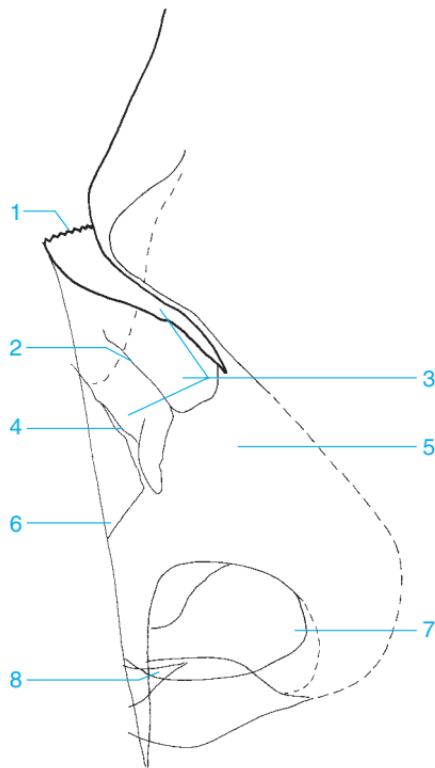


- |                           |                                   |                                |                      |
|---------------------------|-----------------------------------|--------------------------------|----------------------|
| 1 Styloid process         | 9 Hard palate                     | 16 Mandibular canal            | 23 Mental foramen    |
| 2 Soft palate             | 10 Alveolar recess of the maxilla | 17 Hyoid bone                  | 24 Root of the tooth |
| 3 Condyle of the mandible | 11 Maxillary sinus                | 18 Apical foramen of the tooth | 25 Incisor           |
| 4 Condylar process        | 12 Pterygopalatine fossa          | 19 Root canal                  | 26 Canine            |
| 5 Zygomatic arch          | 13 Pterygoid process              | 20 Pulp cavity                 | 27 Premolar          |
| 6 Coronoid process        | 14 Angle of the mandible          | 21 Dentin                      | 28 Molar             |
| 7 Floor of the orbit      | 15 Shadow of the tongue           | 22 Enamel                      |                      |

Pantomogram of the Jaw and Facial Bones



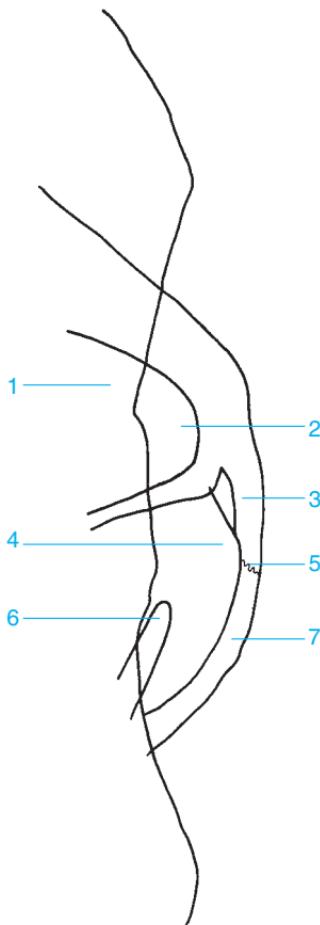




- 1 Frontonasal suture
- 2 Ethmoidal groove
- 3 Nasal bone
- 4 Nasomaxillary suture

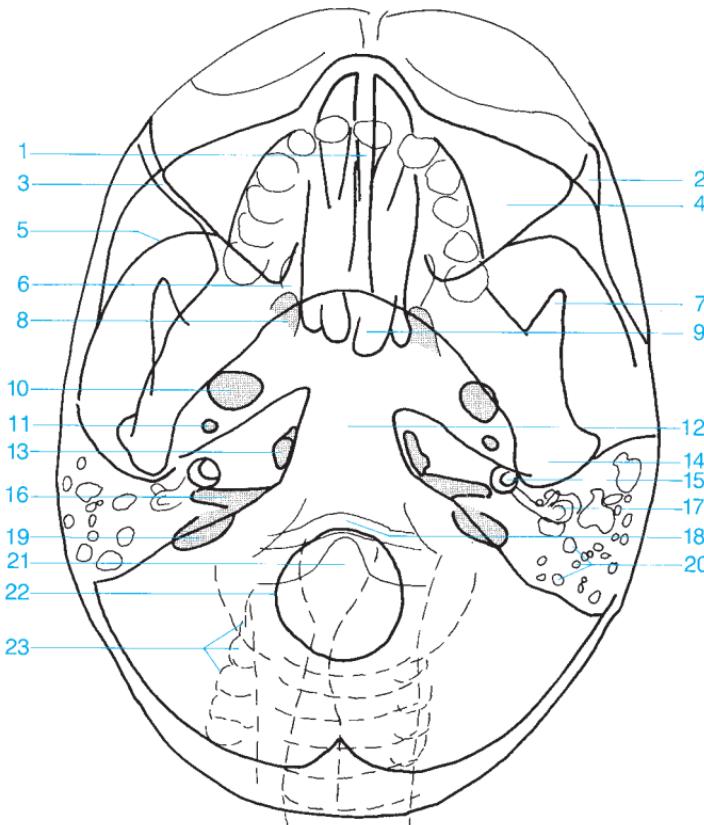
- 5 Nasal cartilage
- 6 Maxilla
- 7 Vestibule of nose
- 8 Anterior nasal spine





- |  |   |
|--|---|
| <b>1</b> Maxillary sinus                           | <b>5</b> Temporozygomatic suture                |
| <b>2</b> Zygomatic recess (of the maxillary sinus) | <b>6</b> Coronoid process (visualized end on)   |
| <b>3</b> Zygomatic arch                            | <b>7</b> Zygomatic process of the temporal bone |
| <b>4</b> Temporal fossa                            |   |





**1** Nasal septum

**2** Zygomatic bone

**3** Posterior wall of maxillary sinus

**4** Maxillary sinus (with orbit, partially superimposed)

**5** Middle cranial fossa, greater wing (anterior wall of middle cranial fossa)

**6** Pterygopalatine fossa

**7** Coronoid process

**8** Pterygoid fossa

**9** Sphenoid sinus

**10** Foramen ovale

**11** Foramen spinosum

**12** Clivus

**13** Foramen lacerum

**14** Condyle of the mandible

**15** Cochlea

**16** Internal auditory canal

**17** Semicircular canals

**18** Anterior arch of the atlas

**19** Jugular foramen

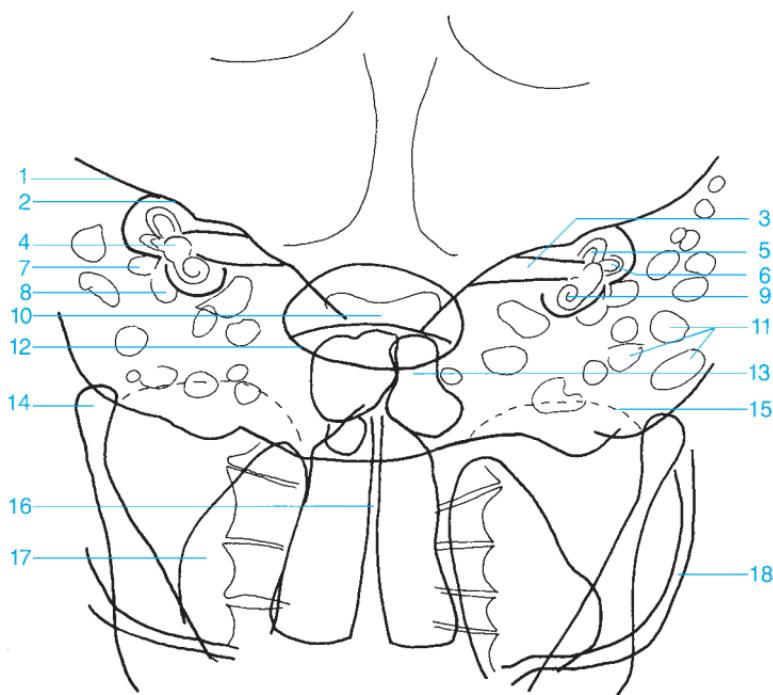
**20** Mastoid air cells

**21** Dens of the axis

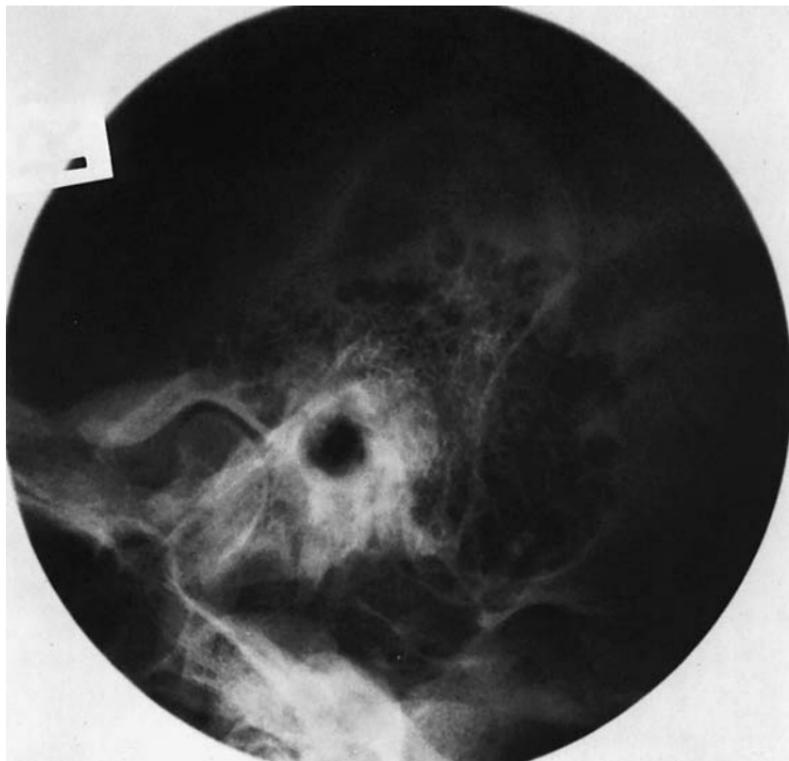
**22** Foramen magnum

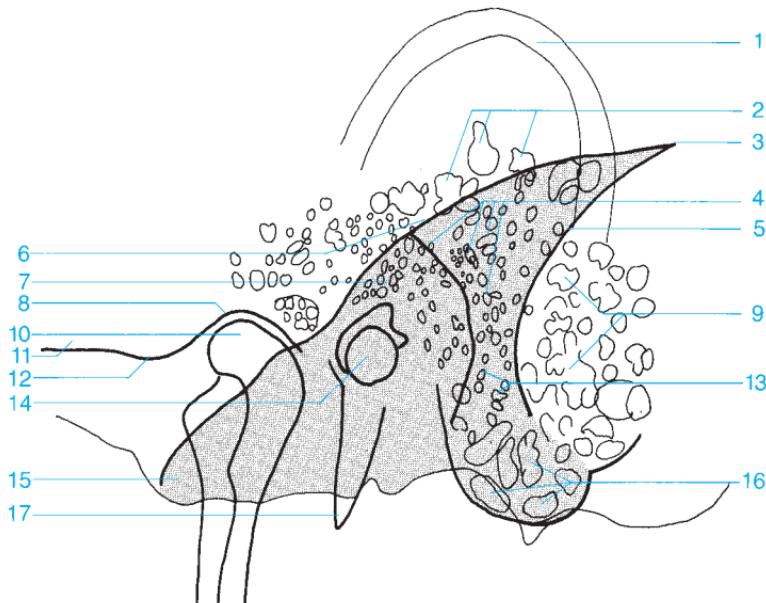
**23** Cervical spine





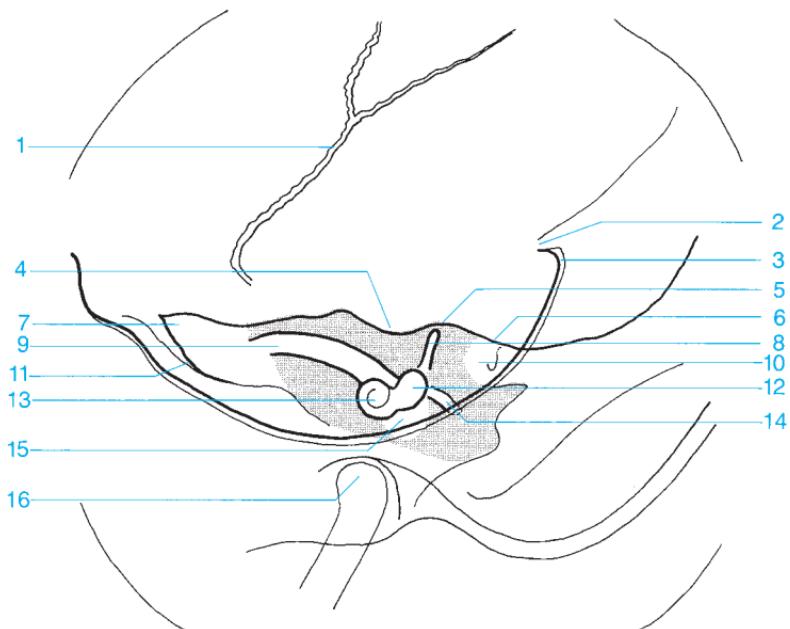
- |                               |                                    |
|-------------------------------|------------------------------------|
| 1 Petrous ridge               | 10 Dorsum sellae                   |
| 2 Arcuate eminence            | 11 Mastoid air cells               |
| 3 Internal auditory canal     | 12 Foramen magnum                  |
| 4 Vestibule                   | 13 Frontal sinus                   |
| 5 Anterior semicircular canal | 14 Condyle of the mandible         |
| 6 Lateral semicircular canal  | 15 Roof of the orbit               |
| 7 Antrum of the mastoid       | 16 Nasal septum and nasal cavities |
| 8 Tympanic cavity             | 17 Maxillary sinus                 |
| 9 Cochlea                     | 18 Zygomatic arch                  |





- |                                       |  |
|---------------------------------------|--|
| 1 Outer ear                           | 11 Zygomatic process of the temporal bone      |
| 2 Squamous air cells                  | 12 Articular tubercle                          |
| 3 Angle of Citelli                    | 13 Retrofacial air cells                       |
| 4 Periantral air cells                | 14 Internal and external auditory canal        |
| 5 Sulcus of the sigmoid sinus         | 15 Apex of the petrous bone                    |
| 6 Anterior margin of the petrous bone | 16 Air cells in the tip of the mastoid process |
| 7 Antrum of the mastoid               | 17 Styloid process                             |
| 8 Temporomandibular joint fossa       |  |
| 9 Marginal air cells                  |  |
| 10 Condyle of the mandible            |  |





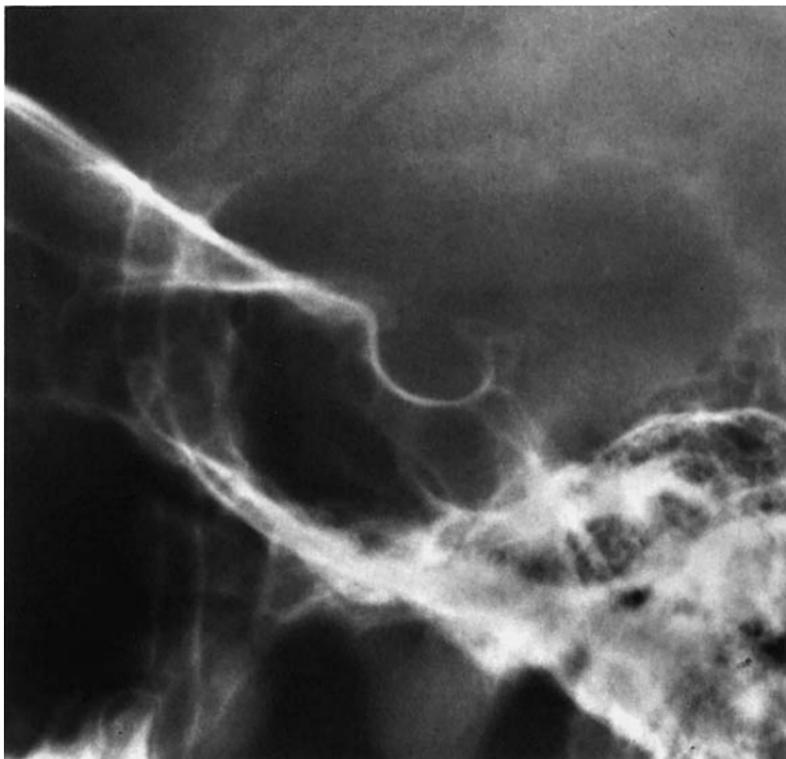
- 1 Sphenosquamous suture
- 2 Internal occipital protuberance
- 3 Internal occipital crest
- 4 Subarcuate fossa
- 5 Arcuate eminence
- 6 Roof of the tympanic cavity
- 7 Apex of the petrous pyramid
- 8 Anterior semicircular canal

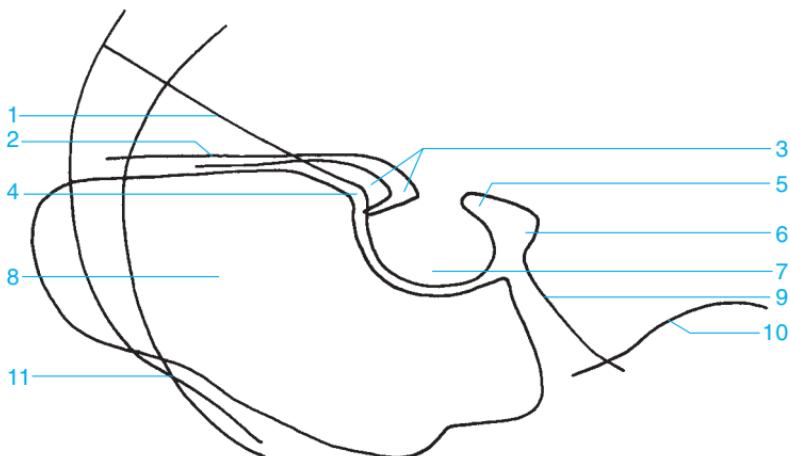
- 9 Internal auditory canal
- 10 Antrum
- 11 Sphenopetrosal fissure
- 12 Vestibule
- 13 Cochlea
- 14 Lateral semicircular canal
- 15 Tympanic cavity
- 16 Condyle of the mandible





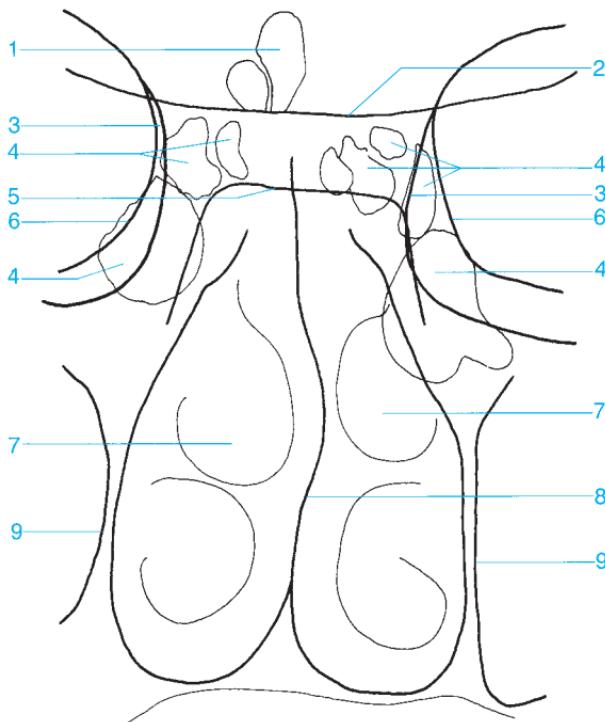
- |   |   |
|---|---|
| 1 Periantral air cells                        | 7 Osseous labyrinth   |
| 2 Sigmoid sinus                               | 8 Osseous sinus wall (posterior margin of the petrous bone) |
| 3 Antrum                                      | 9 Zygomatic bone  |
| 4 Retrosinus air cells                        | 10 Apex of the mastoid                                      |
| 5 Aperture of mastoid antrum                  | 11 Condyle of the mandible                                  |
| 6 External auditory canal and tympanic cavity | 12 Apex of the petrous bone                                 |



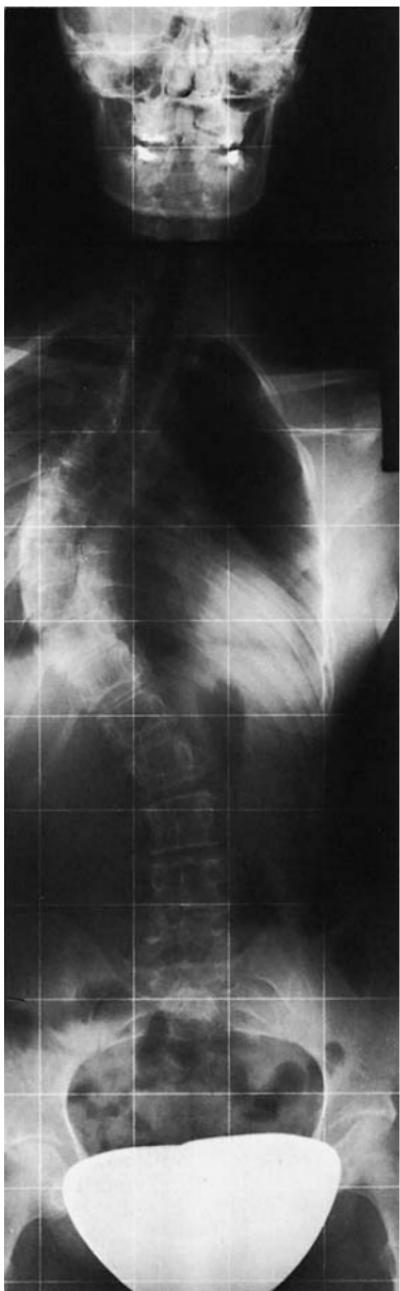


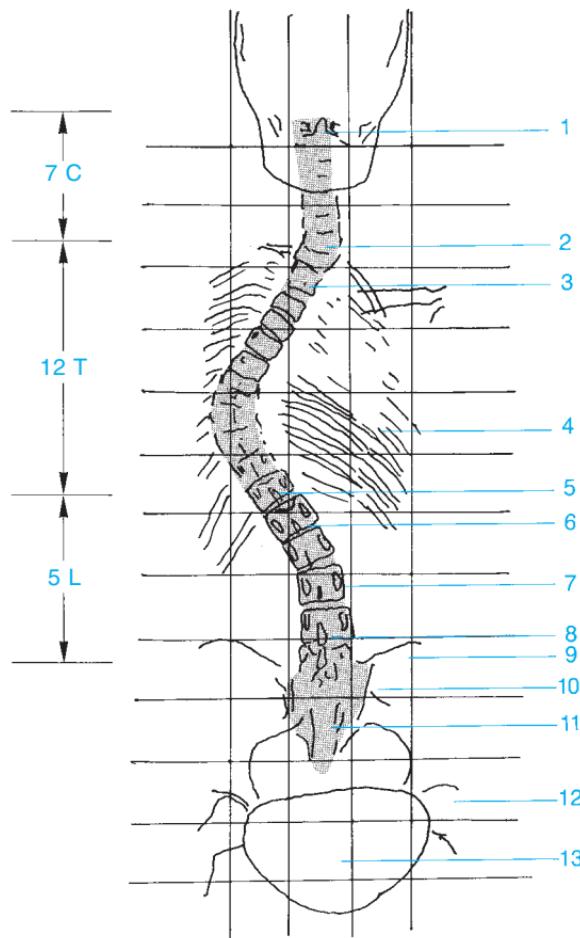
- |          |   |           |                              |
|----------|---|-----------|------------------------------|
| <b>1</b> | Floor of anterior cranial fossa and<br>roof of orbits | <b>6</b>  | Dorsum sellae                |
| <b>2</b> | Sphenoid  | <b>7</b>  | Pituitary fossa              |
| <b>3</b> | Anterior clinoid process                              | <b>8</b>  | Sphenoid sinus               |
| <b>4</b> | Tuberculum sellae                                     | <b>9</b>  | Clivus                       |
| <b>5</b> | Posterior clinoid process                             | <b>10</b> | Petrous ridge                |
|          |   | <b>11</b> | Greater wing of the sphenoid |





- |  |                                      |
|--|--------------------------------------|
| 1 Frontal sinuses                              | 6 Orbital plate                      |
| 2 Sphenoid                                     | 7 Nasal turbinates                   |
| 3 Medial wall of orbit                         | 8 Nasal septum                       |
| 4 Ethmoid sinus                                | 9 Medial wall of the maxillary sinus |
| 5 Pituitary fossa (floor of the sella turcica) |                                      |

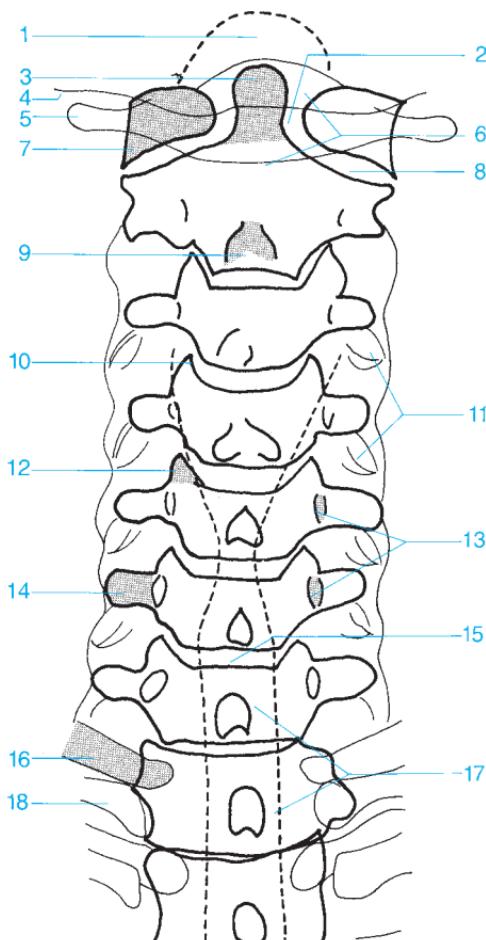




- 1 Dens of the axis
- 2 C7
- 3 T2
- 4 Rib cage
- 5 T12
- 6 L1
- 7 Pedicle, L3

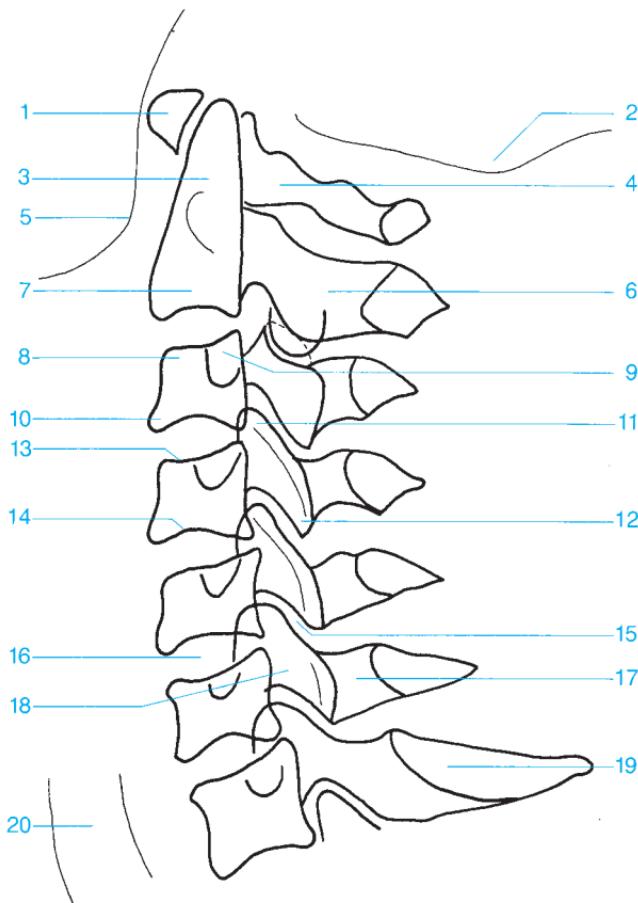
- 8 Spinous process, L6
- 9 Ilium
- 10 Sacroiliac joint
- 11 Sacrum
- 12 Hip
- 13 Gonad shield





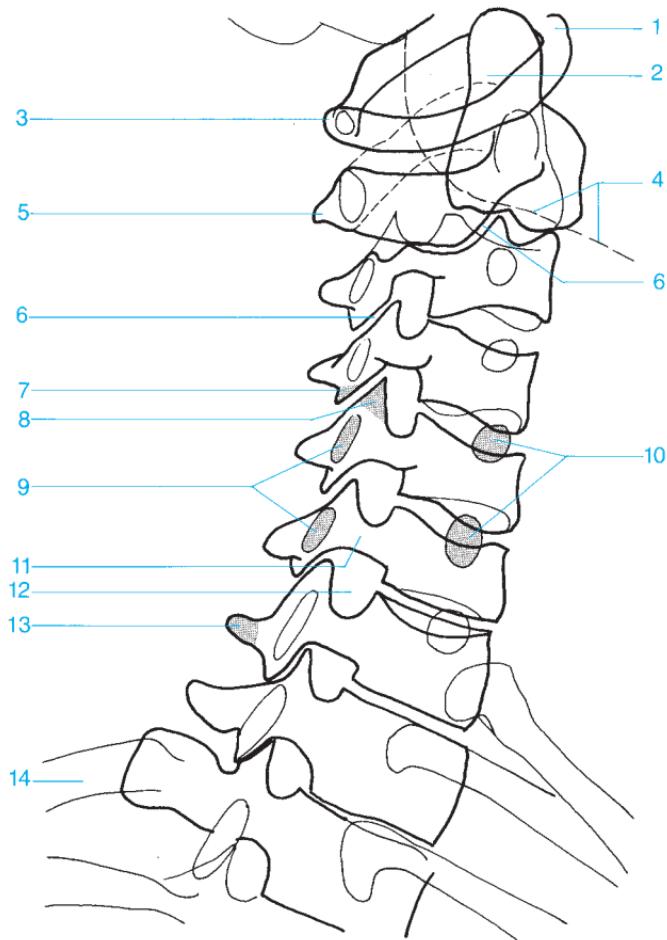
- |                           |                                    |
|---------------------------|------------------------------------|
| 1 Foramen magnum          | 10 Uncovertebral joint             |
| 2 Atlantoaxial joint      | 11 Overlapping articular processes |
| 3 Dens of the axis        | 12 Uncinate process                |
| 4 Occipital bone          | 13 Pedicle                         |
| 5 Transverse process      | 14 Transverse process              |
| 6 Vertebral arch          | 15 Intervertebral disk space       |
| 7 Lateral mass of C1      | 16 Transverse process of T1        |
| 8 Atlantoaxial joint      | 17 Radiolucent band of the trachea |
| 9 Spinous process (bifid) | 18 First rib                       |





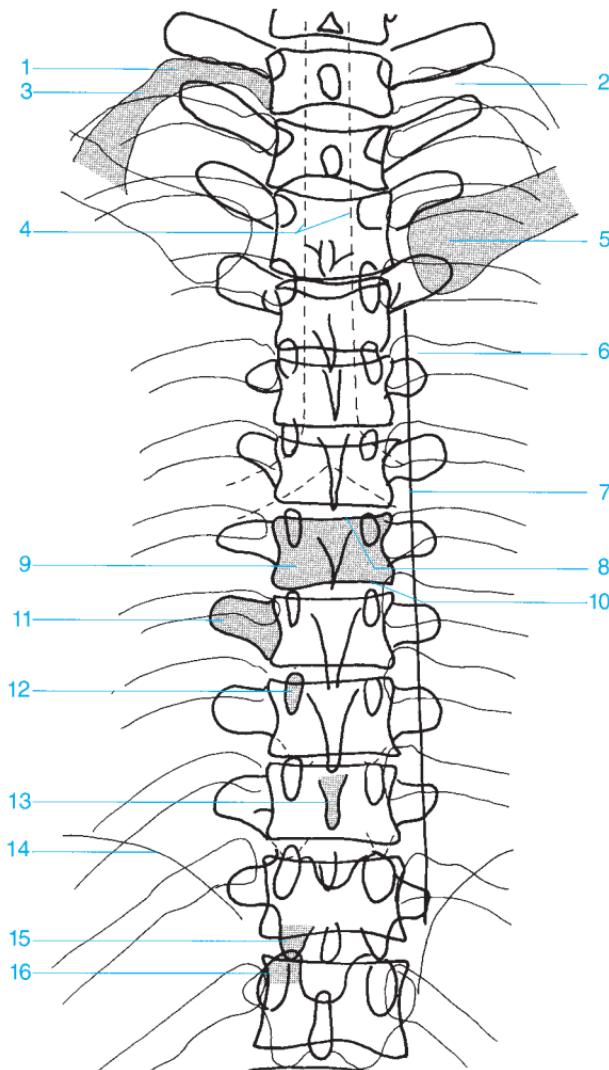
- |   |                                 |
|---|---------------------------------|
| 1 Anterior arch of the atlas                | 11 Superior articular facet     |
| 2 Base of the skull                         | 12 Inferior articular facet     |
| 3 Odontoid process                          | 13 Superior vertebral end plate |
| 4 Posterior arch of the atlas               | 14 Inferior vertebral end plate |
| 5 Mandible                                  | 15 Intervertebral facet joint   |
| 6 Spinous process                           | 16 Intervertebral disk space    |
| 7 Body of the axis                          | 17 Lamina                       |
| 8 Anterior superior margin of the vertebra  | 18 Articular pillar             |
| 9 Transverse process                        | 19 Spinous process              |
| 10 Anterior inferior margin of the vertebra | 20 Trachea                      |





- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| <b>1</b> Anterior arch              | <b>8</b> Superior articular process |
| <b>2</b> Odontoid process           | <b>9</b> Transverse process         |
| <b>3</b> Atlas                      | <b>10</b> Contralateral pedicle     |
| <b>4</b> Mandible                   | <b>11</b> Pedicle                   |
| <b>5</b> Body of C2                 | <b>12</b> Intervertebral foramen    |
| <b>6</b> Facet joint                | <b>13</b> Spinous process           |
| <b>7</b> Inferior articular process | <b>14</b> Ribs                      |





1 Tubercl<sup>e</sup> of first rib

2 Neck of the rib

3 First rib

4 Trachea

5 Clavicle

6 Head of the rib

7 Paravertebral line

8 Superior vertebral end plate

9 Body of vertebra

10 Inferior vertebral end plate

11 Transverse process

12 Pedicle

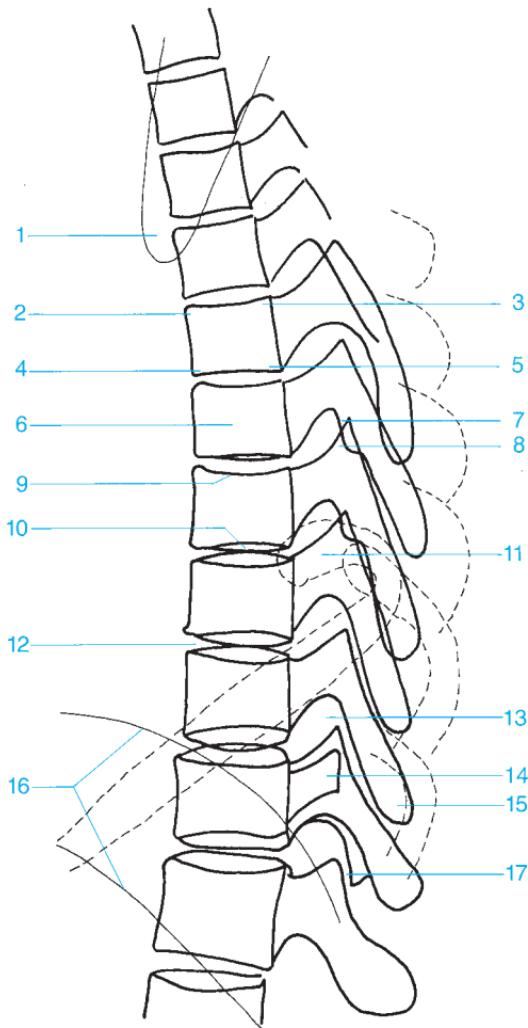
13 Spinous process

14 Diaphragm

15 Inferior articular process

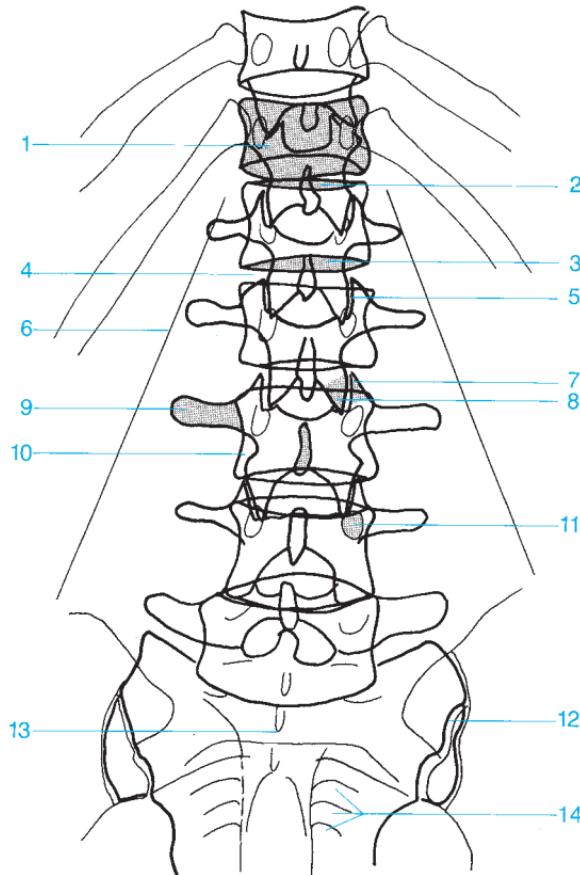
16 Superior articular process





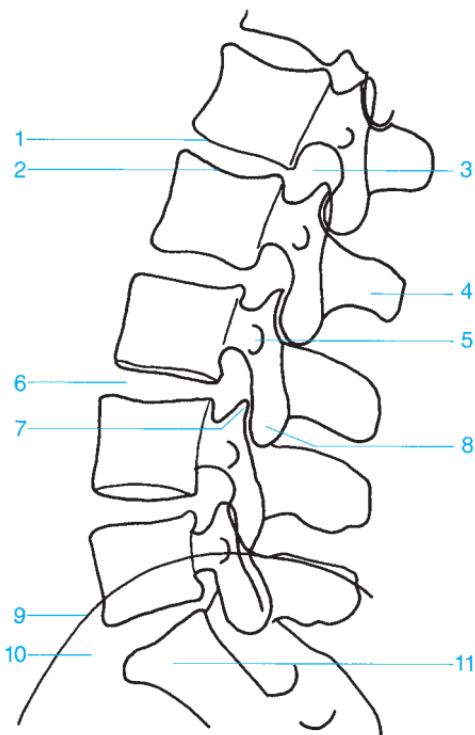
- |                                |                                 |
|--------------------------------|---------------------------------|
| 1 Scapula                      | 10 Inferior vertebral end plate |
| 2 Anterior superior margin     | 11 Head of the rib              |
| 3 Posterior superior margin    | 12 Intervertebral disk space    |
| 4 Anterior inferior margin     | 13 Intervertebral foramen       |
| 5 Posterior inferior margin    | 14 Transverse process           |
| 6 Body of vertebra             | 15 Spinous process              |
| 7 Superior articular process   | 16 Diaphragm                    |
| 8 Inferior articular process   | 17 Facet joint                  |
| 9 Superior vertebral end plate |                                 |





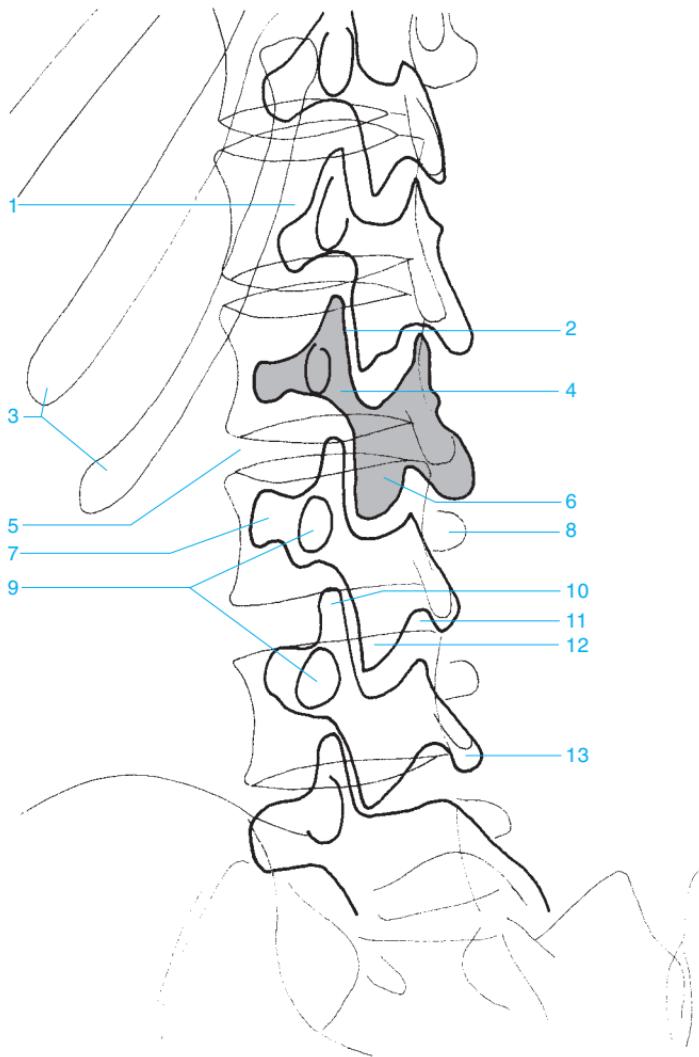
- |                                       |                                     |
|---------------------------------------|-------------------------------------|
| <b>1</b> Body of vertebra             | <b>8</b> Inferior articular process |
| <b>2</b> Superior vertebral end plate | <b>9</b> Transverse process         |
| <b>3</b> Inferior vertebral end plate | <b>10</b> Spinous process           |
| <b>4</b> Intervertebral disk space    | <b>11</b> Pedicle                   |
| <b>5</b> Facet joint                  | <b>12</b> Sacroiliac joint          |
| <b>6</b> Psoas                        | <b>13</b> Sacrum                    |
| <b>7</b> Superior articular process   | <b>14</b> Sacral foramina           |





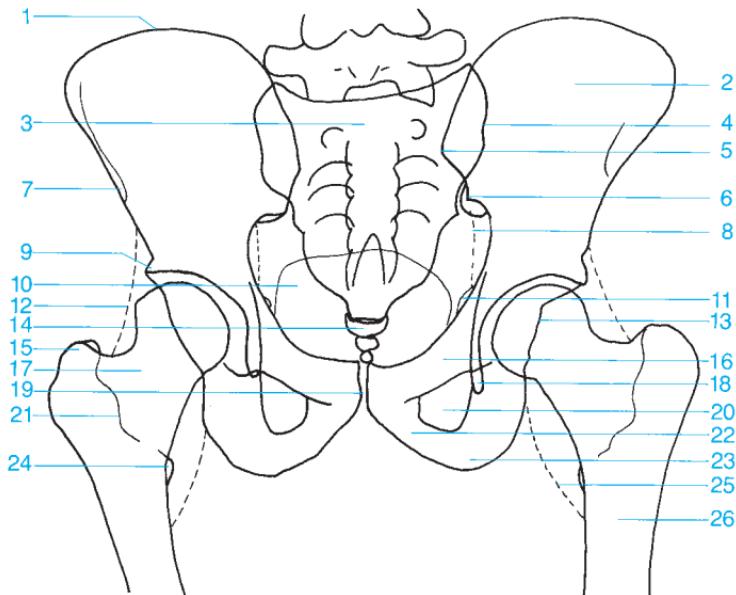
- |                                |                              |
|--------------------------------|------------------------------|
| 1 Superior vertebral end plate | 7 Superior articular process |
| 2 Inferior vertebral end plate | 8 Inferior articular process |
| 3 Intervertebral foramen       | 9 Iliac crest                |
| 4 Spinous process              | 10 Promontory                |
| 5 Transverse process           | 11 Sacrum                    |
| 6 Intervertebral disk space    |                              |





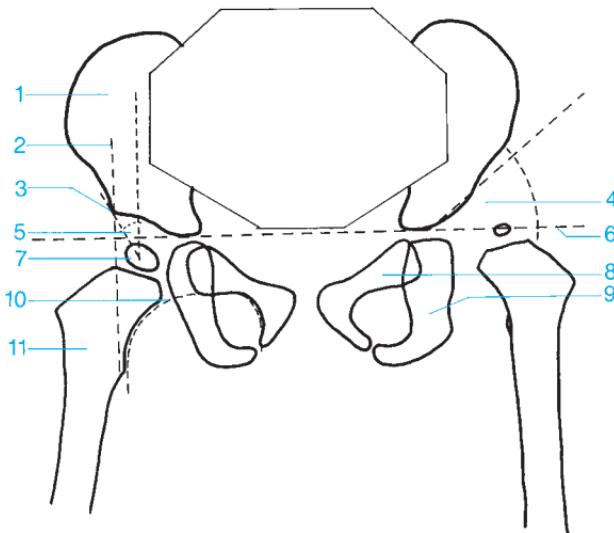
- |                                  |                                    |
|----------------------------------|------------------------------------|
| 1 Body of vertebra               | 8 Contralateral transverse process |
| 2 Intervertebral disk space      | 9 Pedicle                          |
| 3 Ribs                           | 10 Superior articular process      |
| 4 Interarticular part            | 11 Intervertebral foramen          |
| 5 Intervertebral disk space      | 12 Inferior articular process      |
| 6 Lamina                         | 13 Spinous process                 |
| 7 Ipsilateral transverse process |                                    |





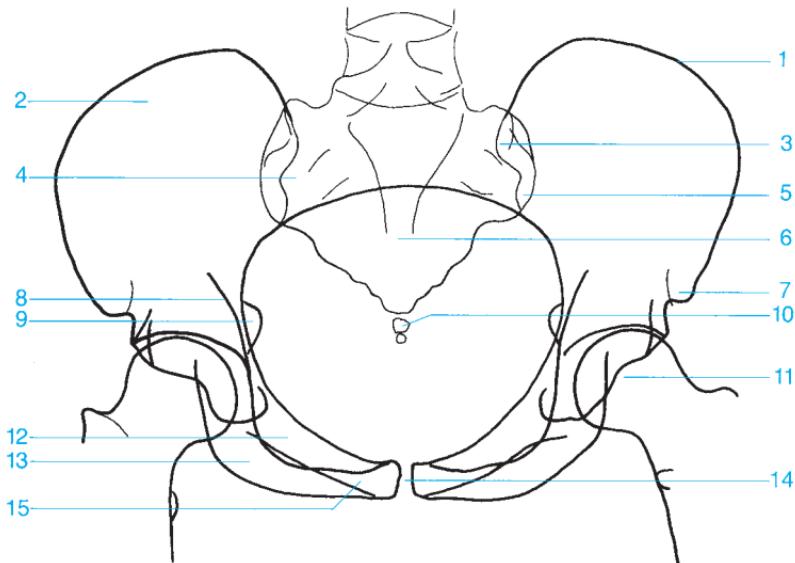
- |  |                                       |
|--|---------------------------------------|
| 1 Iliac crest                                  | 13 Posterior acetabular rim           |
| 2 Iliac wing                                   | 14 Coccyx                             |
| 3 Sacrum                                       | 15 Greater trochanter                 |
| 4 Sacroiliac joint                             | 16 Superior pubic ramus               |
| 5 Posterior superior iliac spine               | 17 Femoral neck                       |
| 6 Posterior inferior iliac spine               | 18 Acetabular teardrop                |
| 7 Anterior superior iliac spine                | 19 Pubic symphysis                    |
| 8 Obturator internus                           | 20 Obturator foramen                  |
| 9 Acetabular convexity<br>(promontory)         | 21 Intertrochanteric crest            |
| 10 Urinary bladder                             | 22 Inferior pubic ramus               |
| 11 Spine of the ischium                        | 23 Ischial tuberosity                 |
| 12 Fat stripe medial to the gluteus<br>minimus | 24 Lesser trochanter                  |
|  | 25 Fat stripe medial to the iliopsoas |
|  | 26 Femur                              |





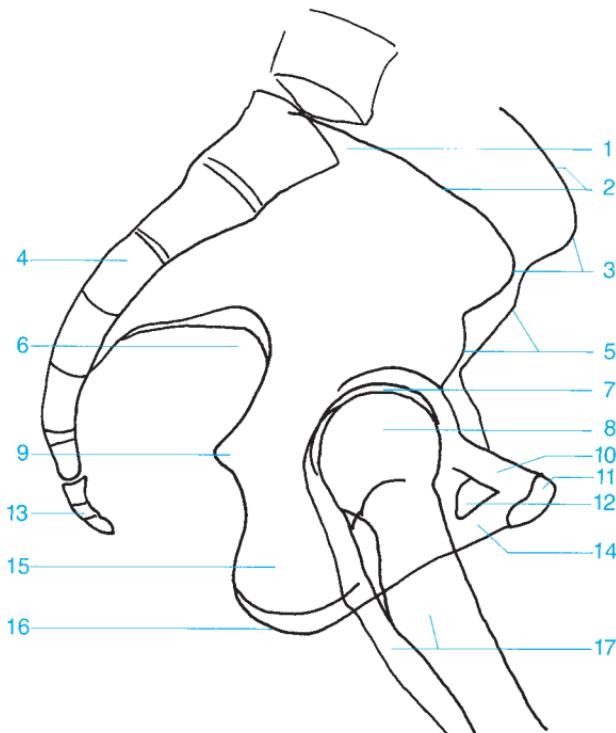
- 1** Ilium
- 2** Perkin's line (vertical line from the roof of the acetabulum intersecting Hilgenreiner's line)
- 3** Acetabular convexity (promontory)
- 4** Angle of acetabular inclination
- 5** Wiberg's center-to-corner angle (the angle between a vertical line drawn from the center of the epiphysis and a line drawn from the roof of the acetabulum to the center of the epiphysis)
- 6** Hilgenreiner's line (triradiate cartilage line)
- 7** Femoral epiphysis
- 8** Pubic bone
- 9** Ischium
- 10** Shenton's line (curved line formed by the superior curve of the obturator foramen and the femoral neck)
- 11** Femur





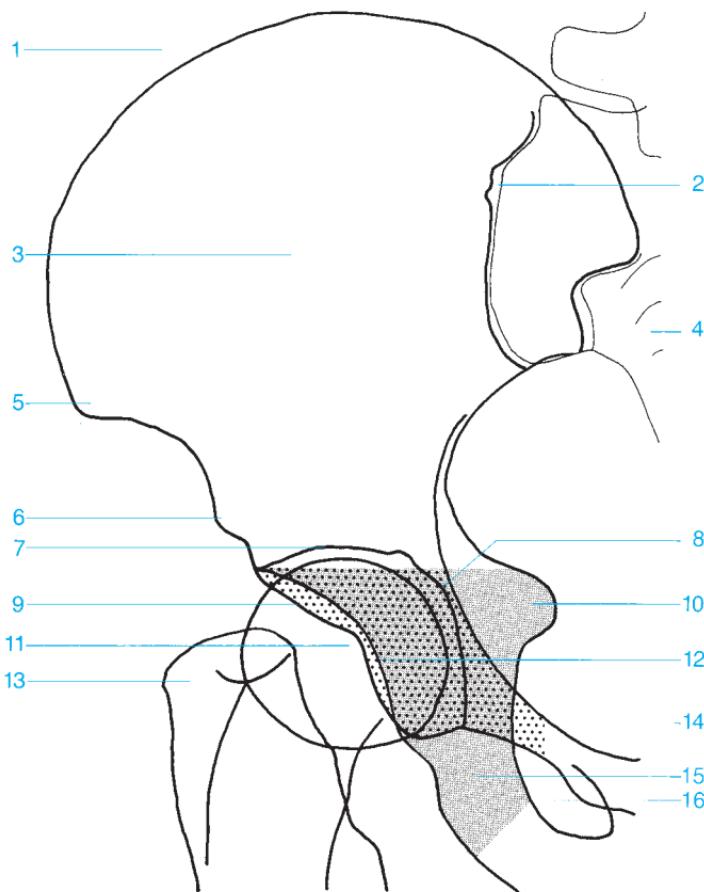
- |                                  |                         |
|----------------------------------|-------------------------|
| 1 Iliac crest                    | 9 Spine of the ischium  |
| 2 Iliac wing                     | 10 Coccyx               |
| 3 Posterior superior iliac spine | 11 Femoral head         |
| 4 Sacral ala                     | 12 Superior pubic ramus |
| 5 Posterior inferior iliac spine | 13 Ischial tuberosity   |
| 6 Sacrum                         | 14 Pubic symphysis      |
| 7 Anterior superior iliac spine  | 15 Inferior pubic ramus |
| 8 Iliopubic line                 |                         |





- |                                 |                         |
|---------------------------------|-------------------------|
| 1 Promontory                    | 10 Superior pubic ramus |
| 2 Iliac crest                   | 11 Pubic symphysis      |
| 3 Anterior superior iliac spine | 12 Obturator foramen    |
| 4 Sacrum                        | 13 Coccyx               |
| 5 Anterior inferior iliac spine | 14 Inferior pubic ramus |
| 6 Greater sciatic notch         | 15 Body of the ischium  |
| 7 Joint space of the hip        | 16 Ischial tuberosity   |
| 8 Femoral head                  | 17 Femur                |
| 9 Spine of the ischium          |                         |

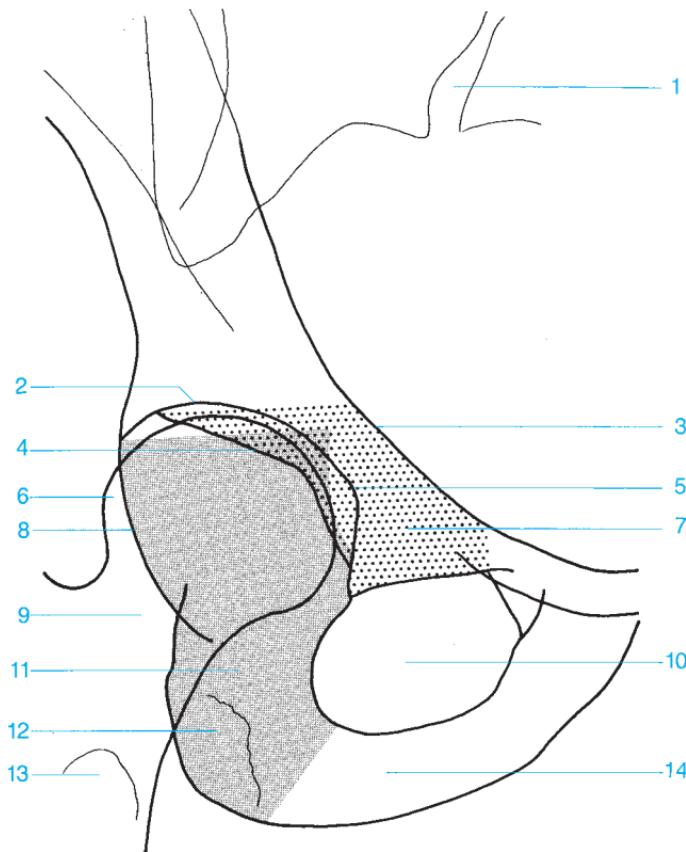




- 1 Iliac crest
- 2 Sacroiliac joint
- 3 Iliac wing
- 4 Sacrum
- 5 Anterior superior iliac spine
- 6 Anterior inferior iliac spine
- 7 Roof of the acetabulum
- 8 Floor of the acetabulum
- 9 Anterior acetabular rim

- 10 Spine of the ischium
- 11 Femoral head
- 12 Posterior acetabular rim
- 13 Greater trochanter
- 14 Pubic bone (anterior column)
- 15 Ischium (posterior column)
- 16 Obturator foramen

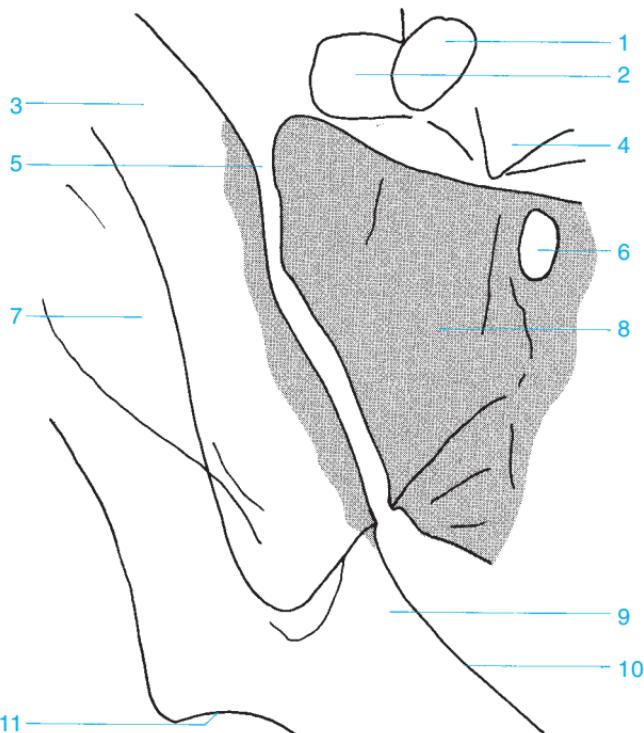




- 1 Sacroiliac joint
- 2 Roof of the acetabulum
- 3 Iliopectineal line
- 4 Anterior acetabular rim
- 5 Anterior acetabular floor
- 6 Femoral head
- 7 Pubic bone (anterior column)

- 8 Posterior acetabular rim
- 9 Femoral neck
- 10 Obturator foramen
- 11 Ischium (posterior column)
- 12 Ischial tuberosity
- 13 Lesser trochanter
- 14 Inferior pubic ramus

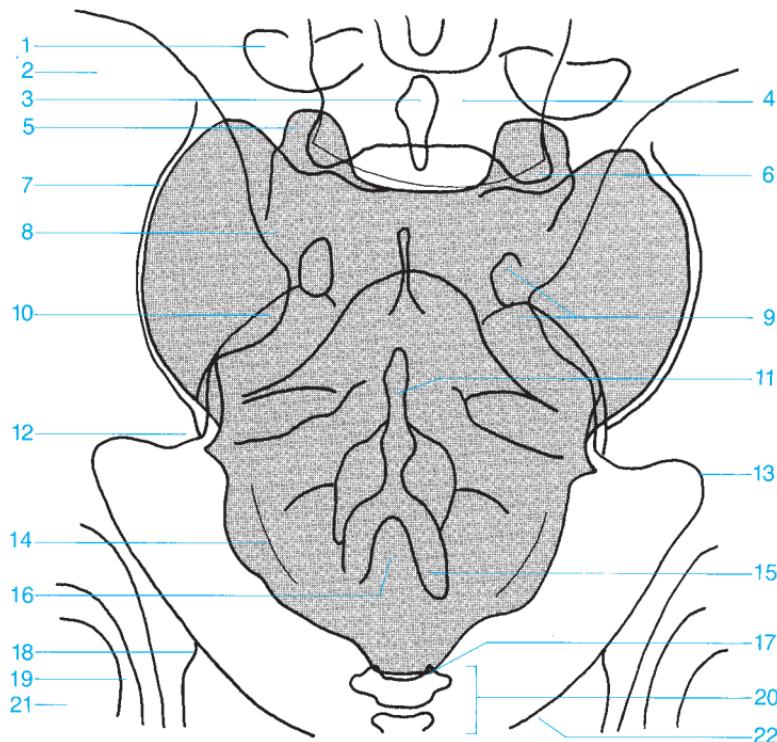




- 1 Pedicle of L5
- 2 Transverse process of L5
- 3 Iliac wing
- 4 Body of vertebra L5
- 5 Sacroiliac joint
- 6 Sacral foramen

- 7 Iliac wing
- 8 Lateral part of the sacrum
- 9 Ilium
- 10 Arcuate line
- 11 Roof of the acetabulum

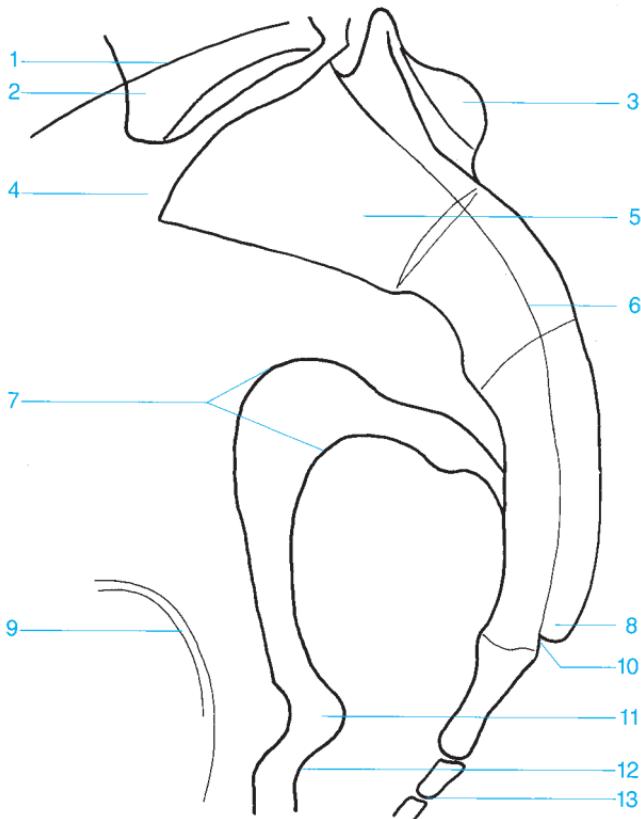




- 1 Transverse process
- 2 Iliac wing
- 3 Spinous process
- 4 L5
- 5 Superior articular process
- 6 Inferior articular process of L5
- 7 Sacroiliac joint
- 8 Sacral ala
- 9 Sacral foramina
- 10 Posterior superior iliac spine
- 11 Median sacral crest

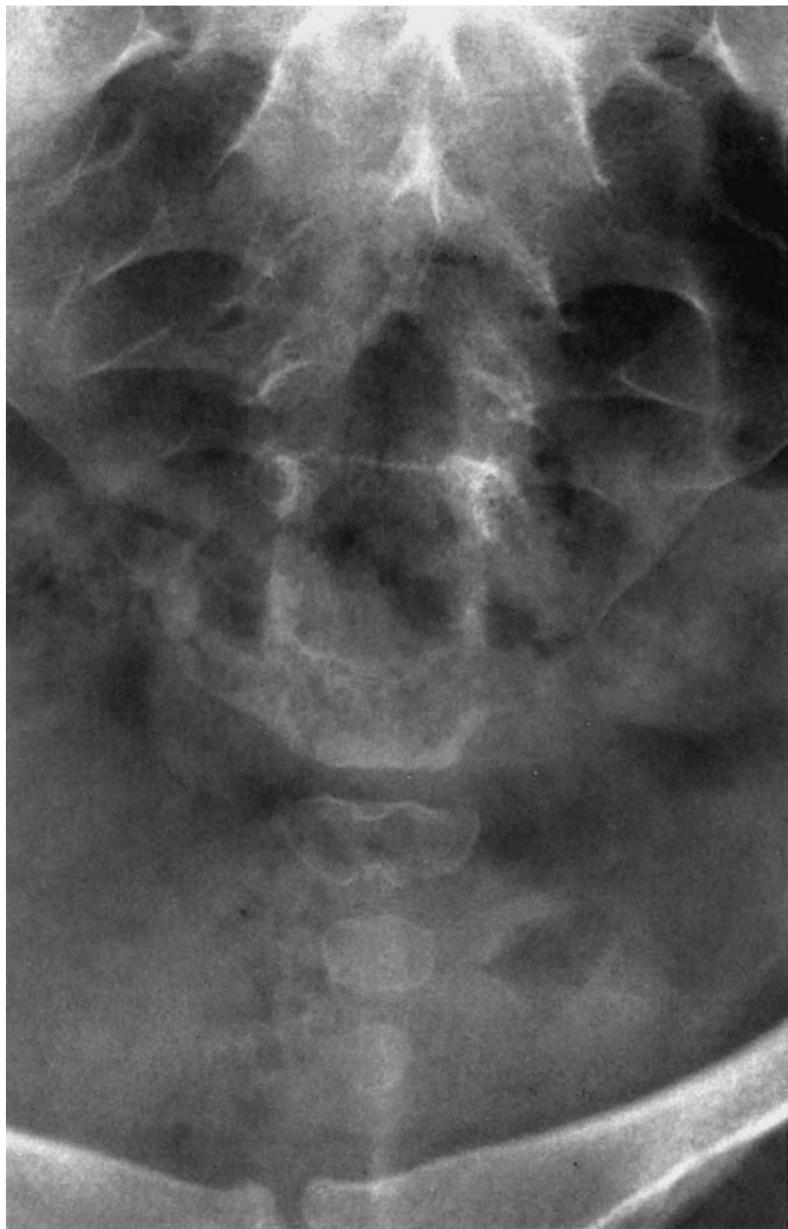
- 12 Posterior inferior iliac spine
- 13 Greater sciatic notch
- 14 Lateral sacral crest
- 15 Cornu of the sacrum
- 16 Sacral hiatus
- 17 Cornu of the coccyx
- 18 Spine of the ischium
- 19 Hip
- 20 Coccyx
- 21 Femoral head
- 22 Superior pubic ramus

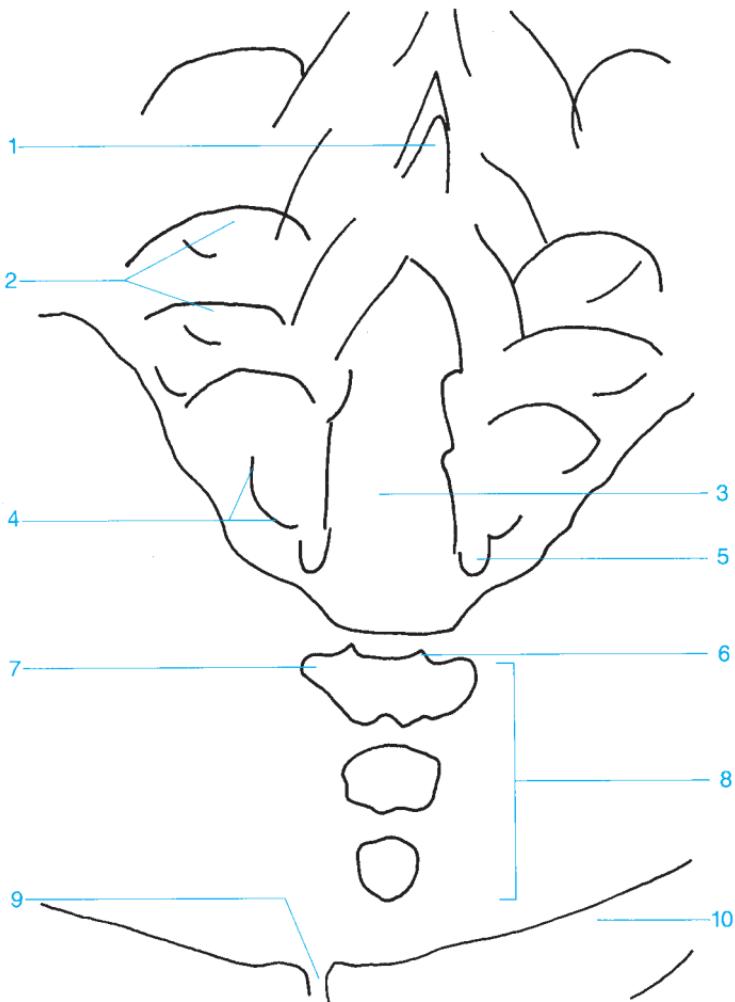




- 1 Iliac crest
- 2 L5
- 3 Median sacral crest
- 4 Promontory
- 5 Sacrum
- 6 Sacral canal
- 7 Greater sciatic notch

- 8 Cornu of the sacrum
- 9 Hip
- 10 Sacral canal
- 11 Spine of the ischium
- 12 Lesser sciatic notch
- 13 Coccyx

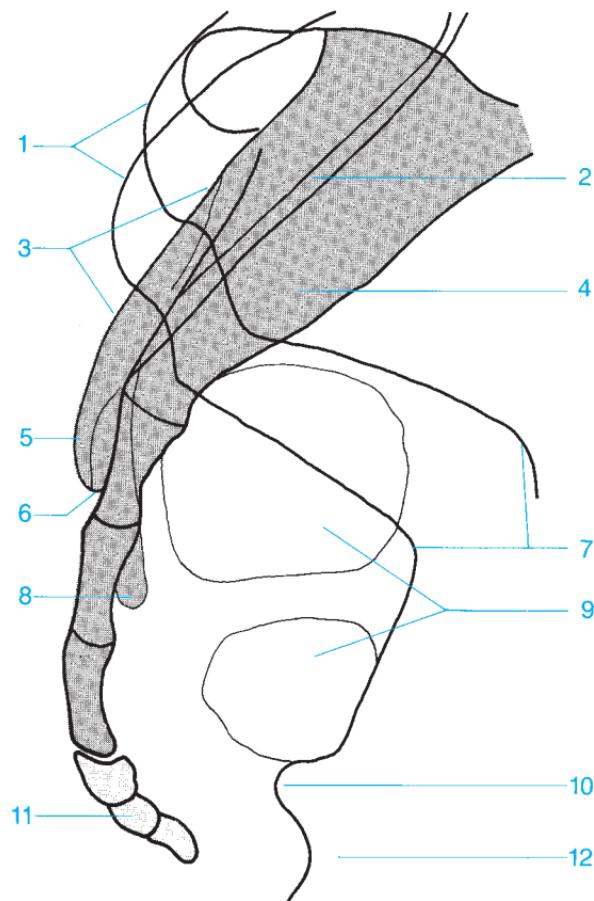




- 1 Median sacral crest
- 2 Sacral foramina
- 3 Sacral hiatus
- 4 Lateral sacral crest
- 5 Cornu of the sacrum

- 6 Cornu of the coccyx
- 7 Transverse process
- 8 Coccyx
- 9 Pubic symphysis
- 10 Superior pubic ramus

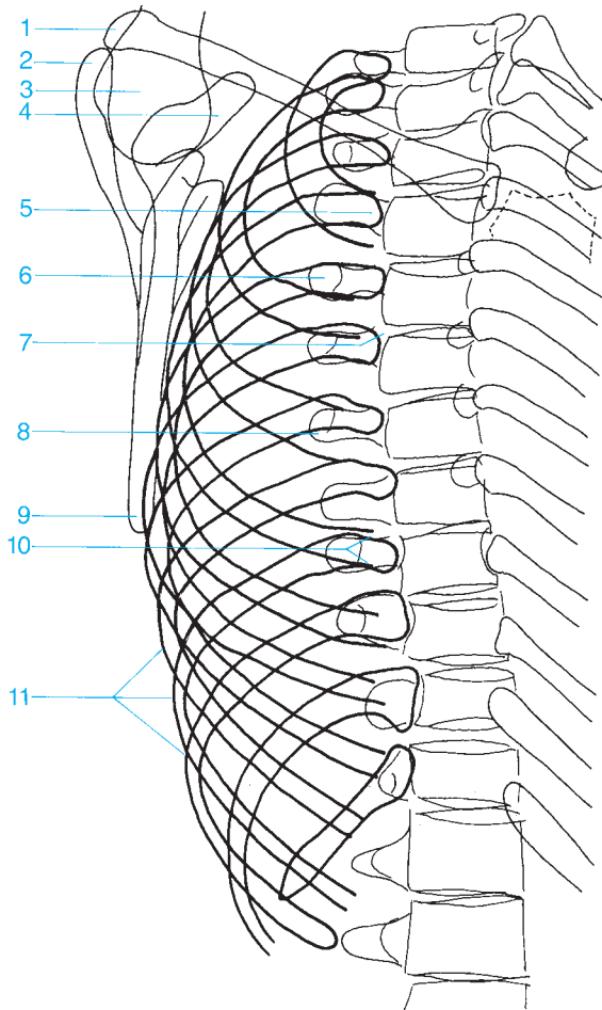




- 1 Iliac crest
- 2 Sacral canal
- 3 Median sacral crest
- 4 Sacrum
- 5 Cornu of the sacrum
- 6 Sacral canal

- 7 Greater sciatic notch
- 8 Lateral sacral crest
- 9 Rectal gas
- 10 Spine of the ischium
- 11 Coccyx
- 12 Ischium

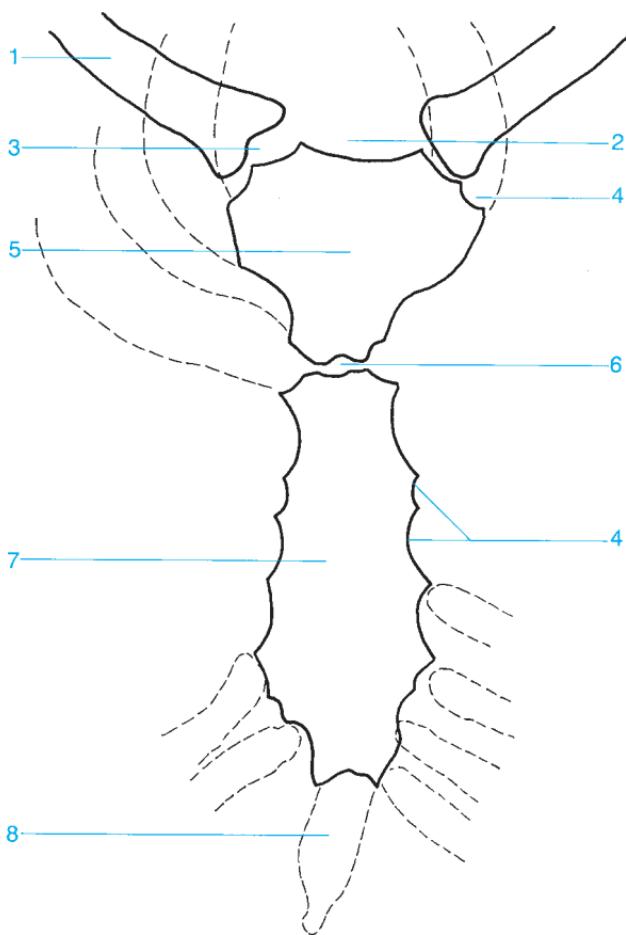




- 1 Clavicle (distal end)
- 2 Acromion
- 3 Humeral head
- 4 Coracoid process
- 5 Head of the rib
- 6 Costotransverse joint

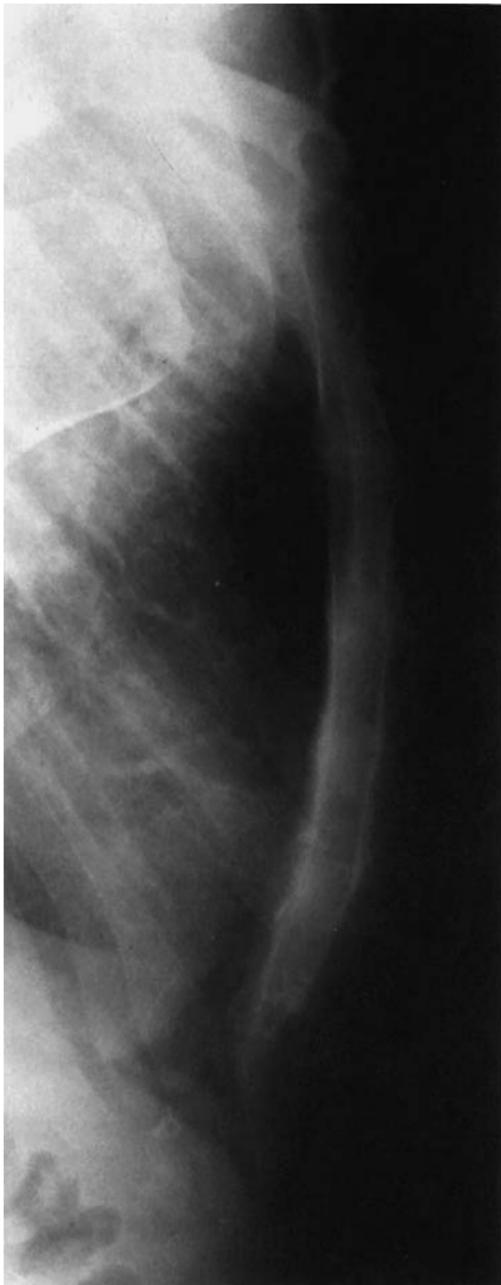
- 7 Costovertebral articulation
- 8 Transverse process
- 9 Inferior angle of the scapula
- 10 Neck of the rib
- 11 Costal arch

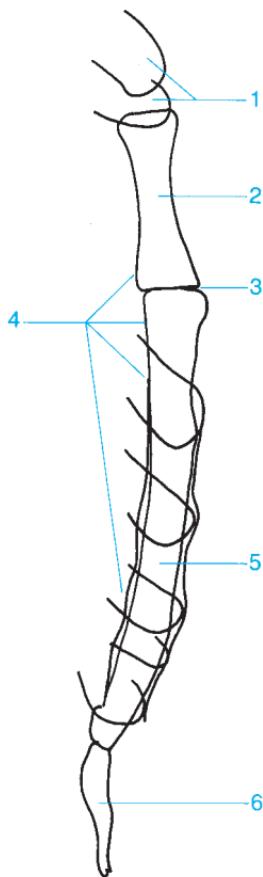




- 1 Clavicle
- 2 Sternal notch
- 3 Sternoclavicular joint
- 4 Costal notch

- 5 Manubrium of the sternum
- 6 Sternal angle
- 7 Body of the sternum
- 8 Xiphoid process





1 Clavicles

2 Manubrium of the sternum

3 Sternal angle

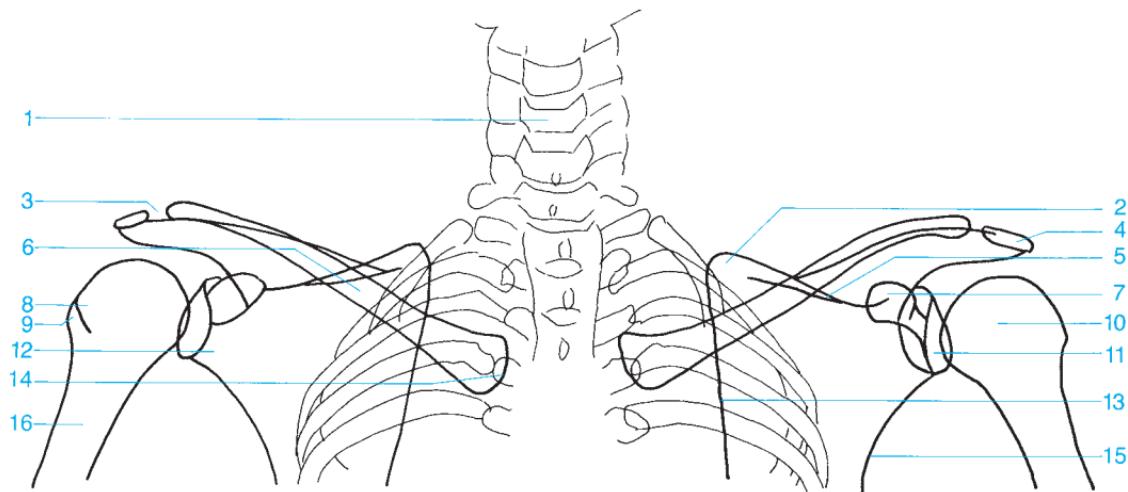
4 Retrosternal space

5 Body of the sternum

6 Xiphoid process



- |                                 |                                      |                                  |
|---------------------------------|--------------------------------------|----------------------------------|
| 1 Cervical spine                | 7 Coracoid                           | 13 Medial margin of the scapula  |
| 2 Superior angle of the scapula | 8 Lesser tubercle of the humerus     | 14 Proximal clavicle             |
| 3 Acromioclavicular joint       | 9 Greater tubercle of the humerus    | 15 Lateral margin of the scapula |
| 4 Acromion                      | 10 Humeral head                      | 16 Humerus                       |
| 5 Spine of the scapula          | 11 Glenoid fossa (articular surface) |                                  |
| 6 Clavicle                      | 12 Glenoid process of the scapula    |                                  |

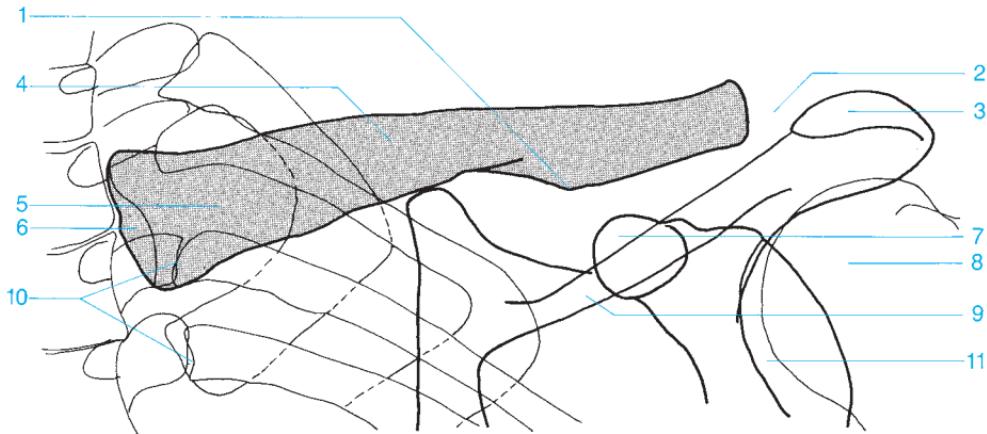




- 1 Conoid tubercle of the clavicle
- 2 Acromioclavicular joint
- 3 Acromion
- 4 Clavicle

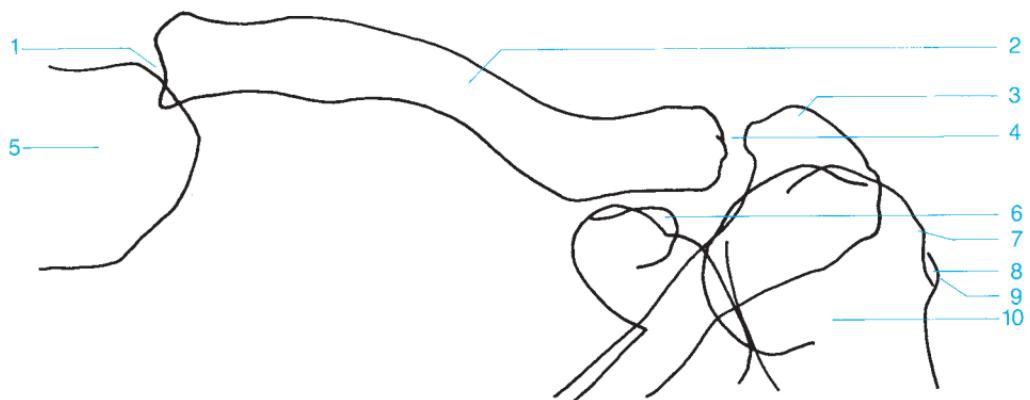
- 5 Superior angle of the scapula
- 6 Proximal clavicle
- 7 Coracoid process
- 8 Humeral head

- 9 Spine of the scapula
- 10 Costotransverse joint
- 11 Glenoid fossa



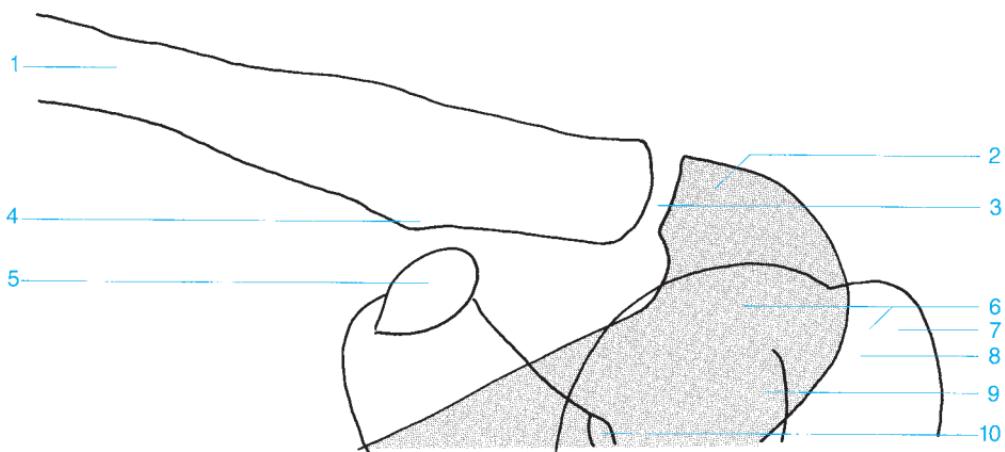


- |                           |                                   |
|---------------------------|-----------------------------------|
| 1 Sternoclavicular joint  | 6 Coracoid process                |
| 2 Clavicle                | 7 Greater tubercle of the humerus |
| 3 Acromion                | 8 Bicipital groove                |
| 4 Acromioclavicular joint | 9 Lesser tubercle of the humerus  |
| 5 Sternum (manubrium)     | 10 Humeral head                   |

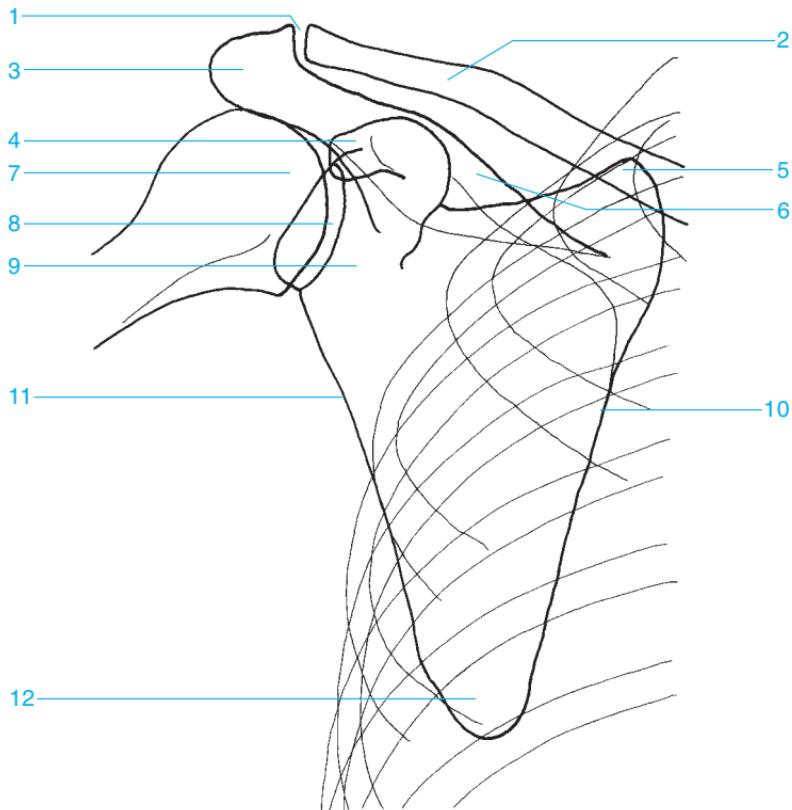




- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| 1 Clavicle                        | 6 Humeral head                    |
| 2 Acromion                        | 7 Greater tubercle of the humerus |
| 3 Acromioclavicular joint         | 8 Bicipital groove                |
| 4 Conoid tubercle of the clavicle | 9 Lesser tubercle of the humerus  |
| 5 Coracoid process                | 10 Glenoid fossa                  |



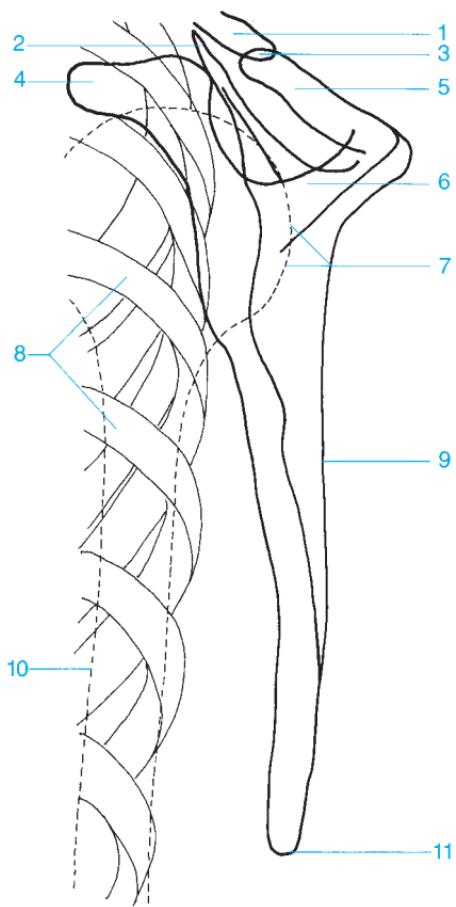




- 1 Acromioclavicular joint
- 2 Clavicle
- 3 Acromion
- 4 Coracoid process
- 5 Superior angle
- 6 Spine of the scapula
- 7 Humeral head

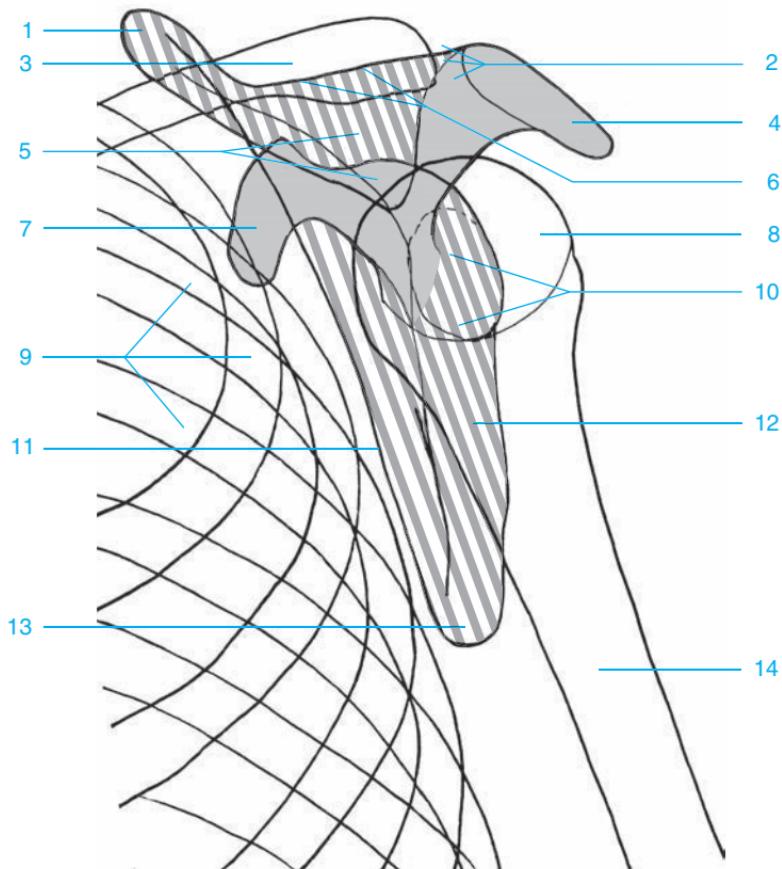
- 8 Articular surface
- 9 Lateral process (neck) of the scapula
- 10 Medial margin
- 11 Lateral margin
- 12 Inferior angle





- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1 Distal clavicle               | 7 Humeral head                   |
| 2 Superior angle of the scapula | 8 Ribs                           |
| 3 Acromioclavicular joint       | 9 Lateral margin of the scapula  |
| 4 Coracoid process              | 10 Humeral shaft                 |
| 5 Acromion                      | 11 Inferior angle of the scapula |
| 6 Spine of the scapula          |                                  |

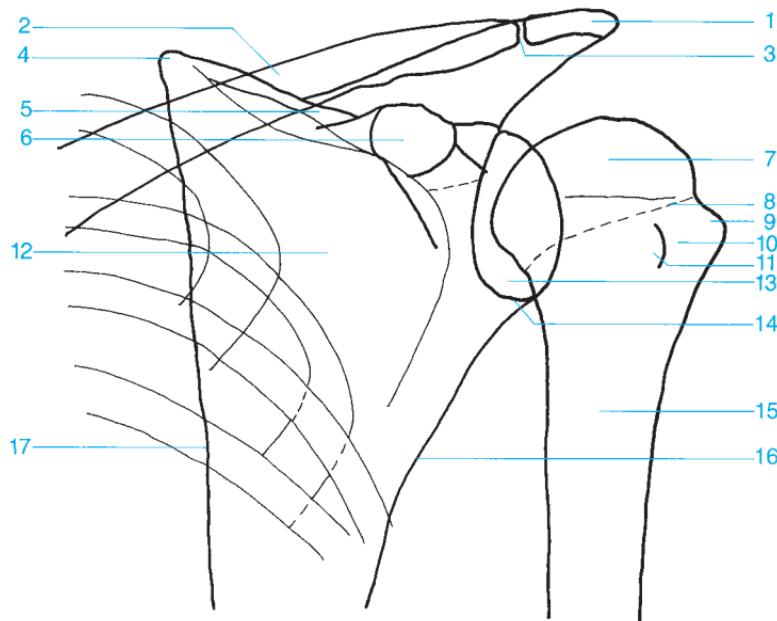




- 1 Superior angle of the scapula
- 2 Acromioclavicular joint
- 3 Clavicle
- 4 Acromion
- 5 Supraspinatus fossa
- 6 Spine of the scapula
- 7 Coracoid process

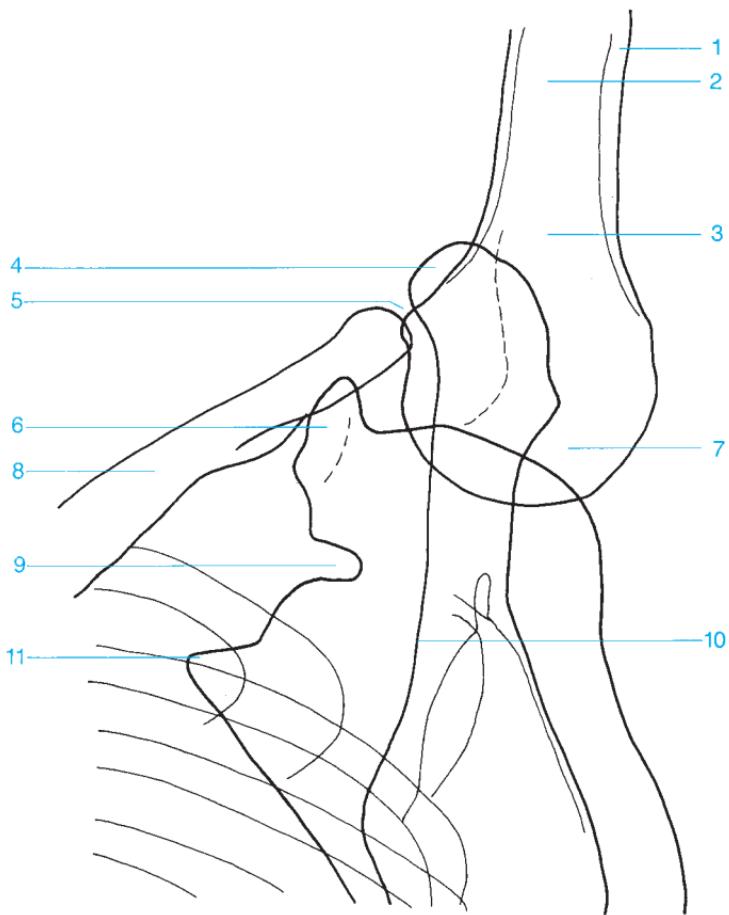
- 8 Humeral head
- 9 Rib
- 10 Glenoid fossa
- 11 Costal surface of the scapula
- 12 Posterior surface of the scapula
- 13 Inferior angle of the scapula
- 14 Humeral shaft





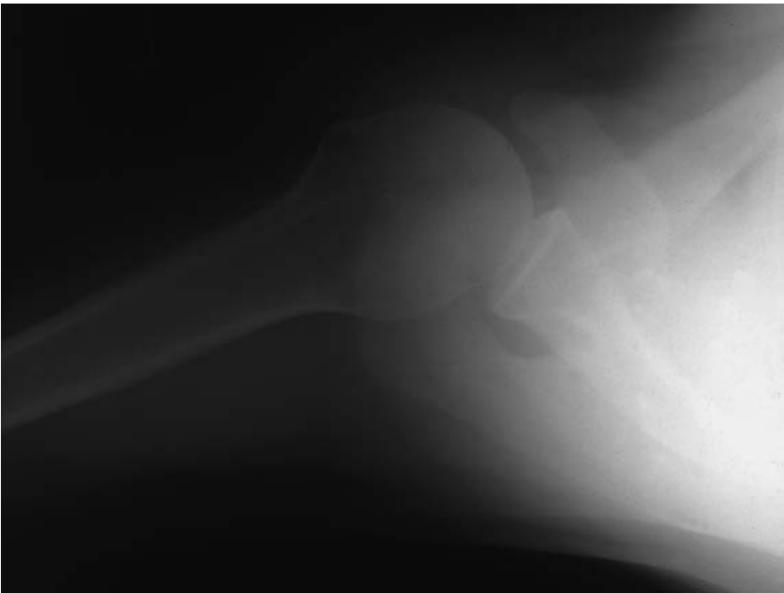
- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| 1 Acromion                        | 10 Bicipital groove               |
| 2 Clavicle                        | 11 Lesser tubercle of the humerus |
| 3 Acromioclavicular joint         | 12 Scapula                        |
| 4 Superior angle of the scapula   | 13 Glenoid fossa                  |
| 5 Spine of the scapula            | 14 Glenoid labrum                 |
| 6 Coracoid process                | 15 Surgical neck                  |
| 7 Humeral head                    | 16 Lateral margin of the scapula  |
| 8 Anatomical neck                 | 17 Medial margin of the scapula   |
| 9 Greater tubercle of the humerus |                                   |

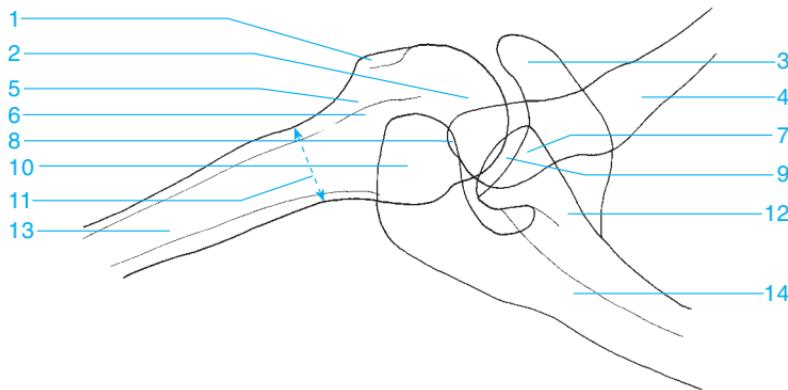




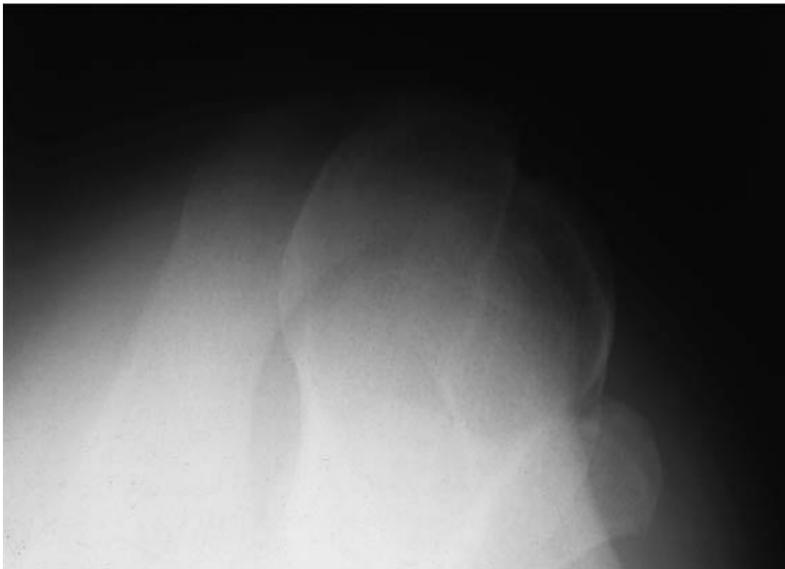
- 1 Cortex
- 2 Metaphysis
- 3 Surgical neck
- 4 Acromion
- 5 Acromioclavicular joint
- 6 Coracoid process

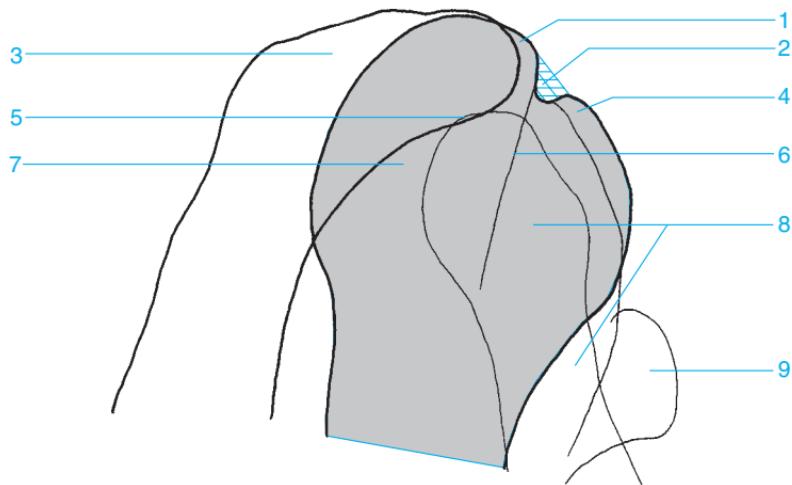
- 7 Humeral head
- 8 Clavicle
- 9 Suprascapular notch
- 10 Spine of the scapula
- 11 Superior angle of the scapula





- |          |                                 |           |                               |
|----------|---------------------------------|-----------|-------------------------------|
| <b>1</b> | Lesser tubercle of the humerus  | <b>8</b>  | Acromioclavicular joint       |
| <b>2</b> | Humeral head                    | <b>9</b>  | Glenohumeral joint            |
| <b>3</b> | Coracoid process                | <b>10</b> | Acromion                      |
| <b>4</b> | Clavicle                        | <b>11</b> | Superior angle of the scapula |
| <b>5</b> | Bicipital groove                | <b>12</b> | Neck of the scapula           |
| <b>6</b> | Greater tubercle of the humerus | <b>13</b> | Humerus                       |
| <b>7</b> | Glenoid fossa                   | <b>14</b> | Scapula                       |

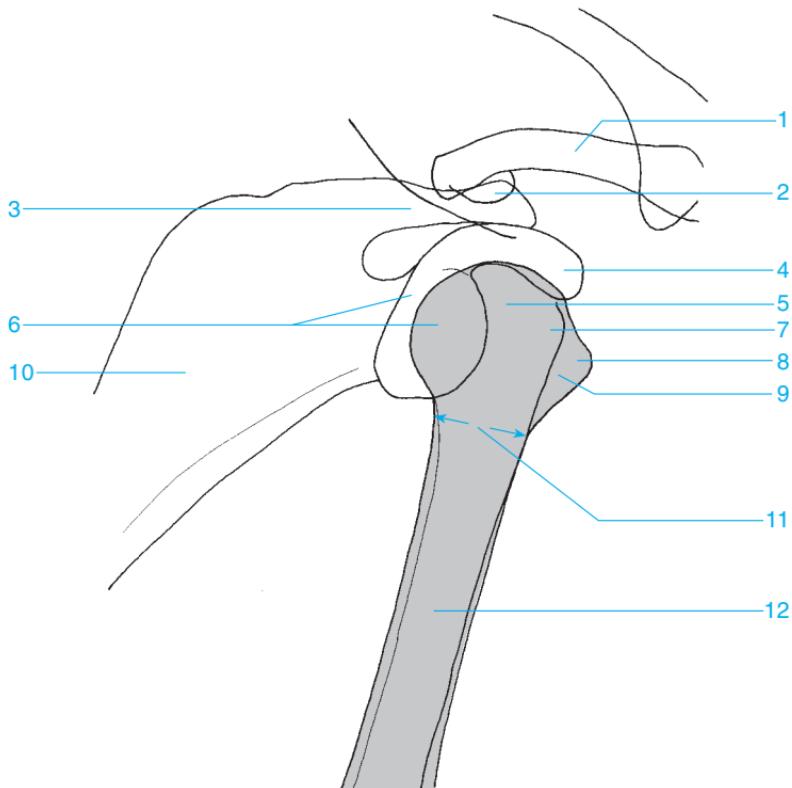




- 1 Greater tubercle of the humerus
- 2 Bicipital groove
- 3 Acromion
- 4 Lesser tubercle of the humerus
- 5 Acromioclavicular joint

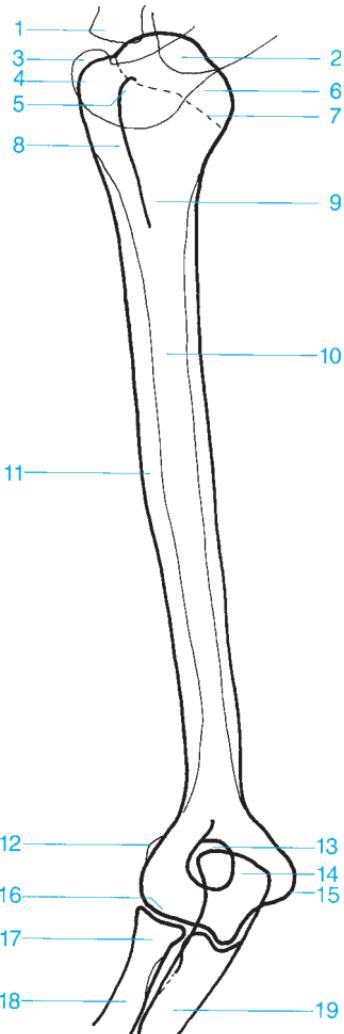
- 6 Crest of the greater tubercle
- 7 Humeral head
- 8 Clavicle
- 9 Coracoid process





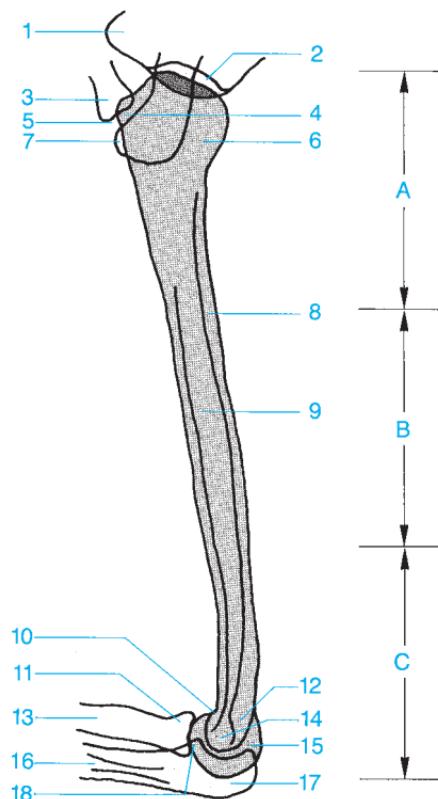
- |                           |                                   |
|---------------------------|-----------------------------------|
| 1 Clavicle                | 7 Greater tubercle of the humerus |
| 2 Acromioclavicular joint | 8 Lesser tubercle of the humerus  |
| 3 Acromion                | 9 Bicipital groove                |
| 4 Coracoid process        | 10 Scapula                        |
| 5 Humeral head            | 11 Surgical neck                  |
| 6 Glenoid fossa           | 12 Humerus                        |





- 1 Clavicle
- 2 Lateral process (neck) of the scapula
- 3 Acromion
- 4 Greater tubercle of the humerus
- 5 Lesser tubercle of the humerus
- 6 Humeral head
- 7 Anatomical neck
- 8 Bicipital groove
- 9 Surgical neck
- 10 Humerus
- 11 Deltoid tuberosity
- 12 Lateral epicondyle
- 13 Olecranon fossa
- 14 Olecranon
- 15 Medial epicondyle
- 16 Trochlea
- 17 Radial head
- 18 Radius
- 19 Ulna

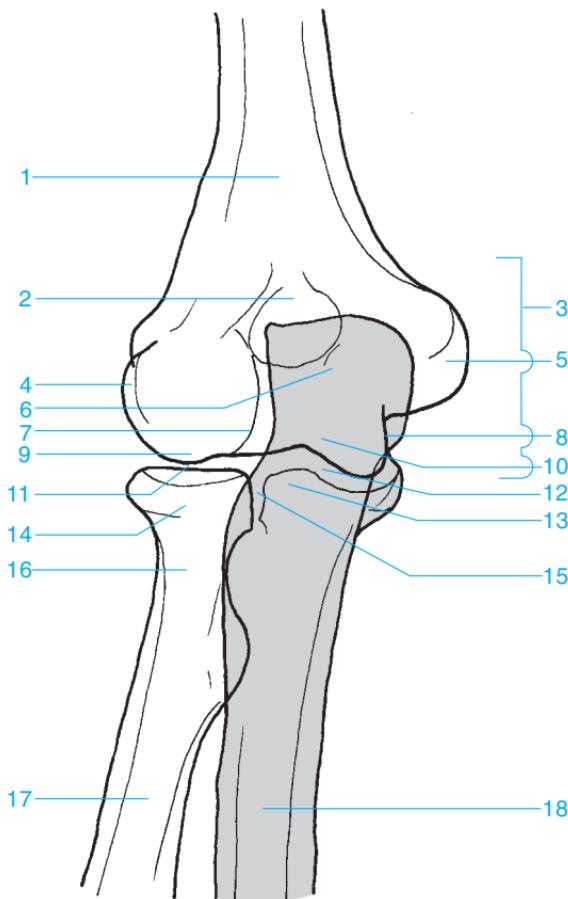




- A** Proximal third of the humerus
- B** Medial third of the humerus
- C** Distal third of the humerus
- 1** Coracoid process
- 2** Glenoid fossa
- 3** Clavicle
- 4** Lesser tubercle of the humerus
- 5** Acromioclavicular joint
- 6** Humeral head
- 7** Acromion
- 8** Cortex

- 9** Humeral shaft
- 10** Coronoid fossa
- 11** Radial head
- 12** Olecranon fossa
- 13** Radius
- 14** Trochlea
- 15** Capitellum
- 16** Ulna
- 17** Olecranon
- 18** Coronoid process





1 Humerus

2 Olecranon fossa

3 Medial epicondyle of the humerus

4 Lateral epicondyle of the humerus

5 Apex of the medial epicondyle of the humerus

6 Olecranon

7 Lateral margin of the trochlea

8 Medial margin of the trochlea

9 Capitellum

10 Trochlea

11 Humeroradial joint

12 Humeroulnar joint

13 Coronoid process

14 Radial head

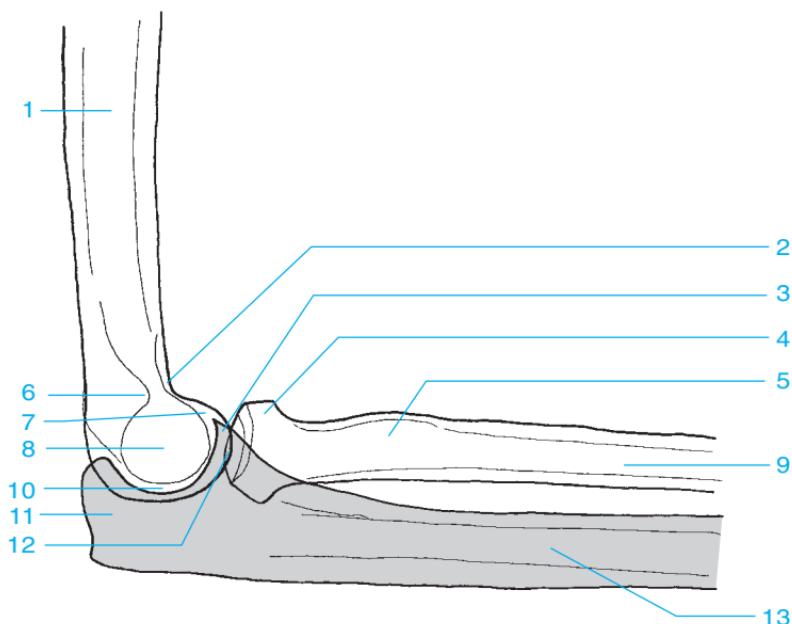
15 Proximal radioulnar joint

16 Radial neck

17 Radius

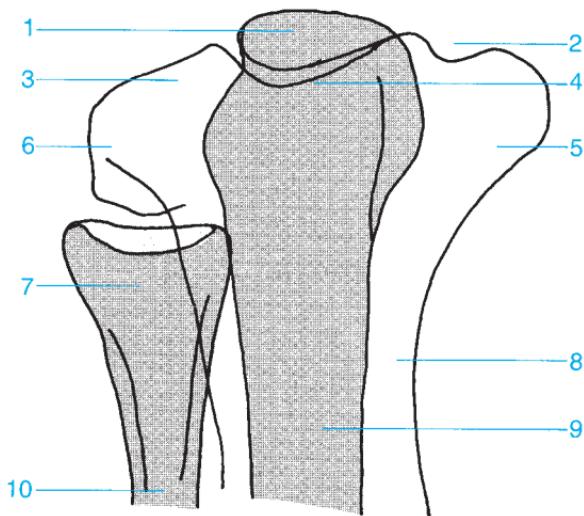
18 Ulna





- |                     |                       |
|---------------------|-----------------------|
| 1 Humerus           | 8 Lateral epicondyle  |
| 2 Coronoid fossa    | 9 Radius              |
| 3 Coronoid process  | 10 Humeroulnar joint  |
| 4 Radial head       | 11 Olecranon          |
| 5 Radial tuberosity | 12 Humeroradial joint |
| 6 Olecranon fossa   | 13 Ulna               |
| 7 Medial epicondyle |                       |

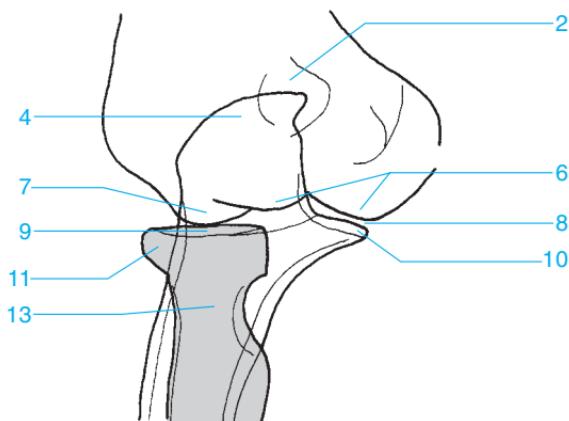
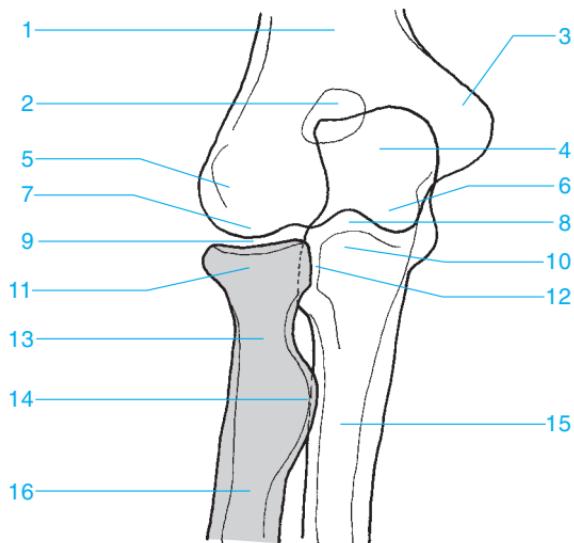




- 1 Olecranon
- 2 Cubital tunnel
- 3 Capitellum
- 4 Trochlea
- 5 Medial epicondyle

- 6 Lateral epicondyle
- 7 Radial head
- 8 Humerus
- 9 Ulna
- 10 Radius

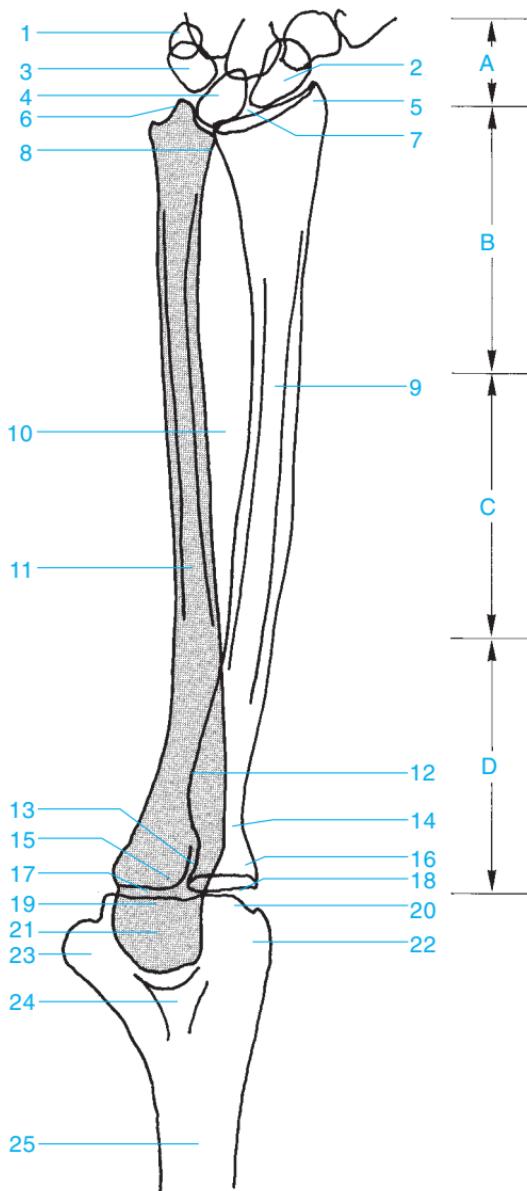




- |                      |                              |
|----------------------|------------------------------|
| 1 Humerus            | 9 Humeroradial joint         |
| 2 Olecranon fossa    | 10 Coronoid process          |
| 3 Medial epicondyle  | 11 Radial head               |
| 4 Olecranon          | 12 Proximal radioulnar joint |
| 5 Lateral epicondyle | 13 Radial neck               |
| 6 Trochlea           | 14 Radial tuberosity         |
| 7 Capitellum         | 15 Ulna                      |
| 8 Humeroulnar joint  | 16 Radius                    |

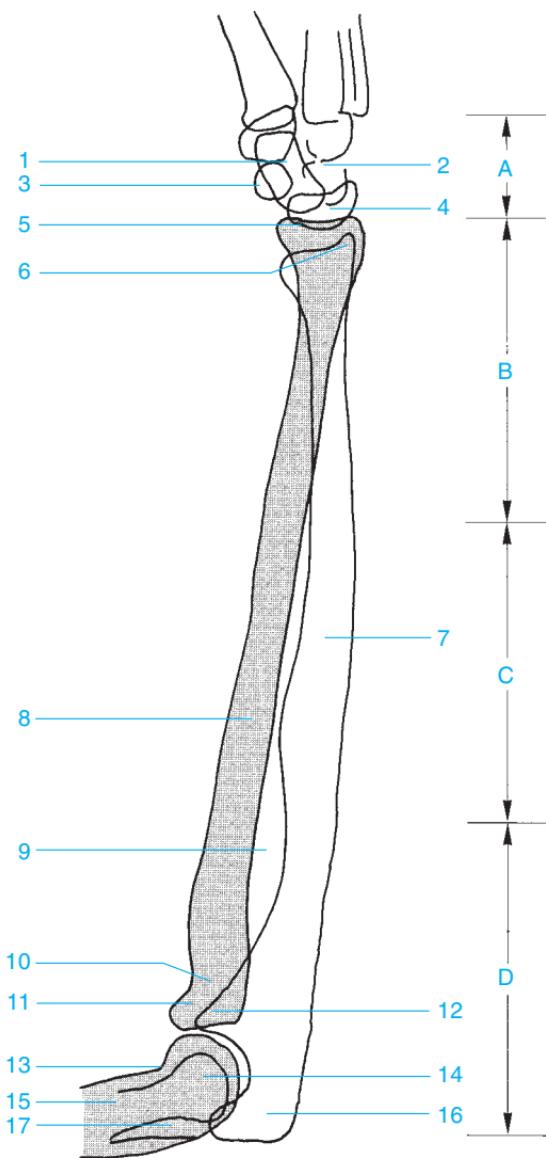


- A** Carpal bones
- B** Distal third of the forearm
- C** Middle third of the forearm
- D** Proximal third of the forearm
- 1** Pisiform bone
- 2** Scaphoid
- 3** Triquetrum
- 4** Lunate bone
- 1–4** Proximal carpal row
- 5** Radial styloid
- 6** Ulnar styloid
- 7** Radiocarpal joint
- 8** Distal radioulnar joint
- 9** Radius
- 10** Interosseous membrane
- 11** Ulna
- 12** Radial tuberosity
- 13** Proximal radioulnar joint
- 14** Radial neck
- 15** Coronoid process
- 16** Radial head
- 17** Humeroulnar joint
- 18** Humeroradial joint
- 19** Trochlea
- 20** Capitellum
- 21** Olecranon
- 22** Lateral epicondyle of the humerus
- 23** Medial epicondyle of the humerus
- 24** Olecranon fossa
- 25** Humerus

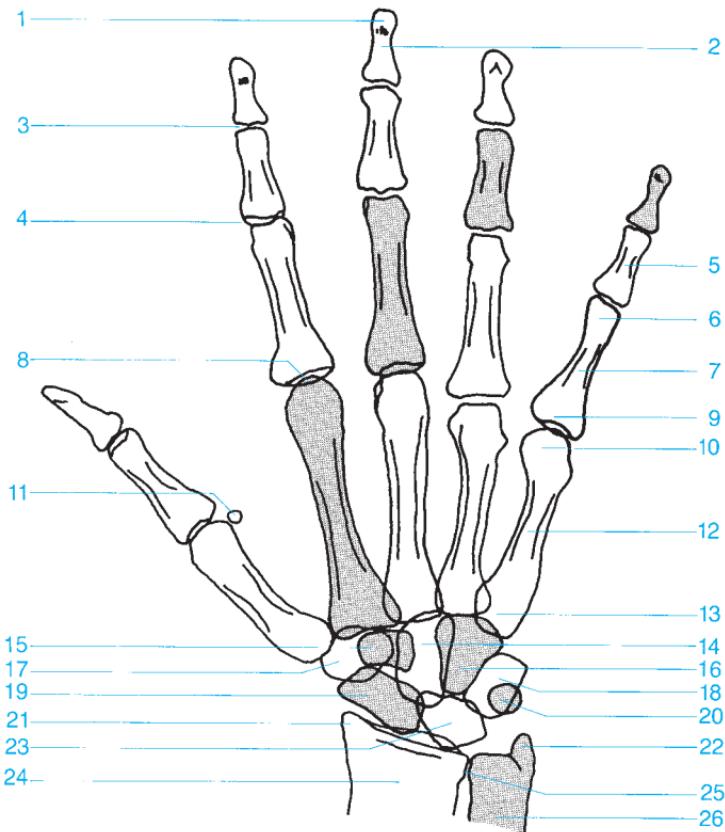




- A** Carpal bones
- B** Distal third of the forearm
- C** Middle third of the forearm
- D** Proximal third of the forearm
- 1** Triquetrum
- 2** Scapoid
- 3** Pisiform bone
- 4** Lunate bone
- 1–4** Proximal carpal row
- 5** Radiocarpal joint
- 6** Ulnar styloid
- 7** Ulna
- 8** Radius
- 9** Interosseous membrane
- 10** Radial neck
- 11** Radial head
- 12** Coronoid process
- 13** Coronoid fossa
- 14** Trochlea of the humerus
- 15** Humerus
- 16** Olecranon
- 17** Olecranon fossa

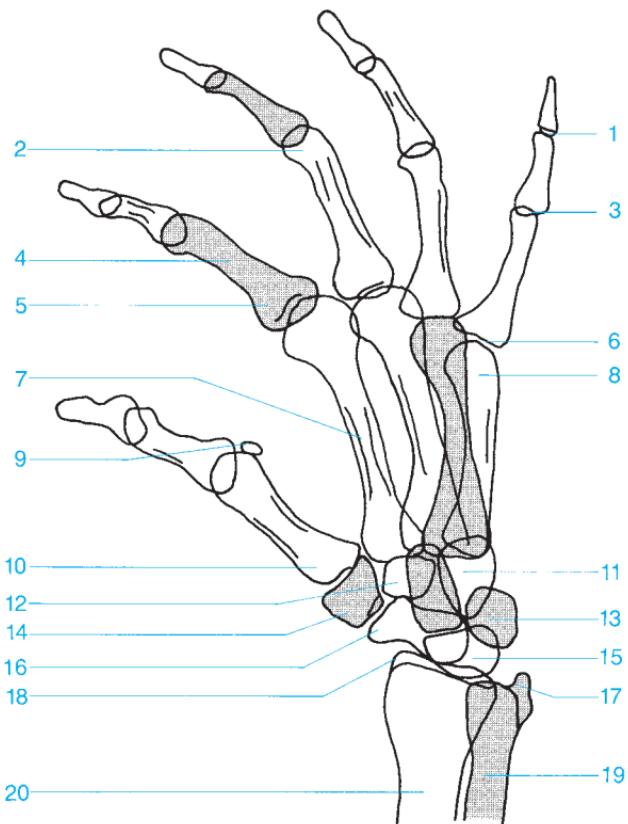






- |                                  |                            |
|----------------------------------|----------------------------|
| 1 Distal phalanx (tuft)          | 14 Capitate                |
| 2 Distal phalanx                 | 15 Trapezoid               |
| 3 Distal interphalangeal joint   | 16 Hamate                  |
| 4 Proximal interphalangeal joint | 17 Trapezium               |
| 5 Middle phalanx                 | 18 Triquetrum              |
| 6 Head of the proximal phalanx   | 19 Scaphoid                |
| 7 Proximal phalanx               | 20 Pisiform                |
| 8 Metacarpophalangeal joint      | 21 Radial styloid          |
| 9 Base of the proximal phalanx   | 22 Ulnar styloid           |
| 10 Metacarpal head               | 23 Lunate                  |
| 11 Sesamoid                      | 24 Distal radius           |
| 12 Metacarpal                    | 25 Distal radioulnar joint |
| 13 Metacarpal base               | 26 Distal ulna             |

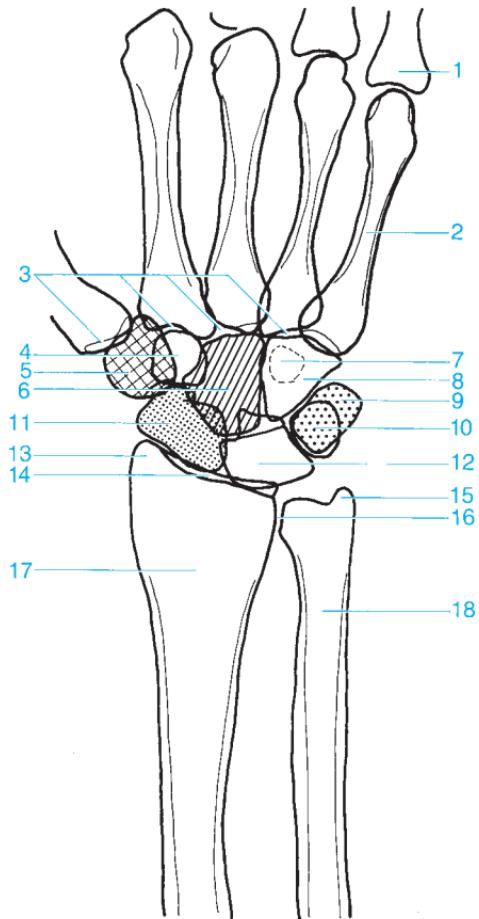




- 1 Distal interphalangeal joint
- 2 Head of the proximal phalanx
- 3 Proximal interphalangeal joint
- 4 Proximal phalanx
- 5 Base of the proximal phalanx
- 6 Metacarpophalangeal joint
- 7 Metacarpal
- 8 Metacarpal head
- 9 Sesamoid
- 10 Metacarpal base

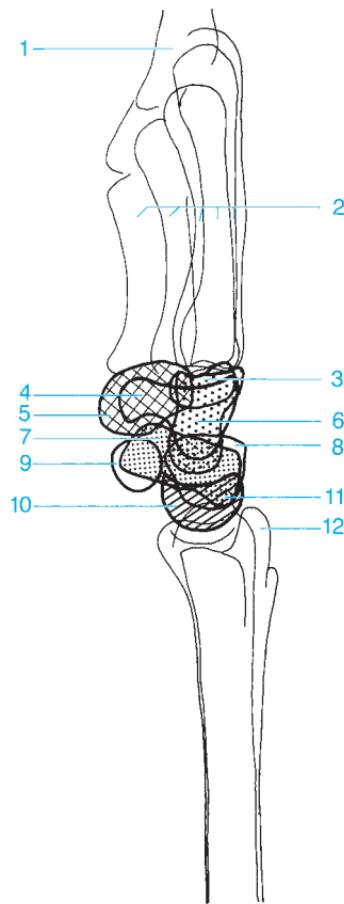
- 11 Capitate and hamate
- 12 Trapezoid
- 13 Triquetrum
- 14 Trapezium
- 15 Lunate
- 16 Scaphoid
- 17 Ulnar styloid
- 18 Radial styloid
- 19 Distal ulna
- 20 Distal radius





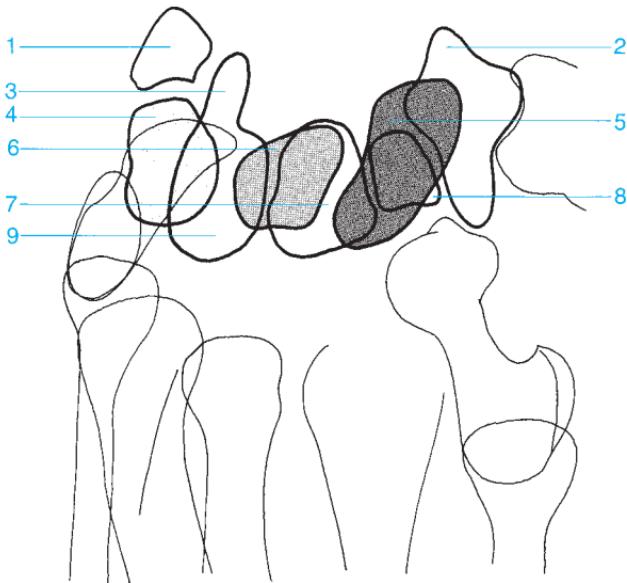
- |                         |                      |
|-------------------------|----------------------|
| 1 Proximal phalanx      | 10 Pisiform          |
| 2 Fifth metacarpal      | 11 Scaphoid          |
| 3 Carpometacarpal joint | 12 Lunate            |
| 4 Trapezoid             | 13 Radial styloid    |
| 5 Trapezium             | 14 Radiocarpal joint |
| 6 Capitate              | 15 Ulnar styloid     |
| 7 Hook of the Hamate    | 16 Radioulnar joint  |
| 8 Hamate                | 17 Radius            |
| 9 Triquetrum            | 18 Ulna              |





- |                      |                   |
|----------------------|-------------------|
| 1 Proximal phalanx   | 7 Scaphoid        |
| 2 Metacarpals        | 8 Triquetrum      |
| 3 Trapezoid          | 9 Pisiform        |
| 4 Hook of the Hamate | 10 Lunate         |
| 5 Trapezium          | 11 Radial styloid |
| 6 Capitate           | 12 Ulnar styloid  |

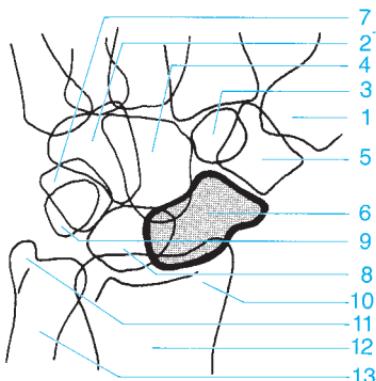
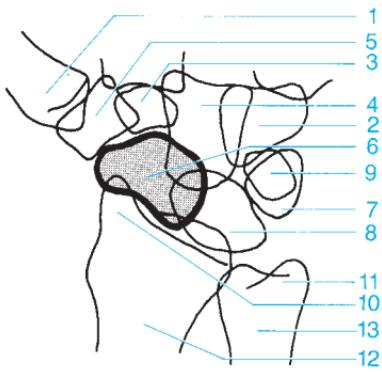
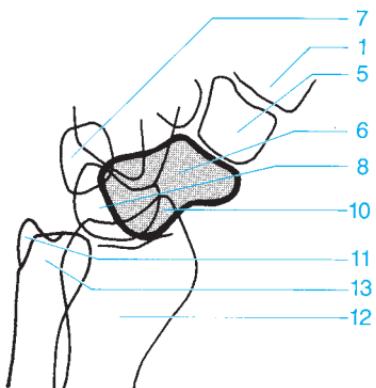
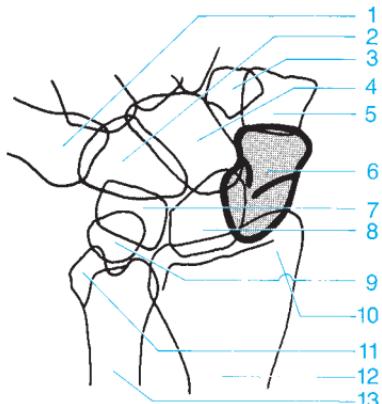




- 1 Pisiform
- 2 Trapezium
- 3 Hook of the hamate
- 4 Triquetrum
- 5 Scaphoid

- 6 Lunate
- 7 Capitate
- 8 Trapezoid
- 9 Hamate

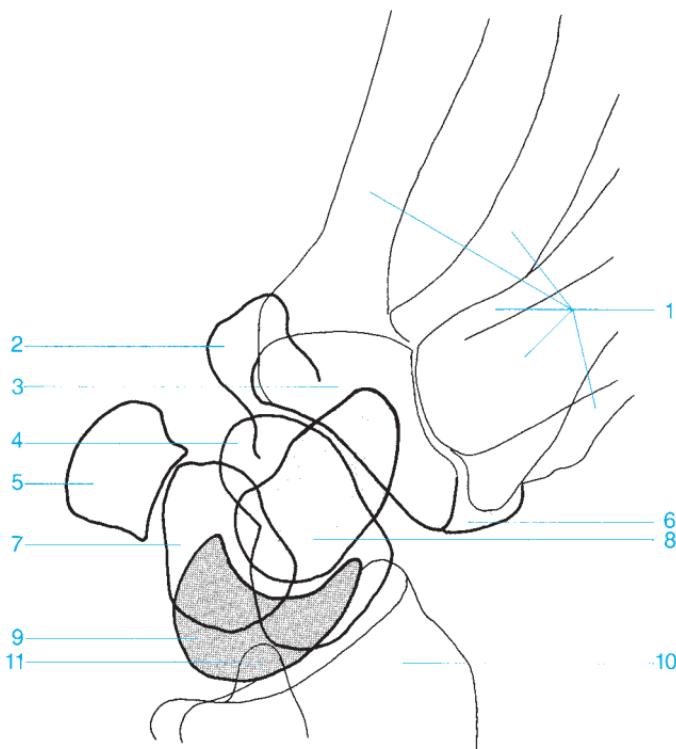




- 1 Metacarpal
- 2 Hamate
- 3 Trapezoid
- 4 Capitate
- 5 Trapezium
- 6 Scaphoid
- 7 Triquetrum

- 8 Lunate
- 9 Pisiform
- 10 Radial styloid
- 11 Ulnar styloid
- 12 Radius
- 13 Ulna

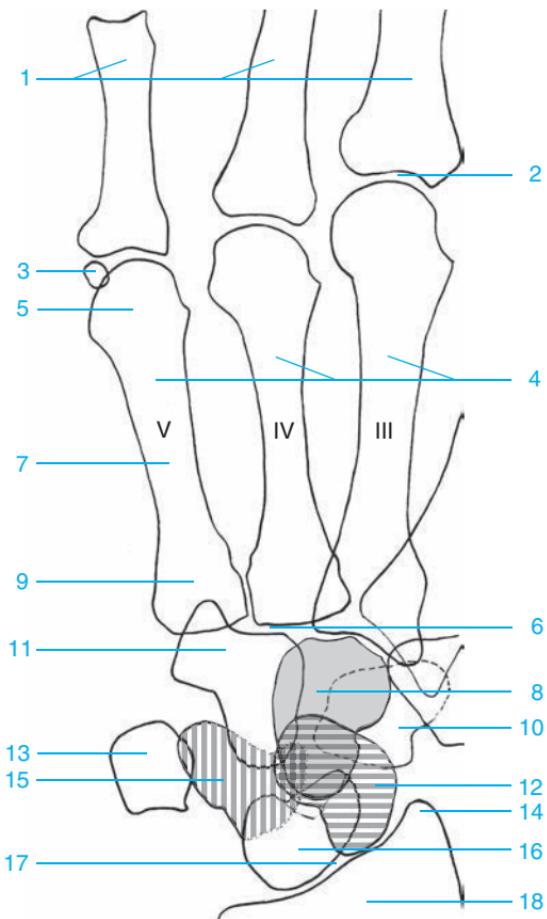




- 1 Metacarpals
- 2 Hamate
- 3 Trapezoid
- 4 Scaphoid
- 5 Pisiform
- 6 Trapezium

- 7 Triquetrum
- 8 Capitate
- 9 Lunate
- 10 Radius
- 11 Ulnar styloid

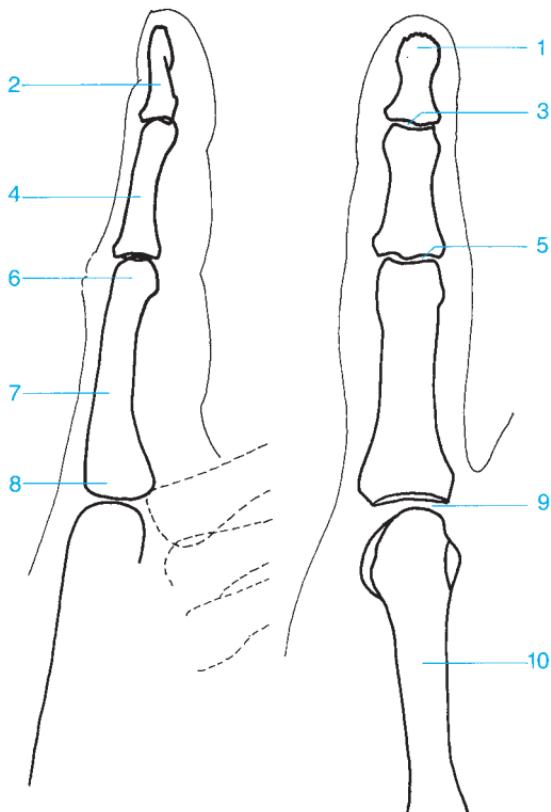




- 1** Proximal phalanges
- 2** Metacarpophalangeal joint
- 3** Sesamoid
- 4** Third through fifth metacarpals
- 5** Fifth metacarpal head
- 6** Carpometacarpal joint
- 7** Fifth metacarpal shaft
- 8** Capitate
- 9** Fifth metacarpal base
- 10** Trapezium and trapezoid (overlapping projections)

- 11** Hamate
- 12** Scaphoid
- 13** Pisiform
- 14** Radial styloid
- 15** Triquetrum
- 16** Lunate
- 17** Radiocarpal joint
- 18** Radius



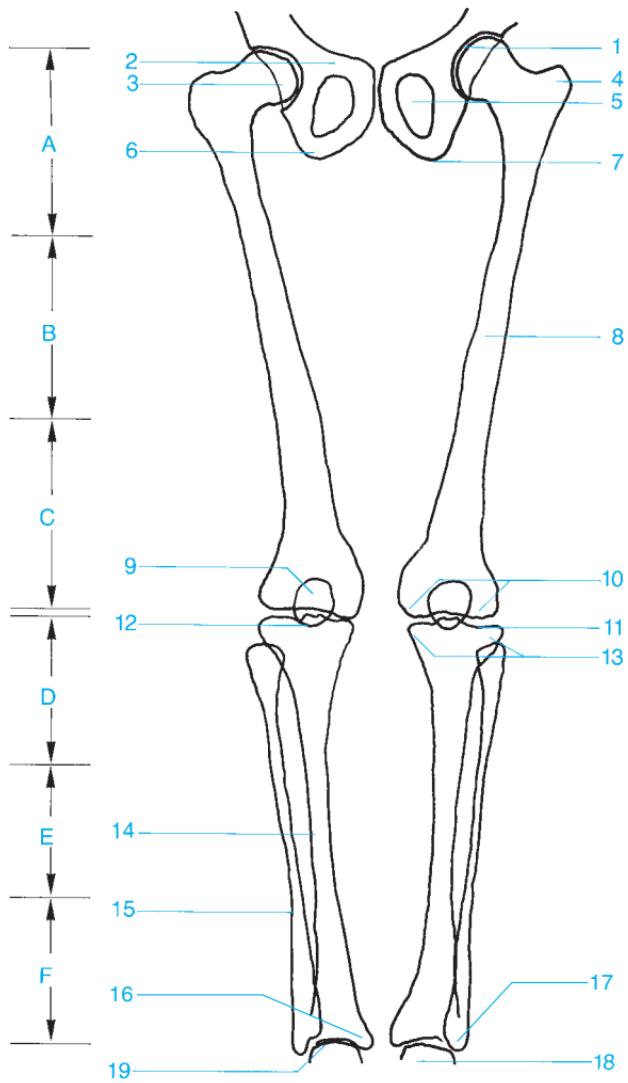


- 1 Distal phalanx (tuft)
- 2 Distal phalanx
- 3 Distal interphalangeal joint
- 4 Middle phalanx
- 5 Proximal interphalangeal joint

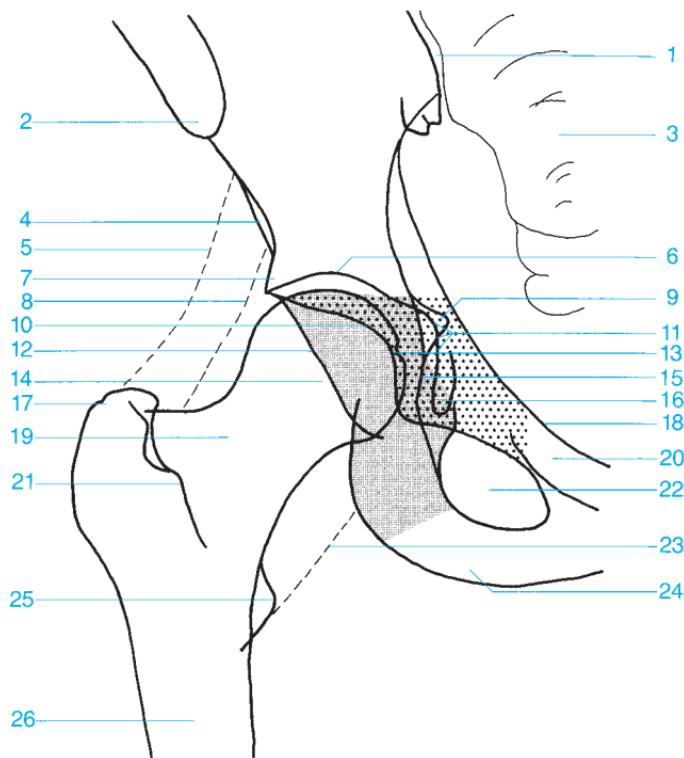
- 6 Head of the proximal phalanx
- 7 Proximal phalanx
- 8 Base of the proximal phalanx
- 9 Metacarpophalangeal joint
- 10 Metacarpal



- A Proximal third of the femur
- B Middle third of the femur
- C Distal third of the femur
- D Proximal third of the lower leg
- E Medial third of the lower leg
- F Distal third of the lower leg
- 1 Joint space of the hip
- 2 Pubic bone
- 3 Femoral head
- 4 Greater trochanter
- 5 Obturator foramen
- 6 Ischium
- 7 Ischial tuberosity
- 8 Femur
- 9 Patella
- 10 Medial and lateral femoral condyles
- 11 Joint space of the knee
- 12 Intercondylar eminence
- 13 Medial and lateral tibial condyles
- 14 Tibia
- 15 Fibula
- 16 Medial malleolus
- 17 Lateral malleolus
- 18 Trochlea of the talus
- 19 Ankle

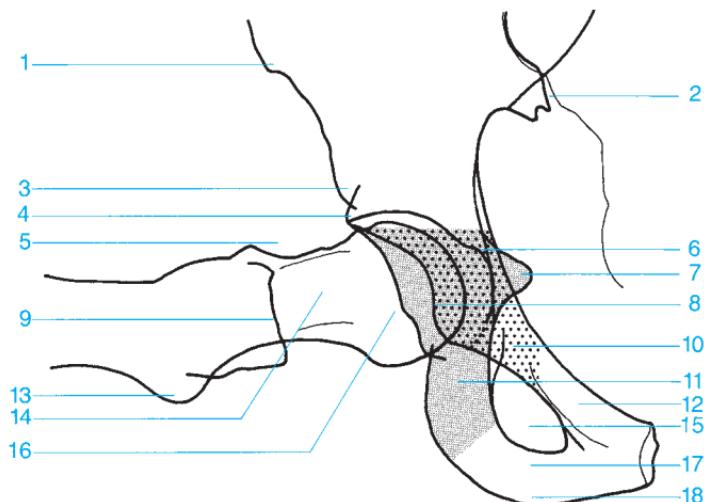






- |  |                                       |
|--|---------------------------------------|
| 1 Sacroiliac joint                         | 15 Ilioischial line                   |
| 2 Anterior superior iliac spine            | 16 Köhler's teardrop figure           |
| 3 Sacrum                                   | 17 Greater trochanter                 |
| 4 Anterior inferior iliac spine            | 18 Terminal line                      |
| 5 Intergluteal fat stripe                  | 19 Femoral neck                       |
| 6 Roof of the acetabulum                   | 20 Superior pubic ramus               |
| 7 Acetabular convexity (promontory)        | 21 Intertrochanteric crest            |
| 8 Fat stripe medial to the gluteus minimus | 22 Obturator foramen                  |
| 9 Spine of the ischium                     | 23 Fat stripe medial to the iliopsoas |
| 10 Anterior acetabular rim                 | 24 Ischial tuberosity                 |
| 11 Floor of the acetabulum                 | 25 Lesser trochanter                  |
| 12 Posterior acetabular rim                | 26 Femur                              |
| 13 Fovea of the femoral head               |                                       |
| 14 Femoral head                            |                                       |
- Ischium (posterior column)**  
**Pubic bone, anterior column (anterior column)**

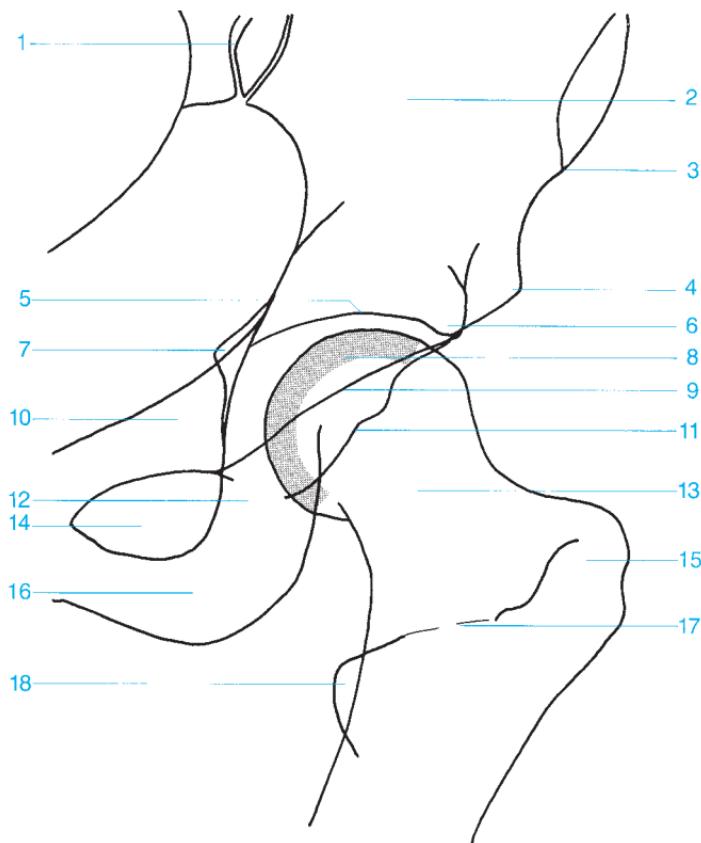




- 1 Anterior superior iliac spine  
2 Sacroiliac joint  
3 Anterior inferior iliac spine  
4 Superior acetabular rim  
5 Posterior acetabular rim  
6 Floor of the acetabulum  
7 Spine of the ischium  
8 Anterior acetabular rim  
9 Greater trochanter  
10 Pubic bone (anterior column)

- 11 Ischium (posterior column)  
12 Superior pubic ramus  
13 Lesser trochanter  
14 Femoral neck  
15 Obturator foramen  
16 Femoral head  
17 Inferior pubic ramus  
18 Ischial tuberosity
- Pubic bone  
■ Ischium

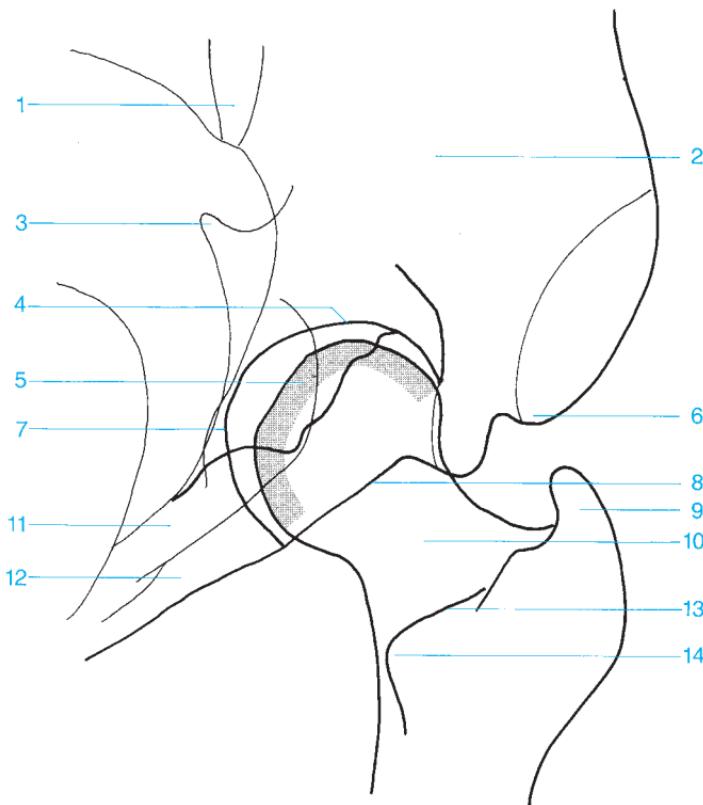




- 1 Sacroiliac joint
- 2 Ilium
- 3 Anterior superior iliac spine
- 4 Anterior inferior iliac spine
- 5 Roof of the acetabulum
- 6 Superior acetabular rim
- 7 Spine of the ischium
- 8 Anterior articular surface of the femoral head
- 9 Anterior acetabular rim

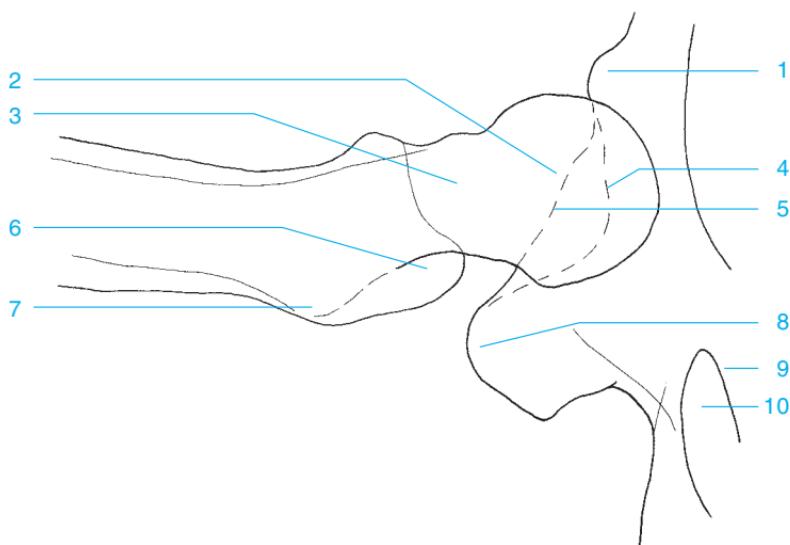
- 10 Pubic bone (anterior column)
- 11 Posterior acetabular rim
- 12 Ischium
- 13 Femoral neck
- 14 Obturator foramen
- 15 Greater trochanter
- 16 Ischial tuberosity
- 17 Intertrochanteric crest
- 18 Lesser trochanter





- |   |                            |
|---|----------------------------|
| 1 Sacroiliac joint                                | 8 Anterior acetabular rim  |
| 2 Iliac bone                                      | 9 Greater trochanter       |
| 3 Spine of the ischium                            | 10 Femoral neck            |
| 4 Roof of the acetabulum                          | 11 Ischium                 |
| 5 Posterior articular surface of the femoral head | 12 Pubic bone              |
| 6 Anterior superior iliac spine                   | 13 Intertrochanteric crest |
| 7 Floor of the acetabulum                         | 14 Lesser trochanter       |

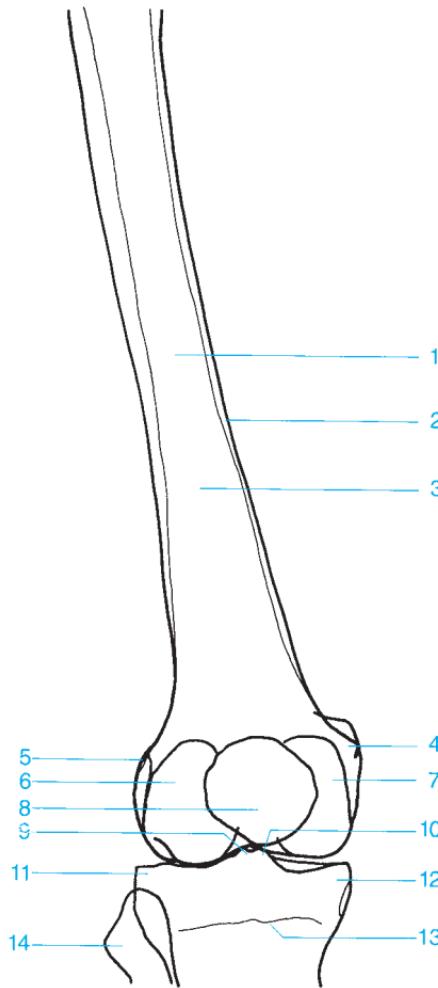




- 1 Anterior inferior iliac spine
- 2 Femoral head
- 3 Femoral neck
- 4 Anterior acetabular rim
- 5 Posterior acetabular rim

- 6 Greater trochanter
- 7 Lesser trochanter
- 8 Ischial tuberosity
- 9 Pubic bone
- 10 Obturator foramen

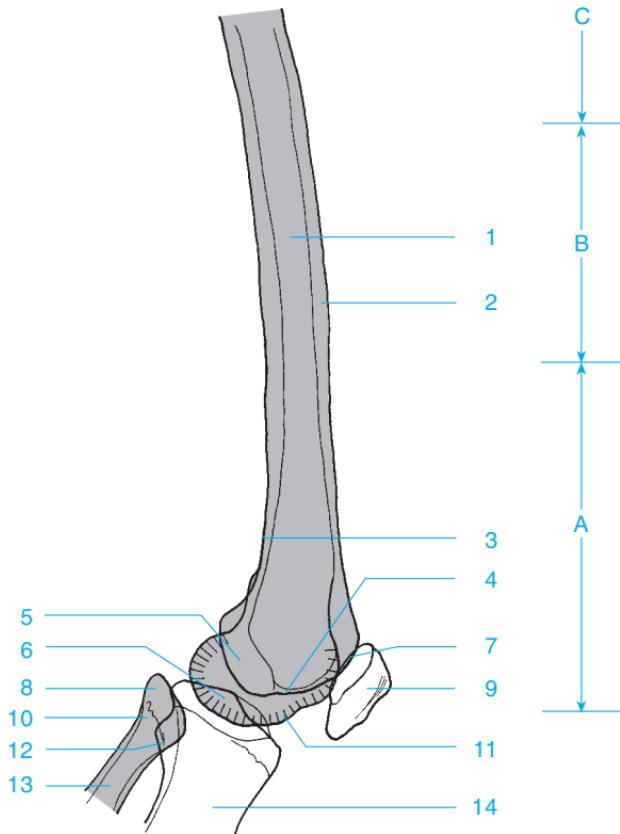




- 1 Femoral shaft
- 2 Cortex
- 3 Medullary canal
- 4 Medial femoral epicondyle
- 5 Lateral femoral epicondyle
- 6 Lateral femoral condyle
- 7 Medial femoral condyle
- 8 Patella

- 9 Lateral tubercle of the intercondylar eminence
- 10 Medial tubercle of the intercondylar eminence
- 11 Lateral tibial condyle
- 12 Medial tibial condyle
- 13 Growth plate
- 14 Fibular head

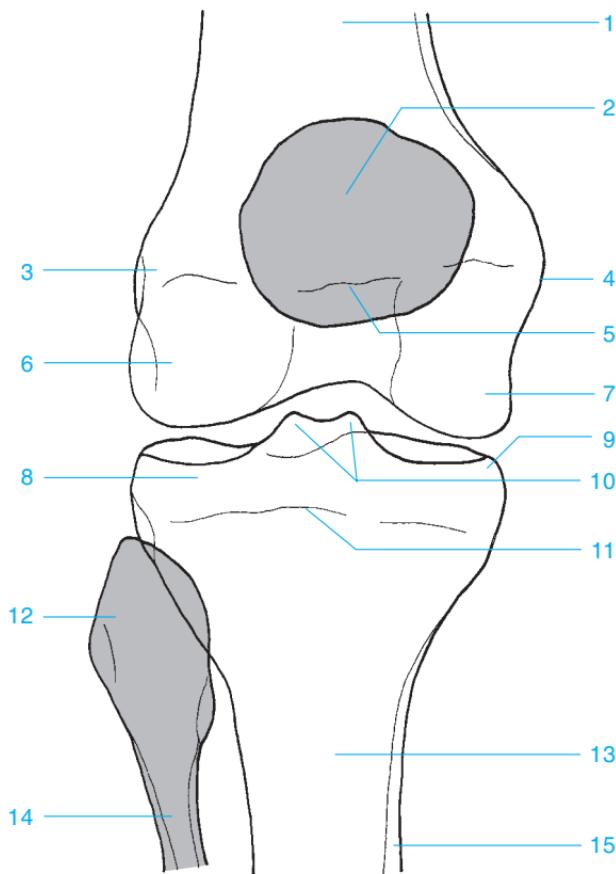




- A** Distal third of the femur
- B** Middle third of the femur
- C** Proximal third of the femur
- 1** Femur
- 2** Cortex
- 3** Popliteal fossa
- 4** Lateral femoral condyle
- 5** Intercondylar fossa
- 6** Intercondylar eminence
- 7** Patellofemoral joint
- 8** Apex of the fibular head
- 9** Patella
- 10** Fibular head

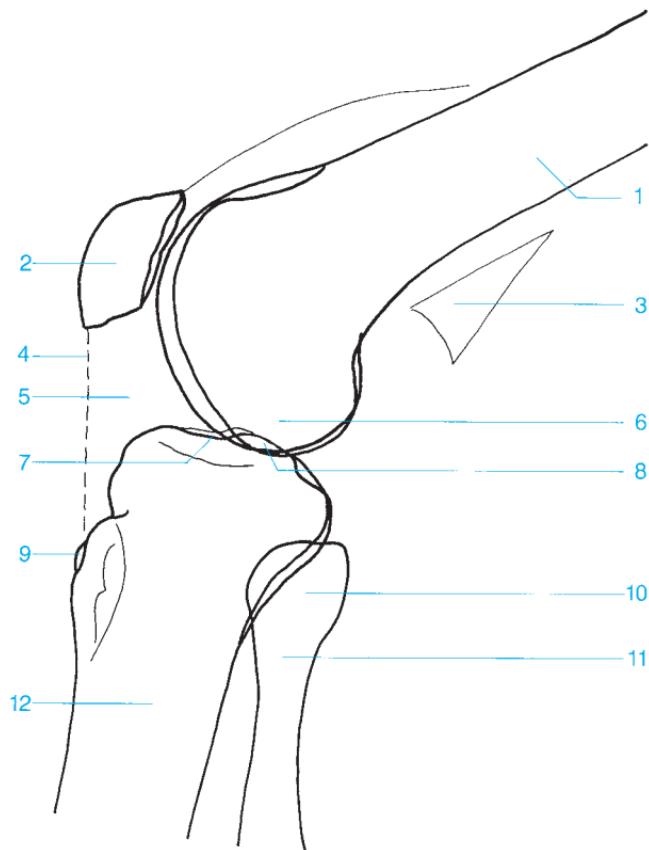
- 11** Medial femoral condyle
  - a** Opposite the lateral tibial condyle (4), which articulates with the fibula (13).
  - b** Regardless in which position the radiography was made, the corresponding lateral articular surfaces of the patella (9) and femur are longer proximal to distal than the corresponding medial articular surfaces.
- 12** Tibiofibular joint
- 13** Fibula





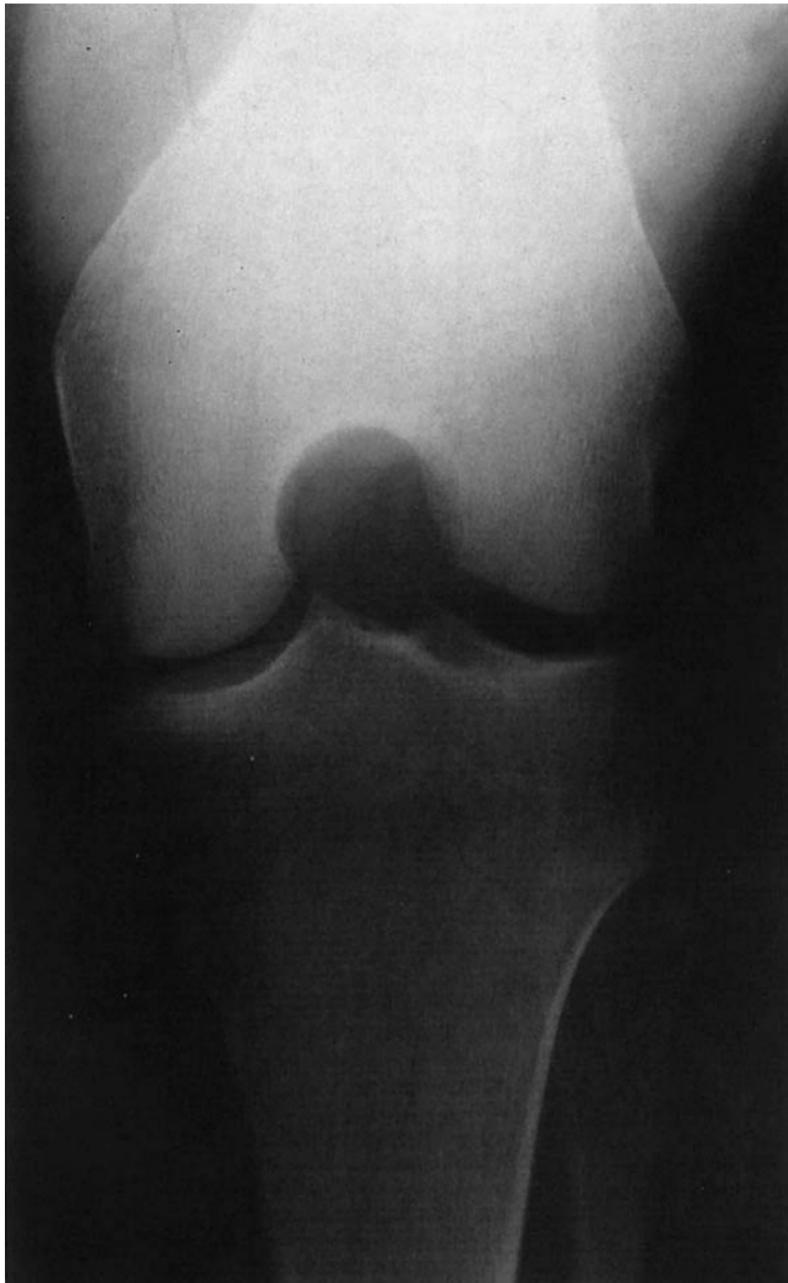
- |                              |   |
|------------------------------|---|
| 1 Femur                      | 9 Medial tibial condyle                                       |
| 2 Patella                    | 10 Medial and lateral tubercles of the intercondylar eminence |
| 3 Lateral femoral epicondyle | 11 Epiphyseal plate   |
| 4 Medial femoral epicondyle  | 12 Fibular head   |
| 5 Growth plate               | 13 Tibia  |
| 6 Lateral femoral condyle    | 14 Fibula   |
| 7 Medial femoral condyle     | 15 Cortex   |
| 8 Lateral tibial condyle     |   |

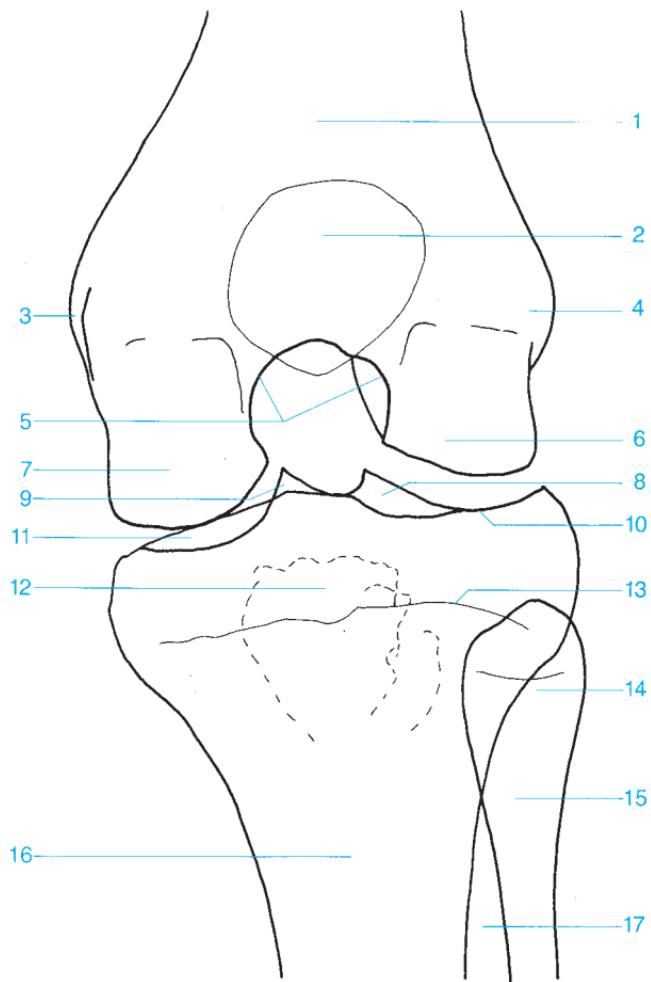




- 1 Femur
- 2 Patella
- 3 Posterior fat
- 4 Patellar ligament
- 5 Infrapatellar fat pad
- 6 Lateral femoral condyle

- 7 Tibial plateau
- 8 Intercondylar eminence
- 9 Tibial tuberosity
- 10 Fibular head
- 11 Fibular neck
- 12 Tibia

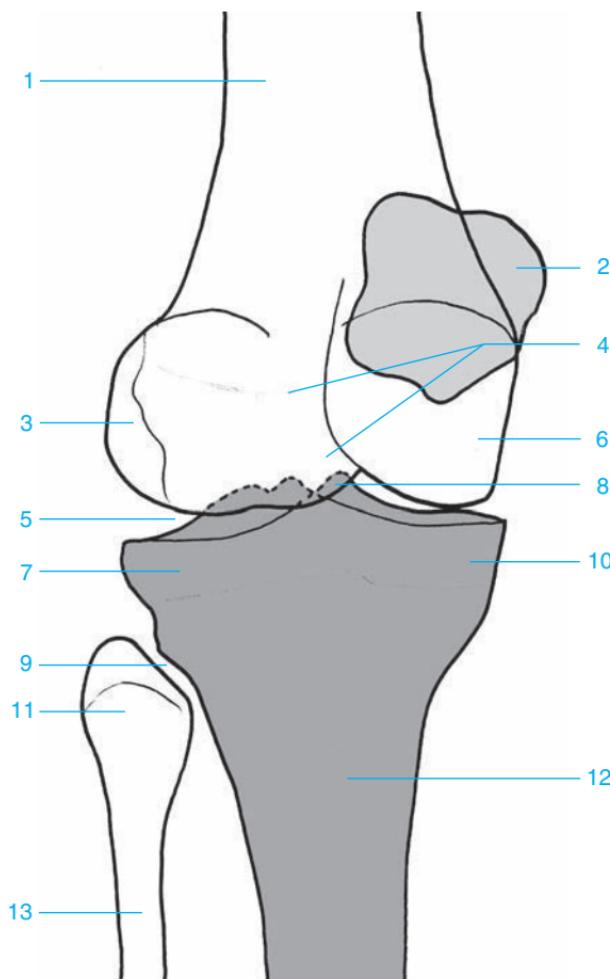




- 1 Femur
- 2 Patella
- 3 Medial femoral epicondyle
- 4 Lateral femoral epicondyle
- 5 Intercondylar fossa
- 6 Lateral femoral condyle
- 7 Medial femoral condyle
- 8 Lateral tubercle of the intercondylar eminence
- 9 Medial tubercle of the intercondylar eminence

- 10 Lateral tibial plateau
- 11 Medial tibial plateau
- 12 Tibial tuberosity
- 13 Growth plate
- 14 Fibular head
- 15 Fibular neck
- 16 Tibia
- 17 Interosseous membrane

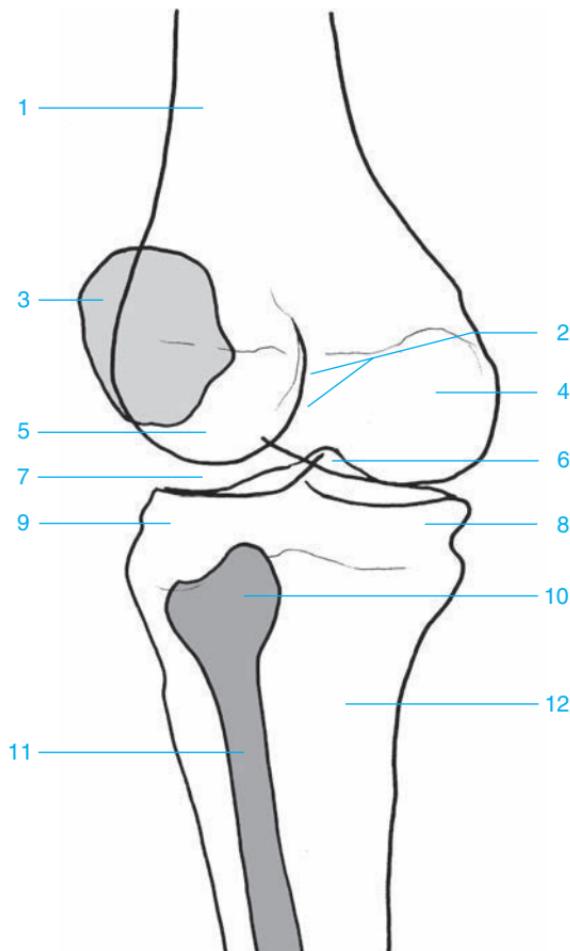




- 1 Femoral shaft
- 2 Medial margin of the patella
- 3 Lateral femoral condyle
- 4 Intercondylar fossa
- 5 Knee (joint space)
- 6 Medial femoral condyle
- 7 Lateral tibial condyle

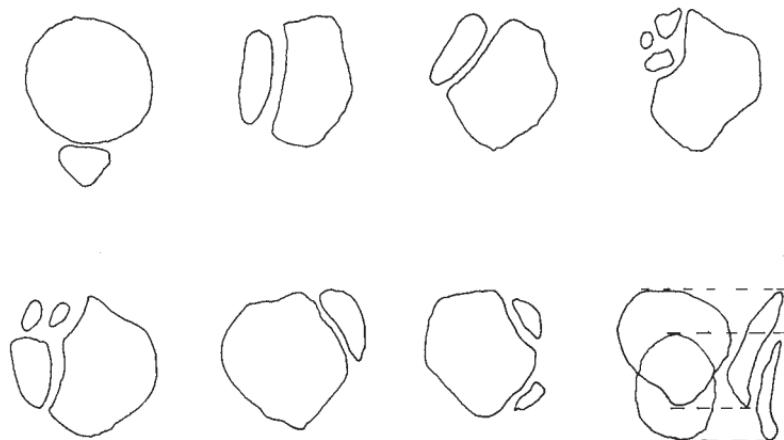
- 8 Intercondylar eminence
- 9 Tibiofibular joint
- 10 Medial tibial condyle
- 11 Fibular head
- 12 Tibial shaft
- 13 Fibular shaft



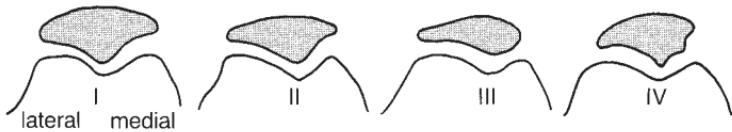


- 1 Femoral shaft
- 2 Intercondylar fossa
- 3 Lateral margin of the patella
- 4 Medial femoral condyle
- 5 Lateral femoral condyle
- 6 Intercondylar eminence

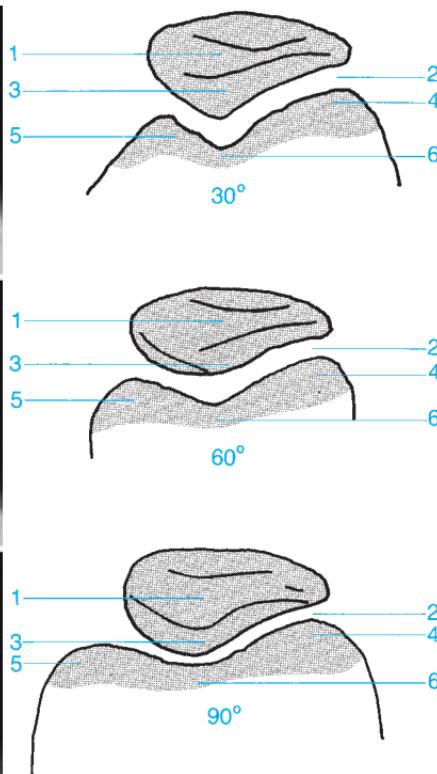
- 7 Knee (joint space)
- 8 Medial tibial condyle
- 9 Lateral tibial condyle
- 10 Fibular head
- 11 Fibular shaft
- 12 Tibial shaft



Most common forms of multipartite patella (as described by Schaer)



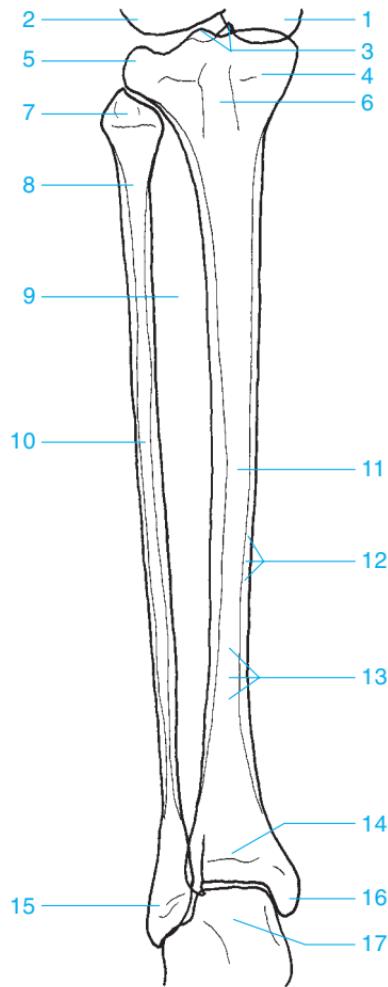
Wiberg's classification of patellar shapes (right knee)



- 1 Patella
- 2 Patellofemoral joint
- 3 Articular surface

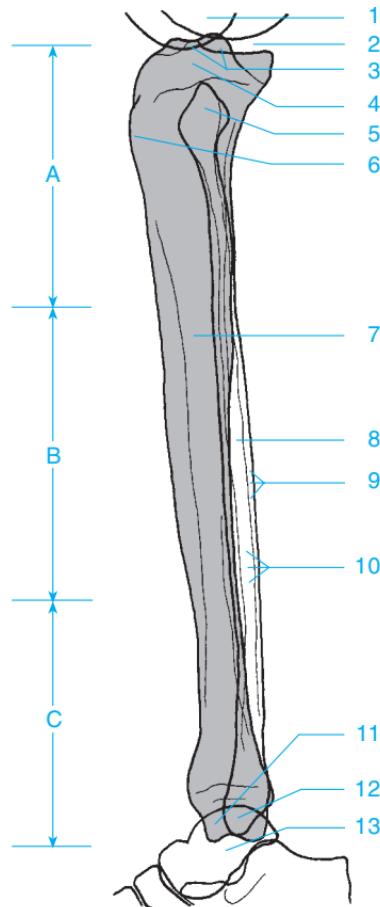
- 4 Lateral femoral condyle (generally larger)
- 5 Medial femoral condyle
- 6 Intercondylar fossa





- |   |                         |
|---|-------------------------|
| 1 Medial femoral condyle  | 9 Interosseous membrane |
| 2 Lateral femoral condyle                                       | 10 Fibula               |
| 3 Medial and lateral tubercles of the<br>intercondylar eminence | 11 Tibia                |
| 4 Medial tibial condyle   | 12 Cortex               |
| 5 Lateral tibial condyle  | 13 Medullary canal      |
| 6 Tibial tuberosity   | 14 Growth plate         |
| 7 Fibular head  | 15 Lateral malleolus    |
| 8 Fibular neck  | 16 Medial malleolus     |
|   | 17 Talus                |

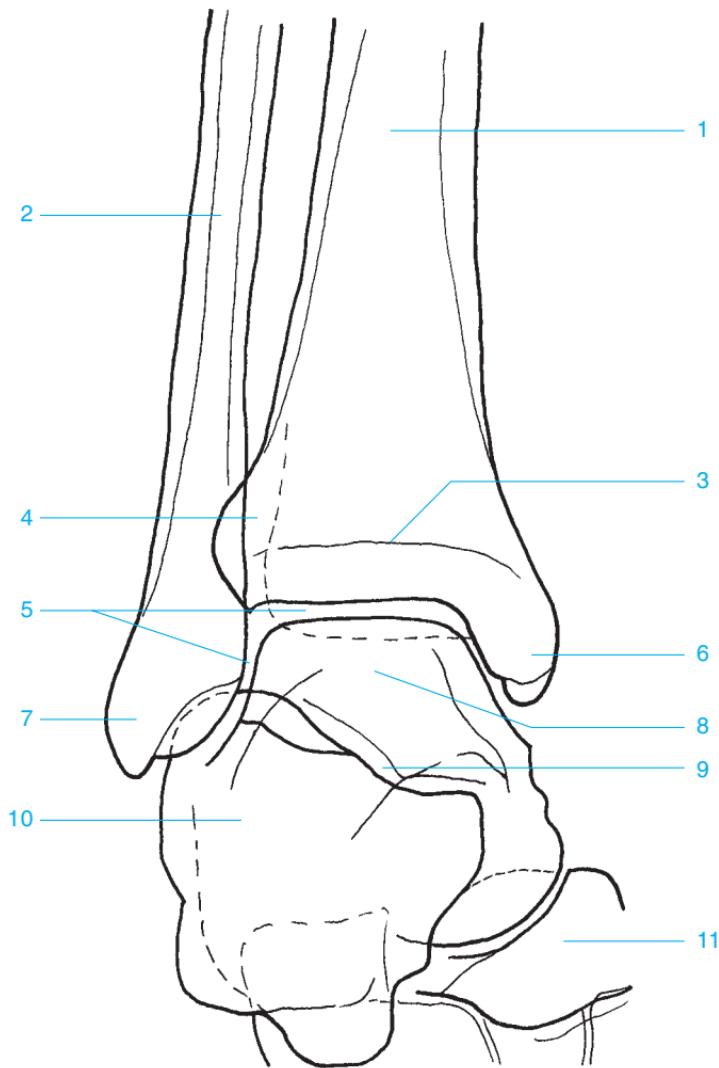




- A** Proximal third of the lower leg
- B** Middle third of the lower leg
- C** Distal third of the lower leg
- 1** Medial and lateral femoral condyles
- 2** Knee
- 3** Intercondylar eminence
- 4** Medial and lateral tibial condyles
- 5** Fibular head

- 6** Proximal tibial apophysis (in children)
- 7** Tibia
- 8** Fibula
- 9** Cortex
- 10** Medullary canal
- 11** Medial malleus
- 12** Lateral malleus
- 13** Talus

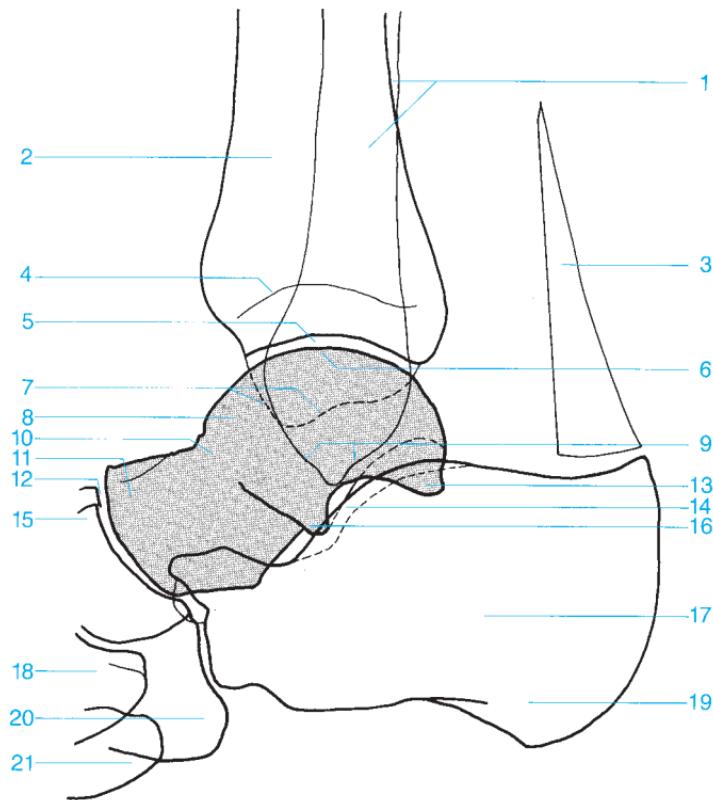




- 1 Tibia
- 2 Fibula
- 3 Growth plate
- 4 Fibular notch
- 5 Ankle
- 6 Medial malleolus

- 7 Lateral malleolus
- 8 Trochlea of the talus
- 9 Subtalar joint
- 10 Calcaneus
- 11 Navicular

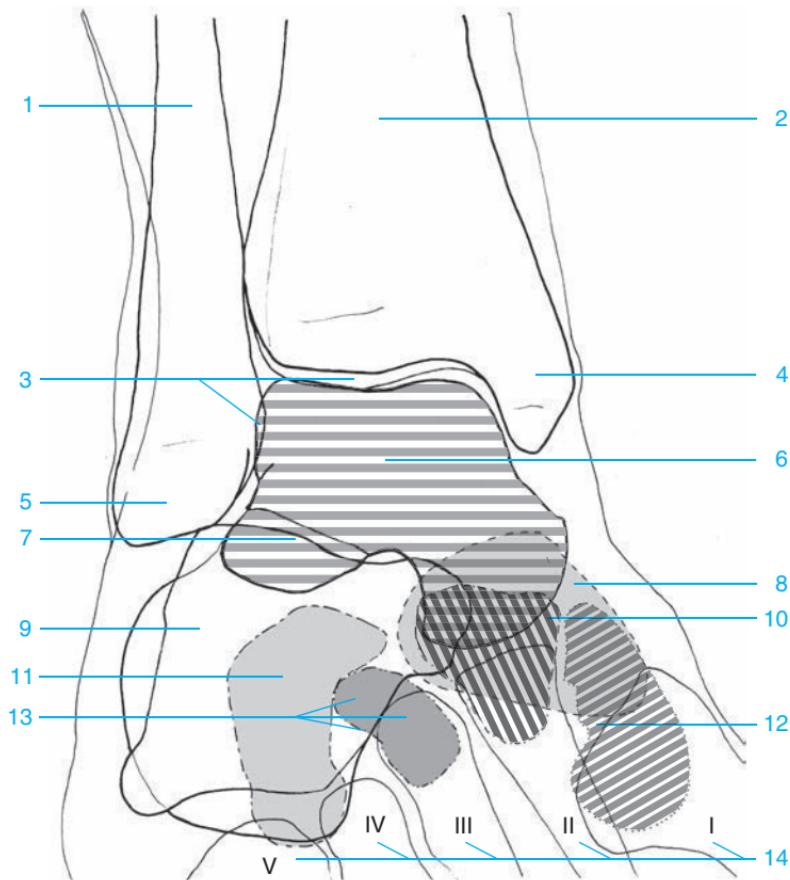




- 1 Fibula
- 2 Tibia
- 3 Achilles tendon
- 4 Growth plate
- 5 Ankle
- 6 Trochlea of the talus
- 7 Medial malleolus
- 8 Talus
- 9 Lateral malleolus
- 10 Neck of the talus
- 11 Head of the talus
- 12 Talonavicular joint

- 13 Posterior process of the talus
- 14 Sinus tarsi
- 15 Navicular
- 16 Lateral process of the talus
- 17 Calcaneus
- 18 Medial cuneiform
- 19 Posterior tuberosity of the calcaneus
- 20 Cuboid
- 21 Base of the fifth metatarsal

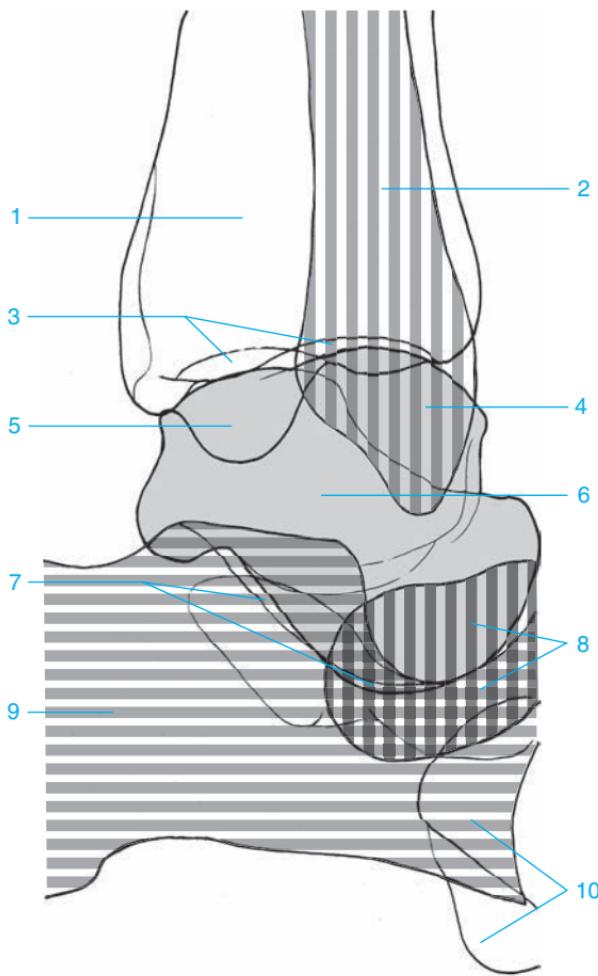




- 1 Fibula
- 2 Tibia
- 3 Ankle joint space (talocrural joint)
- 4 Medial malleolus
- 5 Lateral malleolus
- 6 Talus
- 7 Talocalcaneal joint (posterior portion of the subtalar joint)

- 8 Navicular
- 9 Calcaneus
- 10 Middle cuneiform
- 11 Cuboid
- 12 Medial cuneiform
- 13 Lateral cuneiform
- 14 Metatarsals



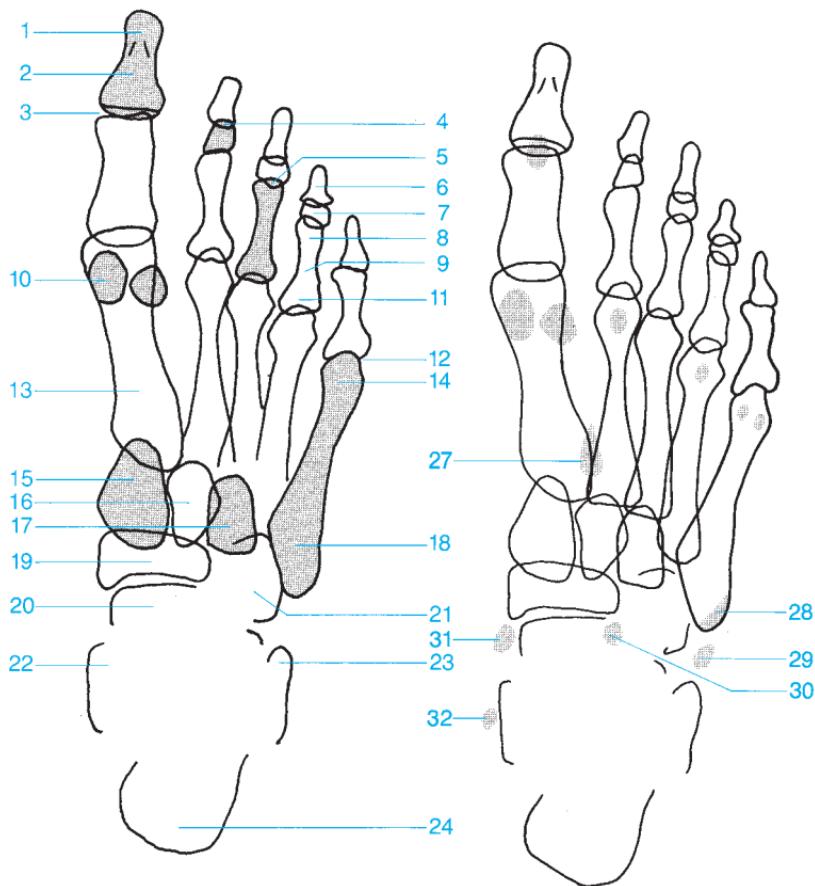


- 1 Tibia
- 2 Fibula
- 3 Ankle joint space (talocrural joint)
- 4 Lateral malleolus
- 5 Medial malleolus
- 6 Talus

- 7 Talocalcaneal joint (posterior portion of the subtalar joint)
- 8 Navicular
- 9 Calcaneus
- 10 Cuboid

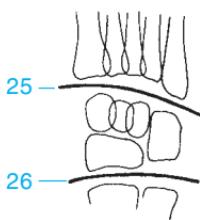


- 1 Distal phalanx (tuft)
- 2 Distal phalanx of the great toe
- 3 Distal interphalangeal joint of the great toe
- 4 Distal interphalangeal joint
- 5 Proximal interphalangeal joint
- 6 Distal phalanx
- 7 Middle phalanx
- 8 Head of the proximal phalanx
- 9 Proximal phalanx
- 10 Sesamoid
- 11 Base of the phalanx
- 12 Metatarsophalangeal joint
- 13 Metatarsal
- 14 Metatarsal head
- 15 Medial cuneiform
- 16 Middle cuneiform
- 17 Lateral cuneiform
- 18 Base of the fifth metatarsal
- 19 Navicular
- 20 Head of the talus
- 21 Cuboid
- 22 Medial malleolus
- 23 Lateral malleolus
- 24 Calcaneus
- 25 Tarsometatarsal joints (Lisfranc's joints)
- 26 Transverse tarsal joint (Chopart's joint)



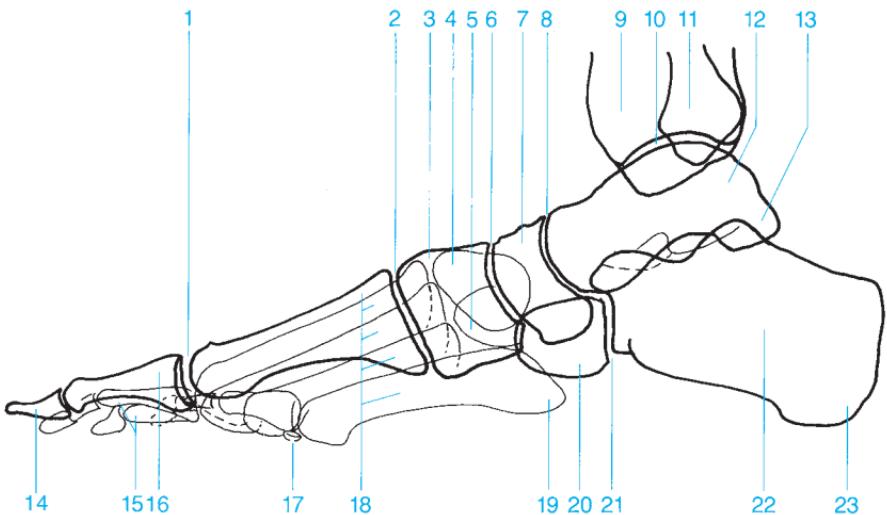
Common sesamoids and accessory bones in the foot

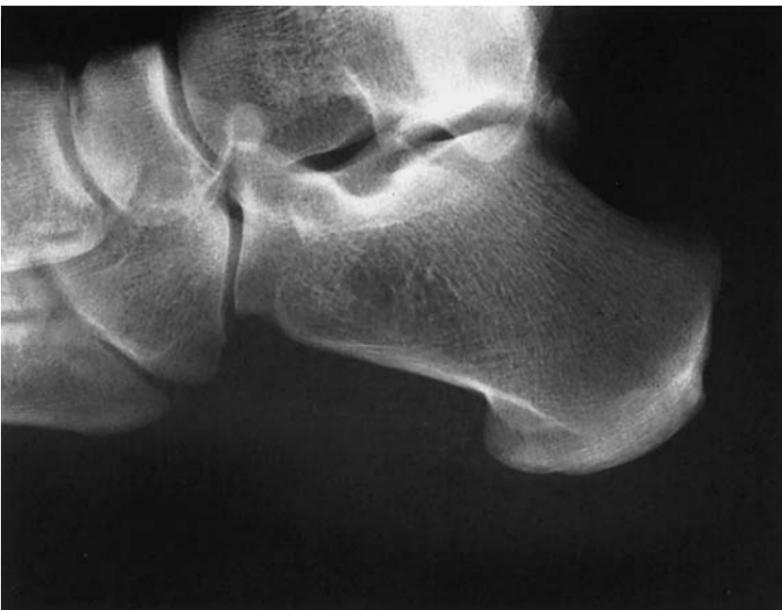
- 27 Os intermetatarsum
- 28 Os vesalianum
- 29 Os peroneum
- 30 Secondary cuboid
- 31 Os tibiale externum
- 32 Os supratalare

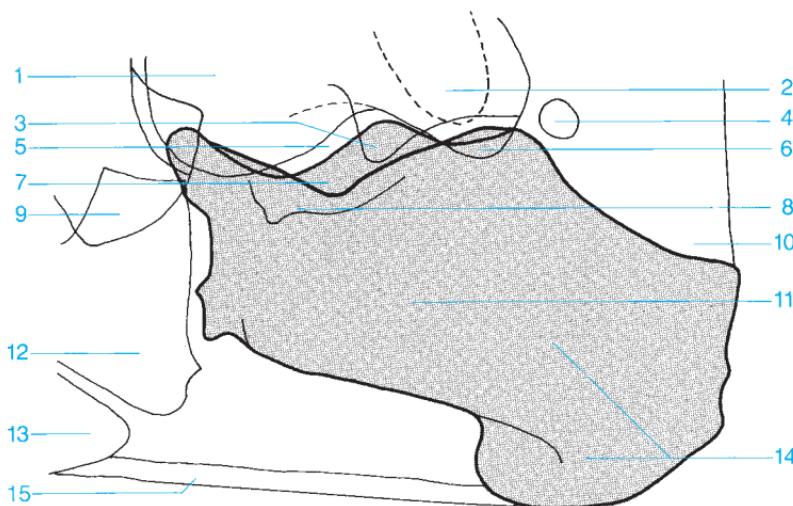




- 1 Metatarsophalangeal joint
- 2 Tarsometatarsal joint
- 3 Medial cuneiform
- 4 Middle cuneiform
- 5 Lateral cuneiform
- 6 Cuneonavicular joint
- 7 Navicular
- 8 Talocalcaneonavicular joint
- 9 Tibia
- 10 Ankle
- 11 Fibula
- 12 Talus
- 13 Posterior process of the talus
- 14 Distal phalanx
- 15 Middle phalanx
- 16 Proximal phalanx
- 17 Sesamoid
- 18 Metatarsal
- 19 Base of fifth metatarsal
- 20 Cuboid
- 21 Calcaneocuboid joint
- 22 Calcaneus
- 23 Posterior tuberosity of the calcaneus



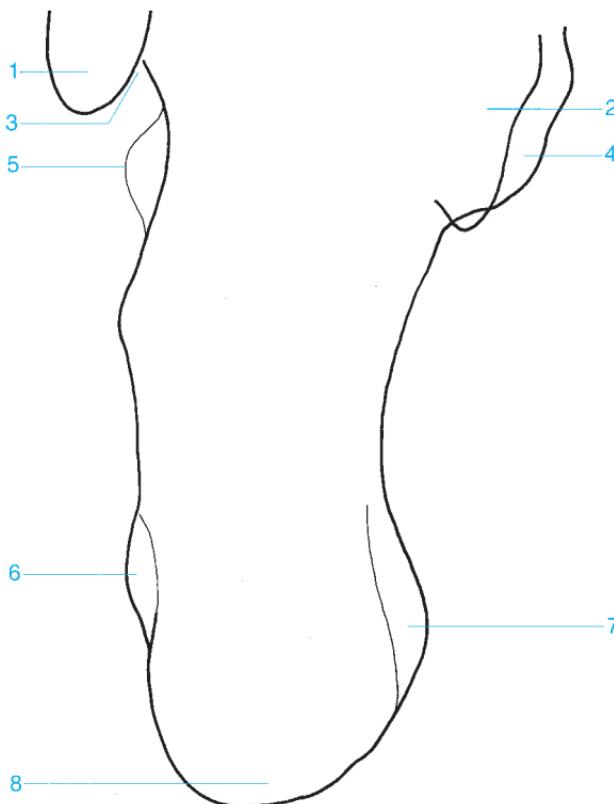




- 1 Talus
- 2 Lateral malleolus
- 3 Lateral process of the talus
- 4 Os trigonum
- 5 Subtalar joint
- 6 Posterior process of the talus
- 7 Sinus tarsi
- 8 Sustentaculum tali

- 9 Navicular
- 10 Achilles tendon
- 11 Calcaneus
- 12 Cuboid
- 13 Base of fifth metatarsal
- 14 Posterior tuberosity of the calcaneus
- 15 Plantar aponeurosis





1 Lateral malleolus

2 Talus

3 Groove for the peroneus longus tendon

4 Sustentaculum tali

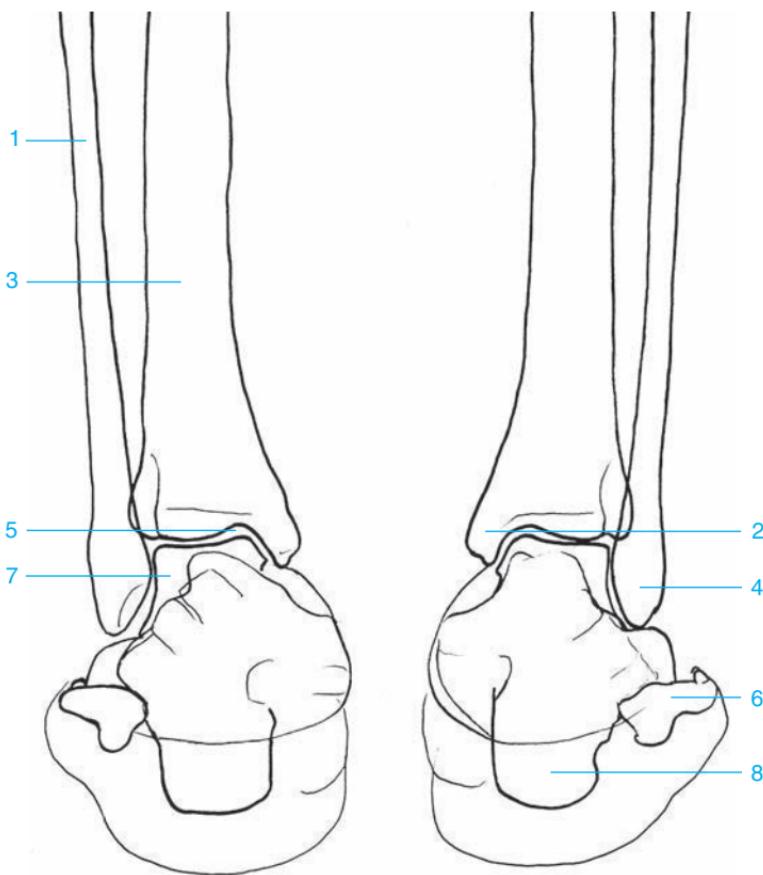
5 Peroneal trochlea

6 Lateral process of the posterior tuberosity of the calcaneus

7 Medial process of the posterior tuberosity of the calcaneus

8 Posterior tuberosity of the calcaneus

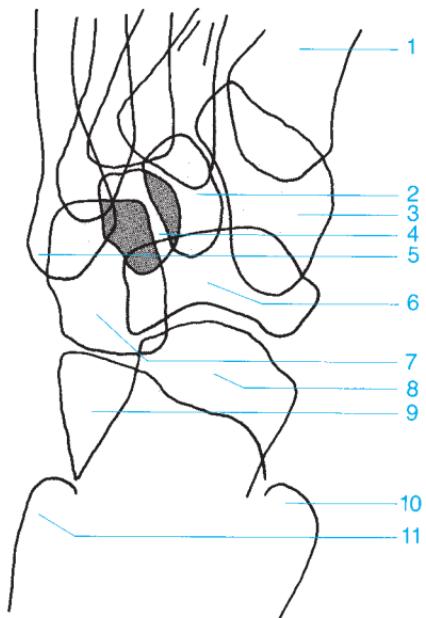




- 1 Fibula
- 2 Medial malleolus
- 3 Tibia
- 4 Lateral malleolus

- 5 Ankle joint space (talocrural joint)
- 6 Fifth metatarsal
- 7 Talus
- 8 Calcaneus



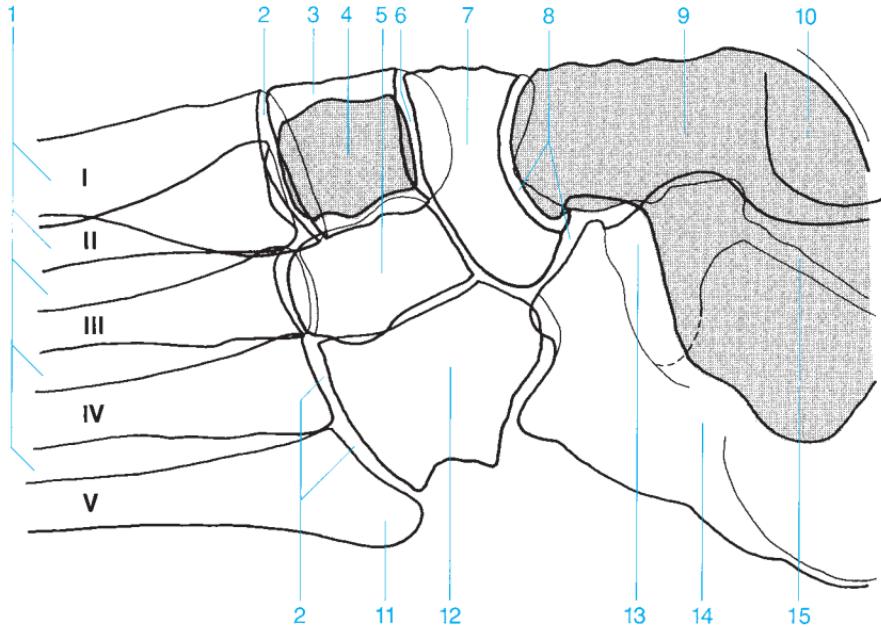


- 1 Metatarsal
- 2 Middle cuneiform
- 3 Medial cuneiform
- 4 Lateral cuneiform
- 5 Base of the fifth metatarsal
- 6 Navicular

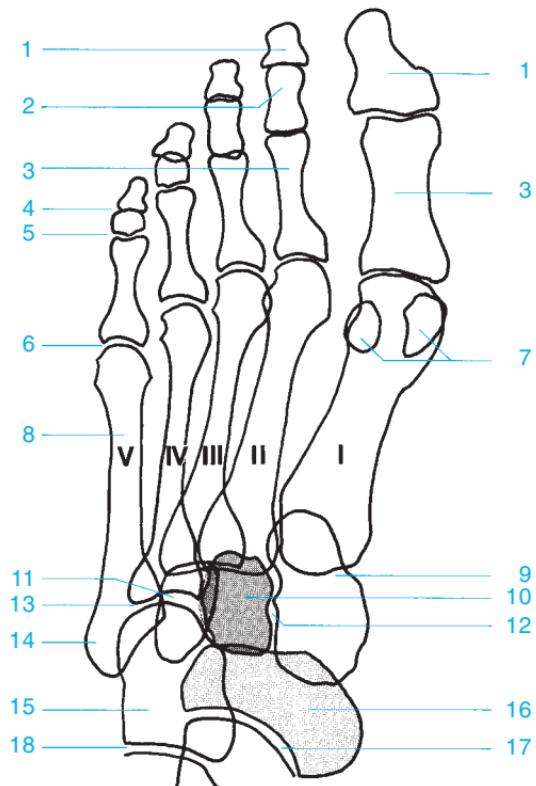
- 7 Cuboid
- 8 Head of the talus
- 9 Calcaneus
- 10 Medial malleolus
- 11 Lateral malleolus



- 1 Metatarsals
- 2 Tarsometatarsal joint
- 3 Medial cuneiform
- 4 Middle cuneiform
- 5 Lateral cuneiform
- 6 Cuneonavicular joint
- 7 Navicular
- 8 Talocalcaneonavicular joint
- 9 Talus
- 10 Malleolus
- 11 Base of the fifth metatarsal
- 12 Cuboid
- 13 Sinus tarsi
- 14 Calcaneus
- 15 Subtalar joint (and talocalcaneonavicular joint)

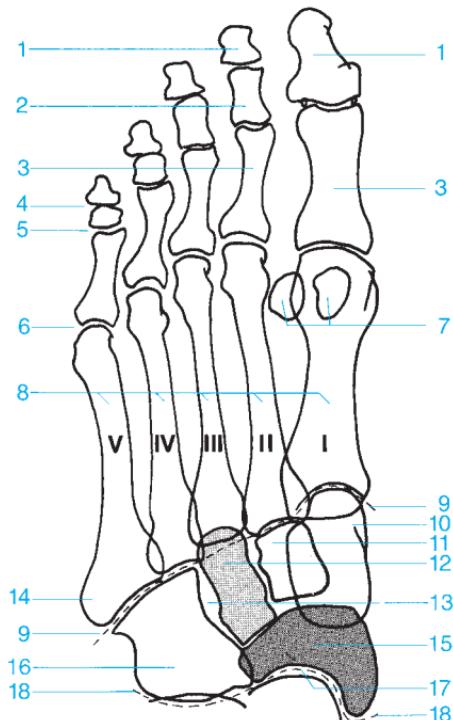






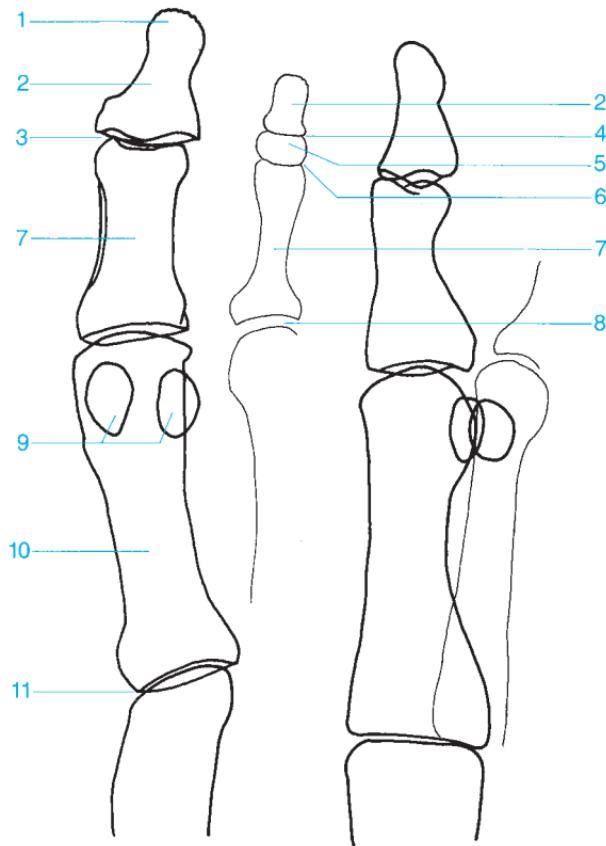
- |                                  |                                 |
|----------------------------------|---------------------------------|
| 1 Distal phalanx                 | 10 Middle cuneiform             |
| 2 Middle phalanx                 | 11 Lateral cuneiform            |
| 3 Proximal phalanx               | 12 Intertarsal joint            |
| 4 Distal interphalangeal joint   | 13 Metatarsophalangeal joint    |
| 5 Proximal interphalangeal joint | 14 Base of the fifth metatarsal |
| 6 Metatarsophalangeal joint      | 15 Cuboid                       |
| 7 Sesamoids                      | 16 Navicular                    |
| 8 Metatarsals                    | 17 Talocalcaneonavicular joint  |
| 9 Medial cuneiform               | 18 Calcaneocuboid joint         |





- |  |  |
|--|--|
| 1 Distal phalanx                           | 11 Middle cuneiform  |
| 2 Middle phalanx                           | 12 Lateral cuneiform   |
| 3 Proximal phalanx                         | 13 Intertarsal joint   |
| 4 Distal interphalangeal joint             | 14 Base of the fifth metatarsal  |
| 5 Proximal interphalangeal joint           | 15 Navicular   |
| 6 Metatarsophalangeal joint                | 16 Cuboid  |
| 7 Sesamoids                                | 17 Talocalcaneonavicular joint   |
| 8 Metatarsals                              | 18 Transverse tarsal joint (Chopart's joint between the talus, calcaneus, navicular, and cuboid) |
| 9 Tarsometatarsal joint (Lisfranc's joint) |  |
| 10 Medial cuneiform                        |  |





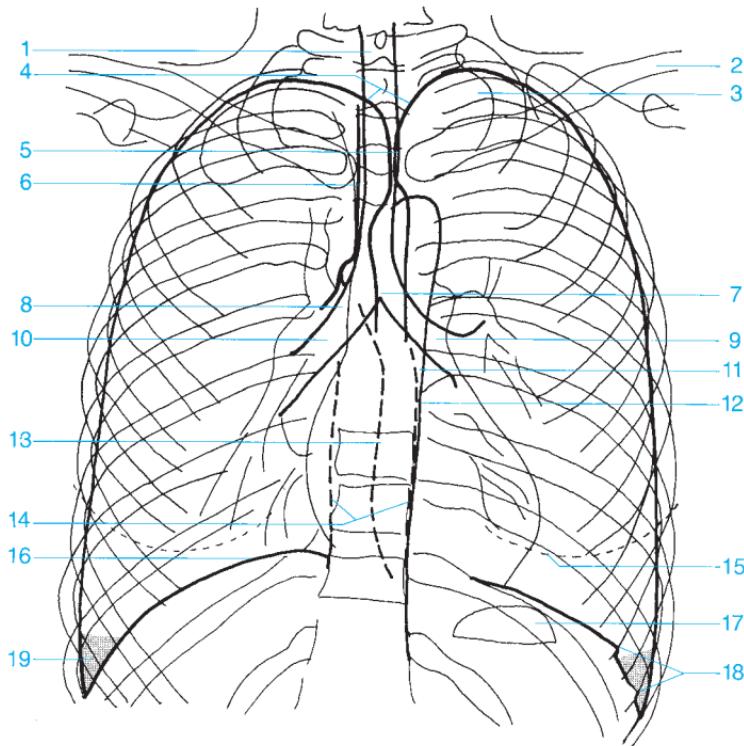
- |  |                                  |
|--|----------------------------------|
| 1 Distal phalanx (tuft)                  | 6 Proximal interphalangeal joint |
| 2 Distal phalanx                         | 7 Proximal phalanx               |
| 3 Interphalangeal joint of the great toe | 8 Metatarsophalangeal joint      |
| 4 Distal interphalangeal joint           | 9 Sesamoids                      |
| 5 Middle phalanx                         | 10 First metatarsal              |
|  | 11 Tarsometatarsal joint         |

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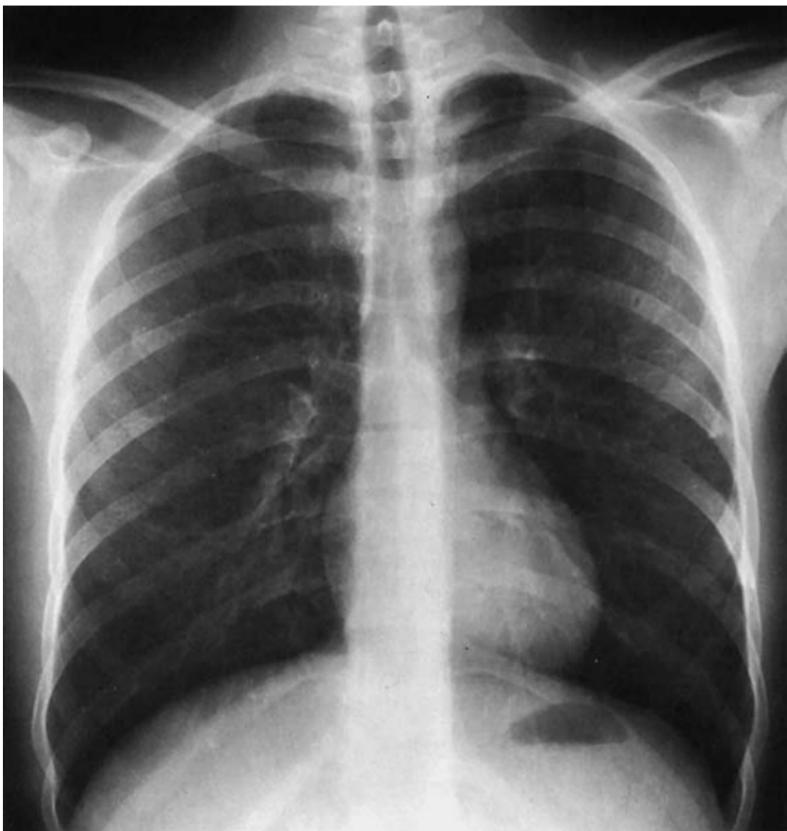
## **Anatomy of Miscellaneous Plain Films**

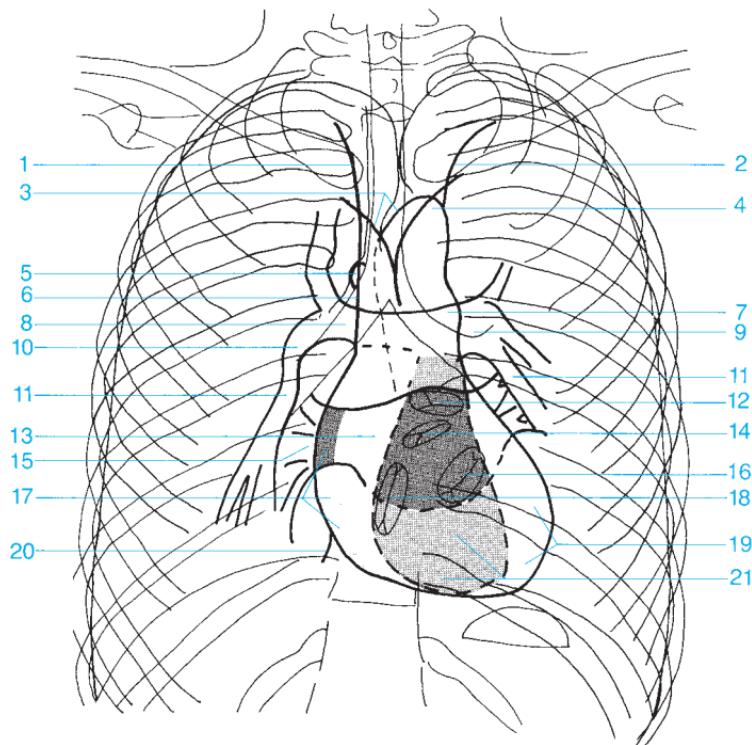
Routine Radiographs .....	208
Spot Images .....	224
Tomography.....	232





- |   |   |
|---|---|
| 1 Trachea   | 11 Paraaortic stripe                              |
| 2 Clavicle  | 12 Descending aorta                               |
| 3 Apex of the lung                                  | 13 Azygoesophageal stripe                         |
| 4 Curve of the apex of the lung                     | 14 Paraspinal stripe                              |
| 5 Posterior border between the right and left lungs | 15 Shadow of the breast                           |
| 6 Right paratracheal stripe                         | 16 Diaphragm                                      |
| 7 Carina of the trachea                             | 17 Gastric bubble                                 |
| 8 Right main bronchus                               | 18 Insertions of the diaphragm                    |
| 9 Left main bronchus                                | 19 Costodiaphragmatic recess (costophrenic angle) |
| 10 Intermediate bronchus                            |   |



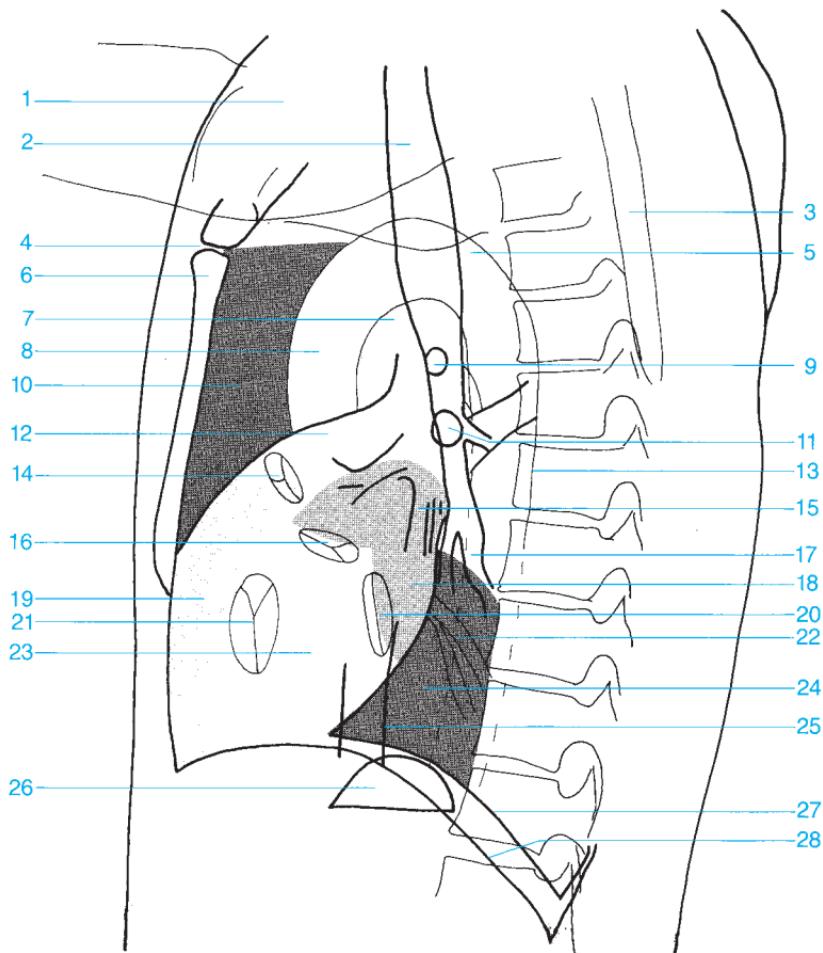


- |  |  |
|--|--|
| 1 Contour of the right brachiocephalic vein        | 11 Inferior lobar branch of the pulmonary artery |
| 2 Contour of the subclavian artery                 | 12 Pulmonary valve                               |
| 3 Subclavian and aortic arches                     | 13 Left atrium                                   |
| 4 Aortic arch                                      | 14 Aortic valve                                  |
| 5 Azygos vein                                      | 15 Venous confluence                             |
| 6 Superior vena cava                               | 16 Mitral valve                                  |
| 7 Main pulmonary artery                            | 17 Right atrium                                  |
| 8 Right pulmonary artery                           | 18 Tricuspid valve                               |
| 9 Left pulmonary artery                            | 19 Left ventricle                                |
| 10 Intermediate part of the right pulmonary artery | 20 Inferior vena cava                            |
|  | 21 Right ventricle                               |



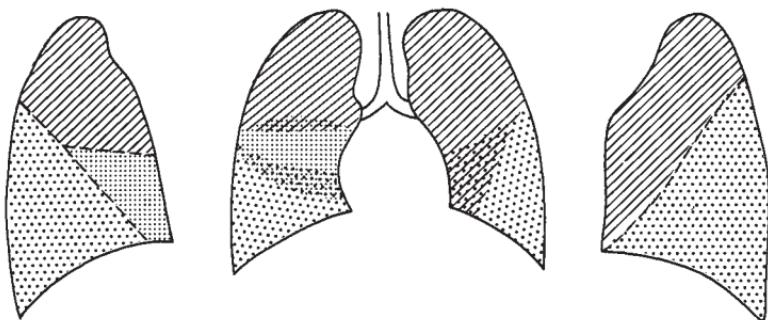
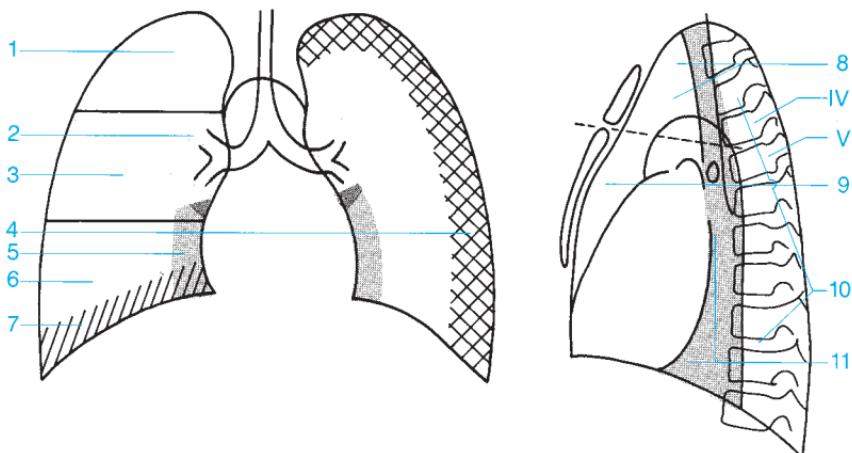
- 1 Soft tissues of the shoulder
- 2 Trachea
- 3 Scapula
- 4 Sternal angle
- 5 Aortic arch
- 6 Body of the sternum
- 7 Aortopulmonary window
- 8 Ascending aorta

- 9 Right upper lobe bronchus
- 10 Retrosternal space
- 11 Left upper lobe bronchus
- 12 Main pulmonary artery
- 13 Descending aorta
- 14 Pulmonary valve
- 15 Pulmonary veins
- 16 Aortic valve



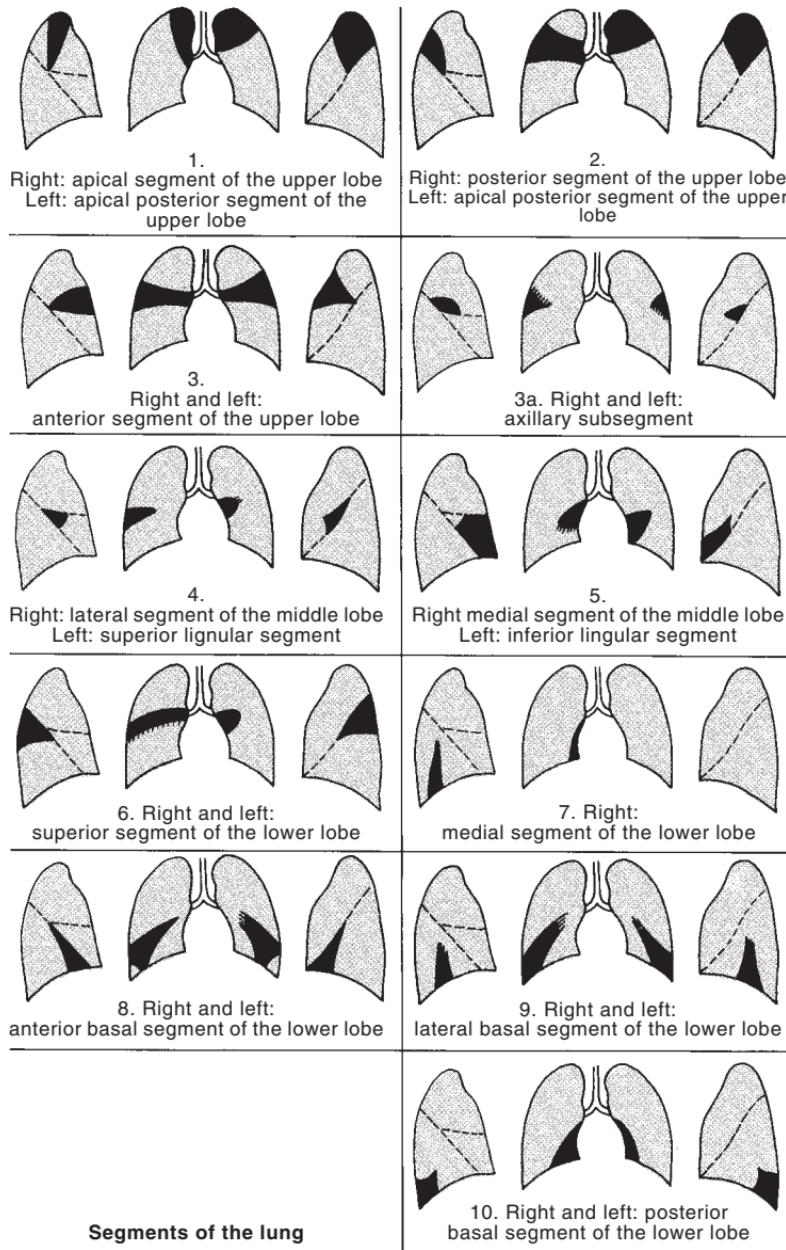
- 17 Lower lobe bronchus
- 18 Left atrium
- 19 Right ventricle
- 20 Mitral valve
- 21 Tricuspid valve
- 22 Pulmonary veins
- 23 Left ventricle

- 24 Retrocardiac space
- 25 Inferior vena cava
- 26 Gastric bubble
- 27 Left hemidiaphragm (tangent to the gastric bubble and ending in the shadow of the heart)
- 28 Right hemidiaphragm

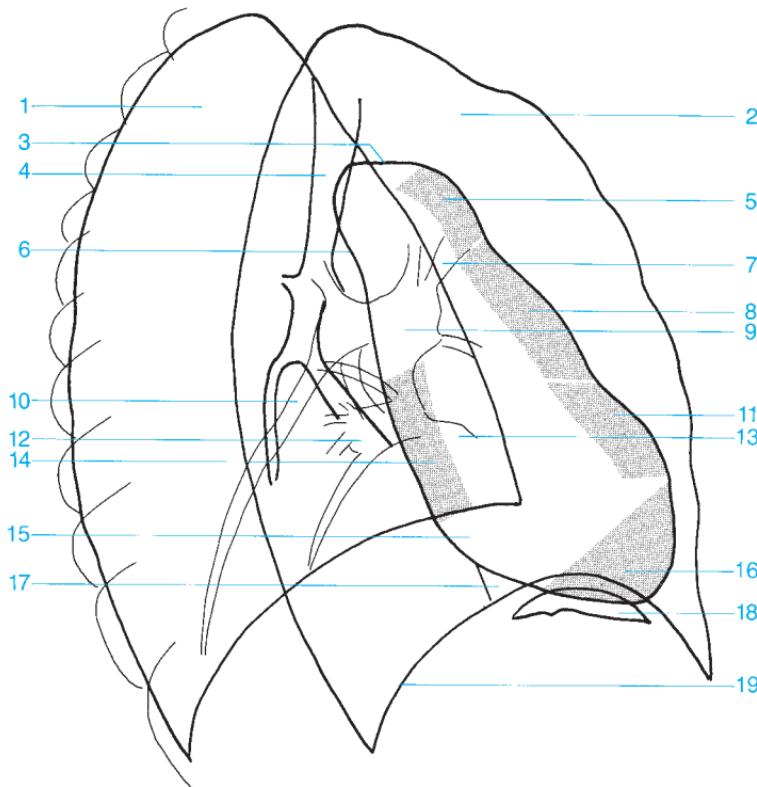


- 1** Upper region of the lung
- 2** Perihilar region
- 3** Middle region of the lung
- 4** Chest wall
- 5** Pericardial region
- 6** Lower region of the lung

- 7** Supradiaphragmatic region
- 8** Superior anterior mediastinum
- 9** Inferior anterior mediastinum
- 10** Posterior mediastinum
- 11** Middle mediastinum (fourth and fifth thoracic vertebrae)



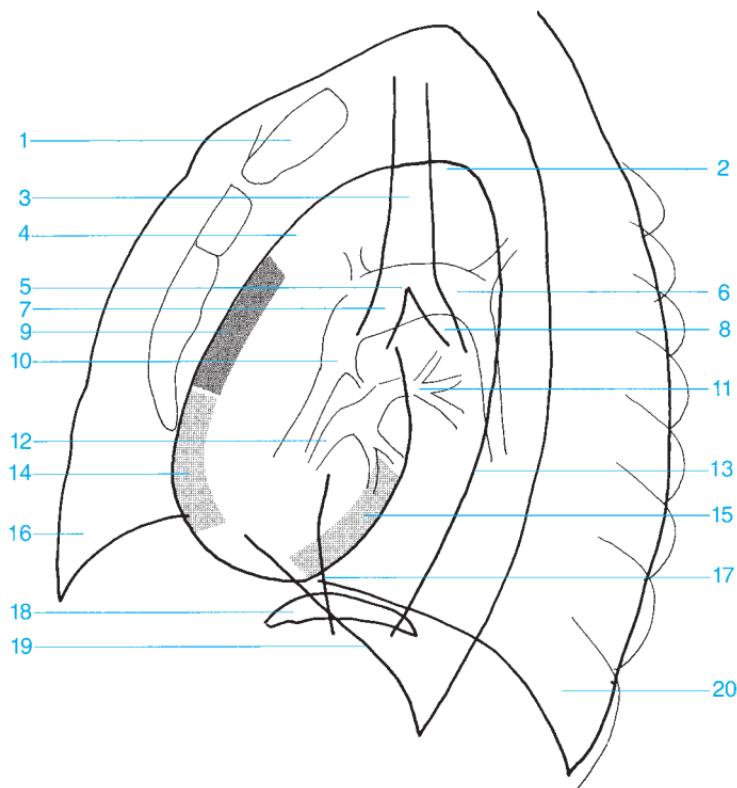




- 1 Right lung
- 2 Left lung
- 3 Aortic arch
- 4 Trachea
- 5 Ascending aorta
- 6 Descending aorta
- 7 Left upper lobe pulmonary vein, artery, and bronchus
- 8 Main pulmonary artery
- 9 Left pulmonary artery
- 10 Right inferior lobar branch of the pulmonary artery

- 11 Infundibulum
- 12 Inferior right pulmonary vein
- 13 Inferior left pulmonary vein
- 14 Left atrium
- 15 Right atrium
- 16 Left ventricle
- 17 Inferior vena cava
- 18 Gastric bubble
- 19 Diaphragm

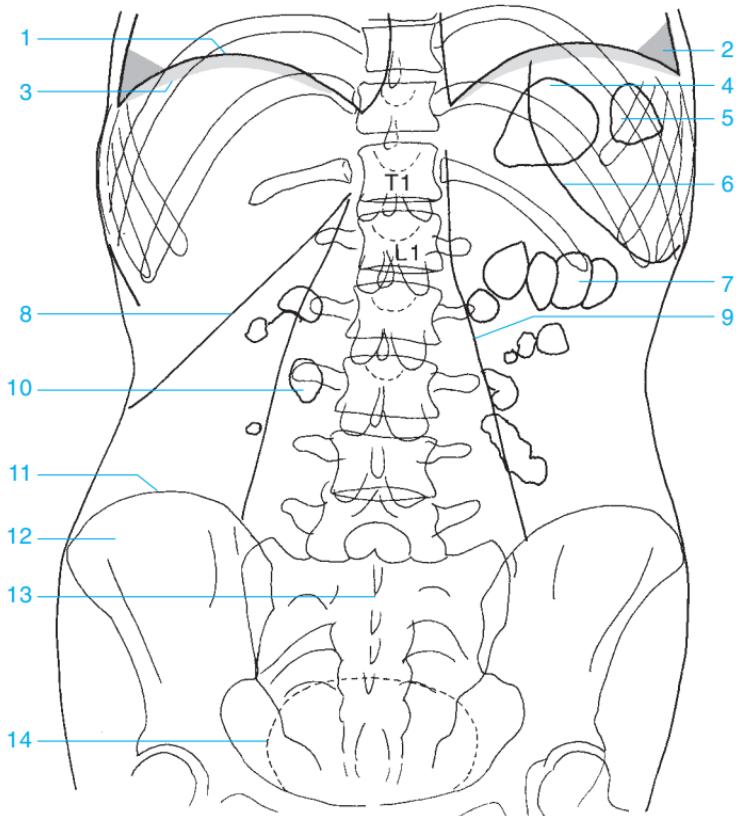




- 1 Sternum
- 2 Aortic arch
- 3 Trachea
- 4 Ascending aorta
- 5 Carina of the trachea
- 6 Left pulmonary artery
- 7 Right main bronchus
- 8 Left main bronchus
- 9 Right atrium
- 10 Right pulmonary artery
- 11 Left pulmonary vein

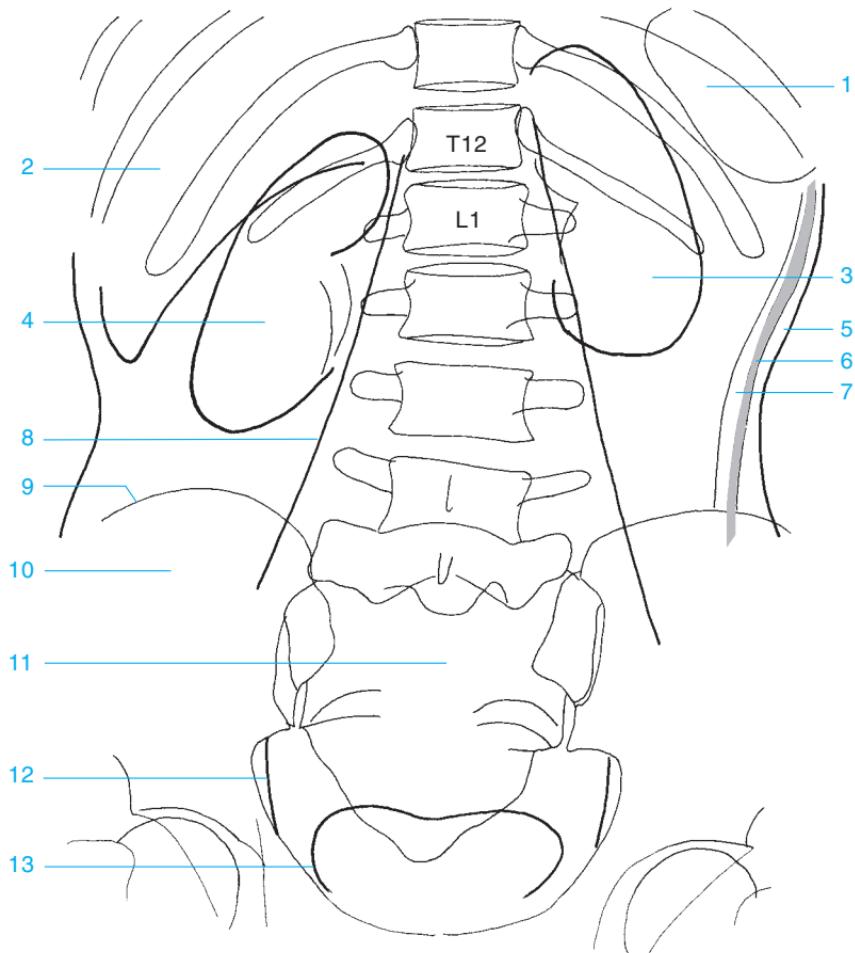
- 12 Right pulmonary vein
- 13 Descending aorta
- 14 Right ventricle
- 15 Left ventricle
- 16 Right lung
- 17 Inferior vena cava
- 18 Gastric bubble (left hemidiaphragm)
- 19 Right hemidiaphragm
- 20 Left lung





- |   |                                |
|---|--------------------------------|
| 1 Diaphragm   | 7 Gas in the transverse colon  |
| 2 Costodiaphragmatic recess<br>(costophrenic angle) | 8 Inferior margin of the liver |
| 3 Subphrenic space                                  | 9 Margin of the psoas          |
| 4 Gastric bubble                                    | 10 Gas in the small bowel      |
| 5 Gas in the splenic flexure of the<br>colon        | 11 Iliac crest                 |
| 6 Lower margin of the spleen                        | 12 Ilium                       |
|   | 13 Sacrum                      |
|   | 14 Urinary bladder             |





1 Spleen

2 Liver

3 Left kidney

4 Right kidney

5 Subcutaneous fat

6 Abdominal muscles

7 Preperitoneal fat

8 Psoas

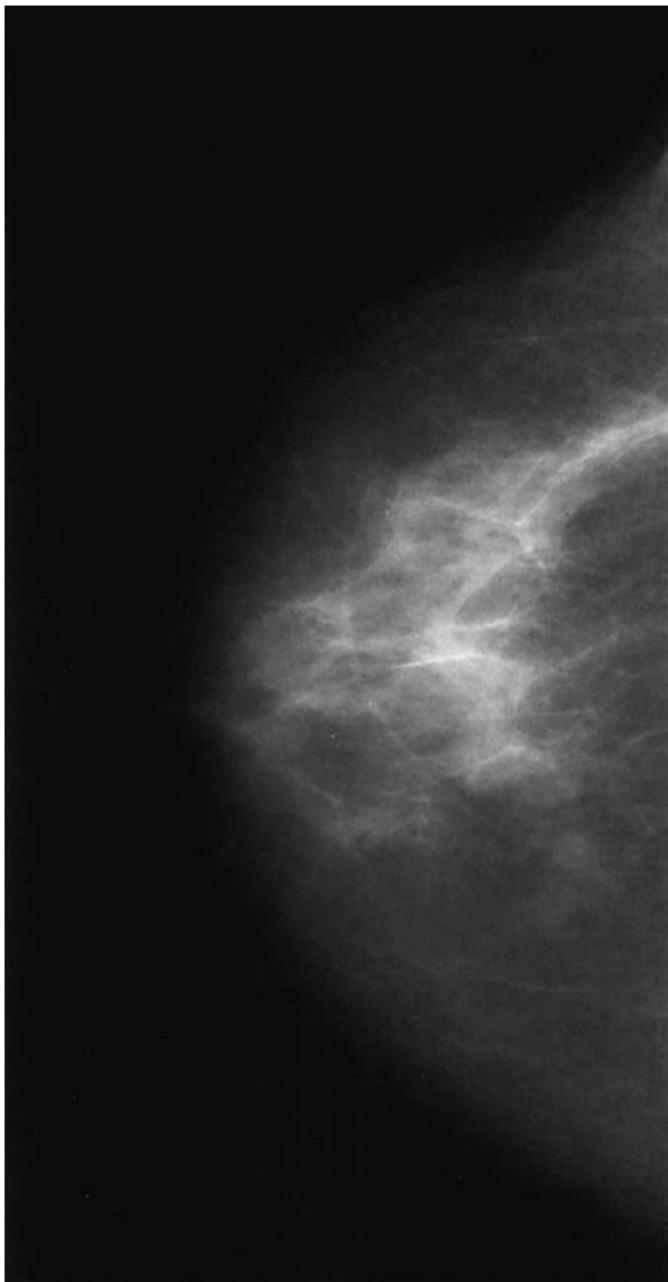
9 Iliac crest

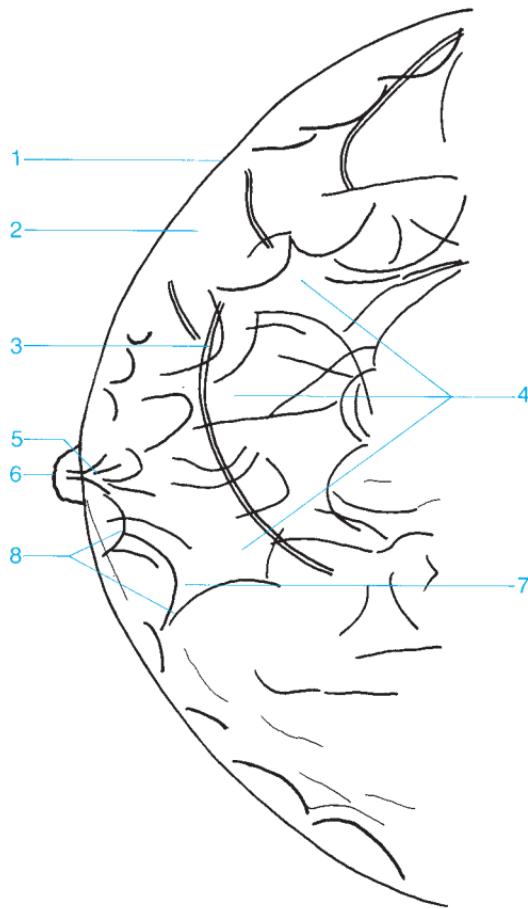
10 Ilium

11 Sacrum

12 Obturator internus

13 Urinary bladder





1 Skin

2 Subcutaneous fat

3 Veins

4 Glandular tissue

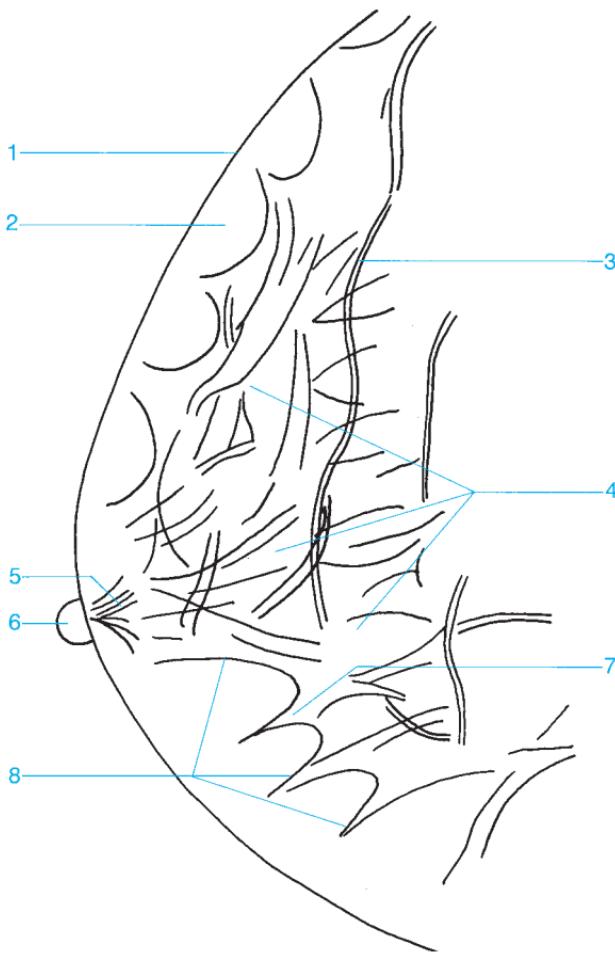
5 Lactiferous duct posterior to the  
nipple

6 Nipple

7 Contour of a lobule

8 Cooper's ligaments

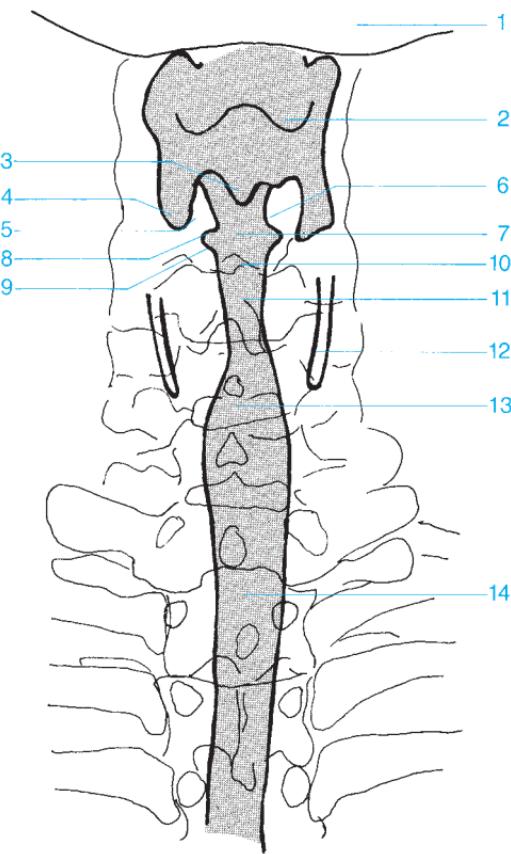




- 1 Skin
- 2 Subcutaneous fat
- 3 Veins
- 4 Glandular tissue

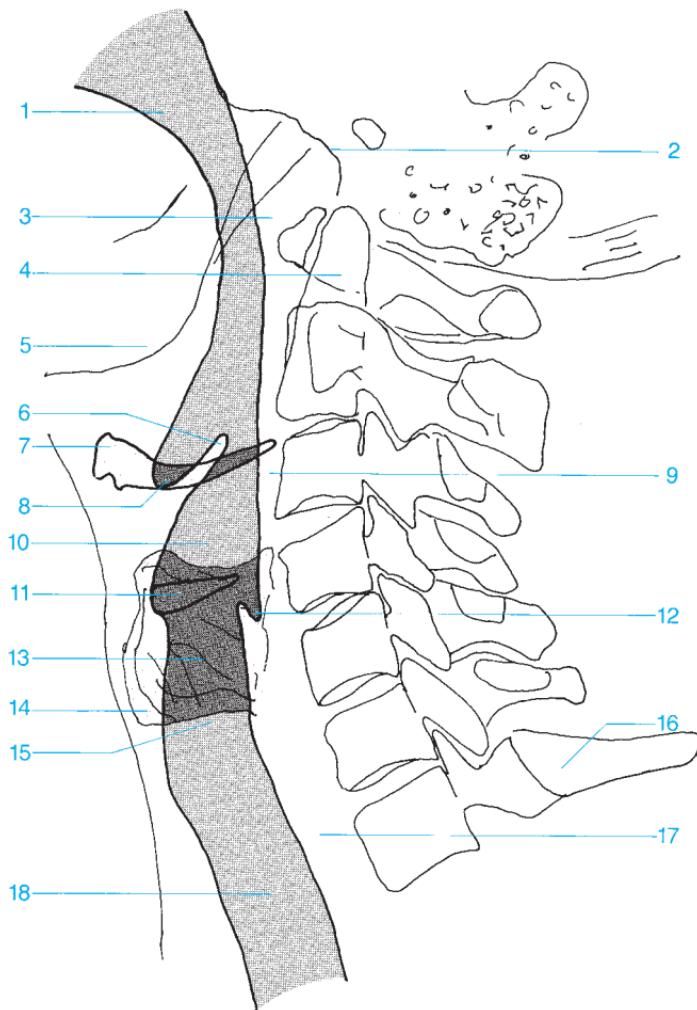
- 5 Lactiferous duct posterior to the nipple
- 6 Nipple
- 7 Contour of a lobule
- 8 Cooper's ligaments





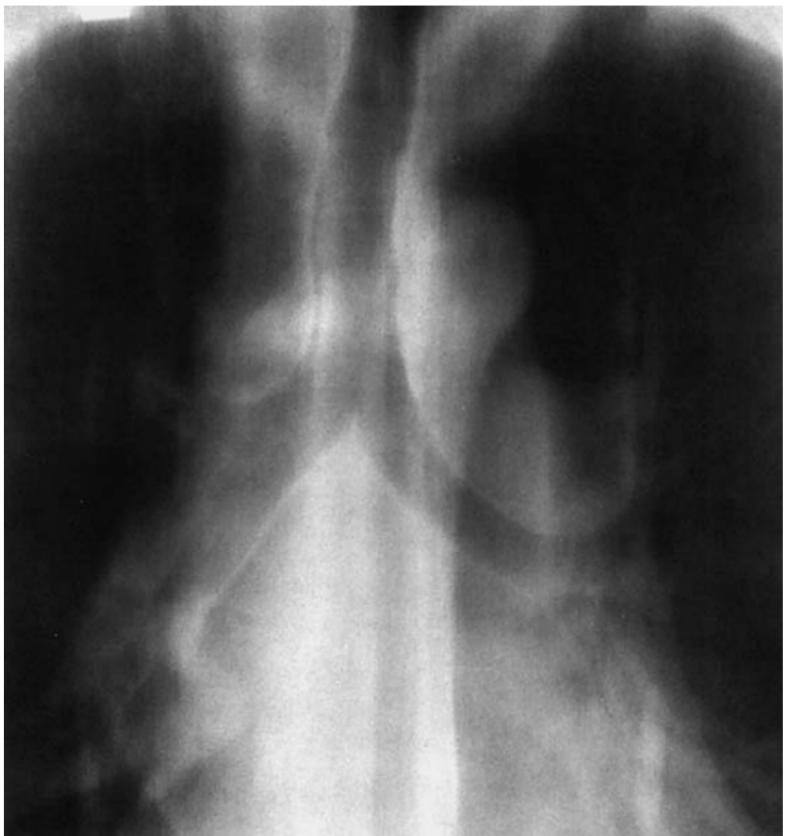
- |   |                                       |
|---|---------------------------------------|
| <b>1</b> Mandible                           | <b>8</b> Ventricle of the larynx      |
| <b>2</b> Floor of the vallecula             | <b>9</b> Vocal fold (true vocal cord) |
| <b>3</b> Interarytenoid notch               | <b>10</b> Rima glottidis              |
| <b>4</b> Piriform recess                    | <b>11</b> Subglottic space            |
| <b>5</b> Arytenoid cartilages               | <b>12</b> Thyroid cartilage           |
| <b>6</b> Vestibular fold (false vocal cord) | <b>13</b> Proximal trachea            |
| <b>7</b> Vestibule of the larynx            | <b>14</b> Distal trachea              |

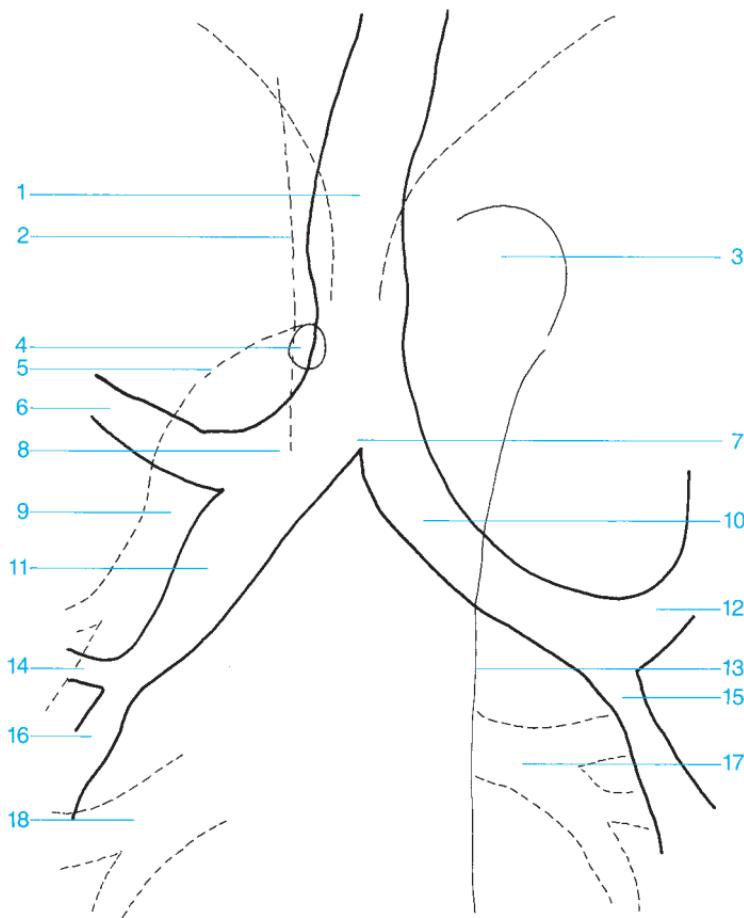




- 1** Oral cavity
- 2** Base of the skull
- 3** Posterior nasopharynx
- 4** Dens of the axis
- 5** Mandible
- 6** Epiglottis
- 7** Hyoid bone
- 8** Floor of the vallecula
- 9** Retropharyngeal space
- 10** Vestibule of the larynx

- 11** Ventricle of the larynx
- 12** Inferior posterior margin of the piriform recess
- 13** Subglottic space
- 14** Thyroid cartilage
- 15** Proximal trachea
- 16** Vertebra C7
- 17** Esophagus
- 18** Distal trachea

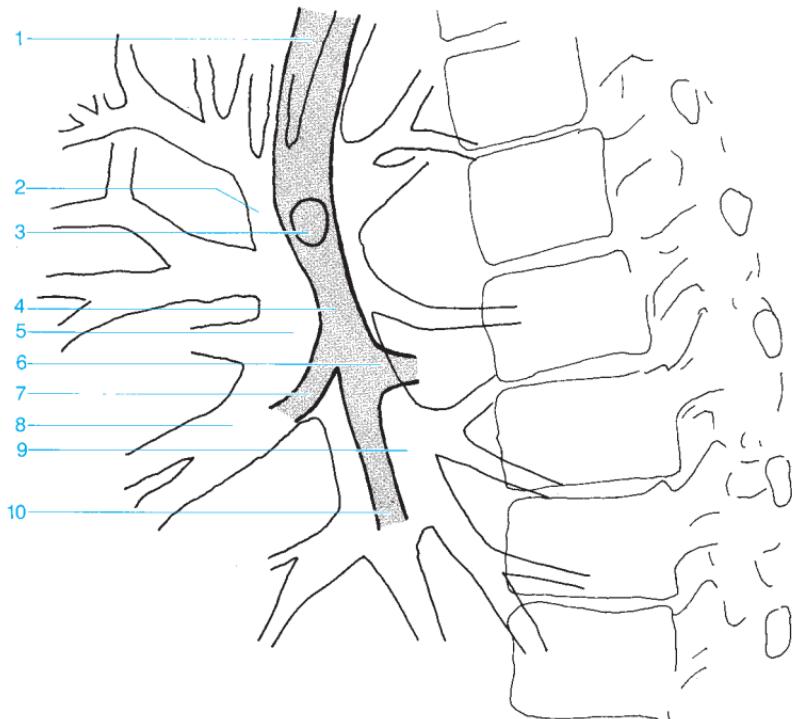




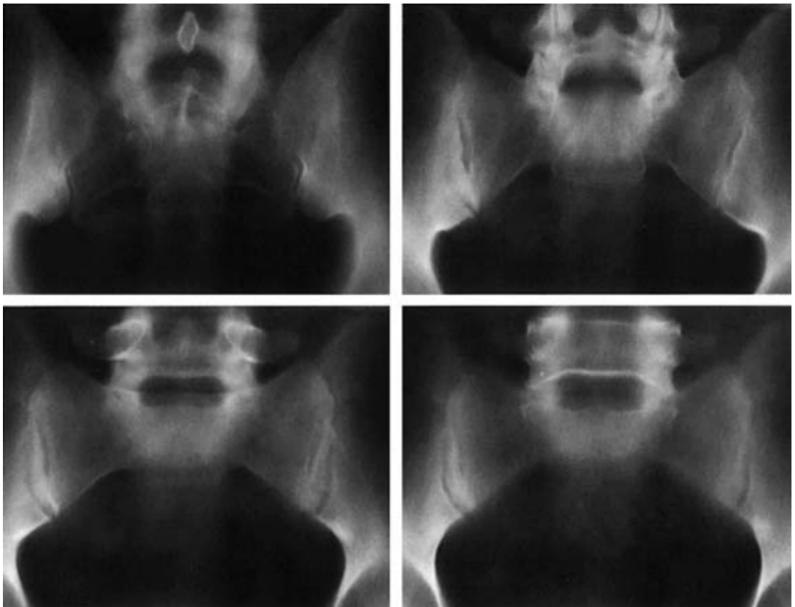
- 1 Trachea
- 2 Superior vena cava
- 3 Aortic arch
- 4 Azygous vein
- 5 Right pulmonary artery
- 6 Right upper lobe bronchus
- 7 Bifurcation of the trachea
- 8 Right main bronchus
- 9 Inferior lobar branch of the pulmonary artery

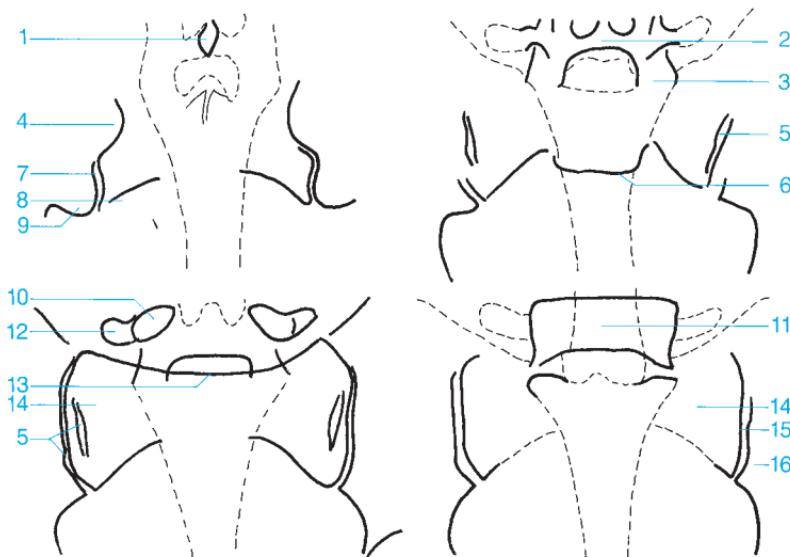
- 10 Left main bronchus
- 11 Intermediate bronchus
- 12 Left upper lobe bronchus
- 13 Descending aorta
- 14 Middle lobe bronchus
- 15 Left lower lobe bronchus
- 16 Right lower lobe bronchus
- 17 Pulmonary veins
- 18 Venous confluence





- |          |   |           |   |
|----------|---|-----------|---|
| <b>1</b> | Trachea                                       | <b>7</b>  | Middle lobe bronchus                          |
| <b>2</b> | Superior lobar branch of the pulmonary artery | <b>8</b>  | Middle lobar branch of the pulmonary artery   |
| <b>3</b> | Origin of the upper lobe bronchus             | <b>9</b>  | Inferior lobar branch of the pulmonary artery |
| <b>4</b> | Intermediate bronchus                         | <b>10</b> | Lower lobe bronchus                           |
| <b>5</b> | Right pulmonary artery                        |           |   |
| <b>6</b> | Segmental bronchus of the lower lobe          |           |   |





- 1** Spinous process
- 2** Lamina
- 3** Inferior articular process
- 4** Posterior superior iliac spine
- 5** Middle portion of the sacroiliac joint
- 6** Anterior aspect of the sacrum
- 7** Posterior inferior aspect of the sacroiliac joint
- 8** Sacral foramina

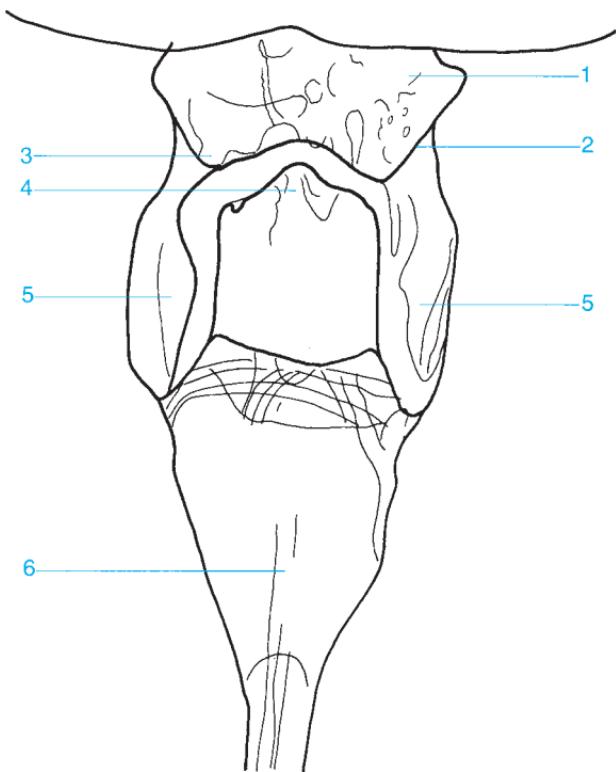
- 9** Posterior inferior iliac spine
- 10** Pedicle
- 11** L5
- 12** Transverse process
- 13** Promontory
- 14** Sacral ala
- 15** Anterior aspect of the sacroiliac joint
- 16** Ilium (iliac wing)

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## **Contrast Studies**

Gastrointestinal System.....	240
Intravenous Contrast Studies .....	264
Arthrography .....	268
Arteriography.....	280
Venography.....	326





1 Pharynx

2 Lateral glossoepiglottic fold

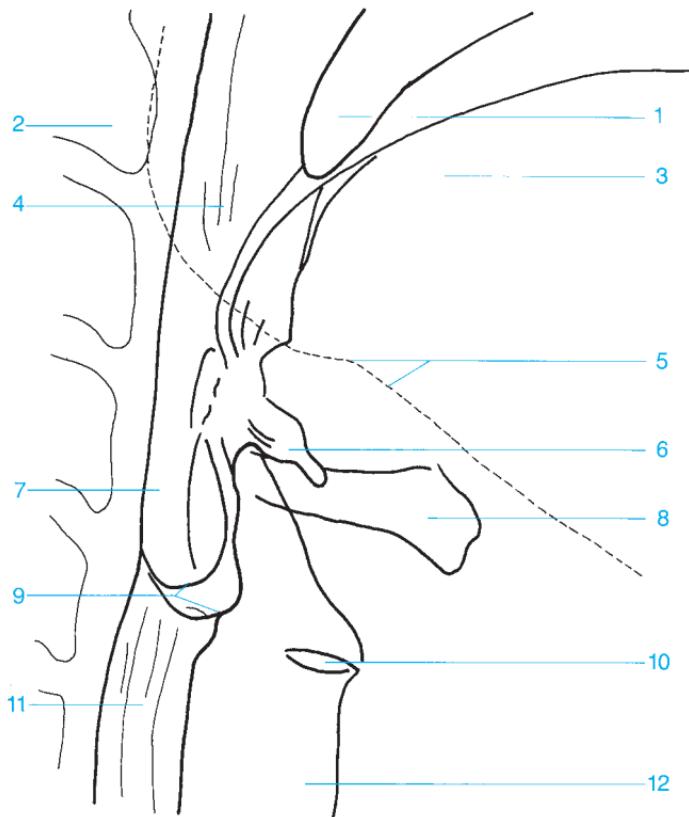
3 Vallecula

4 Epiglottis

5 Piriform recess

6 Esophagus

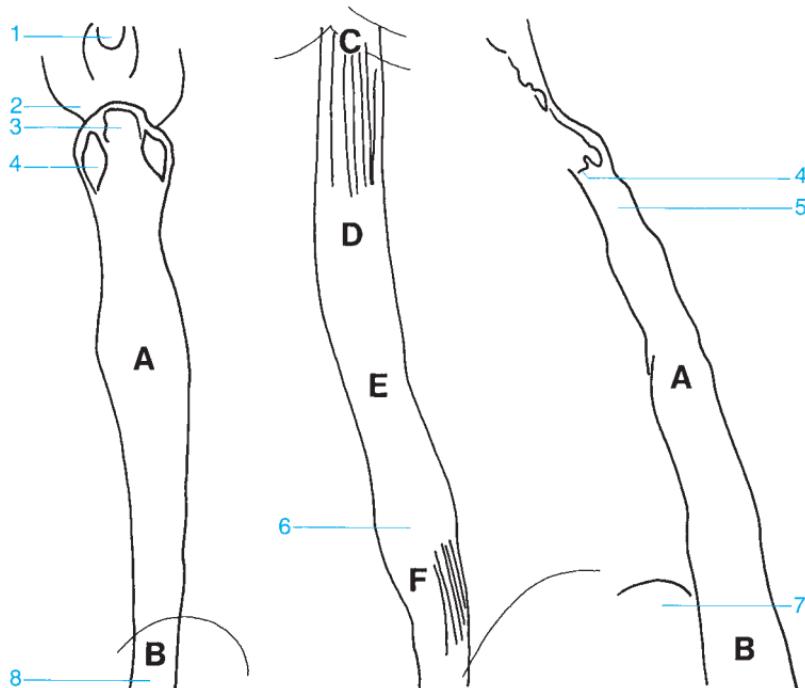




- 1 Uvula
- 2 Cervical spine (axis)
- 3 Tongue
- 4 Oropharynx
- 5 Mandible
- 6 Vallecula

- 7 Larynx
- 8 Hyoid bone
- 9 Piriform recess
- 10 Ventricle of the larynx
- 11 Esophagus
- 12 Trachea

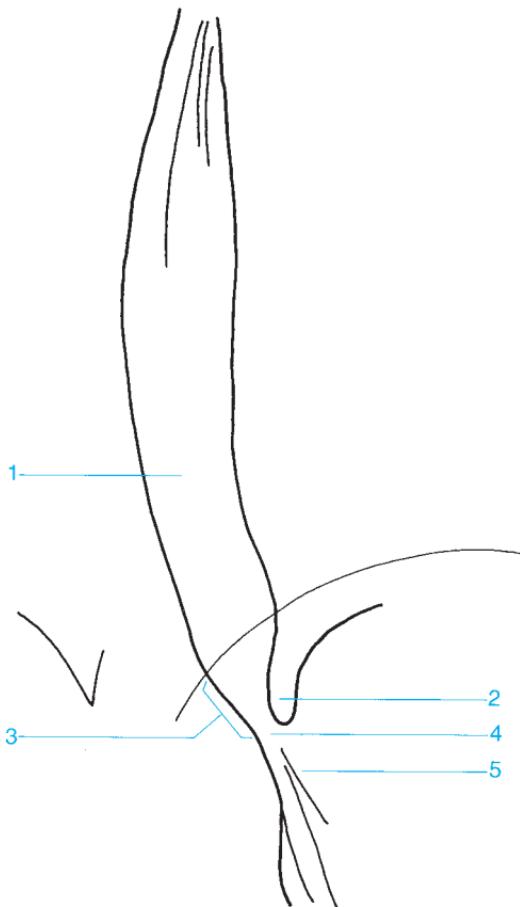




- 1 Uvula
- 2 Lateral glossoepiglottic fold
- 3 Epiglottis
- 4 Piriform recess
- 5 Upper esophageal sphincter
- 6 Body of the esophagus
- 7 Aortic arch
- 8 Bronchial and aortic segment

- A Paratracheal segment
- B Aortic segment
- C Bronchial segment
- D Interbronchial segment
- E Retrocardiac segment
- F Epiphrenic segment

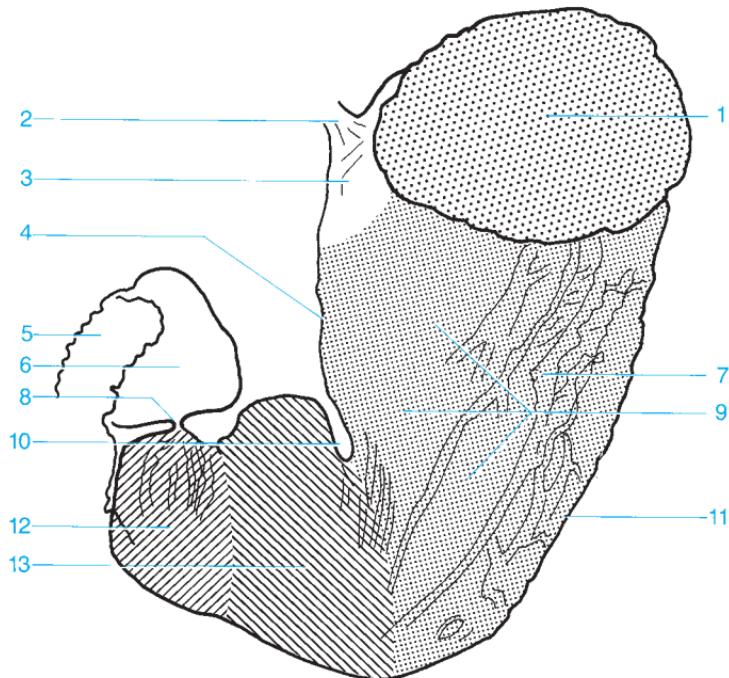




- 1 Distal esophagus
- 2 Gastroesophageal angle
- 3 Abdominal esophagus

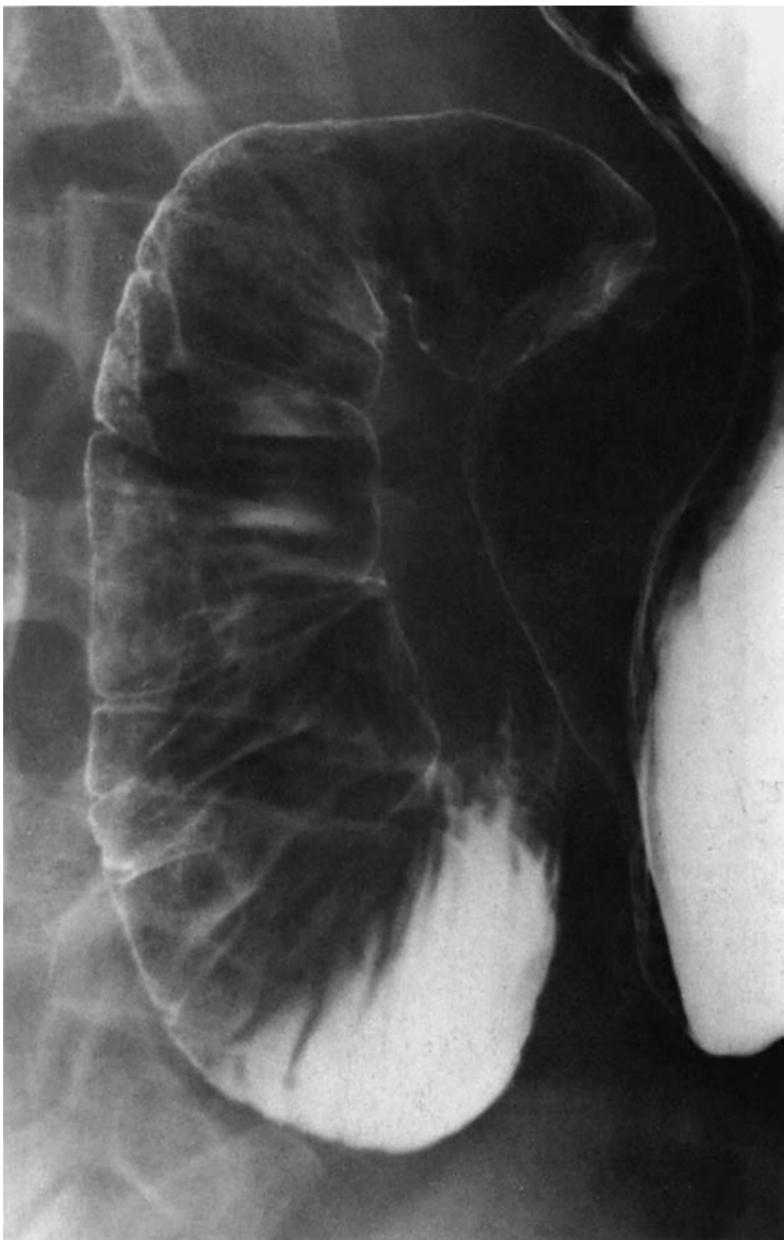
- 4 Esophageal hiatus
- 5 Cardia

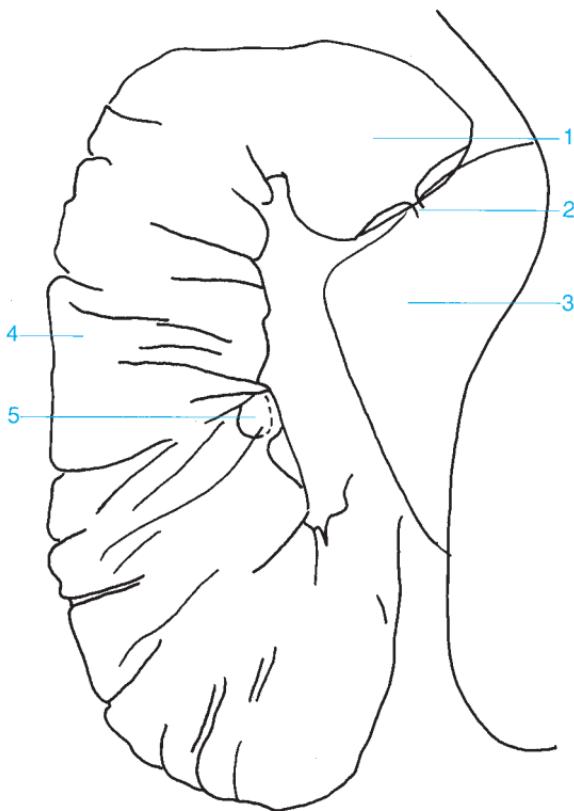




- 1 Fundus
- 2 Abdominal esophagus
- 3 Cardia
- 4 Lesser curvature
- 5 Duodenum
- 6 Ampulla of Vater
- 7 Gastric folds (posterior wall)

- 8 Pylorus
- 9 Body of the stomach
- 10 Angular notch
- 11 Greater curvature
- 12 Pyloric antrum
- 12 + 13 Antrum





1 Ampulla of Vater

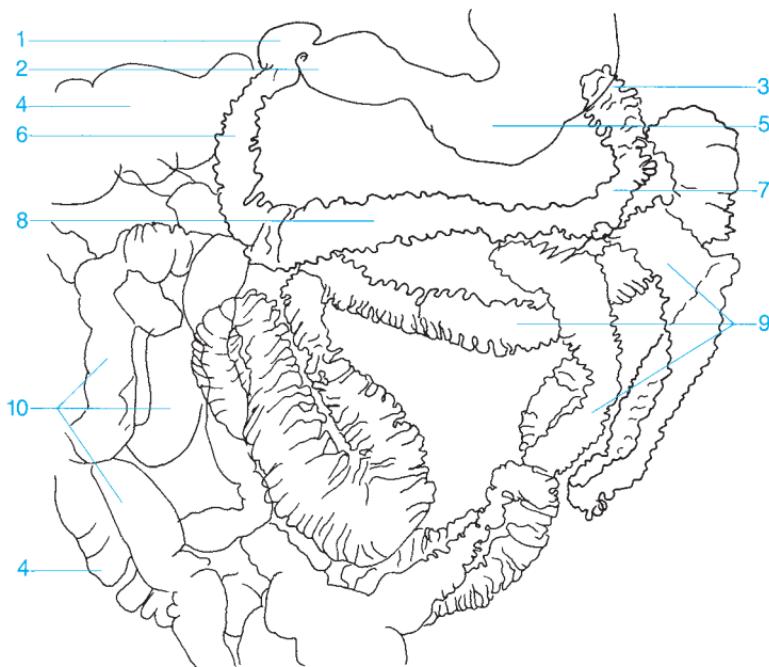
2 Pylorus

3 Pyloric antrum

4 Descending duodenum

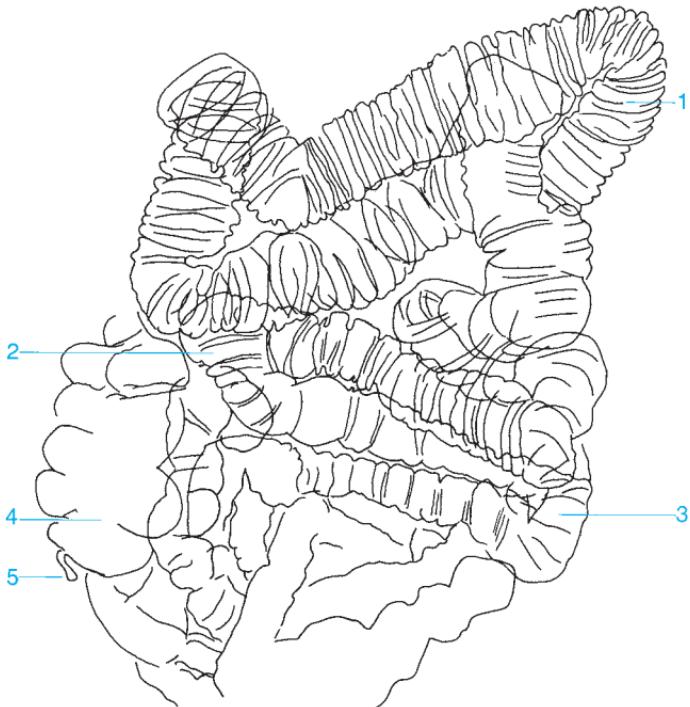
5 Papilla of Vater





- |                                  |                                      |
|----------------------------------|--------------------------------------|
| <b>1</b> Ampulla of Vater        | <b>6</b> Descending duodenum         |
| <b>2</b> Pyloric antrum          | <b>7</b> Ascending duodenum          |
| <b>3</b> Duodoenojejunal flexure | <b>8</b> Horizontal part of duodenum |
| <b>4</b> Colon                   | <b>9</b> Jejunum                     |
| <b>5</b> Body of the stomach     | <b>10</b> Ileum                      |





1 Jejunum

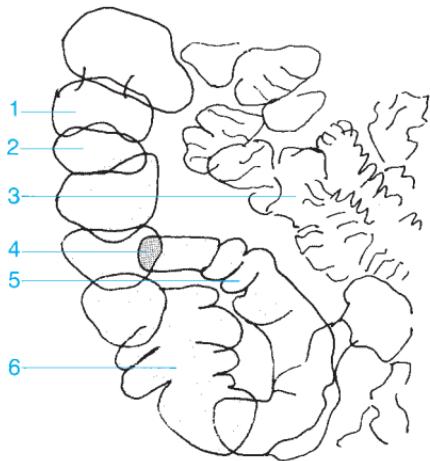
2 Junction of the ileum and jejunum

3 Ileum

4 Cecum

5 Appendix

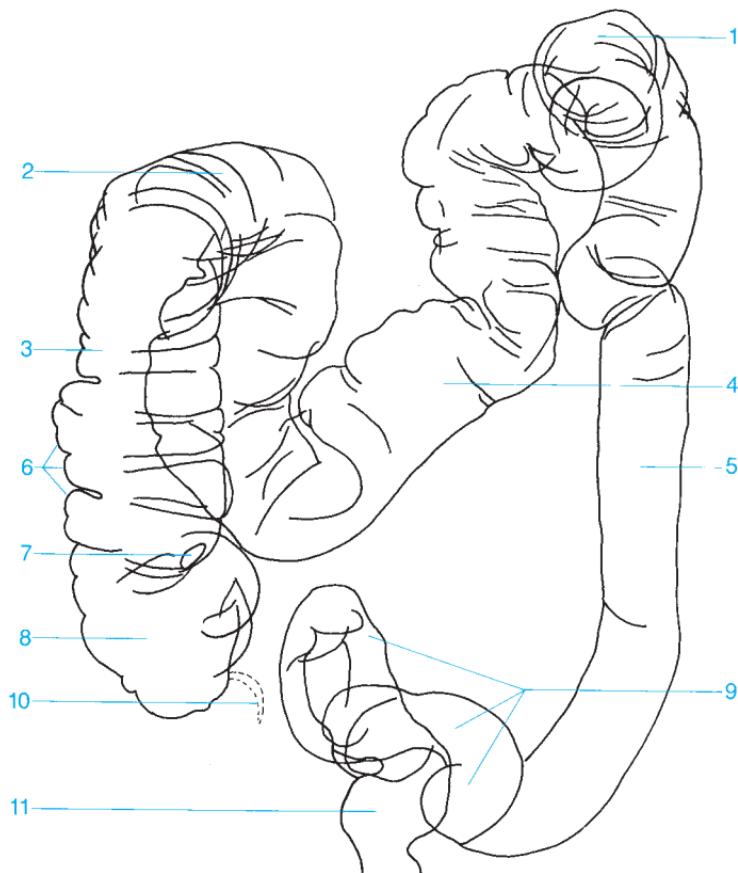




- 1 Haustra of the colon
- 2 Ascending colon
- 3 Ileum

- 4 Ileocecal valve
- 5 Terminal ileum
- 6 Cecum

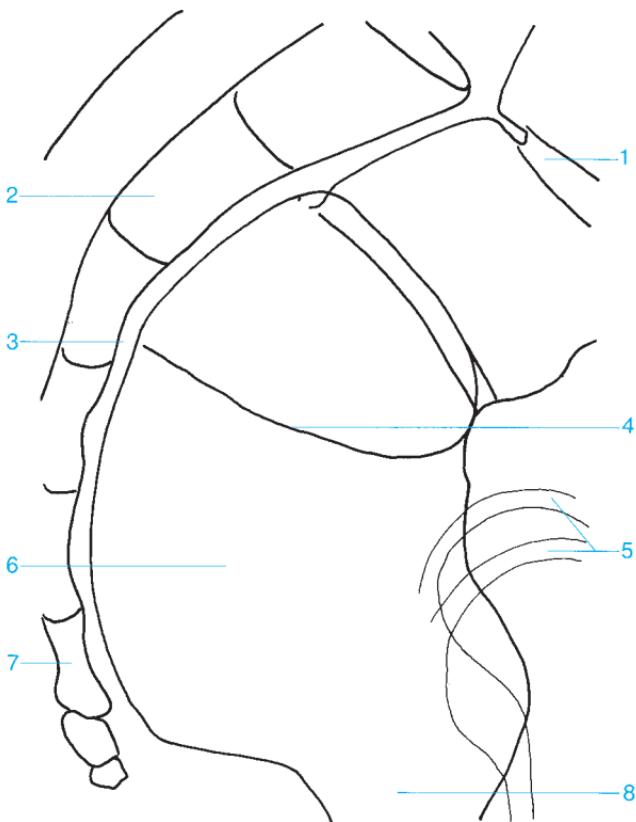




- 1 Splenic flexure of the colon
- 2 Hepatic flexure of the colon
- 3 Ascending colon
- 4 Transverse colon
- 5 Descending colon
- 6 Haustra

- 7 Ileocecal valve
- 8 Cecum
- 9 Sigmoid colon
- 10 Appendix
- 11 Rectum

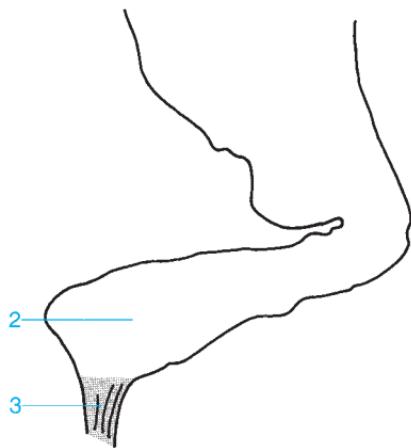
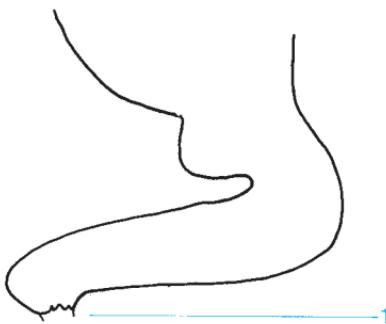




- 1 Rectosigmoid junction
- 2 Sacrum
- 3 Retrorectal space
- 4 Transverse rectal fold

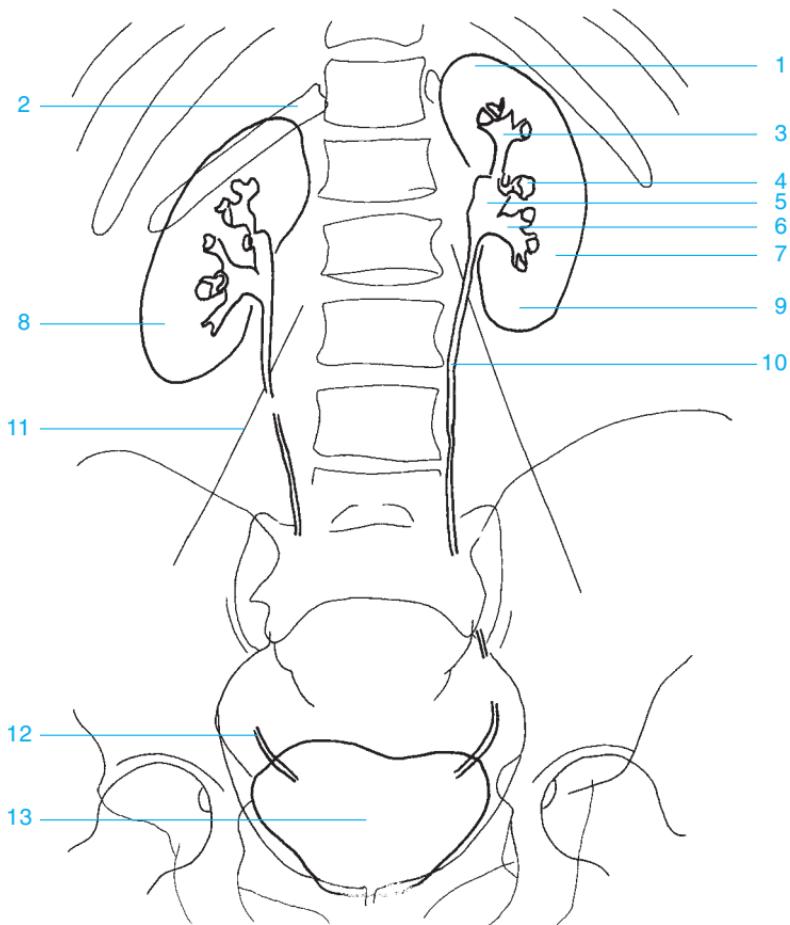
- 5 Femoral head
- 6 Rectal ampulla
- 7 Coccyx
- 8 Anorectal junction





- 1 Puborectalis
- 2 Rectal ampulla
- 3 Anal canal

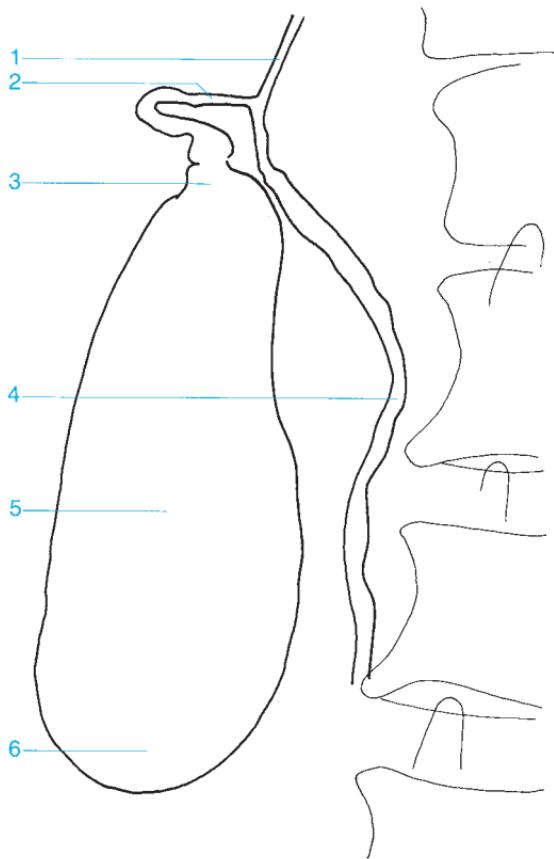




- 1 Superior pole of the kidney
- 2 Twelfth rib
- 3 Superior calyces
- 4 Middle calyces
- 5 Renal pelvis
- 6 Inferior calyces
- 7 Left kidney

- 8 Right kidney
- 9 Inferior pole of the kidney
- 10 Ureter
- 11 Margin of the psoas
- 12 Distal ureter
- 13 Urinary bladder

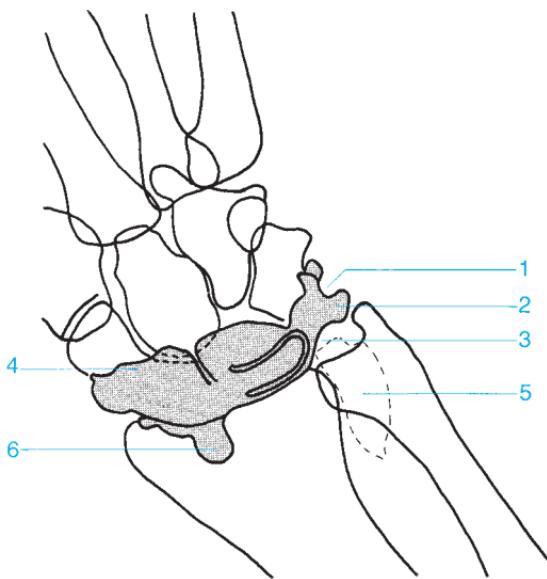




- 1 Common hepatic duct
- 2 Cystic duct
- 3 Neck of the gallbladder

- 4 Common bile duct
- 5 Body of the gallbladder
- 6 Fundus of the gallbladder

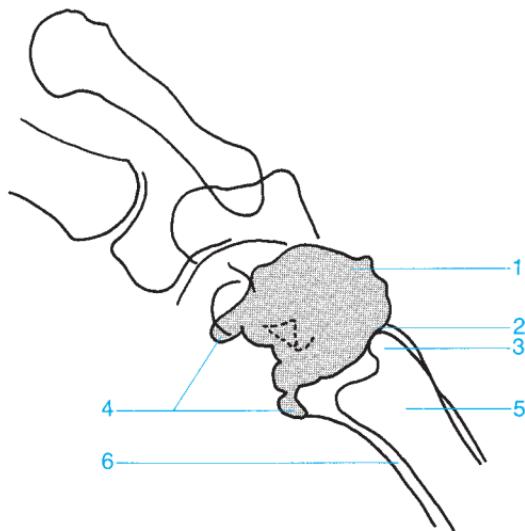




- 1** Meniscus  
**2** Ulnar recess  
**3** Triangular fibrocartilage

- 4** Extensor recess  
**5** Sacciform recess  
**6** Flexor recess

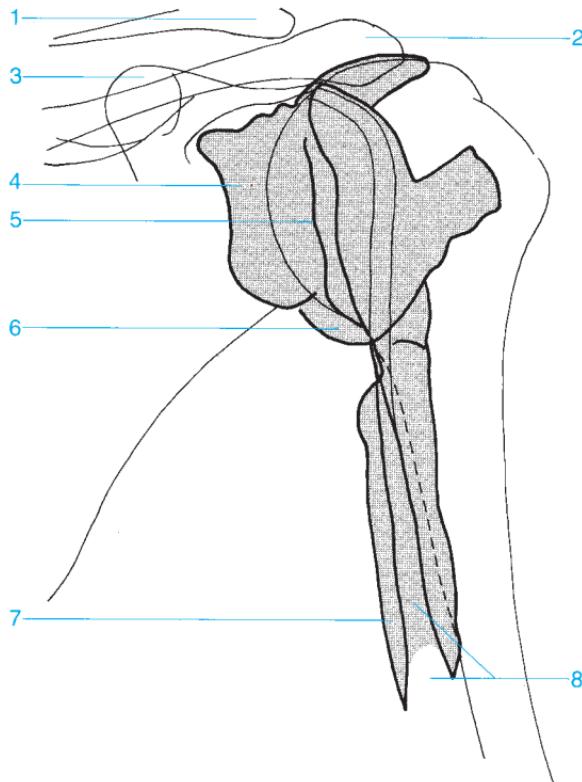




- 1** Extensor recess  
**2** Ulnar recess  
**3** Ulnar styloid

- 4** Flexor recess  
**5** Ulna  
**6** Radius

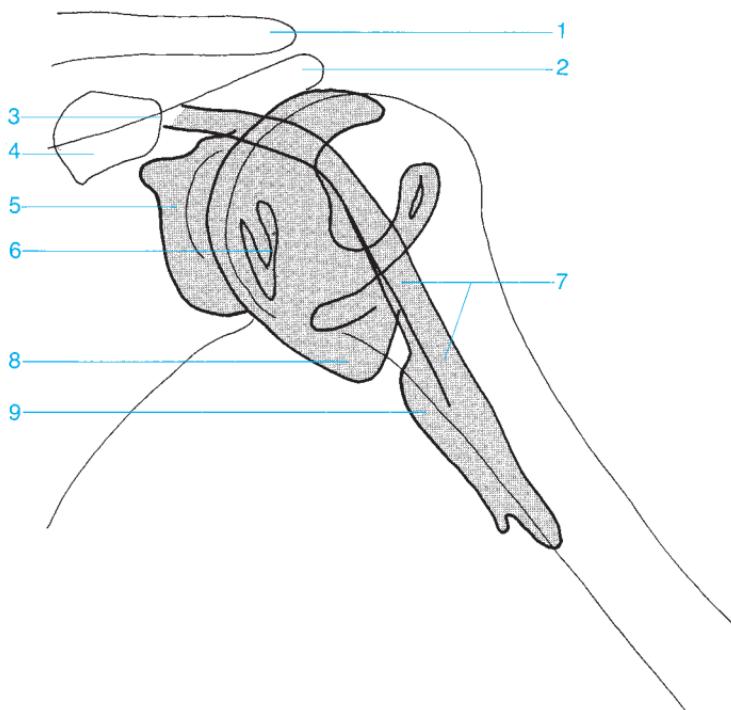




- 1 Clavicle
- 2 Acromion
- 3 Coracoid process
- 4 Subscapular bursa
- 5 Glenoid labrum

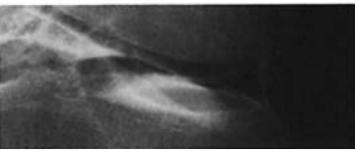
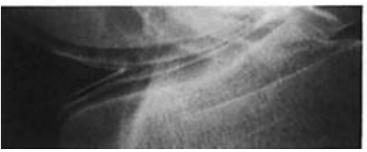
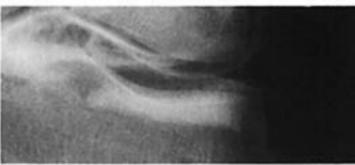
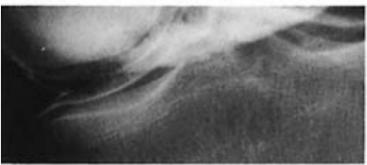
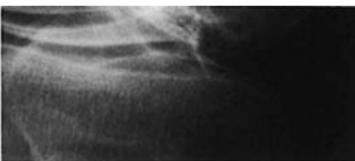
- 6 Axillary recess
- 7 Intertubercular sheath
- 8 Tendon sheath of the long head of the biceps

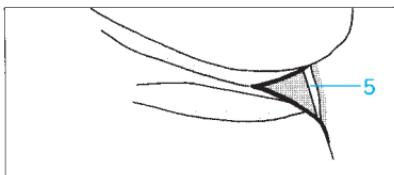
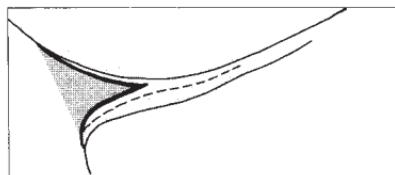
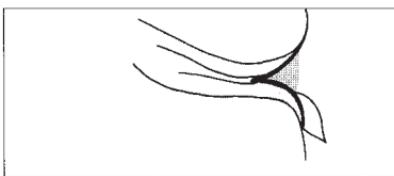
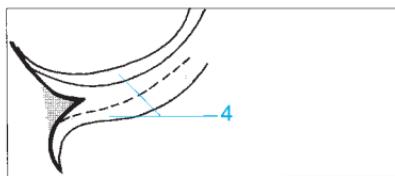
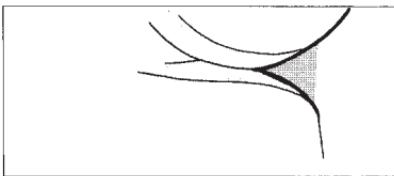
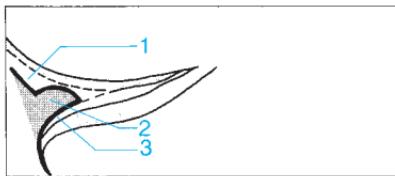




- 1 Clavicle
- 2 Acromion
- 3 Insertion of the biceps tendon
- 4 Coracoid process
- 5 Subscapular bursa

- 6 Glenoid labrum
- 7 Tendon sheath of the long head of the biceps
- 8 Axillary recess
- 9 Intertubercular sheath





- 1 Superior capsular recess  
2 Meniscus  
3 Inferior capsular recess

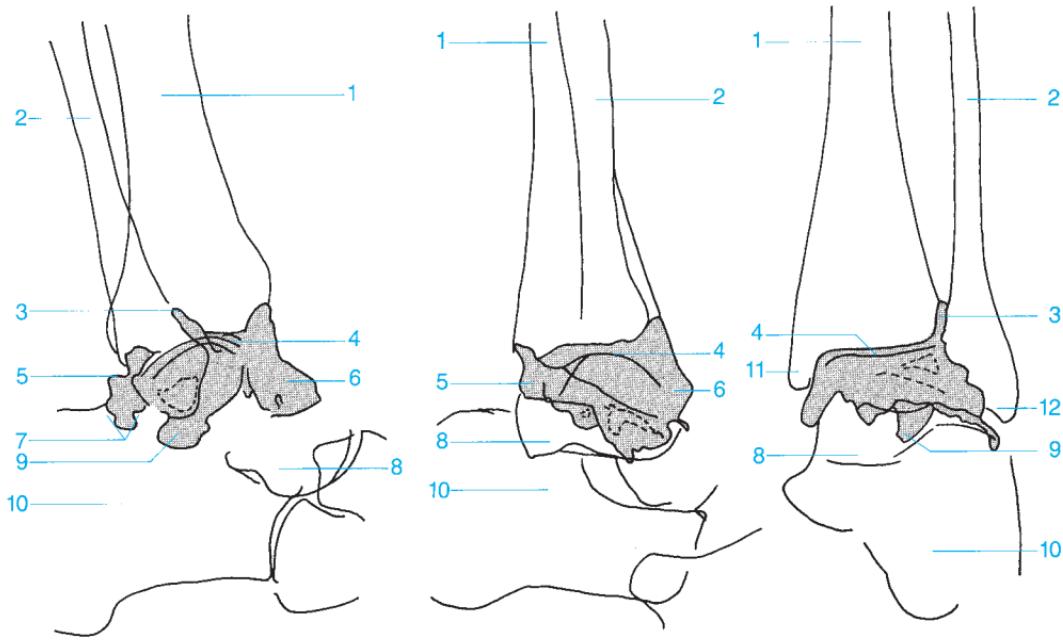
- 4 Cartilage  
5 Popliteal bursa



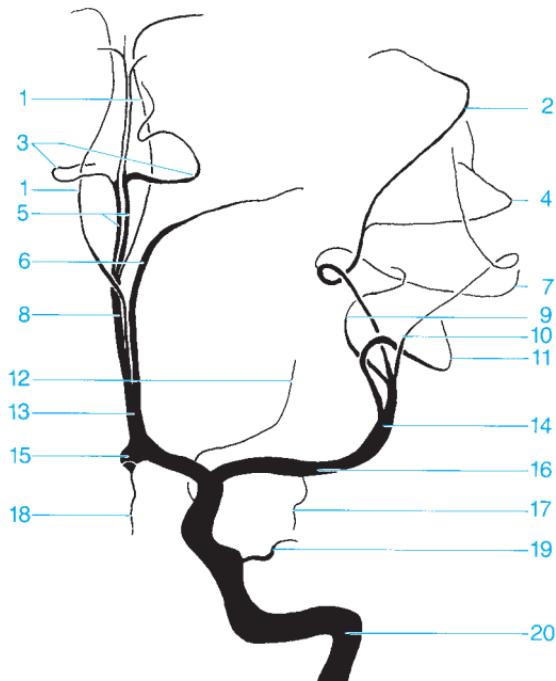
- 1 Tibia
- 2 Fibula
- 3 Tibiofibular joint
- 4 Joint space

- 5 Posterior recess
- 6 Anterior recess
- 7 Tendon recesses (anatomy varies)
- 8 Talus

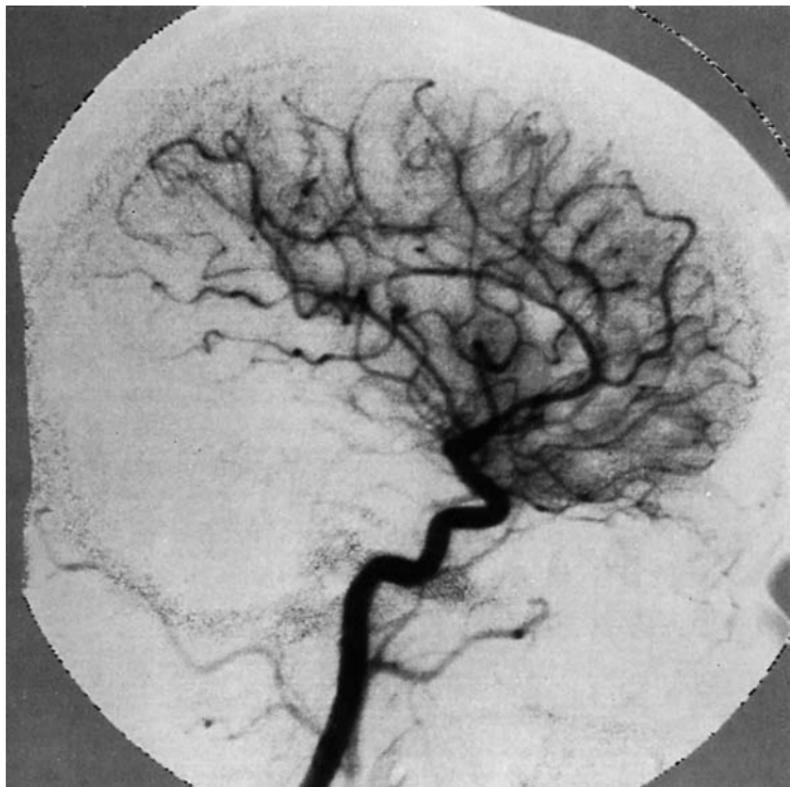
- 9 Suprocalcaneal recess
- 10 Calcaneus
- 11 Medial malleolus
- 12 Lateral malleolus



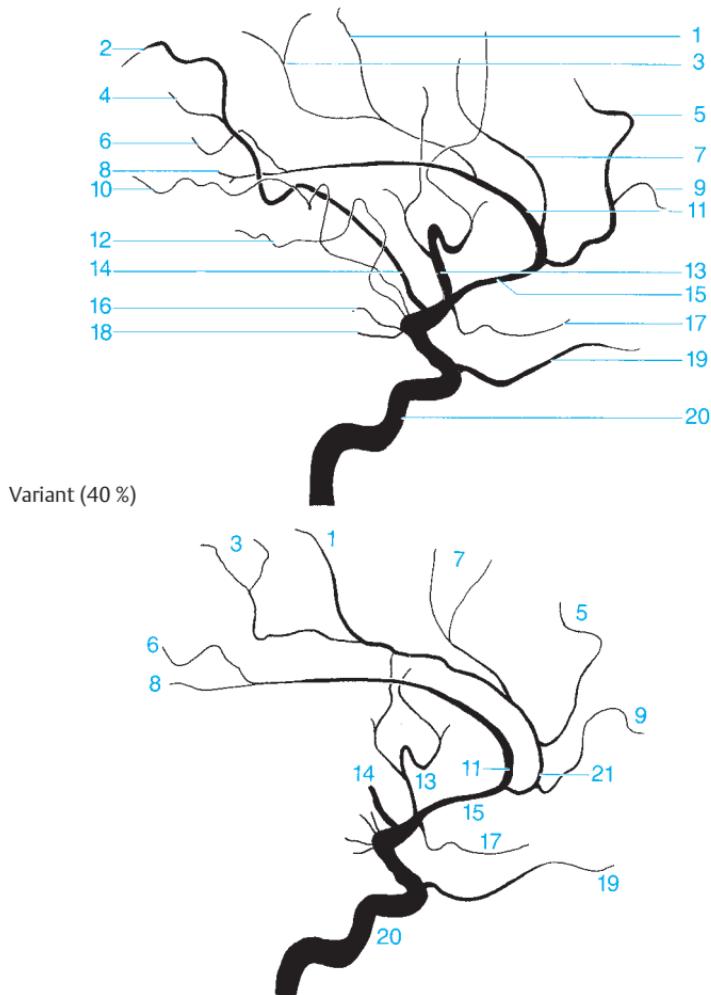




- 1 Callosomarginal artery
- 2 Anterior parietal artery
- 3 Pericallosal artery
- 4 Posterior parietal artery
- 5 Pericallosal artery (fourth segment of the anterior cerebral artery, superior to the corpus callosum)
- 6 Frontal polar artery
- 7 Precentral sulcal artery
- 8 Third segment of the anterior cerebral artery or pericallosal artery
- 9 Artery of the angular gyrus
- 10 Posterior temporal artery
- 11 Prefrontal arteries
- 12 Anterior choroidal artery
- 13 Second segment of the anterior cerebral artery (from here on referred to as the pericallosal artery)
- 14 Second segment of the middle cerebral artery
- 15 Anterior communicating artery of the cerebrum (obscured by a vascular arch)
- 16 First segment of the middle cerebral artery (sphenoid part)
- 17 Temporal polar artery
- 18 Frontal orbital artery
- 19 Ophthalmic artery
- 20 Internal carotid artery

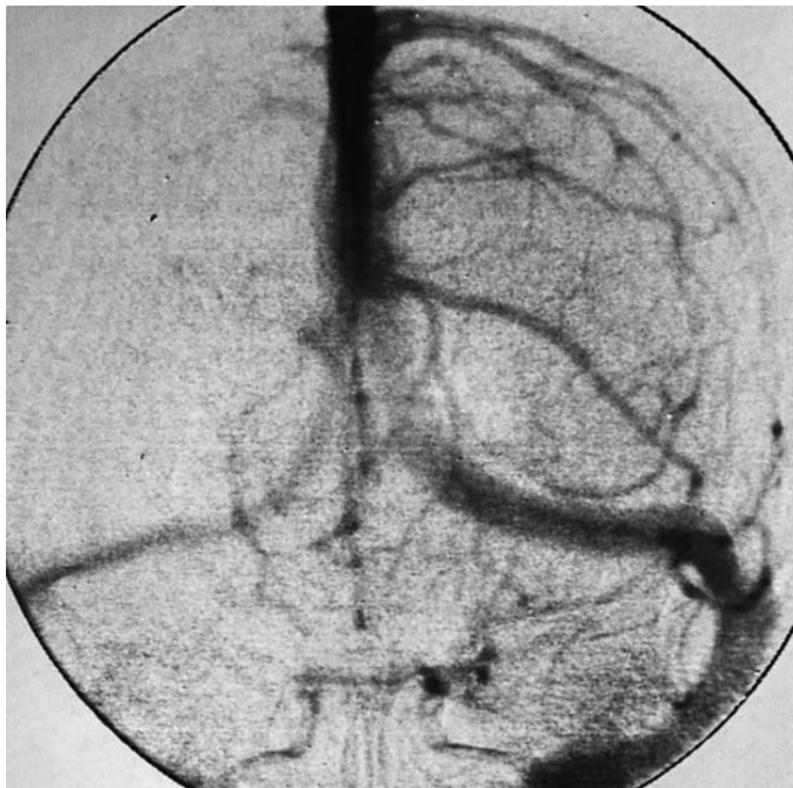


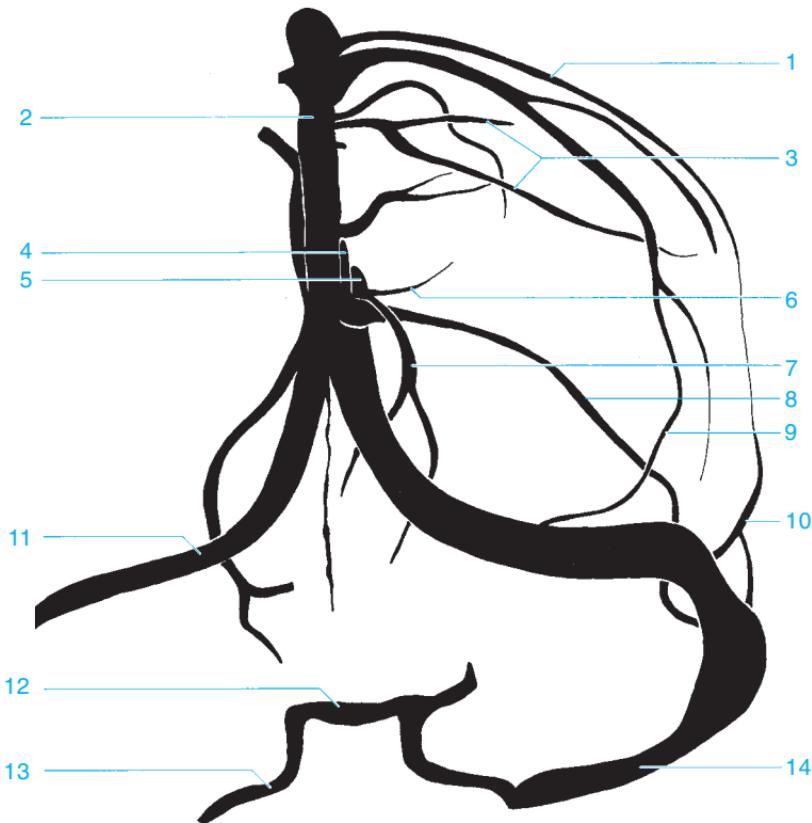
- 1 Posterior internal frontal artery
- 2 Anterior parietal artery
- 3 Paracentral artery
- 4 Posterior parietal artery
- 5 Anterior internal frontal artery
- 6 Superior internal parietal artery
- 7 Medial internal frontal artery
- 8 Inferior internal parietal artery
- 9 Frontal polar artery
- 10 Artery of the angular gyrus
- 11 Pericallosal artery
- 12 Posterior temporal artery



- 13 Prefrontal arteries
- 14 Second segment of the middle cerebral artery
- 15 Second segment of the anterior cerebral artery
- 16 Anterior choroidal artery

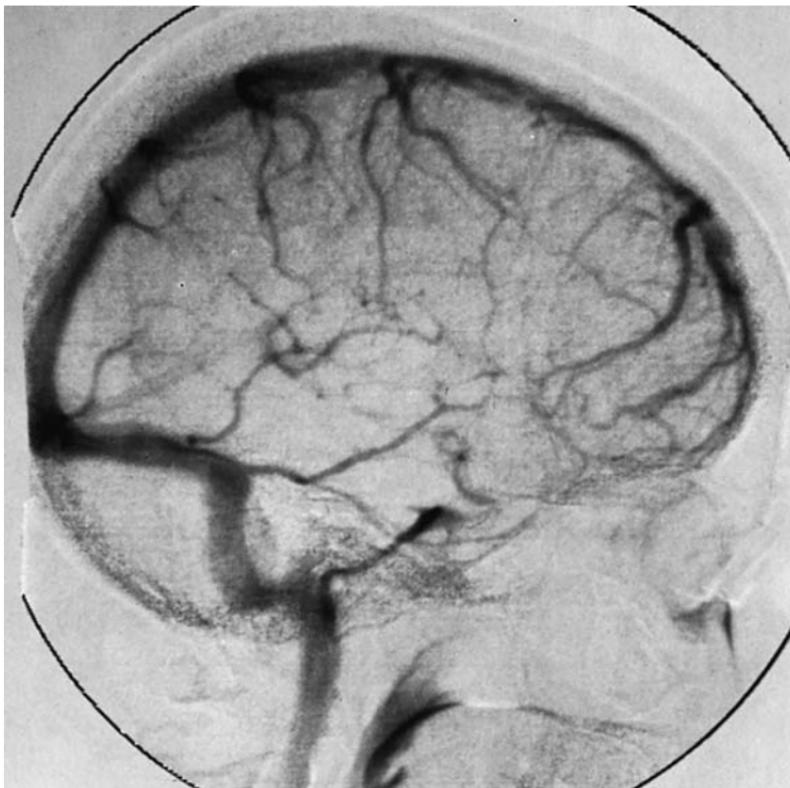
- 17 Frontal orbital artery
- 18 Posterior communicating artery
- 19 Ophthalmic artery
- 20 Internal carotid artery
- 21 Callosomarginal artery





- 1 Parietal vein
- 2 Superior sagittal sinus
- 3 Superior anastomotic vein (vein of Trolard)
- 4 Great cerebral vein of Galen
- 5 Internal cerebral vein
- 6 Superior thalamostriate vein
- 7 Basal vein of Rosenthal

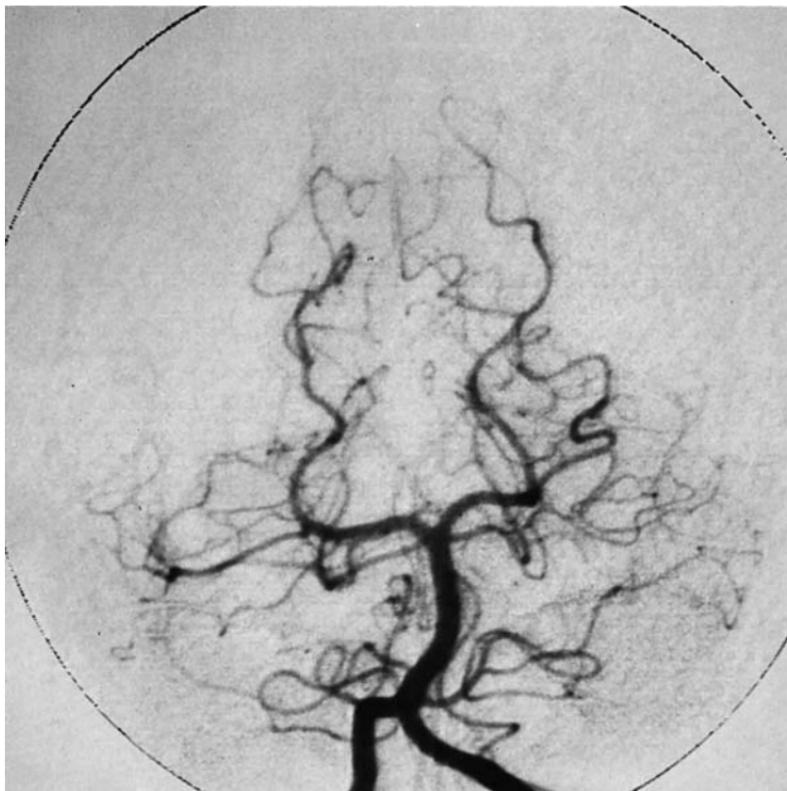
- 8 Frontal veins
- 9 Veins of the fossa of Sylvius
- 10 Sphenoparietal sinus
- 11 Transverse sinus
- 12 Intercavernous sinus
- 13 Inferior petrosal sinus
- 14 Sigmoid sinus

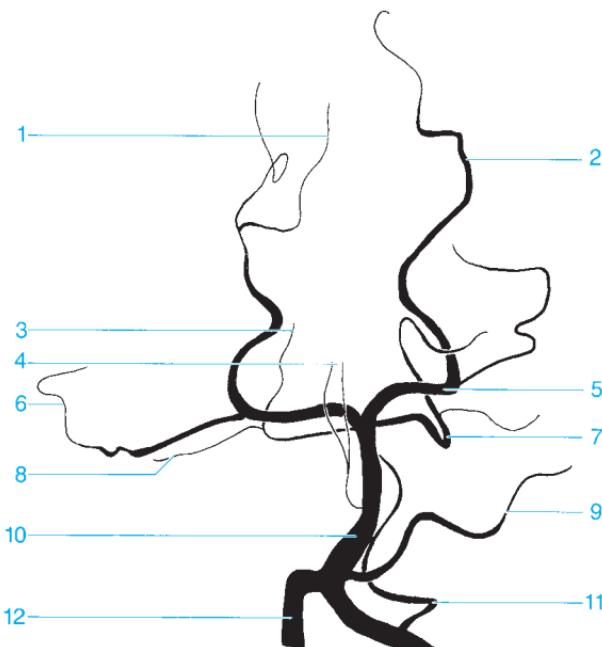




- 1 Superior sagittal sinus
- 2 Parietal vein
- 3 Superior anastomotic vein (vein of Trolard)
- 4 Occipital veins
- 5 Inferior sagittal sinus
- 6 Internal cerebral vein
- 7 Superior thalamostriate veins
- 8 Vein of the septum pellucidum
- 9 Straight sinus
- 10 Great cerebral vein of Galen
- 11 Ascending frontal veins
- 12 Basal vein of Rosenthal
- 13 Inferior anastomotic vein (vein of Labb  )

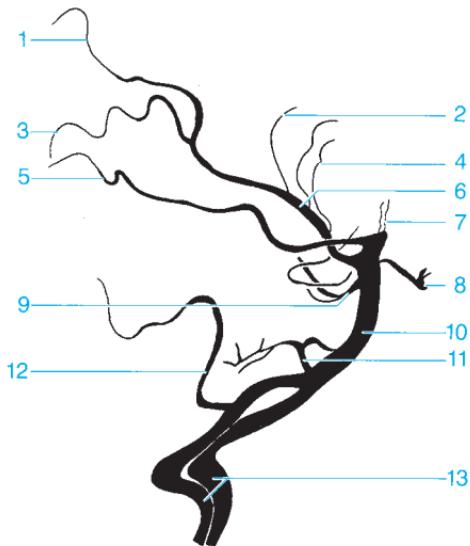
- 14 Veins of the fossa of Sylvius
- 15 Confluence of sinuses
- 16 Cavernous sinus (anterior drainage)
- 17 Transverse sinus
- 18 Superior petrosal sinus
- 19 Cavernous sinus (posterior drainage)
- 20 Sigmoid sinus
- 21 Inferior petrosal sinus
- 22 Occipital sinus
- 23 Pterygoid plexus
- 24 Internal jugular vein



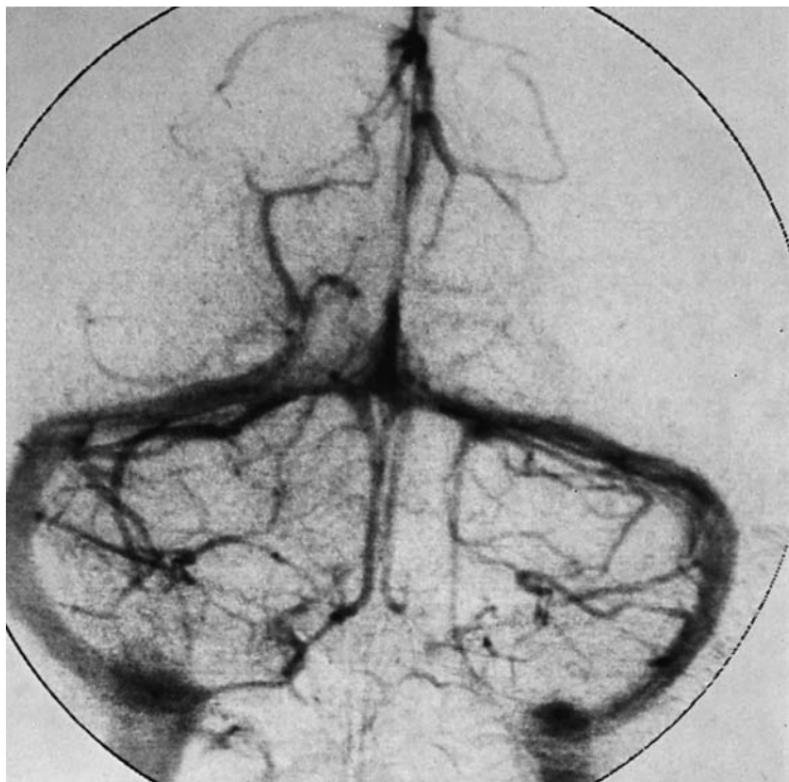


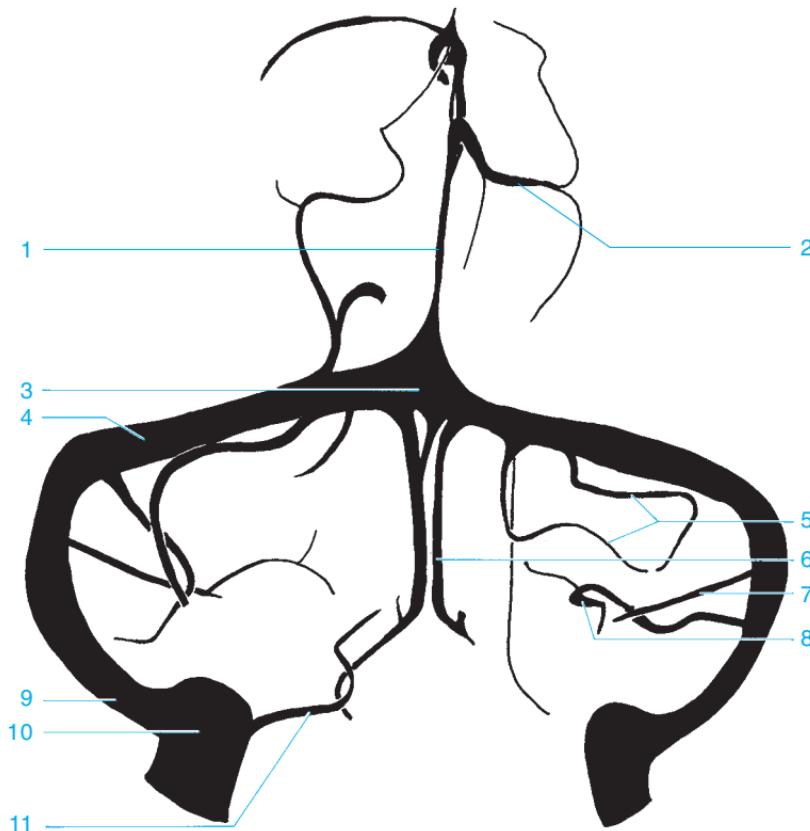
- |   |   |
|---|---|
| 1 Calcarine branch of the medial occipital artery | 7 Superior cerebellar artery            |
| 2 Parieto-occipital artery                        | 8 Marginal artery                       |
| 3 Vermis branch                                   | 9 Anterior inferior cerebellar artery   |
| 4 Thalamoperforate arteries                       | 10 Basilar artery                       |
| 5 Posterior cerebral artery                       | 11 Posterior inferior cerebellar artery |
| 6 Temporo-occipital artery                        | 12 Vertebral artery                     |





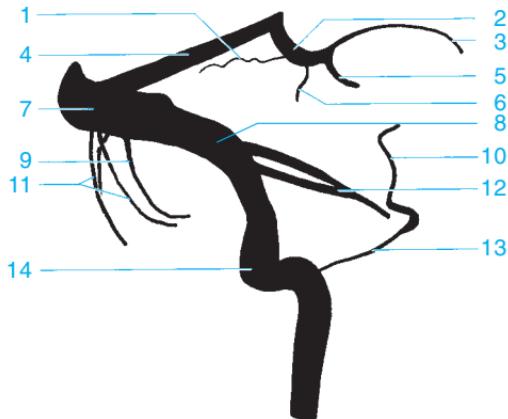
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|----------|---|-----------|---|
| <b>1</b> | Parieto-occipital artery                            | <b>7</b>  | Branches of the posterior cerebral artery to the thalamus |
| <b>2</b> | Dorsal corpus callosal branch                       | <b>8</b>  | Posterior communicating artery                            |
| <b>3</b> | Calcarine branch of the medial occipital artery     | <b>9</b>  | Superior cerebellar artery                                |
| <b>4</b> | Choroidal arteries (posterior, medial, and lateral) | <b>10</b> | Basilar artery  |
| <b>5</b> | Temporo-occipital artery                            | <b>11</b> | Anterior inferior cerebellar artery                       |
| <b>6</b> | Posterior cerebral artery                           | <b>12</b> | Posterior inferior cerebellar artery                      |
|          |   | <b>13</b> | Vertebral arteries  |





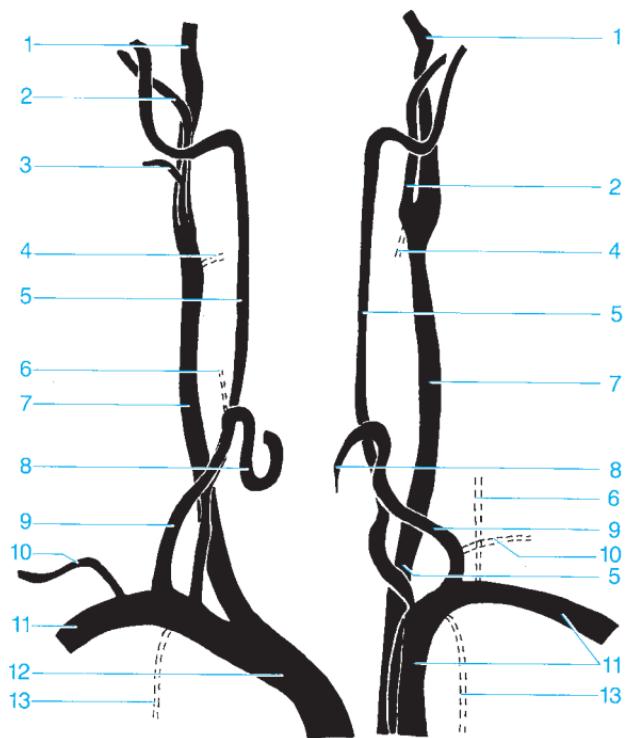
- |  |  |
|--|--|
| 1 Straight sinus                             | 8 Petrosal vein (entering the superior petrosal sinus) |
| 2 Superior cerebral veins                    | 9 Sigmoid sinus  |
| 3 Confluence of sinuses                      | 10 Bulb of the jugular vein                            |
| 4 Transverse sinus                           | 11 Inferior petrosal sinus                             |
| 5 Veins of the cerebellar hemisphere         |  |
| 6 Inferior vein of the vermis                |  |
| 7 Inferior vein of the cerebellar hemisphere |  |





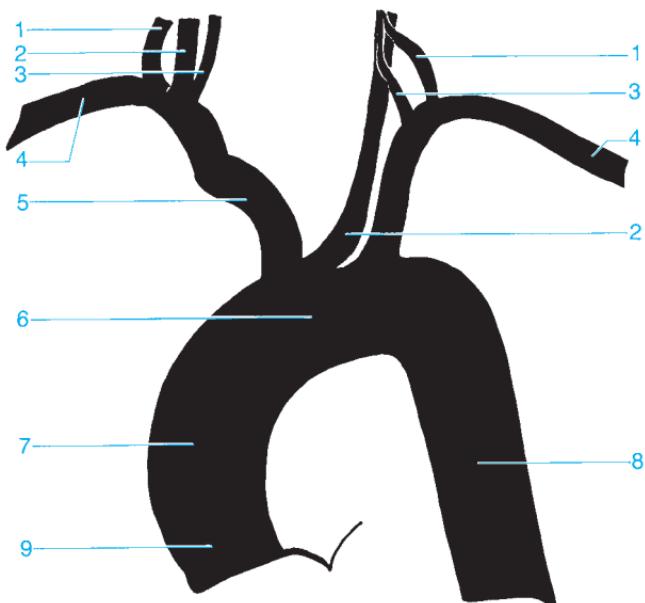
- |  |   |
|--|---|
| <b>1</b> Superior veins of the cerebellar hemisphere | <b>9</b> Inferior veins of the cerebellar hemisphere  |
| <b>2</b> Great cerebral vein of Galen                | <b>10</b> Cavernous sinus                             |
| <b>3</b> Internal cerebral vein                      | <b>11</b> Inferior veins of the cerebellar hemisphere |
| <b>4</b> Straight sinus                              | <b>12</b> Superior petrosal sinus                     |
| <b>5</b> Basal vein of Rosenthal                     | <b>13</b> Inferior petrosal sinus                     |
| <b>6</b> Precentral cerebellar vein                  | <b>14</b> Sigmoid sinus                               |
| <b>7</b> Confluence of sinuses                       |   |
| <b>8</b> Transverse sinus                            |   |





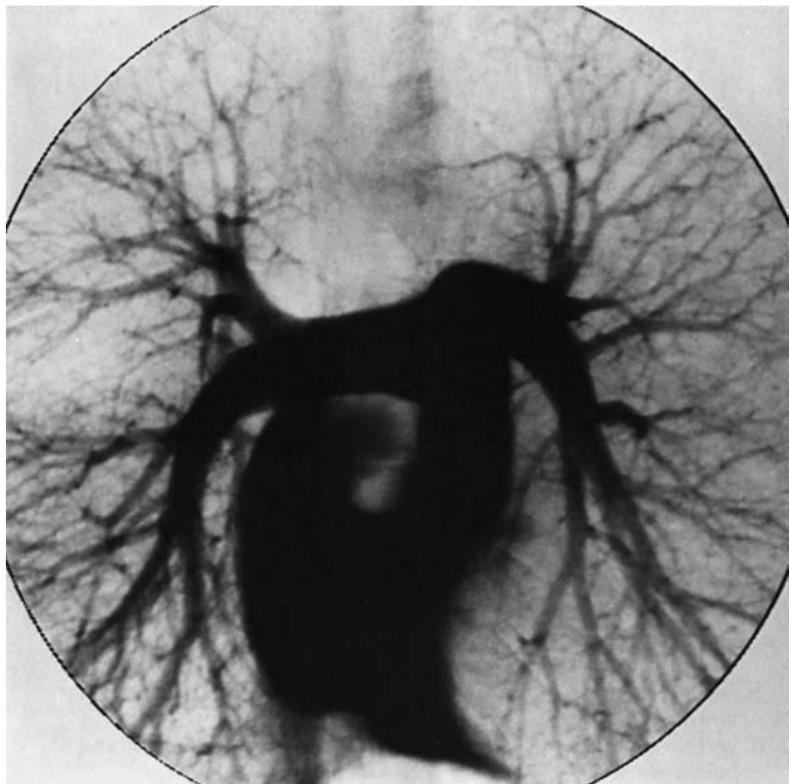
- |                                    |                                    |
|------------------------------------|------------------------------------|
| <b>1</b> Internal carotid artery   | <b>8</b> Inferior thyroid artery   |
| <b>2</b> External carotid artery   | <b>9</b> Thyrocervical trunk       |
| <b>3</b> Facial artery             | <b>10</b> Suprascapular artery     |
| <b>4</b> Superior thyroid artery   | <b>11</b> Subclavian artery        |
| <b>5</b> Vertebral artery          | <b>12</b> Brachiocephalic trunk    |
| <b>6</b> Ascending cervical artery | <b>13</b> Internal thoracic artery |
| <b>7</b> Common carotid artery     |                                    |





- 1 Throcervical trunk
- 2 Common carotid artery
- 3 Vertebral artery
- 4 Subclavian artery
- 5 Brachiocephalic trunk

- 6 Aortic arch
- 7 Ascending aorta
- 8 Descending aorta
- 9 Aortic bulb

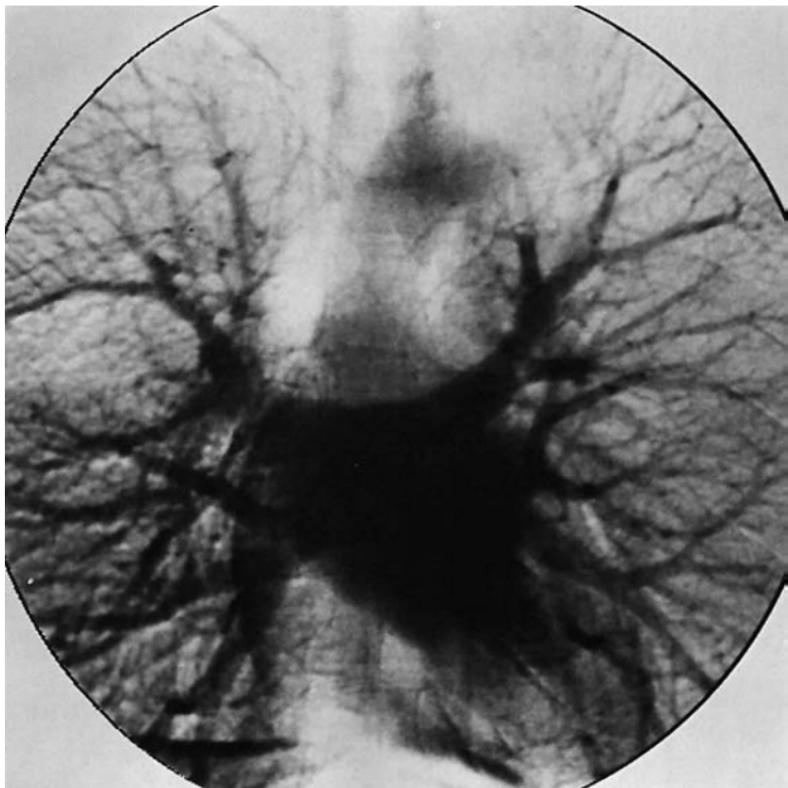


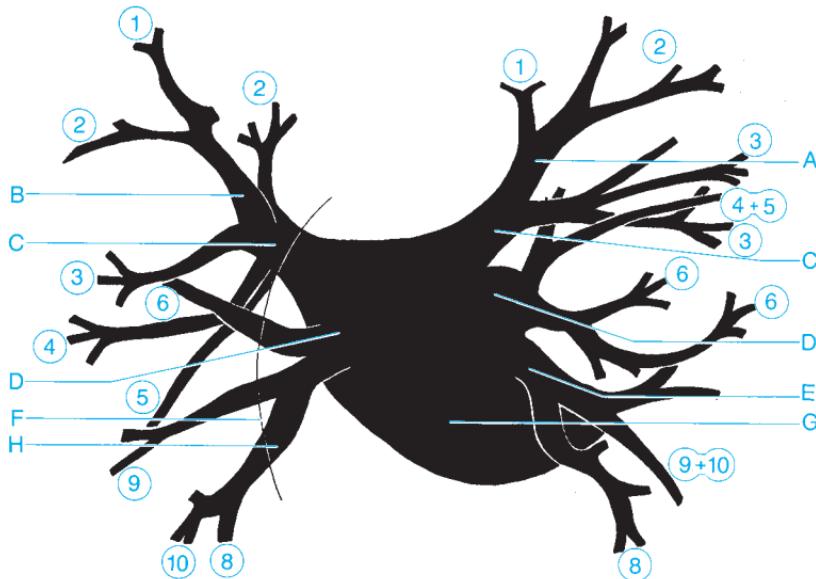


○ = Segmental arteries 1–10

- A** Apical branch
- B** Left pulmonary artery
- C** Right pulmonary artery
- D** Superior vena cava
- E** Lingular branch
- F** Middle lobar branch of the pulmonary artery
- G** Inferior lobar branch of the pulmonary artery
- H** Pulmonary trunk
- I** Right atrium
- J** Right ventricle
- K** Inferior vena cava

- A** Apical branch
- B** Left pulmonary artery
- C** Right pulmonary artery
- D** Superior vena cava
- E** Lingular branch
- F** Middle lobar branch of the pulmonary artery
- G** Inferior lobar branch of the pulmonary artery
- H** Pulmonary trunk
- I** Right atrium
- J** Right ventricle
- K** Inferior vena cava

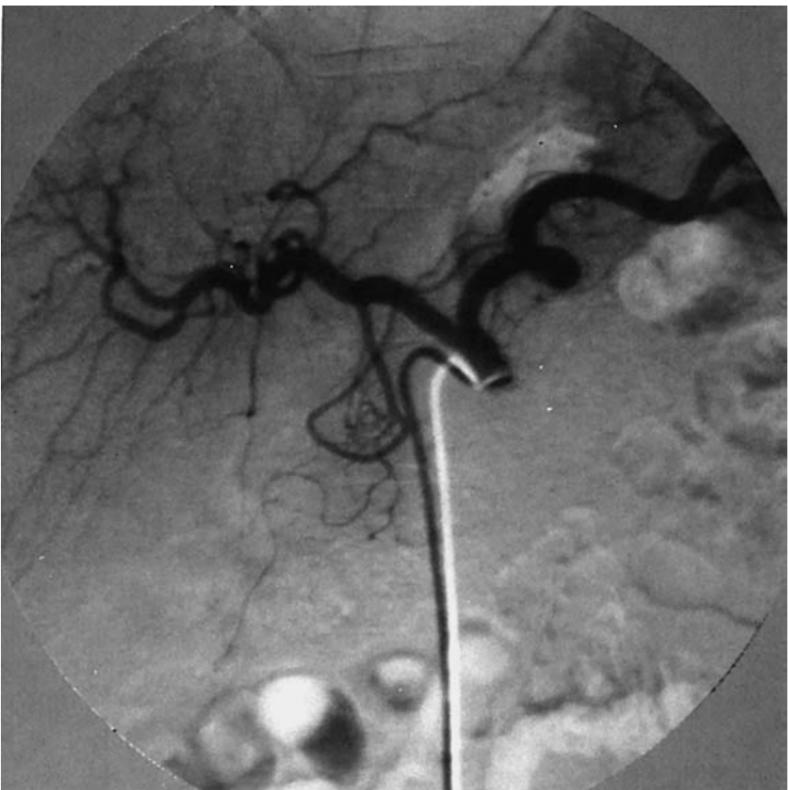


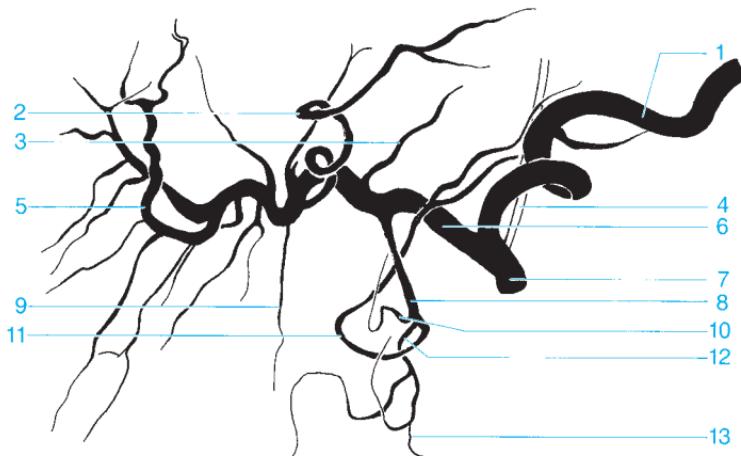


○ = Segmental arteries 1–10

- A Apicoposterior branch
- B Apical branch
- C Inferior pulmonary vein
- D Superior pulmonary vein

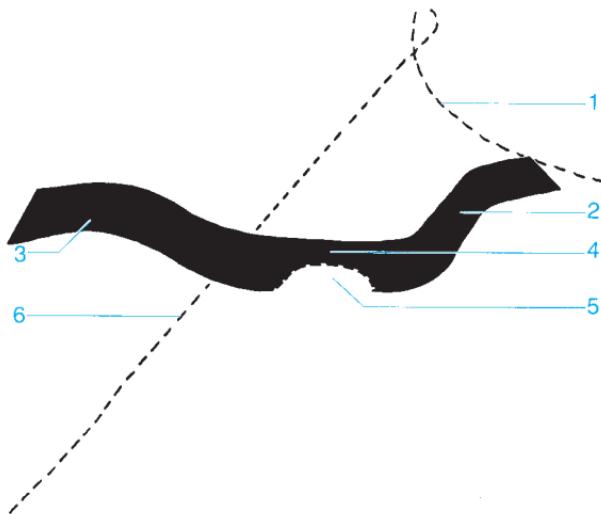
- E Common basal vein
- F Right atrium
- G Left atrium
- H Inferior basal vein





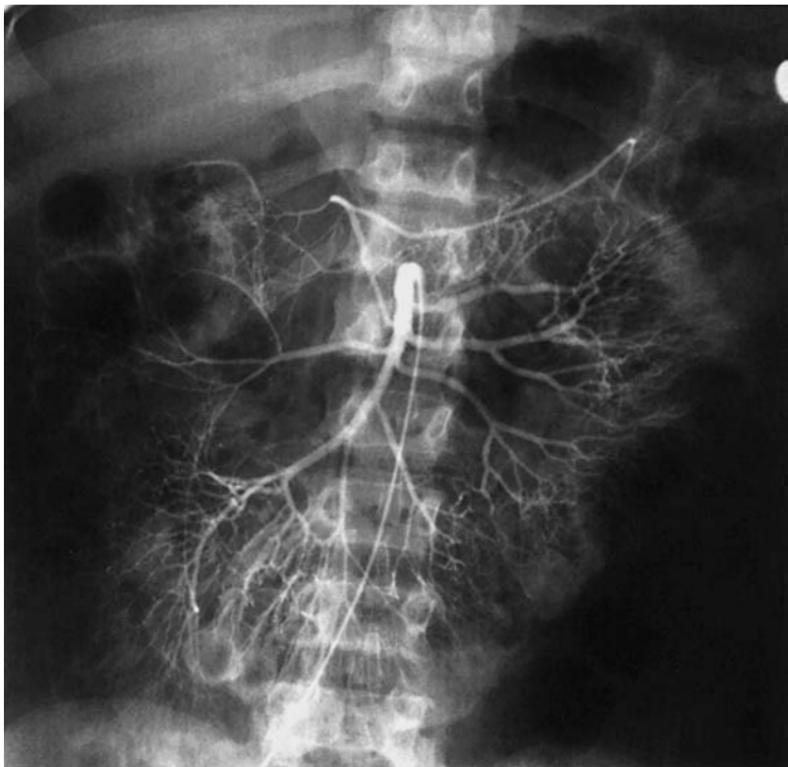
- |   |   |    |   |
|---|---|----|---|
| 1 | Splenic artery                            | 8  | Gastroduodenal artery   |
| 2 | Left branch of the proper hepatic artery  | 9  | Cystic artery   |
| 3 | Right gastric artery                      | 10 | superior supraduodenal artery   |
| 4 | Left gastric artery                       | 11 | Right gastroepiploic artery   |
| 5 | Right branch of the proper hepatic artery | 12 | Superior pancreaticoduodenal artery   |
| 6 | Common hepatic artery                     | 13 | Inferior pancreaticoduodenal artery (anastomosis with the superior mesenteric artery) |
| 7 | Celiac trunk                              |    |   |

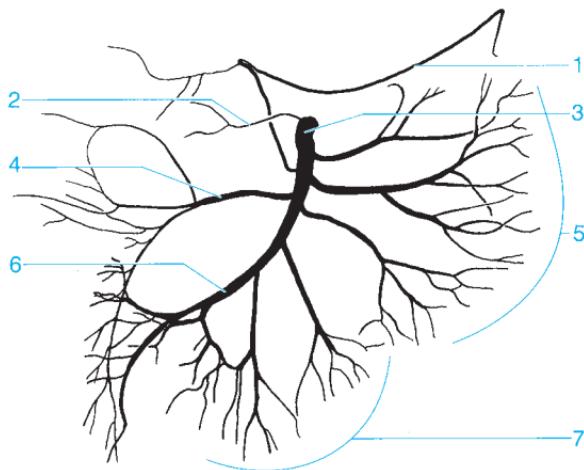




- 1** Spleen  
**2** Splenic vein  
**3** Portal vein

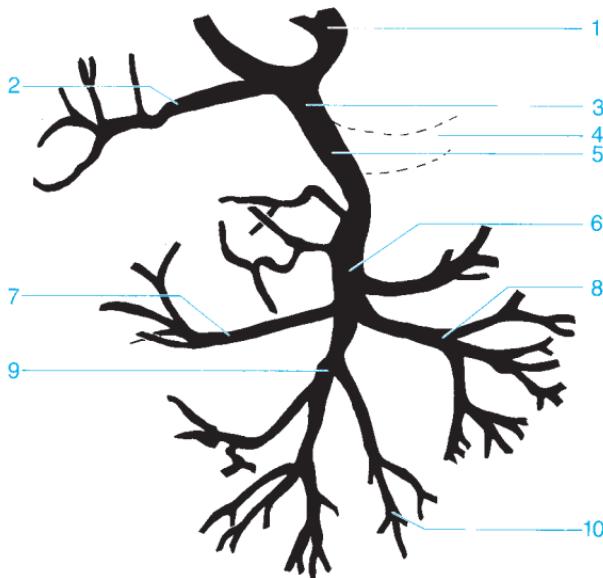
- 4** Confluence  
**5** Junction of the mesenteric vein  
**6** Liver





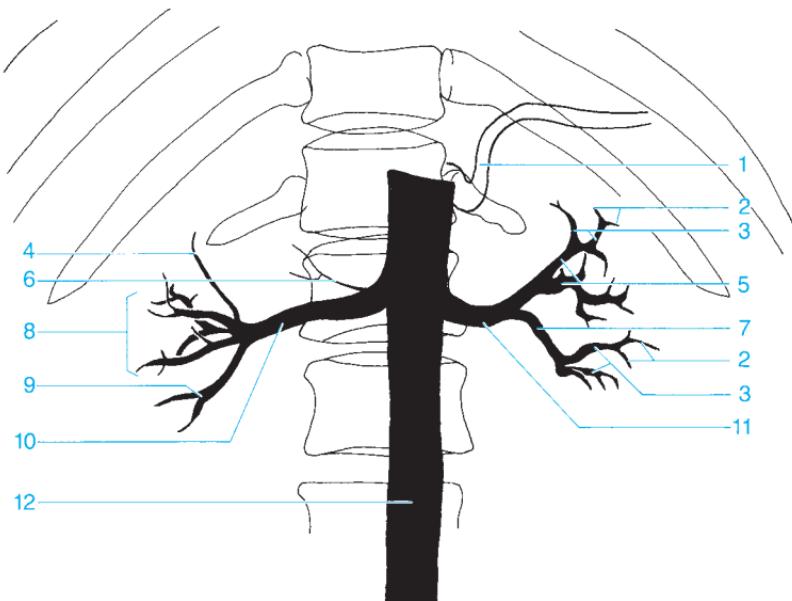
- |  |                           |
|--|---------------------------|
| <b>1</b> Middle colic artery                 | <b>5</b> Jejunal arteries |
| <b>2</b> Inferior pancreaticoduodenal artery | <b>6</b> Ileocolic artery |
| <b>3</b> Superior mesenteric artery          | <b>7</b> Ileal arteries   |
| <b>4</b> Right colic artery                  |                           |





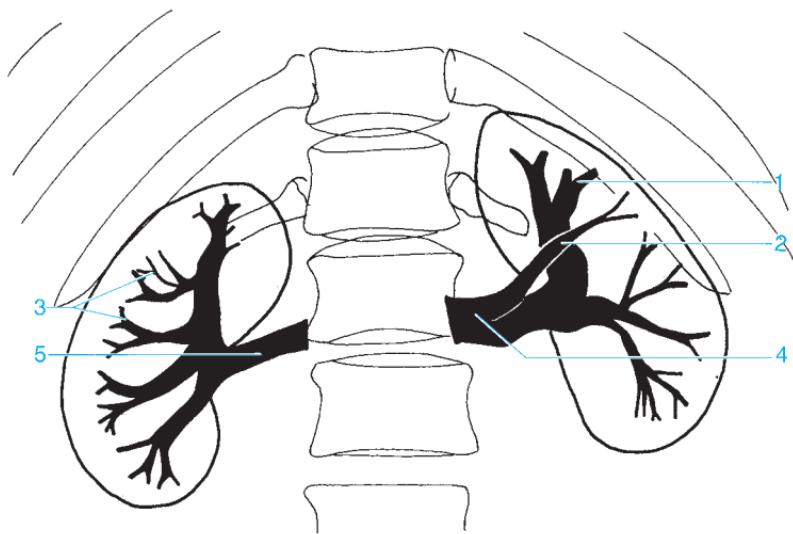
- |                                   |                            |
|-----------------------------------|----------------------------|
| 1 Left branch of the portal vein  | 6 Superior mesenteric vein |
| 2 Right branch of the portal vein | 7 Right colic vein         |
| 3 Portal vein                     | 8 Jejunal veins            |
| 4 Splenic vein                    | 9 Ileocolic vein           |
| 5 Confluence                      | 10 Ileal veins             |





- |  |  |
|--|--|
| <b>1</b> Splenic artery                          | <b>7</b> Segmental arteries (posterior branch) |
| <b>2</b> Arcuate arteries                        | <b>8</b> Middle segmental artery               |
| <b>3</b> Interlobular arteries                   | <b>9</b> Inferior segmental artery             |
| <b>4</b> Superior segmental artery               | <b>10</b> Right renal artery                   |
| <b>5</b> Segmental arteries<br>(anterior branch) | <b>11</b> Left renal artery                    |
| <b>6</b> Inferior adrenal artery                 | <b>12</b> Abdominal aorta                      |





1 Interlobular vein

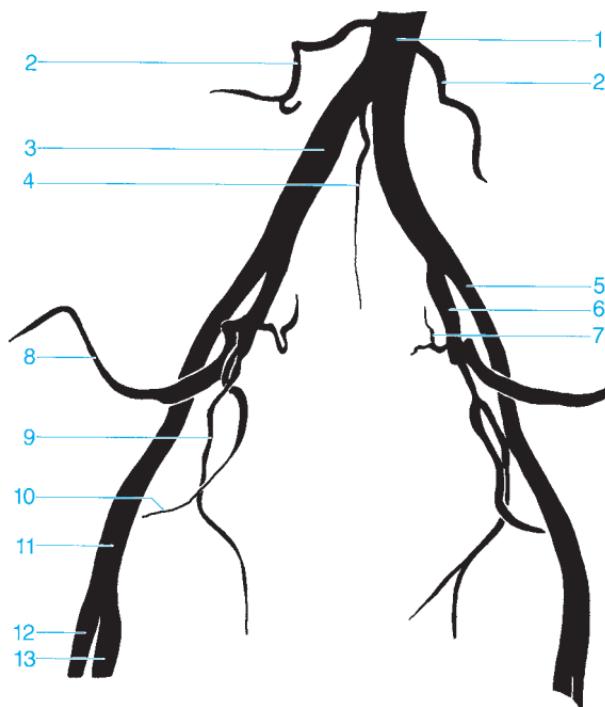
2 Superior branch of the renal vein

3 Arcuate vein

4 Left renal vein

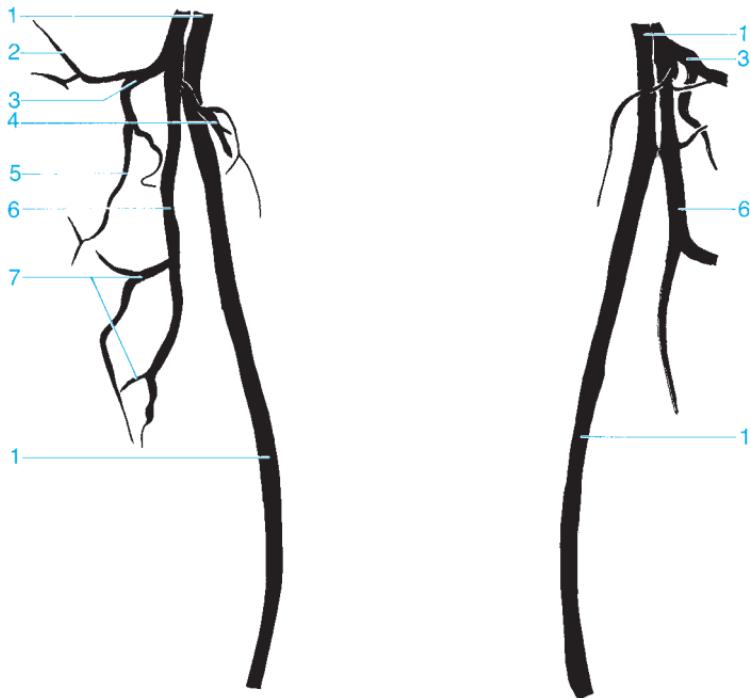
5 Right renal vein





- |                         |                               |
|-------------------------|-------------------------------|
| 1 Abdominal aorta       | 8 Superior gluteal artery     |
| 2 Lumbar artery         | 9 Obturator artery            |
| 3 Common iliac artery   | 10 Inferior gluteal artery    |
| 4 Median sacral artery  | 11 Common femoral artery      |
| 5 External iliac artery | 12 Deep femoral artery        |
| 6 Internal iliac artery | 13 Superficial femoral artery |
| 7 Lateral sacral artery |                               |

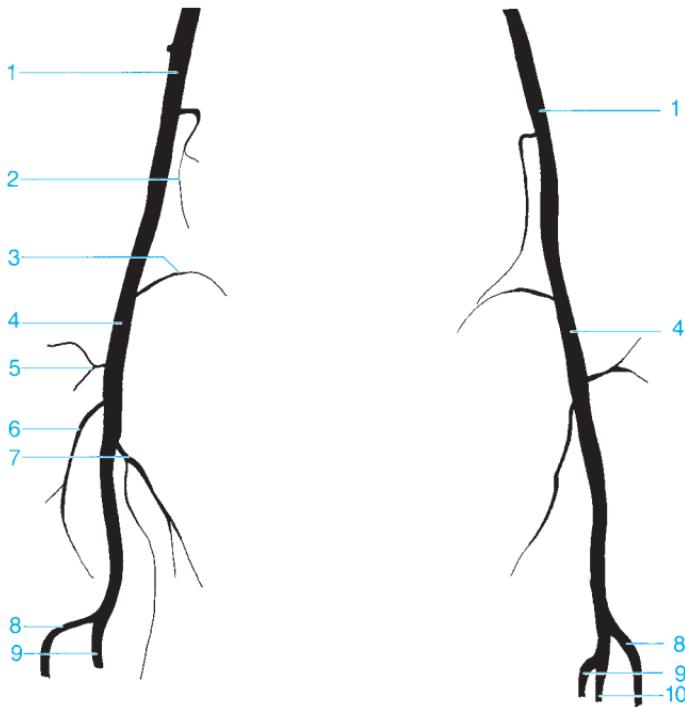




- 1 Superficial femoral artery
- 2 Ascending branch of the lateral femoral circumflex artery
- 3 Lateral femoral circumflex artery
- 4 Medial femoral circumflex artery

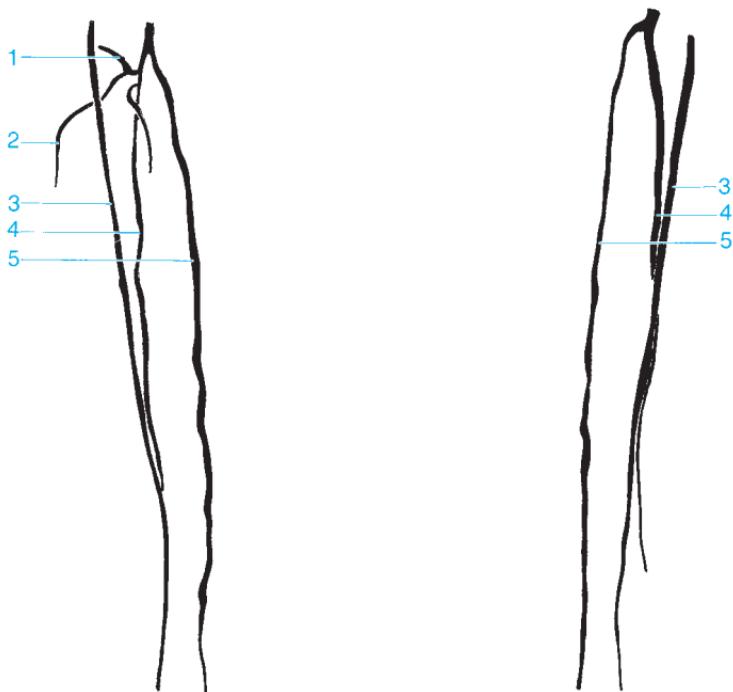
- 5 Descending branch of the lateral femoral circumflex artery
- 6 Deep femoral artery
- 7 Perforating artery





- |  |   |
|--|---|
| <b>1</b> Superficial femoral artery        | <b>6</b> Middle genicular artery          |
| <b>2</b> Descending genicular artery       | <b>7</b> Inferior medial genicular artery |
| <b>3</b> Superior medial genicular artery  | <b>8</b> Anterior tibial artery           |
| <b>4</b> Popliteal artery                  | <b>9</b> Posterior tibial artery          |
| <b>5</b> Superior lateral genicular artery | <b>10</b> Peroneal artery                 |

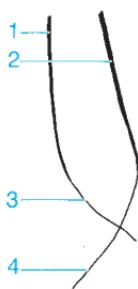




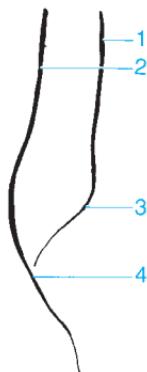
- 1 Circumflex fibular artery  
2 Muscular branch  
3 Anterior tibial artery

- 4 Peroneal artery  
5 Posterior tibial artery





- 1** Anterior tibial artery  
**2** Posterior tibial artery



- 3** Dorsalis pedis artery  
**4** Plantar artery

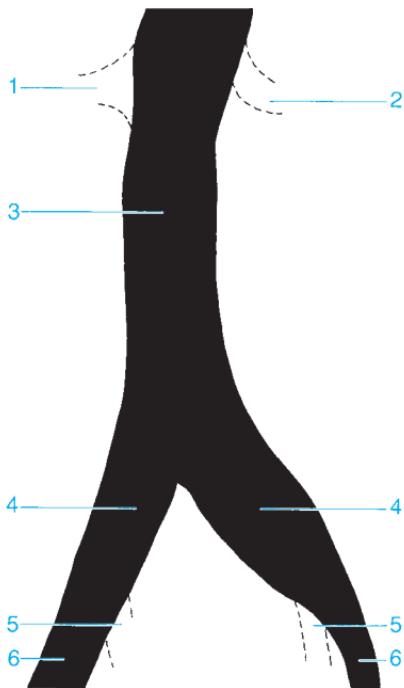




- 1 Internal jugular vein
- 2 External jugular vein
- 3 Cephalic vein
- 4 Subclavian vein
- 5 Left brachiocephalic vein
- 6 Inferior thyroid vein
- 7 Venous angle
- 8 Right brachiocephalic vein

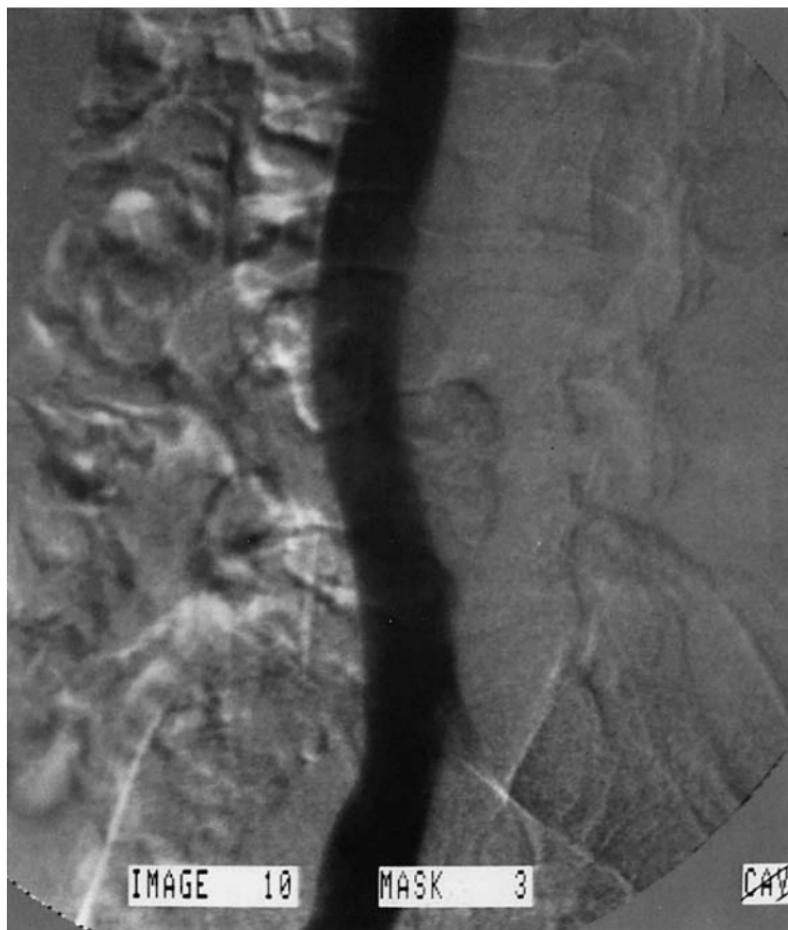
- 9 Azygos vein
- 10 Superior vena cava
- 11 Pulmonary trunk
- 12 Right pulmonary artery
- 13 Left pulmonary artery
- 14 Infundibulum
- 15 Right atrium
- 16 Right ventricle

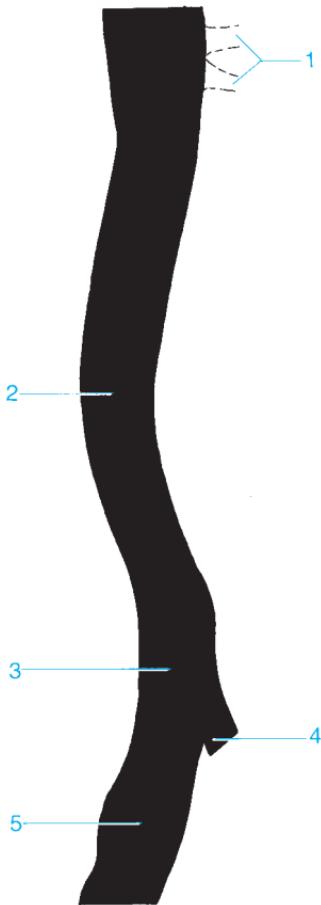




- 1 Right renal vein
- 2 Left renal vein
- 3 Inferior vena cava

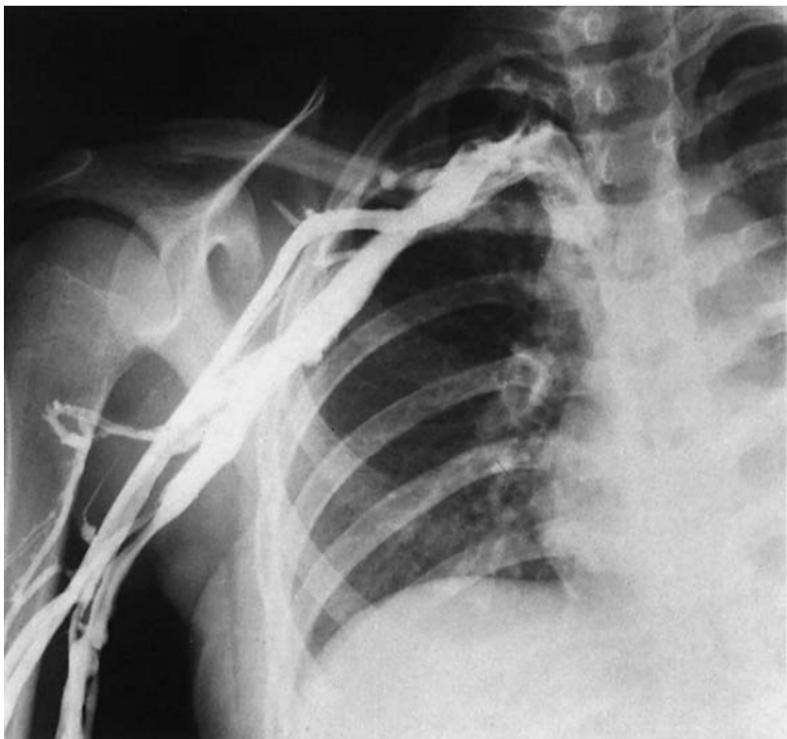
- 4 Common iliac vein
- 5 Internal iliac vein
- 6 External iliac vein

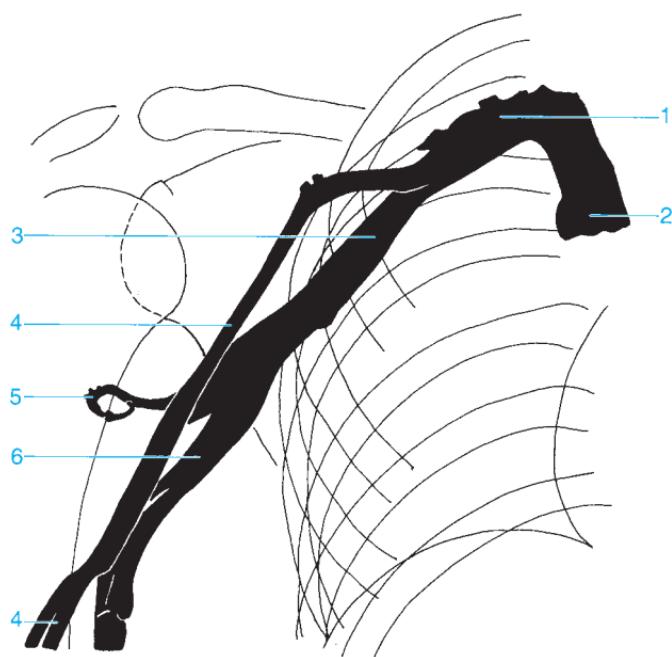




- 1 Renal veins  
2 Inferior vena cava  
3 Common iliac vein

- 4 Internal iliac vein  
5 External iliac vein

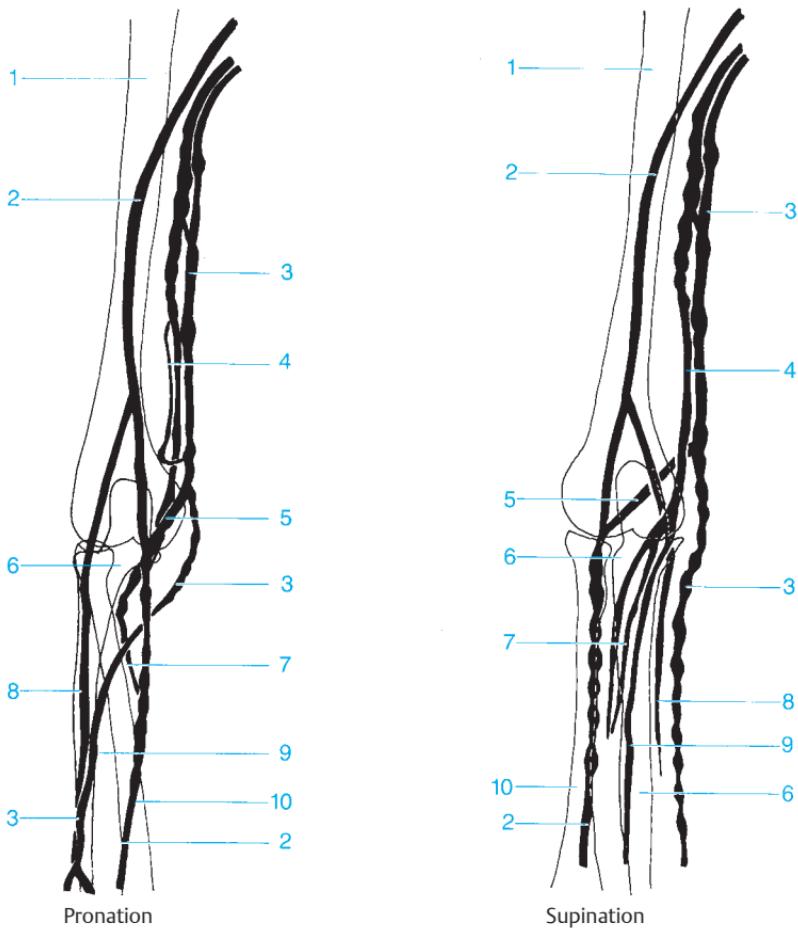




- 1 Subclavian vein
- 2 Superior vena cava
- 3 Axillary vein

- 4 Cephalic vein
- 5 Deep veins of the arm
- 6 Brachial veins

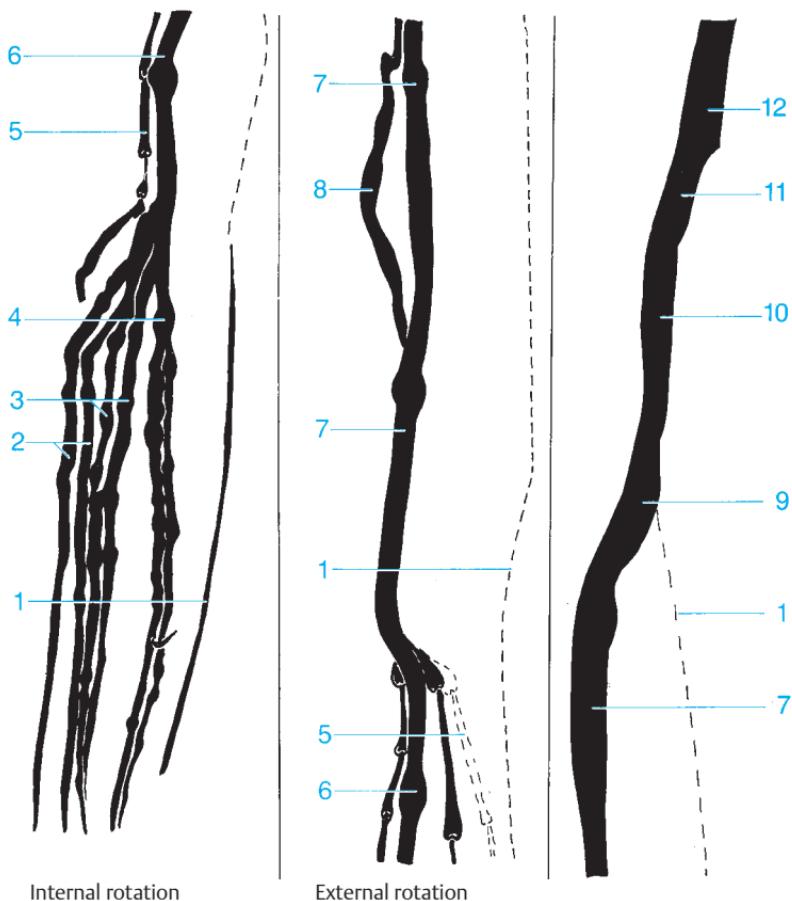




- 1 Humerus
- 2 Cephalic vein
- 3 Basilic vein
- 4 Brachial vein
- 5 Median cubital vein

- 6 Ulna
- 7 Radial veins
- 8 Ulnar veins
- 9 Median antebrachial vein
- 10 Radius





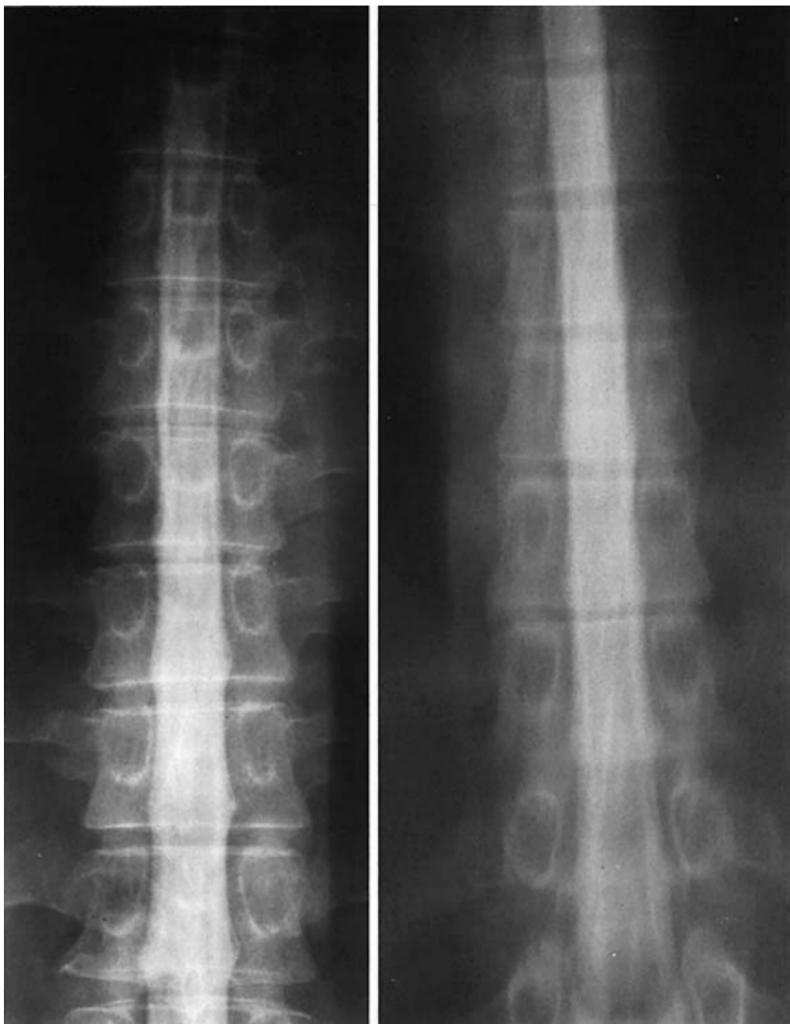
- 1 Great saphenous vein
- 2 Anterior tibial veins
- 3 Peroneal veins
- 4 Posterior tibial veins
- 5 Small saphenous vein
- 6 Popliteal vein

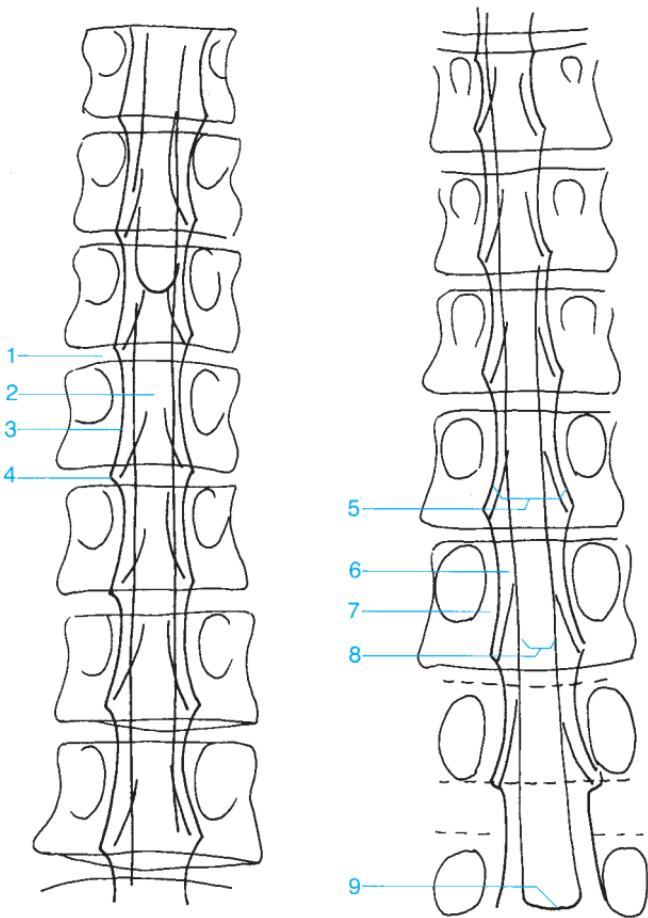
- 7 Superficial femoral vein
- 8 Deep femoral vein
- 9 Femoral vein
- 10 External iliac vein
- 11 Common iliac vein
- 12 Inferior vena cava



## **Special Studies**

Special Studies ..... 340

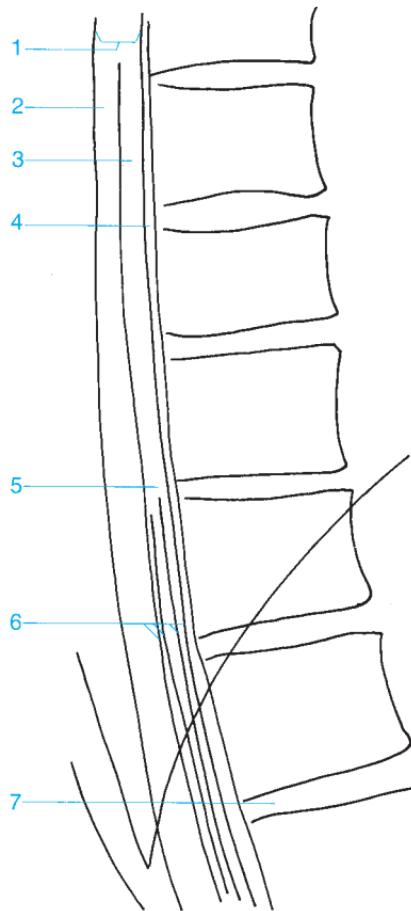




- 1 Intervertebral disk  
2 Spinal cord  
3 Lateral margin of the dural sac  
4 Nerve root sheath  
5 Intradural space

- 6 Lateral subarachnoid space  
7 Extradural space  
8 Intramedullary region  
9 Medullary cone





1 Dural sac

2 Posterior subarachnoid space

3 Spinal cord

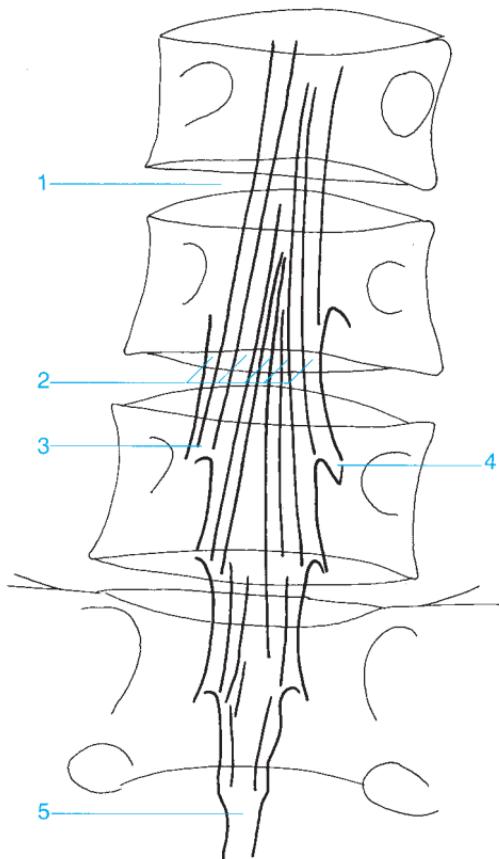
4 Anterior subarachnoid space

5 Medullary cone

6 Cauda equina

7 Intervertebral disk





1 Intervertebral disk

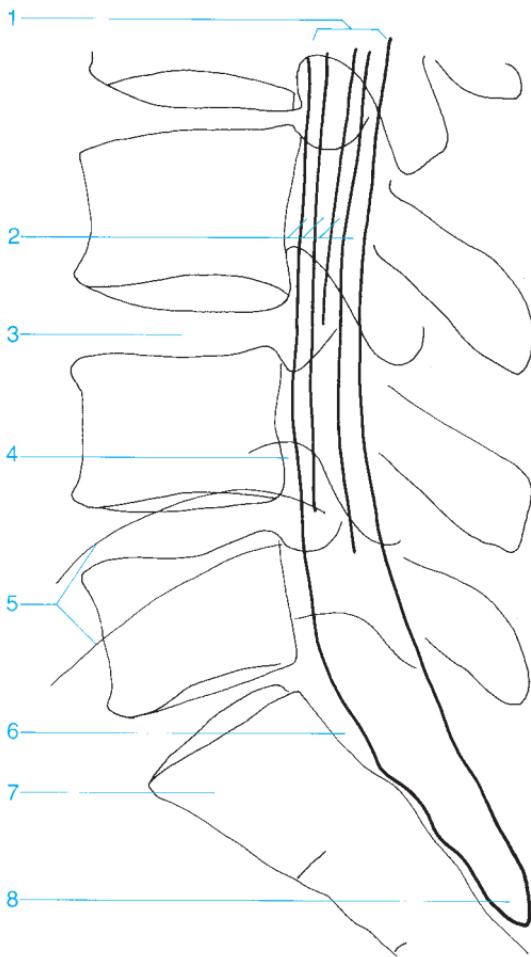
2 Cauda equina

3 Spinal nerve root in the subarachnoid space

4 Nerve root sheath

5 Distal end of the dural sac

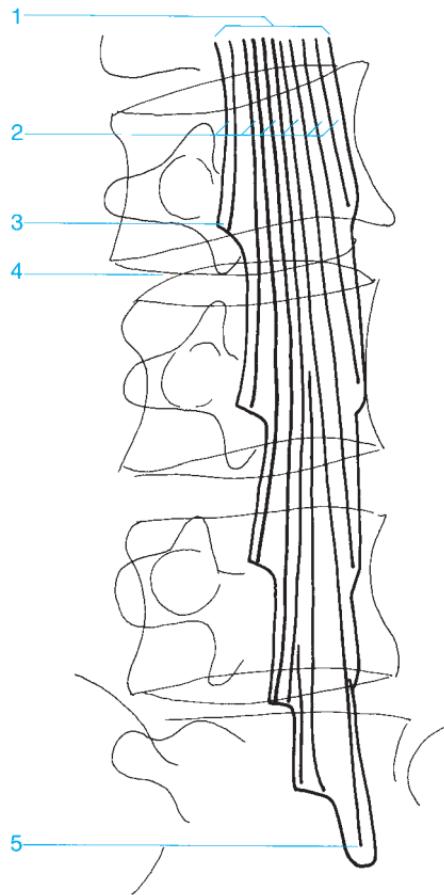




- 1 Dural sac
- 2 Cauda equina
- 3 Intervertebral disk
- 4 Intervertebral foramen

- 5 Iliac crest
- 6 Epidural fat
- 7 Sacrum
- 8 Distal end of the dural sac

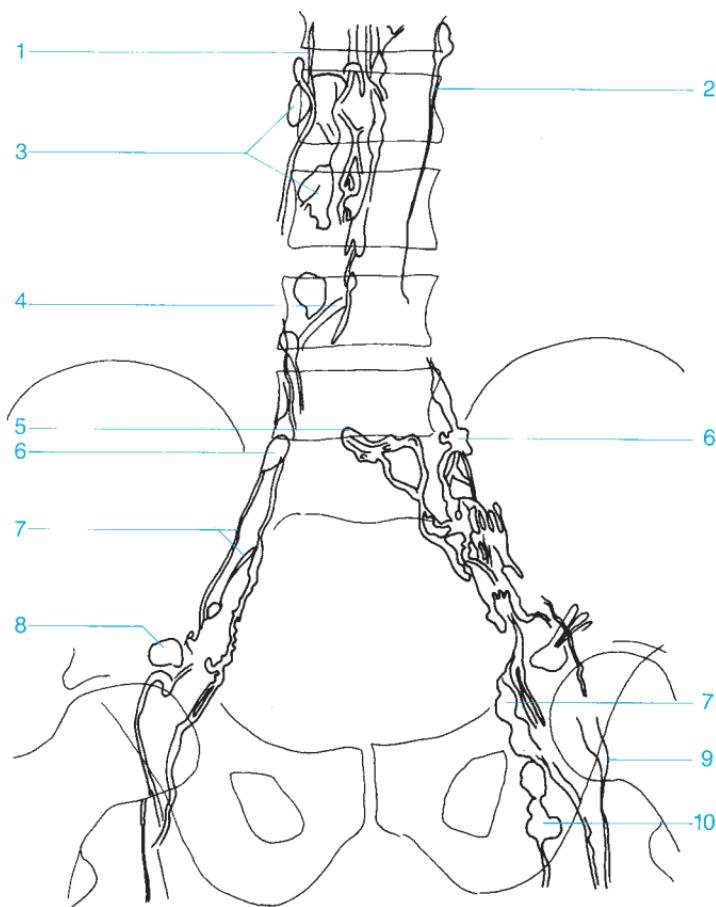




- 1 Dural sac
- 2 Cauda equina
- 3 Nerve root sheath, L3

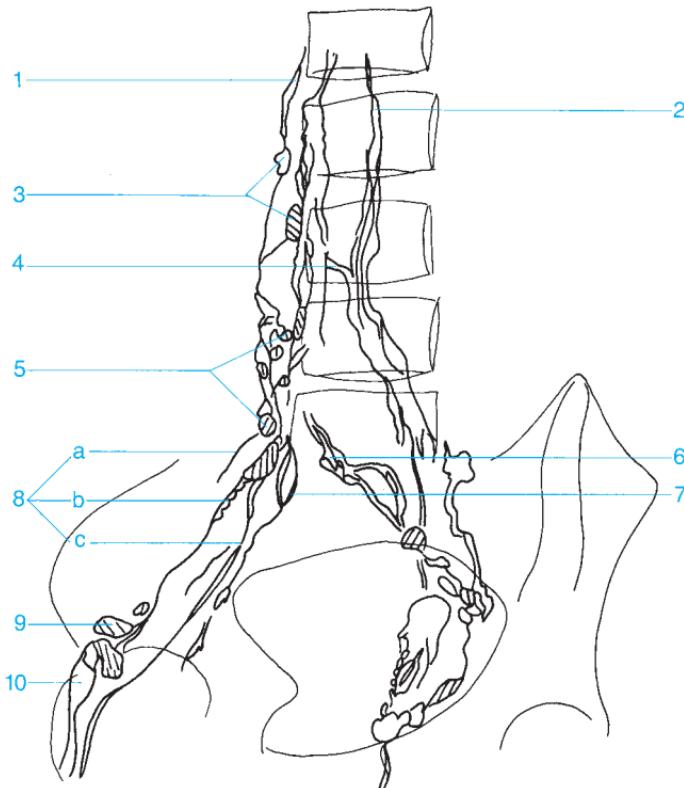
- 4 Intervertebral disk L3–4
- 5 Distal end of the dural sac (usually at the level of S1 or S2)





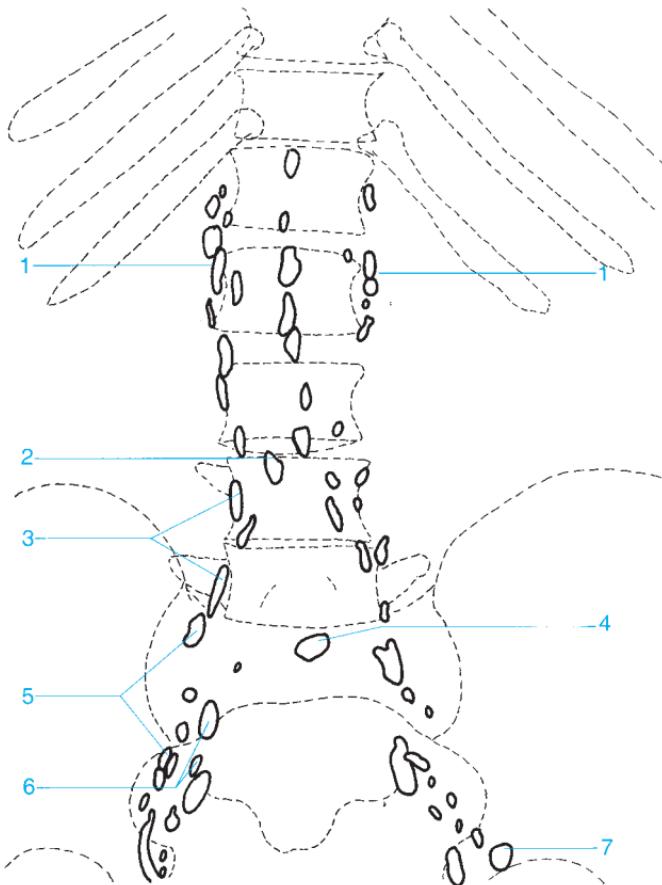
- |                                   |   |
|-----------------------------------|---|
| <b>1</b> Right lumbar trunk       | <b>7</b> Lymph channels of the external iliac lymph nodes |
| <b>2</b> Left lumbar trunk        | <b>8</b> Lateral lacunar lymph nodes                      |
| <b>3</b> Lumbar lymph nodes       | <b>9</b> Superficial inguinal lymph nodes                 |
| <b>4</b> Crossover                | <b>10</b> Deep inguinal lymph nodes                       |
| <b>5</b> Promontory lymph nodes   |   |
| <b>6</b> Common iliac lymph nodes |   |





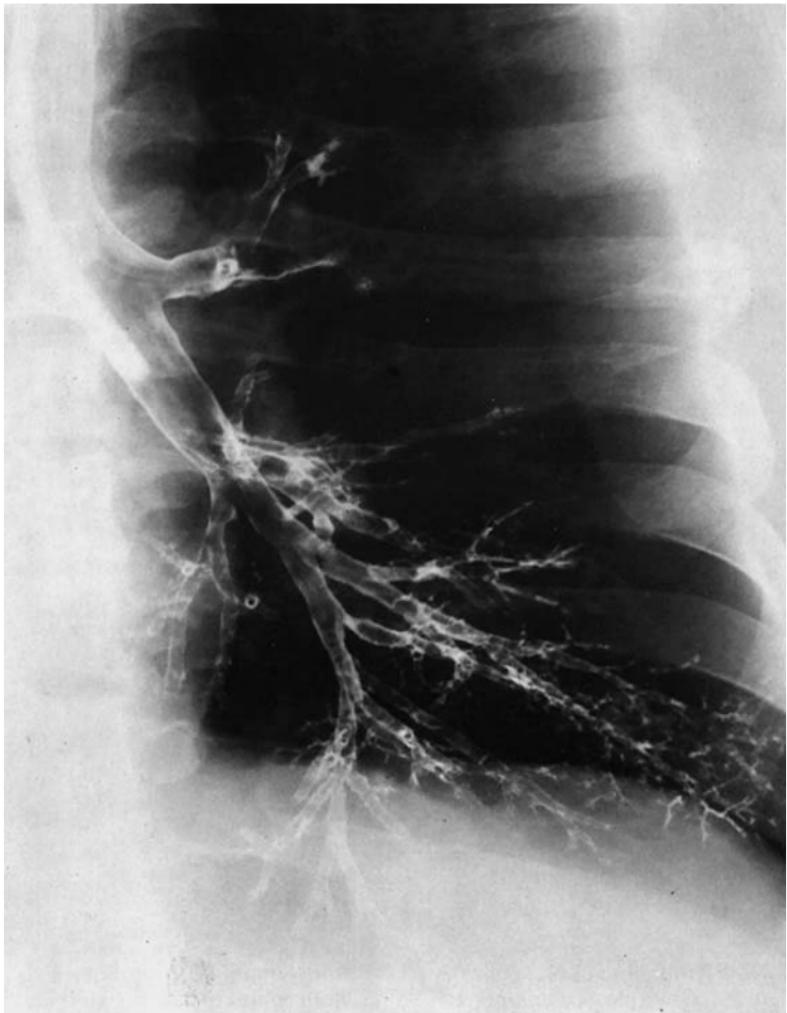
- |  |  |
|--|--|
| <b>1</b> Right lumbar trunk  | <b>8</b> External and common iliac lymph nodes |
| <b>2</b> Left lumbar trunk   | <b>a</b> External chain                        |
| <b>3</b> Lumbar lymph nodes  | <b>b</b> Middle chain                          |
| <b>4</b> Crossover   | <b>c</b> Internal chain                        |
| <b>5</b> Common iliac lymph nodes  | <b>9</b> Lacunar lymph node                    |
| <b>6</b> Promontory lymph nodes  | <b>10</b> Superficial inguinal lymph nodes     |
| <b>7</b> Lymph channels connecting the internal iliac lymph nodes with the external and common iliac lymph nodes |  |

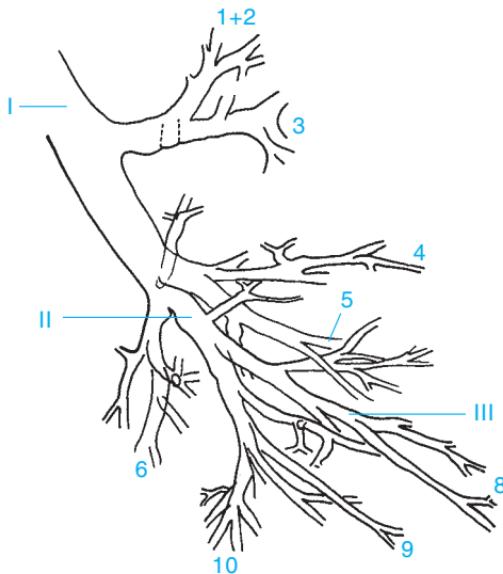




- 1 Para-aortic lymph nodes (lateral aortic, preaortic, and retroaortic)  
2 Crossover  
3 Common iliac lymph nodes

- 4 Promontory lymph nodes  
5 External iliac lymph nodes  
6 Internal iliac lymph nodes  
7 Lacunar lymph node





**1 + 2** Apical-posterior segment of the upper lobe

**3** Anterior segment of the upper lobe

**4** Lingula of the superior segment of the upper lobe

**5** Lingula of the inferior segment of the upper lobe

**6** Superior segment of the lower lobe

**7** Not present on left side

**8** Anterior-medial basal segment of the lower lobe

**9** Lateral basal segment of the lower lobe

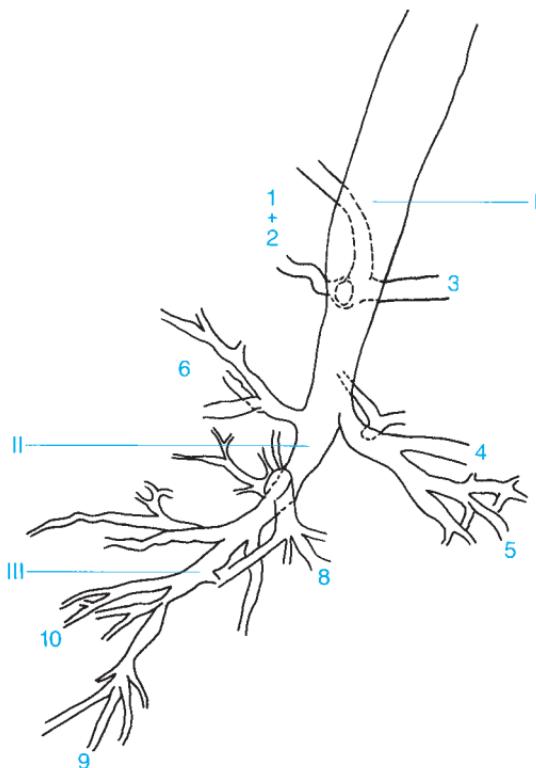
**10** Posterior basal segment of the lower lobe

**I** Main bronchus

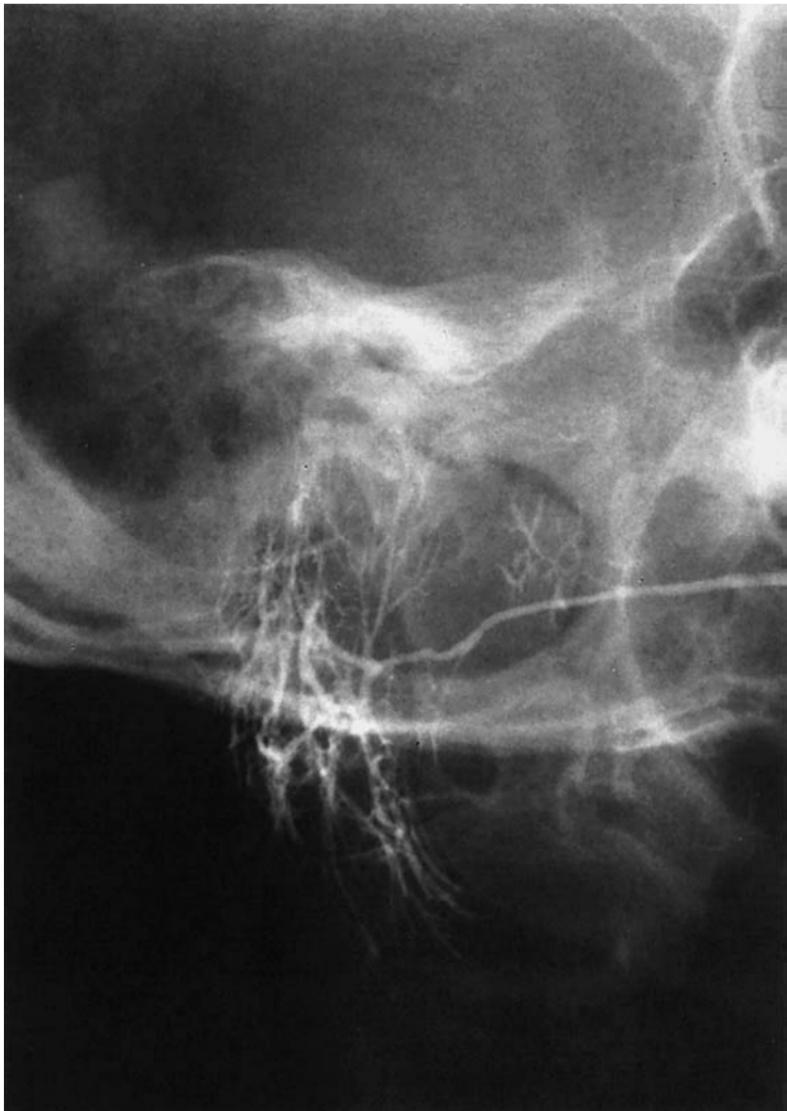
**II** Lobar bronchus

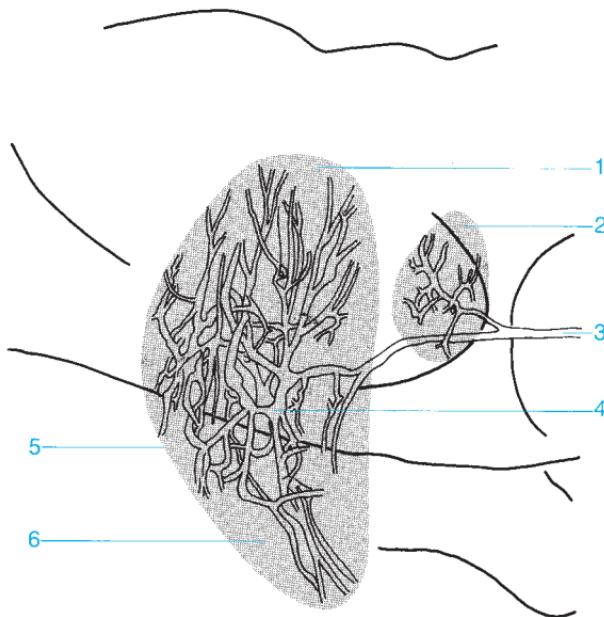
**III** Segmental bronchus





- |   |   |
|---|---|
| 1 + 2 Apical-posterior segment of the upper lobe    | 8 Anterior-medial basal segment of the lower lobe |
| 3 Anterior segment of the upper lobe                | 9 Lateral basal segment of the lower lobe         |
| 4 Lingula of the superior segment of the upper lobe | 10 Posterior basal segment of the lower lobe      |
| 5 Lingula of the inferior segment of the upper lobe | I Main bronchus                                   |
| 6 Superior segment of the lower lobe                | II Lobar bronchus                                 |
| 7 Not present on left side                          | III Segmental bronchus                            |

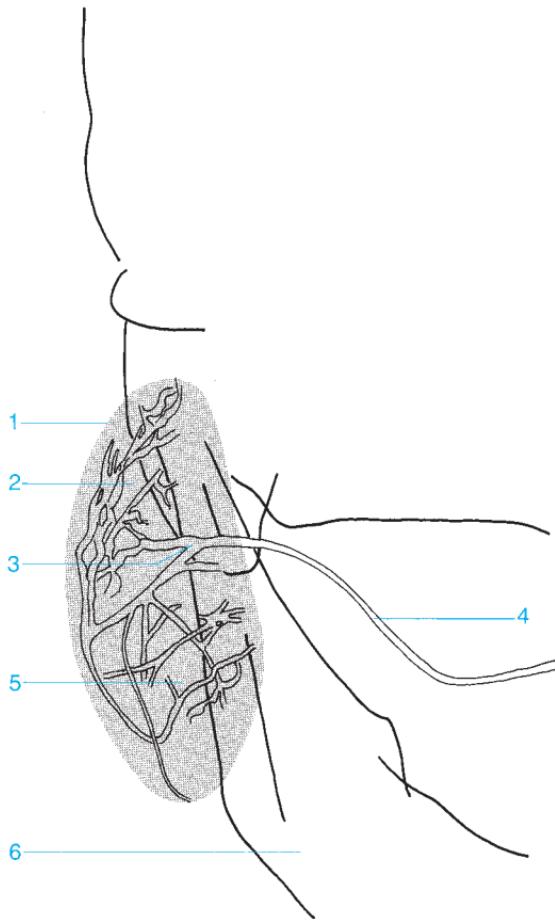




- 1 Superficial lobe of the parotid gland
- 2 Accessory parotid gland
- 3 Parotid duct (Stensen's duct)

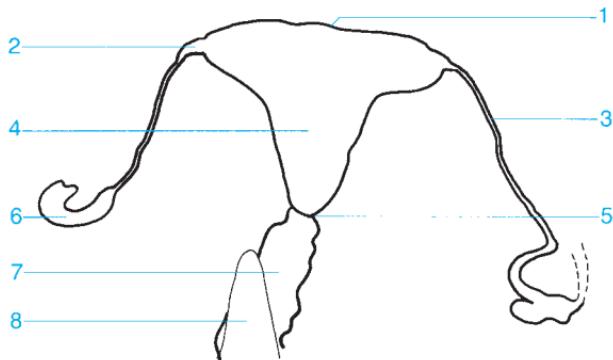
- 4 Intralobular ductal system
- 5 Parotid gland
- 6 Deep lobe of the parotid gland (beneath the facial nerve)





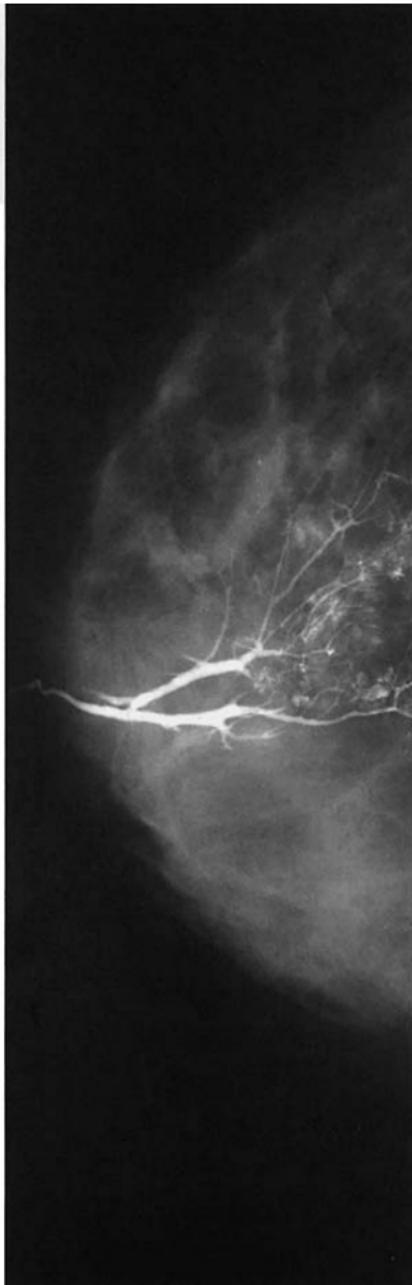
- |  |  |
|--|--|
| <b>1</b> Parotid gland   | <b>4</b> Parotid duct (Stensen's duct)                             |
| <b>2</b> Superficial lobe of the parotid gland (on the facial nerve) | <b>5</b> Deep lobe of the parotid gland (beneath the facial nerve) |
| <b>3</b> Intralobular parotid ductal system                          | <b>6</b> Mandible  |

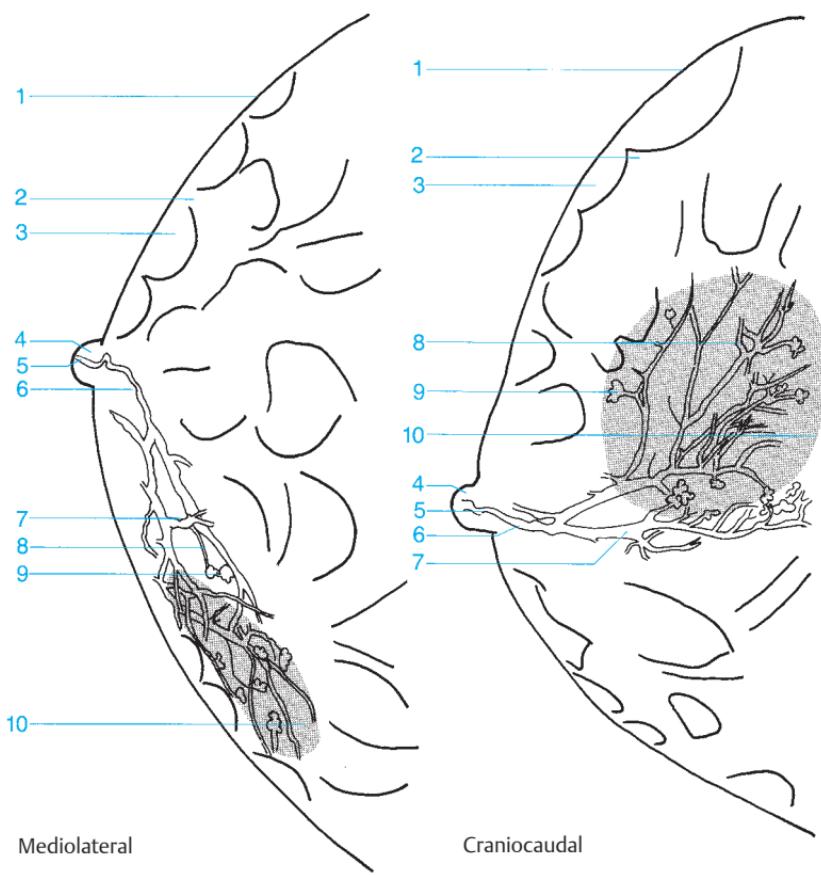




- 1 Fundus of the uterus
- 2 Uterine ostium of the fallopian tube
- 3 Fallopian tube
- 4 Uterine cavity

- 5 Cervical canal
- 6 Fimbriae of the fallopian tube
- 7 Vagina
- 8 Instrument

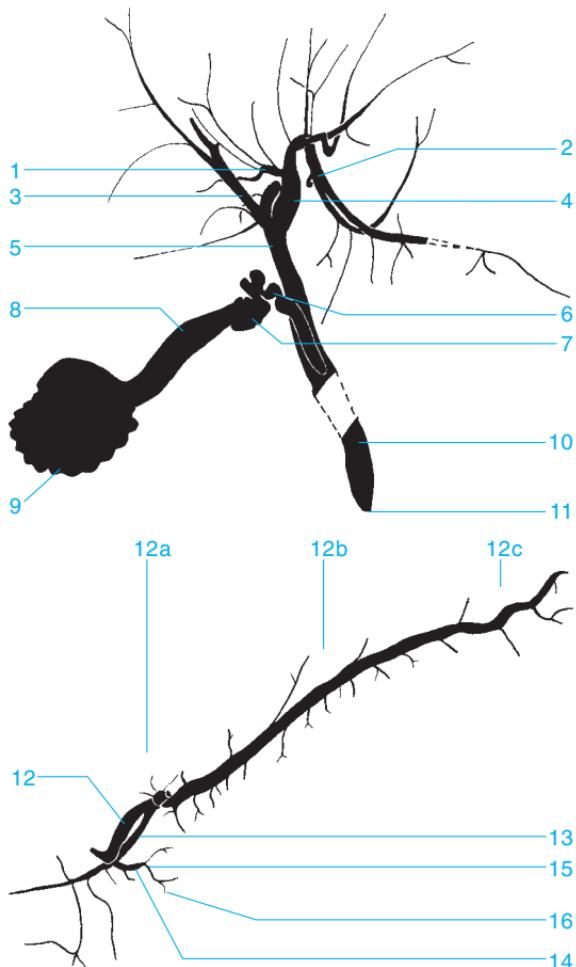




- 1 Skin and subcutaneous tissue  
2 Cooper's ligament  
3 Subcutaneous fatty tissue  
4 Nipple  
5 Main lactiferous duct posterior to the nipple

- 6 Lactiferous sinus  
7 Lactiferous duct  
8 Ductules  
9 Lobules  
10 Lobe





- 1 Medial branch of the left hepatic duct
- 2 Lateral branch
- 3 Right hepatic duct
- 4 Left hepatic duct
- 5 Common hepatic duct
- 6 Cystic duct
- 7 Neck of the gallbladder
- 8 Body of the gallbladder
- 9 Fundus of the gallbladder

- 10 Common bile duct
- 11 Papilla of Vater
- 12 Pancreatic duct
  - a Head region
  - b Body region
  - c Tail region
- 13 Accessory pancreatic duct
- 14 Primary lateral duct
- 15 Secondary lateral duct
- 16 Tertiary lateral duct



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