GRAY'S

ATLAS OF ANATOMY

Richard L. Drake
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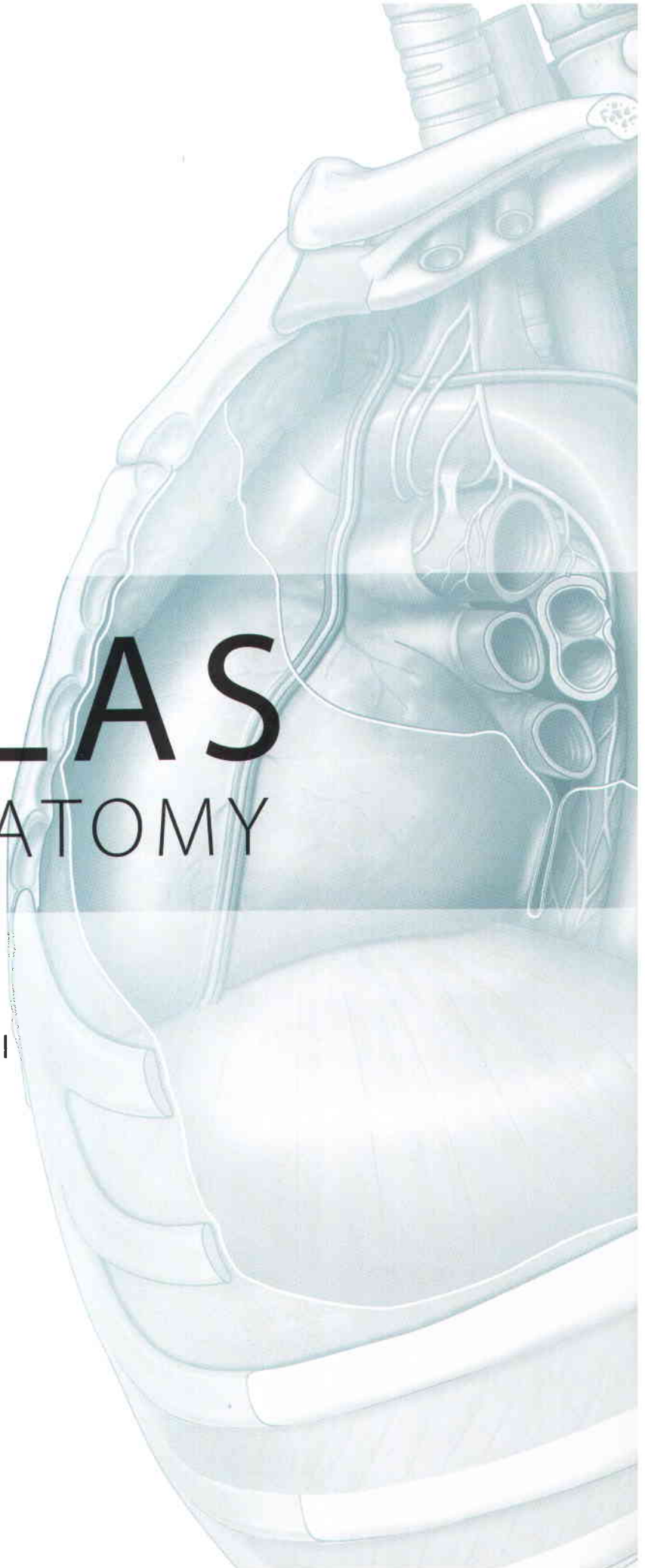

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To my wife who supports me and to my parents who are always with me.
Richard L. Drake

To my family, to my professional colleagues and role models, and to my students.
Wayne Vogl

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Adam W. M. Mitchell

To my family – my inspiration, Evi, Zoë, and Nicholas x
Richard M. Tibbitts

To Lesley and Maja and in memory of AMR and JER
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A working knowledge of anatomy is not an "optional extra" for health care professionals – it is fundamental. Acquiring that knowledge has always challenged even the most motivated students. Over many generations, learning materials that aid the process effectively have been warmly welcomed by students and their teachers (and by patients, who are the ultimate beneficiaries of that knowledge). I remember my own students' response when I first included illustrations from *Gray's Anatomy for Students* in a lecture—afterward, I was asked repeatedly for the source of the marvelous pictures. Looking beyond the "wow" factor that leapt from the pages of the book, it was clear that an enormous amount of thought and skill had gone into producing the artwork.

This atlas contains a series of additional outstanding pieces of anatomical art from the illustrative team of Richard Tibbitts and Paul Richardson that will complement those in *Gray's Anatomy for Students*, combined with relevant clinical pictures, surface anatomy, and images from a range of modern imaging procedures. Of course, anatomy cannot be learned from books and interactive DVDs alone, no matter how excellent they may be. Anatomy is a practical subject, best learned by gaining hands-on experience of the body. Students should spend as much time as they can examining cadaveric dissections (if they do not have the opportunity to dissect themselves) and should always read from screen or page with the appropriate bones in front of them. They need to combine and correlate information from a wide variety of sources in order to gain the working knowledge mentioned earlier.

This atlas will provide a valuable companion to their studies, and I am confident that it will remain in their libraries long after they have completed the early stages of their training.

Susan Standring
Division of Anatomy, Cell and Human Biology
King's College, London

We began working on *Gray's Atlas of Anatomy* in 2005 following the publication of our textbook, *Gray's Anatomy for Students*. We wanted to produce an atlas that would build on themes and concepts established in the textbook and that would couple artistic renderings of "internal" gross anatomy with actual "living" anatomy, as visualized with modern imaging techniques and with surface anatomy. We believe that the final atlas presents a fresh and integrated approach to anatomy that is accessible to entry-level students in anatomy, as well as to students at more advanced levels.

Because an atlas is used in a much different way than a textbook, we could not simply repackage figures used in *Gray's Anatomy for Students* and put them in the atlas. Consequently, most of the figures in the atlas are new and were designed to present structures in a more complete context than in the textbook, even though the color palate and overall look of the figures in both the atlas and textbook are similar. Also, figures in the atlas provide additional detail not included in the textbook and directly correlate artistic representations of anatomy with computed tomography (CT) and magnetic resonance imaging (MRI). Where appropriate, we have included endoscopic, laryngoscopic, and laparoscopic views of the anatomy and have included examples of ultrasound images. In a number of regions, we also have reconstructed the internal anatomy of patients by abstracting specific information from multiple MR or CT images, and we present these reconstructions together with artwork of the same anatomy. Although the artwork was done independently of the reconstructed images, the two types of representations are strikingly similar.

Each page of this atlas was planned prior to beginning work on the figures, and all of the artwork was generated digitally. Most of the figures were created from an extensive digital database created for the textbook. Each figure was reviewed for accuracy and revised accordingly.

We hope that the textbook and atlas used together will provide new and powerful learning tools for students of human gross anatomy.

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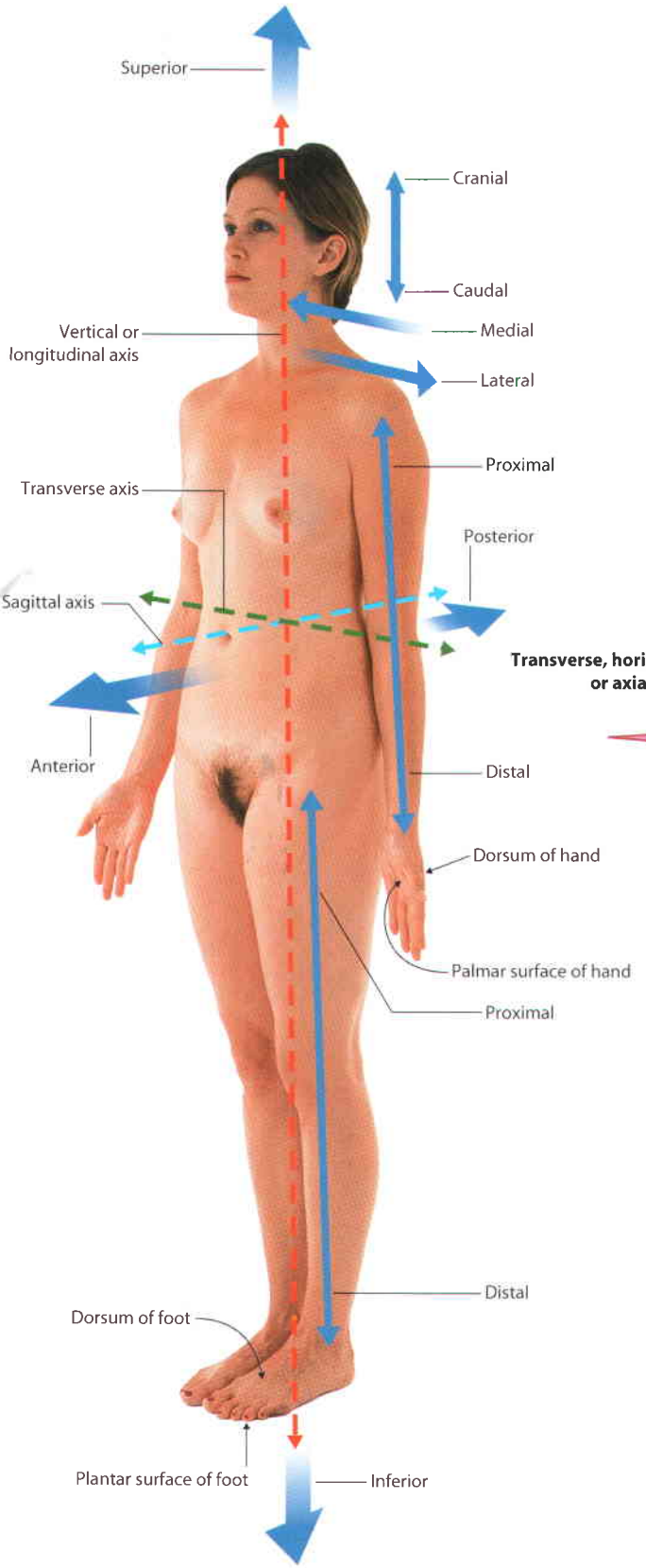
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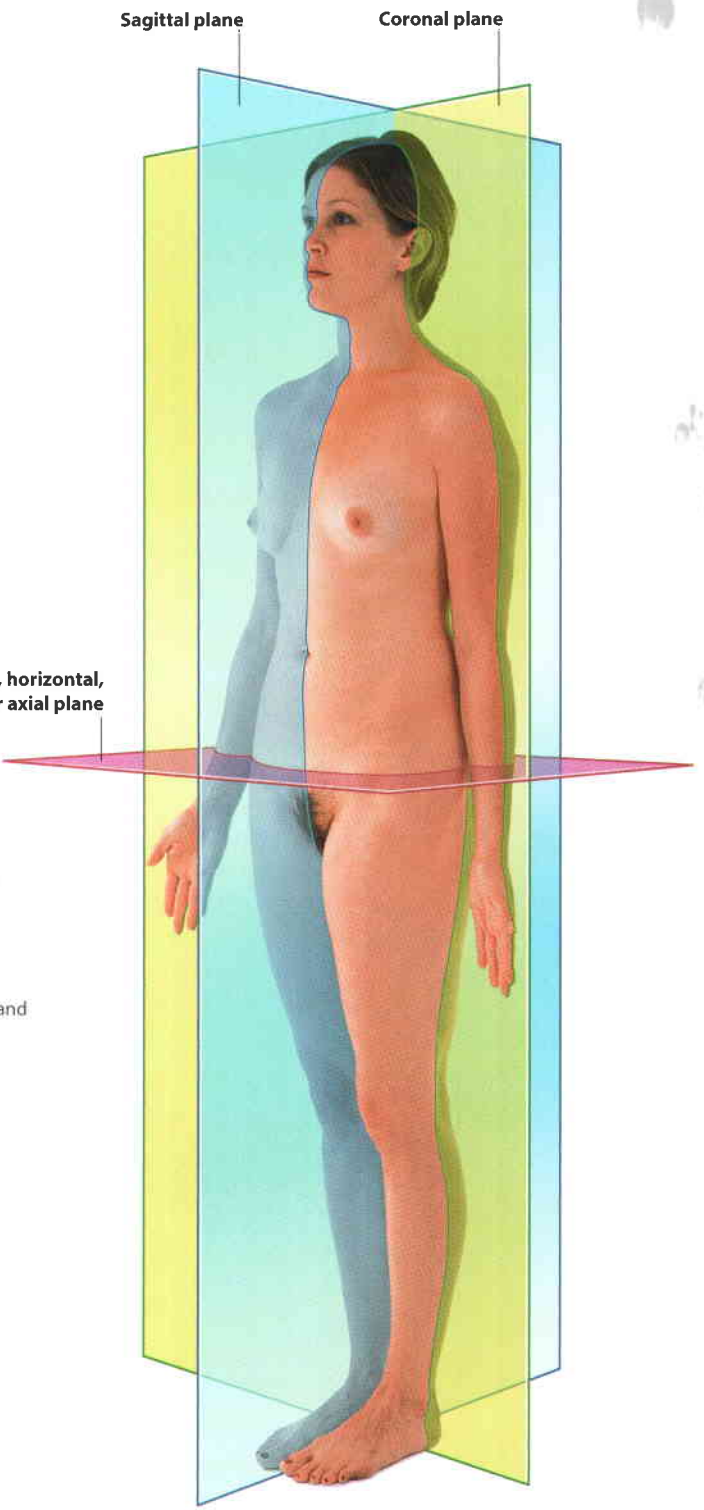
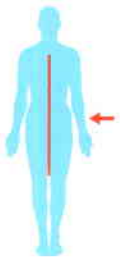
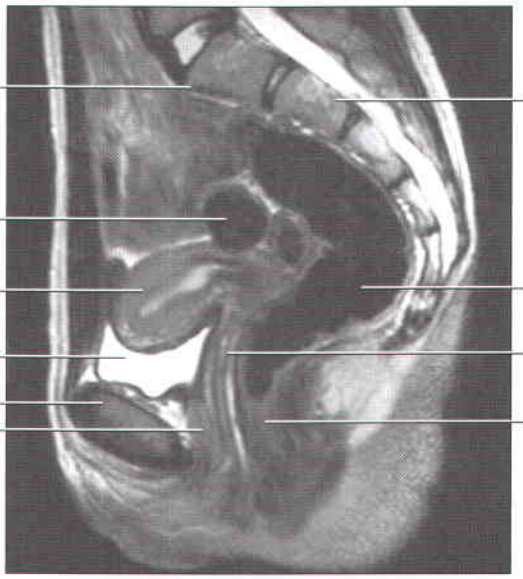
Cranial
Caudal
Vertical or longitudinal axis
Medial
Lateral
Proximal
Transverse axis
Posterior
Sagittal axis
Anterior
Distal
Dorsum of hand
Palmar surface of hand
Proximal
Distal
Dorsum of foot
Plantar surface of foot
Inferior

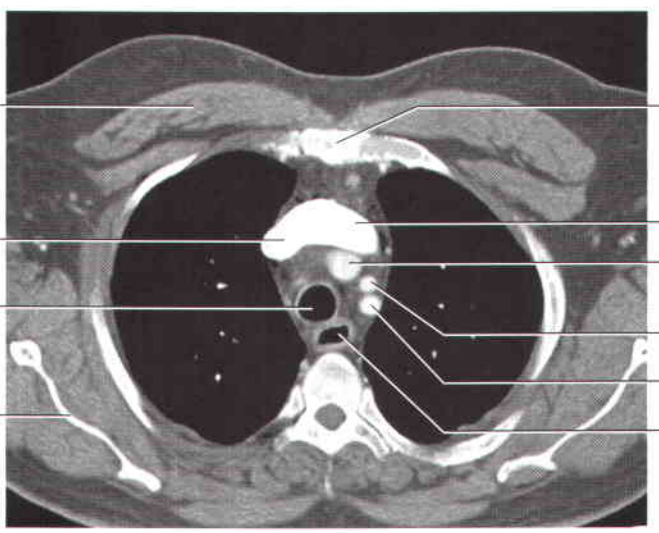

Sagittal plane
Coronal plane
Transverse, horizontal, or axial plane



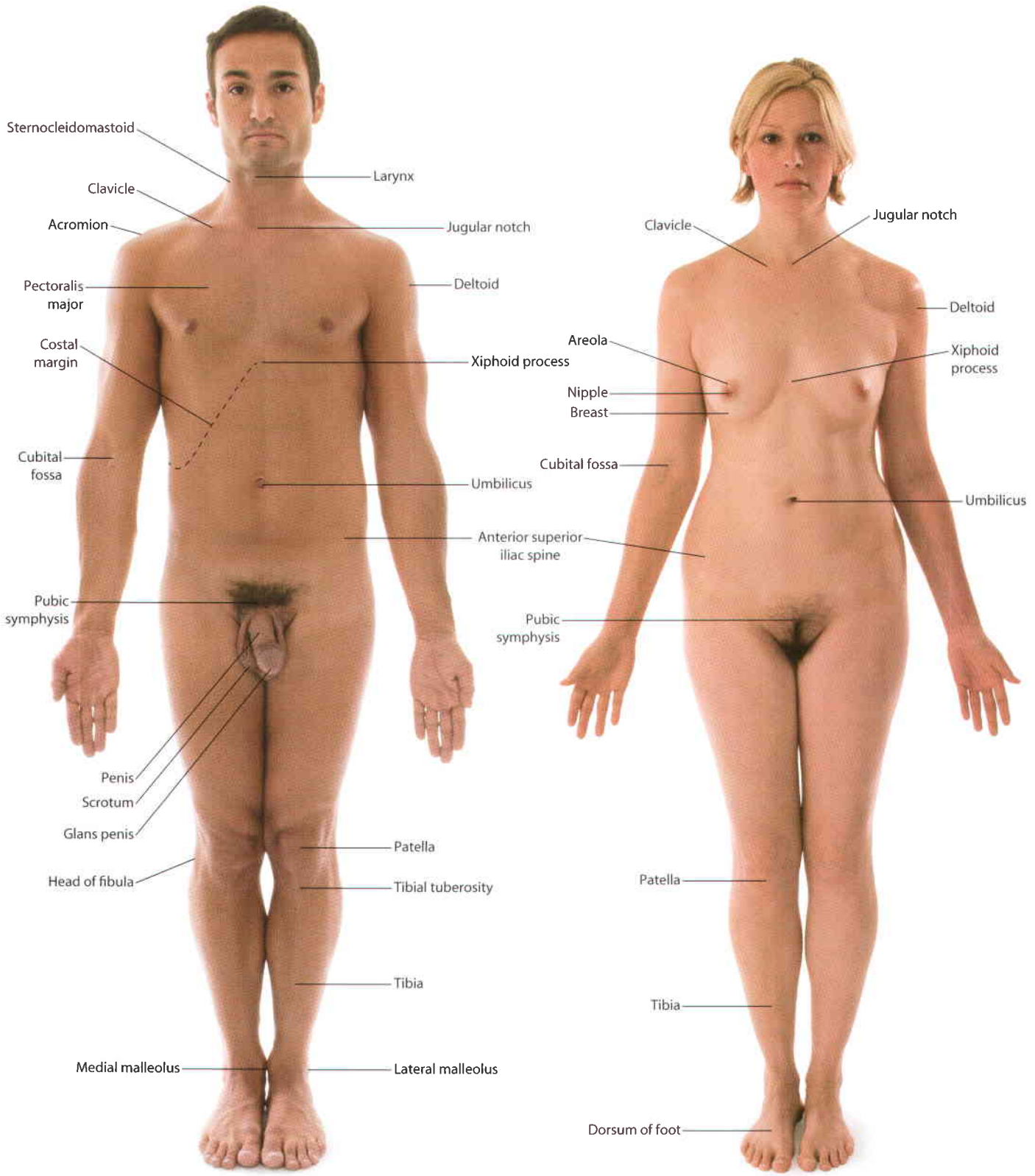


T2-weighted MR image, in sagittal plane

CT image, with contrast, in coronal plane



CT image, with contrast, in axial plane


Sternocleidomastoid
Larynx
Clavicle
Acromion
Jugular notch
Pectoralis major
Deltoid
Costal margin
Xiphoid process
Cubital fossa
Umbilicus
Anterior superior iliac spine
Pubic symphysis
Penis
Scrotum
Glans penis
Patella
Head of fibula
Tibial tuberosity
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Medial malleolus
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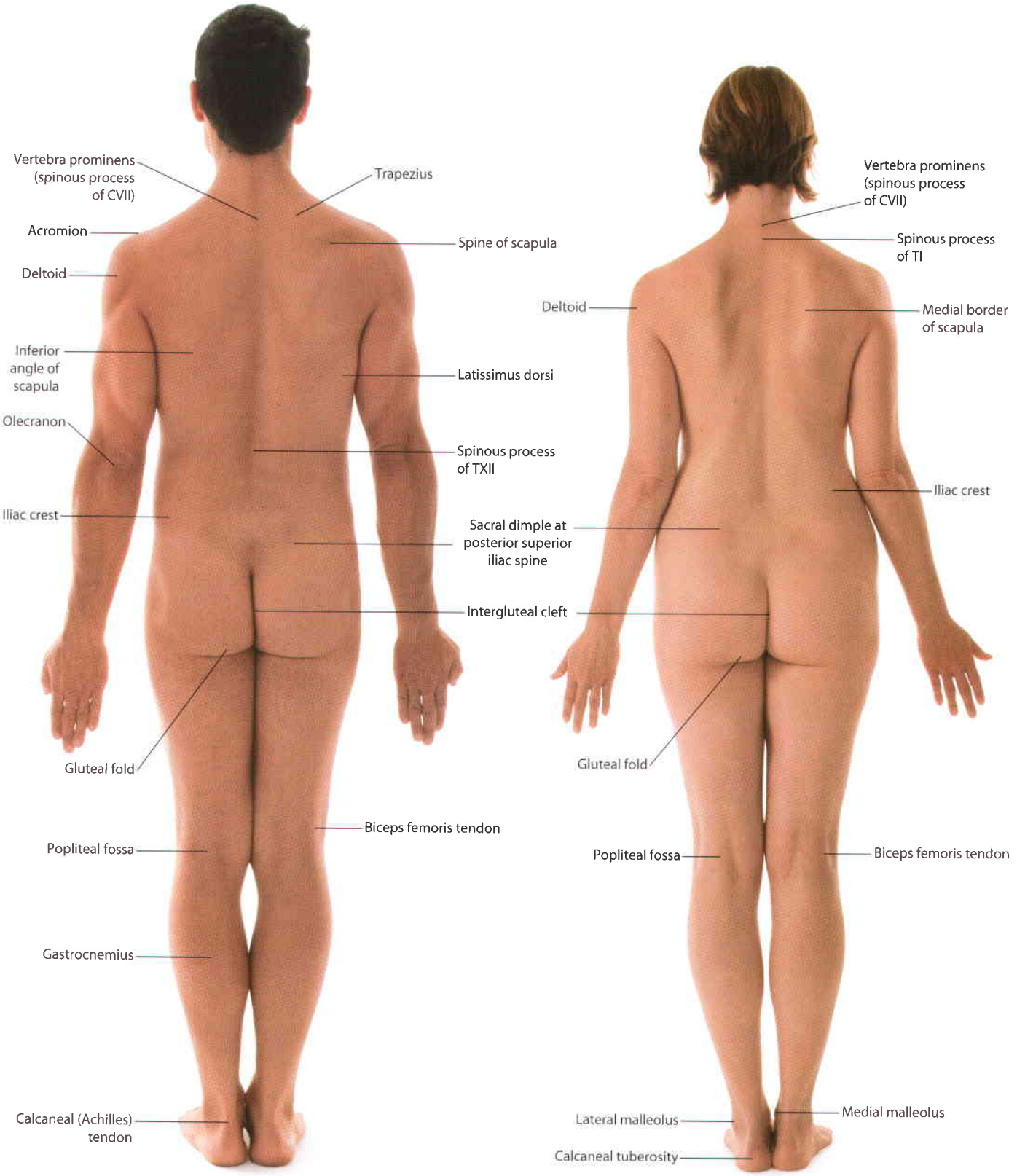
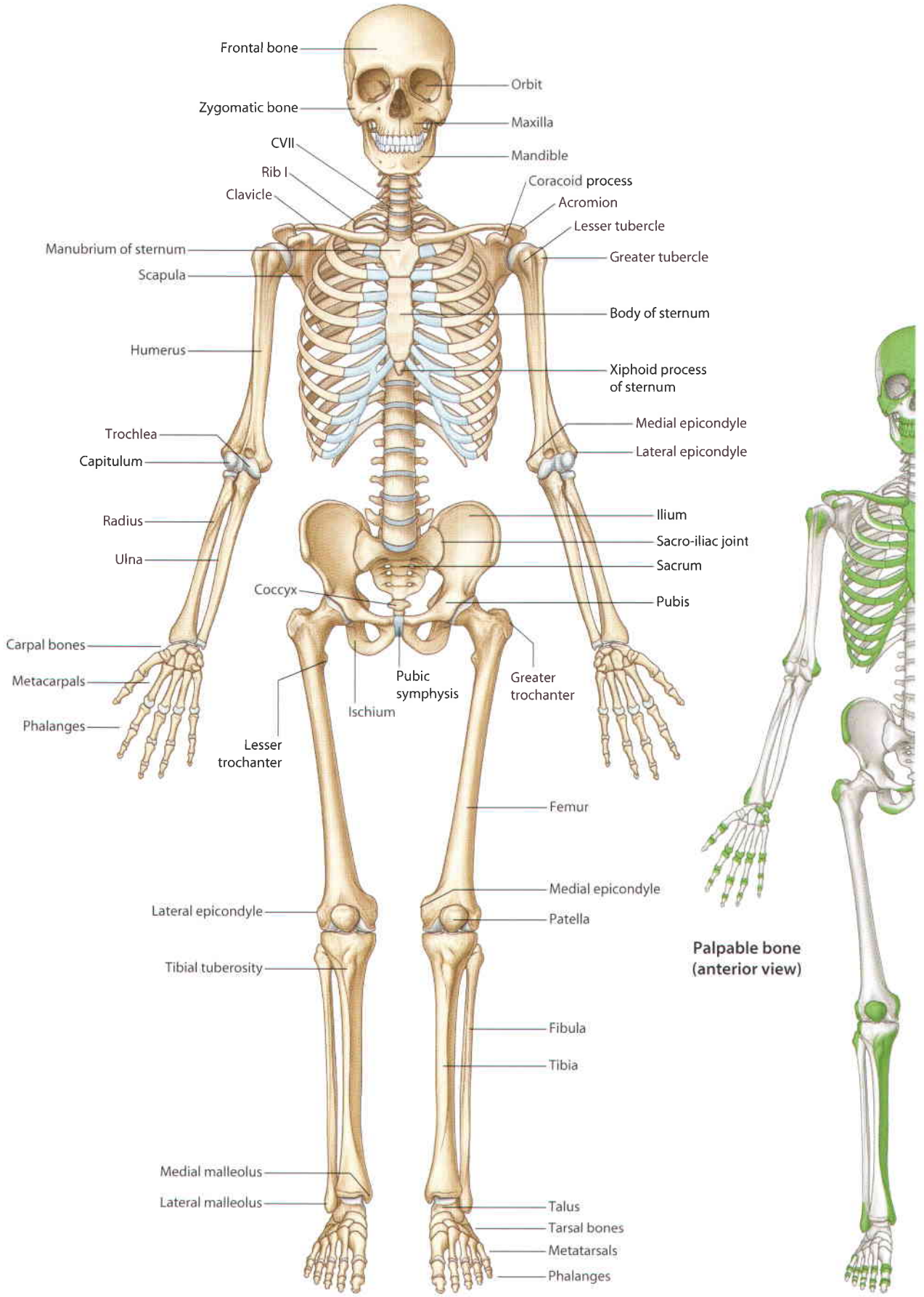
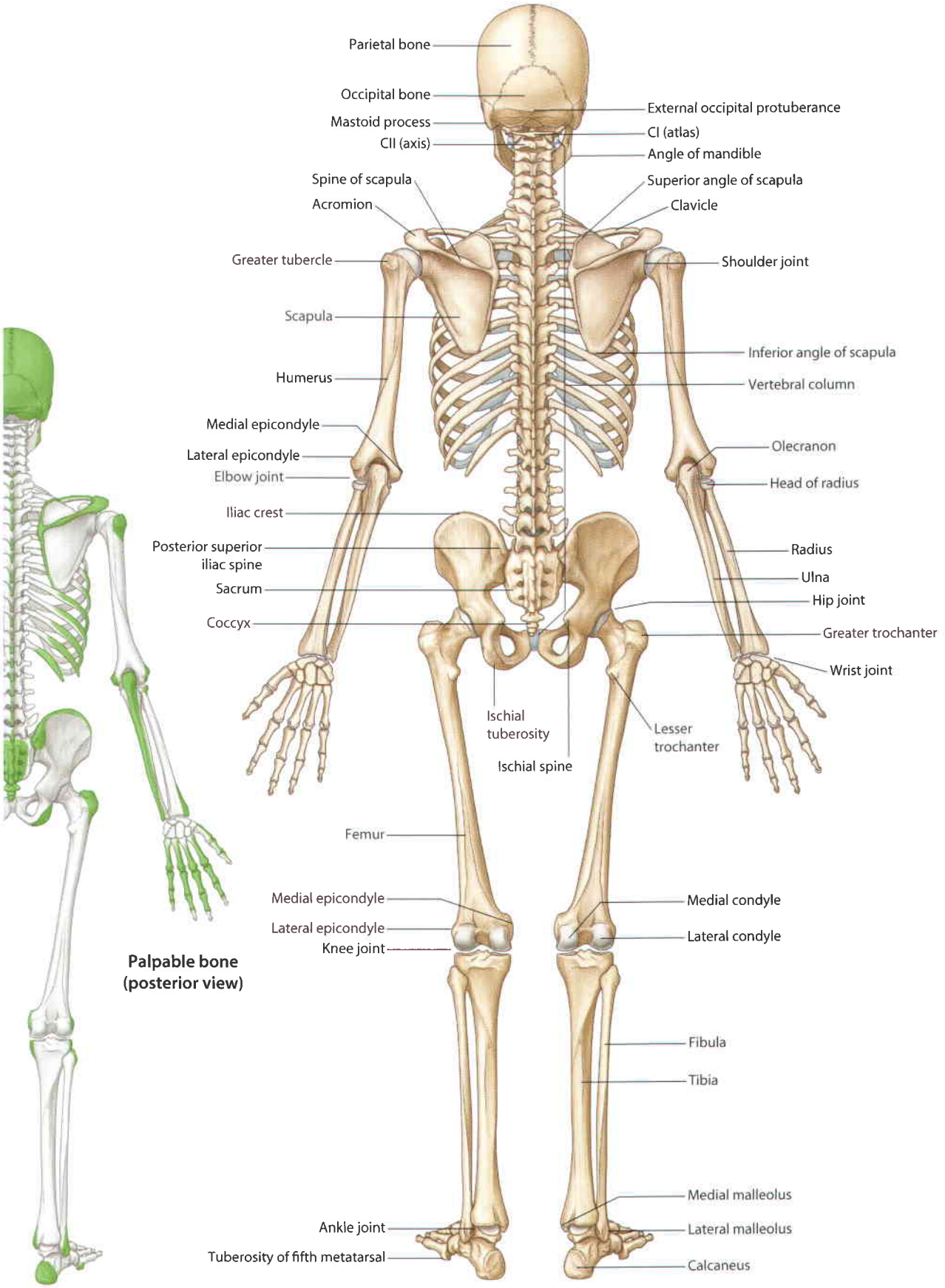
Deltoid
Areola
Xiphoid process
Nipple
Breast
Cubital fossa
Umbilicus
Pubic symphysis
Patella
Tibia
Dorsum of foot

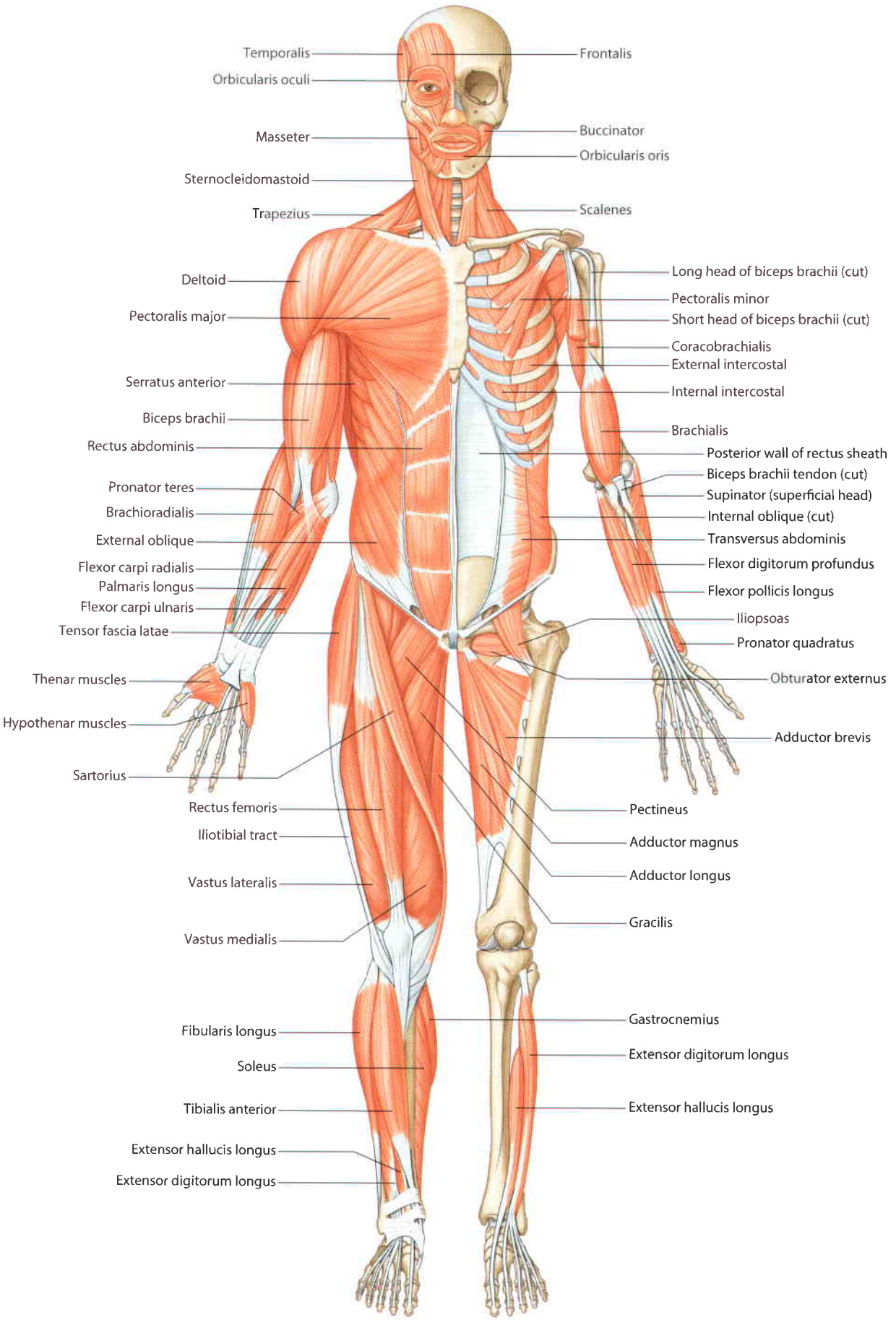

Vertebra prominens (spinous process of CVII)
Trapezius
Acromion
Spine of scapula
Deltoid
Inferior angle of scapula
Latissimus dorsi
Olecranon
Spinous process of TXII
Iliac crest
Sacral dimple at posterior superior iliac spine
Intergluteal cleft
Gluteal fold
Biceps femoris tendon
Popliteal fossa
Gastrocnemius
Calcaneal (Achilles) tendon
Vertebra prominens (spinous process of CVII)
Spinous process of TI
Deltoid
Medial border of scapula
Iliac crest
Gluteal fold
Popliteal fossa
Biceps femoris tendon
Lateral malleolus
Medial malleolus
Calcaneal tuberosity

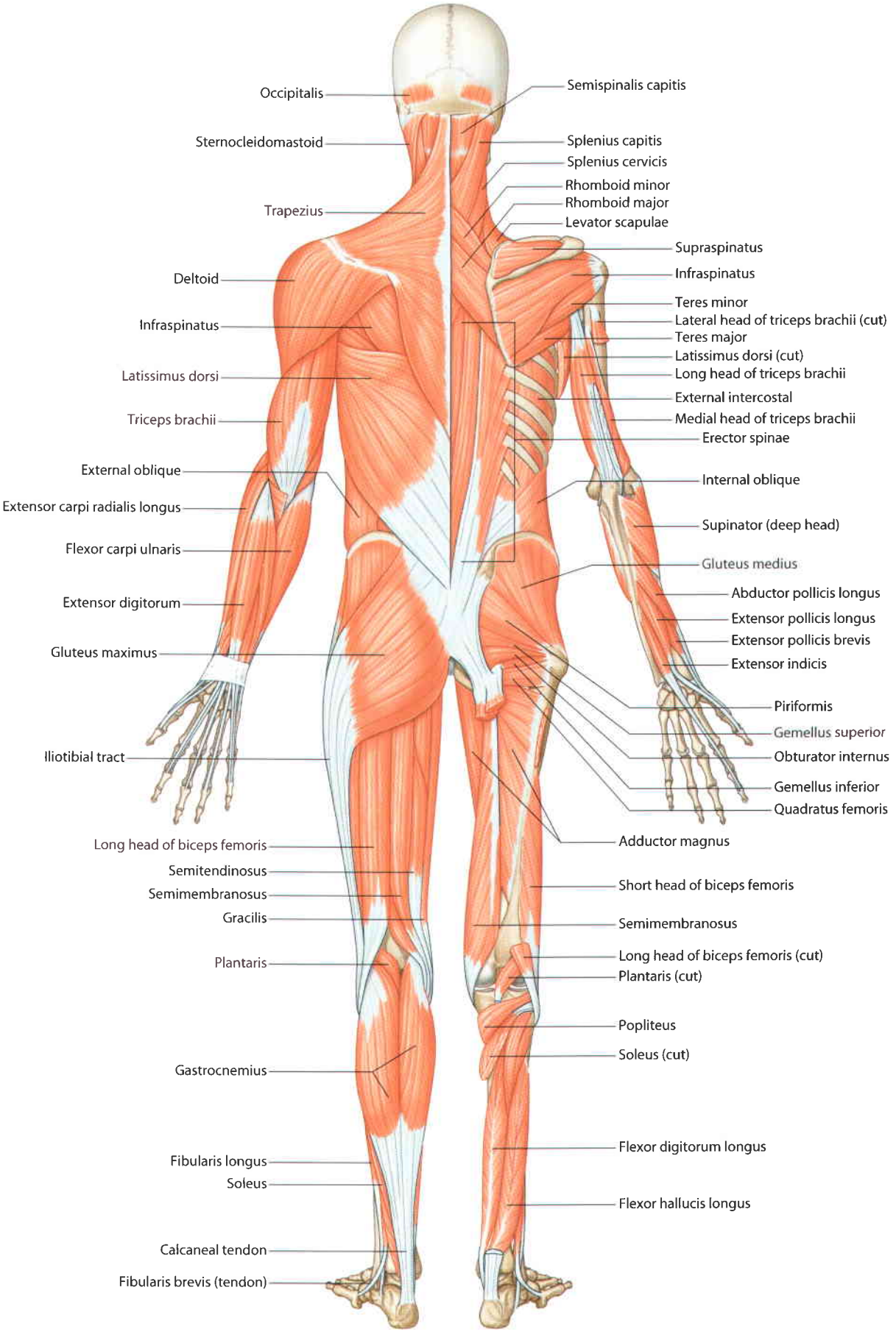


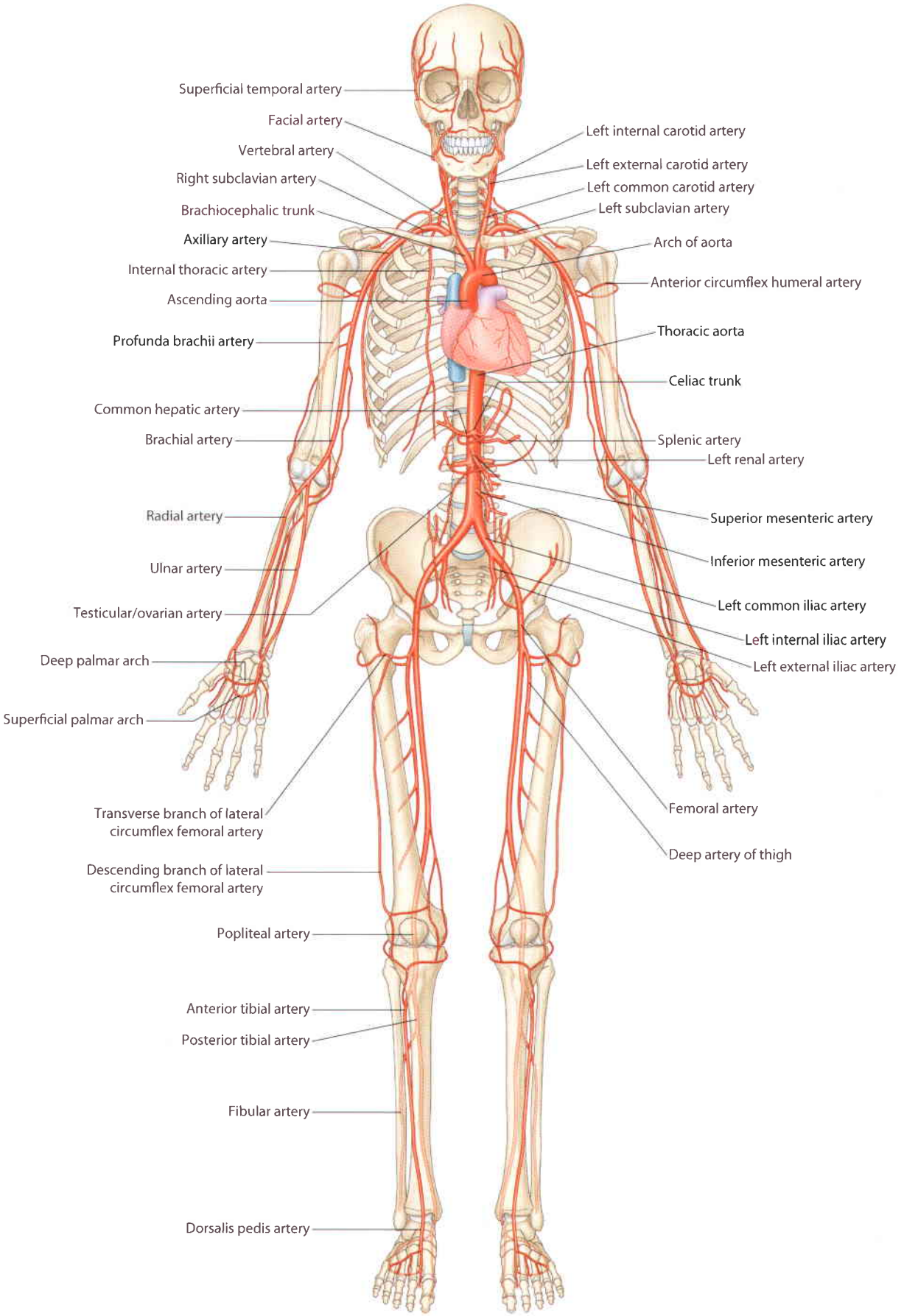
Palpable bone (anterior view)

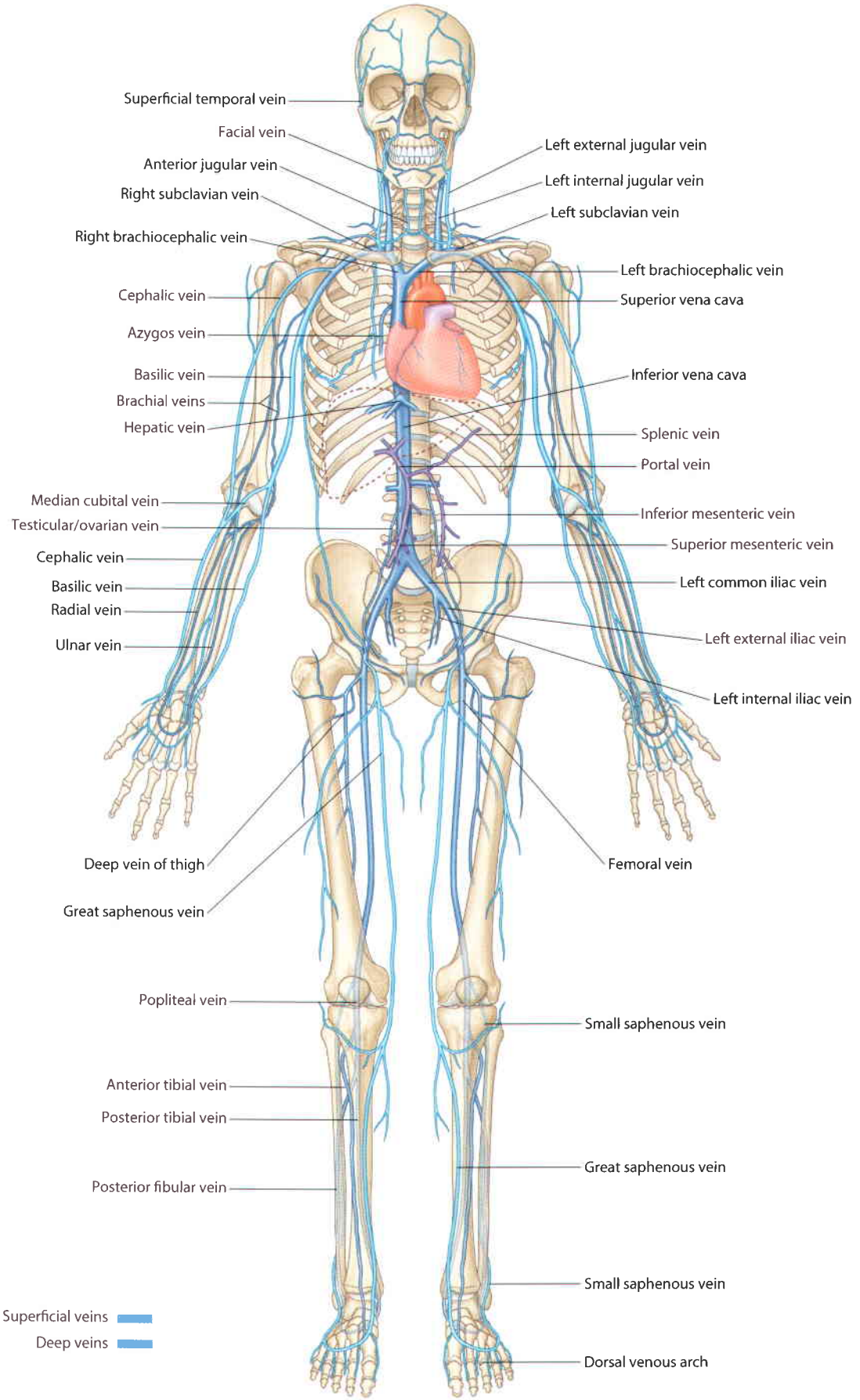


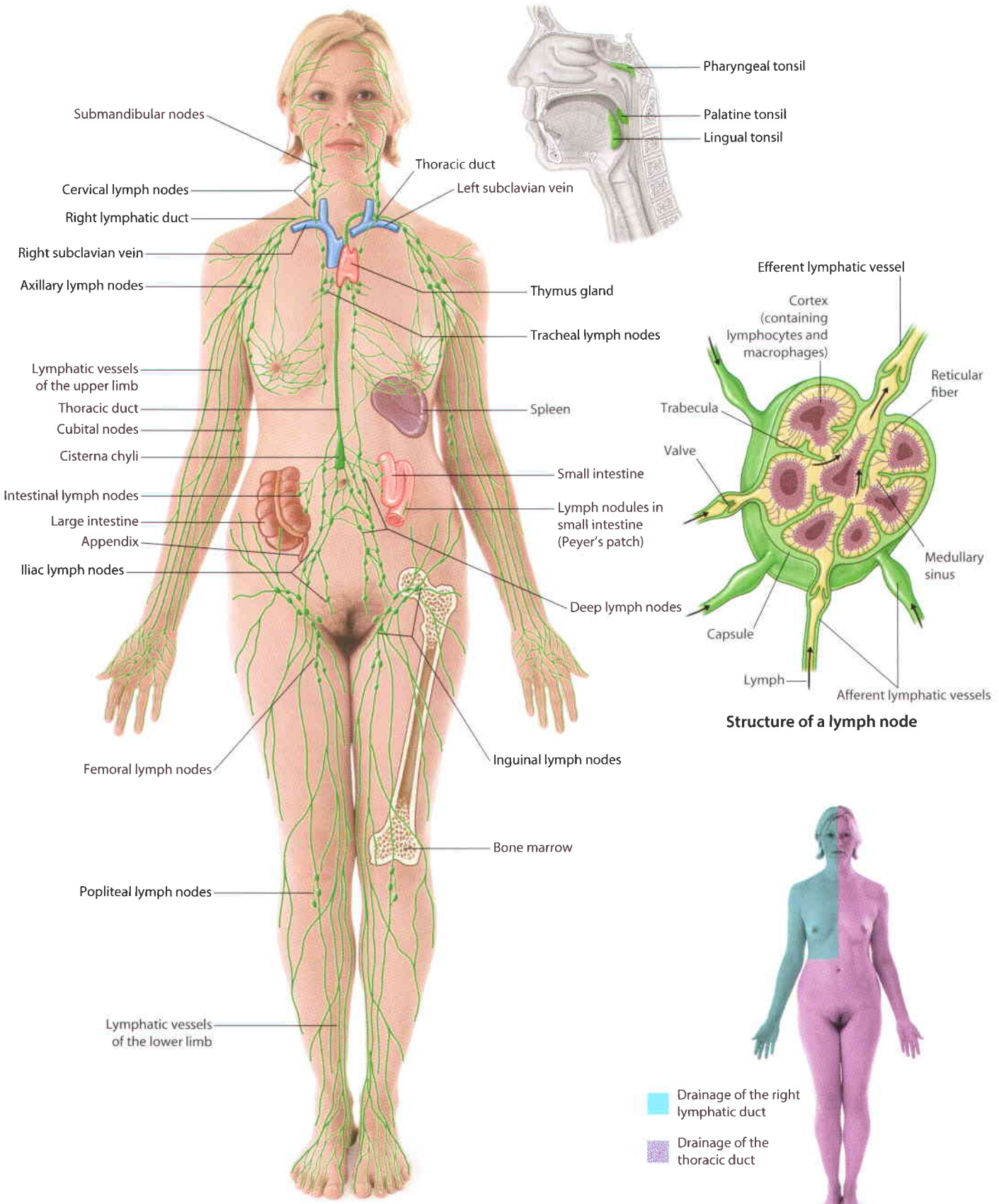
Palpable bone (posterior view)


Temporalis
Orbicularis oculi
Masseter
Sternocleidomastoid
Trapezius
Deltoid
Pectoralis major
Serratus anterior
Biceps brachii
Rectus abdominis
Pronator teres
Brachioradialis
External oblique
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Tensor fascia latae
Thenar muscles
Hypothenar muscles
Sartorius
Rectus femoris
Iliotibial tract
Vastus lateralis
Vastus medialis
Fibularis longus
Soleus
Tibialis anterior
Extensor hallucis longus
Extensor digitorum longus
Frontalis
Buccinator
Orbicularis oris
Scalenes
Long head of biceps brachii (cut)
Pectoralis minor
Short head of biceps brachii (cut)
Coracobrachialis
External intercostal
Internal intercostal
Brachialis
Posterior wall of rectus sheath
Biceps brachii tendon (cut)
Supinator (superficial head)
Internal oblique (cut)
Transversus abdominis
Flexor digitorum profundus
Flexor pollicis longus
Iliopsoas
Pronator quadratus
Obturator externus
Adductor brevis
Pectineus
Adductor magnus
Adductor longus
Gracilis
Gastrocnemius
Extensor digitorum longus
Extensor hallucis longus


Occipitalis
Sternocleidomastoid
Trapezius
Deltoid
Infraspinatus
Latissimus dorsi
Triceps brachii
External oblique
Extensor carpi radialis longus
Flexor carpi ulnaris
Extensor digitorum
Gluteus maximus
Iliotibial tract
Long head of biceps femoris
Semitendinosus
Semimembranosus
Gracilis
Plantaris
Gastrocnemius
Fibularis longus
Soleus
Calcaneal tendon
Fibularis brevis (tendon)
Semispinalis capitis
Splenius capitis
Splenius cervicis
Rhomboid minor
Rhomboid major
Levator scapulae
Supraspinatus
Infraspinatus
Teres minor
Lateral head of triceps brachii (cut)
Teres major
Latissimus dorsi (cut)
Long head of triceps brachii
External intercostal
Medial head of triceps brachii
Erector spinae
Internal oblique
Supinator (deep head)
Gluteus medius
Abductor pollicis longus
Extensor pollicis longus
Extensor pollicis brevis
Extensor indicis
Piriformis
Gemellus superior
Obturator internus
Gemellus inferior
Quadratus femoris
Adductor magnus
Short head of biceps femoris
Semimembranosus
Long head of biceps femoris (cut)
Plantaris (cut)
Popliteus
Soleus (cut)
Flexor digitorum longus
Flexor hallucis longus

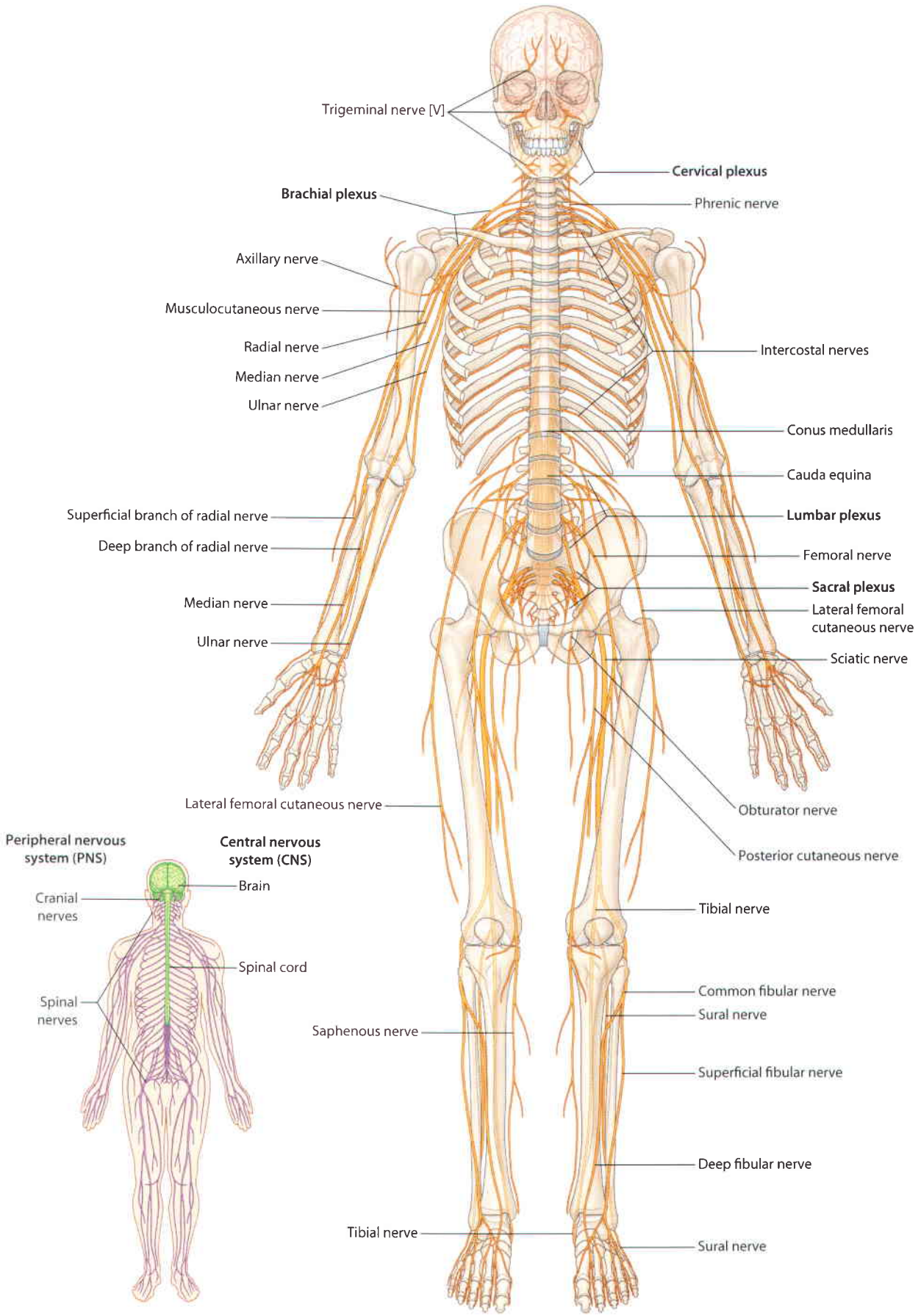

Superficial temporal artery
Facial artery
Vertebral artery
Right subclavian artery
Brachiocephalic trunk
Axillary artery
Internal thoracic artery
Ascending aorta
Profunda brachii artery
Common hepatic artery
Brachial artery
Radial artery
Ulnar artery
Testicular/ovarian artery
Deep palmar arch
Superficial palmar arch
Transverse branch of lateral circumflex femoral artery
Descending branch of lateral circumflex femoral artery
Popliteal artery
Anterior tibial artery
Posterior tibial artery
Fibular artery
Dorsalis pedis artery
Left internal carotid artery
Left external carotid artery
Left common carotid artery
Left subclavian artery
Arch of aorta
Anterior circumflex humeral artery
Thoracic aorta
Celiac trunk
Splenic artery
Left renal artery
Superior mesenteric artery
Inferior mesenteric artery
Left common iliac artery
Left internal iliac artery
Left external iliac artery
Femoral artery
Deep artery of thigh

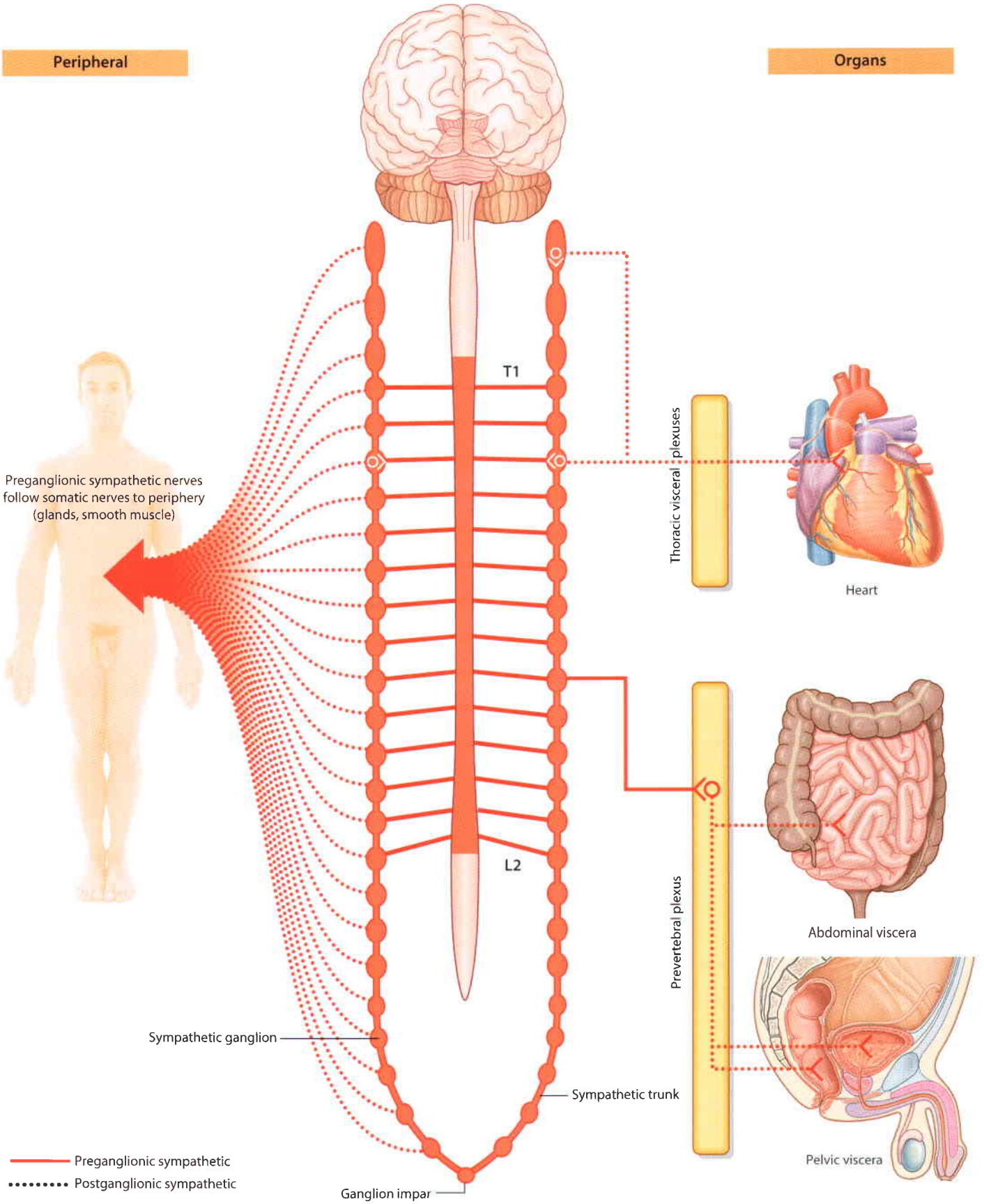

Superficial temporal vein
Facial vein
Anterior jugular vein
Right subclavian vein
Right brachiocephalic vein
Cephalic vein
Azygos vein
Basilic vein
Brachial veins
Hepatic vein
Median cubital vein
Testicular/ovarian vein
Cephalic vein
Basilic vein
Radial vein
Ulnar vein
Deep vein of thigh
Great saphenous vein
Popliteal vein
Anterior tibial vein
Posterior tibial vein
Posterior fibular vein
Left external jugular vein
Left internal jugular vein
Left subclavian vein
Left brachiocephalic vein
Superior vena cava
Inferior vena cava
Splenic vein
Portal vein
Inferior mesenteric vein
Superior mesenteric vein
Left common iliac vein
Left external iliac vein
Left internal iliac vein
Femoral vein
Small saphenous vein
Great saphenous vein
Small saphenous vein
Dorsal venous arch
Superficial veins
Deep veins



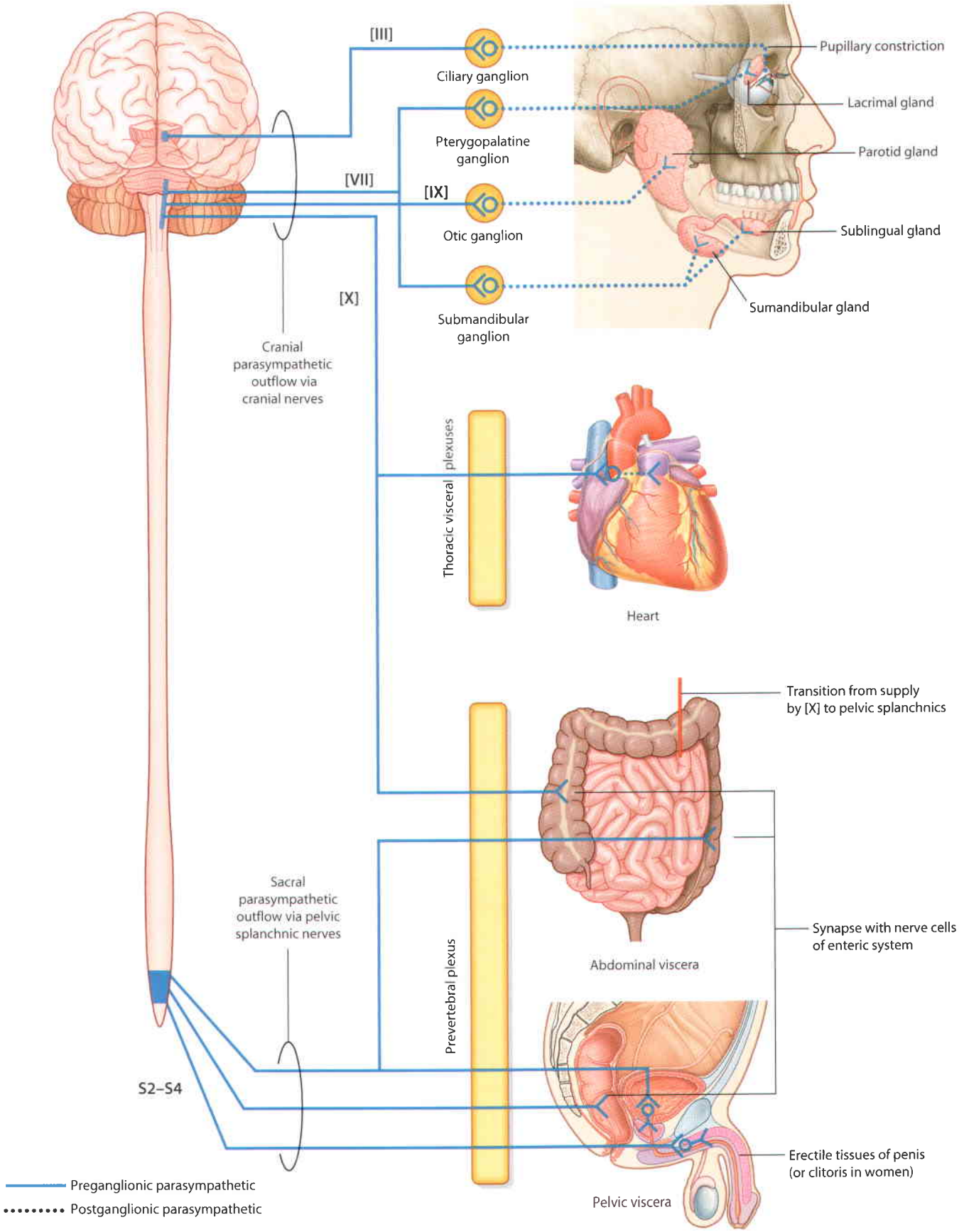
Principal components of the lymphatic system

Structure of a lymph node

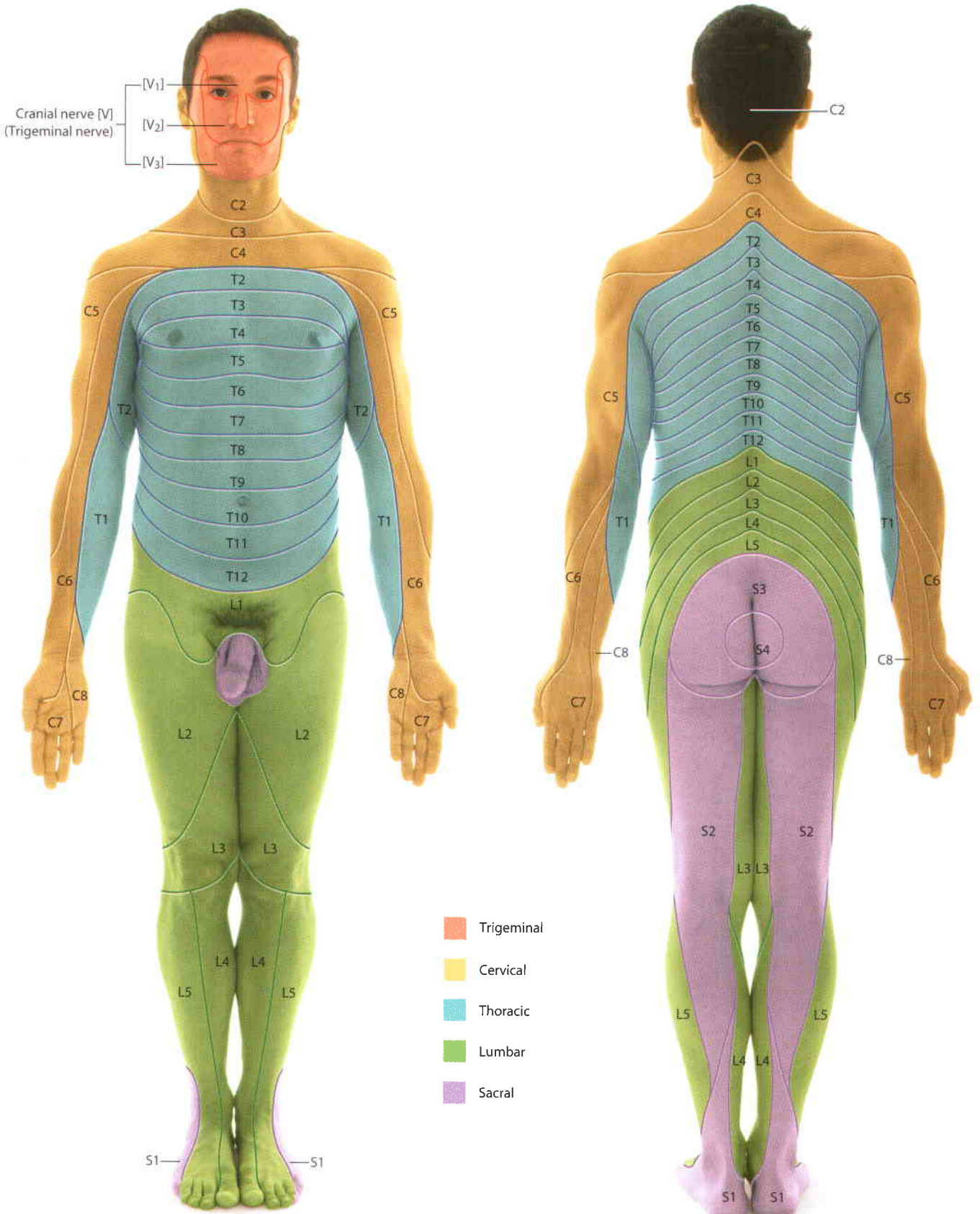

Trigeminal nerve [V]
Cervical plexus
Brachial plexus
Phrenic nerve
Axillary nerve
Musculocutaneous nerve
Radial nerve
Median nerve
Ulnar nerve
Intercostal nerves
Conus medullaris
Cauda equina
Superficial branch of radial nerve
Deep branch of radial nerve
Lumbar plexus
Femoral nerve
Sacral plexus
Median nerve
Lateral femoral cutaneous nerve
Ulnar nerve
Sciatic nerve
Obturator nerve
Lateral femoral cutaneous nerve
Posterior cutaneous nerve
Peripheral nervous system (PNS)
Central nervous system (CNS)
Brain
Cranial nerves
Tibial nerve
Spinal cord
Common fibular nerve
Spinal nerves
Sural nerve
Saphenous nerve
Superficial fibular nerve
Deep fibular nerve
Tibial nerve
Sural nerve



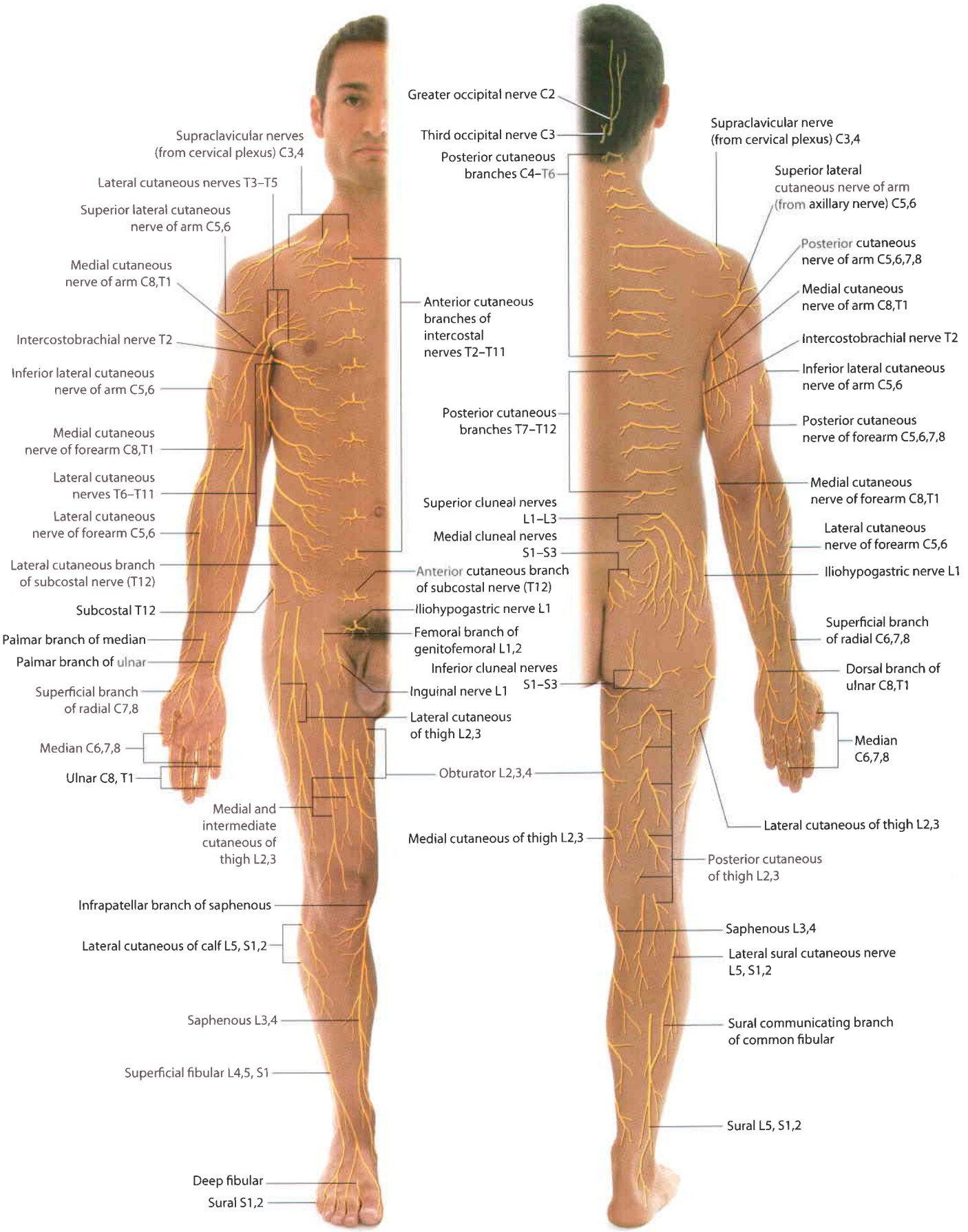
All sympathetic visceral efferent (motor) nerves originate from spinal levels T1–L2 and pass into the associated spinal nerves



All paraympathetic visceral efferent (motor) nerves emerge from the brain in cranial nerves III, VII, IX, and X and from spinal levels S2–S4



Dermatome map
(cutaneous distribution of nerves)


Supraclavicular nerves (from cervical plexus) C3,4
Lateral cutaneous nerves T3–T5
Superior lateral cutaneous nerve of arm C5,6
Medial cutaneous nerve of arm C8,T1
Intercostobrachial nerve T2
Inferior lateral cutaneous nerve of arm C5,6
Medial cutaneous nerve of forearm C8,T1
Lateral cutaneous nerves T6–T11
Lateral cutaneous nerve of forearm C5,6
Lateral cutaneous branch of subcostal nerve (T12)
Subcostal T12
Palmar branch of median
Palmar branch of ulnar
Superficial branch of radial C7,8
Median C6,7,8
Ulnar C8, T1
Medial and intermediate cutaneous of thigh L2,3
Infrapatellar branch of saphenous
Lateral cutaneous of calf L5, S1,2
Saphenous L3,4
Superficial fibular L4,5, S1
Deep fibular
Sural S1,2
Anterior cutaneous branches of intercostal nerves T2–T11
Greater occipital nerve C2
Third occipital nerve C3
Posterior cutaneous branches C4–T6
Posterior cutaneous branches T7–T12
Superior cluneal nerves L1–L3
Medial cluneal nerves S1–S3
Anterior cutaneous branch of subcostal nerve (T12)
Iliohypogastric nerve L1
Femoral branch of genitofemoral L1,2
Inferior cluneal nerves S1–S3
Inguinal nerve L1
Lateral cutaneous of thigh L2,3
Obturator L2,3,4
Medial cutaneous of thigh L2,3
Supraclavicular nerve (from cervical plexus) C3,4
Superior lateral cutaneous nerve of arm (from axillary nerve) C5,6
Posterior cutaneous nerve of arm C5,6,7,8
Medial cutaneous nerve of arm C8,T1
Intercostobrachial nerve T2
Inferior lateral cutaneous nerve of arm C5,6
Posterior cutaneous nerve of forearm C5,6,7,8
Medial cutaneous nerve of forearm C8,T1
Lateral cutaneous nerve of forearm C5,6
Iliohypogastric nerve L1
Superficial branch of radial C6,7,8
Dorsal branch of ulnar C8,T1
Median C6,7,8
Lateral cutaneous of thigh L2,3
Posterior cutaneous of thigh L2,3
Saphenous L3,4
Lateral sural cutaneous nerve L5, S1,2
Sural communicating branch of common fibular
Sural L5, S1,2

2 BACK

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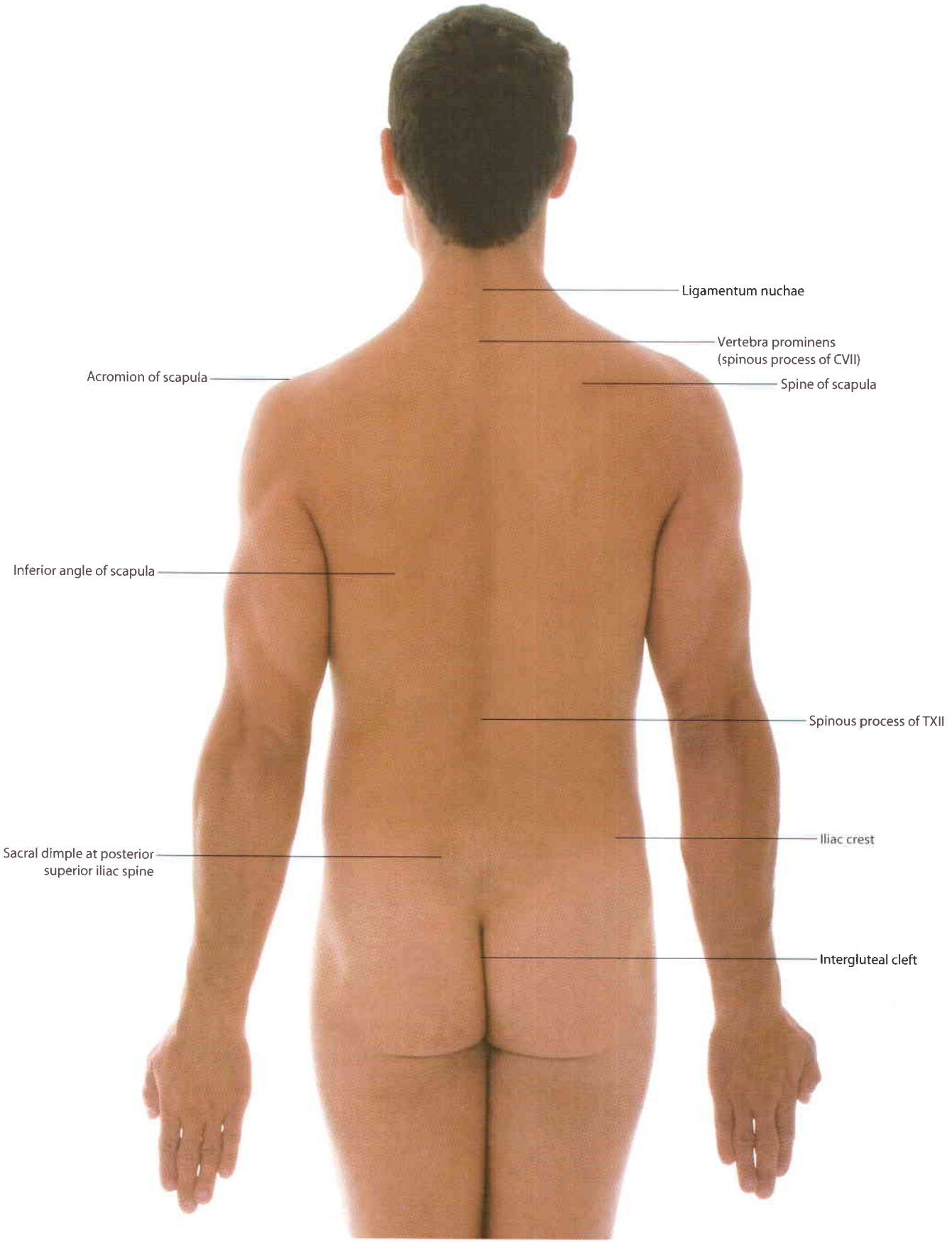
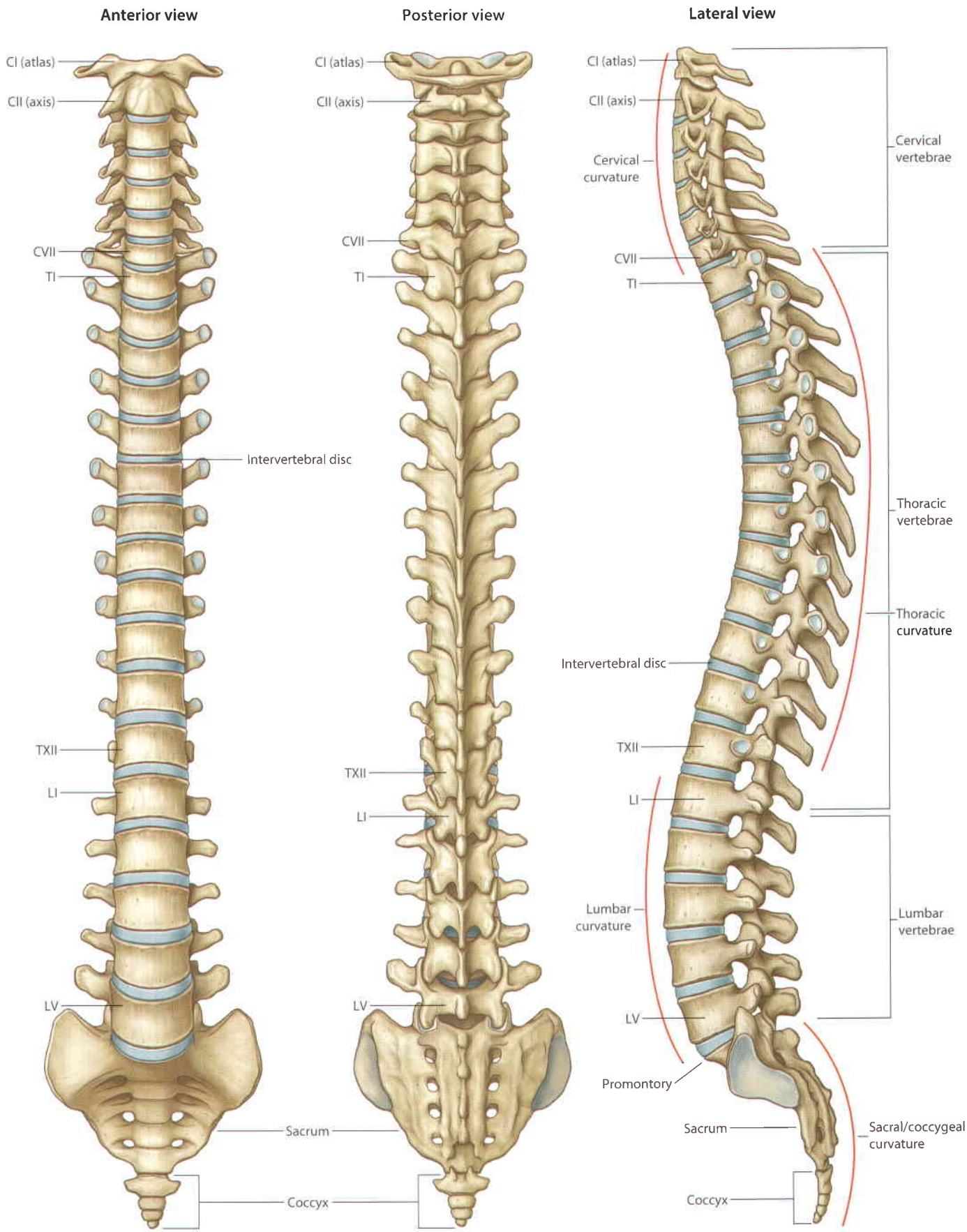
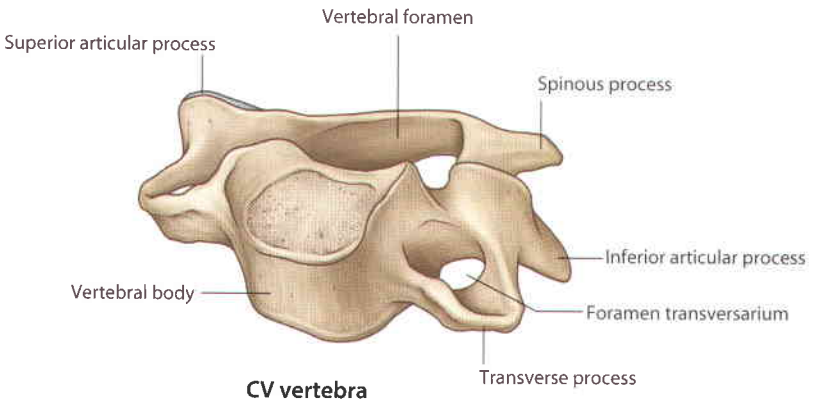
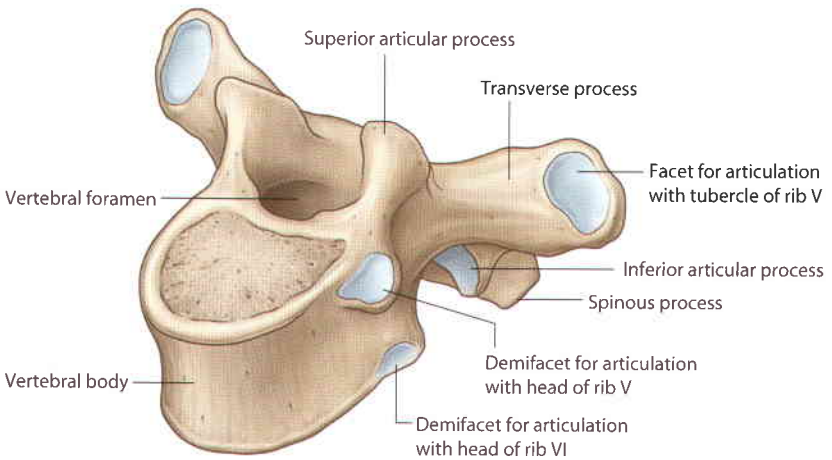


Surface anatomy of the back

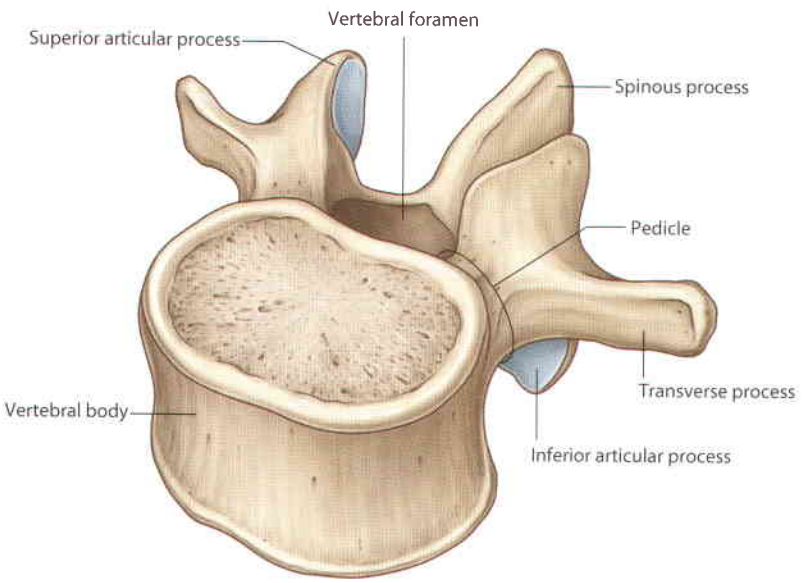

Anterior view
Posterior view
Lateral view
CI (atlas)
CII (axis)
CVII
TI
Intervertebral disc
TXII
LI
LV
Sacrum
Coccyx
Cervical curvature
Cervical vertebrae
Thoracic vertebrae
Thoracic curvature
Lumbar curvature
Lumbar vertebrae
Promontory
Sacral/coccygeal curvature



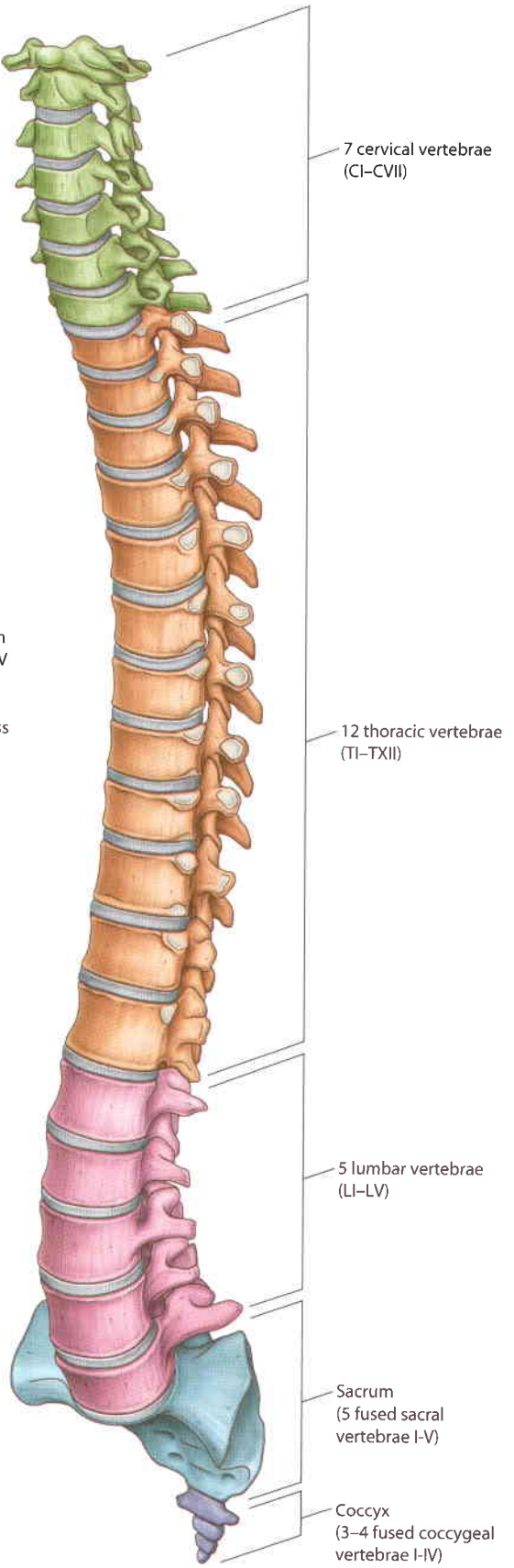
CV vertebra

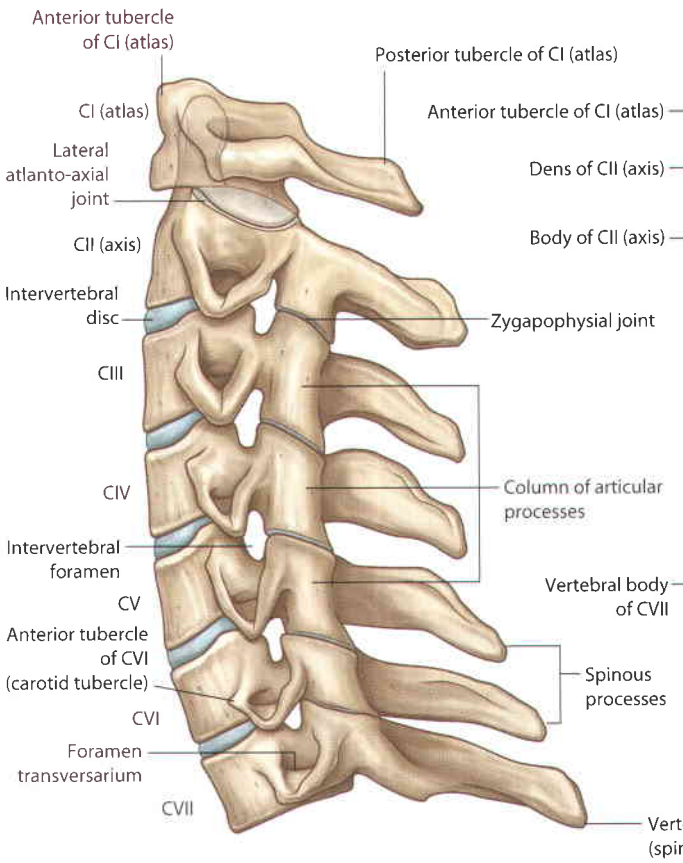


TV vertebra

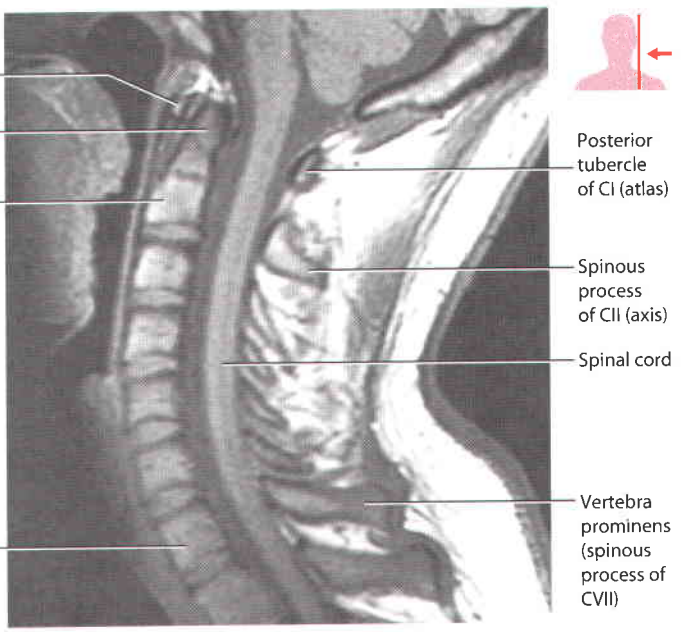


LIII vertebra

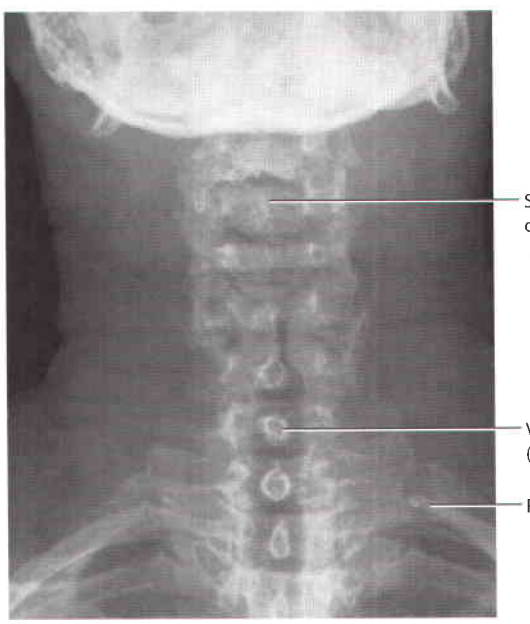




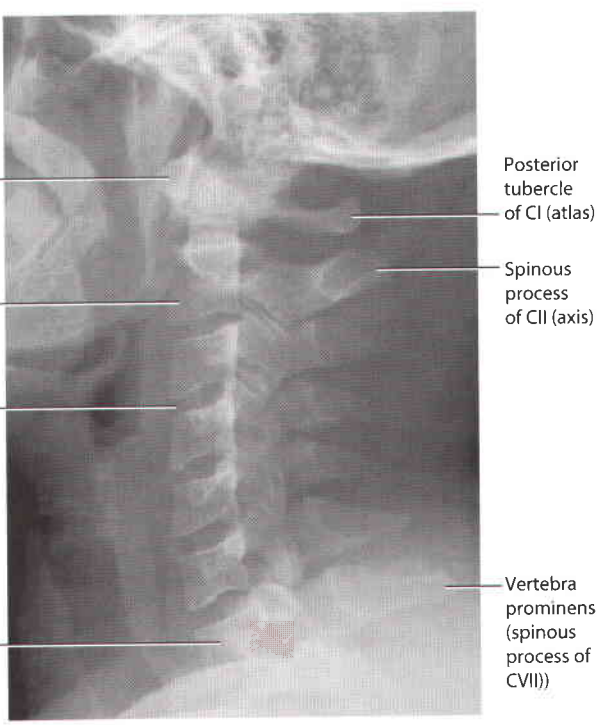
Cervical vertebrae lateral view



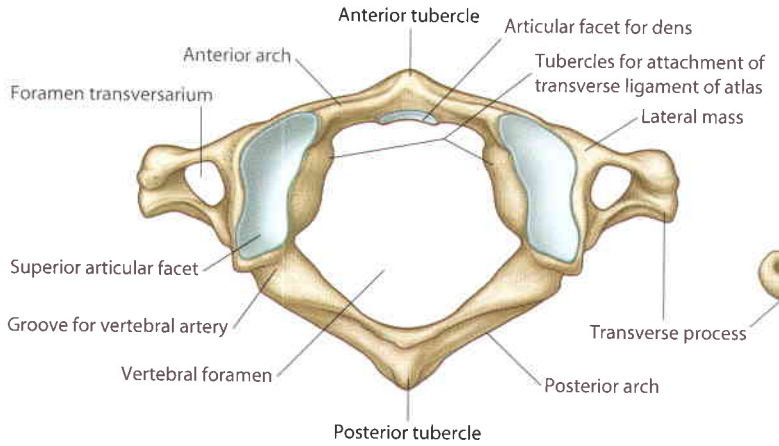
Cervical region of vertebral column.
T1-weighted MR image in the sagittal plane



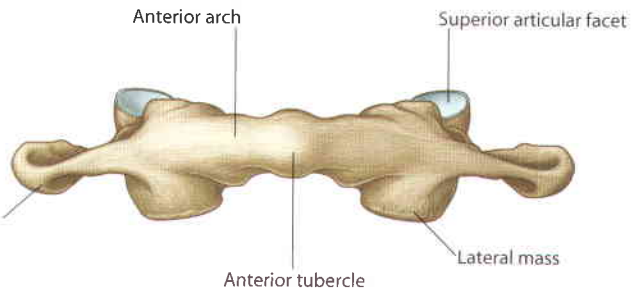
Cervical region of vertebral column.
Radiograph, AP view



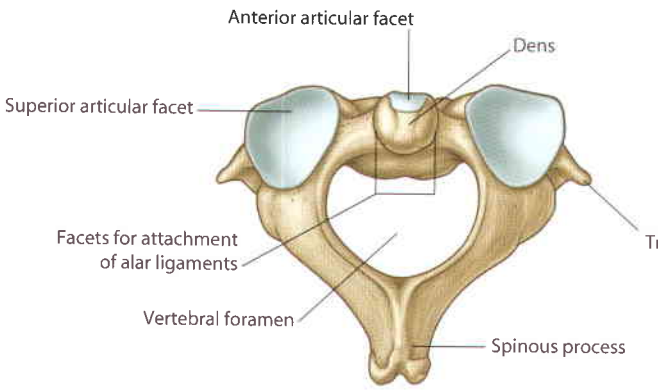
Cervical region of vertebral column.
Radiograph, lateral view



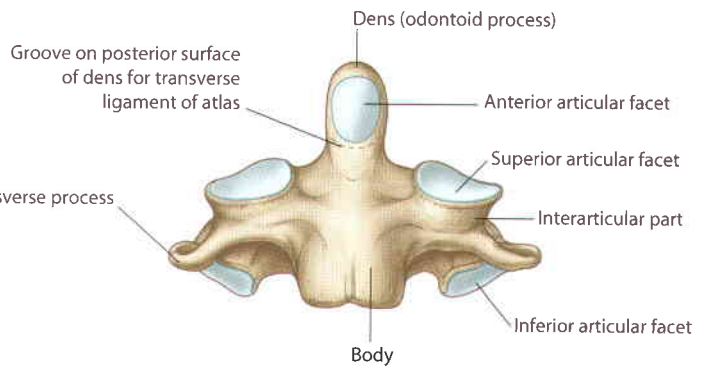
CI vertebra (atlas) superior view



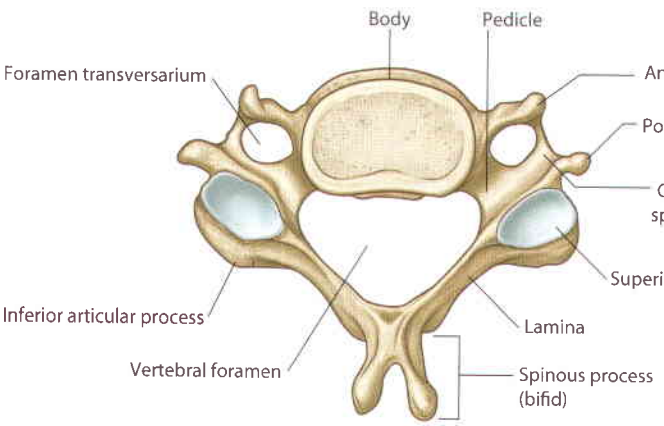
CI vertebra (atlas) anterior view



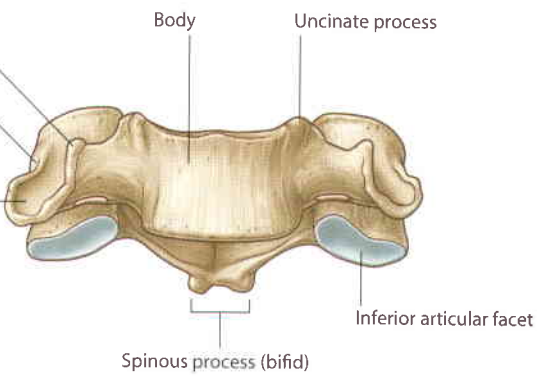
CII vertebra (axis) superior view



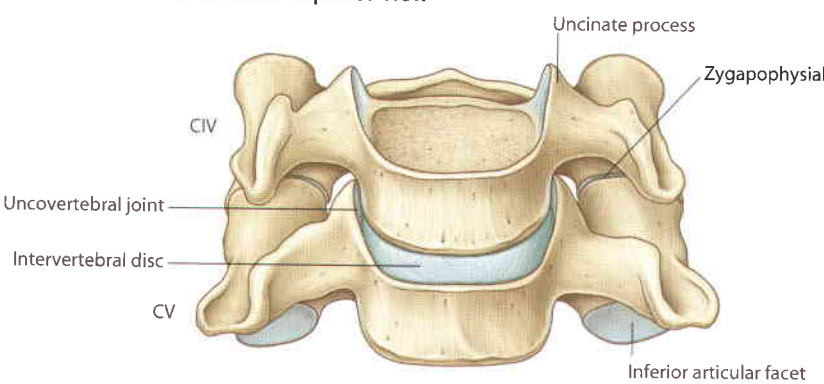
CII vertebra (axis) anterior view



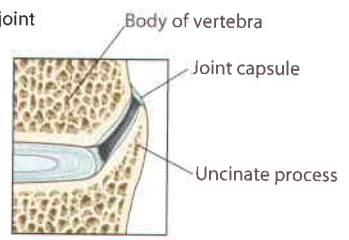
CV vertebra superior view



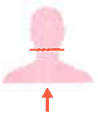
CV vertebra anterior view



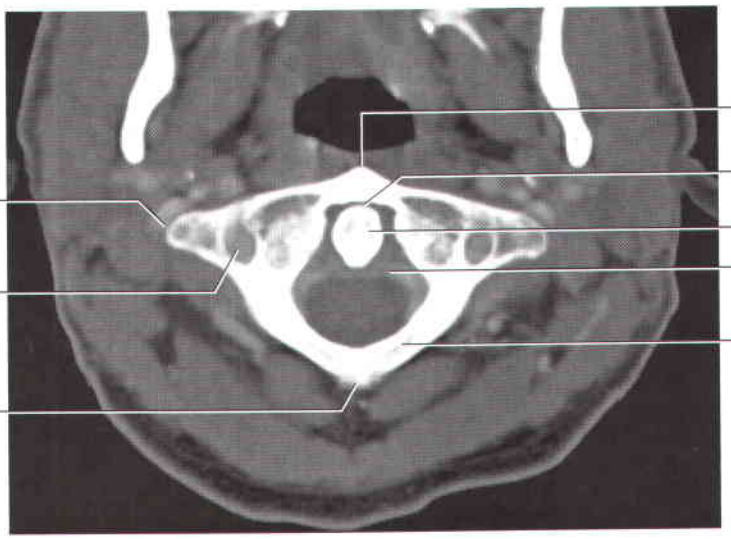
CIV/CV vertebrae anterior view



Uncovertebral joint



Anterior



Transverse process of CI (atlas)

Foramen transversarium

Posterior tubercle of CI (atlas)

Anterior tubercle of CI (atlas)

Median atlanto-axial joint

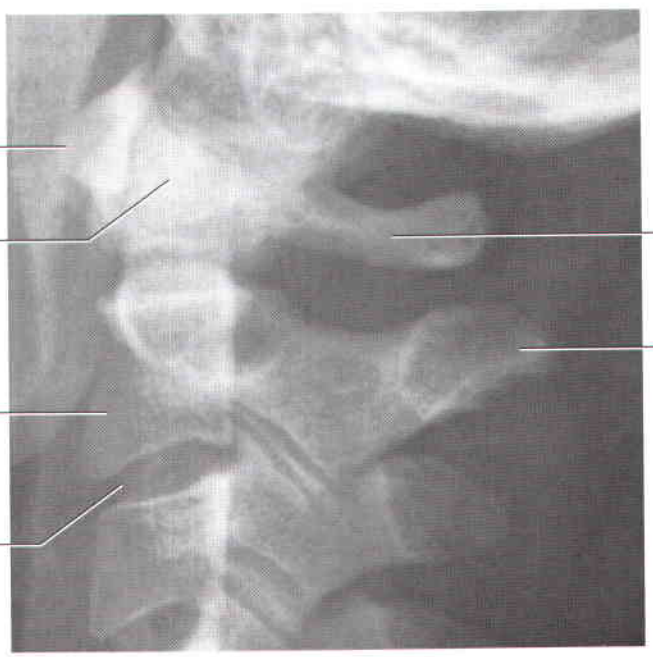
Dens of CII (axis)

Transverse ligament of atlas

Posterior arch of CI (atlas)

Posterior

First cervical vertebra (atlas).
CT image in axial plane



Anterior arch of CI (atlas)

Dens of CII (axis)

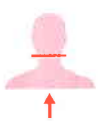
Vertebral body of CII (axis)

Intervertebral disc space

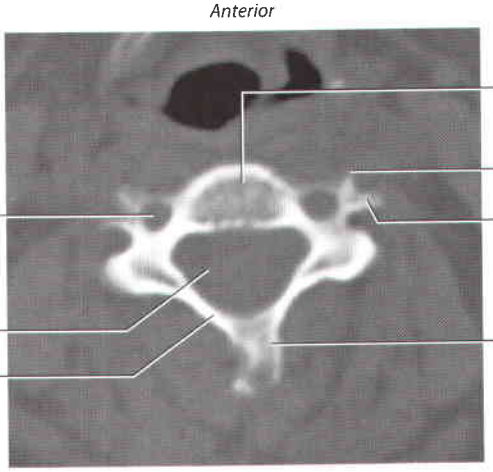
Posterior arch of CI (atlas)

Spinous process of CII (axis)

Cervical vertebrae CI–CIII.
Radiograph, lateral view



Anterior



Foramen transversarium

Vertebral foramen

Lamina

Vertebral body

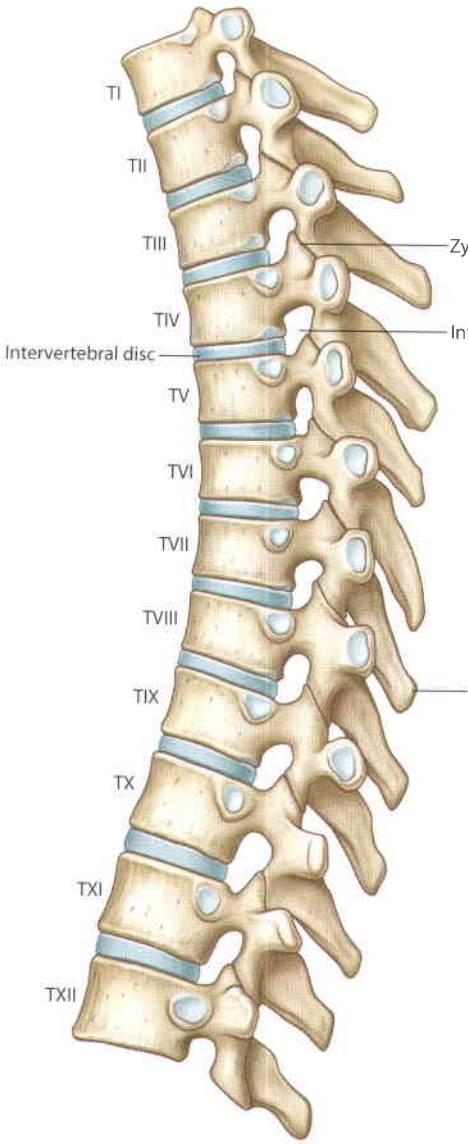
Anterior tubercle

Posterior tubercle

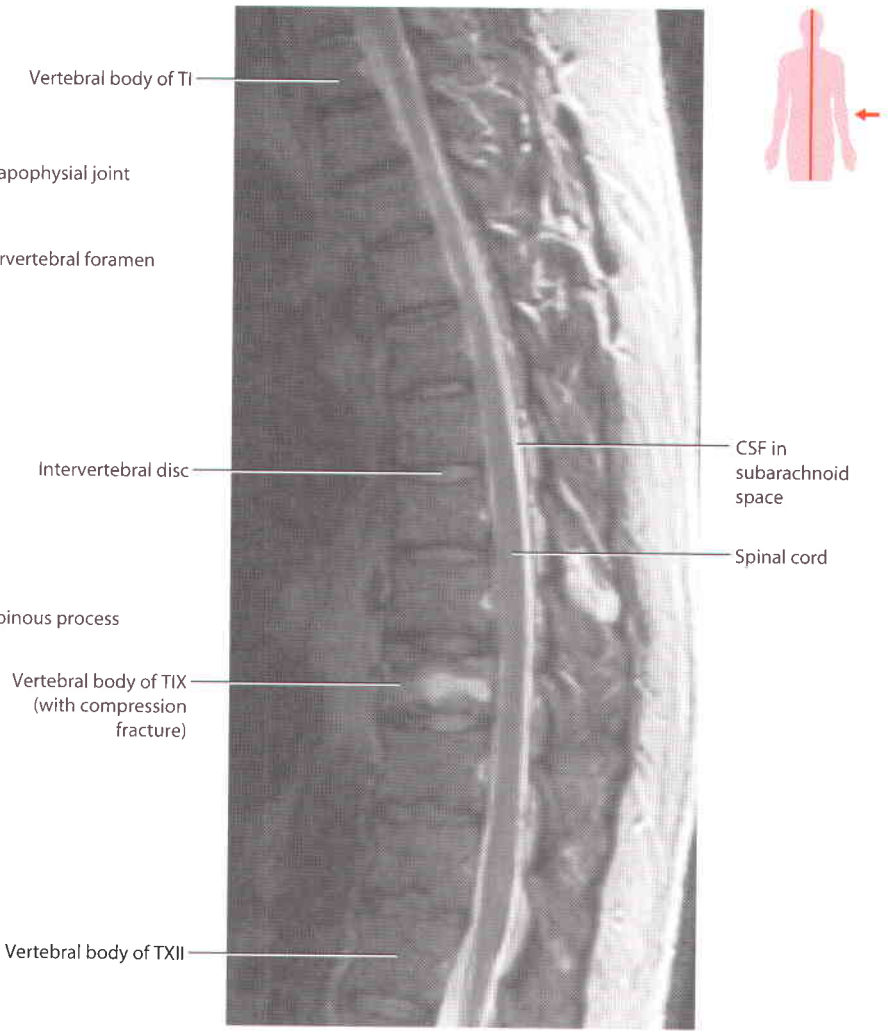
Spinous process

Posterior

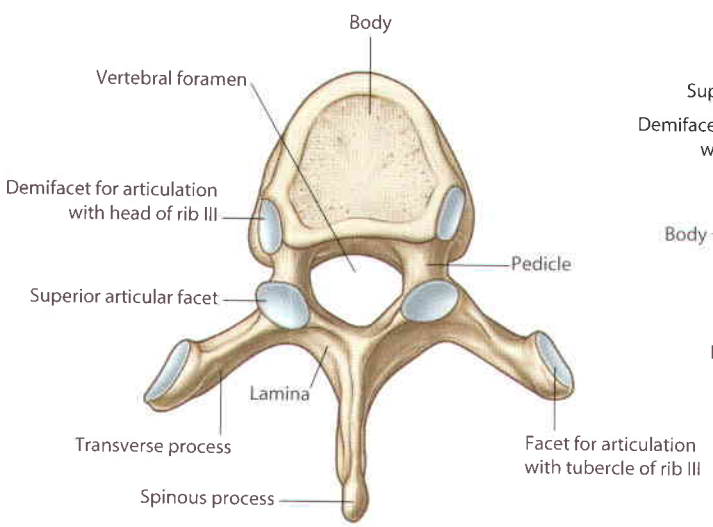
Typical cervical vertebra.
CT image in axial plane



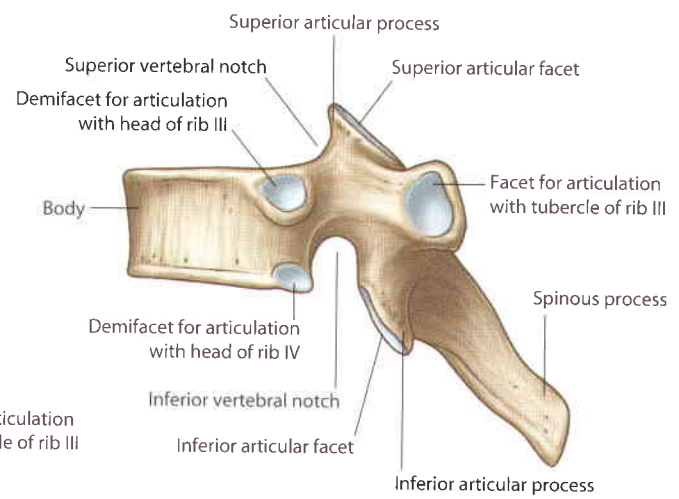
Thoracic vertebrae lateral view



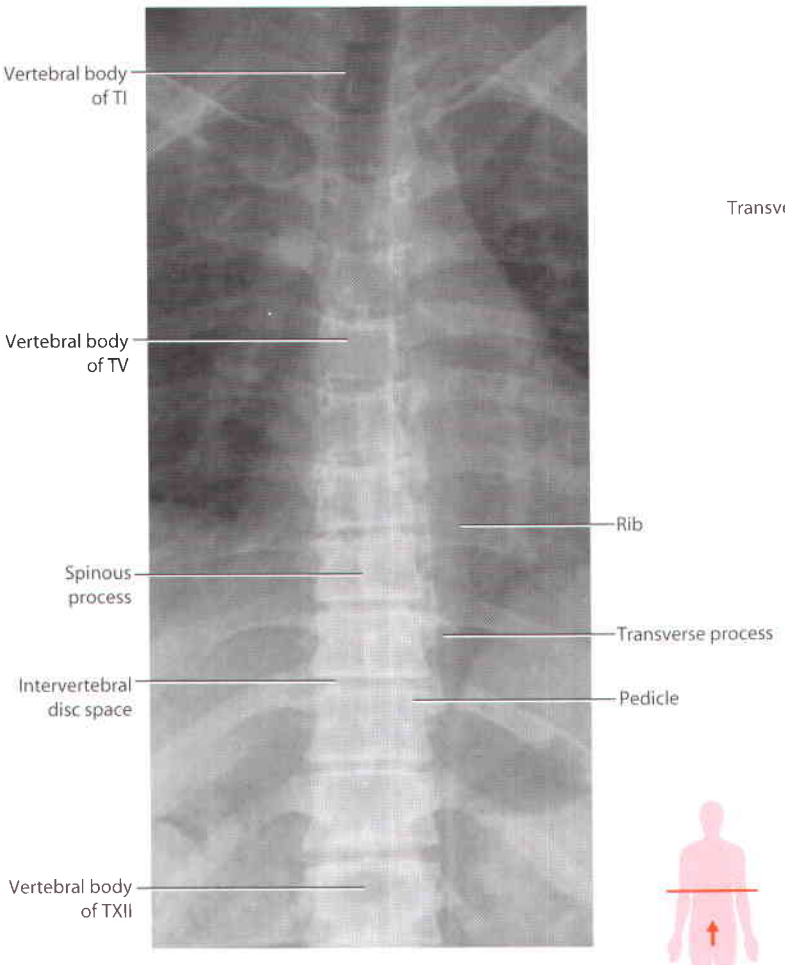
Thoracic region of vertebral column.
T2-weighted MR image in sagittal plane (compression fracture TIX)



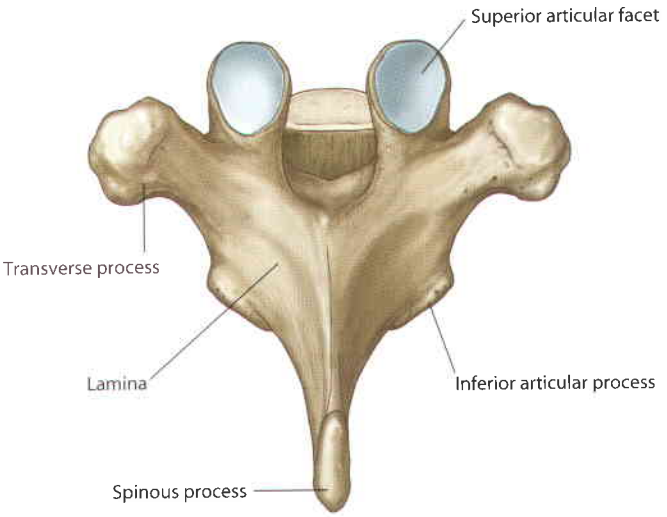
TIII vertebra superior view



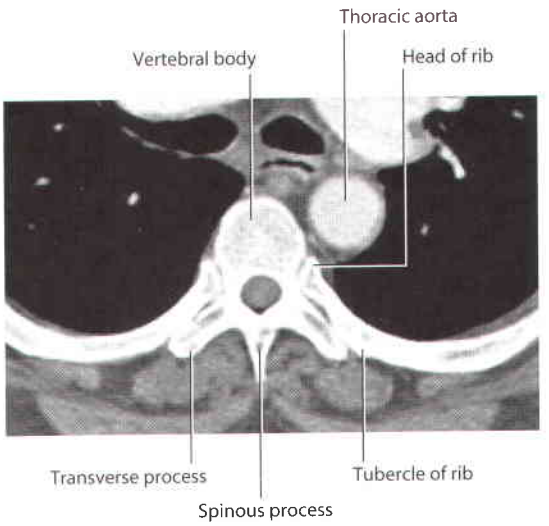
TIII vertebra lateral view



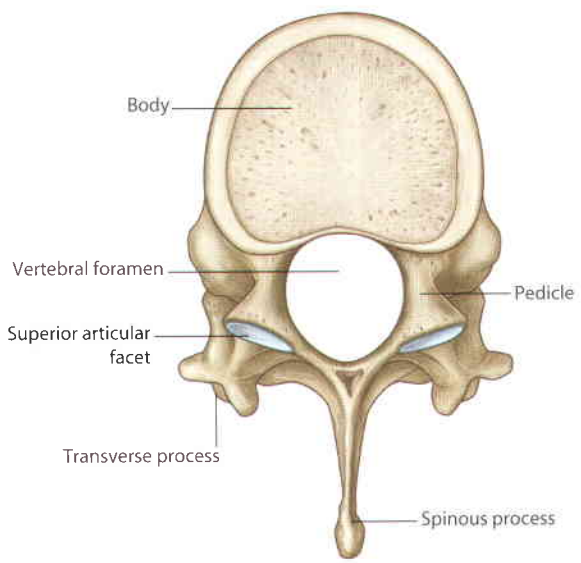
Thoracic region of vertebral column.
Radiograph, AP view



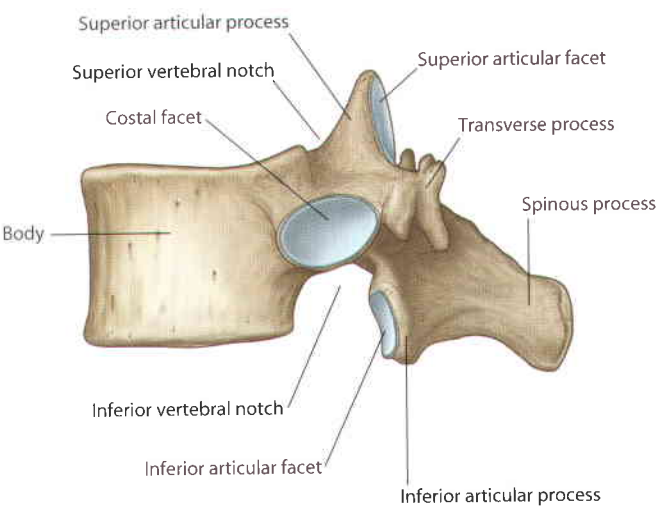
TIII vertebra posterior view



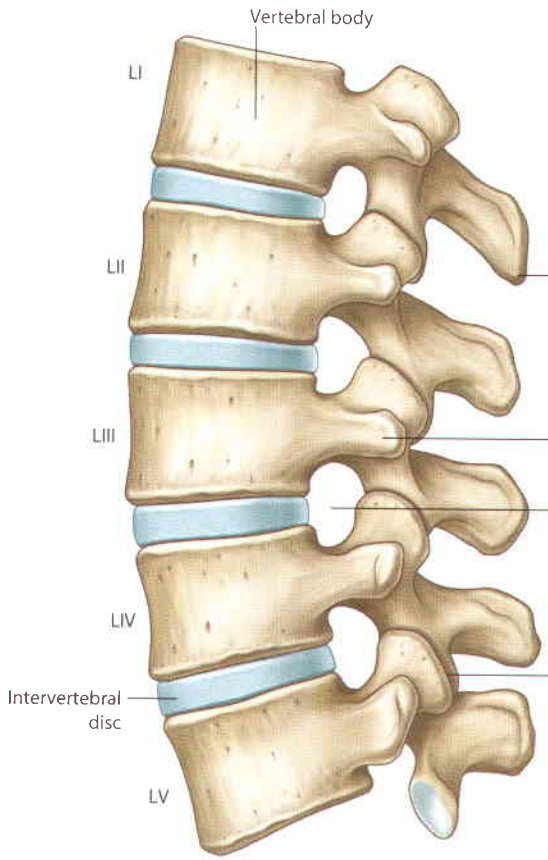
Thoracic vertebra with rib articulations.
CT image in axial plane



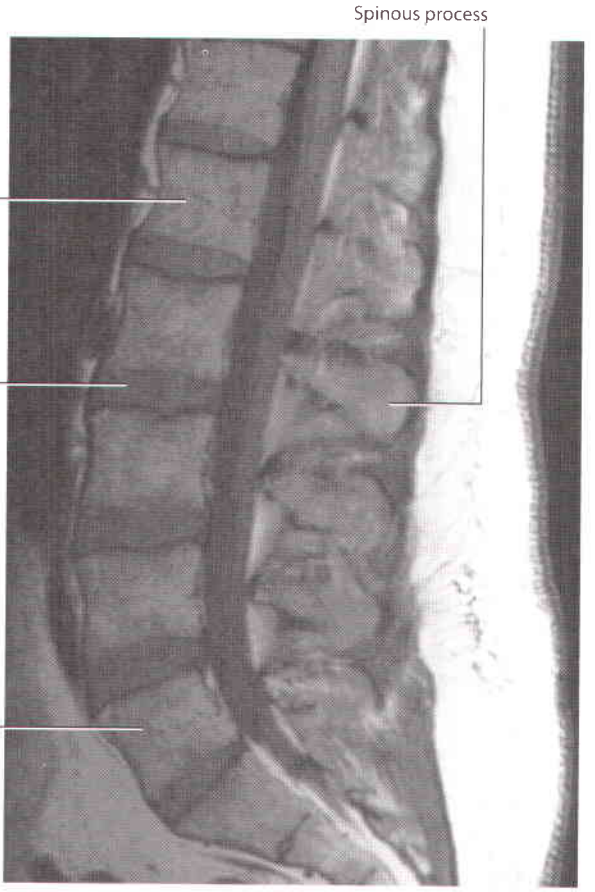
TXII vertebra superior view

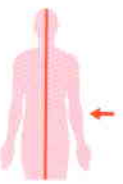


TXII vertebra lateral view

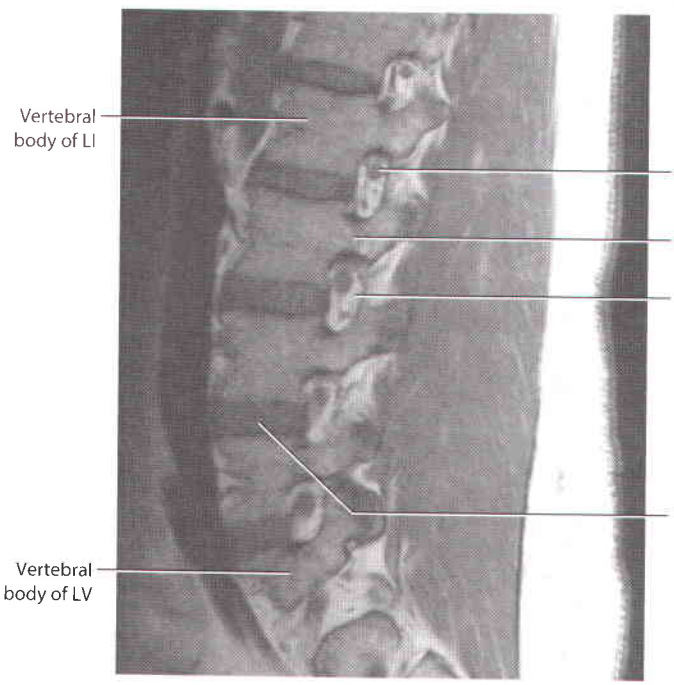


Lumbar vertebrae lateral view

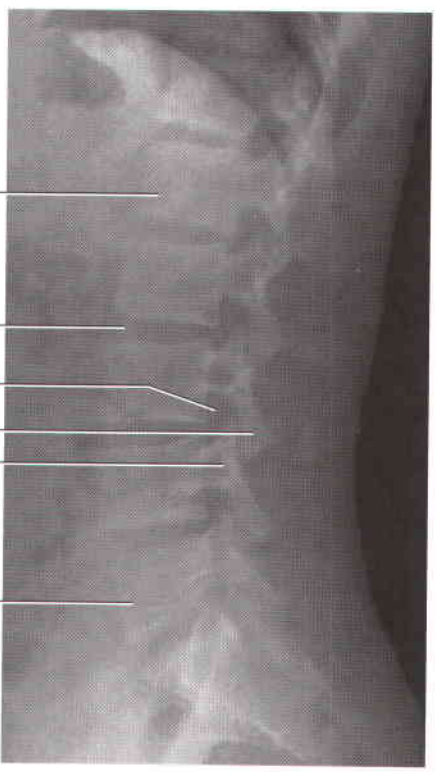




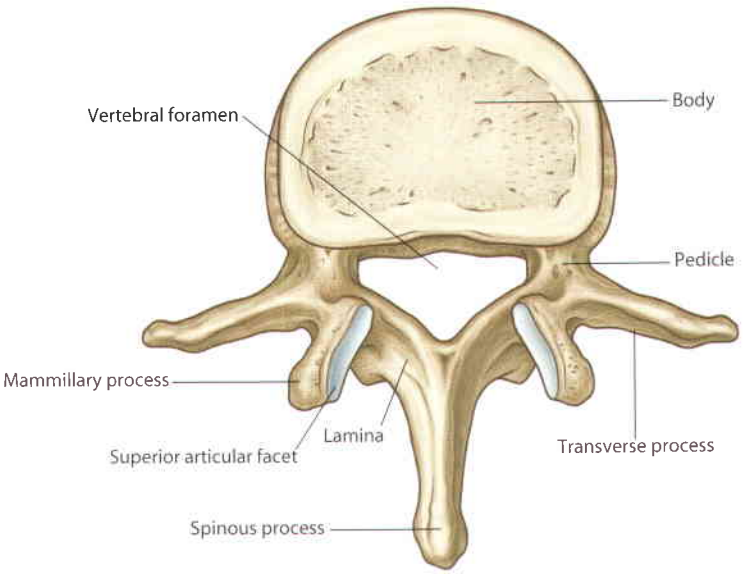
Lumbar region of vertebral column.
T1-weighted MR image in sagittal plane



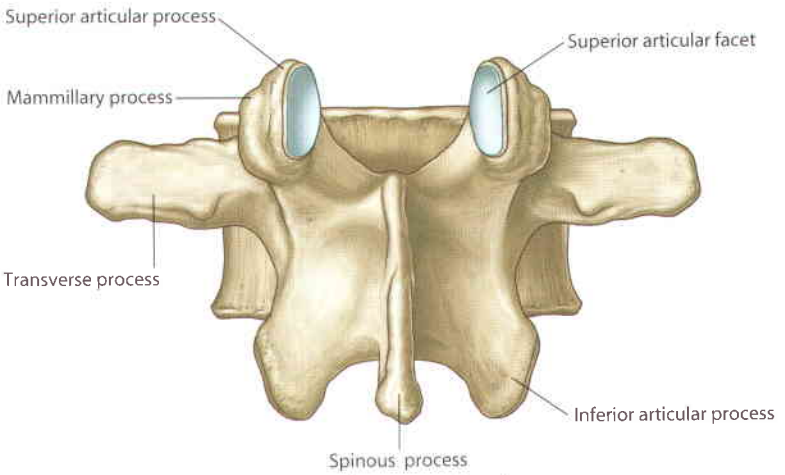
Intervertebral foramina of lumbar region of vertebral column.
T1-weighted MR image in sagittal plane



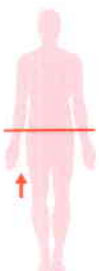
Lumbar region of vertebral column.
Radiograph, lateral view



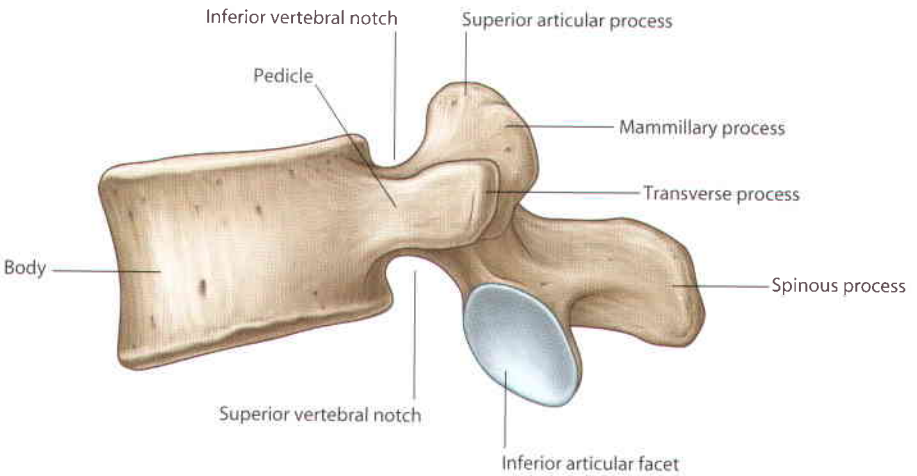
LIV vertebra superior view



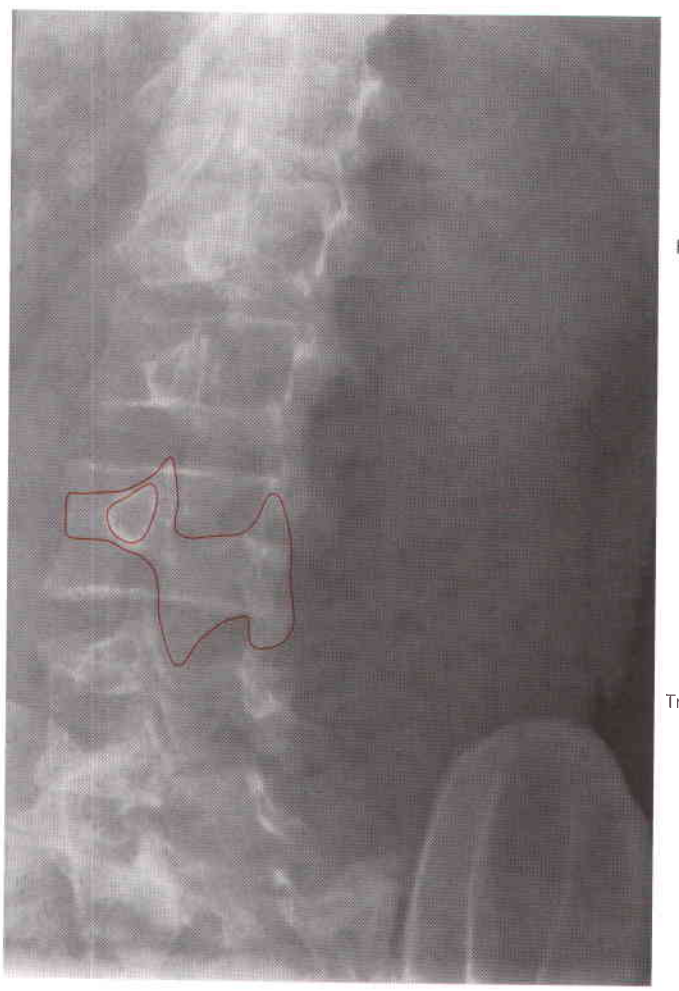
LIV vertebra posterior view



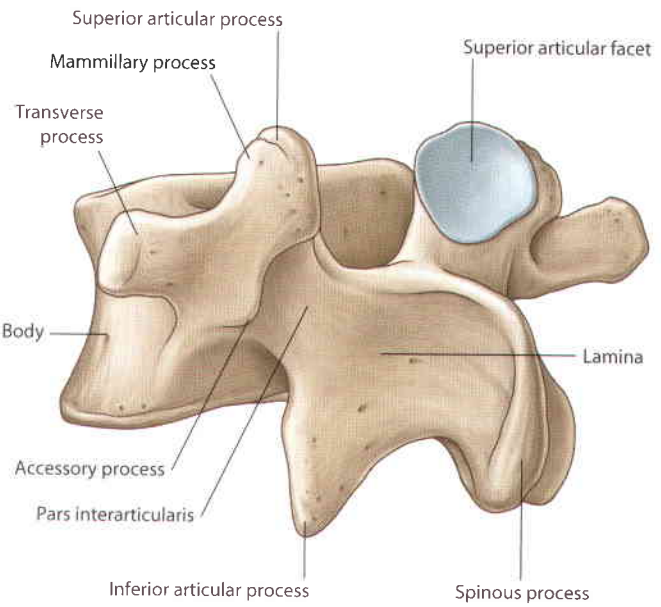
Articulation of lumbar vertebrae.
T1-weighted MR image in axial plane



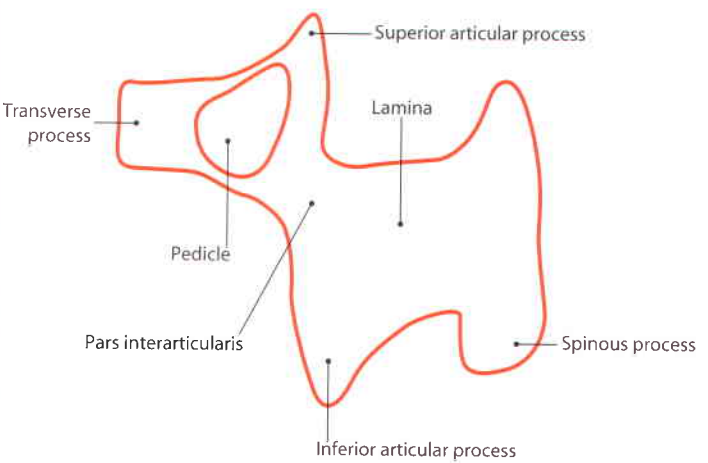
LIV vertebra lateral view

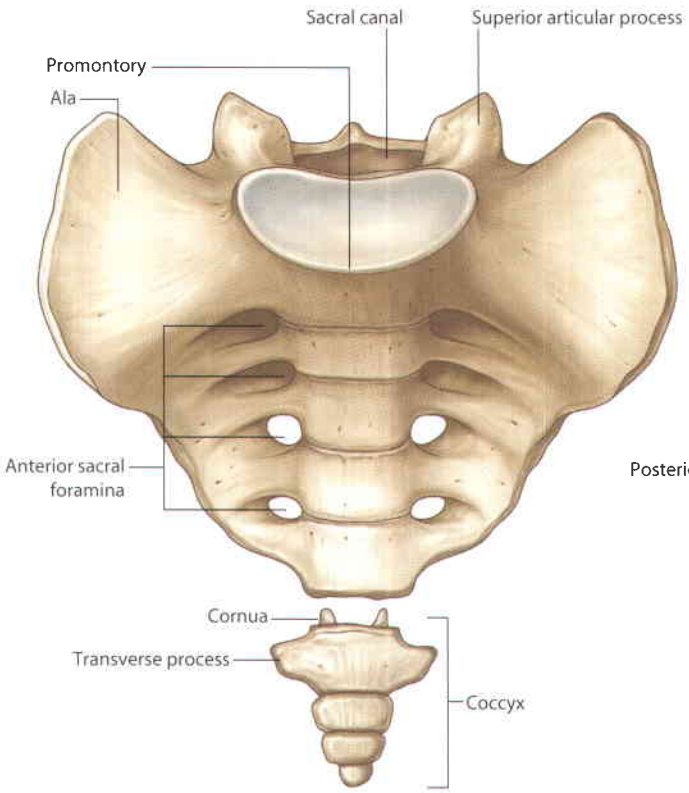


Lumbar region of vertebral column ("Scottie dog").
Radiograph, oblique view

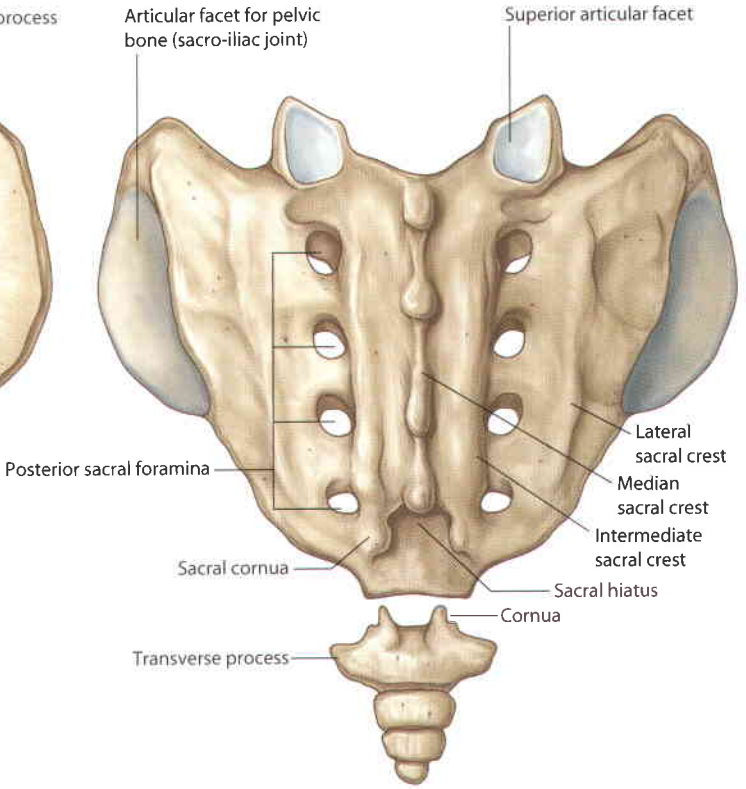


LIV vertebra oblique view

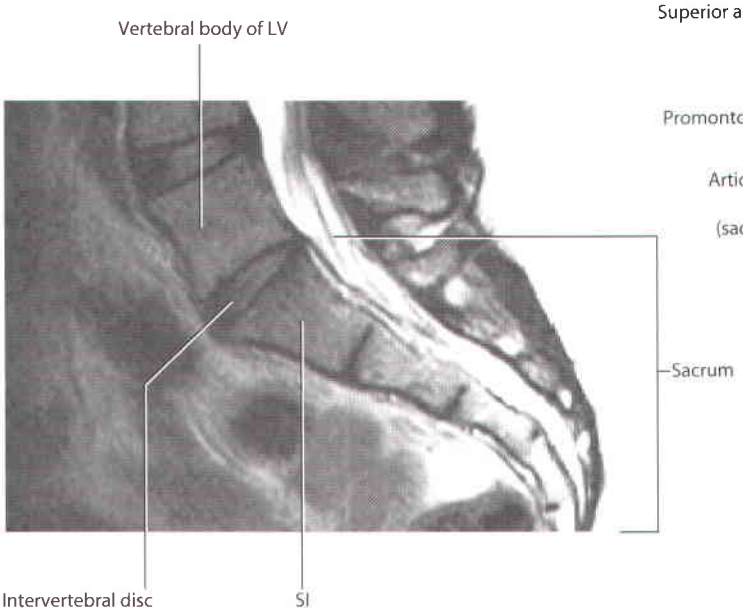




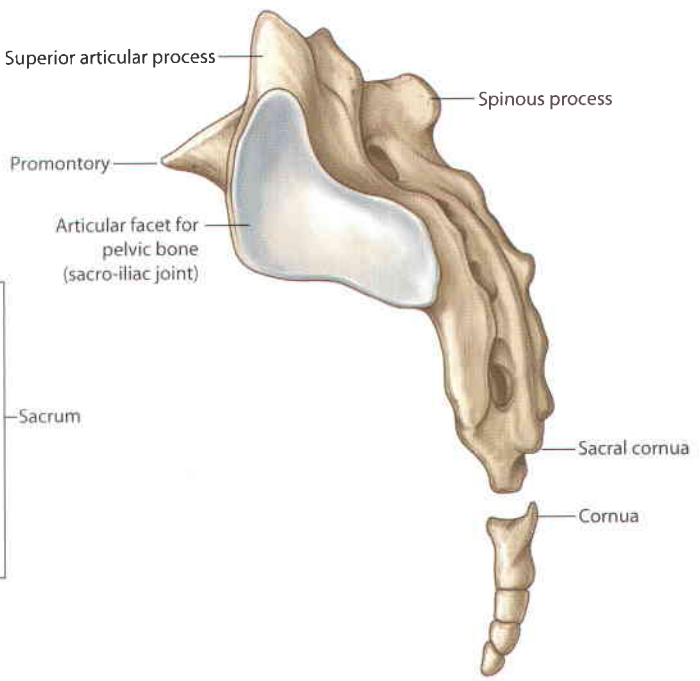
Sacrum and coccyx anterior view



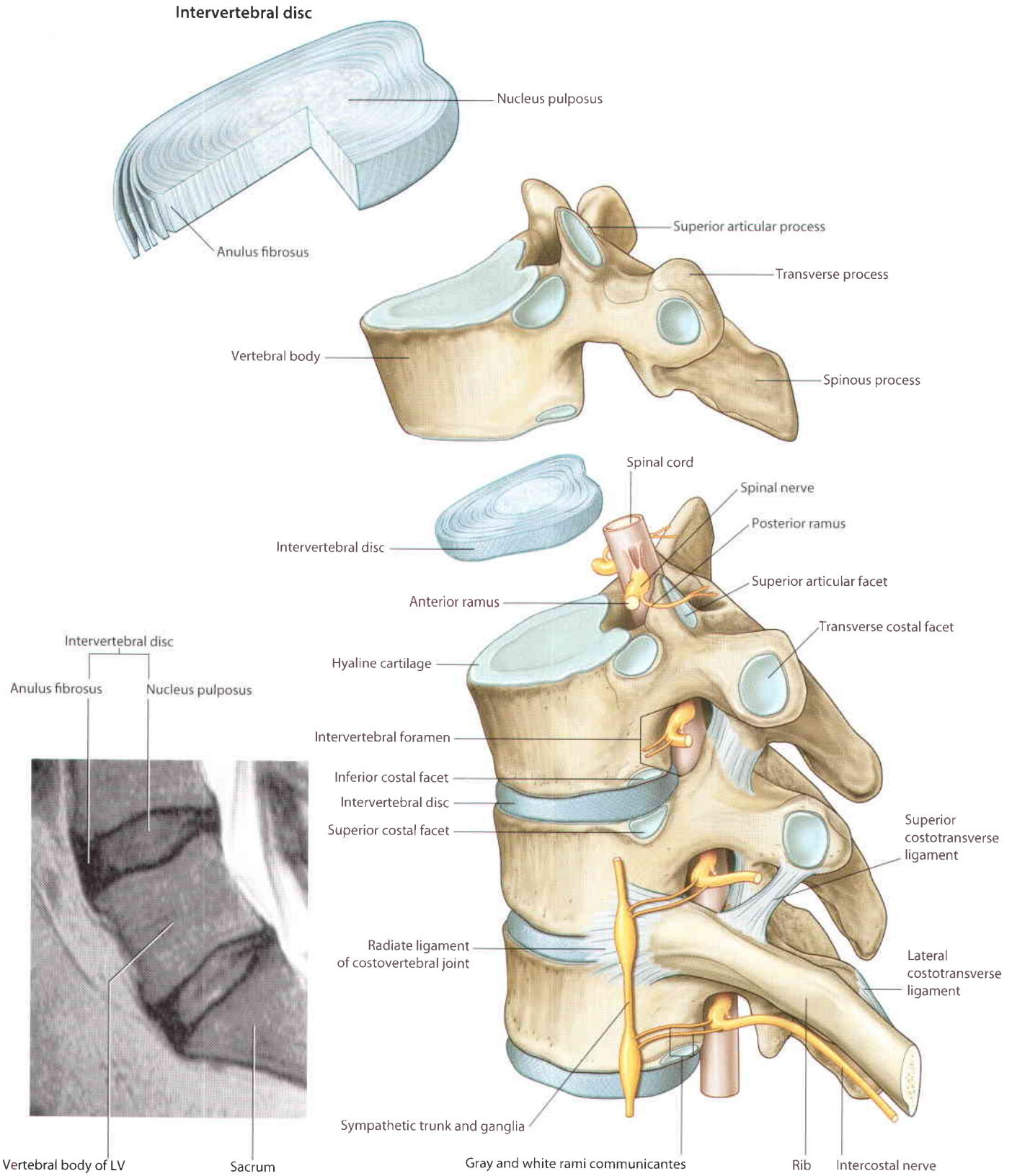
Sacrum and coccyx posterior view



Sacral region of vertebral column.
T2-weighted MR image in sagittal plane

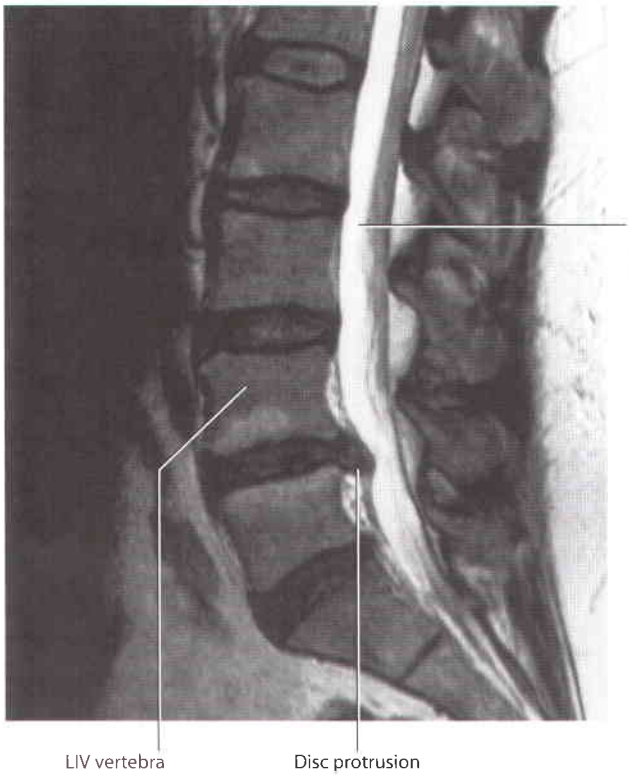


Sacrum and coccyx lateral view

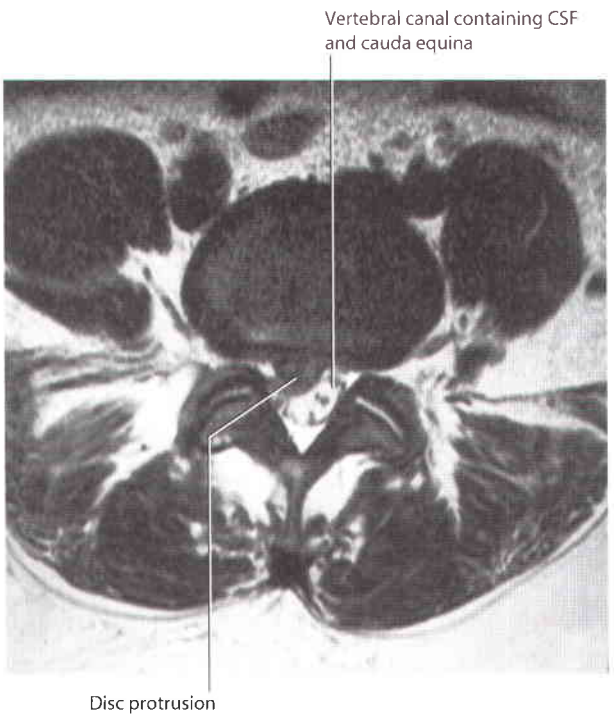


Intervertebral disc in lower lumbar region of vertebral column.
T2-weighted MR image in sagittal plane

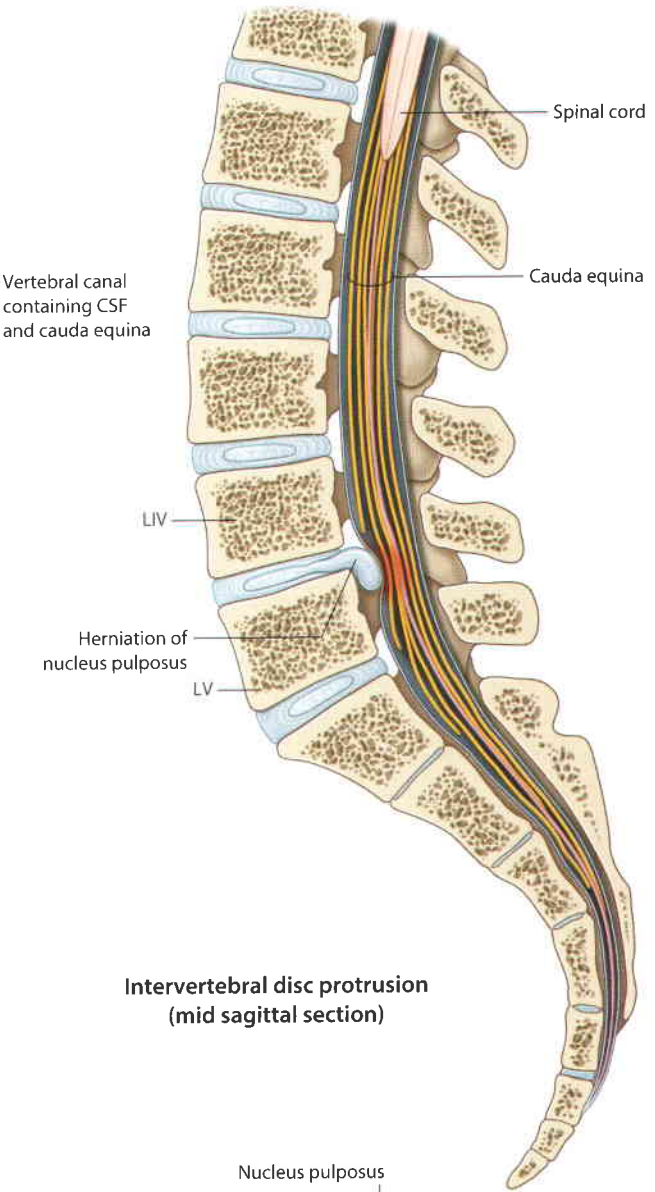
Intervertebral foramina and discs in the thoracic region



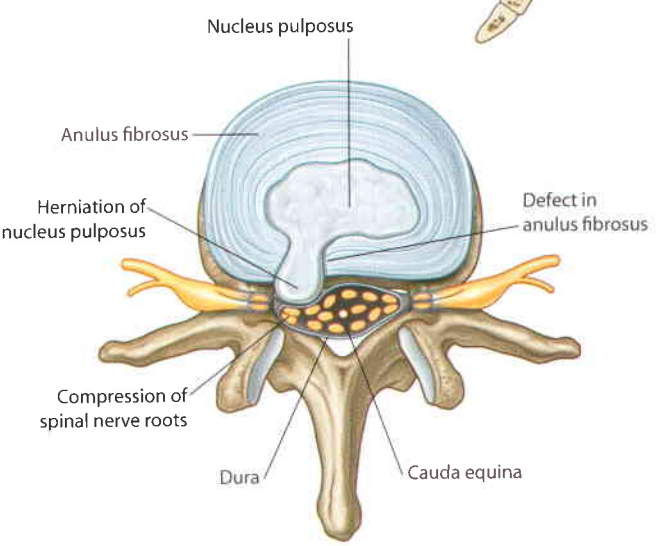
Intervertebral disc protrusion in lower lumbar region of vertebral column.
T2-weighted MR image in sagittal plane



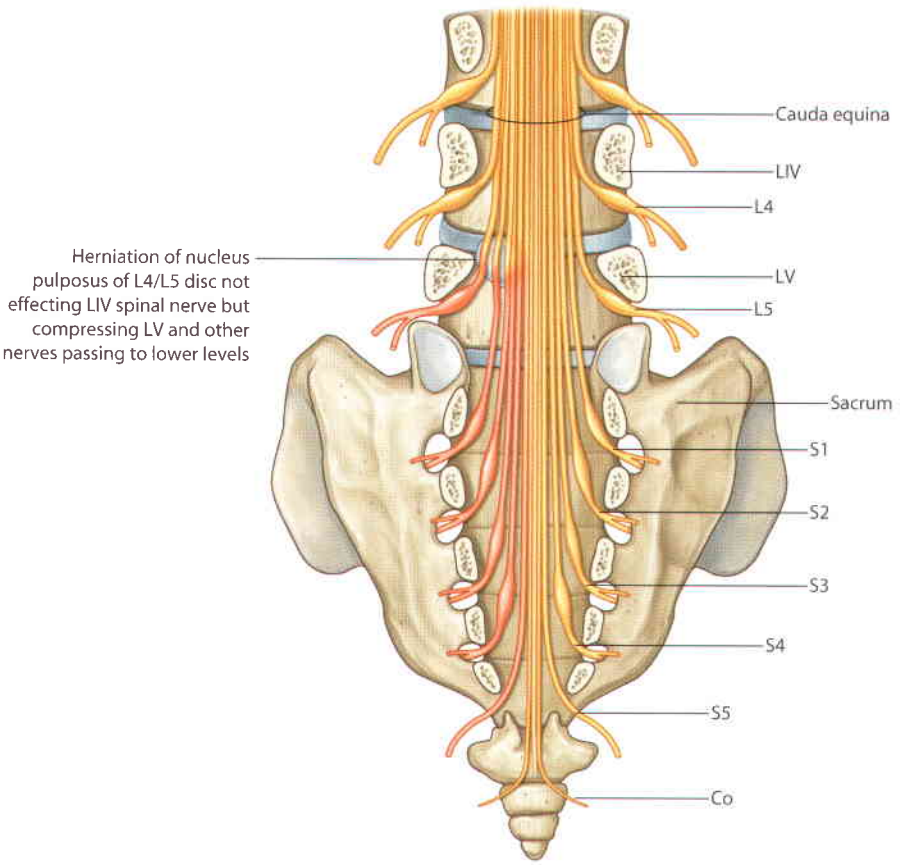
Intervertebral disc protrusion in lower lumbar region of vertebral column.
T2-weighted MR image in axial plane



Intervertebral disc protrusion (mid sagittal section)

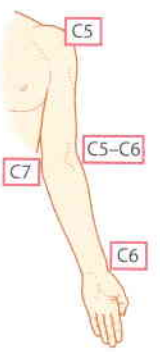


Intervertebral disc protrusion (superior view)



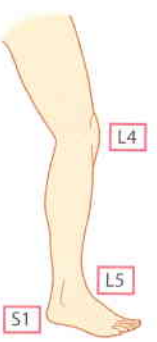
Intervertebral disc protrusion (posterior view)

Nerve root	Main weakness	Reflex decreased	Area of sensory decrease	Disc involved
C5	Deltoid (biceps)	(biceps, pectoralis)	Shoulder, upper lateral arm	C4–C5
C6	Wrist extension	(biceps, brachioradialis)	1st and 2nd digits (lateral forearm)	C5–C6
C7	Triceps	Triceps	Third finger	C6–C7
C8	Intrinsic hand muscles		4th and 5th digits (medial forearm)	C7–T1

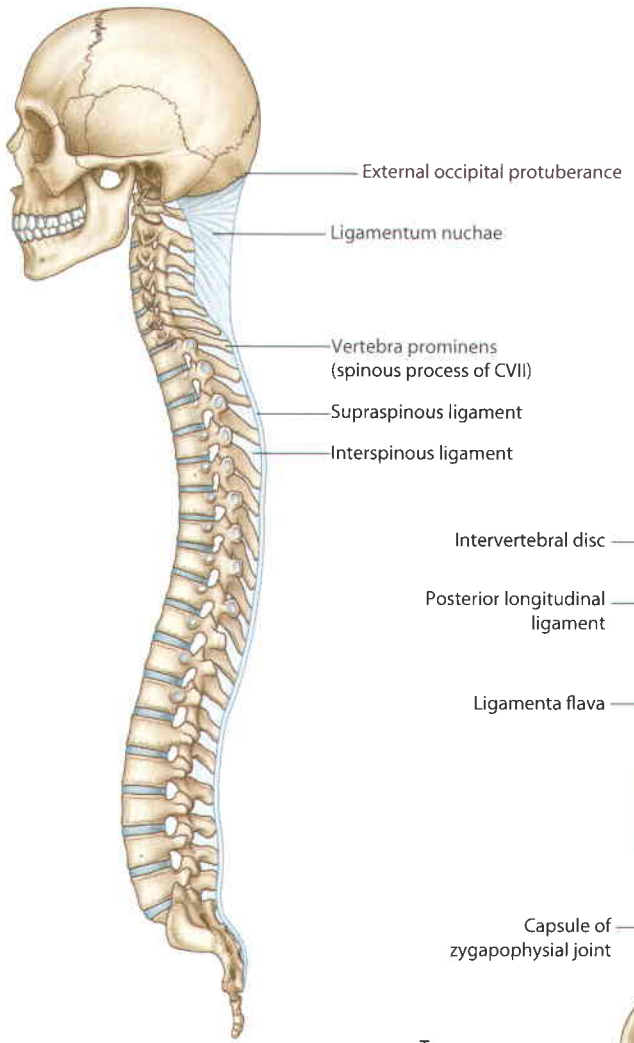


Clinically important nerve roots in the upper limb

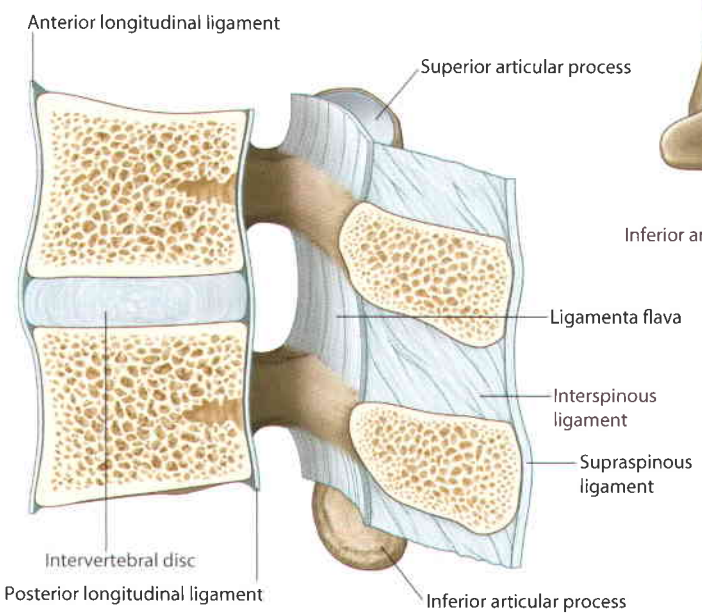
Nerve root	Main weakness	Reflex decreased	Area of sensory decrease	Disc involved
L4	Iliopsoas and quadriceps	Patellar tendon (knee jerk)	Knee, medial lower leg	L3–L4
L5	Dorsiflexion of foot at ankle (big toe extension, foot eversion and inversion		Dorsum of foot, big toe	L4–L5
S1	Plantar flexion of foot at ankle	Achilles tendon (ankle jerk)	Lateral foot, small toe, sole	L5–S1



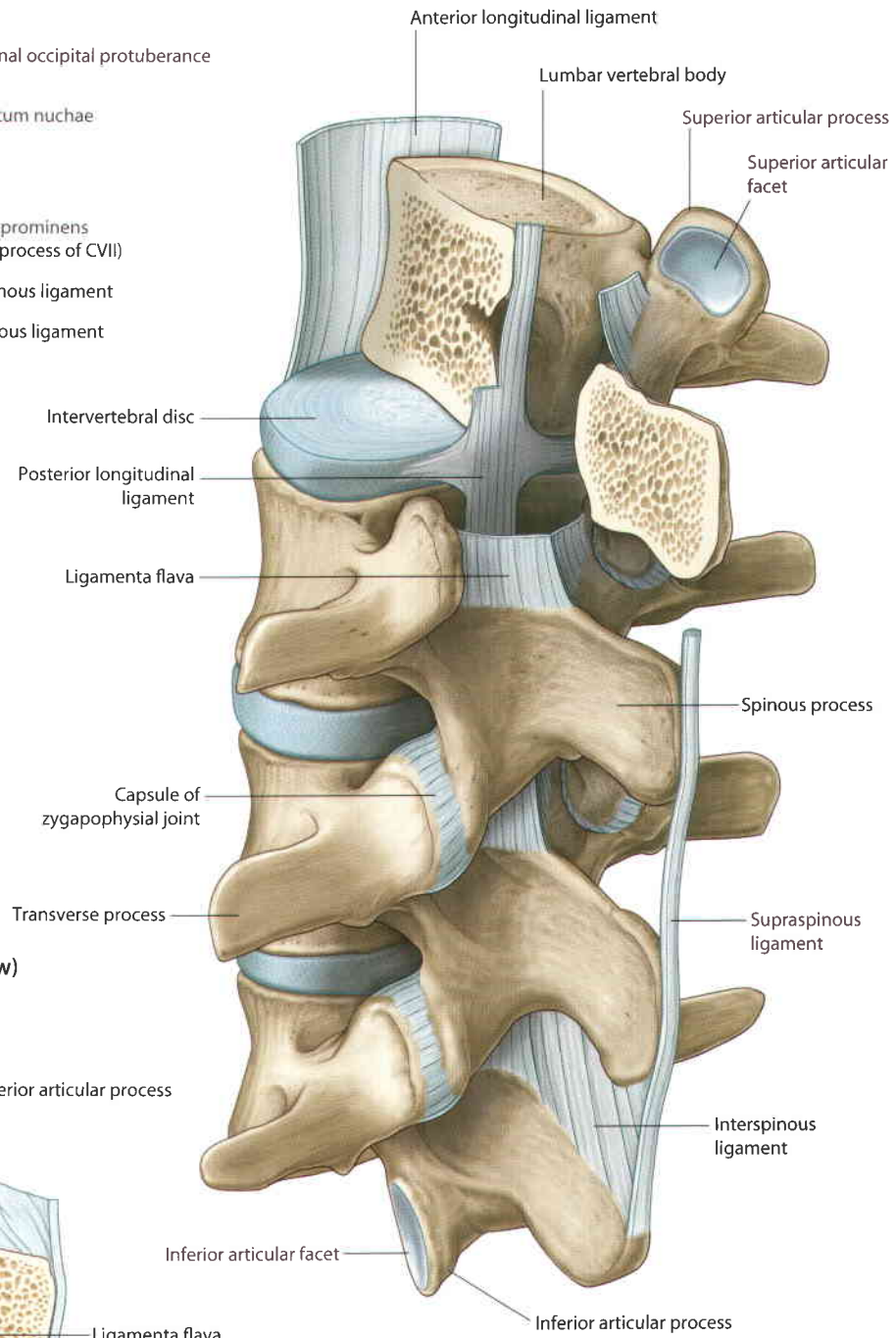
Clinically important nerve roots in the lower limb



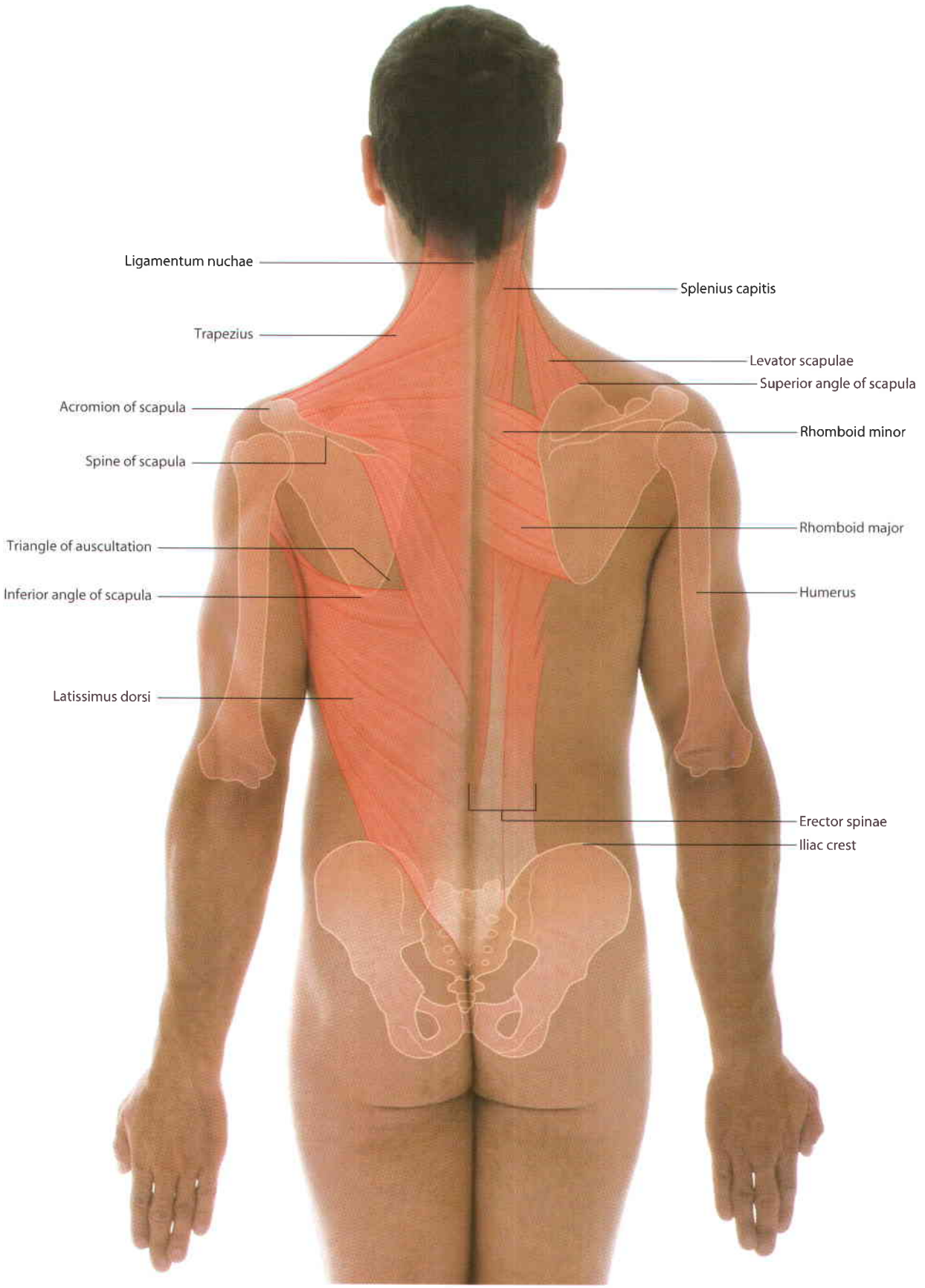
Ligamentum nuchae and supraspinous ligament (lateral view)



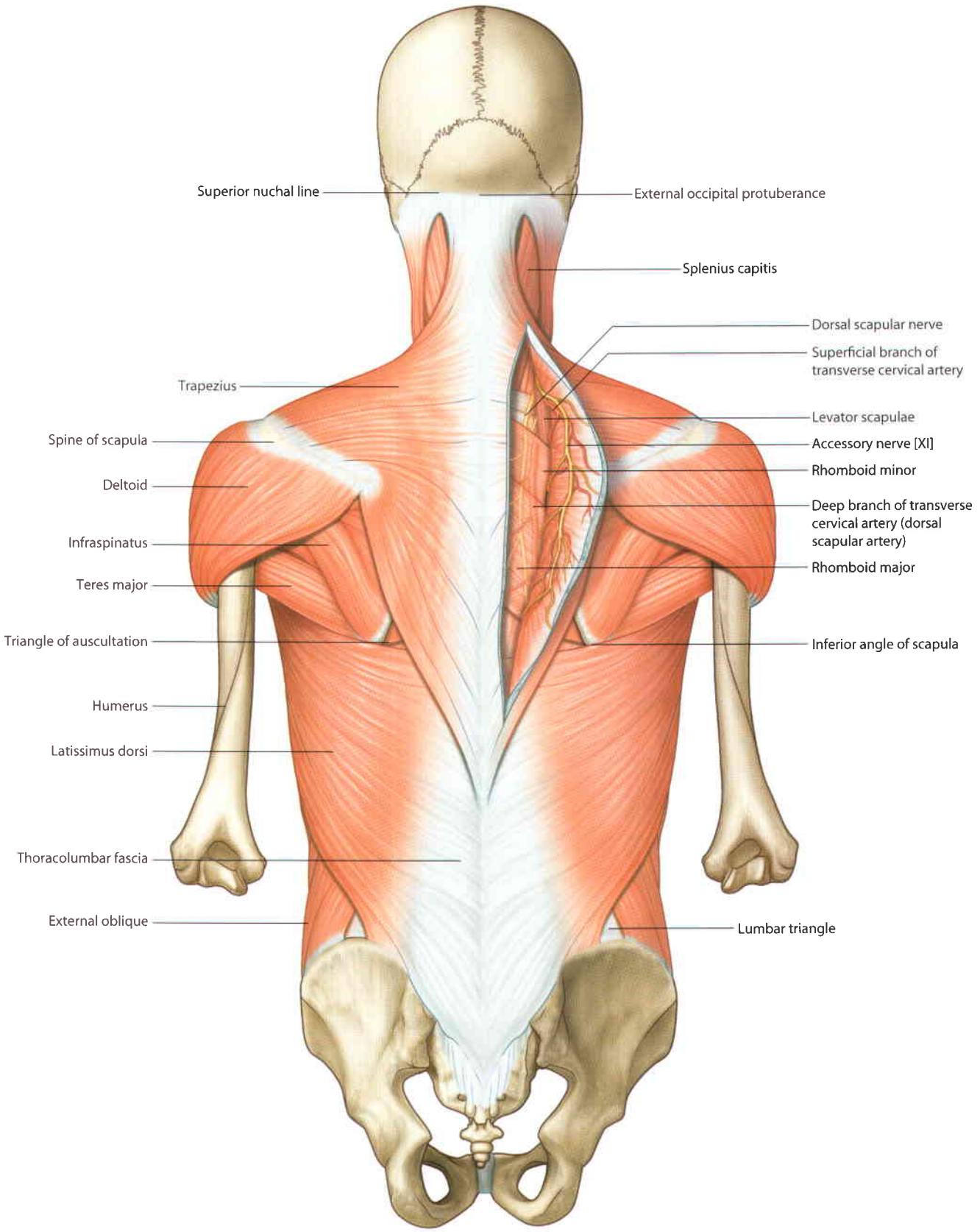
Ligamenta flava



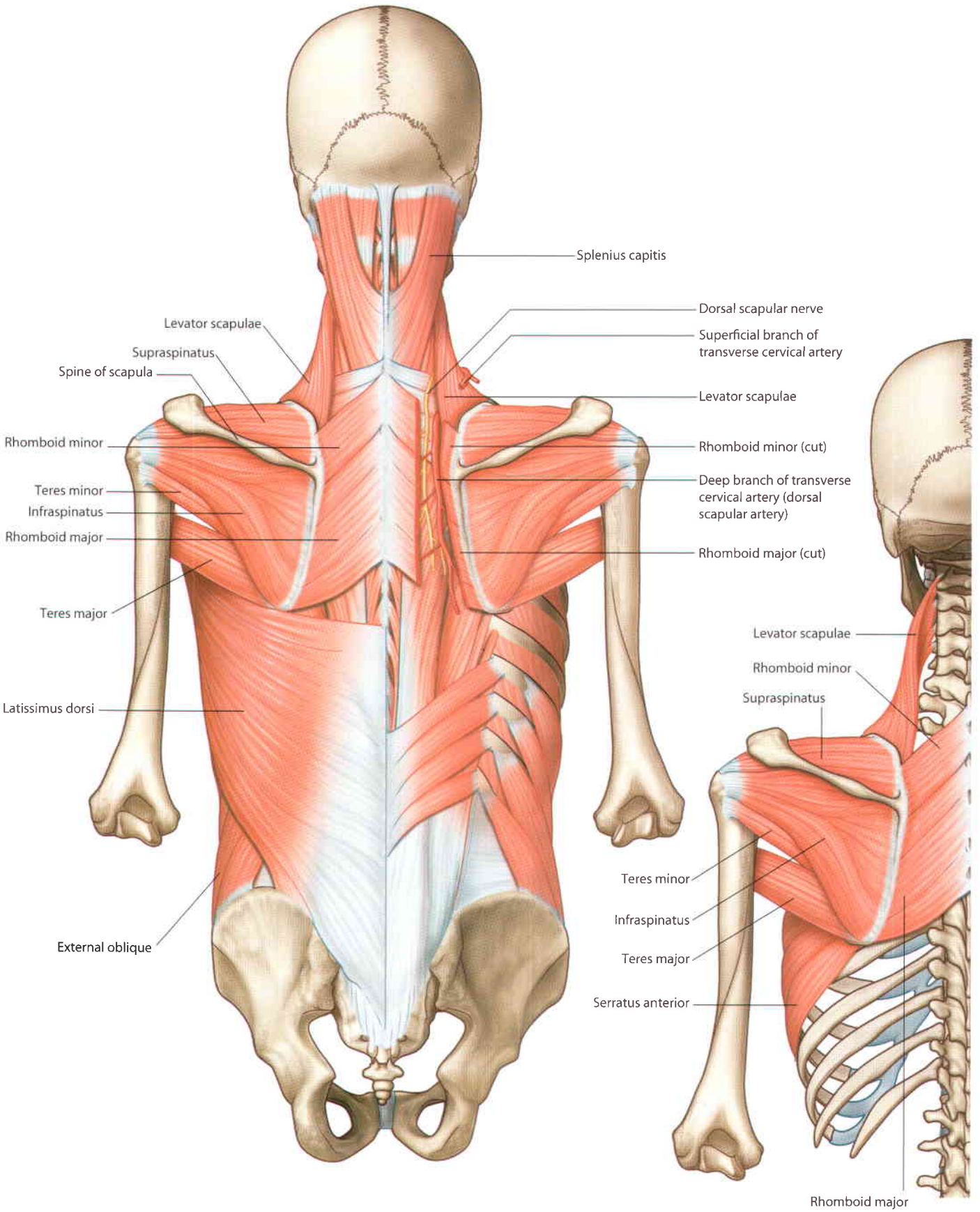
Vertebral ligaments of the lumbar region (posterior oblique view)



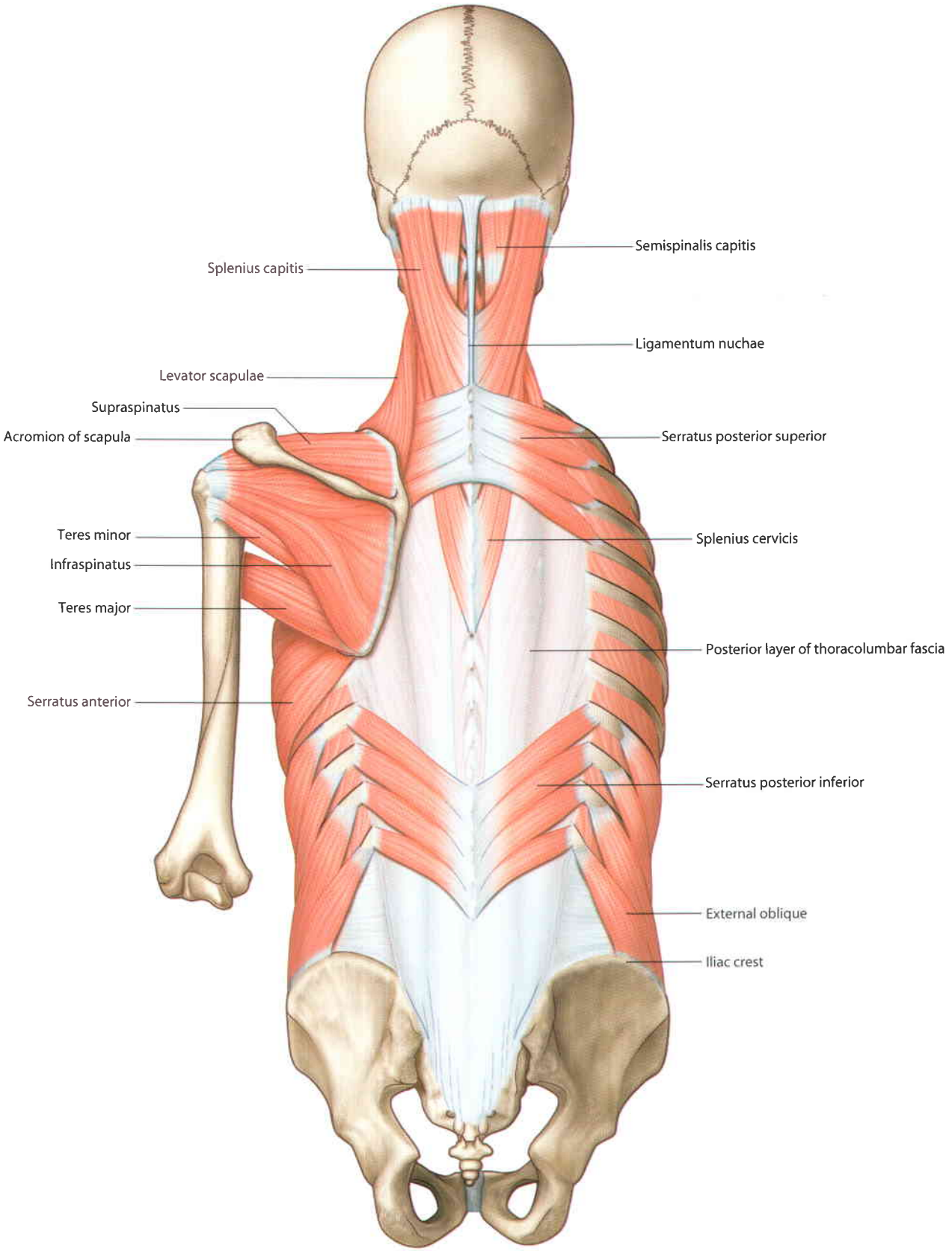
Posterior view of male showing surface projections of back muscles



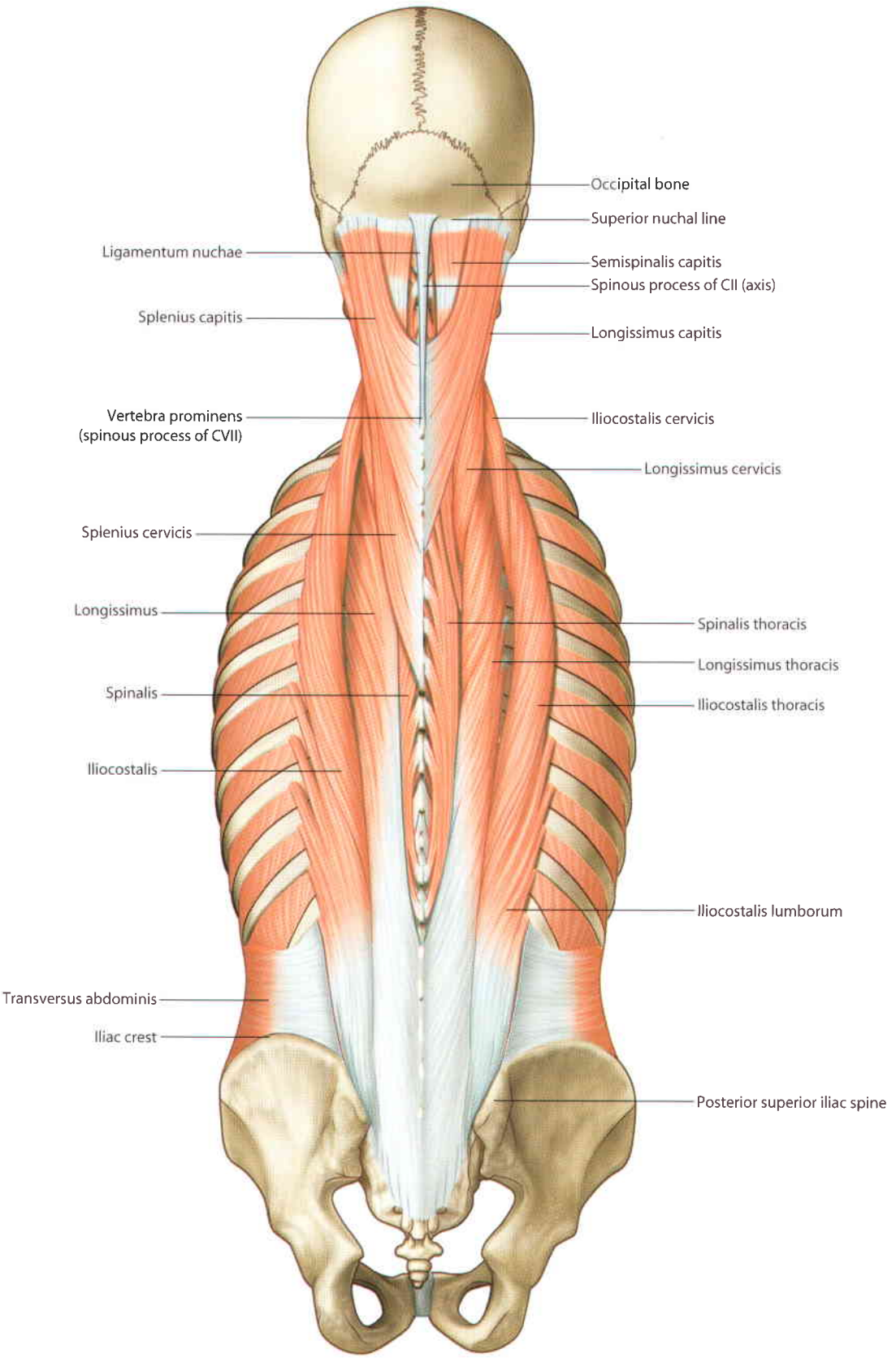
Superficial musculature – trapezius and latissimus dorsi



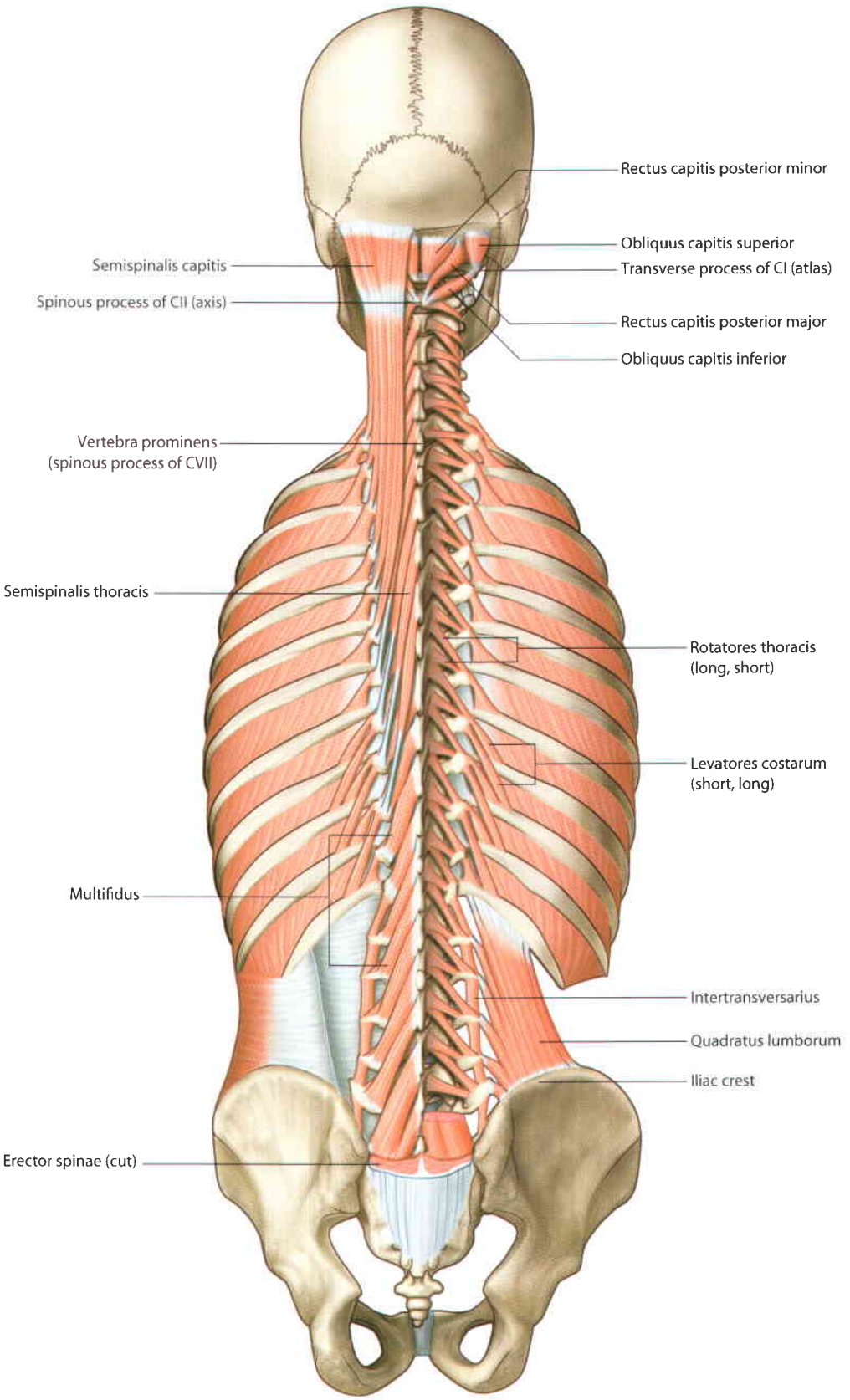
Superficial musculature – levator scapulae and rhomboid major and minor



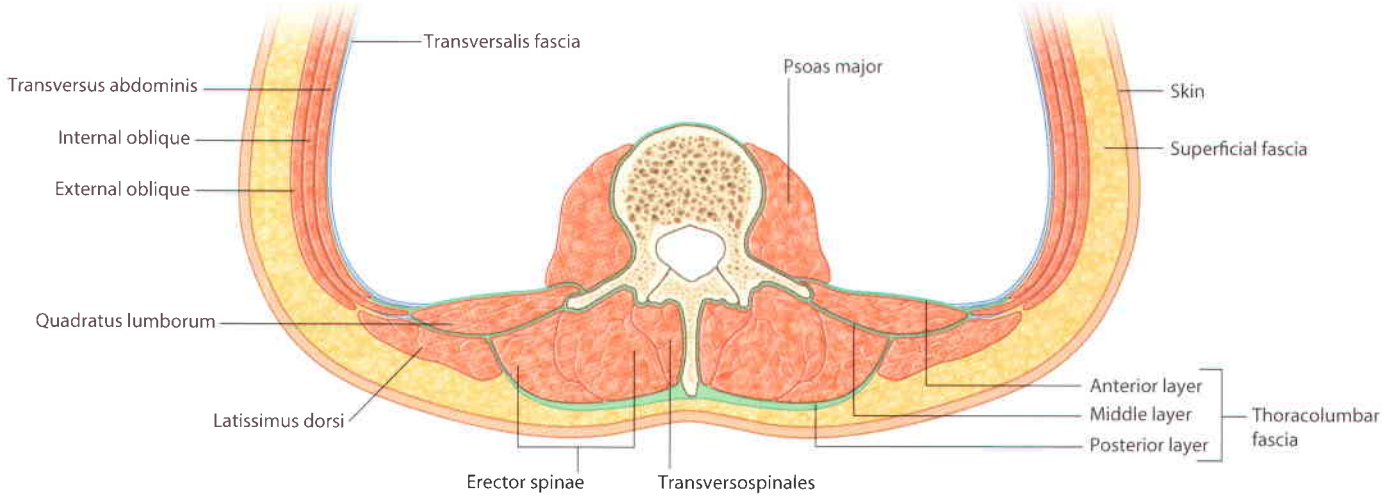
Intermediate musculature



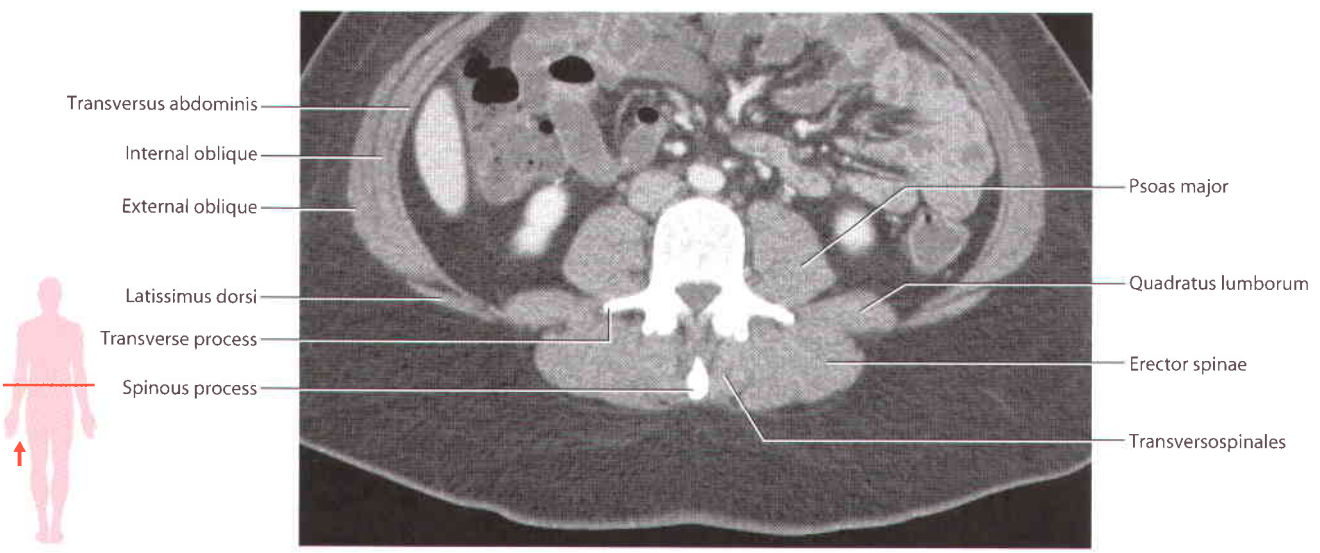
Deep group of back muscles – erector spinae muscles



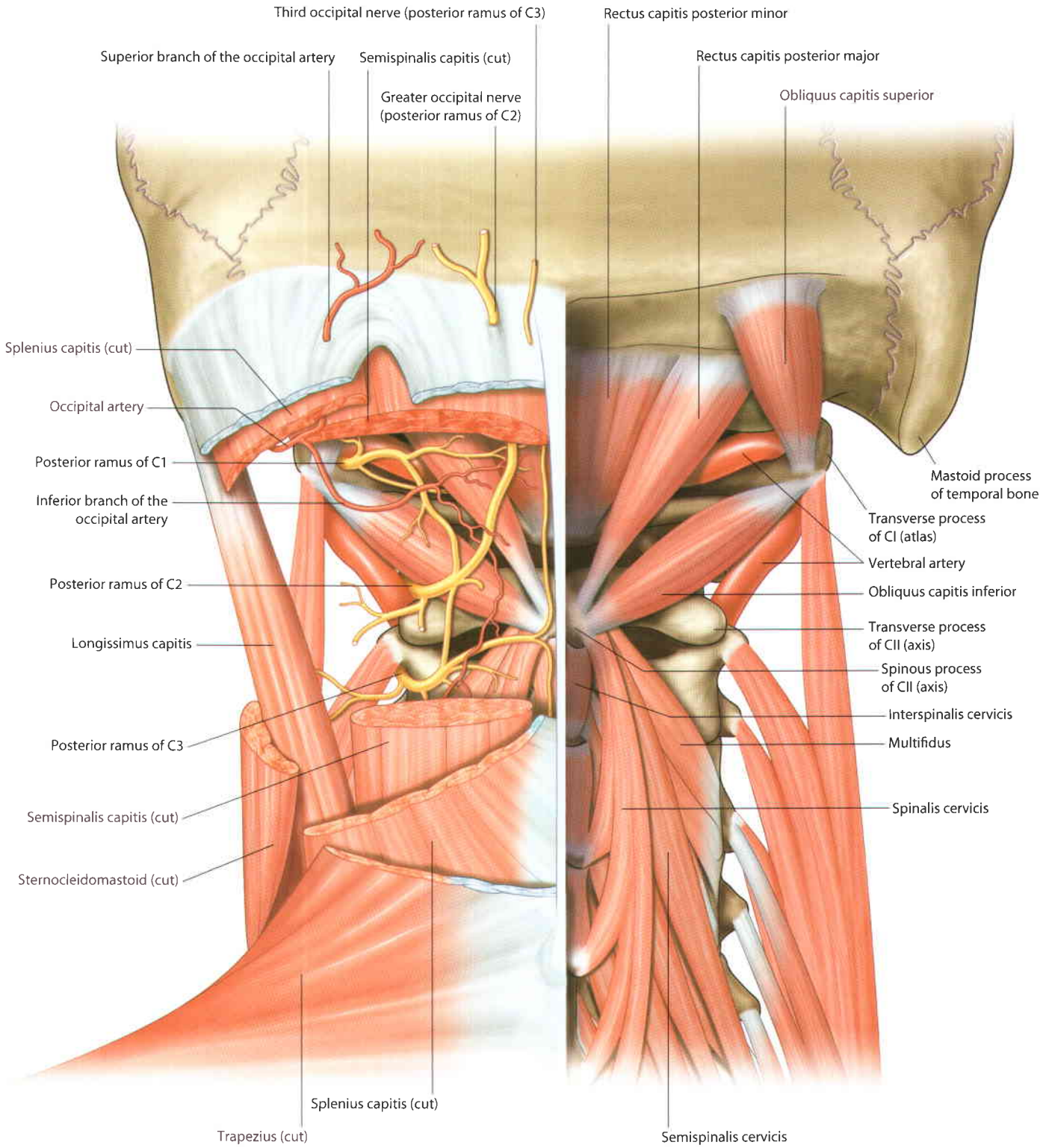
Deep group of back muscles – transversospinales and segmental muscles



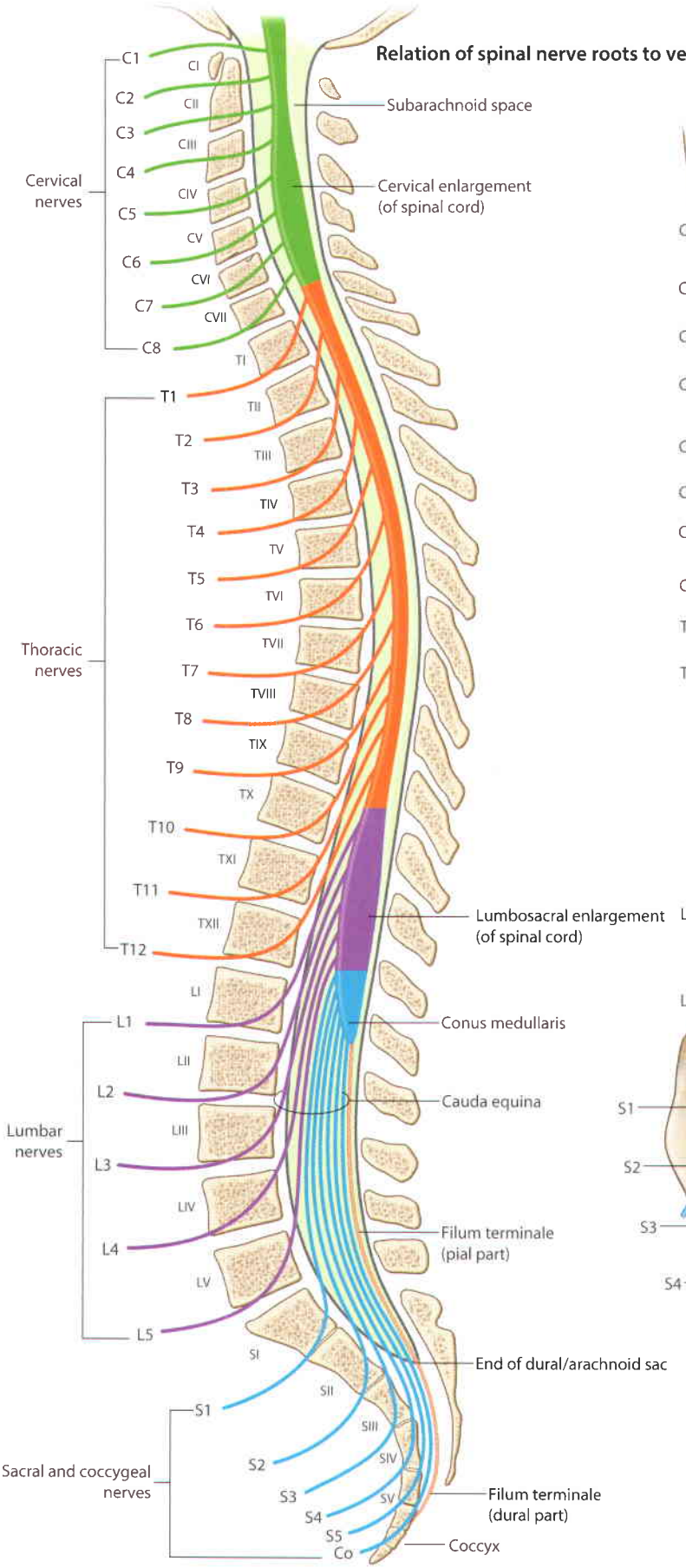
Thoracolumbar fascia and the deep back muscles (transverse section – lumbar region)

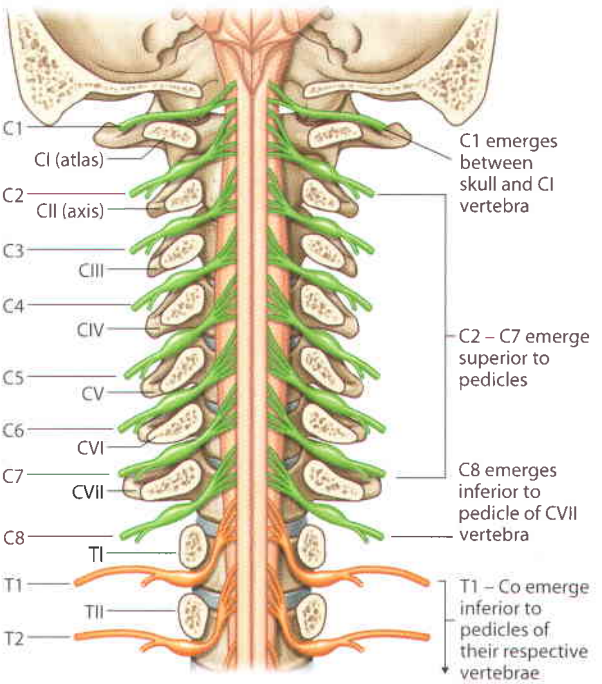


Lumbar region (LIII) showing back musculature.
CT image in axial plane

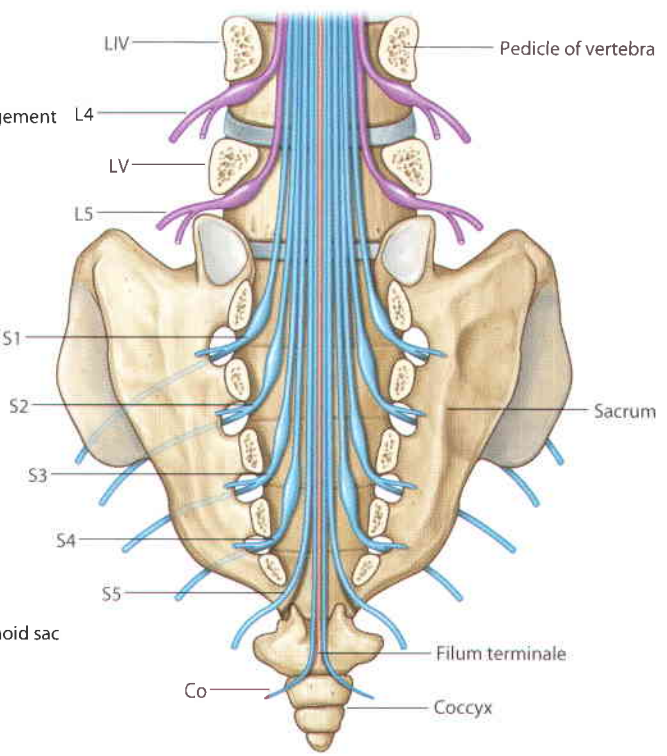


Suboccipital region



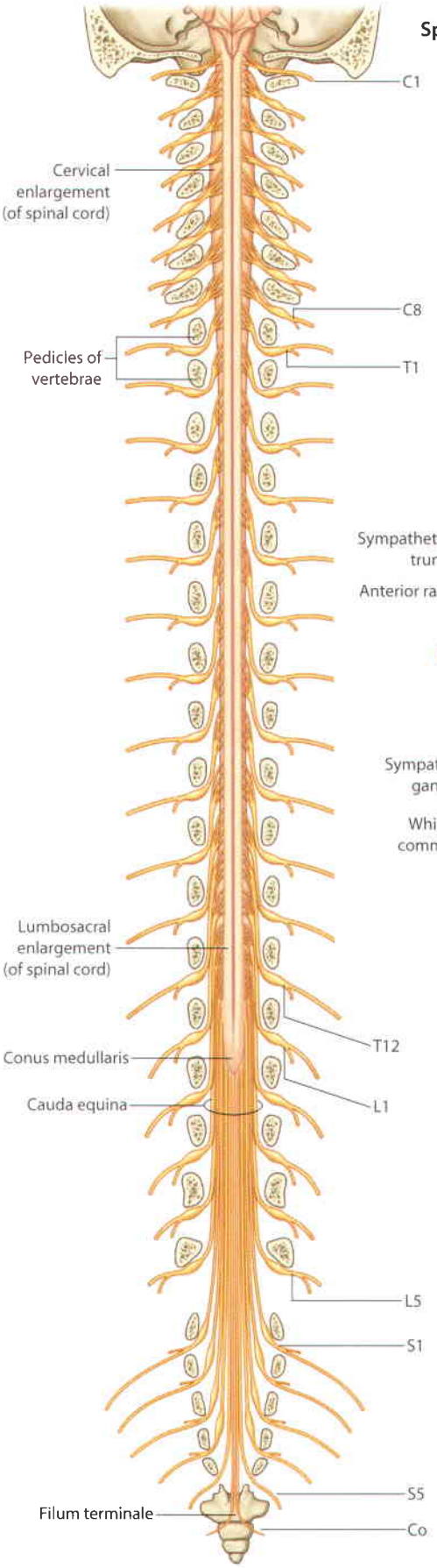


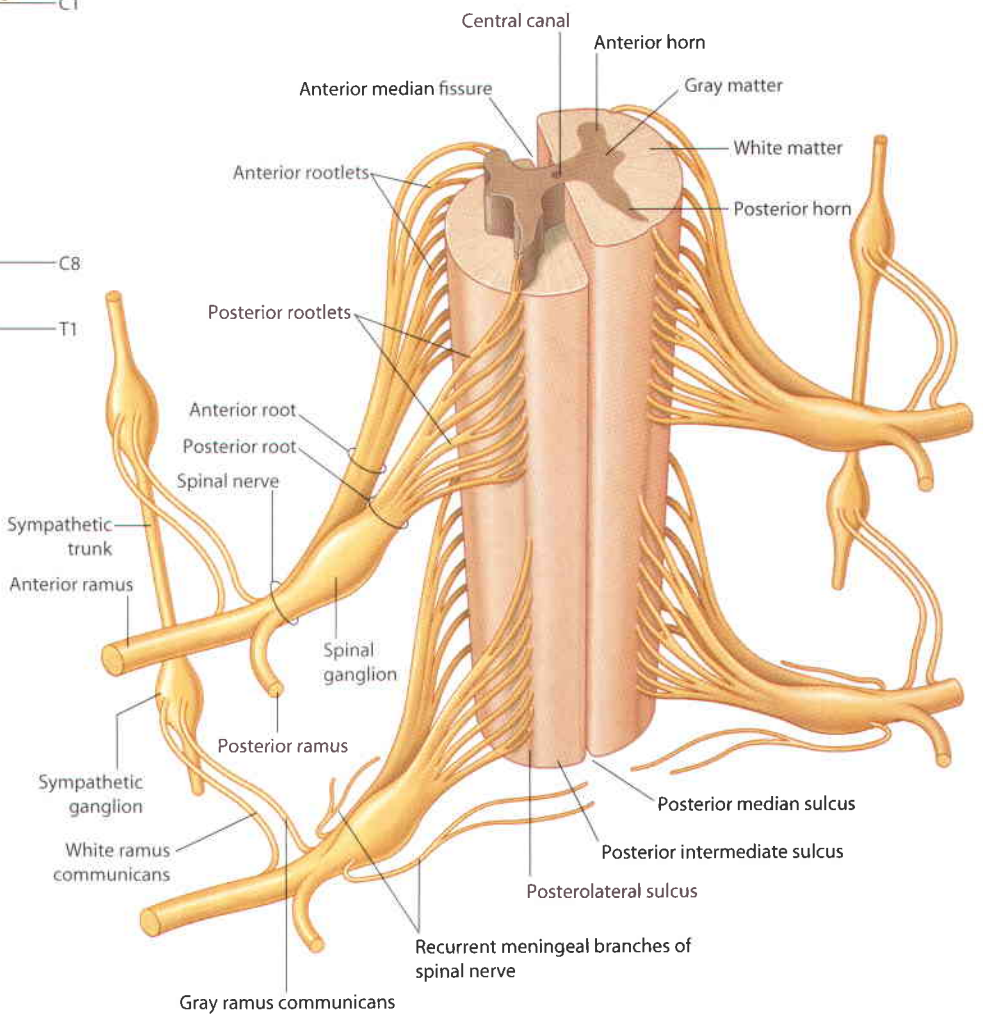
Nomenclature of spinal nerves (posterior view)



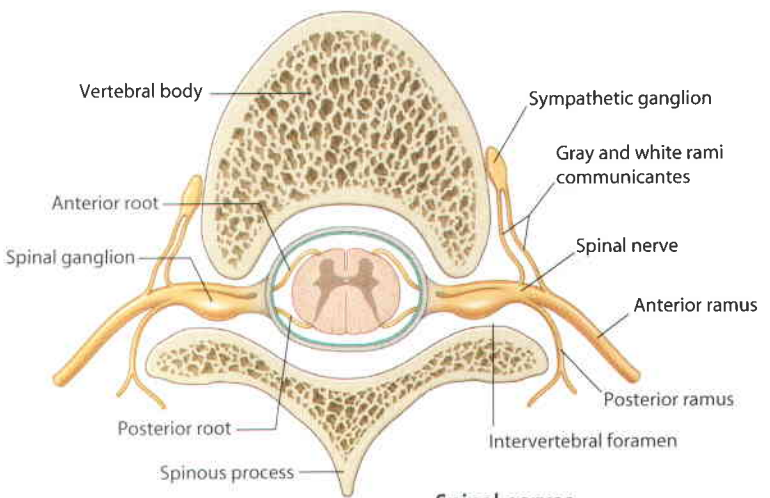
Sacral and coccygeal nerves (posterior view – vertebral arches removed)

Spinal cord and spinal nerves in vertebral canal

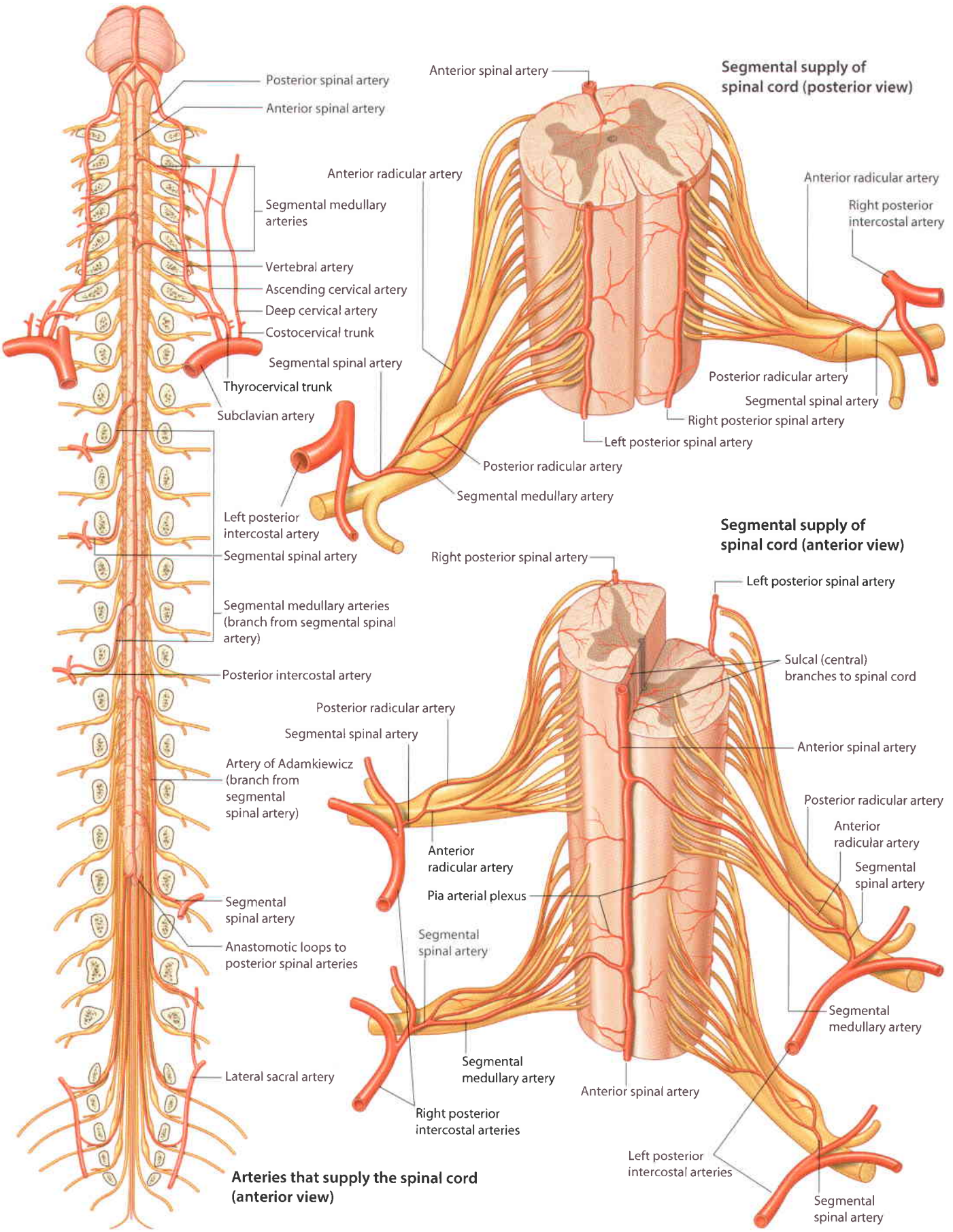


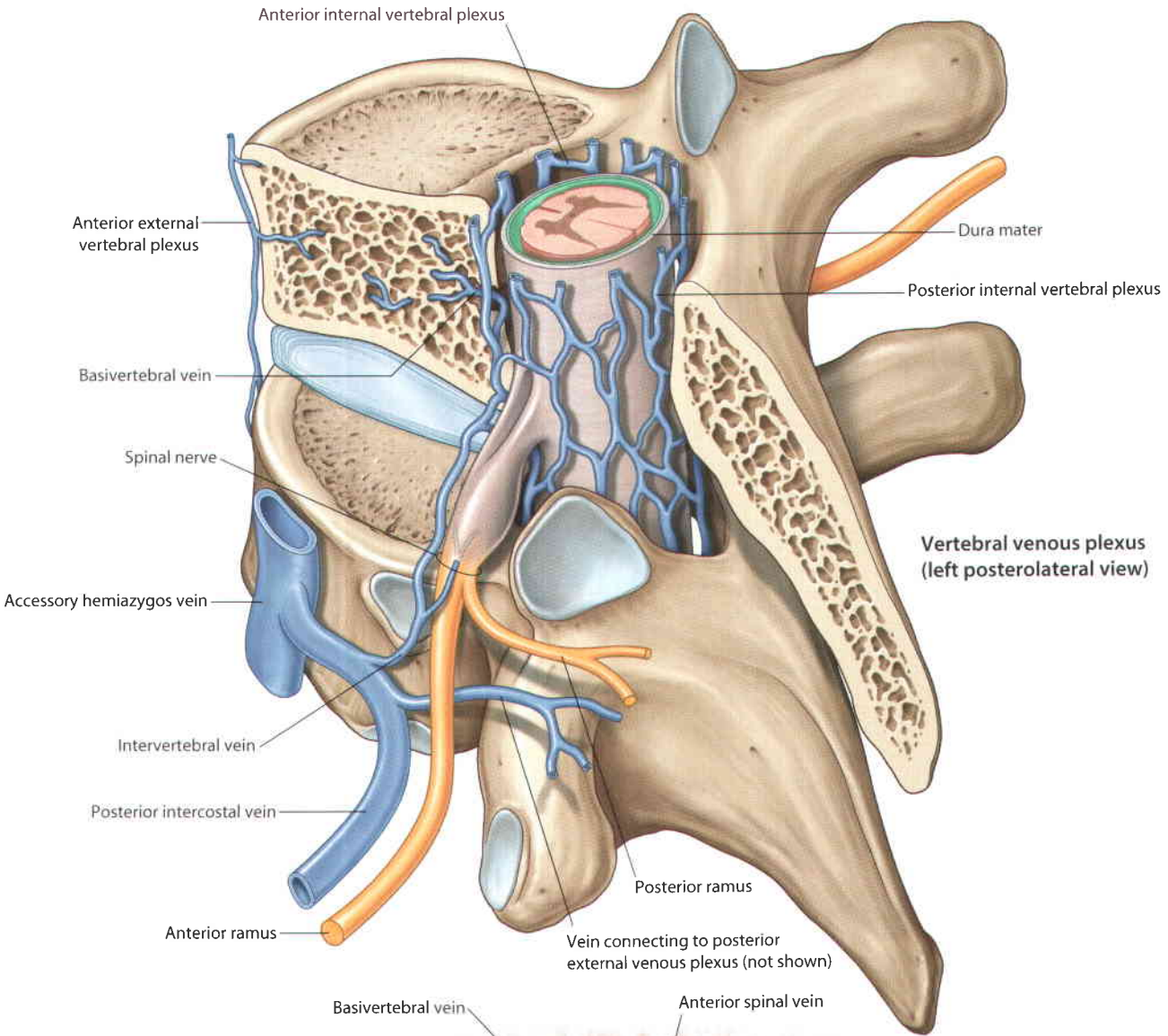


Features of the spinal cord (thoracic region) and basic organization of a spinal nerve (posterior view)

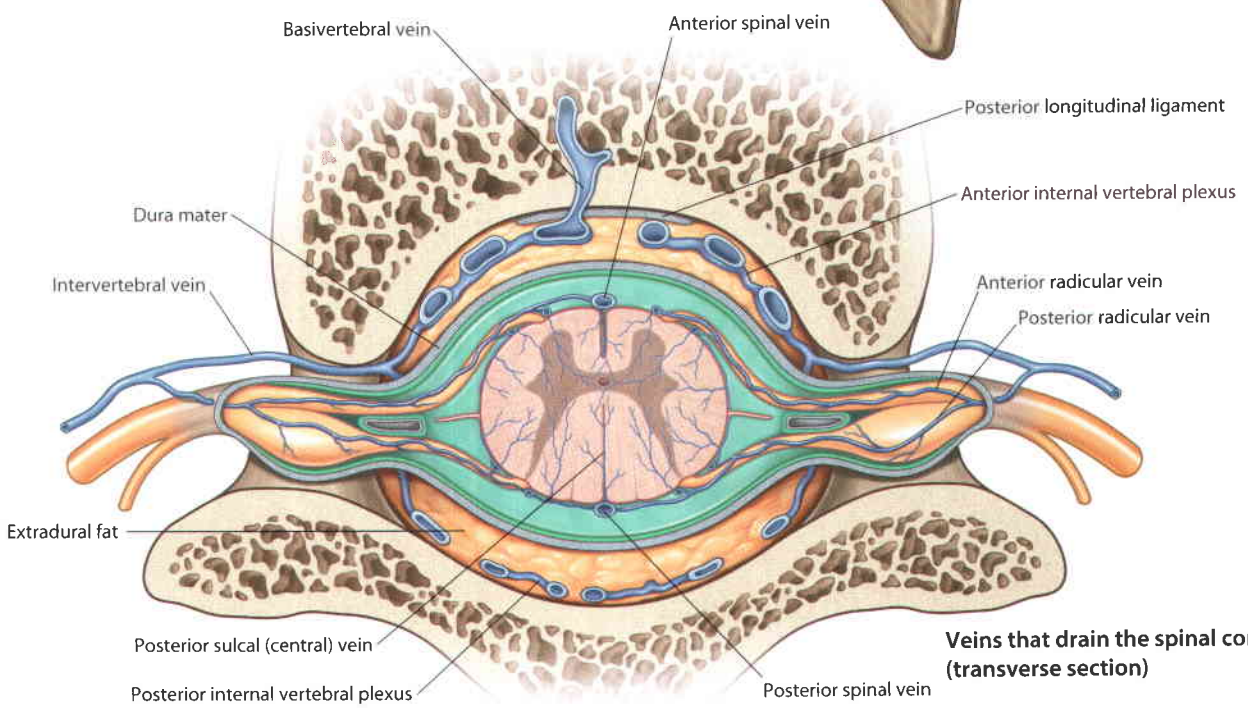


Spinal nerves (transverse section)

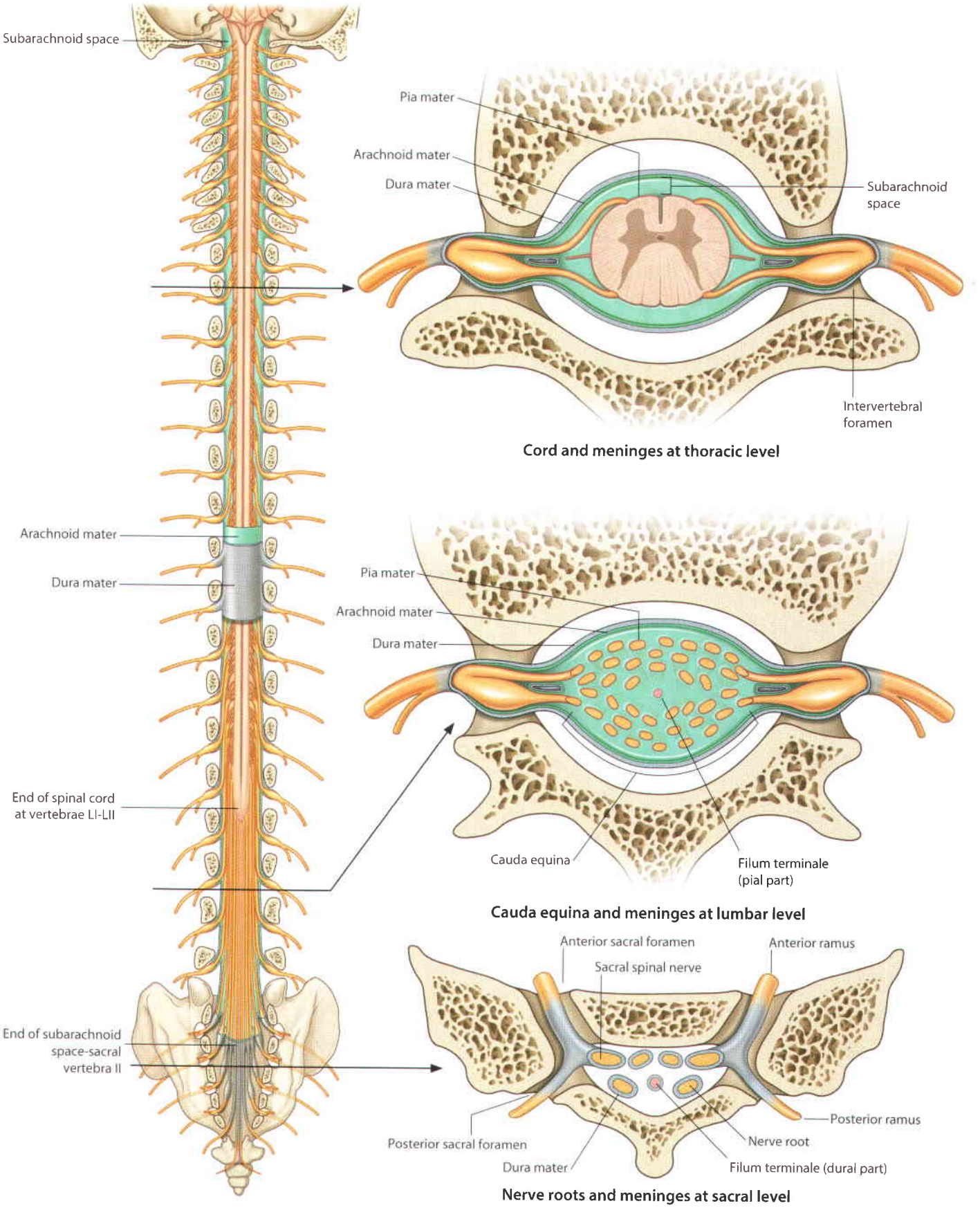

Posterior spinal artery
Anterior spinal artery
Segmental medullary arteries
Vertebral artery
Ascending cervical artery
Deep cervical artery
Costocervical trunk
Thyrocervical trunk
Subclavian artery
Segmental spinal artery
Left posterior intercostal artery
Segmental spinal artery
Segmental medullary arteries (branch from segmental spinal artery)
Posterior intercostal artery
Artery of Adamkiewicz (branch from segmental spinal artery)
Segmental spinal artery
Anastomotic loops to posterior spinal arteries
Lateral sacral artery
Arteries that supply the spinal cord (anterior view)
Segmental supply of spinal cord (posterior view)
Anterior spinal artery
Anterior radicular artery
Anterior radicular artery
Right posterior intercostal artery
Posterior radicular artery
Segmental spinal artery
Right posterior spinal artery
Left posterior spinal artery
Posterior radicular artery
Segmental medullary artery
Segmental supply of spinal cord (anterior view)
Right posterior spinal artery
Left posterior spinal artery
Sulcal (central) branches to spinal cord
Posterior radicular artery
Segmental spinal artery
Anterior spinal artery
Posterior radicular artery
Anterior radicular artery
Segmental spinal artery
Anterior radicular artery
Pia arterial plexus
Segmental spinal artery
Segmental medullary artery
Segmental medullary artery
Anterior spinal artery
Right posterior intercostal arteries
Left posterior intercostal arteries
Segmental spinal artery

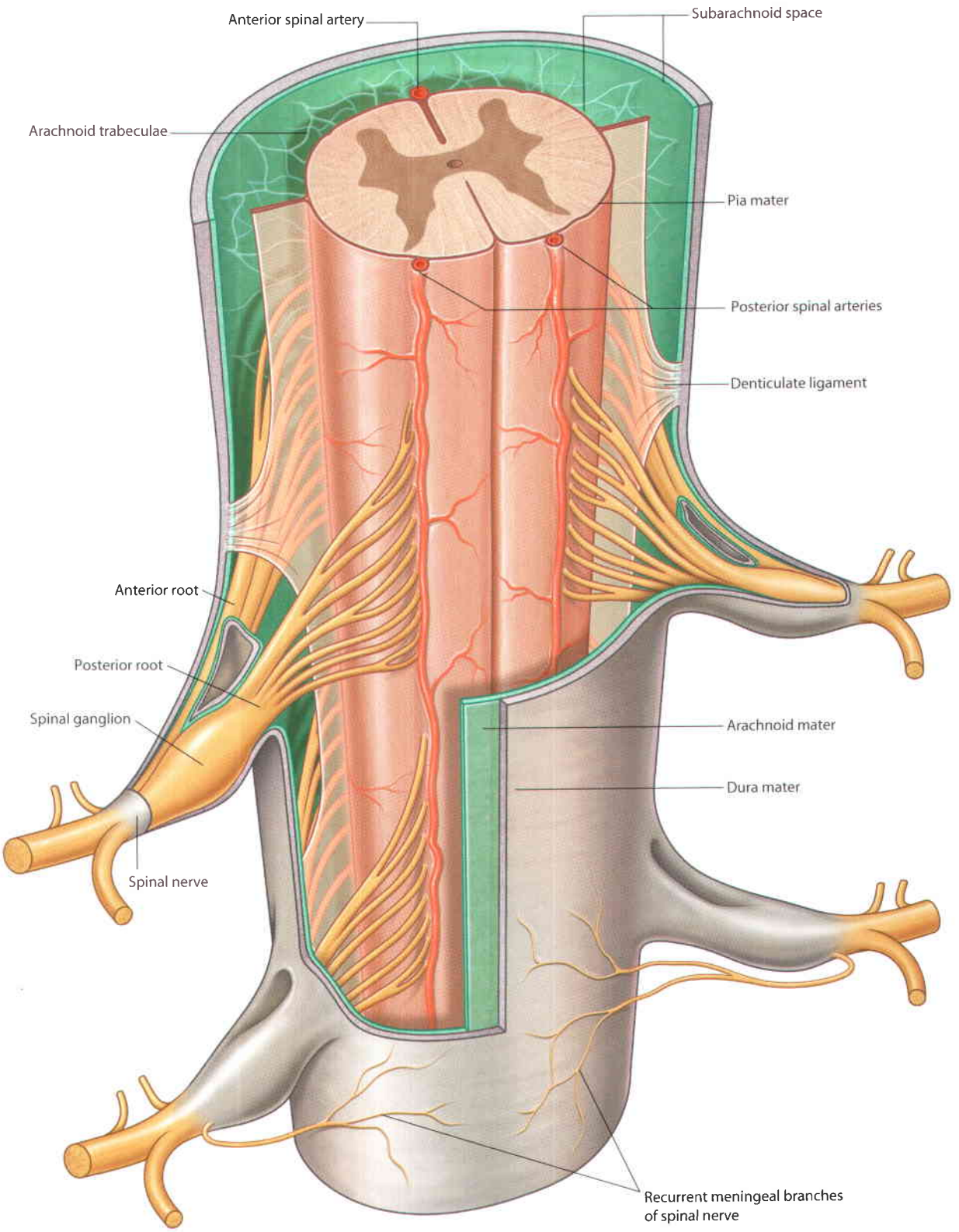


Vertebral venous plexus (left posterolateral view)

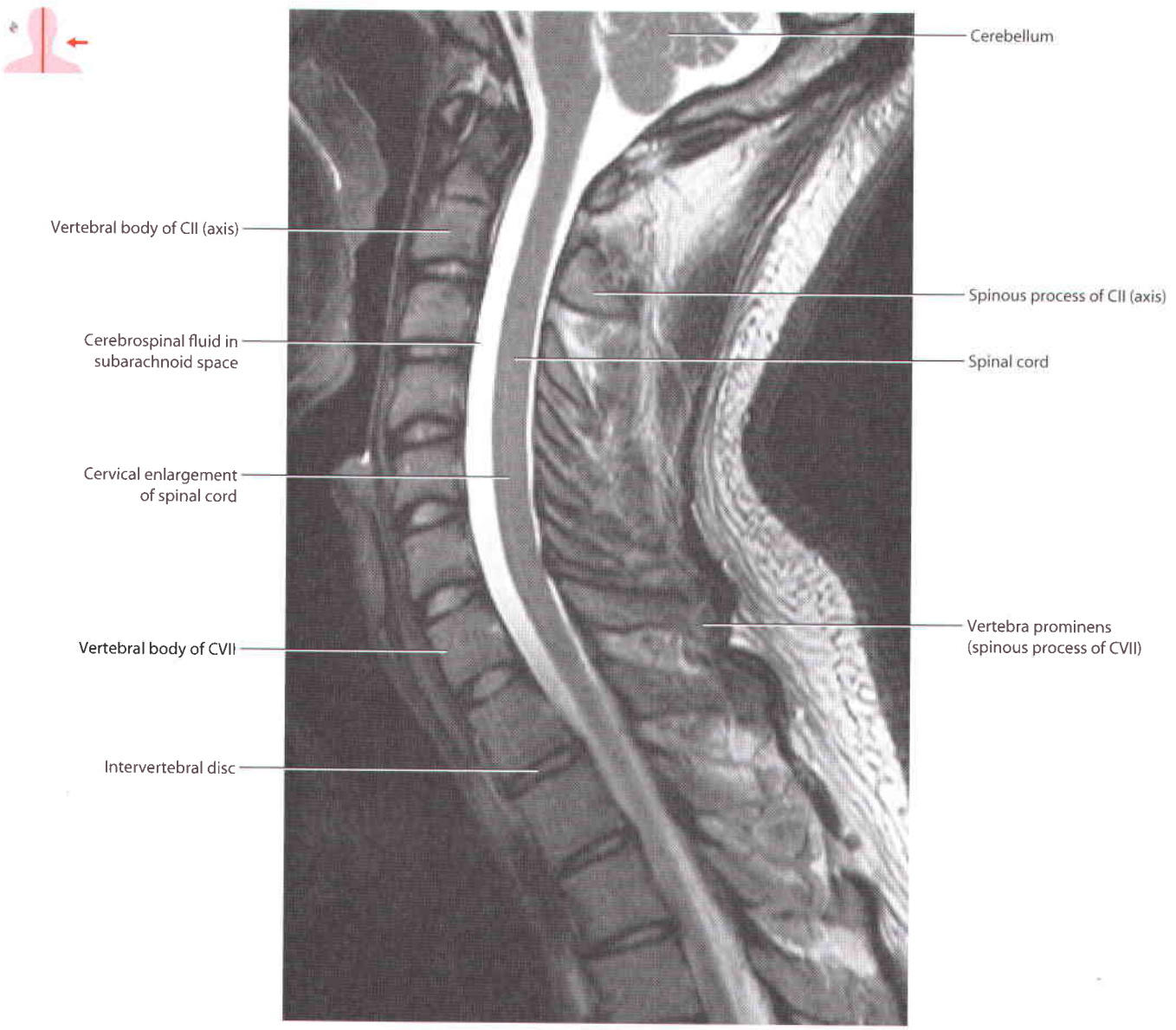


Veins that drain the spinal cord (transverse section)

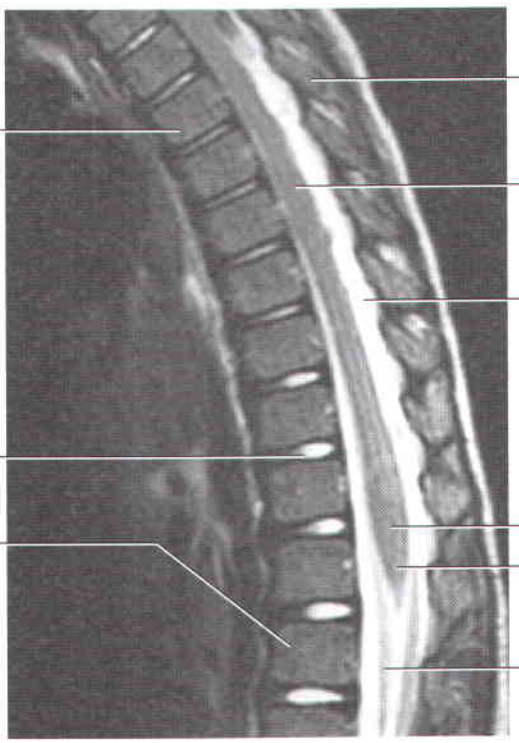

Subarachnoid space
Arachnoid mater
Dura mater
End of spinal cord at vertebrae LI-LII
End of subarachnoid space-sacral vertebra II
Pia mater
Arachnoid mater
Dura mater
Subarachnoid space
Intervertebral foramen
Cord and meninges at thoracic level
Pia mater
Arachnoid mater
Dura mater
Cauda equina
Filum terminale (pial part)
Cauda equina and meninges at lumbar level
Anterior sacral foramen
Sacral spinal nerve
Anterior ramus
Posterior ramus
Posterior sacral foramen
Dura mater
Nerve root
Filum terminale (dural part)
Nerve roots and meninges at sacral level



Meninges covering parts of the thoracic region of the spinal cord (posterior view)

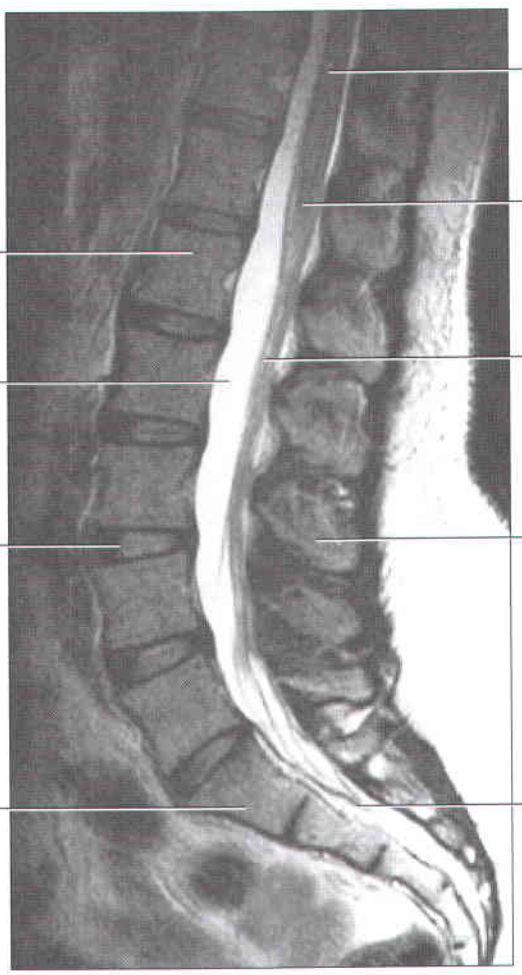


Cervical and upper thoracic vertebral column showing upper and middle portions of spinal cord.
T2-weighted MR image in sagittal plane

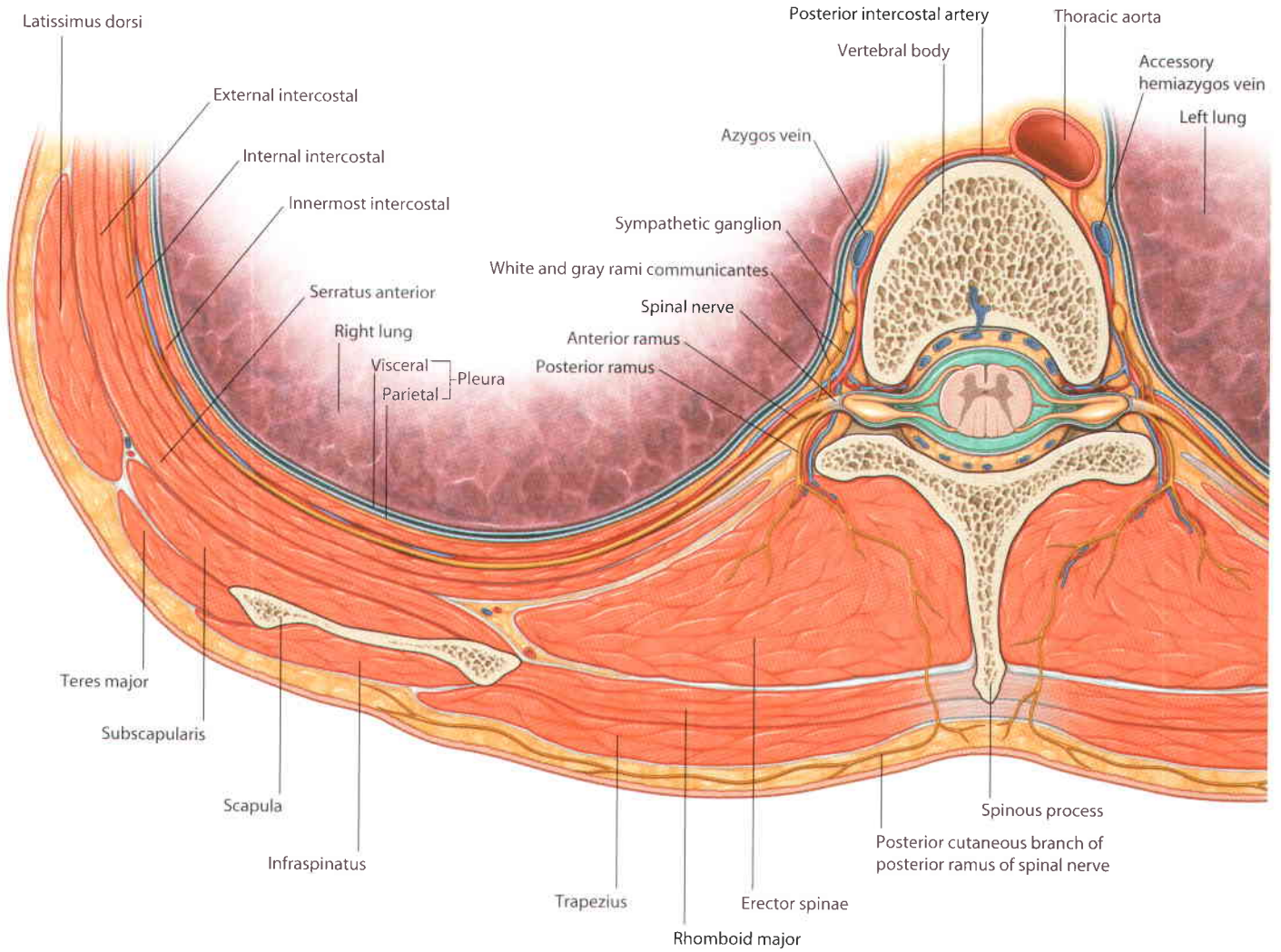


Thoracic and upper lumbar vertebral column showing middle and lower portions of spinal cord and its termination.
T2-weighted MR image in sagittal plane

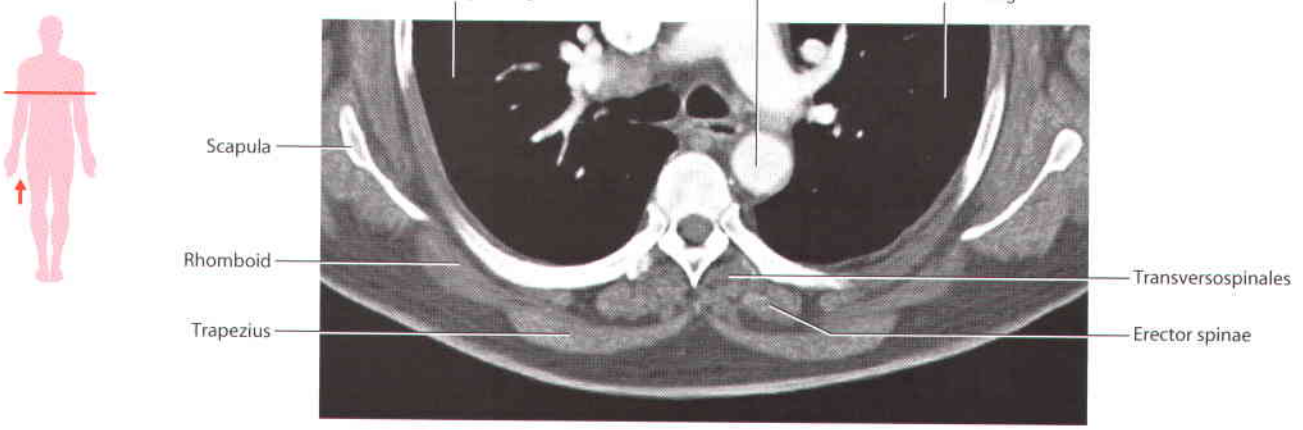
RoshanKetab 021-66950639



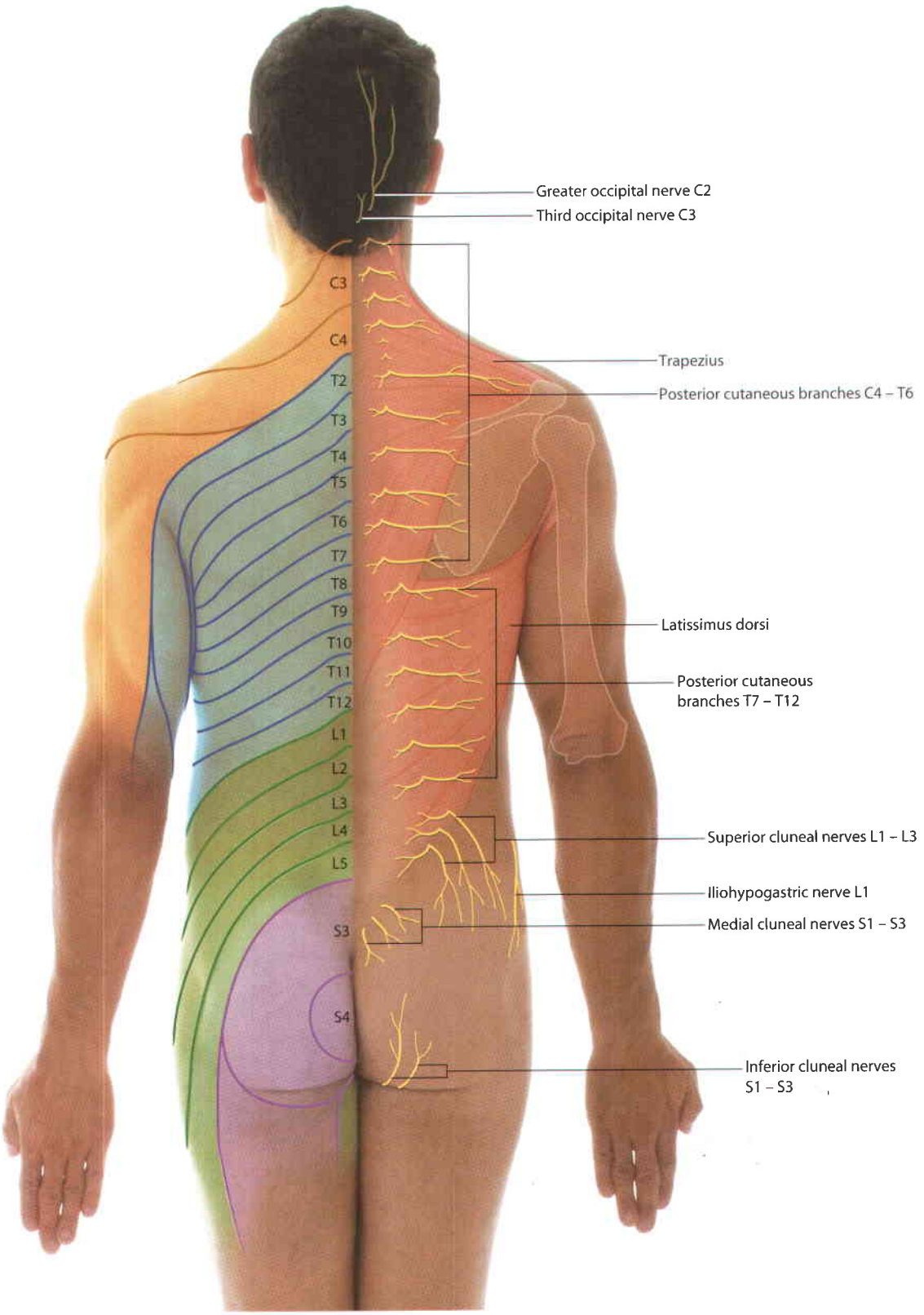
Lumbar and sacral vertebral column showing termination of spinal cord and continuation and termination of dural/arachnoid sac.
T2-weighted MR image in sagittal plane



Transverse section through thoracic region of vertebral column



Thoracic region of back.
CT image in axial plane



Dermatomes and cutaneous nerves of the back

3 THORAX

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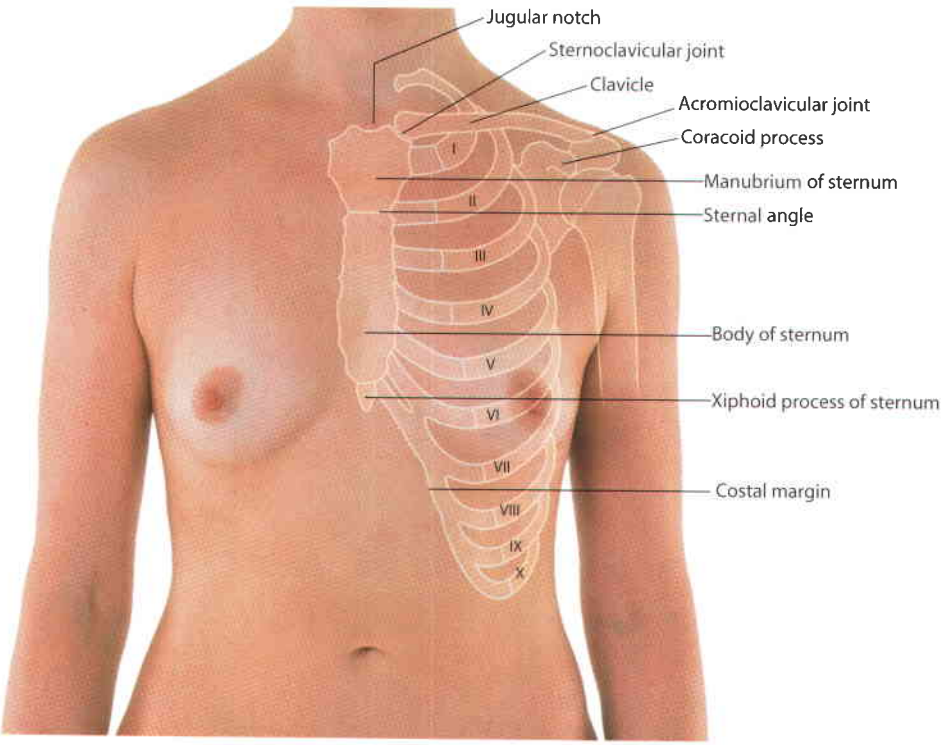
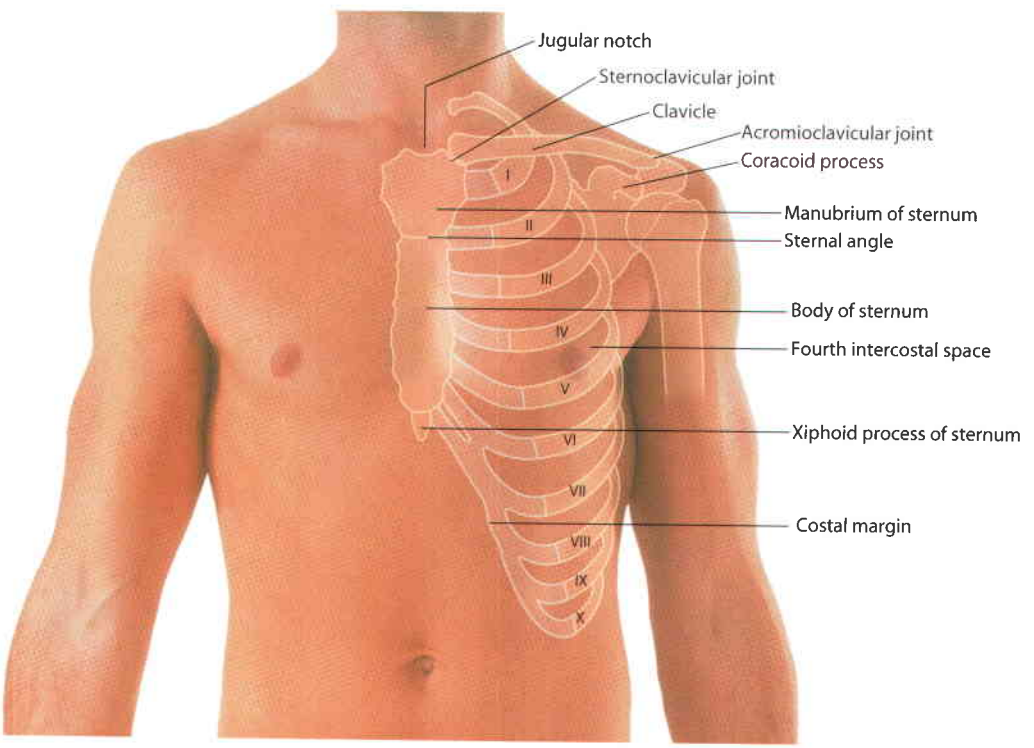
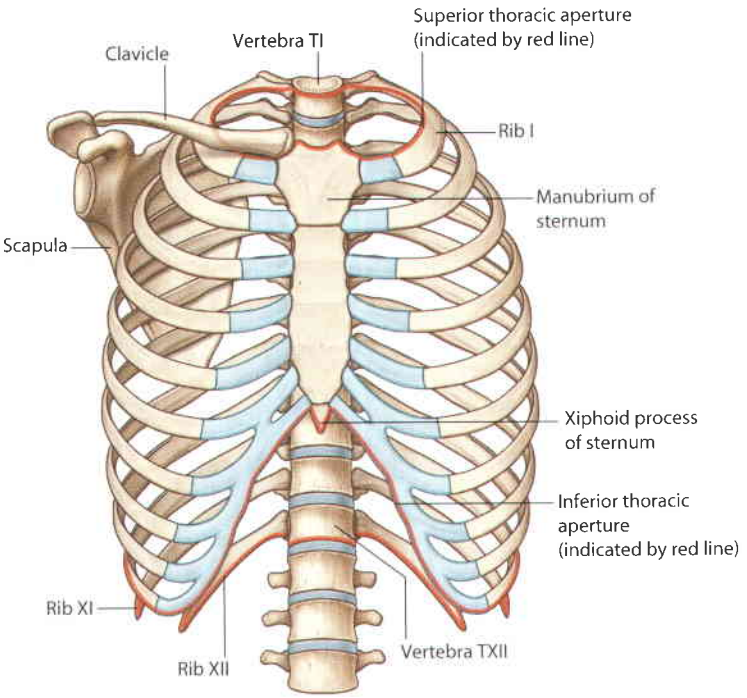


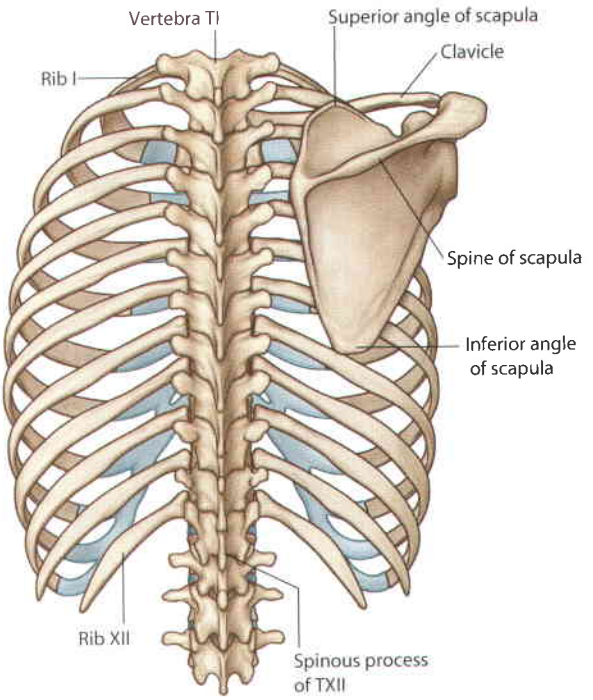
Anterior chest wall in a woman



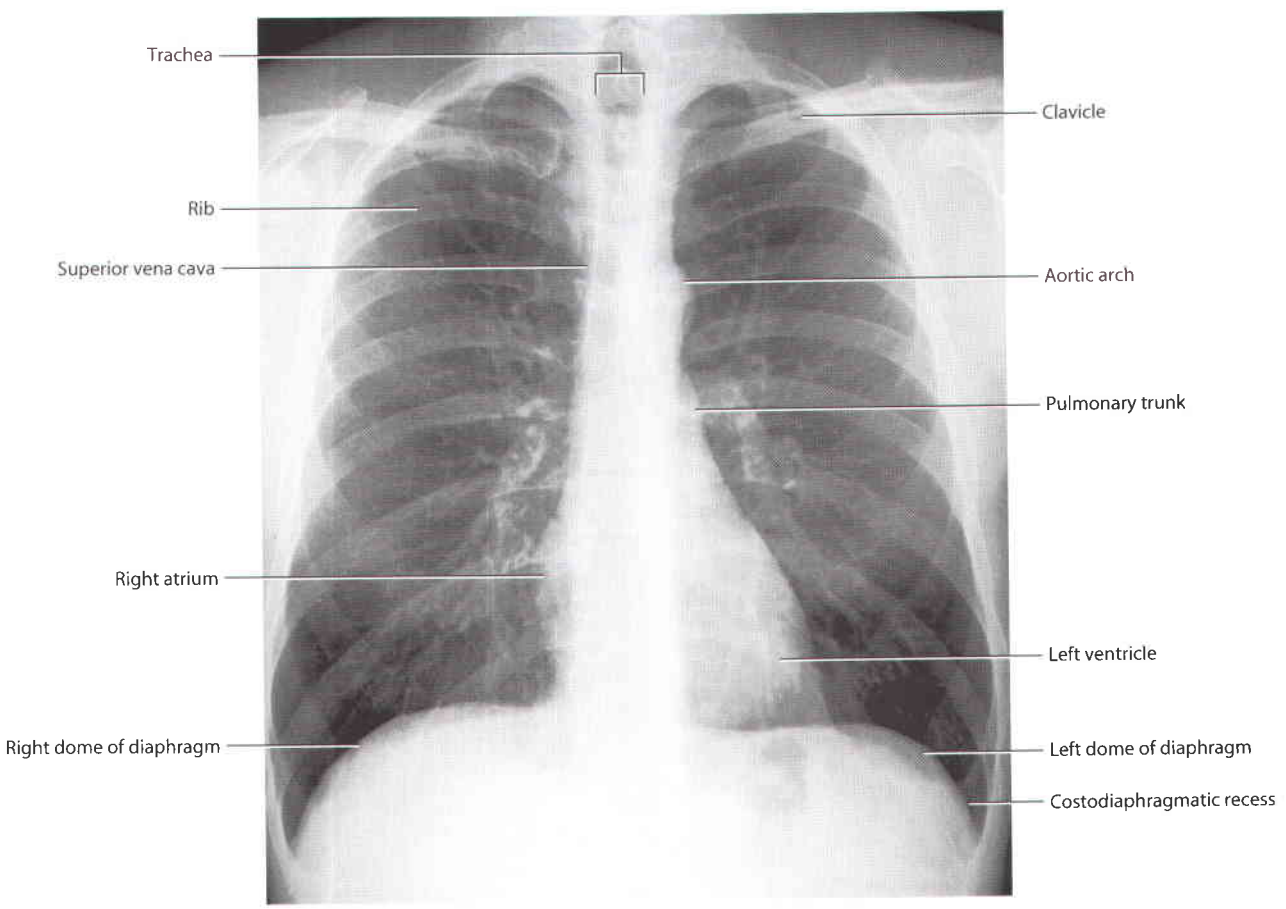
Anterior chest wall in a man



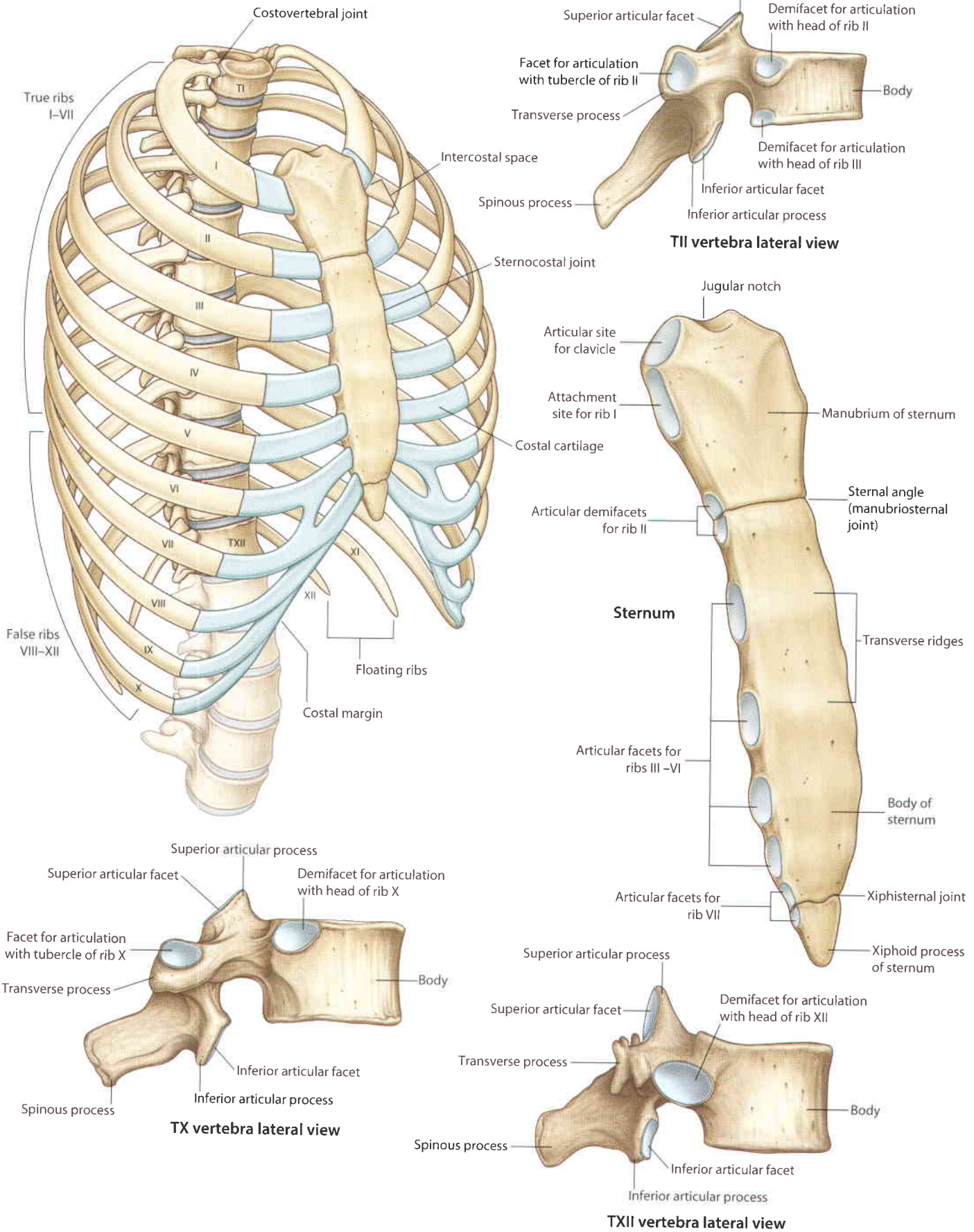
Bony framework of thorax (anterior view)

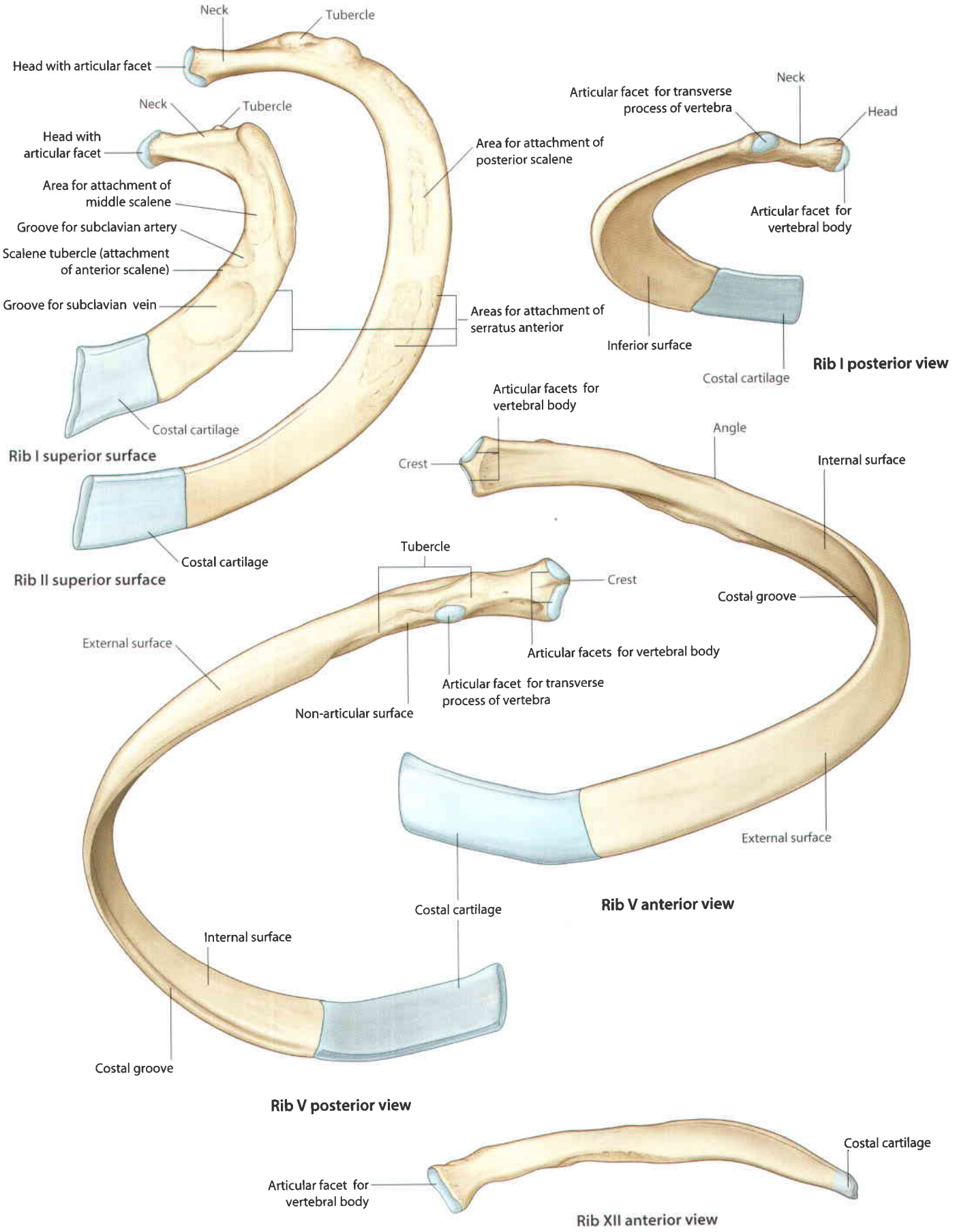


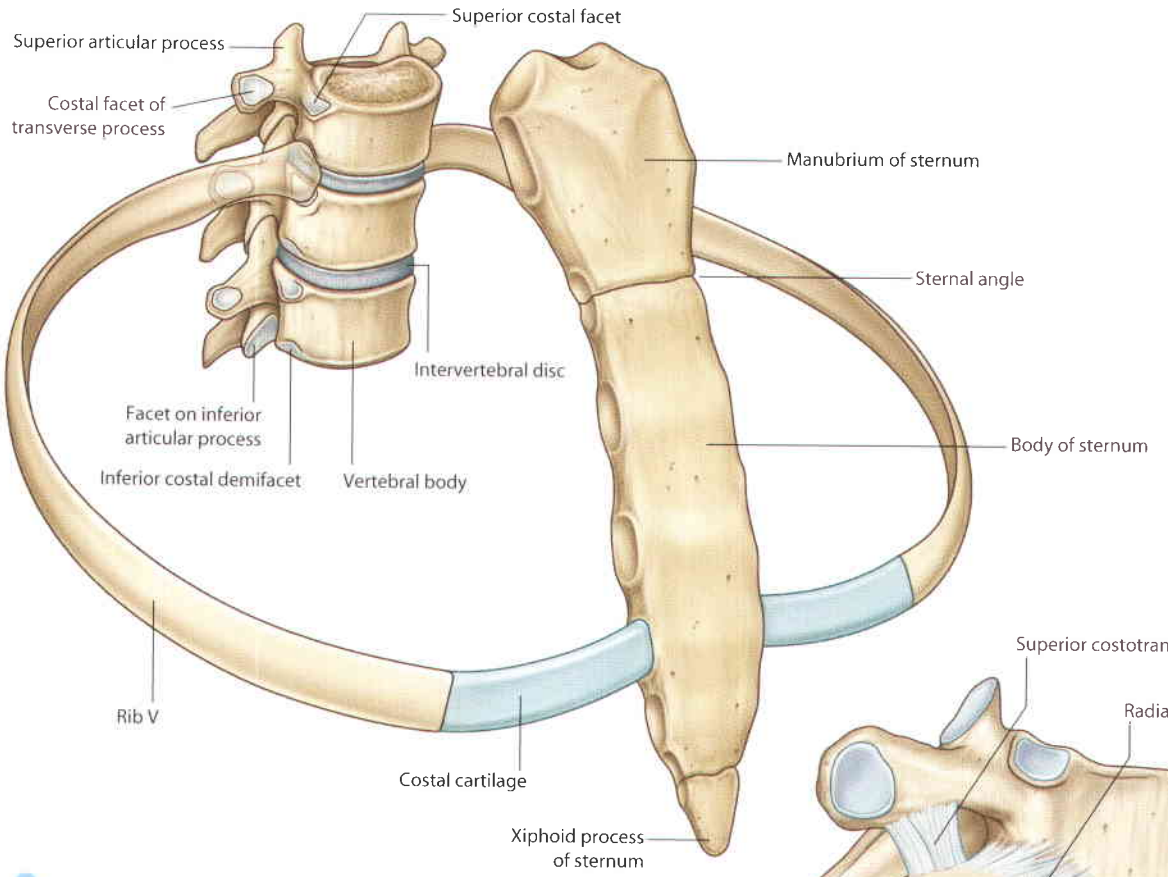
Bony framework of thorax (posterior view)



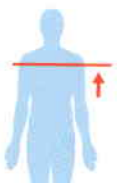
Positioning of structures in chest.
Radiograph, AP view

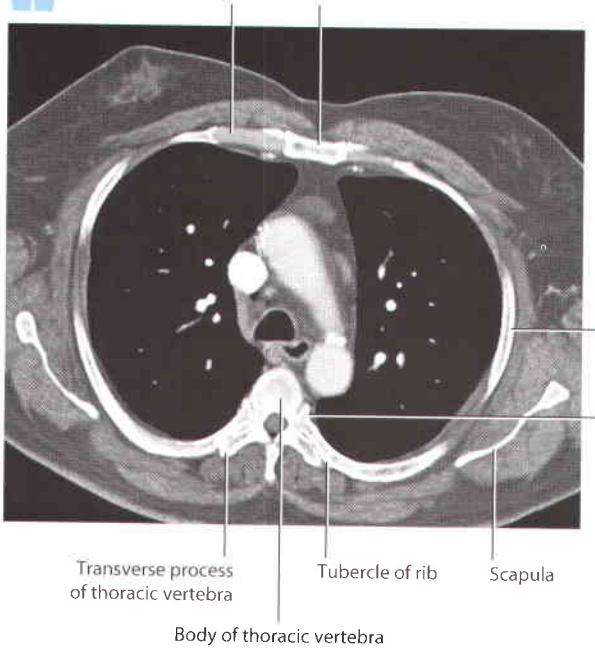

Costovertebral joint
True ribs I–VII
TI
I
II
III
IV
V
VI
VII
TXII
XI
XII
VIII
IX
X
False ribs VIII–XII
Intercostal space
Sternocostal joint
Costal cartilage
Floating ribs
Costal margin
Superior articular process
Superior articular facet
Demifacet for articulation with head of rib II
Facet for articulation with tubercle of rib II
Transverse process
Body
Demifacet for articulation with head of rib III
Inferior articular facet
Spinous process
Inferior articular process
TII vertebra lateral view
Jugular notch
Articular site for clavicle
Attachment site for rib I
Manubrium of sternum
Sternal angle (manubriosternal joint)
Articular demifacets for rib II
Sternum
Transverse ridges
Articular facets for ribs III –VI
Body of sternum
Articular facets for rib VII
Xiphisternal joint
Xiphoid process of sternum
Superior articular process
Superior articular facet
Demifacet for articulation with head of rib X
Facet for articulation with tubercle of rib X
Transverse process
Body
Inferior articular facet
Spinous process
Inferior articular process
TX vertebra lateral view
Superior articular process
Superior articular facet
Demifacet for articulation with head of rib XII
Transverse process
Body
Spinous process
Inferior articular facet
Inferior articular process
TXII vertebra lateral view


Neck
Tubercle
Head with articular facet
Neck
Tubercle
Head with articular facet
Area for attachment of middle scalene
Groove for subclavian artery
Scalene tubercle (attachment of anterior scalene)
Groove for subclavian vein
Costal cartilage
Rib I superior surface
Area for attachment of posterior scalene
Areas for attachment of serratus anterior
Costal cartilage
Rib II superior surface
Articular facet for transverse process of vertebra
Neck
Head
Articular facet for vertebral body
Inferior surface
Costal cartilage
Rib I posterior view
Articular facets for vertebral body
Angle
Crest
Internal surface
Tubercle
Crest
Costal groove
External surface
Articular facets for vertebral body
Articular facet for transverse process of vertebra
Non-articular surface
External surface
Costal cartilage
Rib V anterior view
Internal surface
Costal groove
Rib V posterior view
Costal cartilage
Articular facet for vertebral body
Rib XII anterior view

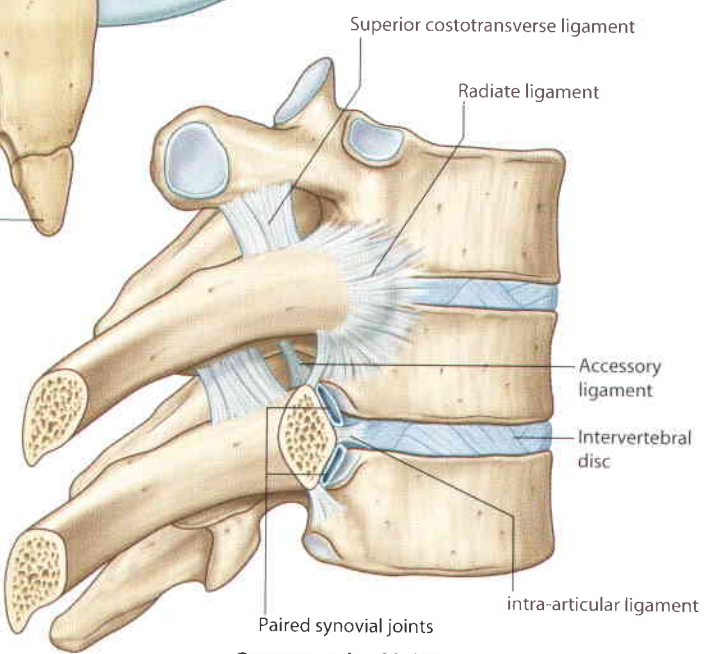


Costovertebral and sternocostal joints

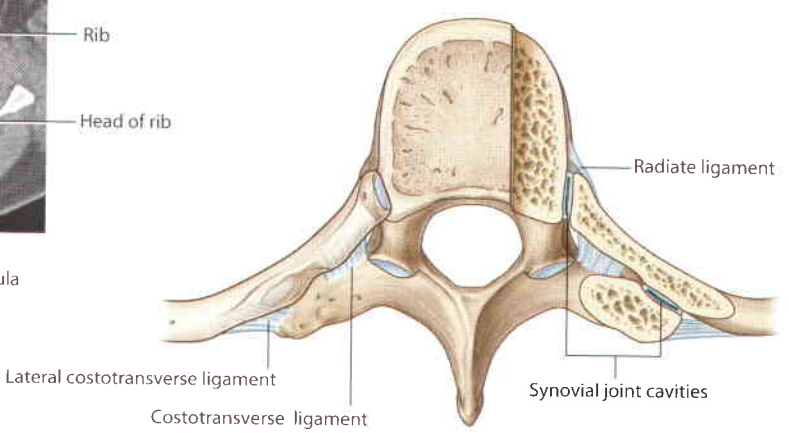




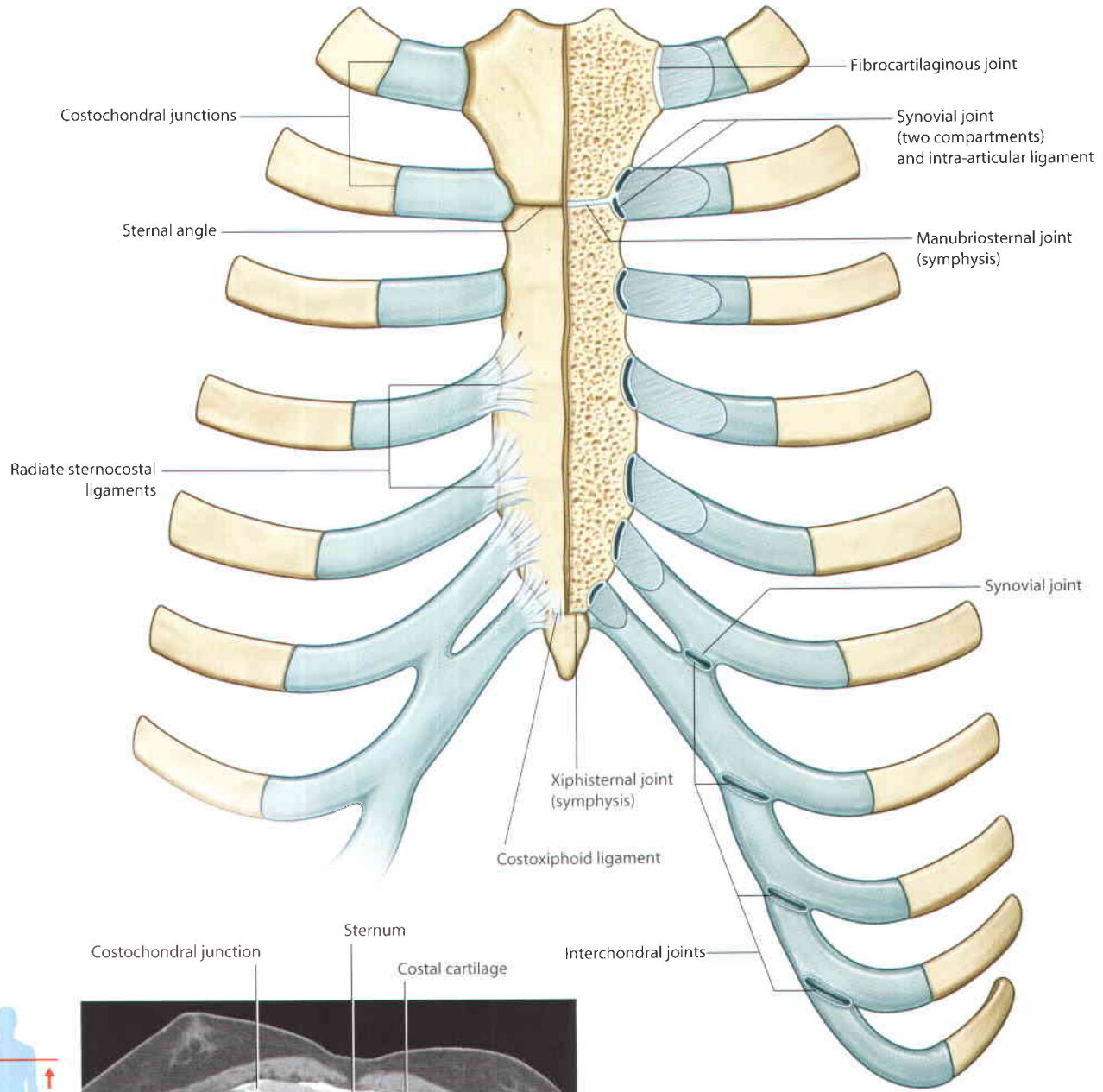
Articulation of rib with thoracic vertebra (TIV).
CT image, with contrast, in axial plane



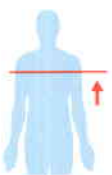
Costovertebral joints (lateral view)

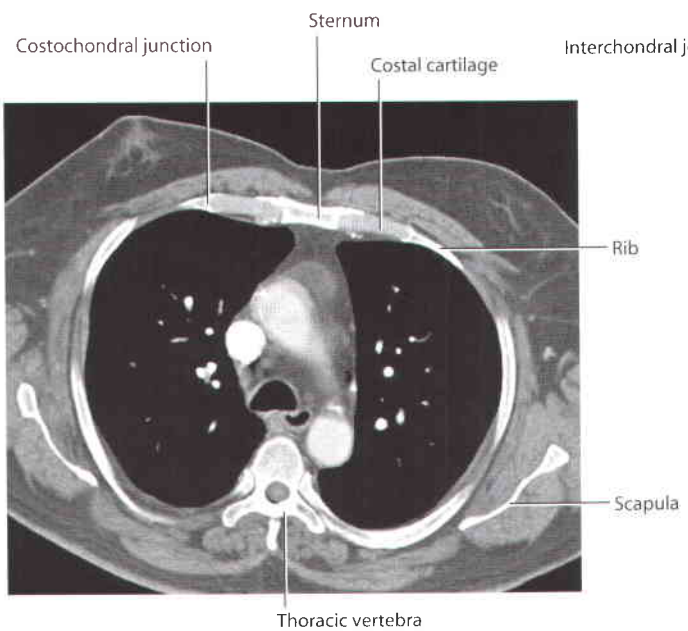


Costovertebral joints (superior view)

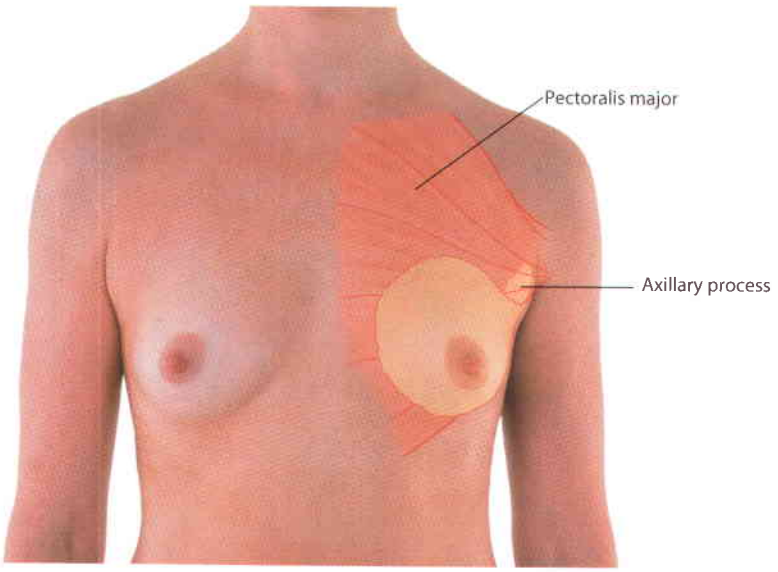


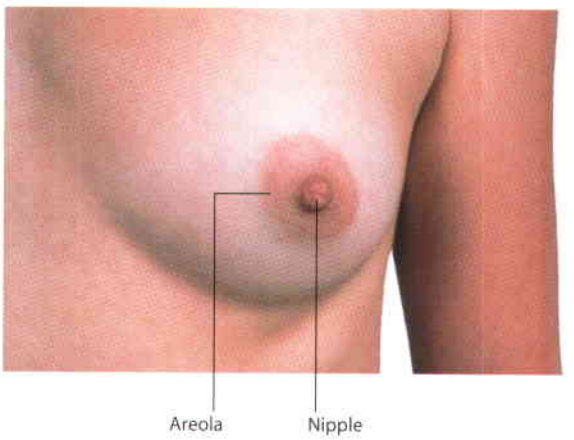
Sternocostal and interchondral joints



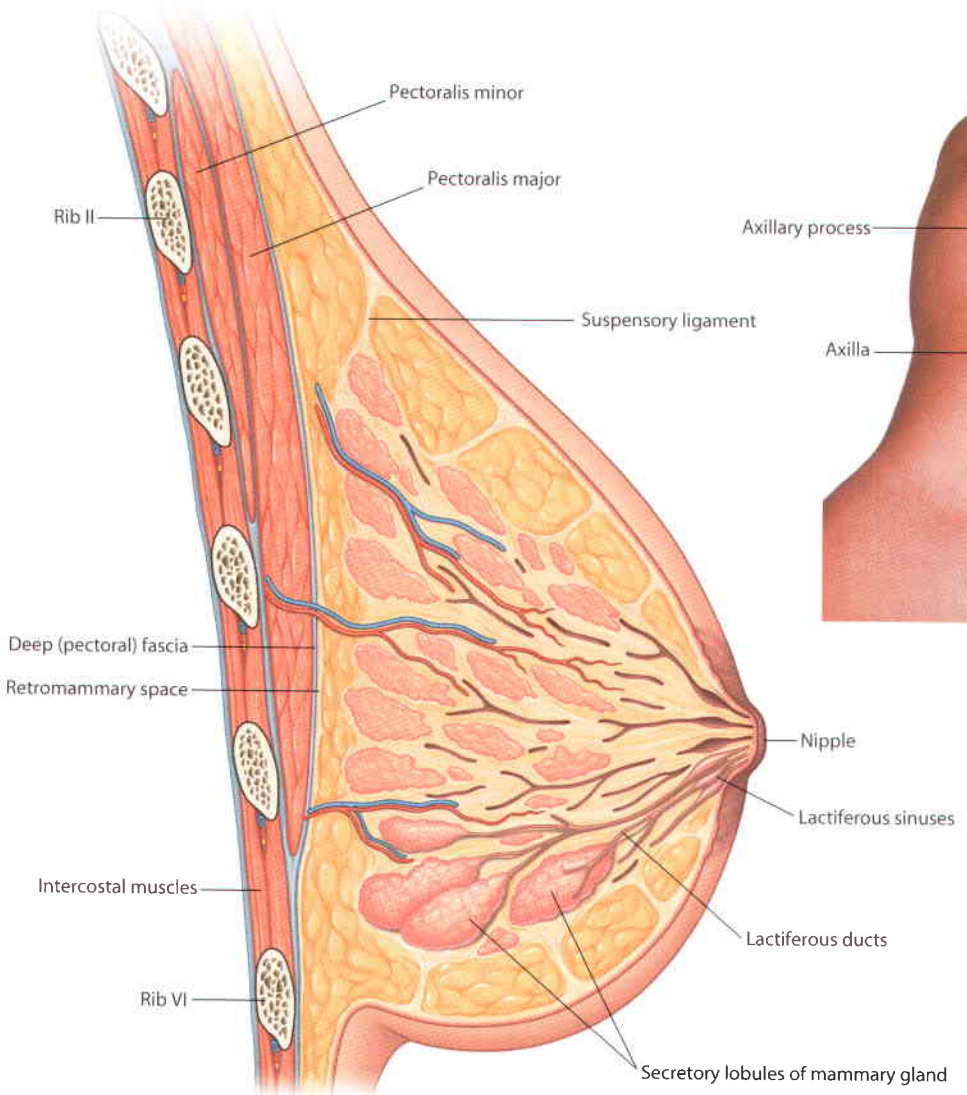


Articulation of costal cartilage with sternum.
CT image, with contrast, in axial plane

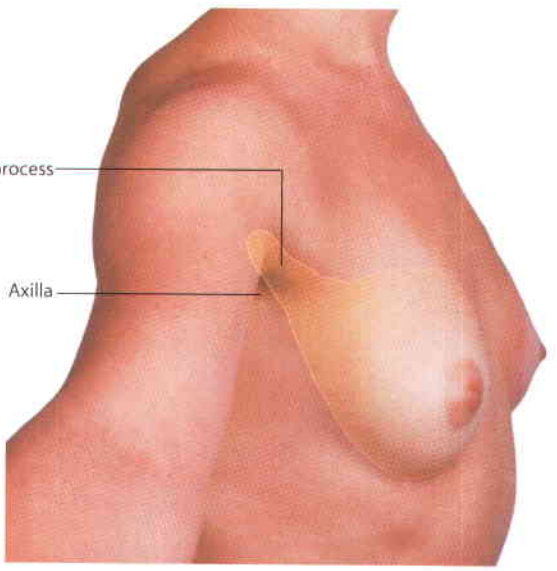




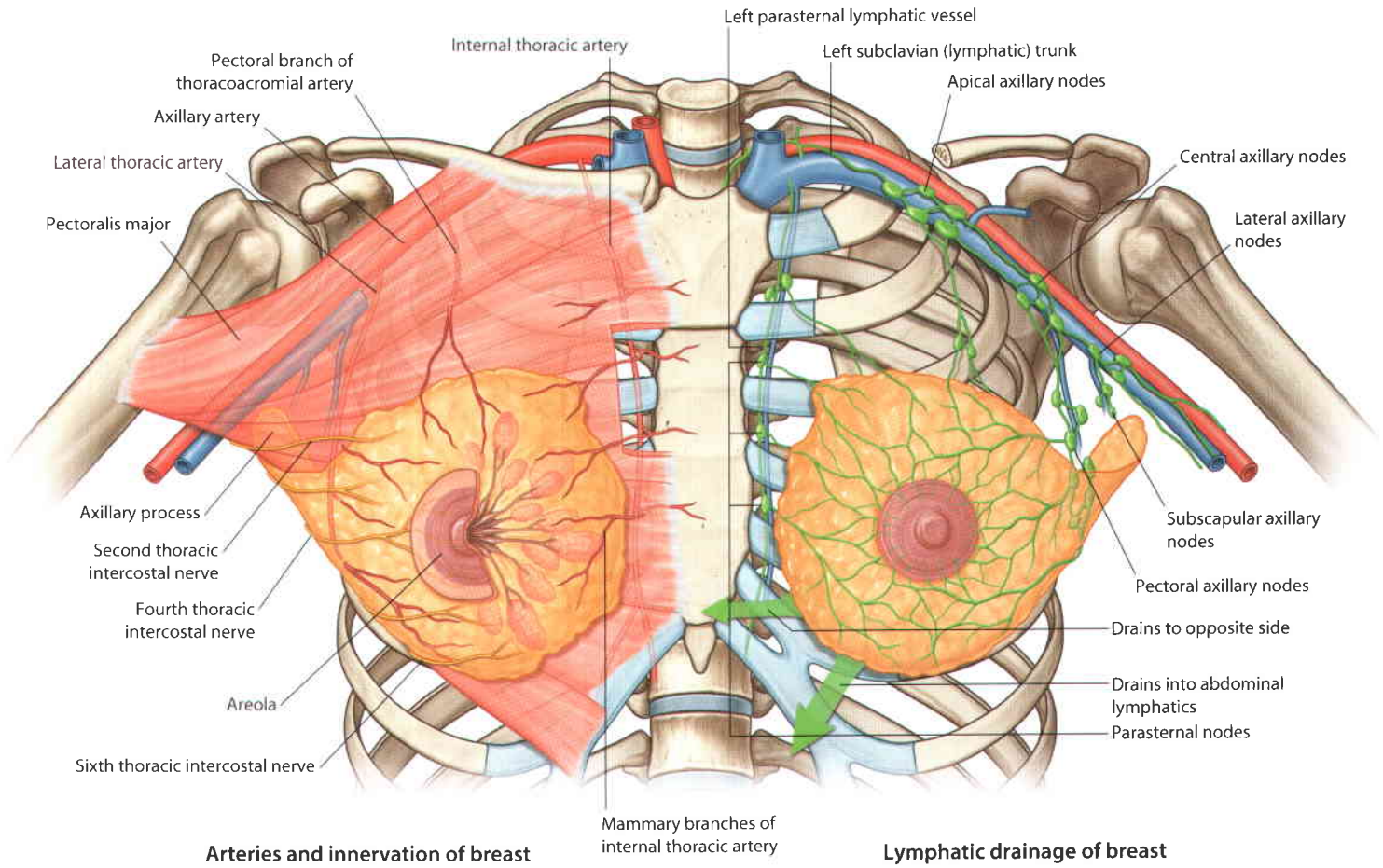
Anterior view



Sagittal section

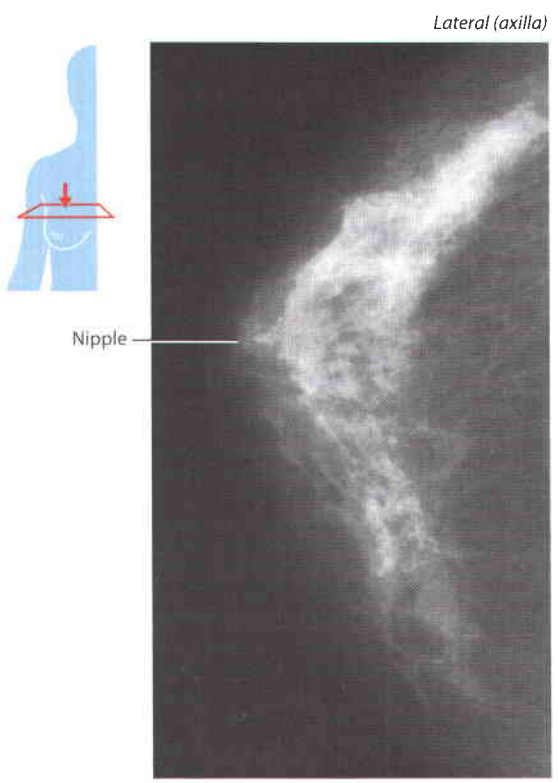


Lateral view

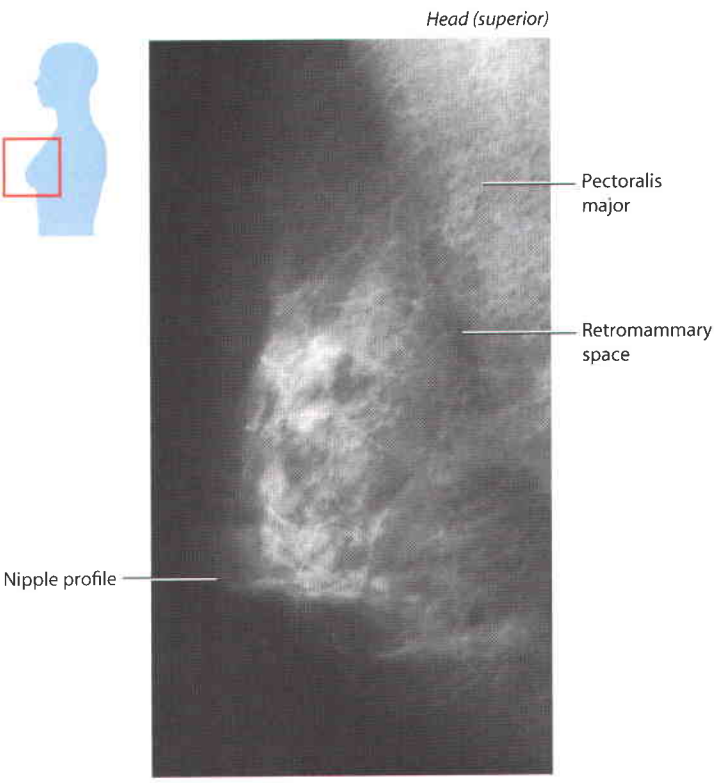


Arteries and innervation of breast

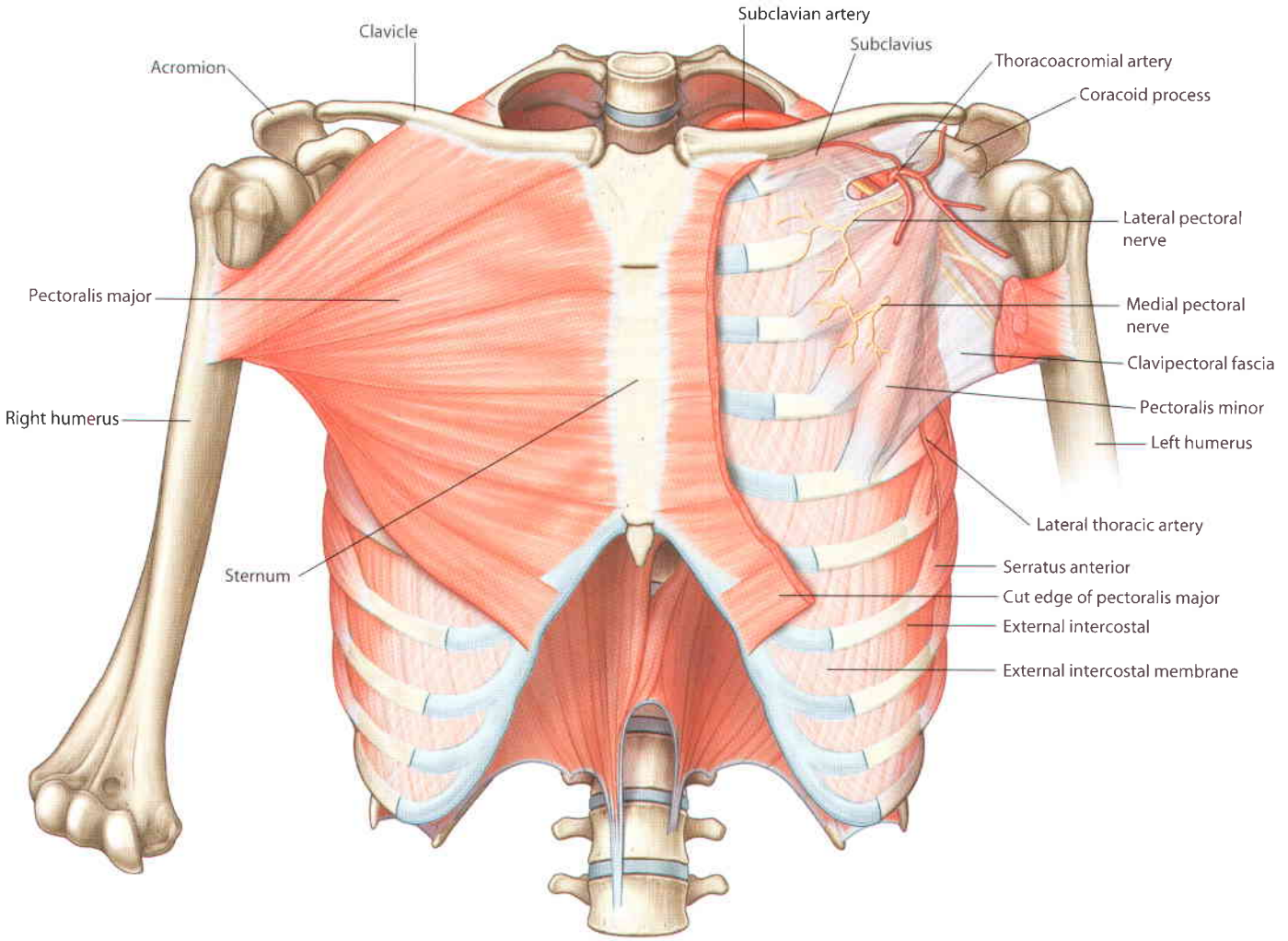
Lymphatic drainage of breast



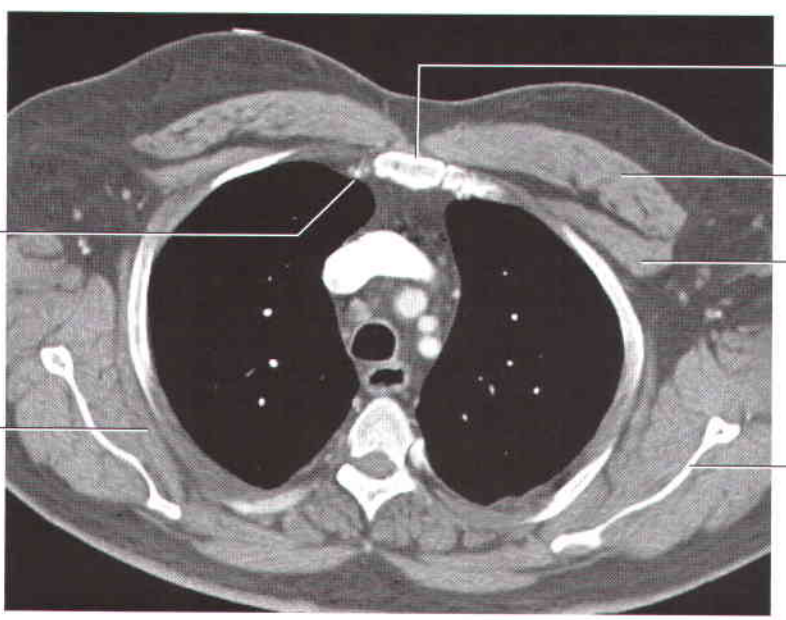
Mammography. Craniocaudal (cc) view of a normal right breast showing a heterogeneously dense appearance



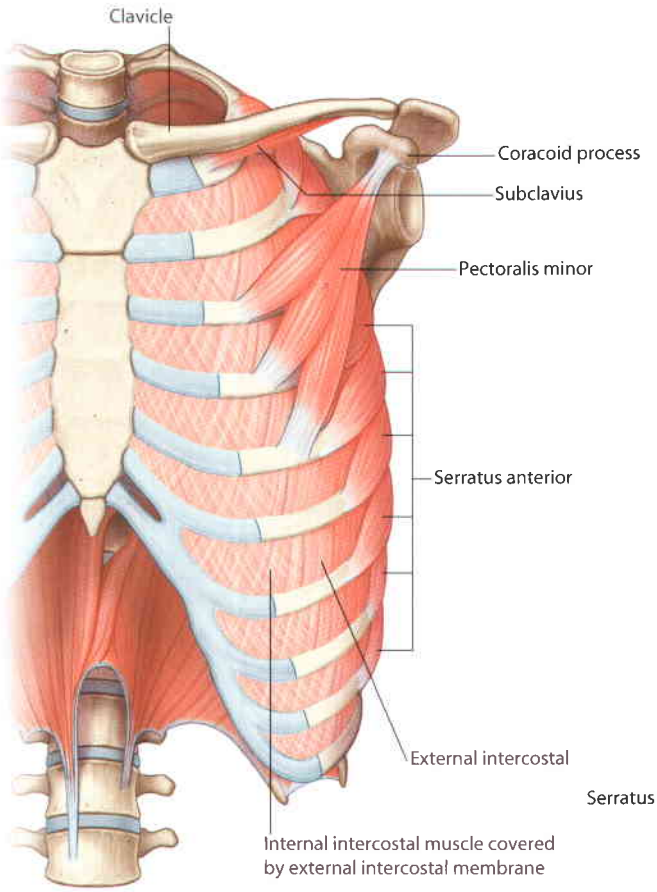
Mammography. Mediolateral oblique (mlo) view of a normal right breast showing a heterogeneously dense appearance



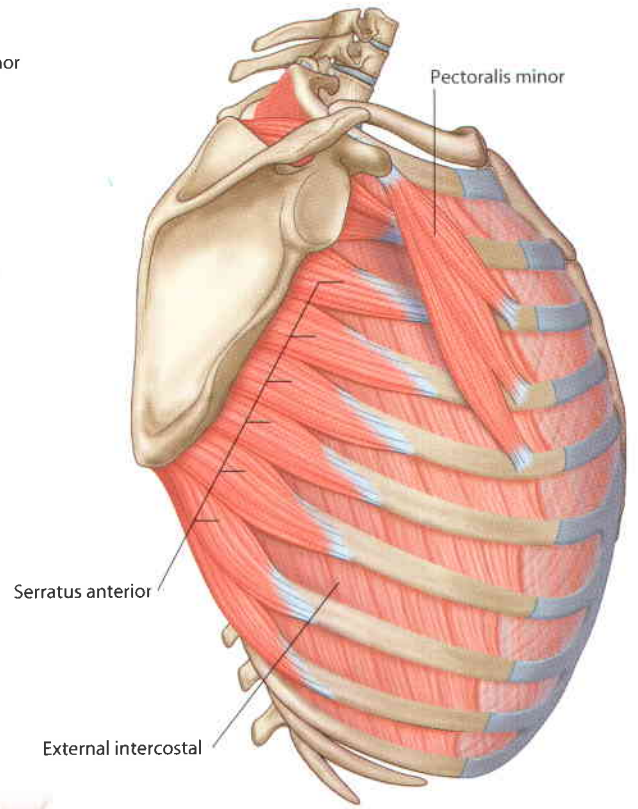
Pectoralis major muscle and related deep structures



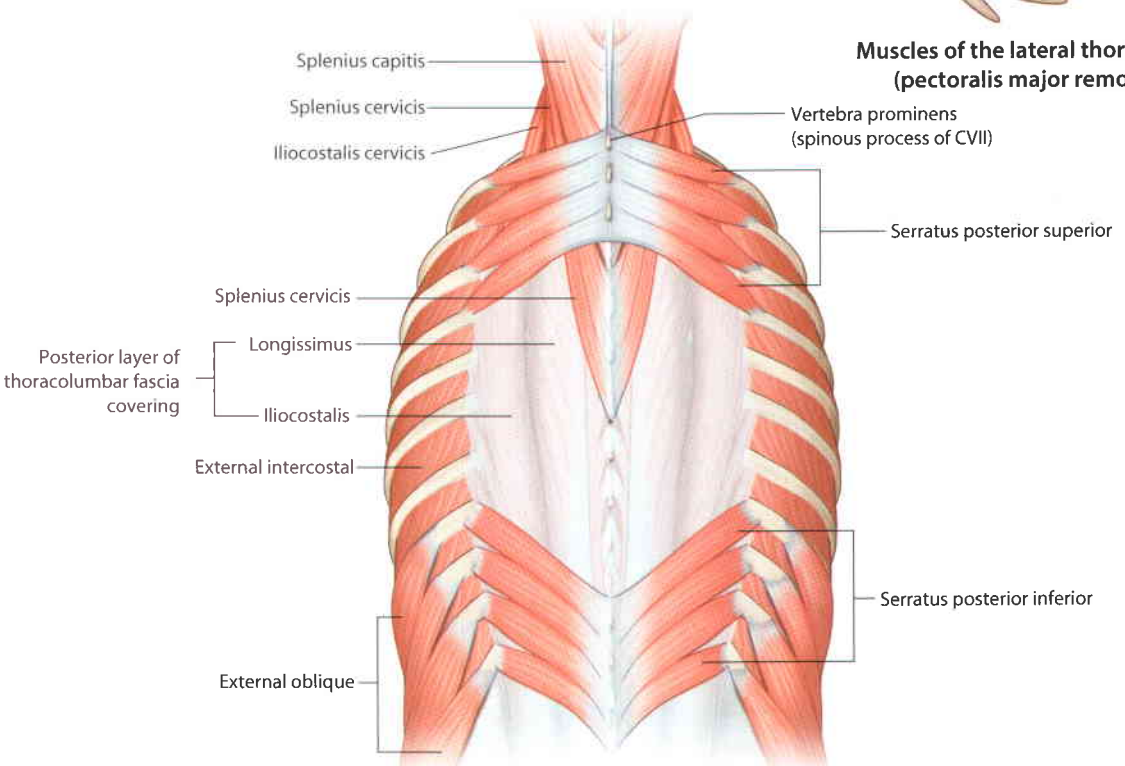
Pectoralis major and minor muscles on anterior thoracic wall.
CT image, with contrast, in axial plane



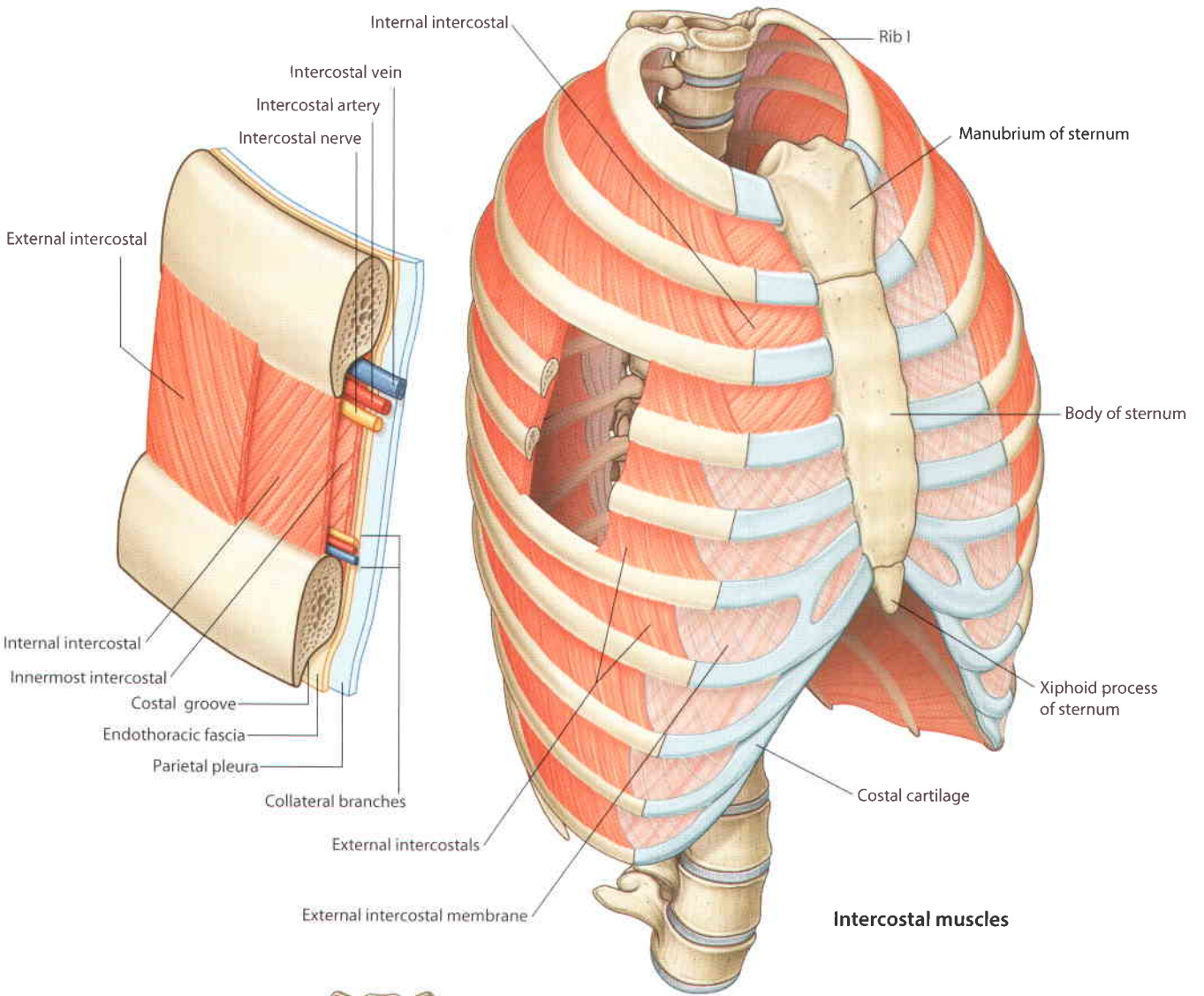
Pectoralis minor and the anterior thoracic wall (pectoralis major removed)



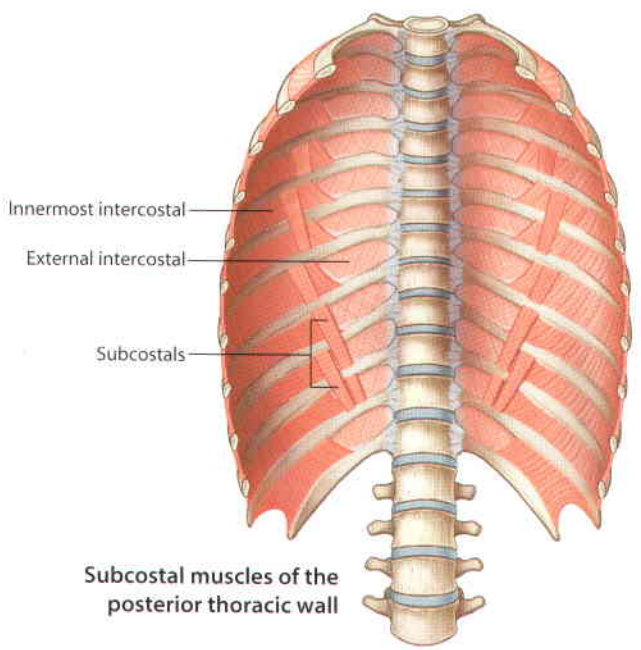
Muscles of the lateral thoracic wall (pectoralis major removed)



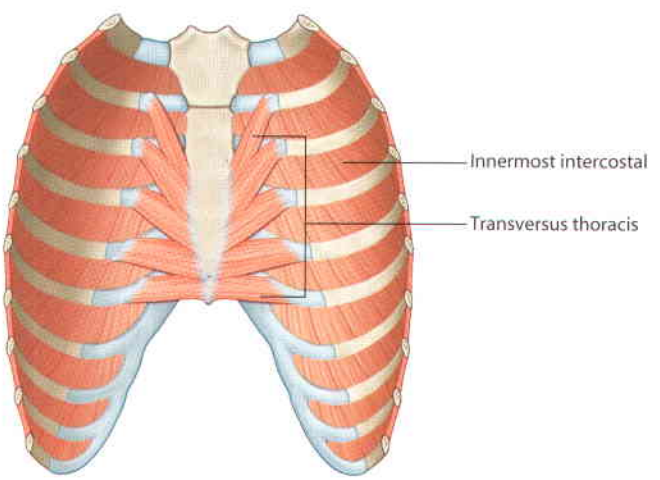
Muscles of the posterior thoracic wall



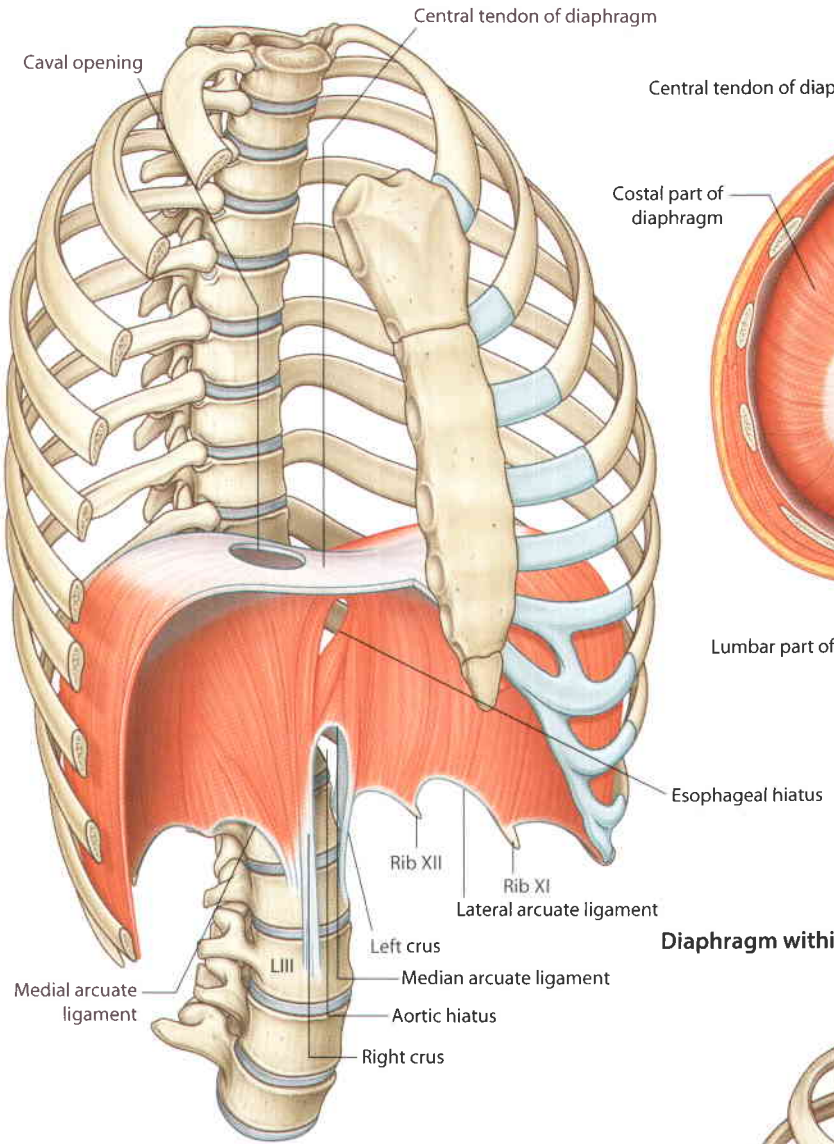
Intercostal muscles



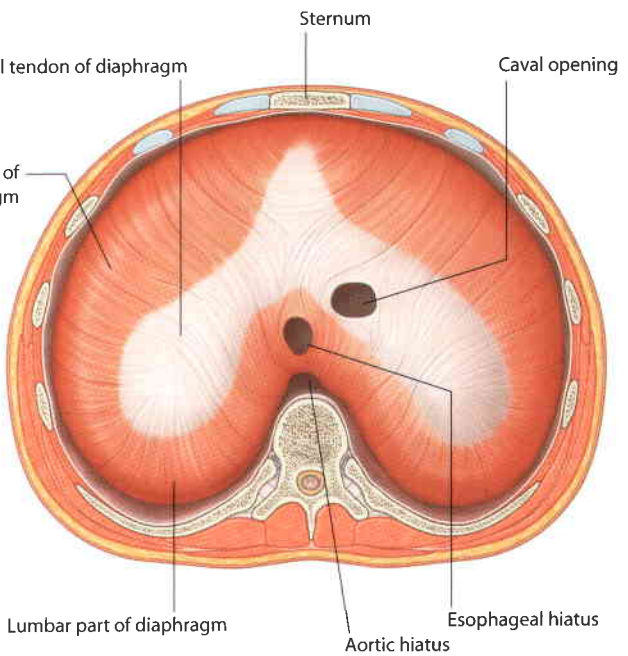
Subcostal muscles of the posterior thoracic wall



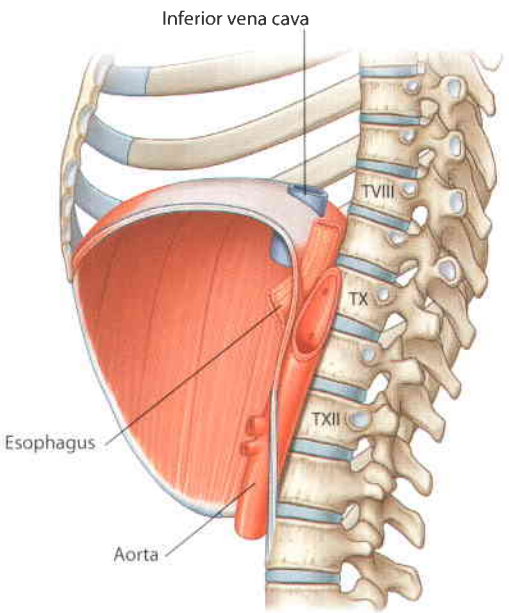
Transversus thoracis muscles of the anterior thoracic wall



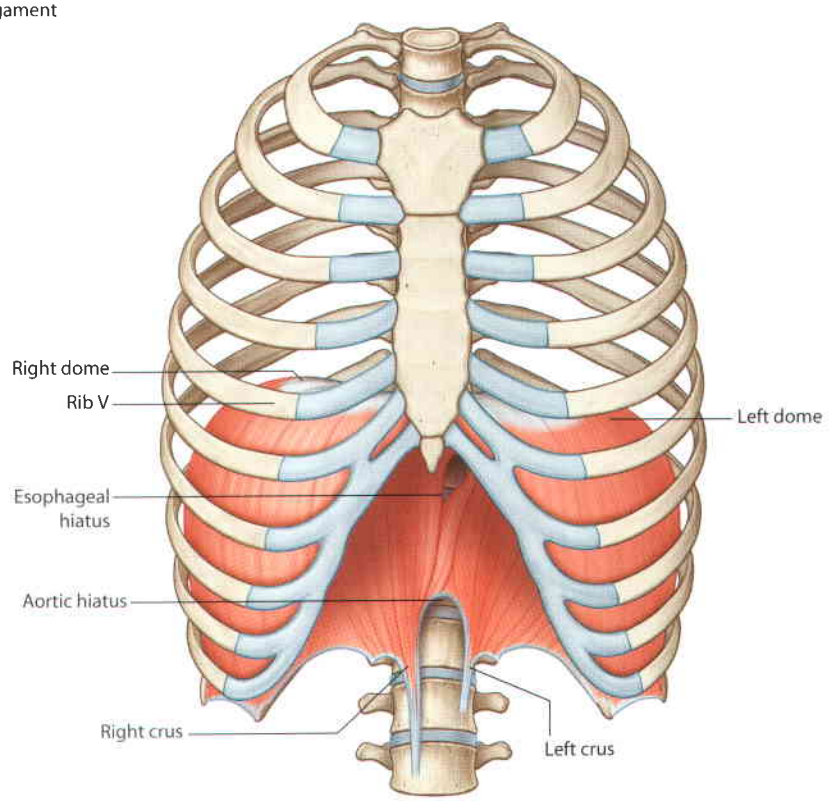
Diaphragm within the rib cage



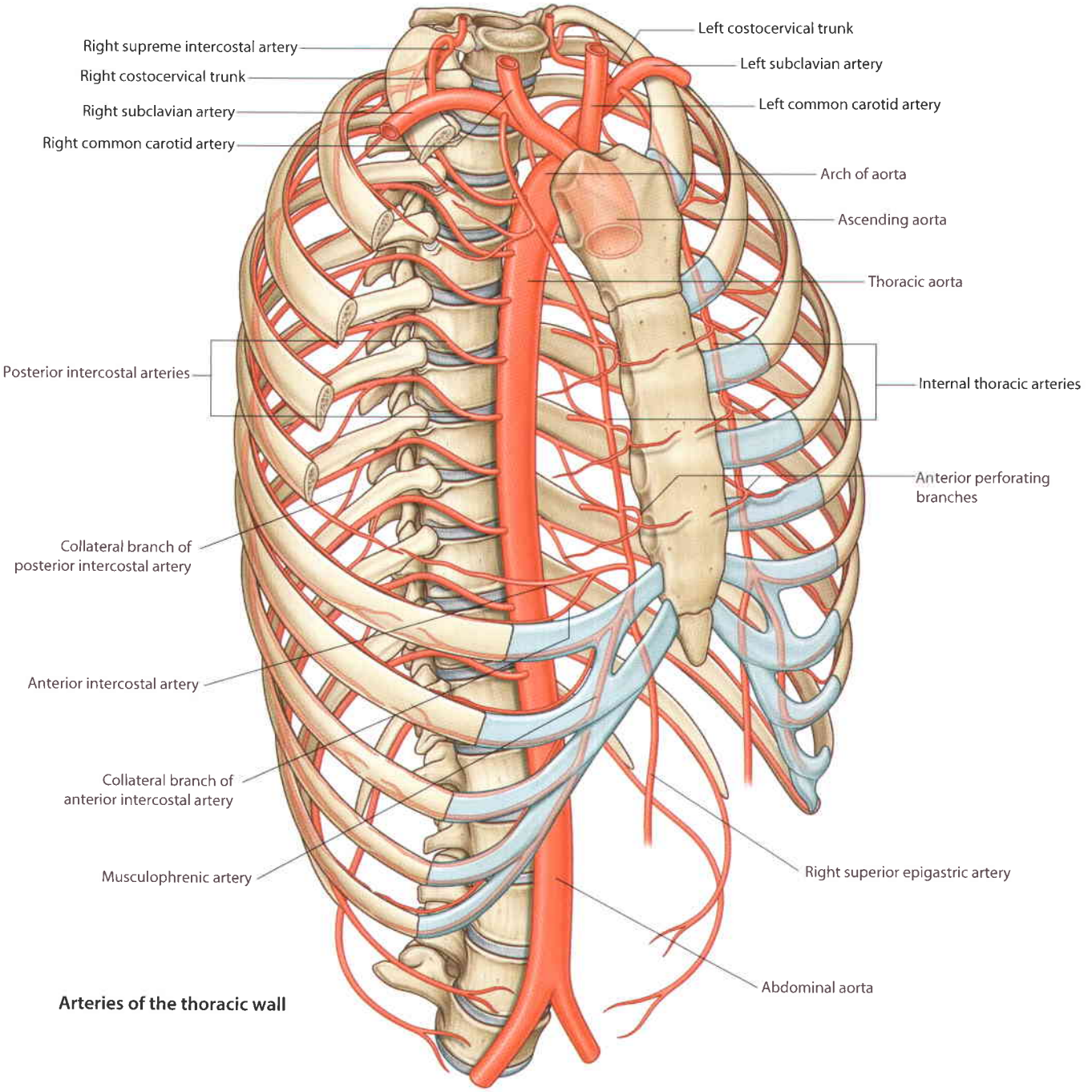
Diaphragm superior view



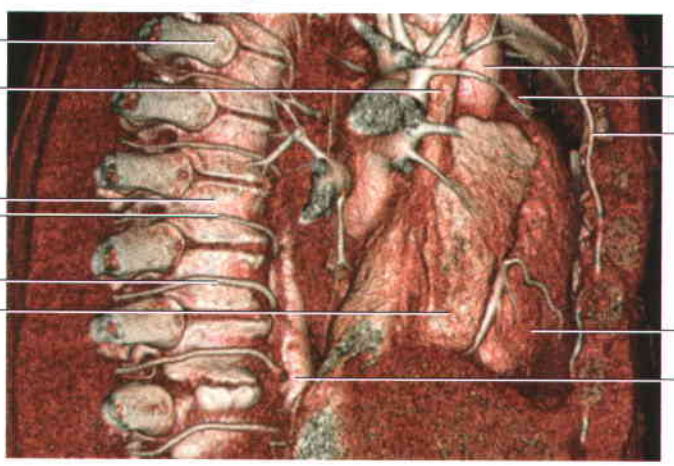
Major structures that pass through the diaphragm



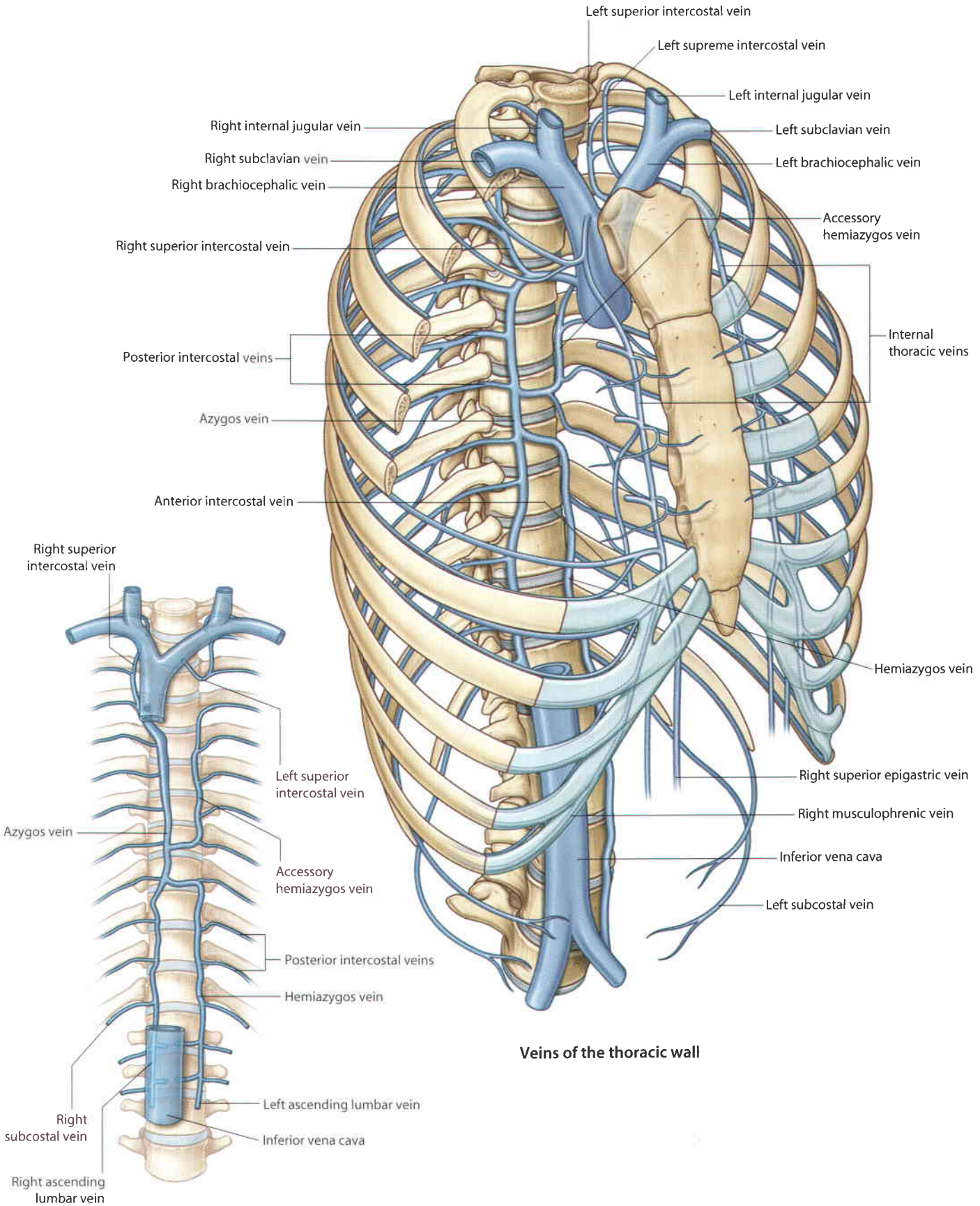
Features of diaphragm



Arteries of the thoracic wall

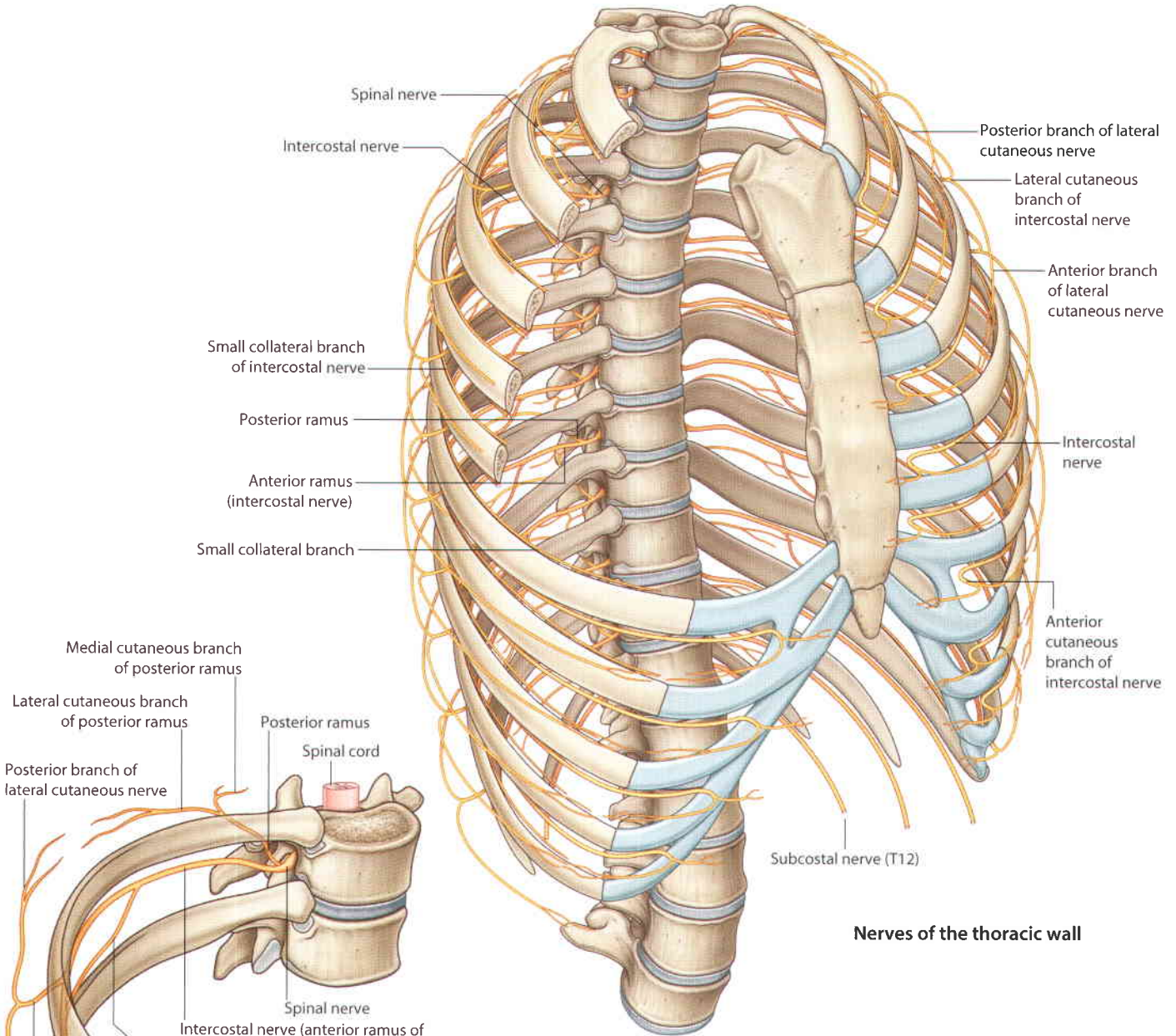


Arteries of the thoracic wall.
Volume-rendered right lateral view of structures in the thorax using multidetector computed tomography

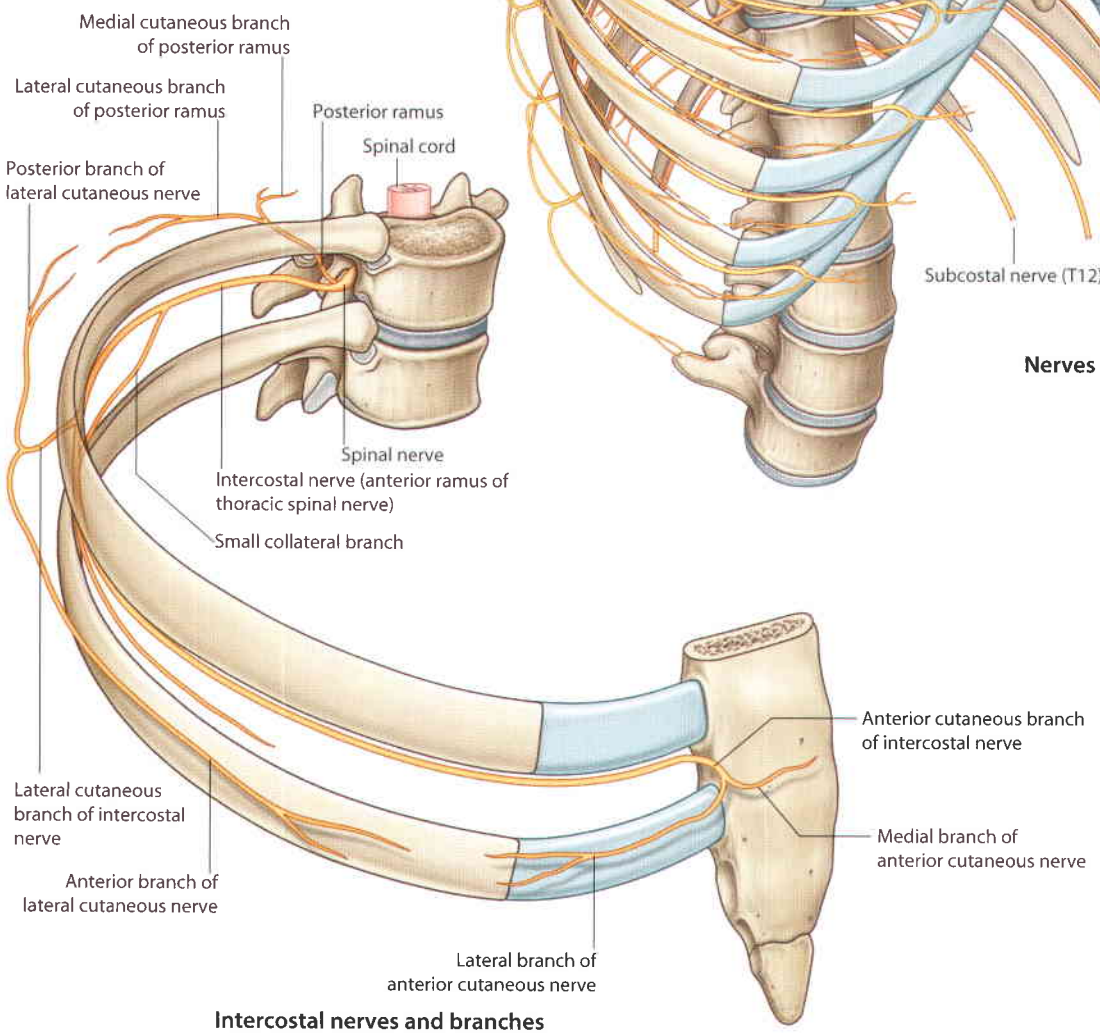


Veins of the thoracic wall

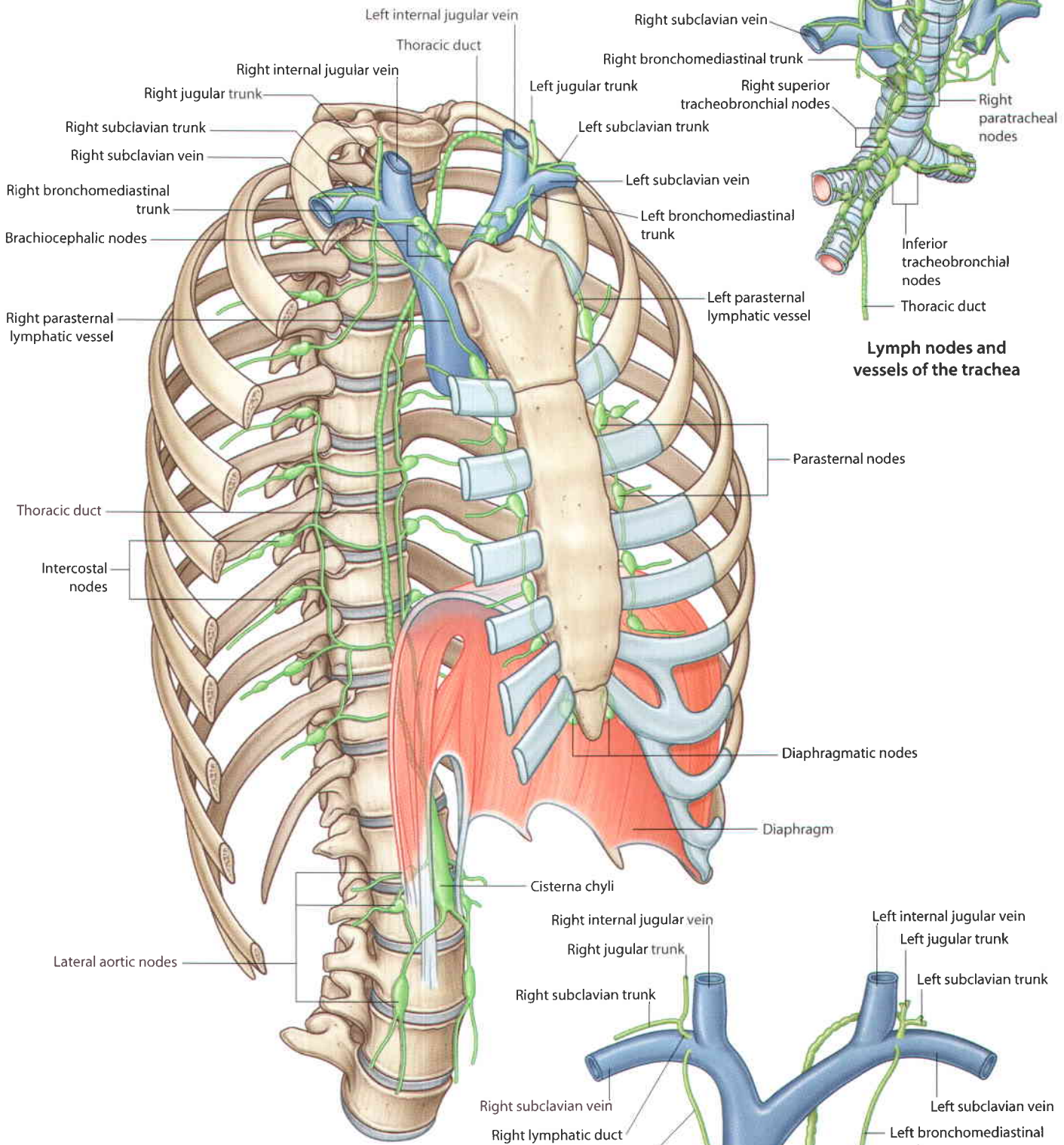
Azygos system of veins



Nerves of the thoracic wall



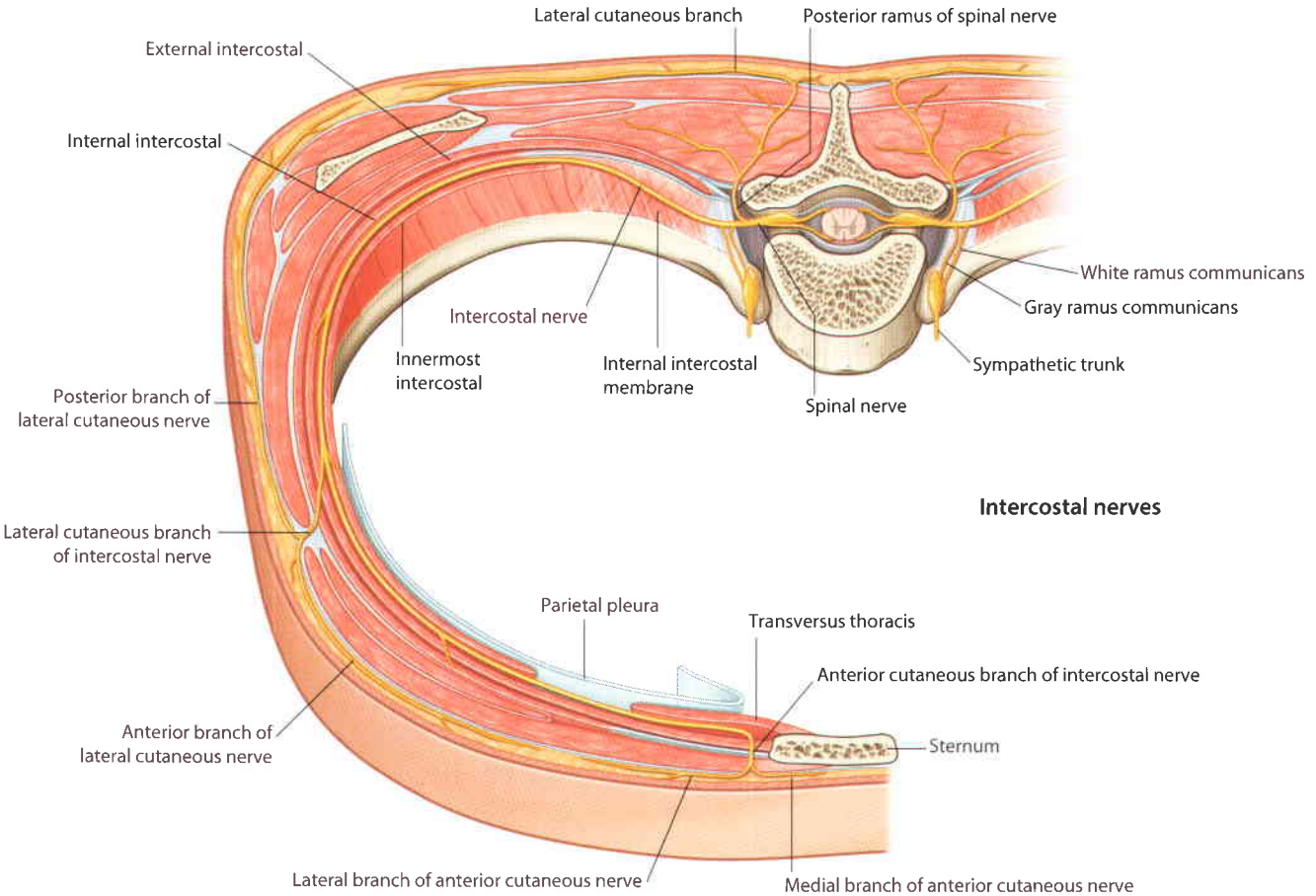
Intercostal nerves and branches



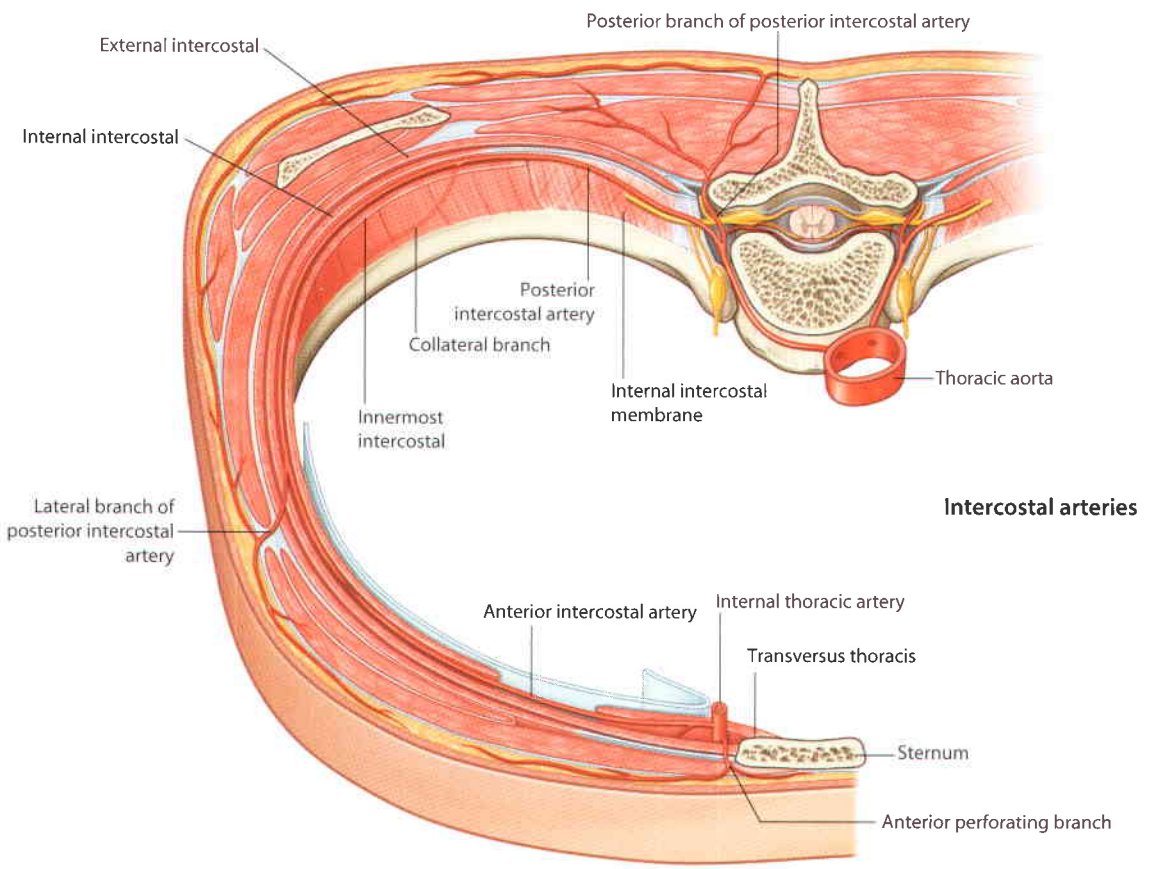
Major lymphatic vessels and nodes of the thoracic wall

Lymph nodes and vessels of the trachea

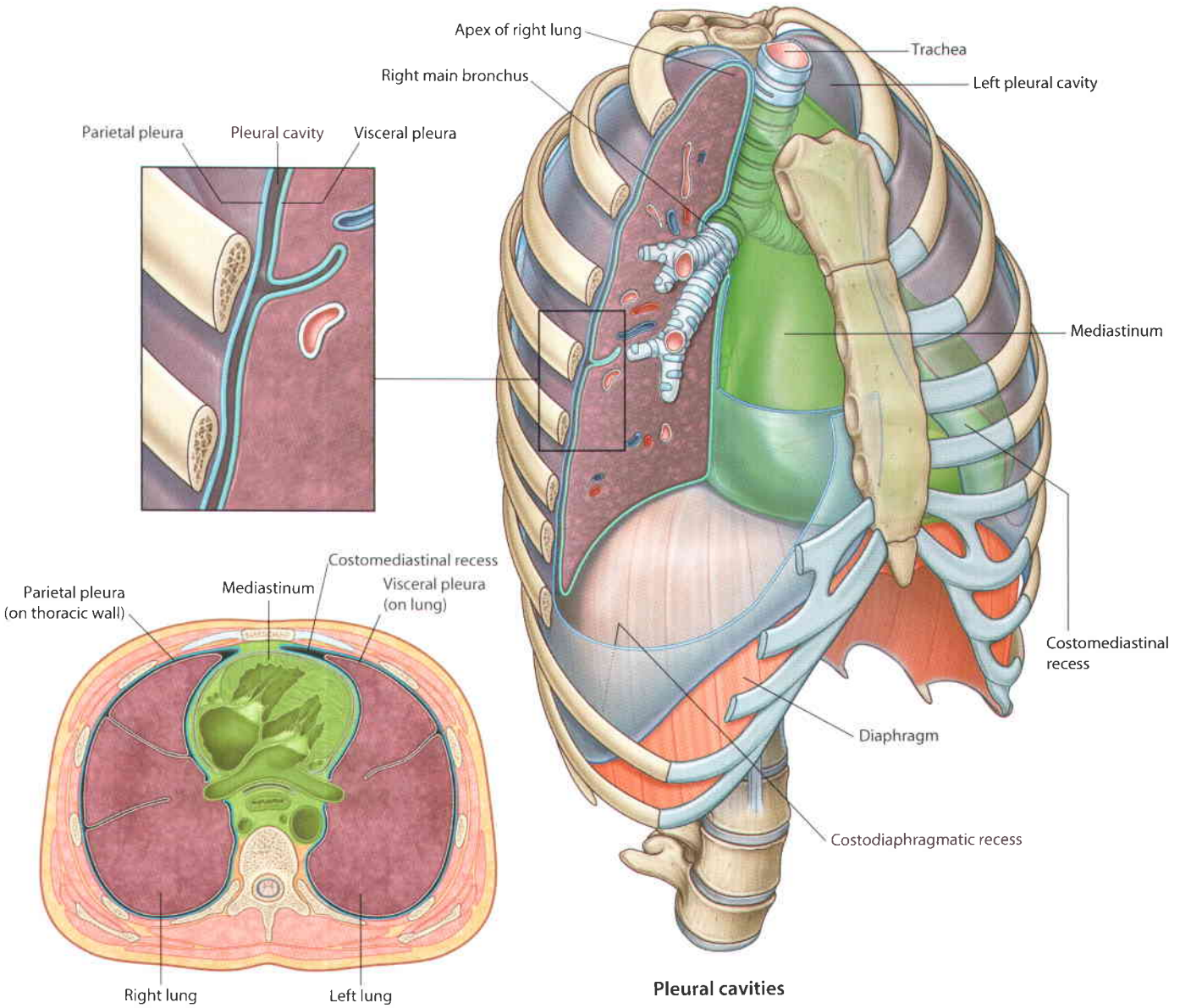
Termination of the lymphatic trunks



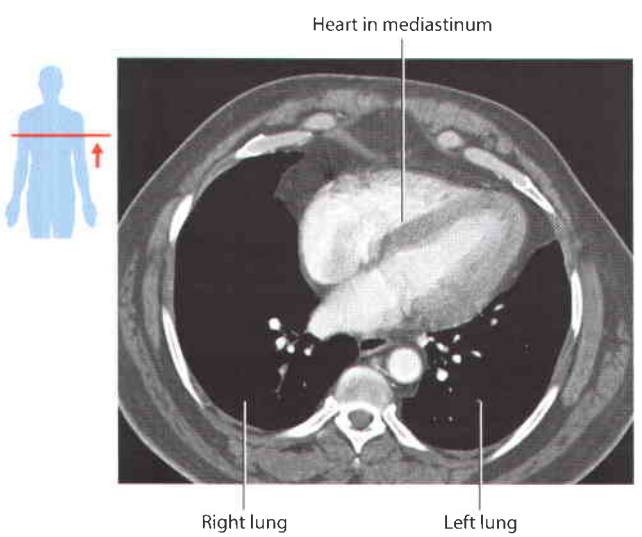
Intercostal nerves



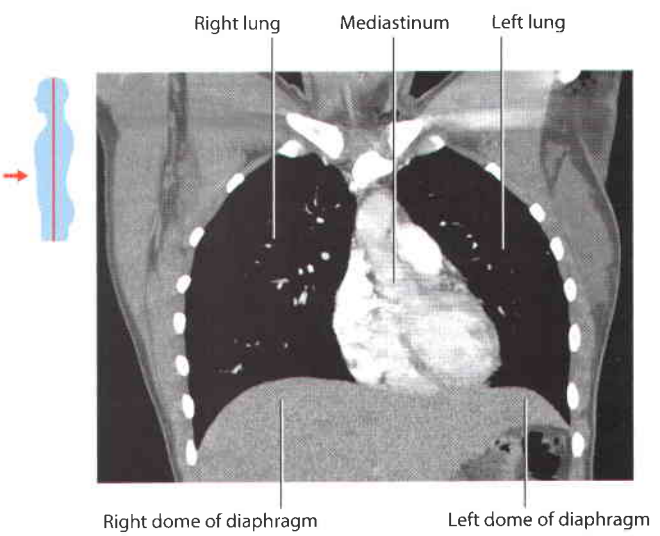
Intercostal arteries



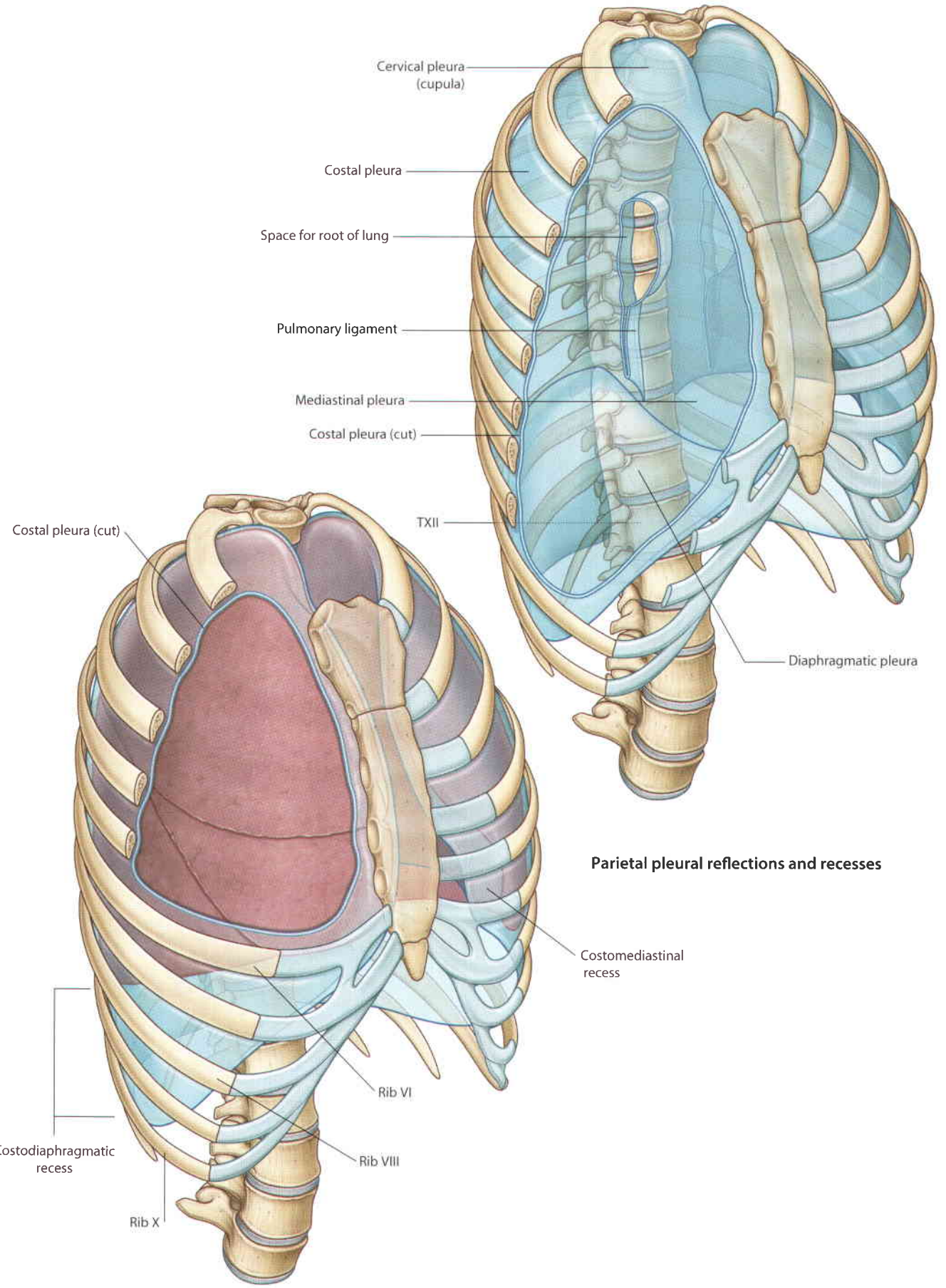
Pleural cavities



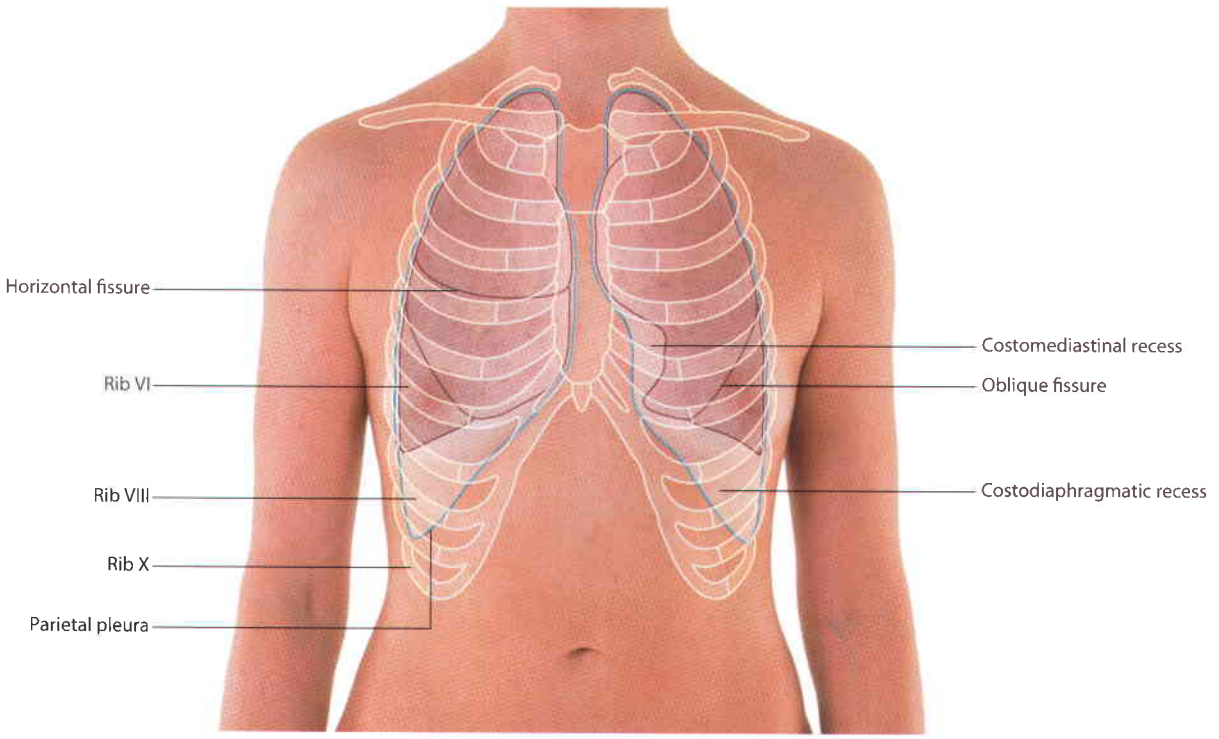
Organization of the thoracic cavity.
CT image, with contrast, in axial plane



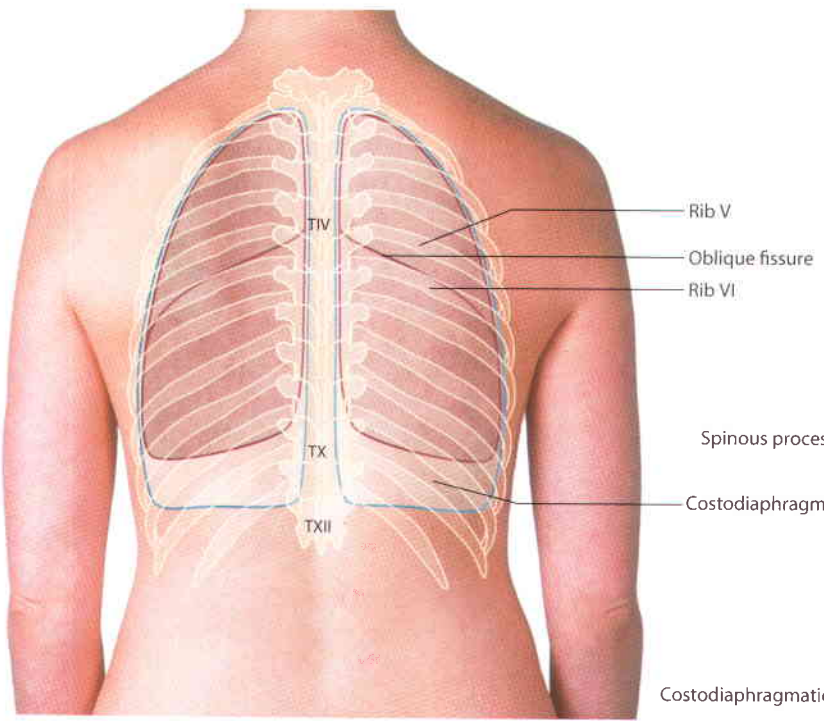
Organization of the thoracic cavity.
CT image, with contrast, in coronal plane



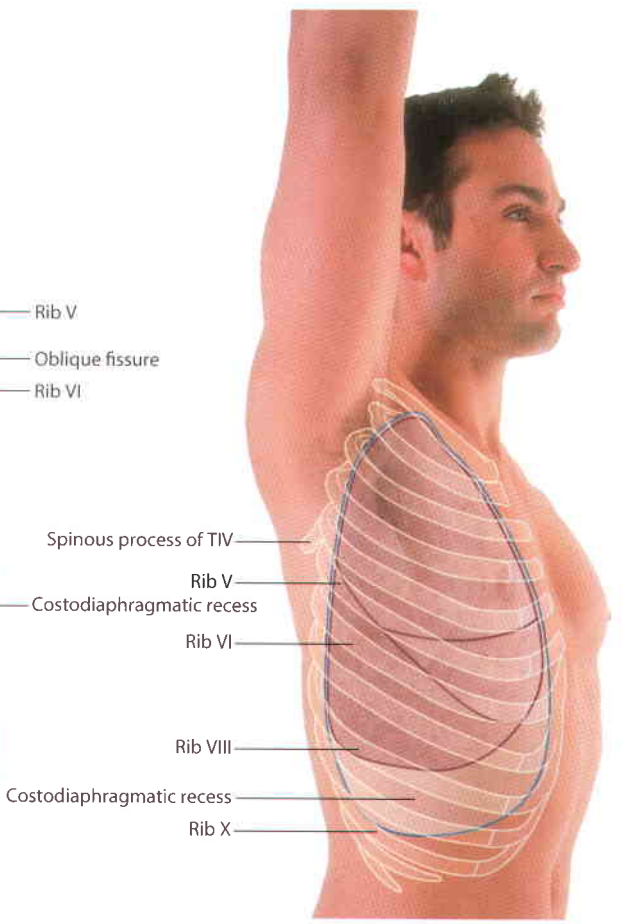
Parietal pleural reflections and recesses



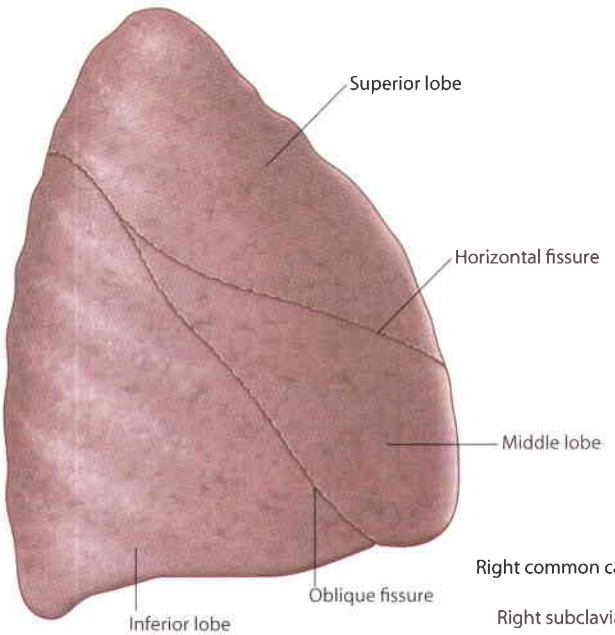
Surface projections of the pleura and lungs (anterior view)



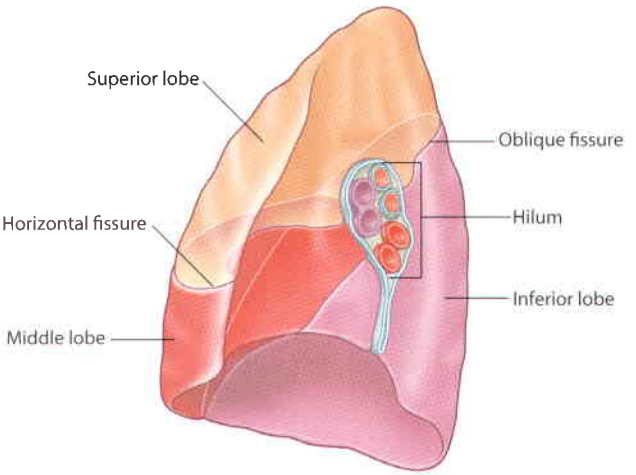
Surface projections of the pleura and lungs (posterior view)



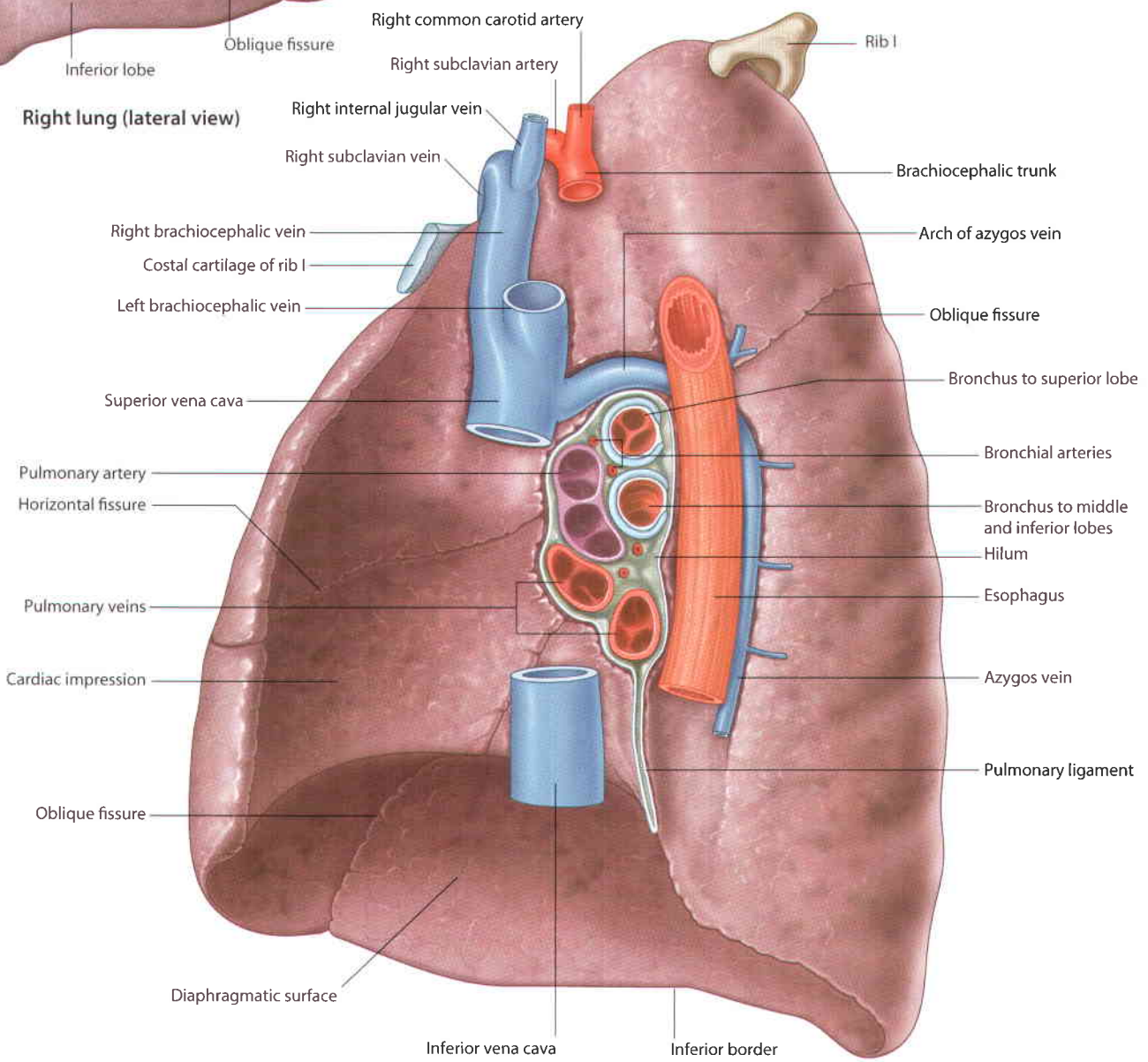
Surface projections of the pleura and right lung (lateral view)



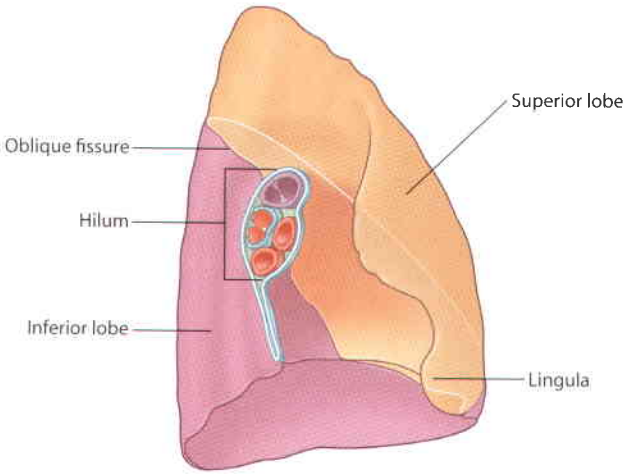
Right lung (lateral view)



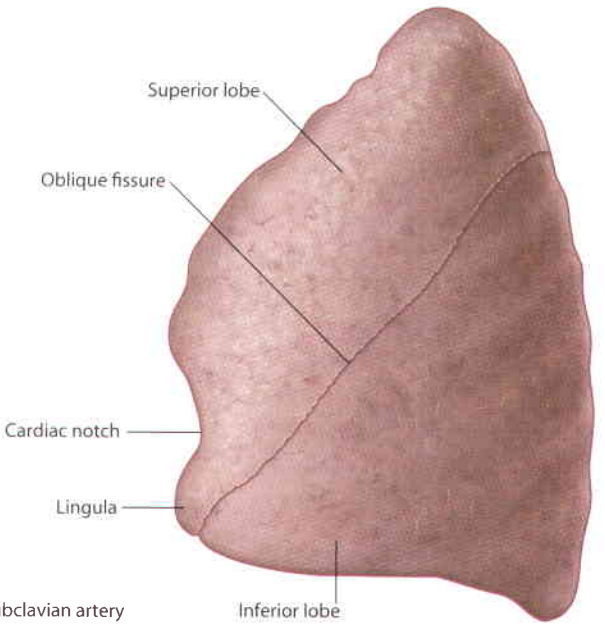
Lobes of the right lung (anteromedial view)



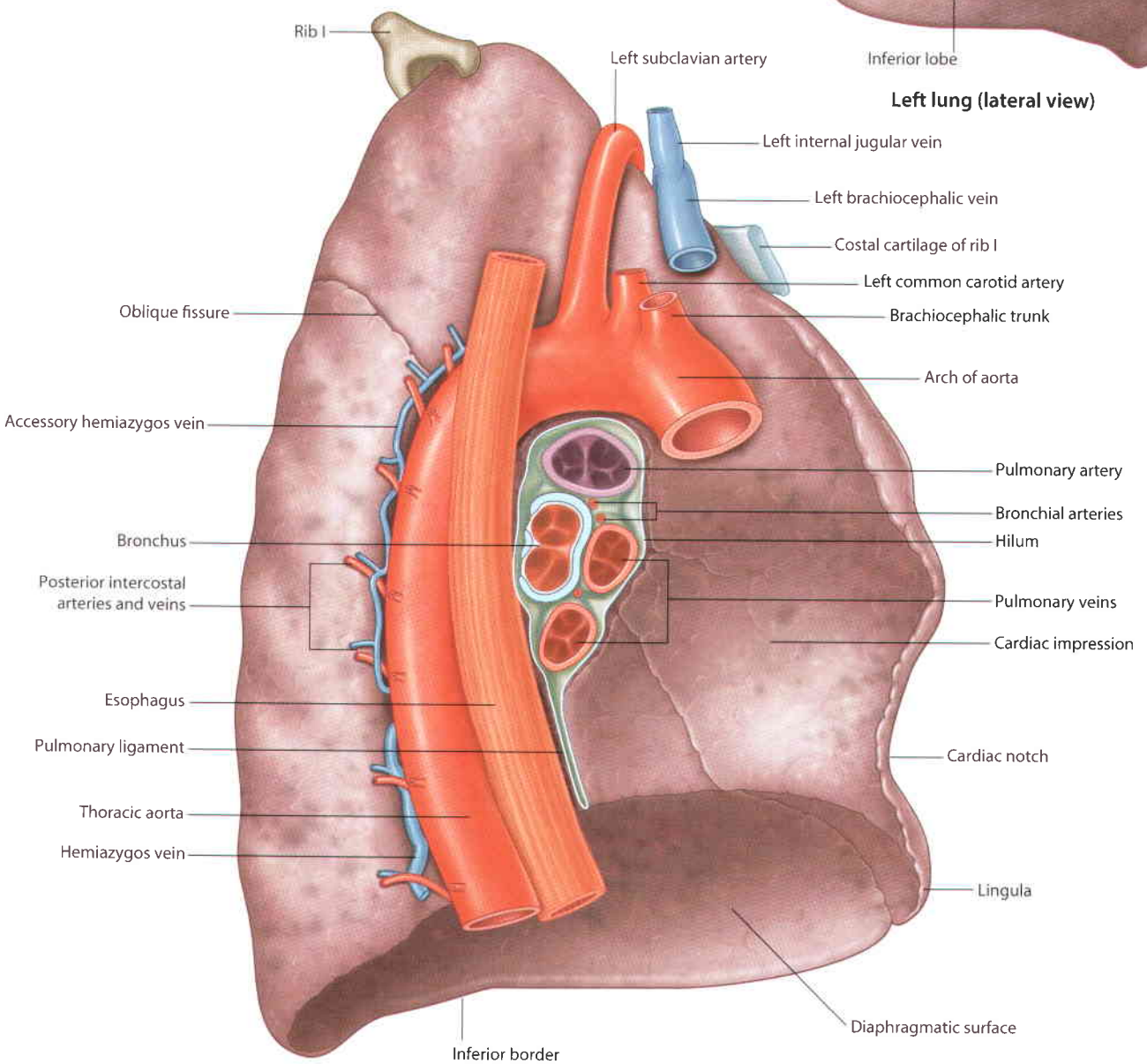
Right lung and related structures (medial view)



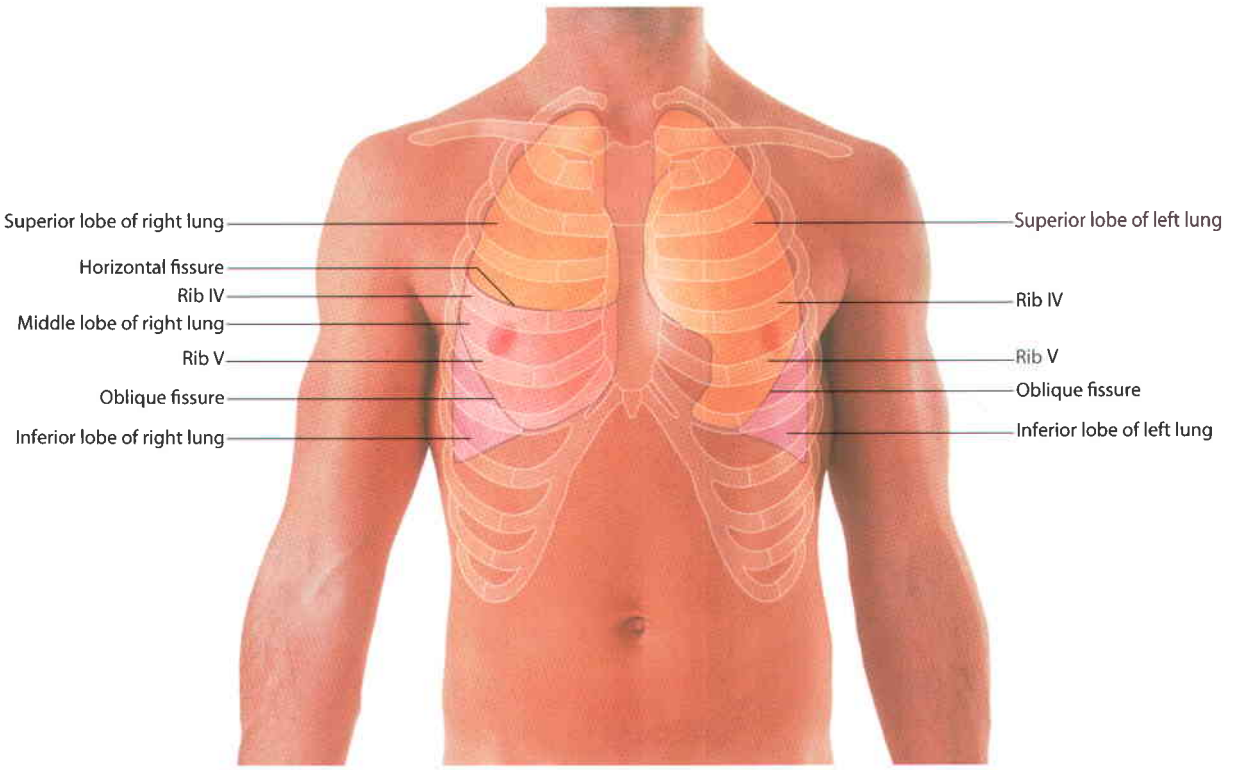
Lobes of the left lung (anteromedial view)



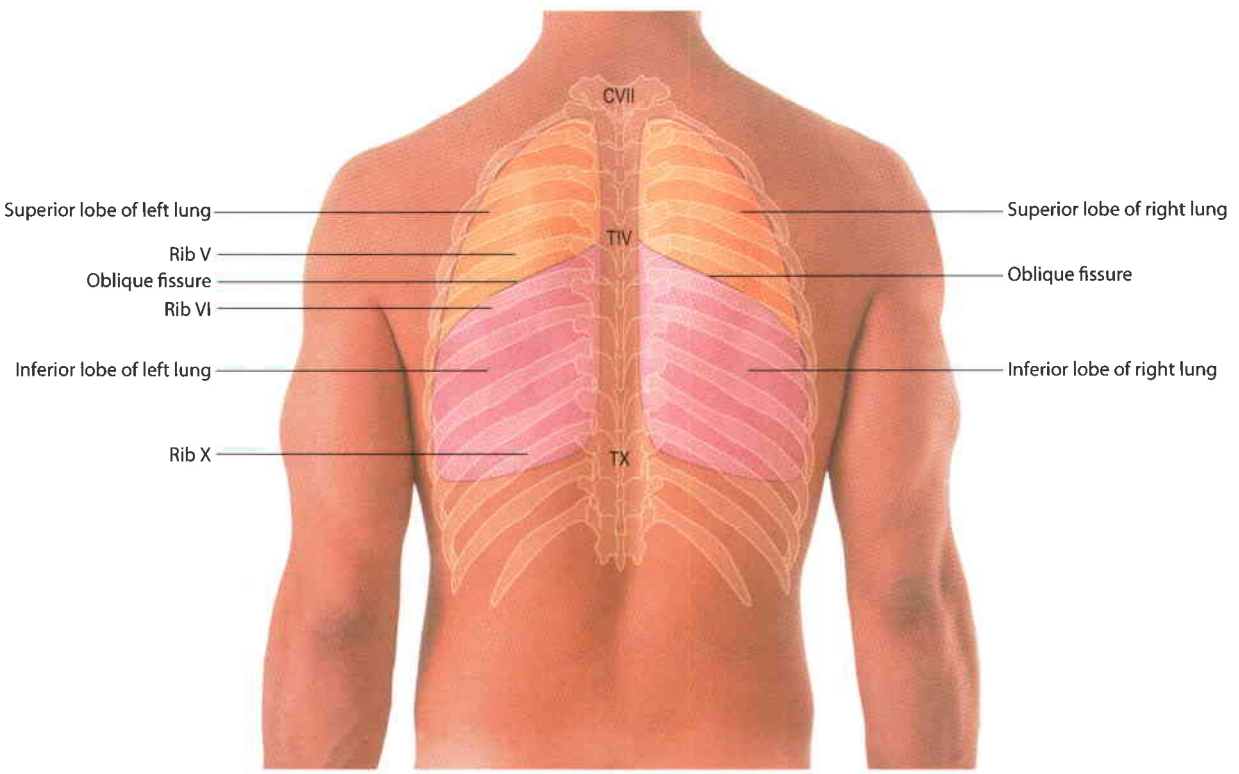
Left lung (lateral view)



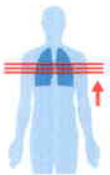
Left lung and related structures (medial view)

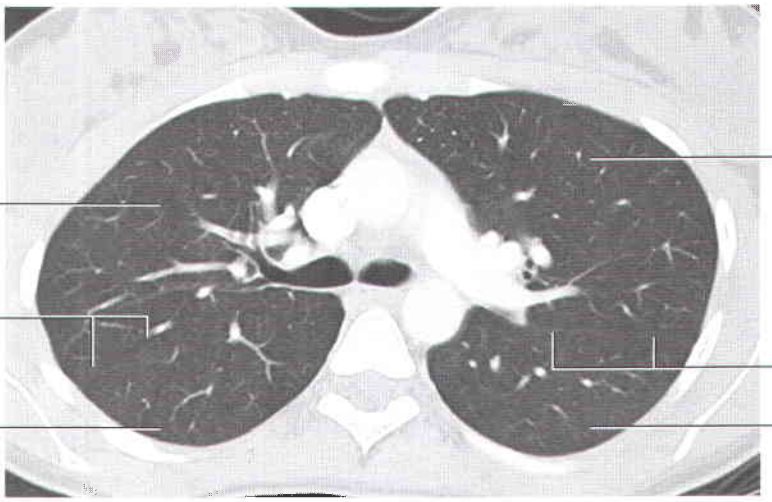


Surface projections of the lobes and fissures of the lungs (anterior view)

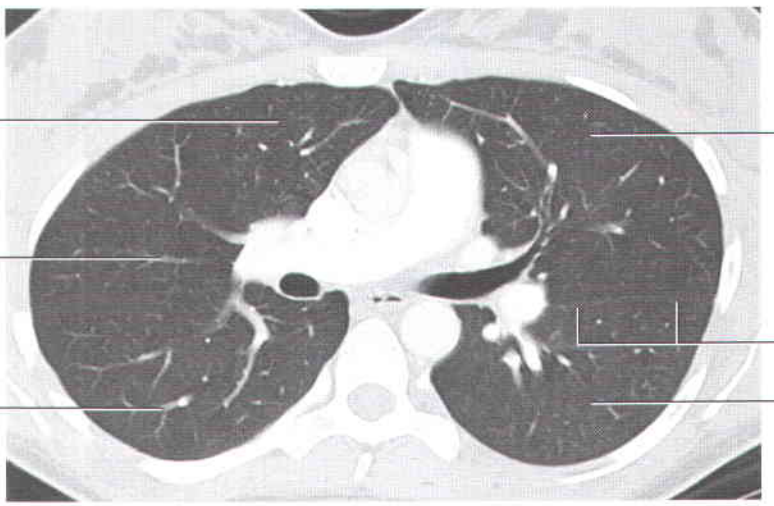


Surface projections of the lobes and fissures of the lungs (posterior view)

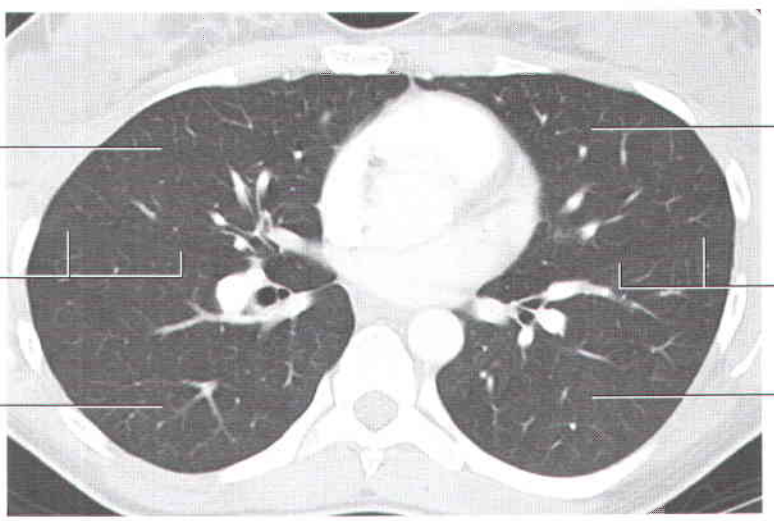




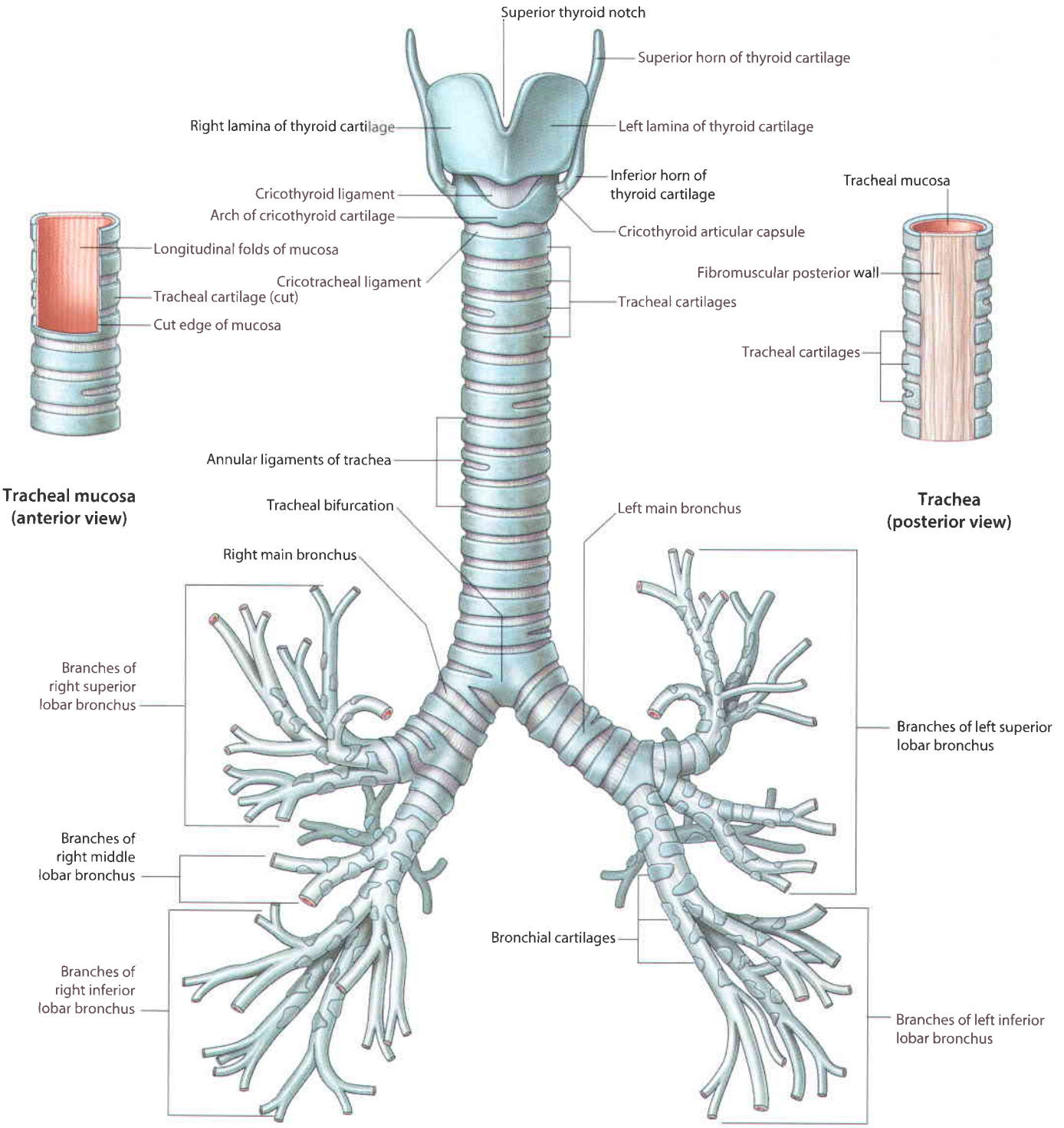
Right lung and left lung demonstrating superior and inferior lobes. The oblique fissures are visible.
CT image, with contrast, in axial plane



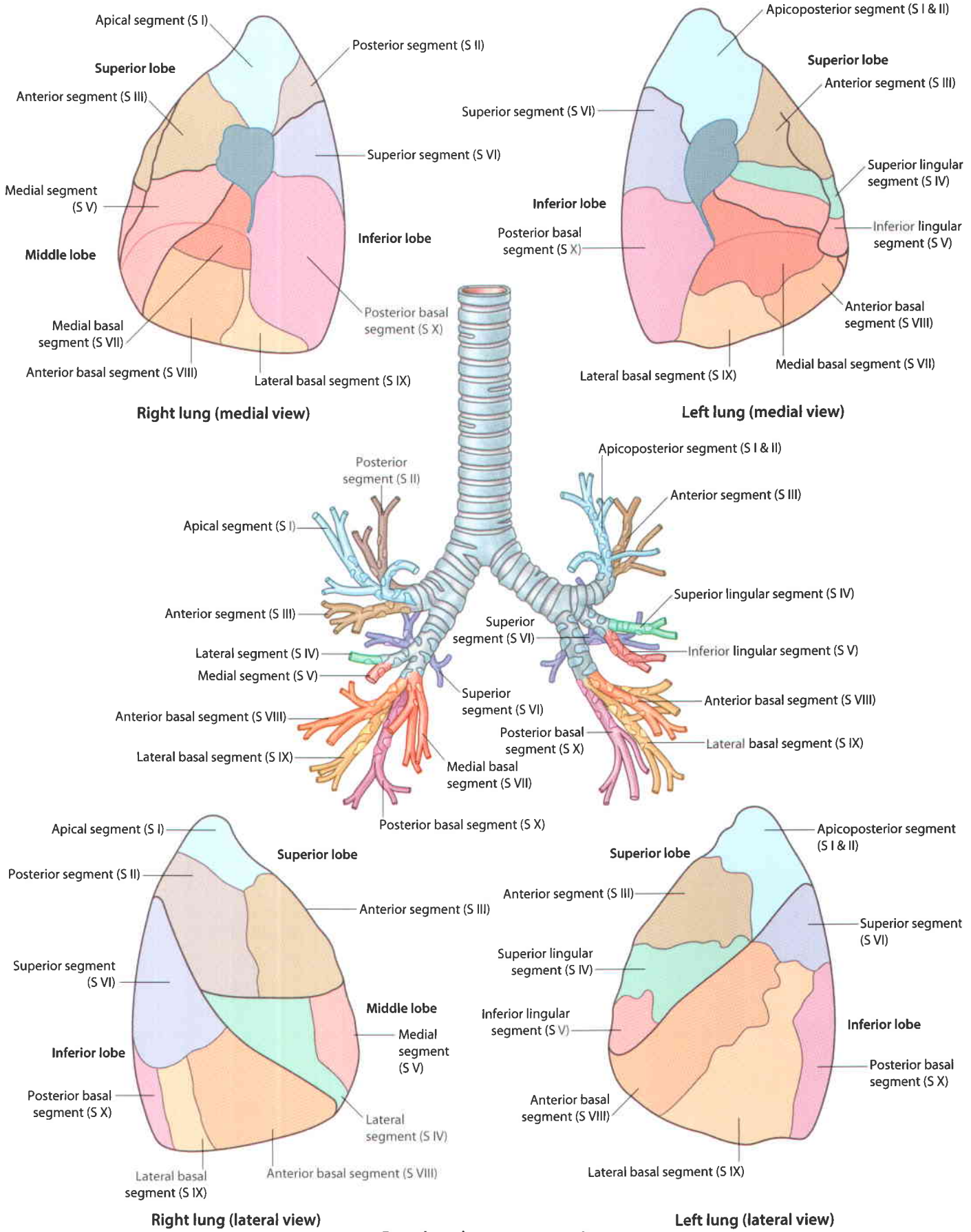
Right lung demonstrating superior, middle, and inferior lobes and the left lung demonstrating superior and inferior lobes. The oblique fissure associated with the left lung is visible.
CT image, with contrast, in axial plane



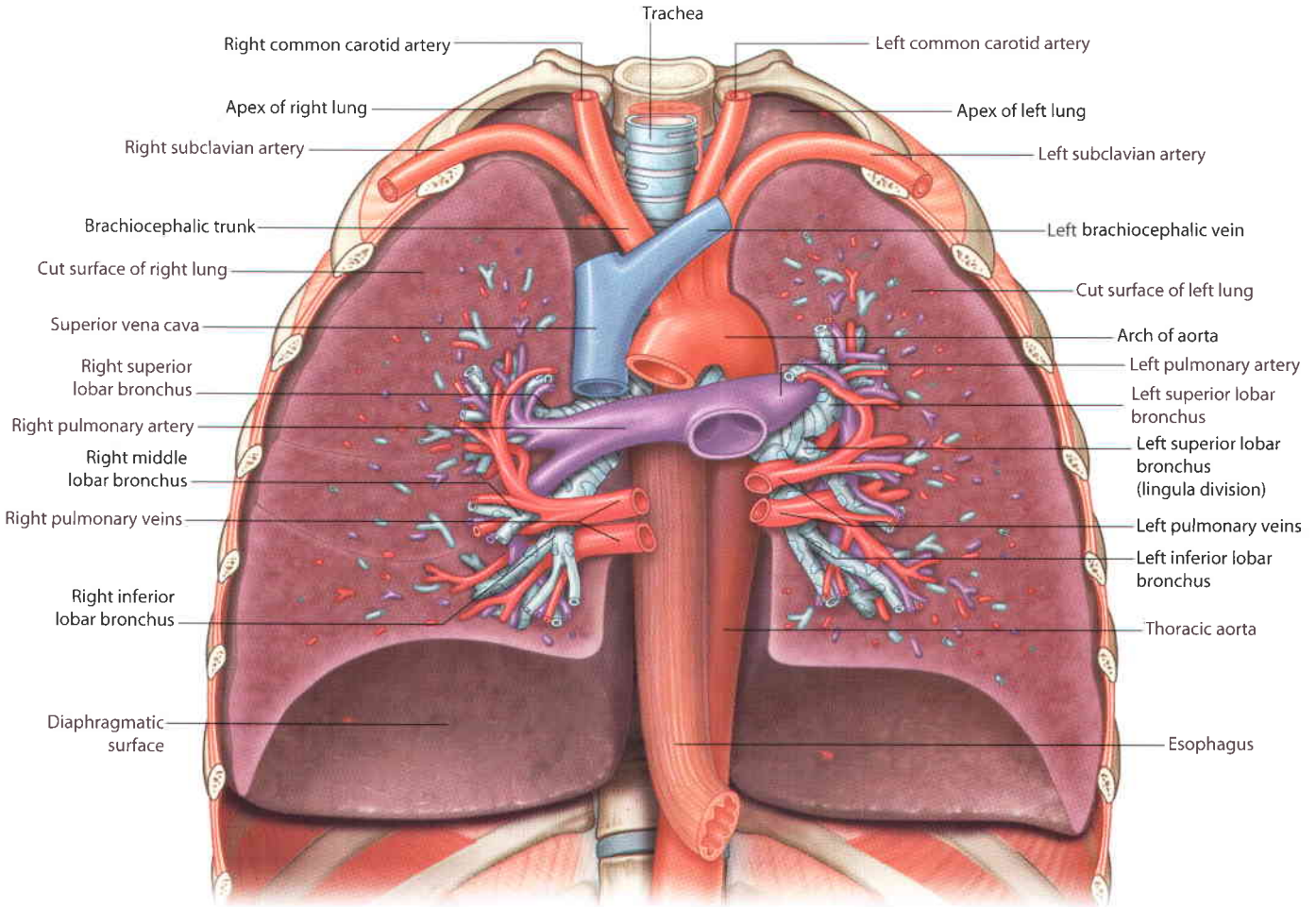
Right lung demonstrating middle and inferior lobes and the left lung demonstrating superior and inferior lobes. The oblique fissures are visible.
CT image, with contrast, in axial plane



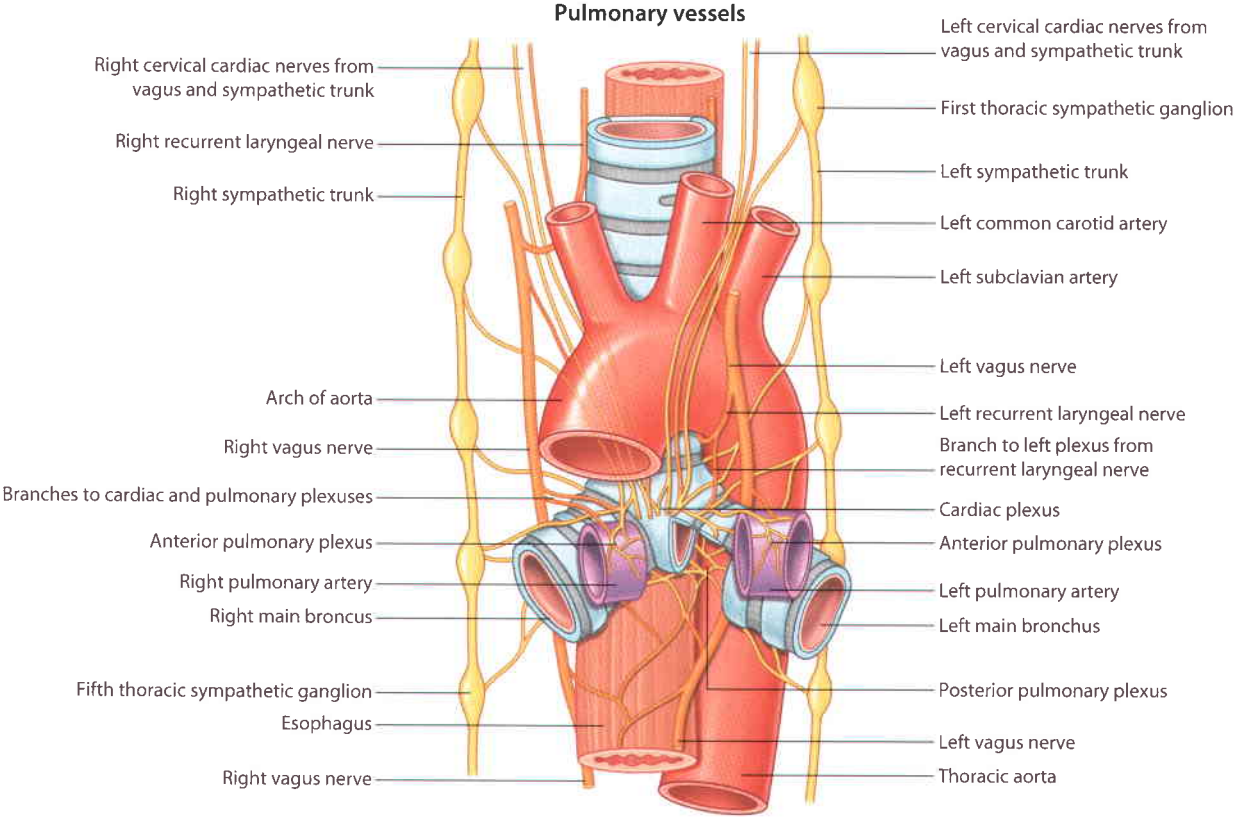
Trachea and bronchial tree



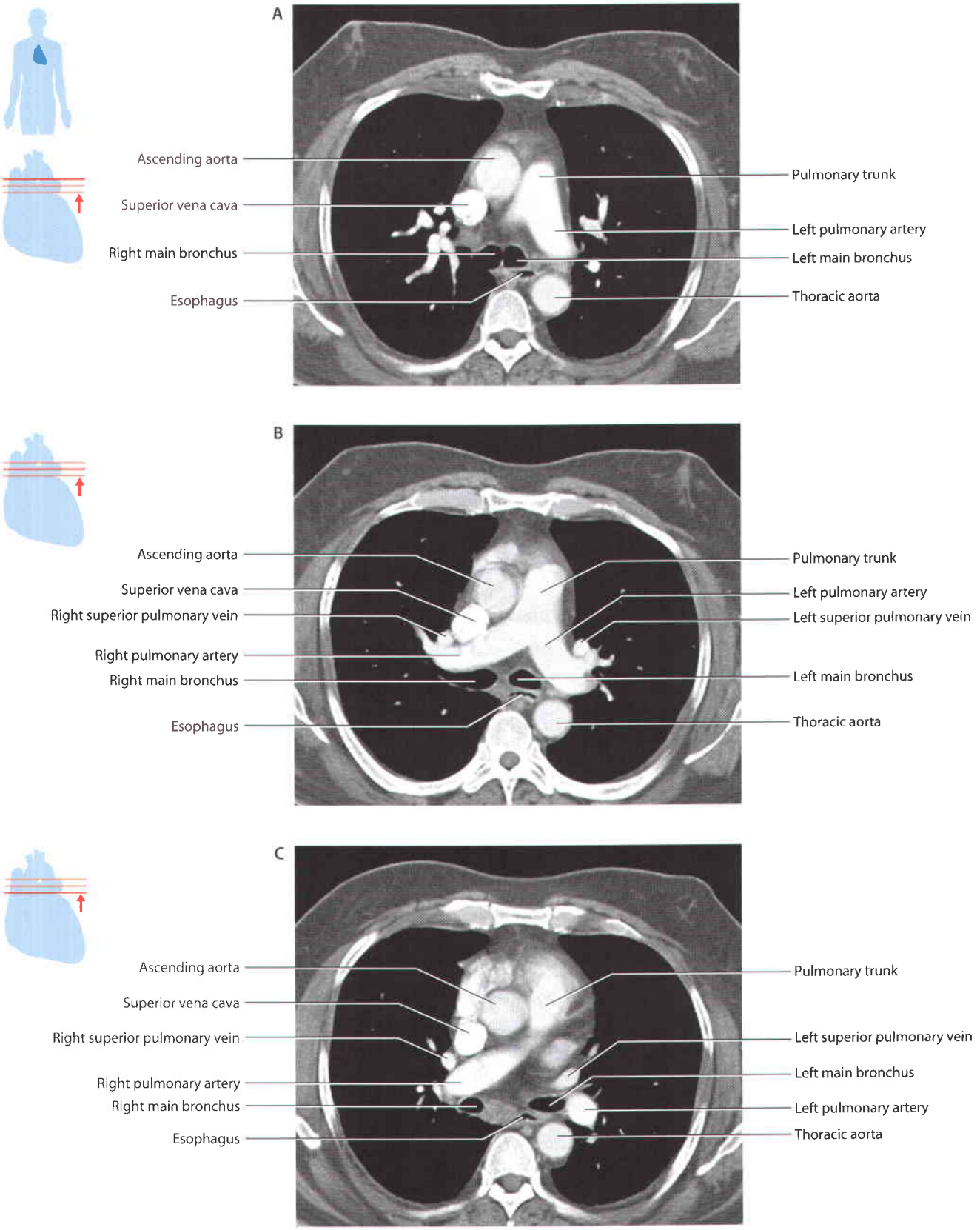
Bronchopulmonary segments



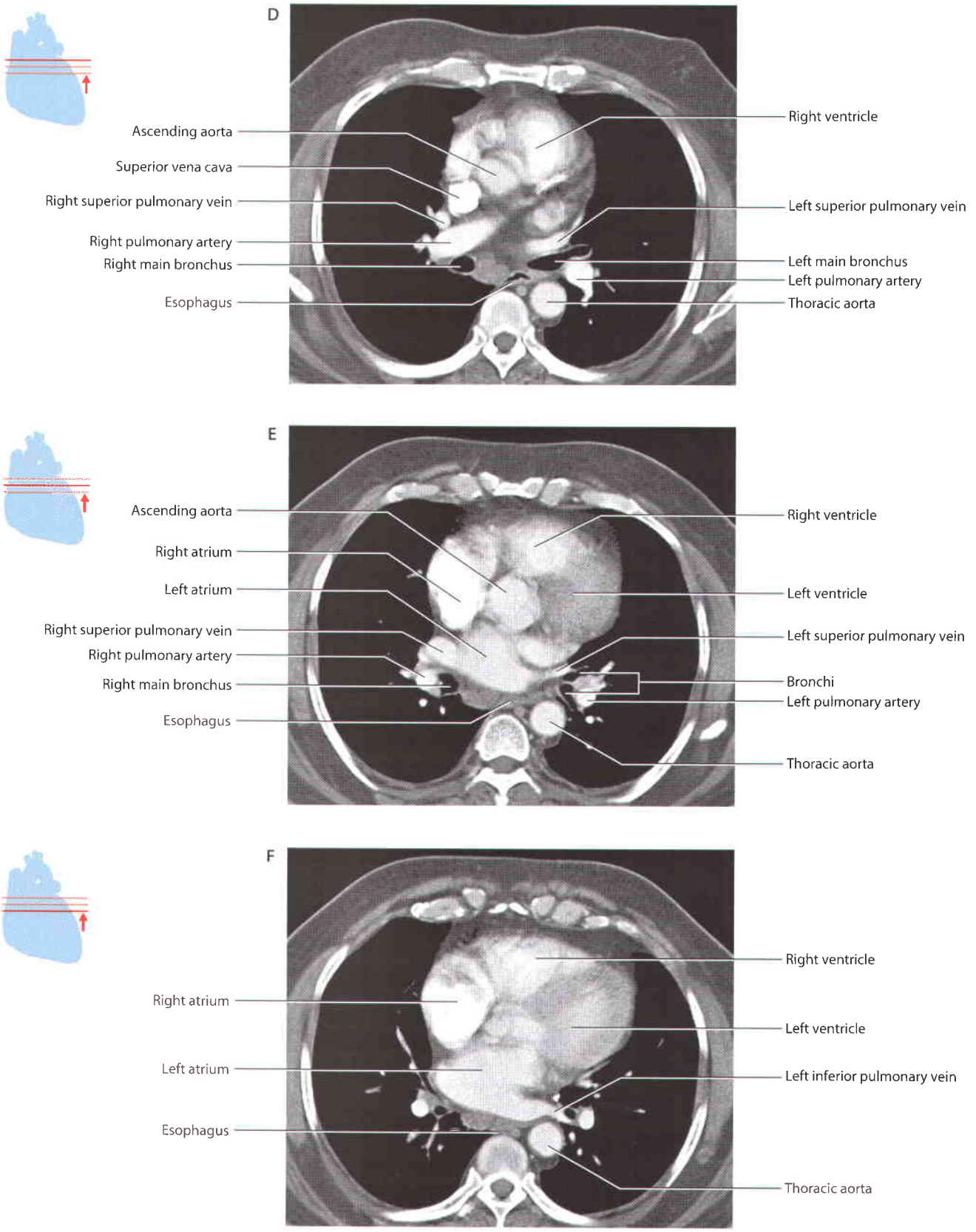
Pulmonary vessels



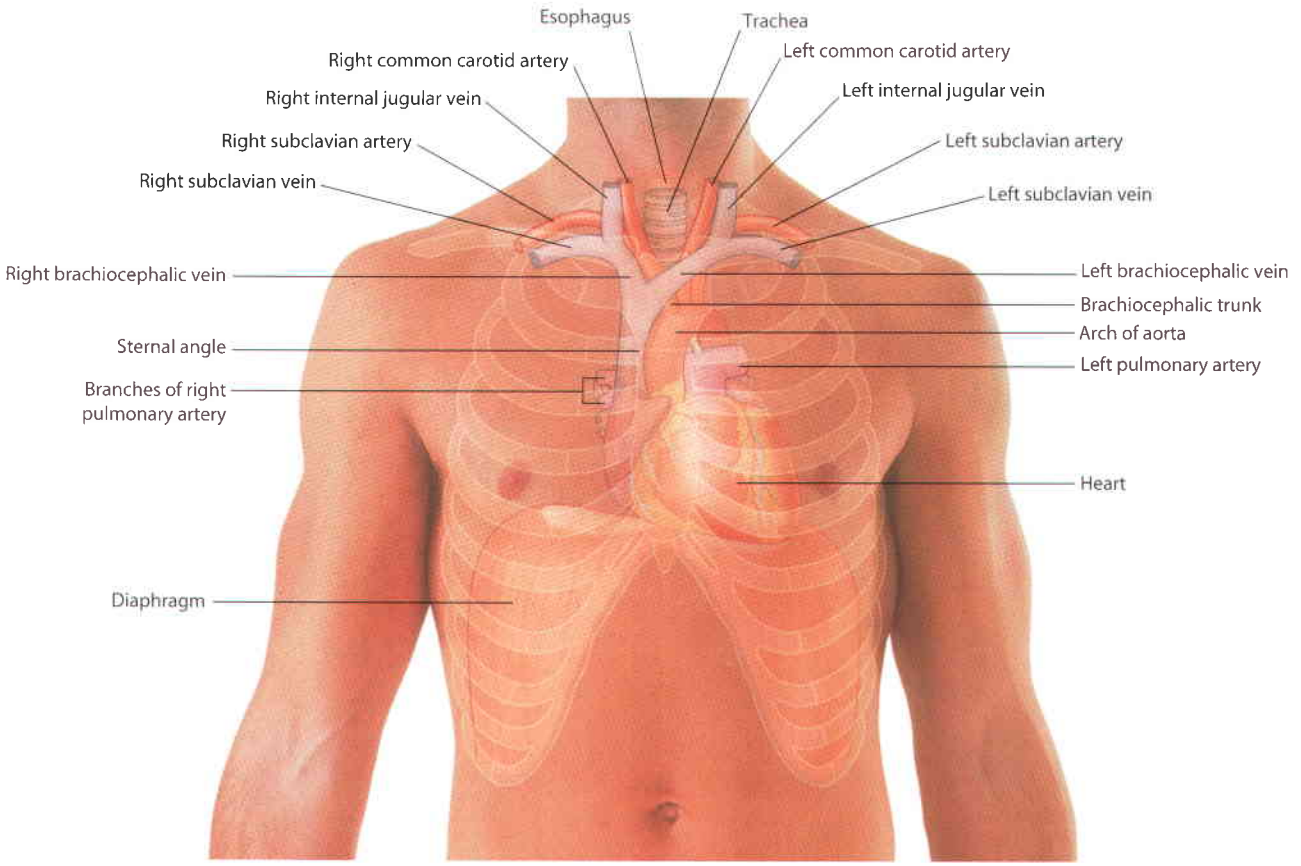
Pulmonary plexus



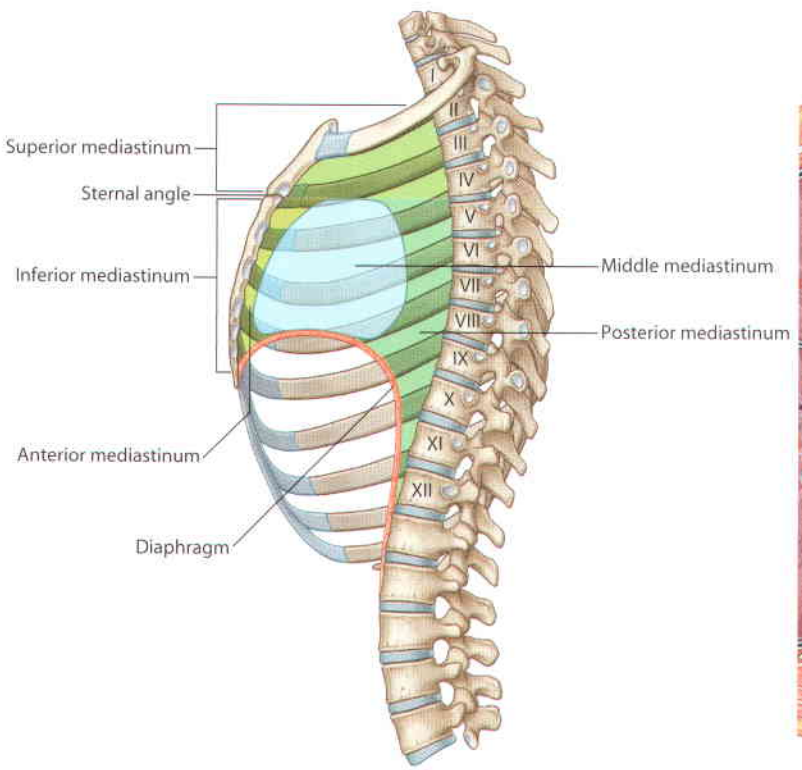
A through C – Relationships of the pulmonary arteries, pulmonary veins, and bronchi in the mediastinum.
CT images, with contrast, in axial plane



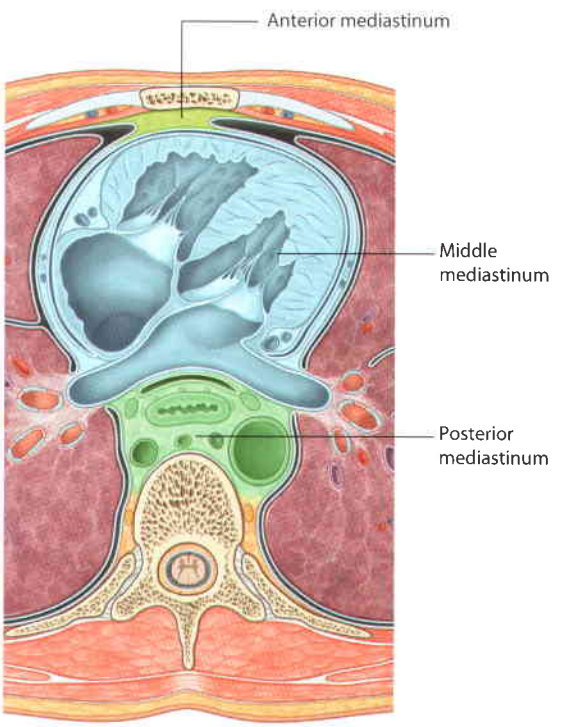
D through F – Relationships of the pulmonary arteries, pulmonary veins, and bronchi in the mediastinum.
CT images, with contrast, in axial plane



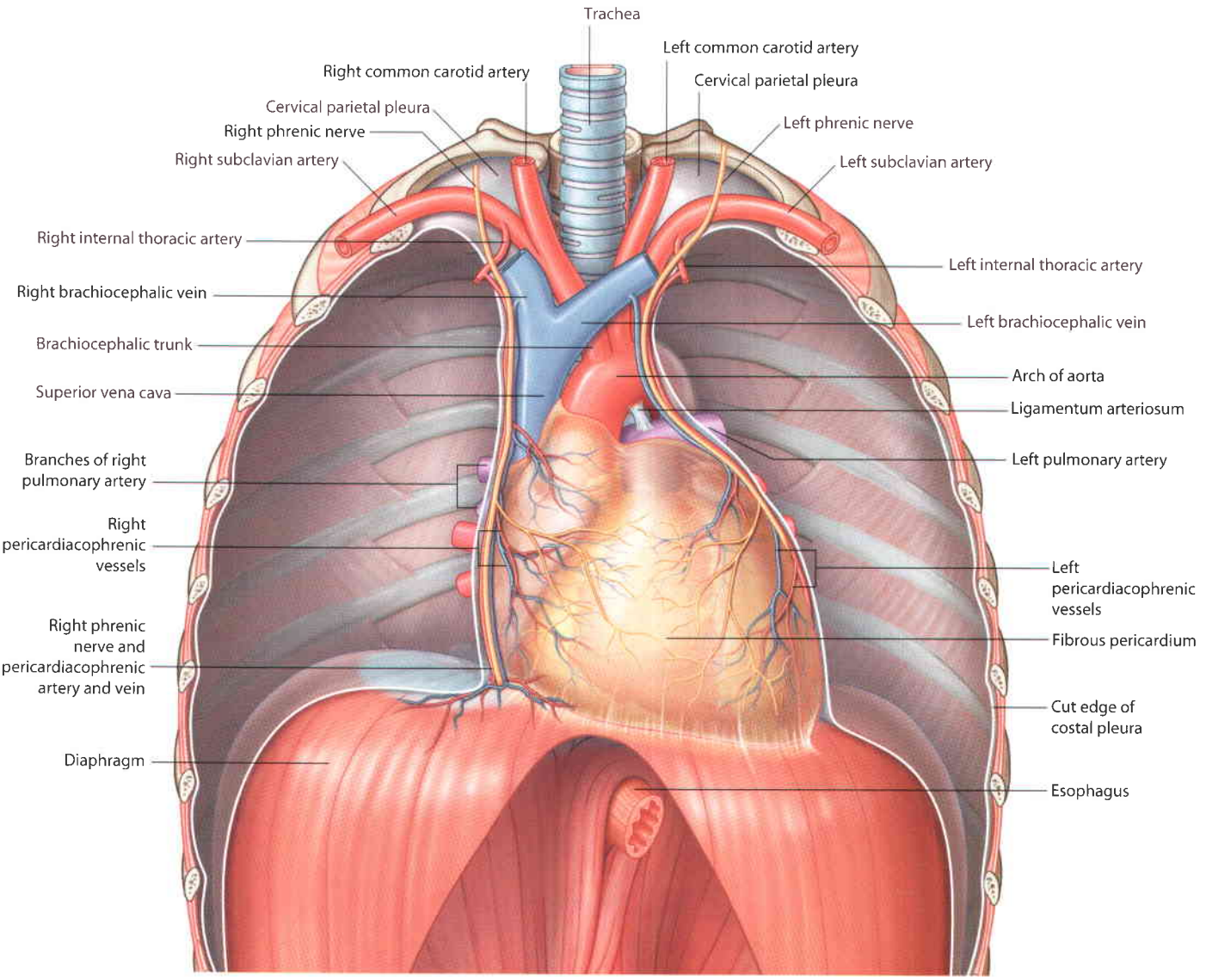
Structures of the mediastinum as they relate to the surface



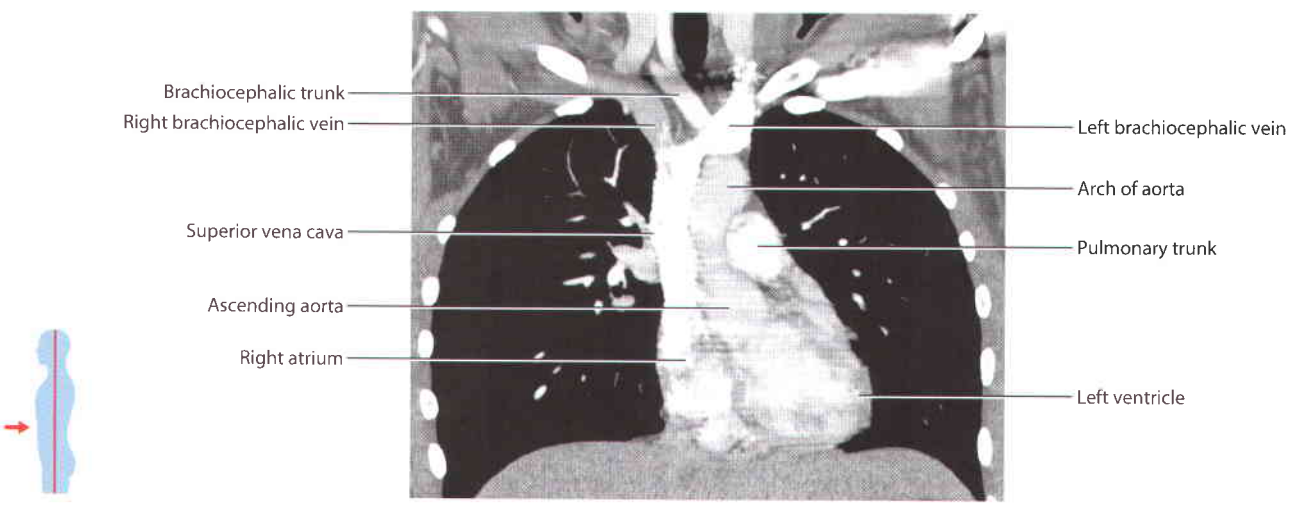
Subdivisions of the mediastinum (sagittal section)



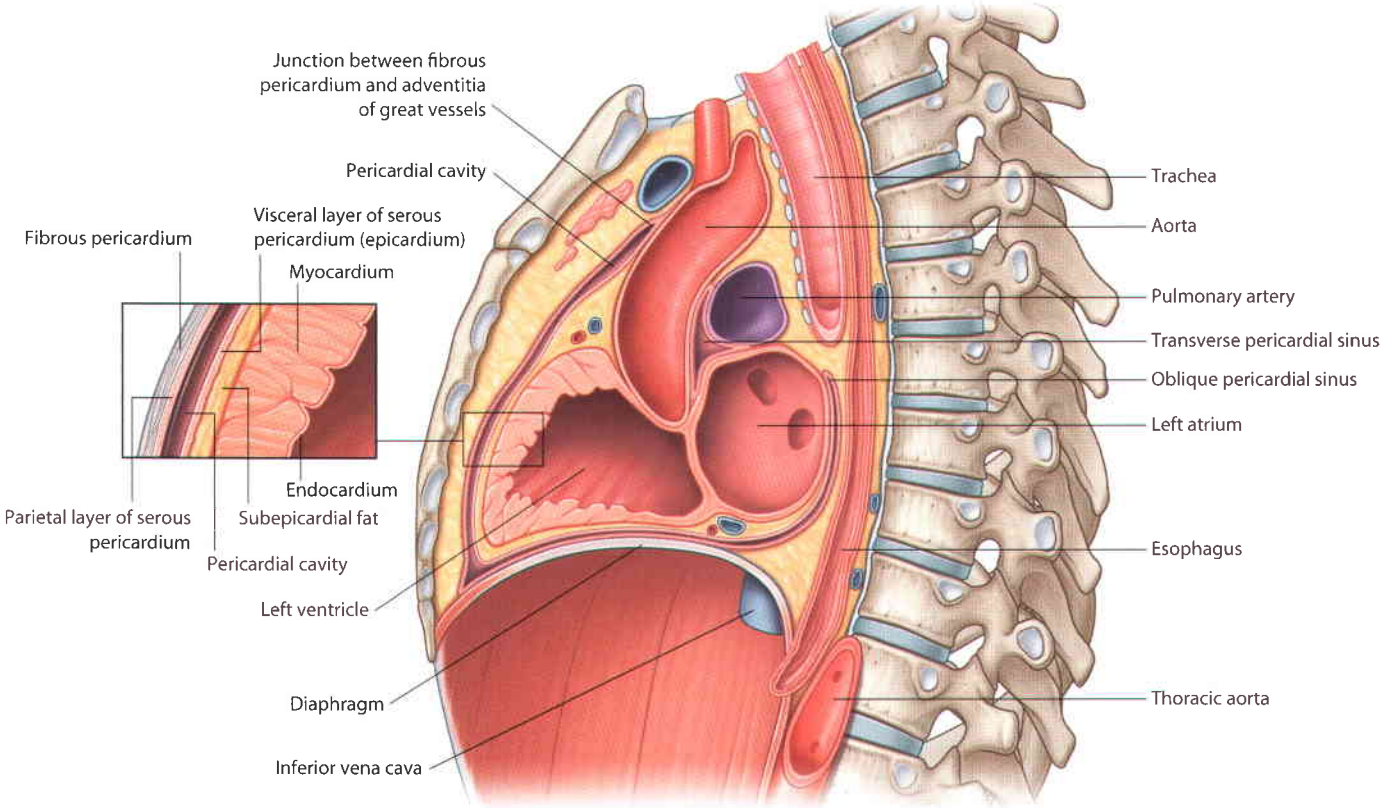
Subdivisions of the mediastinum (transverse section)



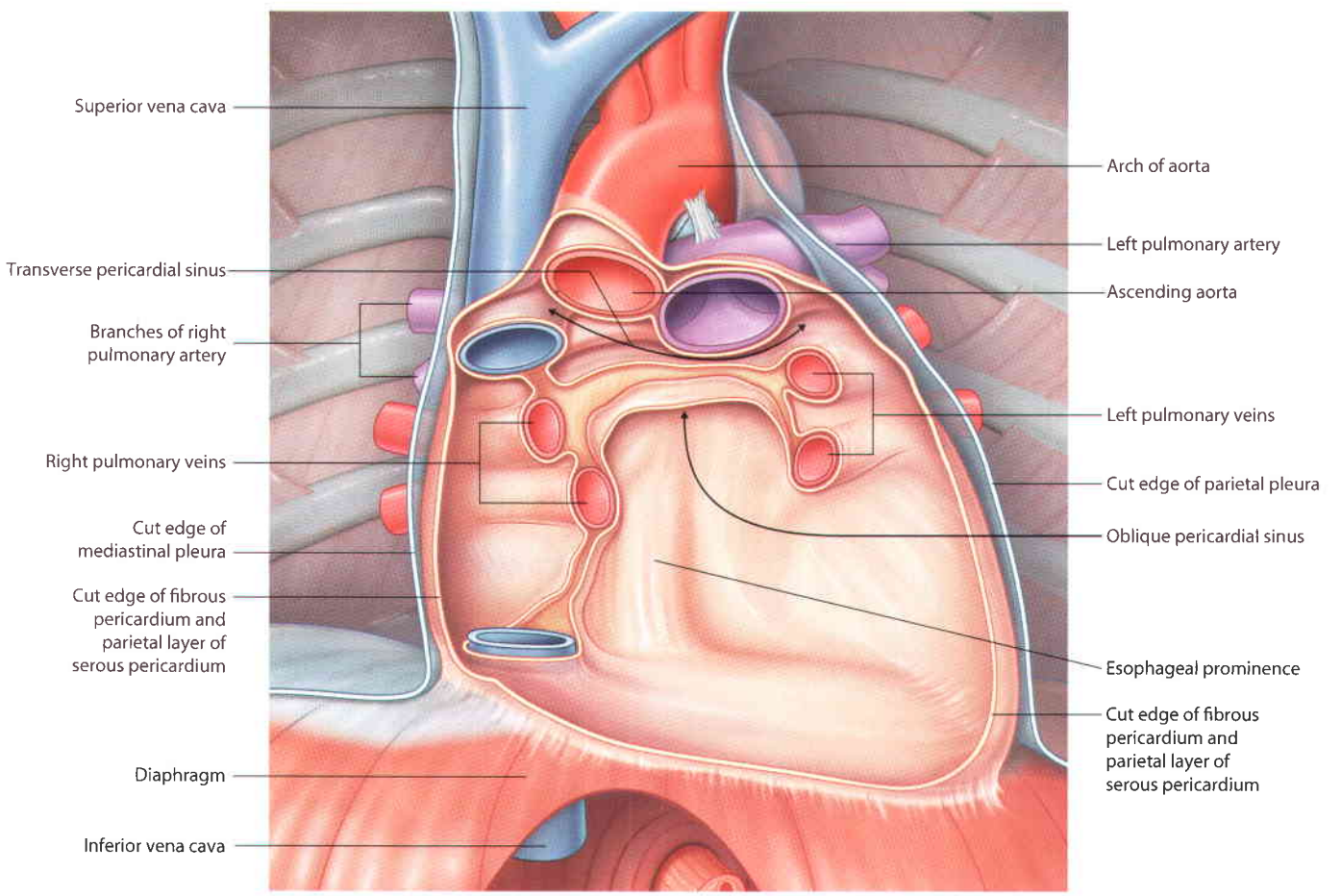
Pericardium with nerves and vessels



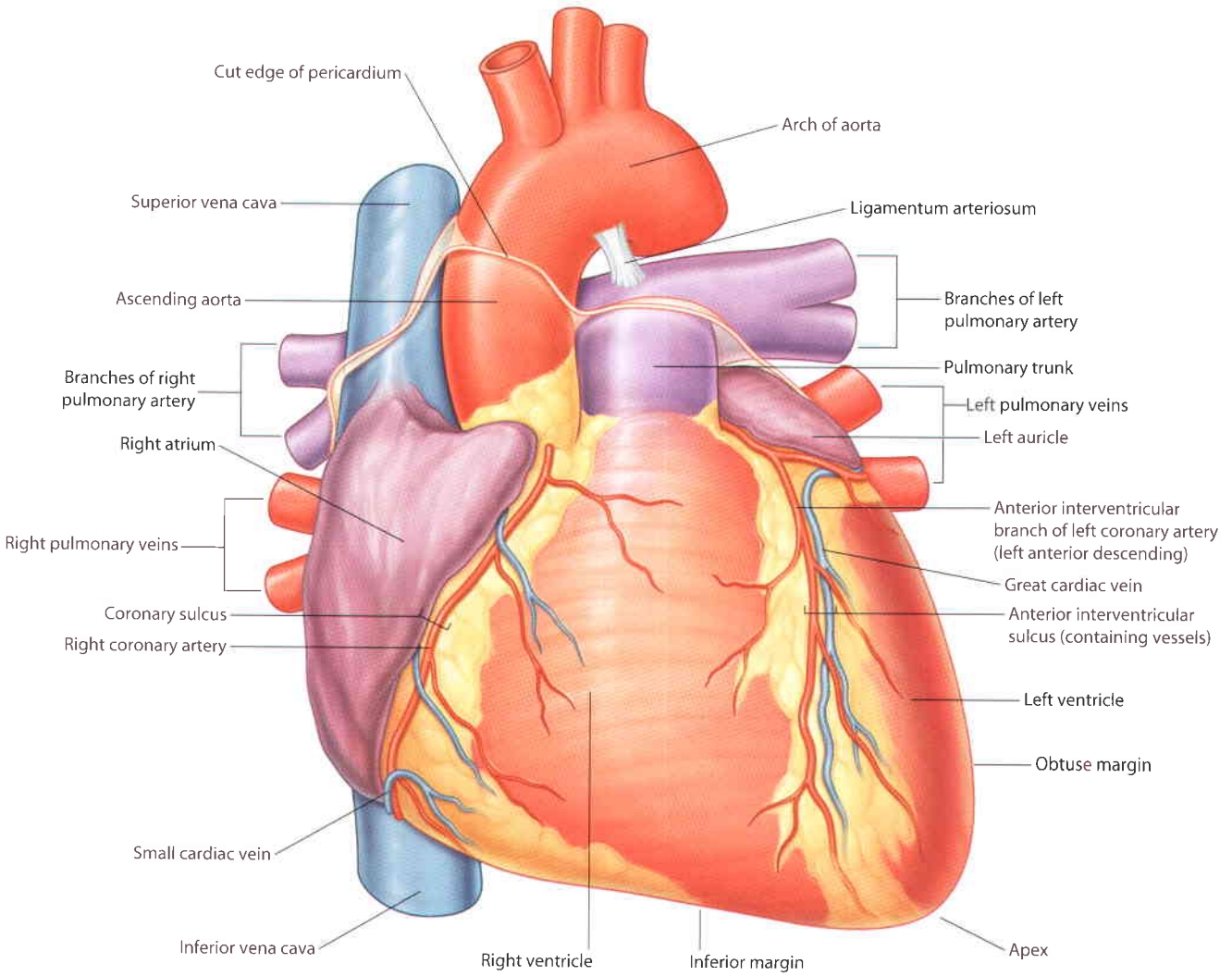
Mediastinal structures and lungs.
CT image, with contrast, in coronal plane



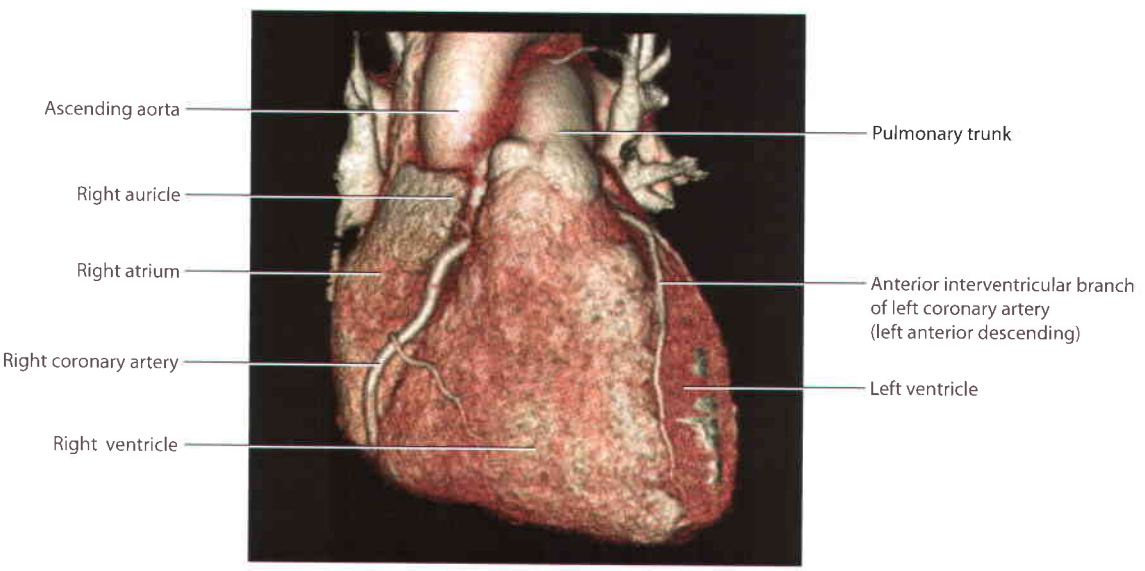
Sagittal section of the pericardium and heart



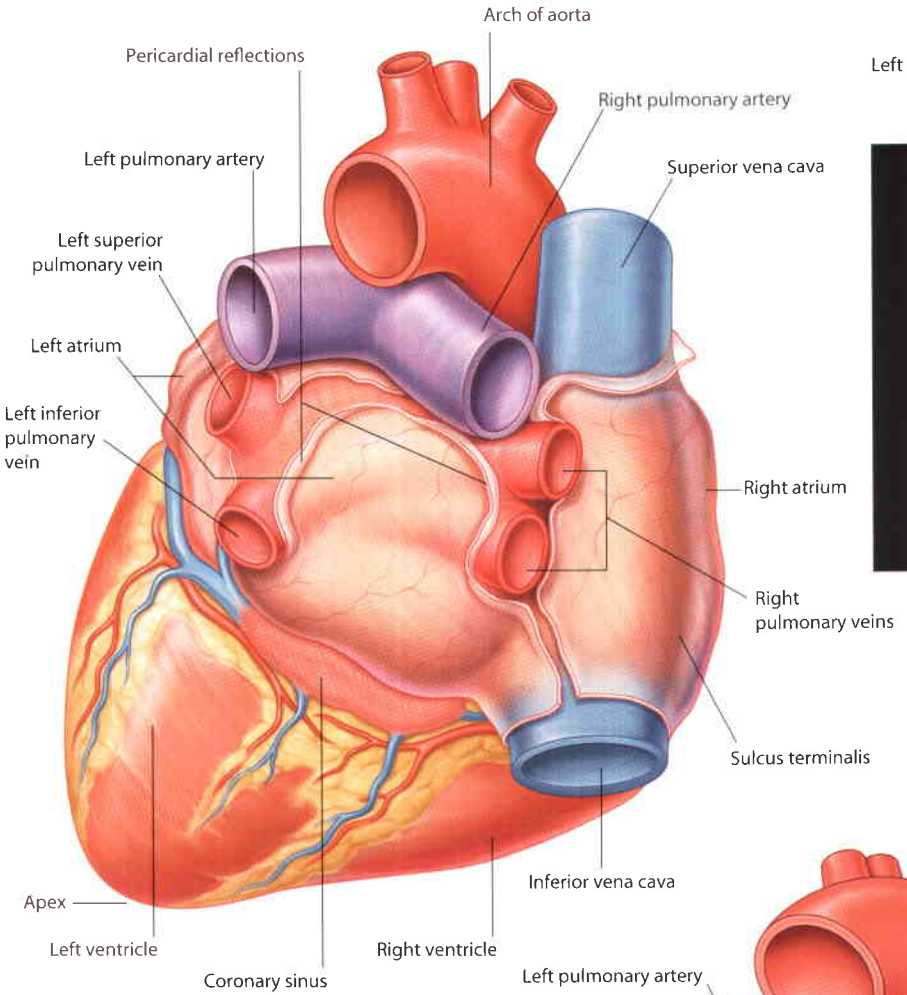
Pericardial sac with heart removed



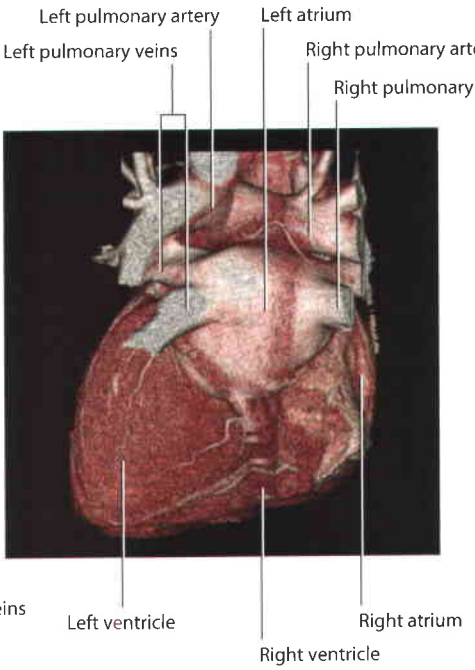
Anterior surface of the heart



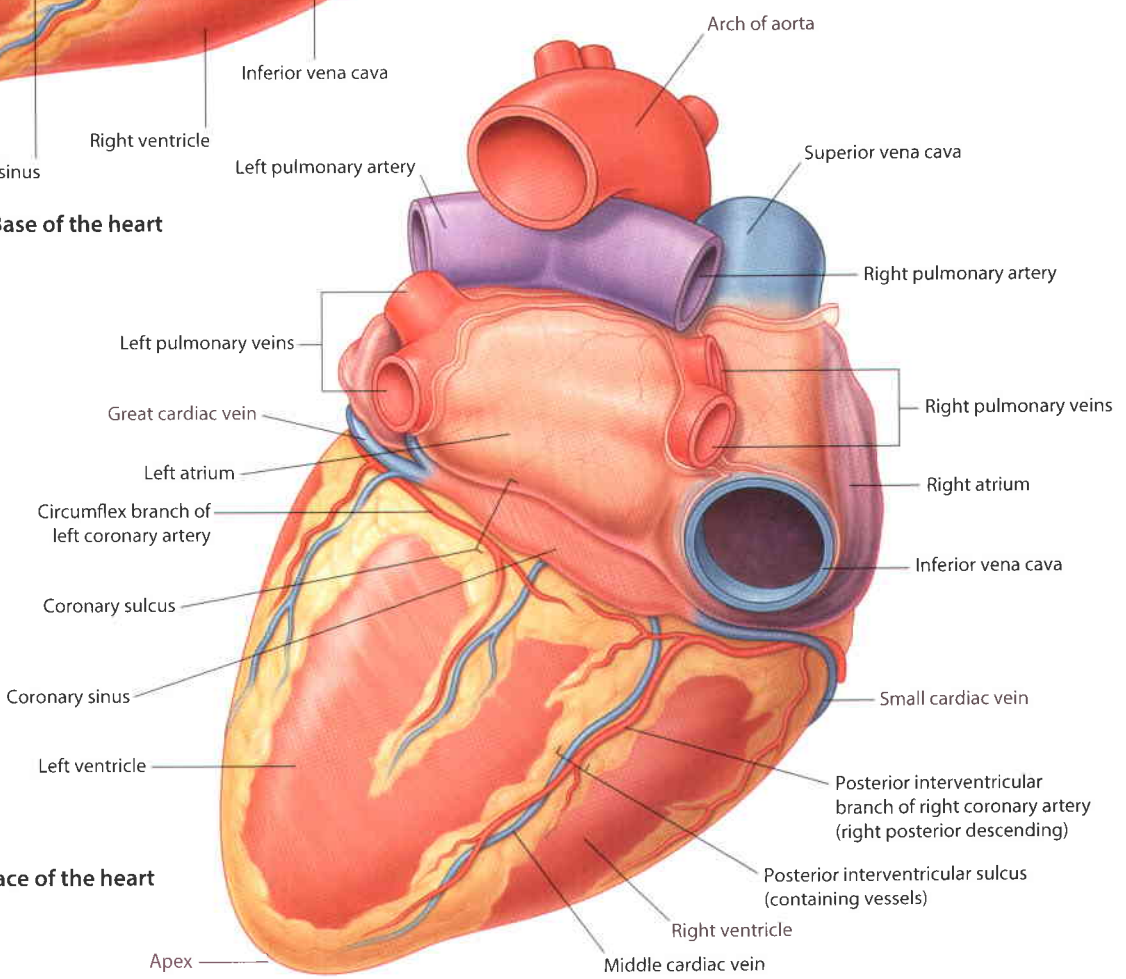
Anterior view of the heart.
Volume-rendered anterior view using multidetector computed tomography



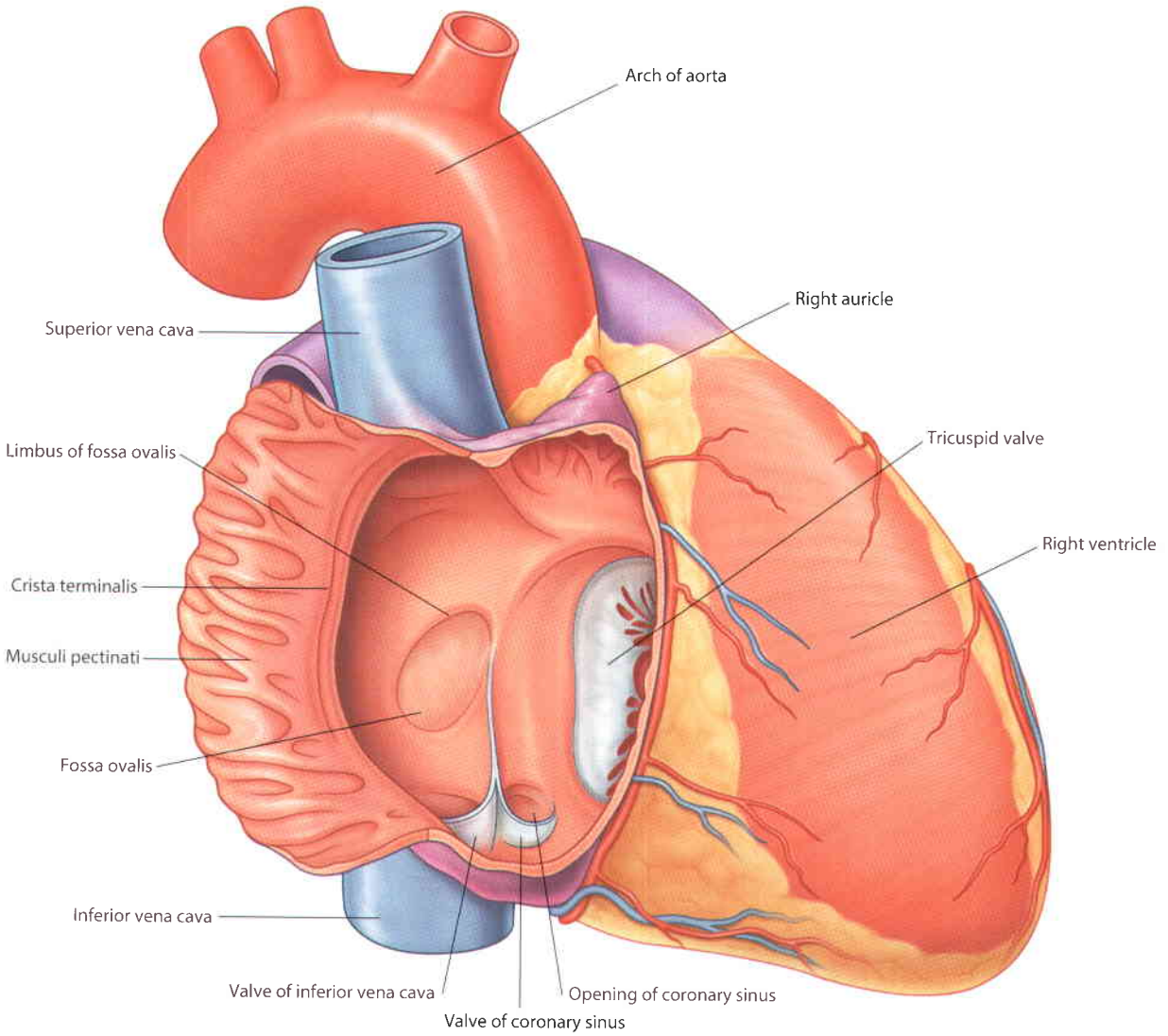
Base of the heart



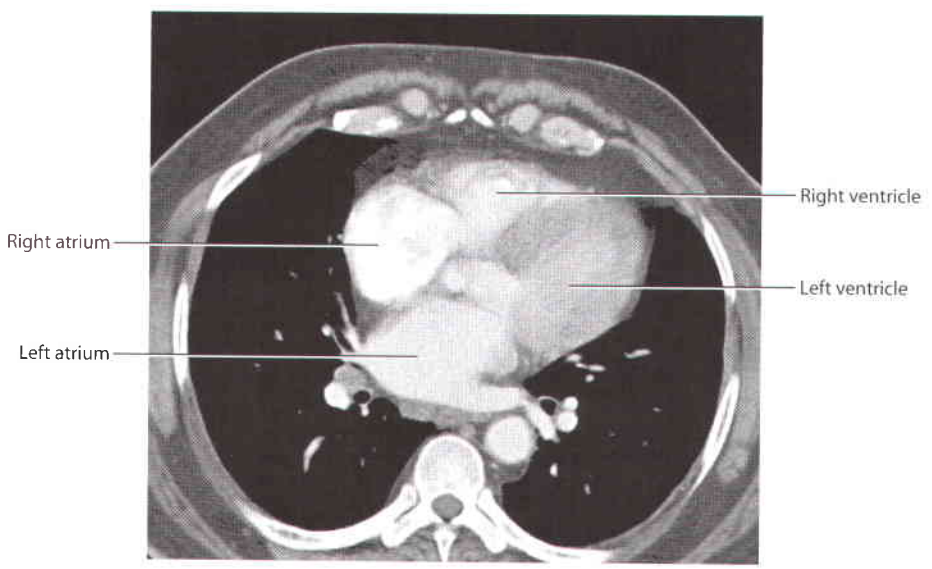
Posterior view of the heart.
Volume-rendered posterior view using multidetector computed tomography

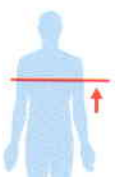


Diaphragmatic surface of the heart

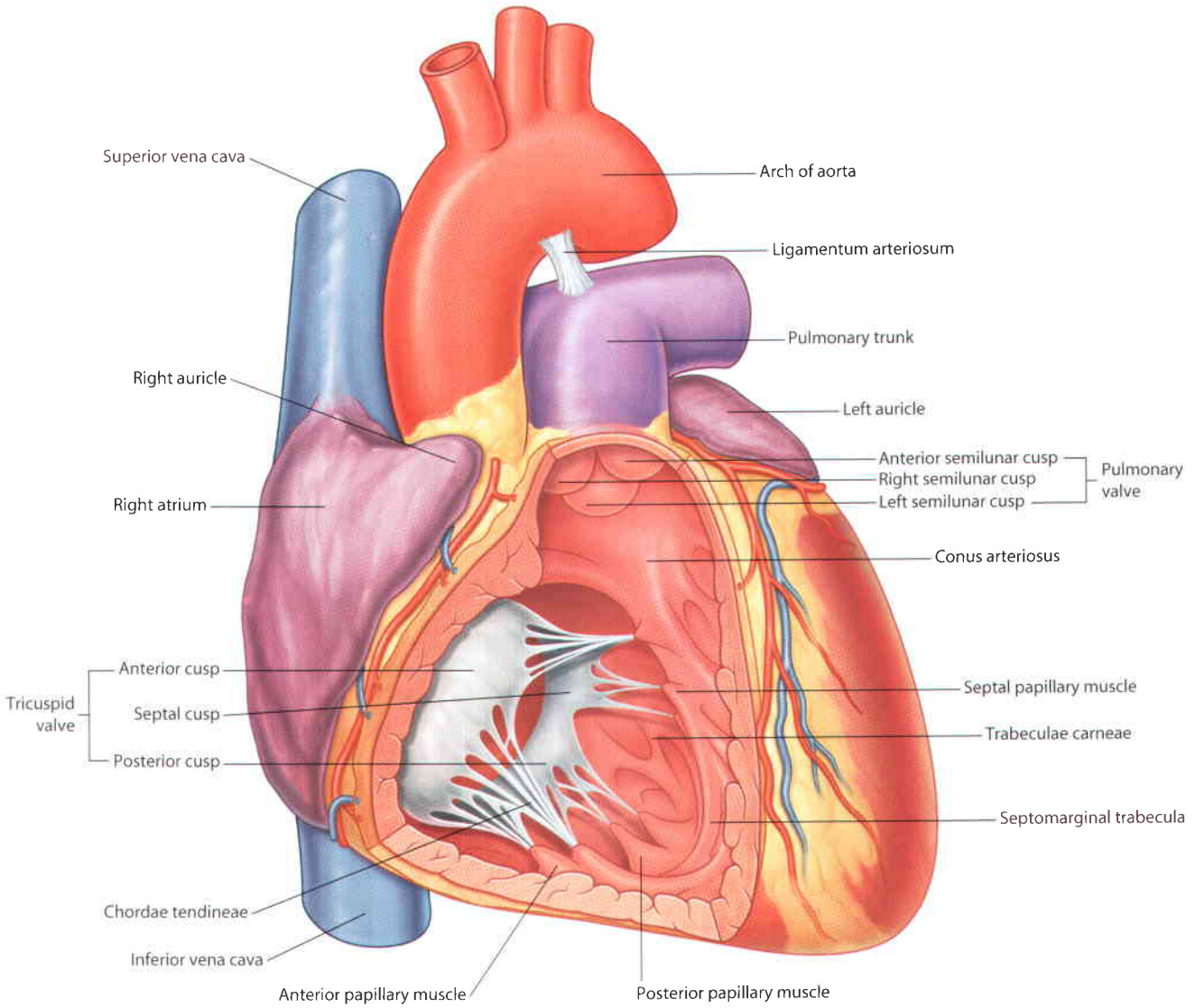


Internal view of right atrium

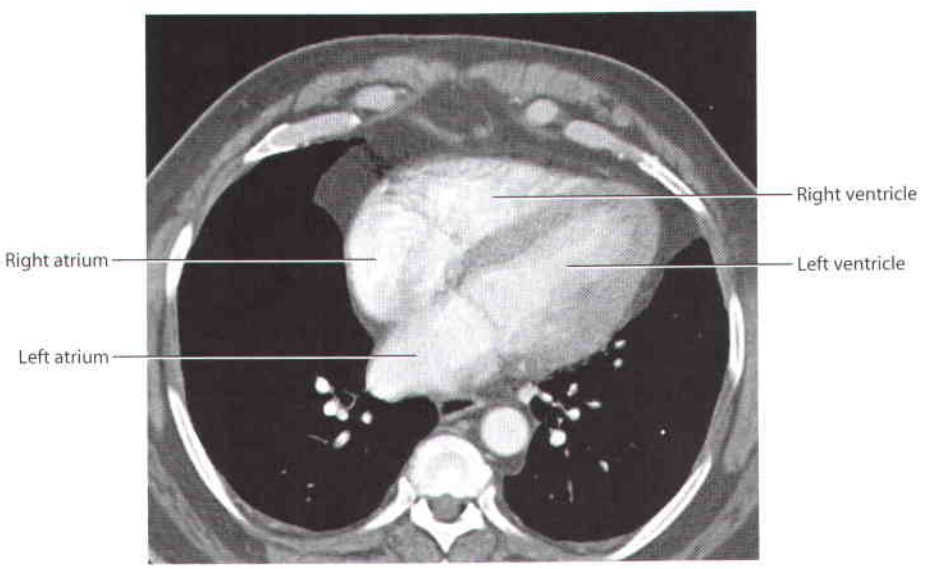


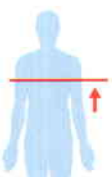


Positioning of right atrium in relation to other cardiac chambers.
CT image, with contrast, in axial plane

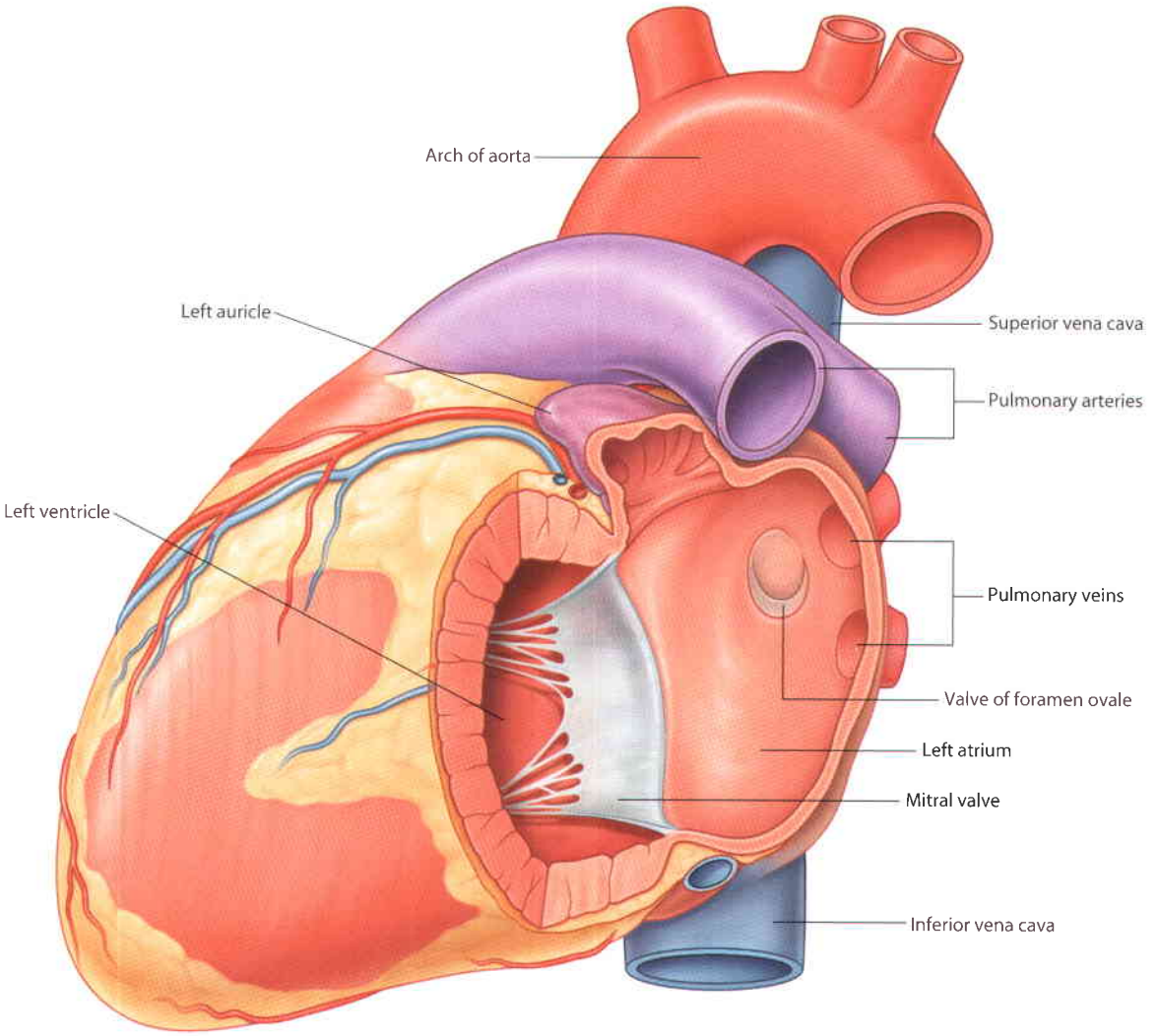


Internal view of right ventricle

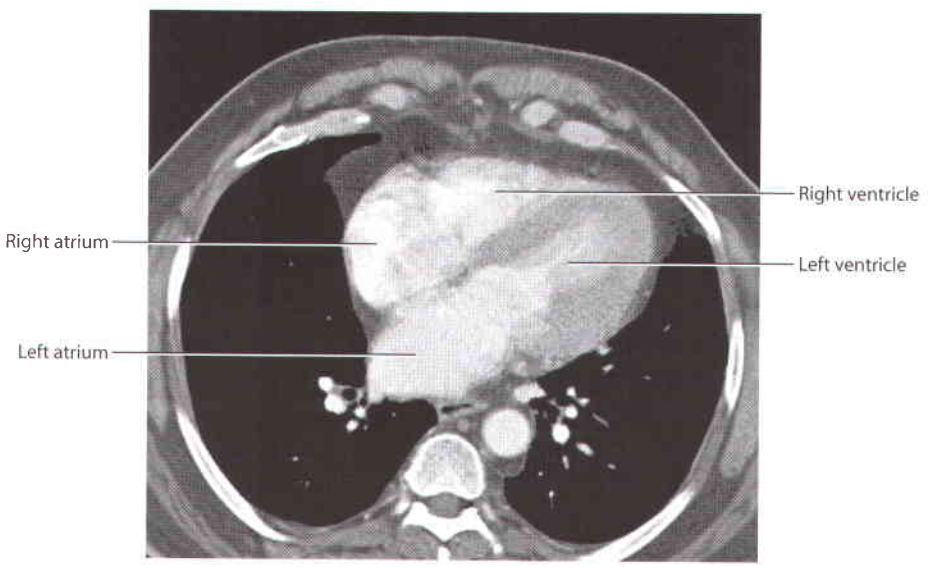


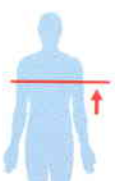


Positioning of right ventricle in relation to other cardiac chambers.
CT image, with contrast, in axial plane

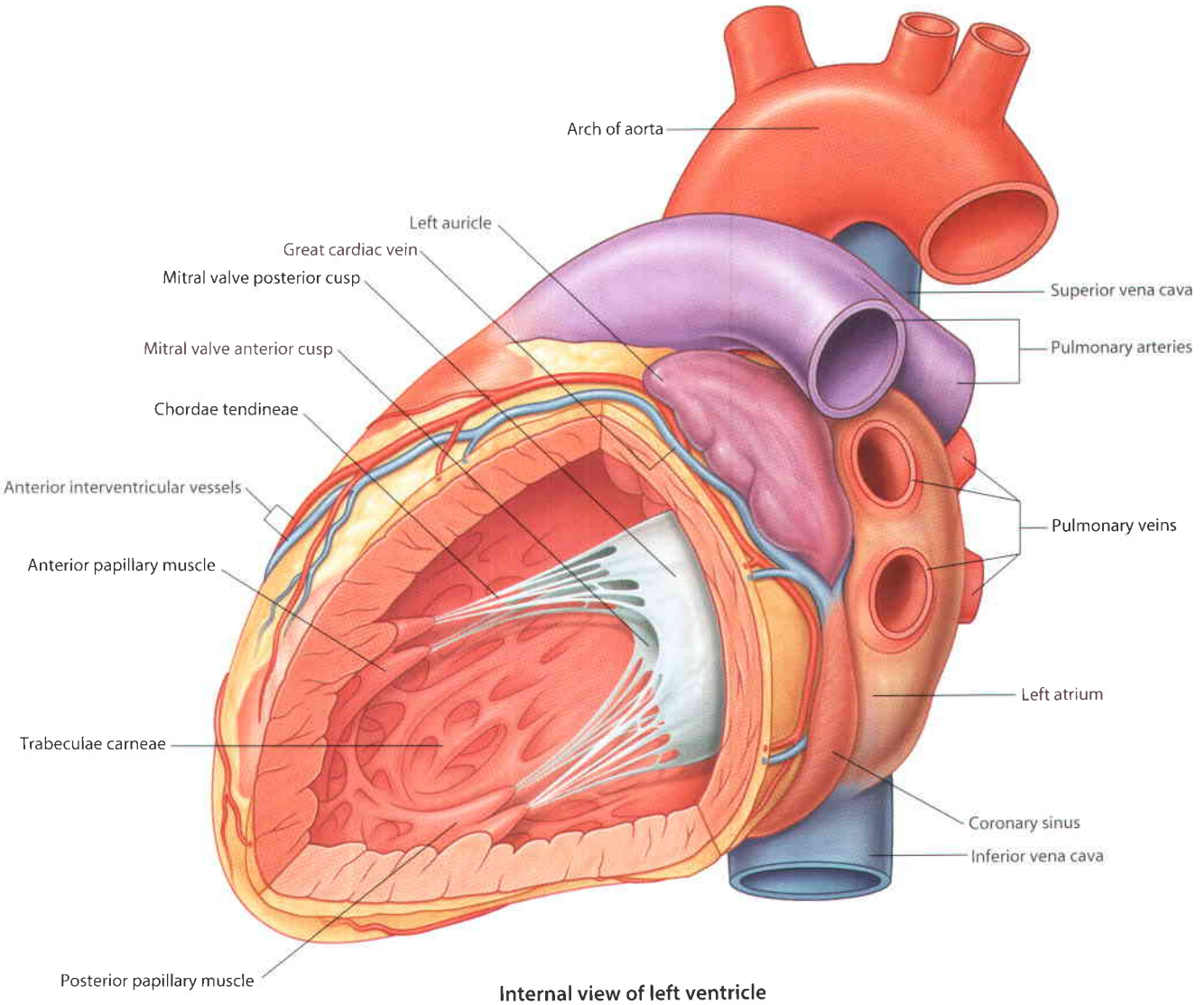


Internal view of left atrium

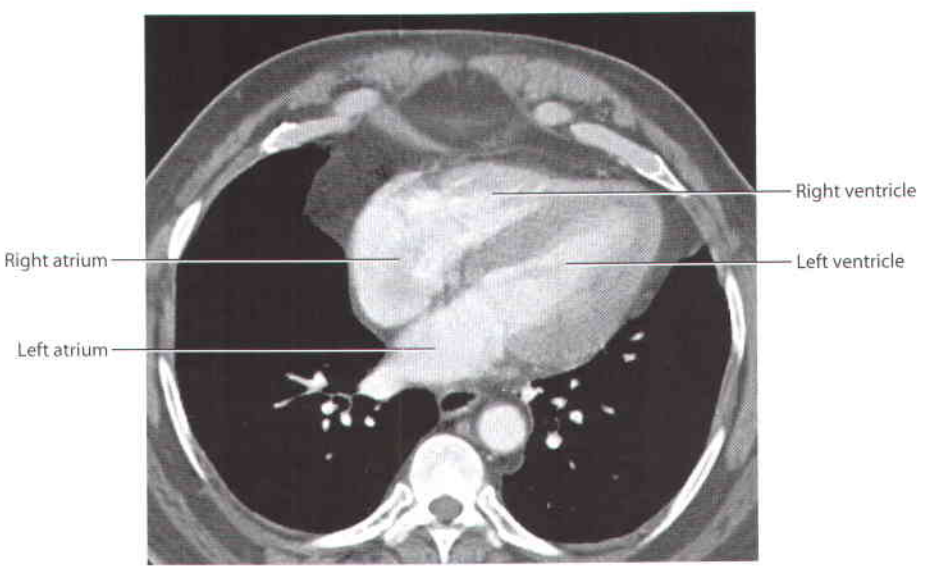


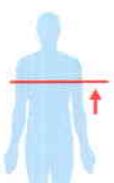


Positioning of left atrium in relation to other cardiac chambers.
CT image, with contrast, in axial plane

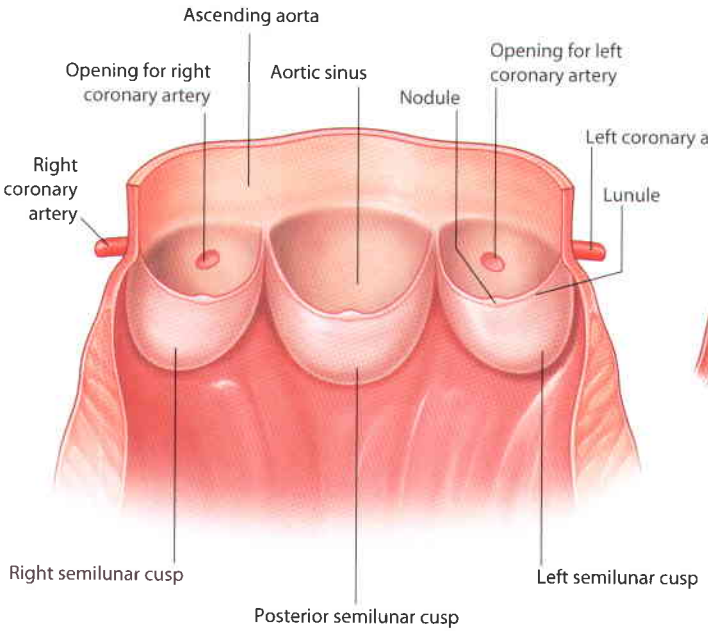


Internal view of left ventricle

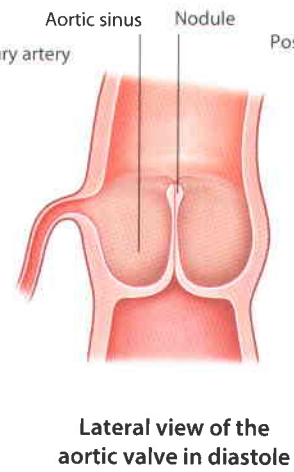




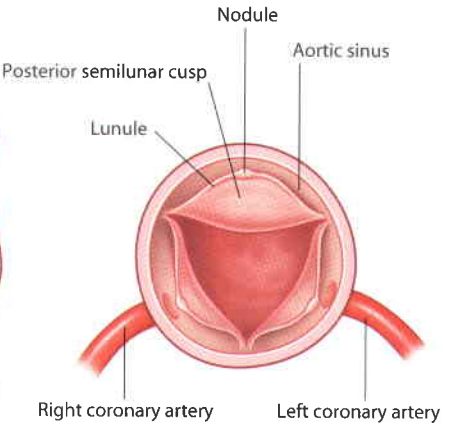
Positioning of left ventricle in relation to other cardiac chambers.
CT image, with contrast, in axial plane



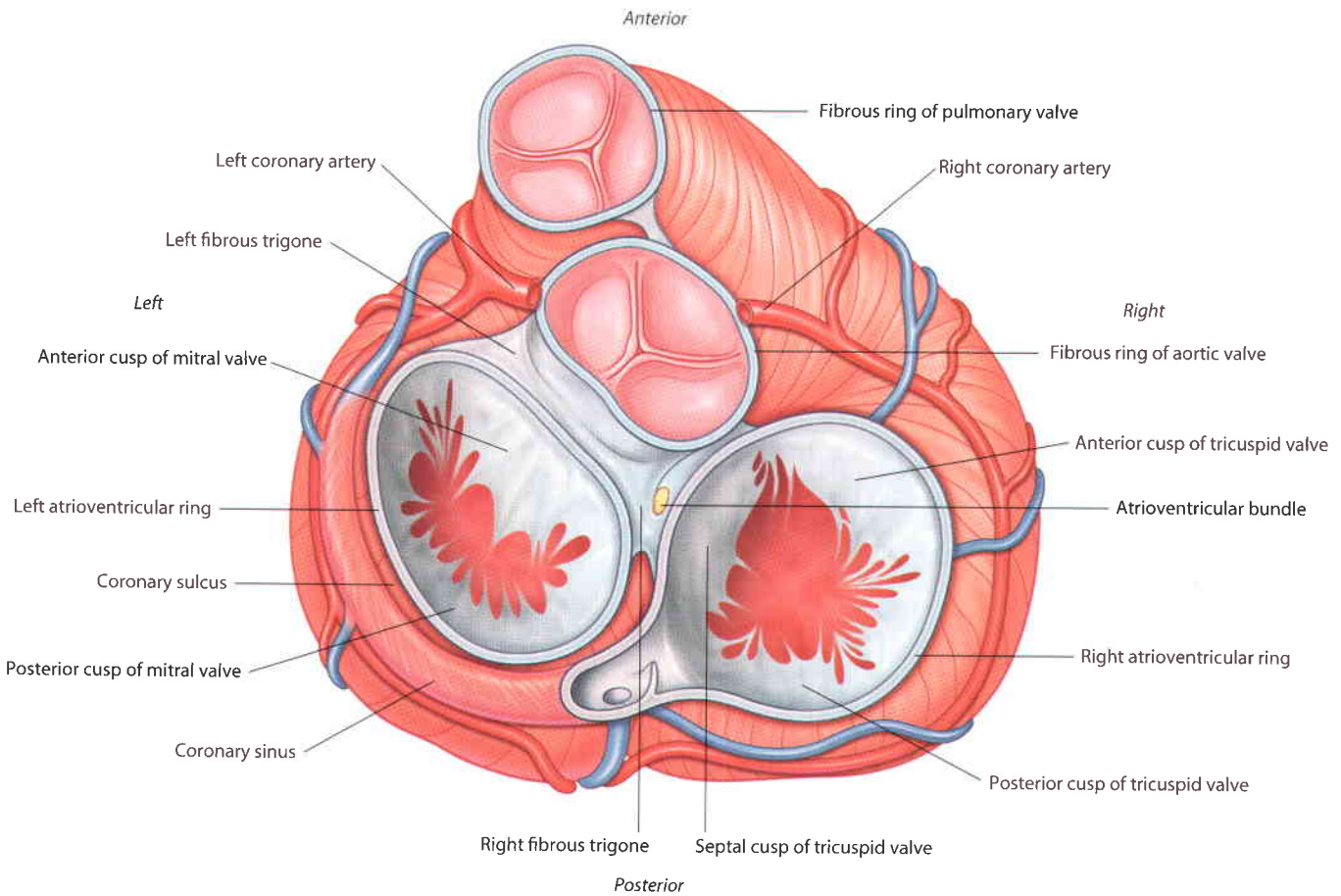
Anterior view of the aortic valve (resected and opened out)



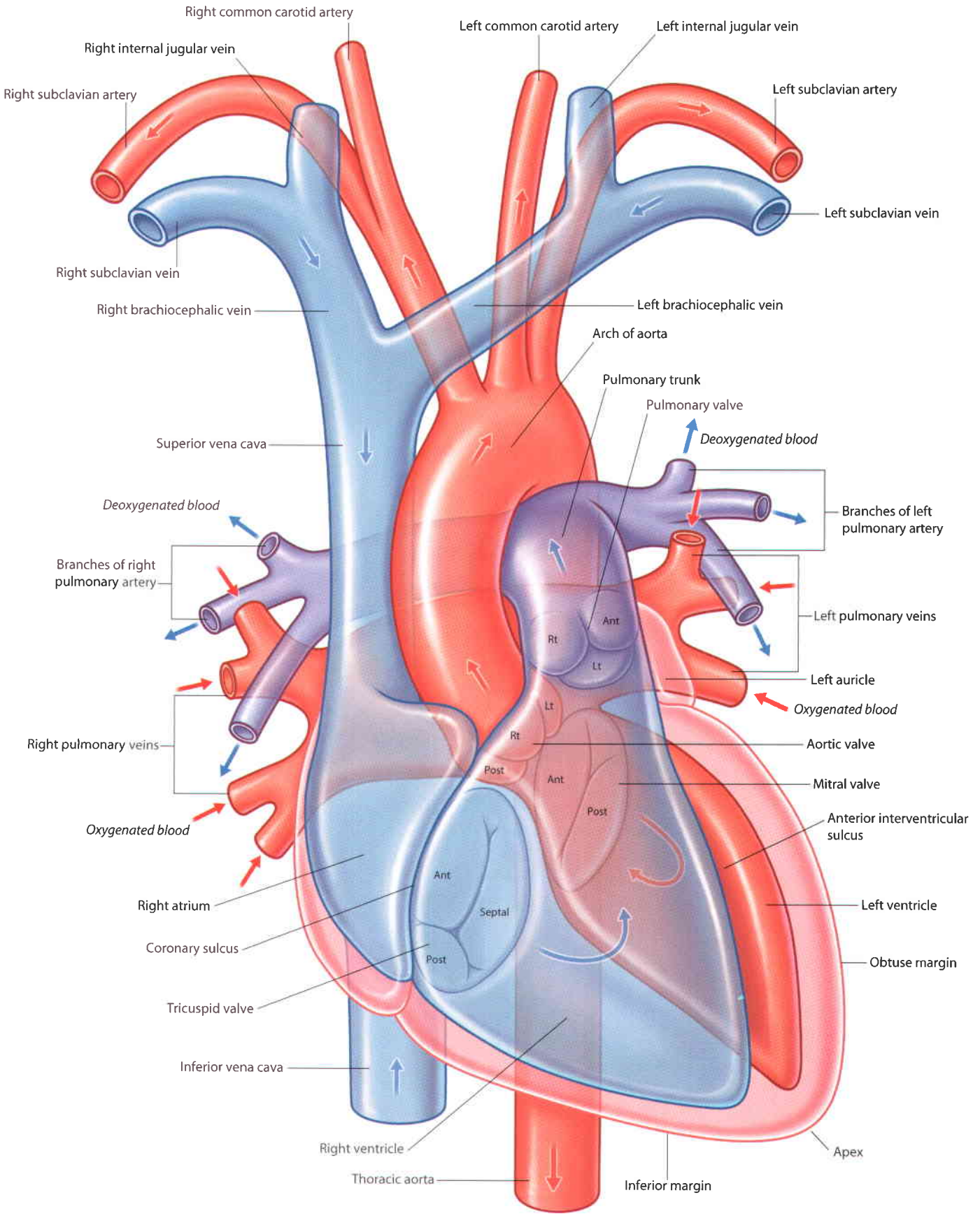
Lateral view of the aortic valve in diastole



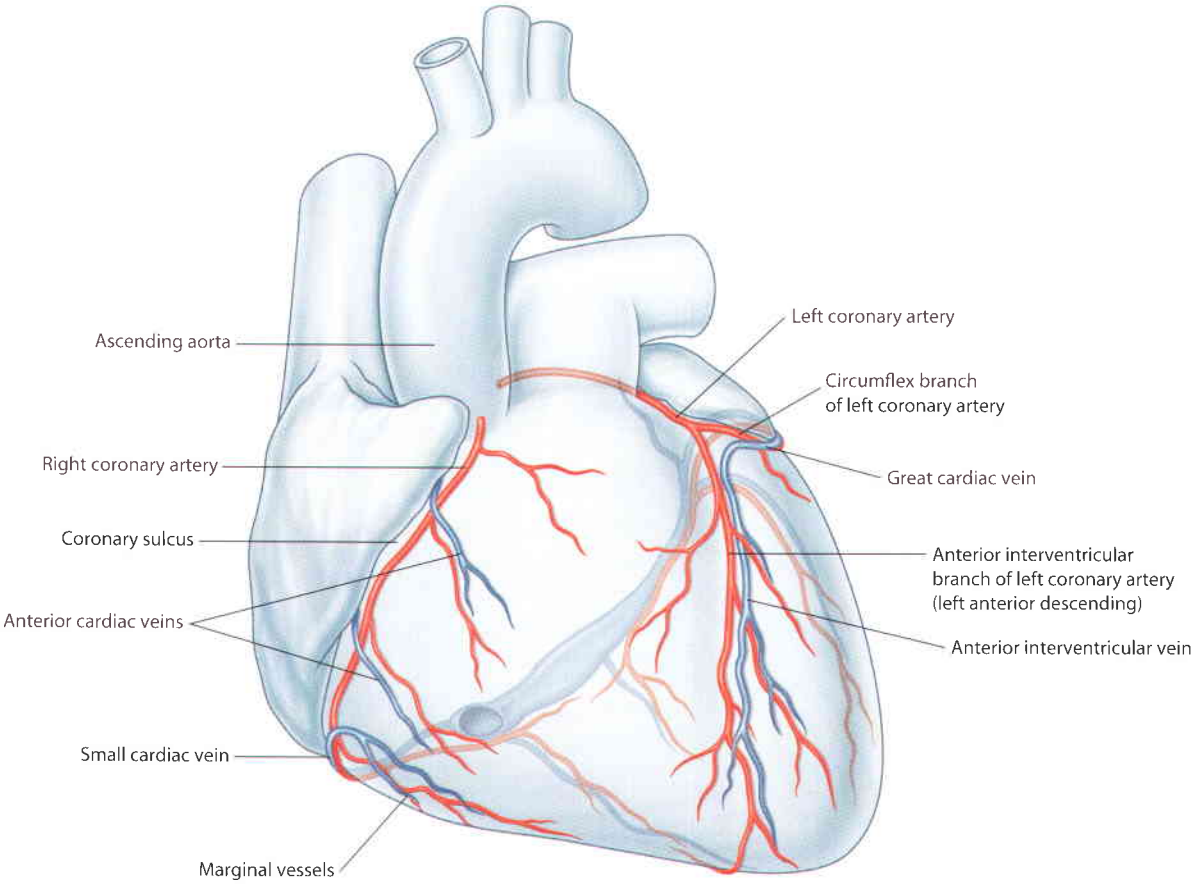
Superior view of the aortic valve in systole



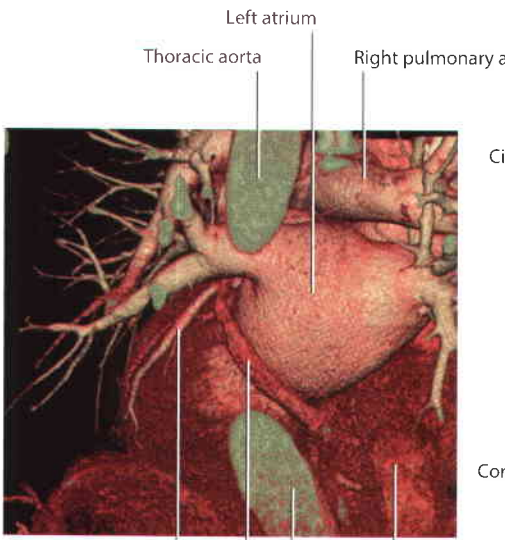
Cardiac skeleton superior view (atria removed)



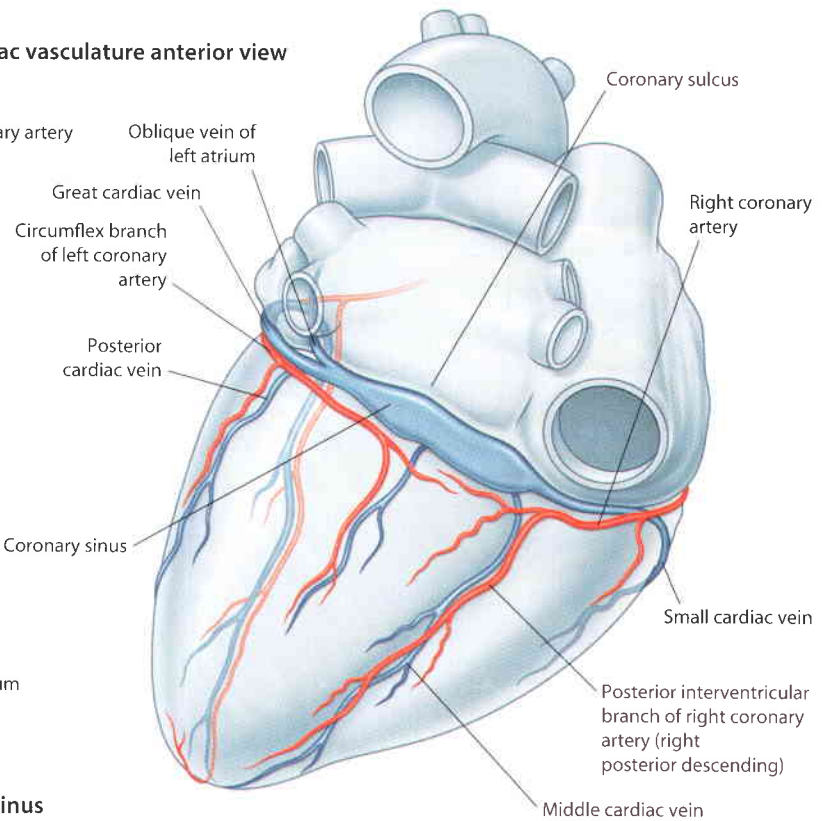
Cardiac chambers and direction of blood flow



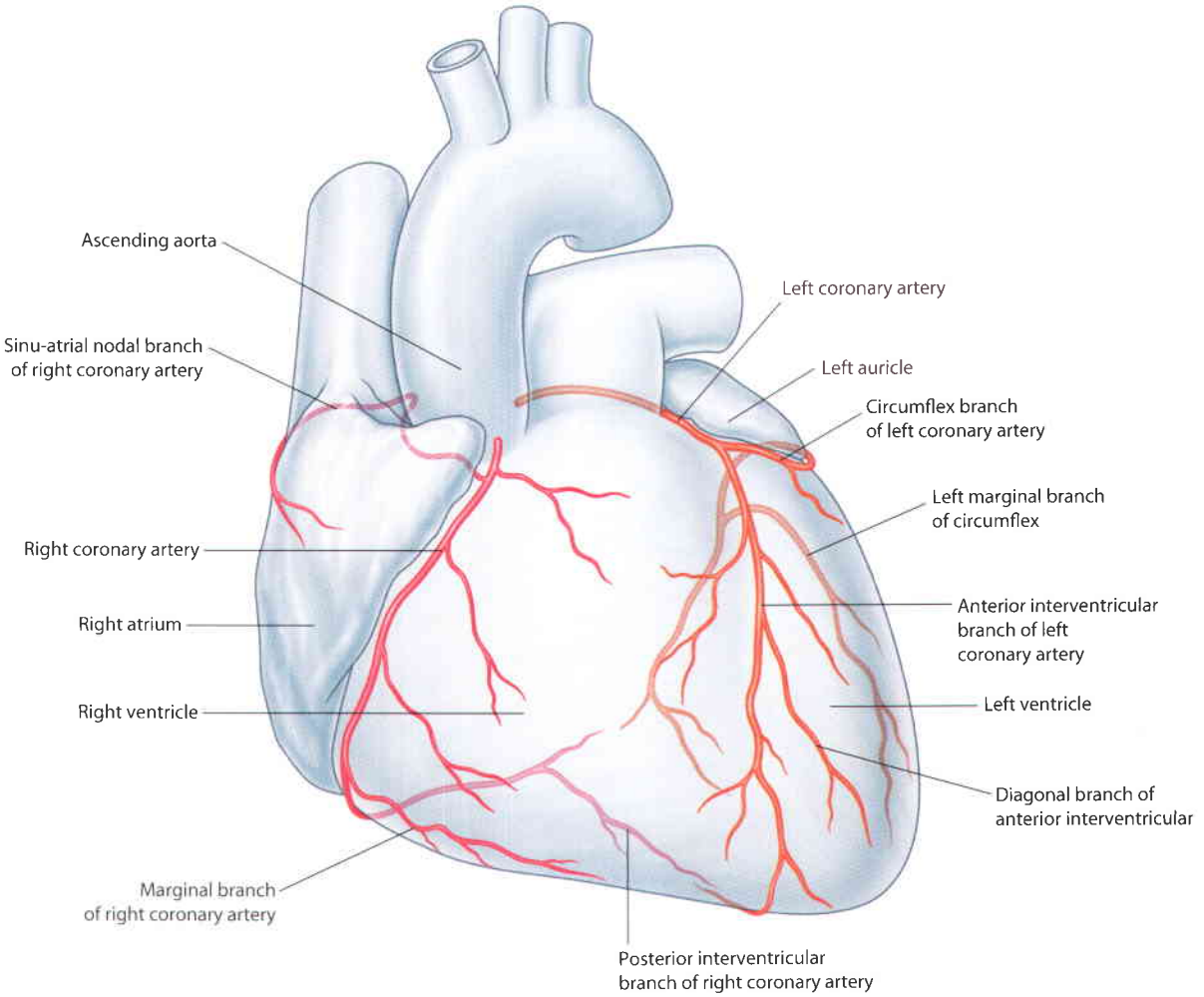
Cardiac vasculature anterior view



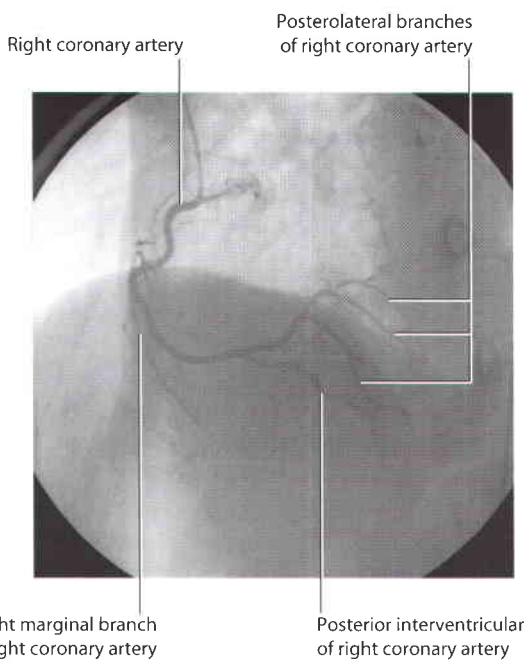
Posterior view of the heart showing the coronary sinus
Volume-rendered posterior view using multidetector computed tomography



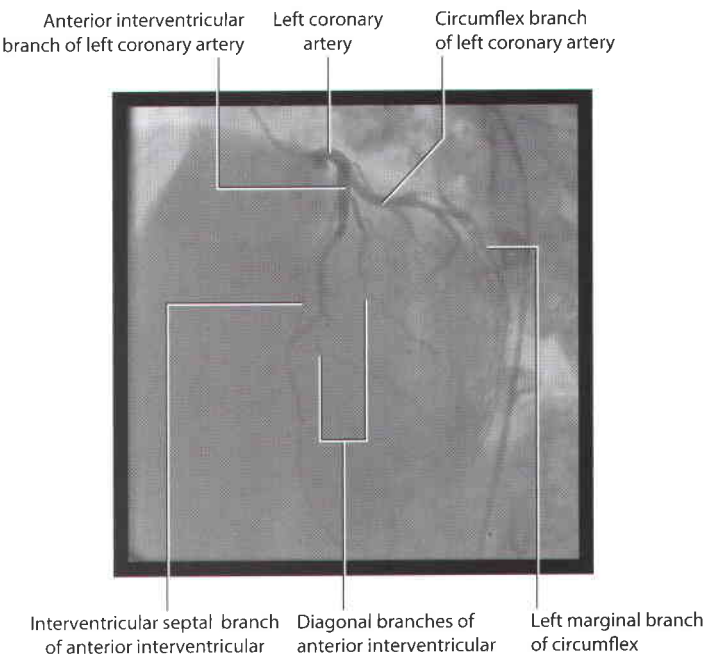
Posteroinferior view



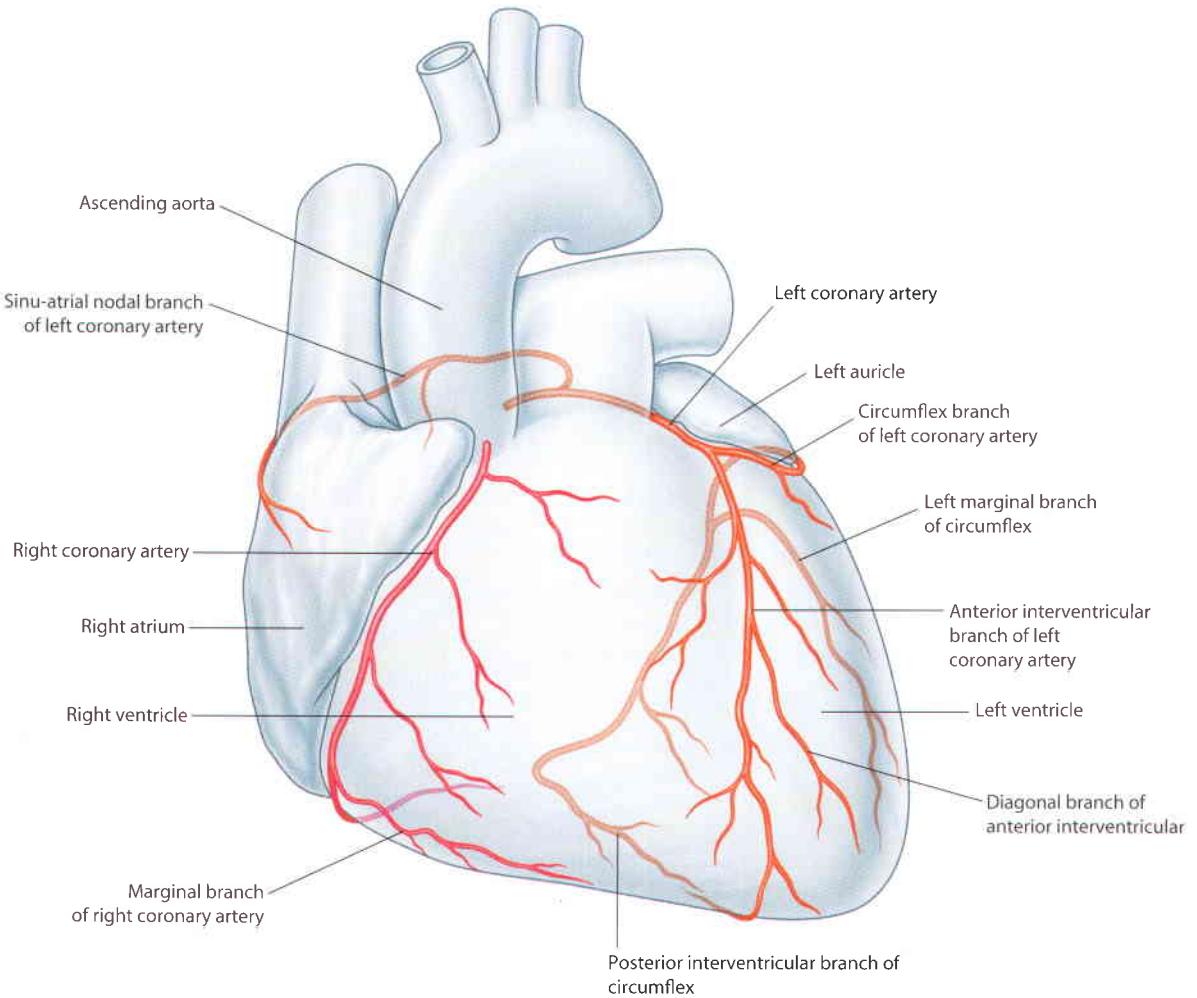
Coronary arteries (right dominant system)



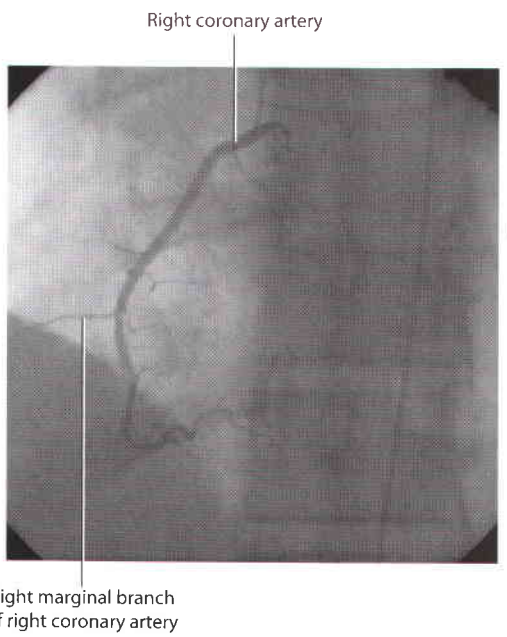
Coronary angiography (right dominant system).
Left anterior oblique projection, cranial angulation, of right coronary artery



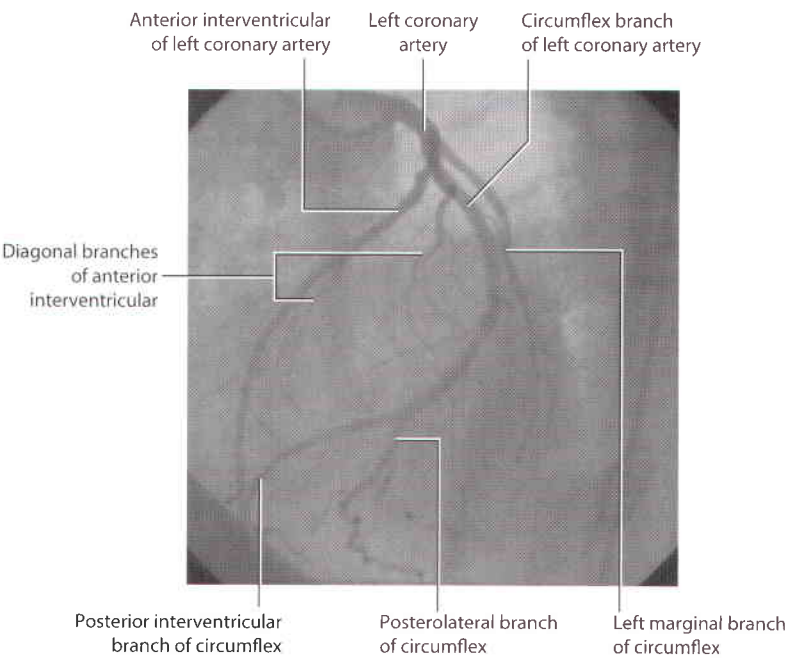
Coronary angiography (right dominant system).
Left anterior oblique projection, cranial angulation, of left coronary artery



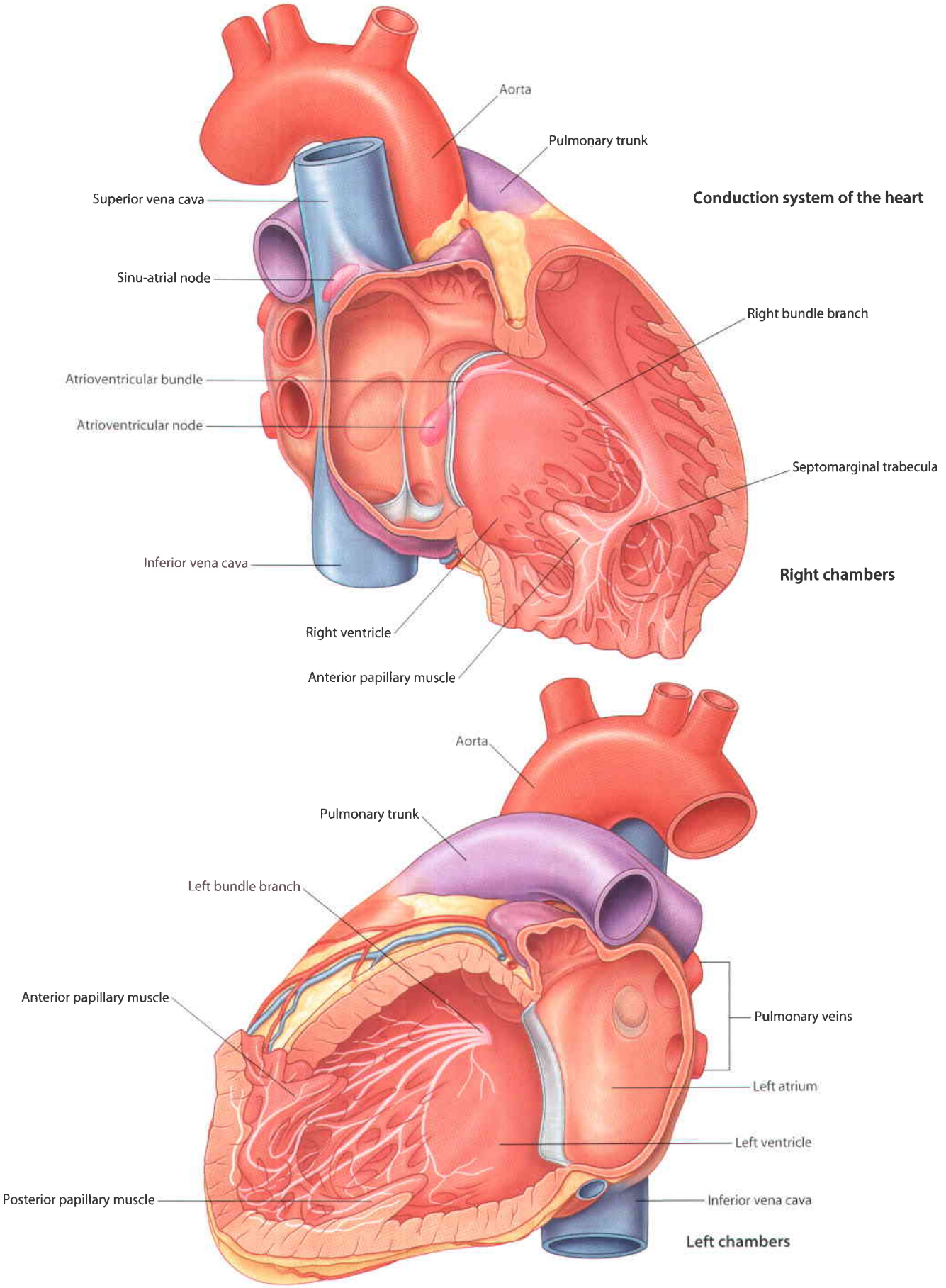
Coronary arteries (left dominant system)

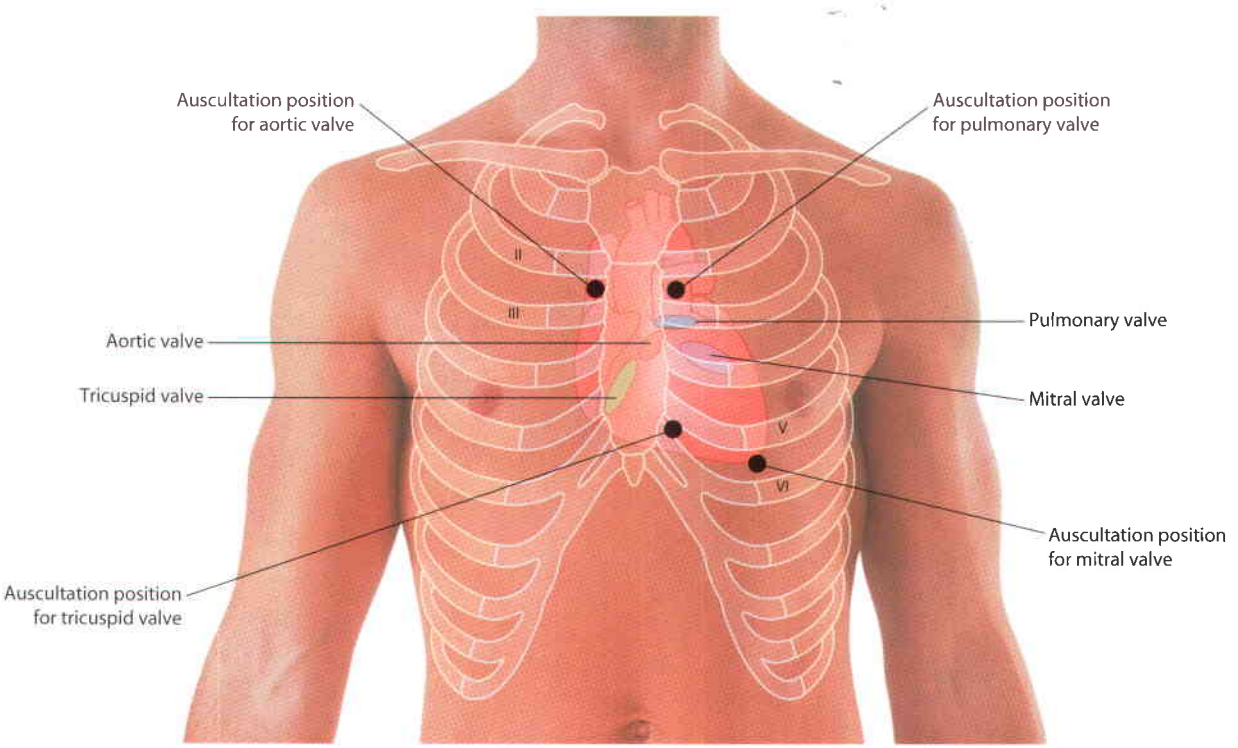


Coronary angiography (left dominant system).
Left anterior oblique projection, cranial angulation, of right coronary artery

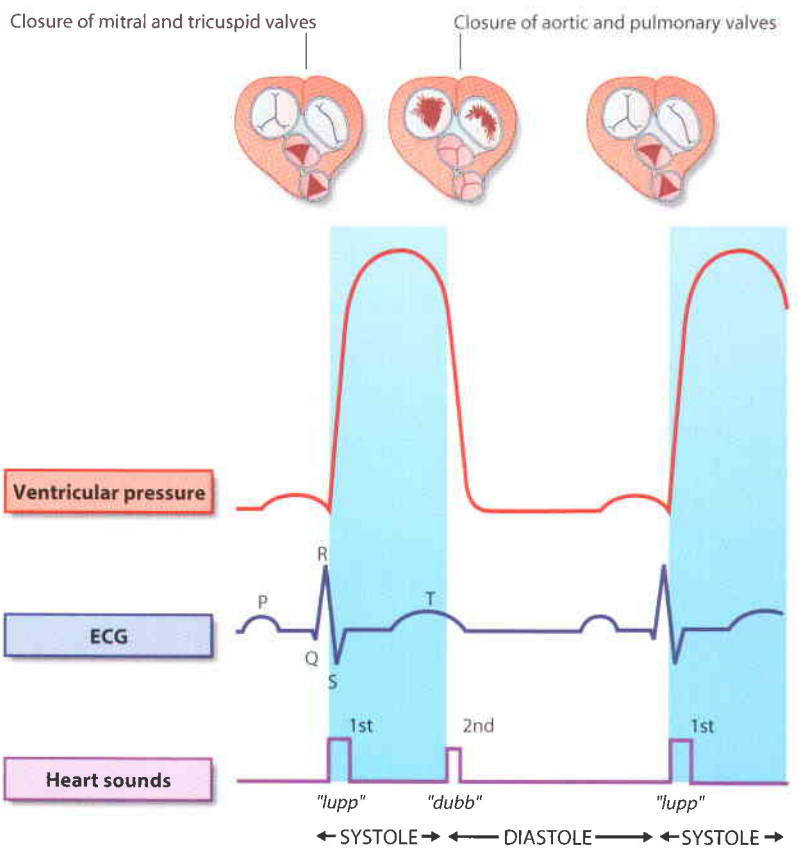


Coronary angiography (left dominant system).
Left anterior oblique projection, cranial angulation, of left coronary artery

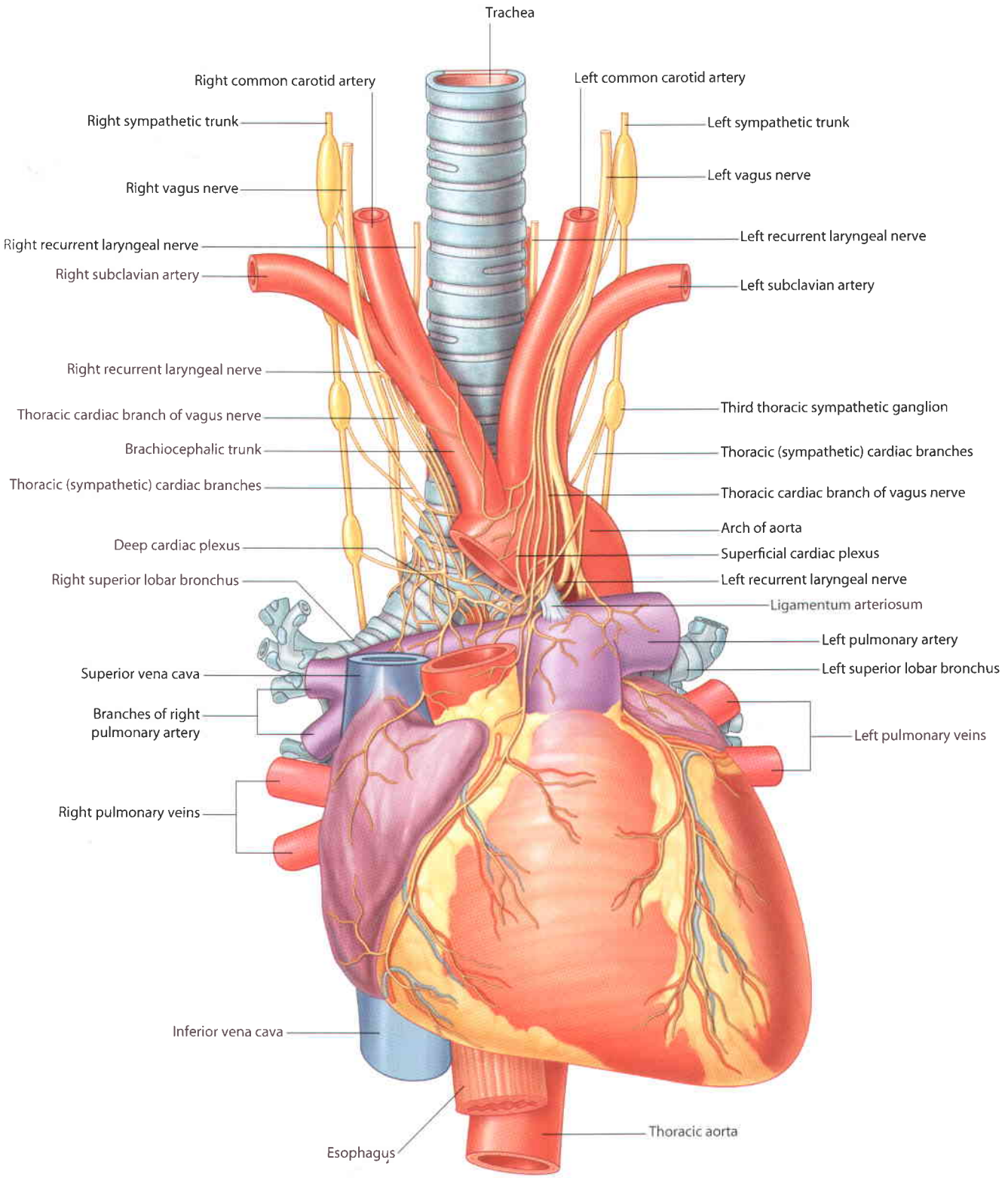

Aorta
Pulmonary trunk
Superior vena cava
Conduction system of the heart
Sinu-atrial node
Right bundle branch
Atrioventricular bundle
Atrioventricular node
Septomarginal trabecula
Inferior vena cava
Right chambers
Right ventricle
Anterior papillary muscle
Aorta
Pulmonary trunk
Left bundle branch
Anterior papillary muscle
Pulmonary veins
Left atrium
Left ventricle
Posterior papillary muscle
Inferior vena cava
Left chambers



Auscultation points



Cardiac auscultation



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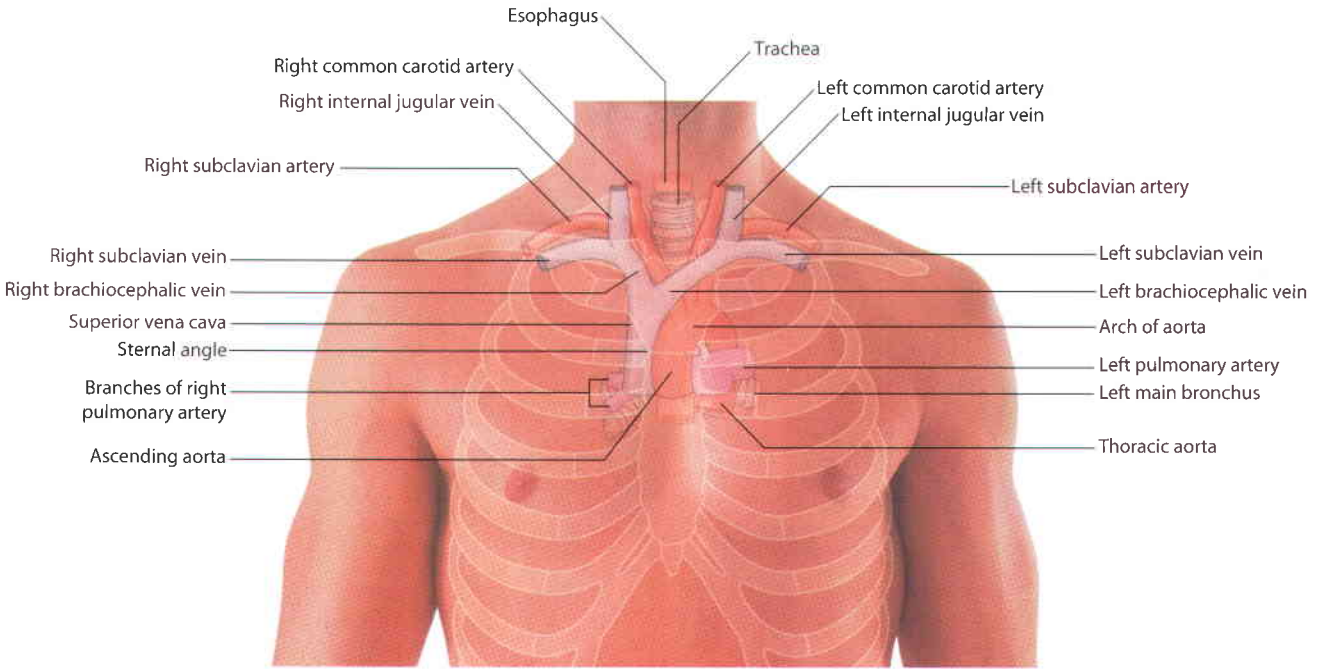
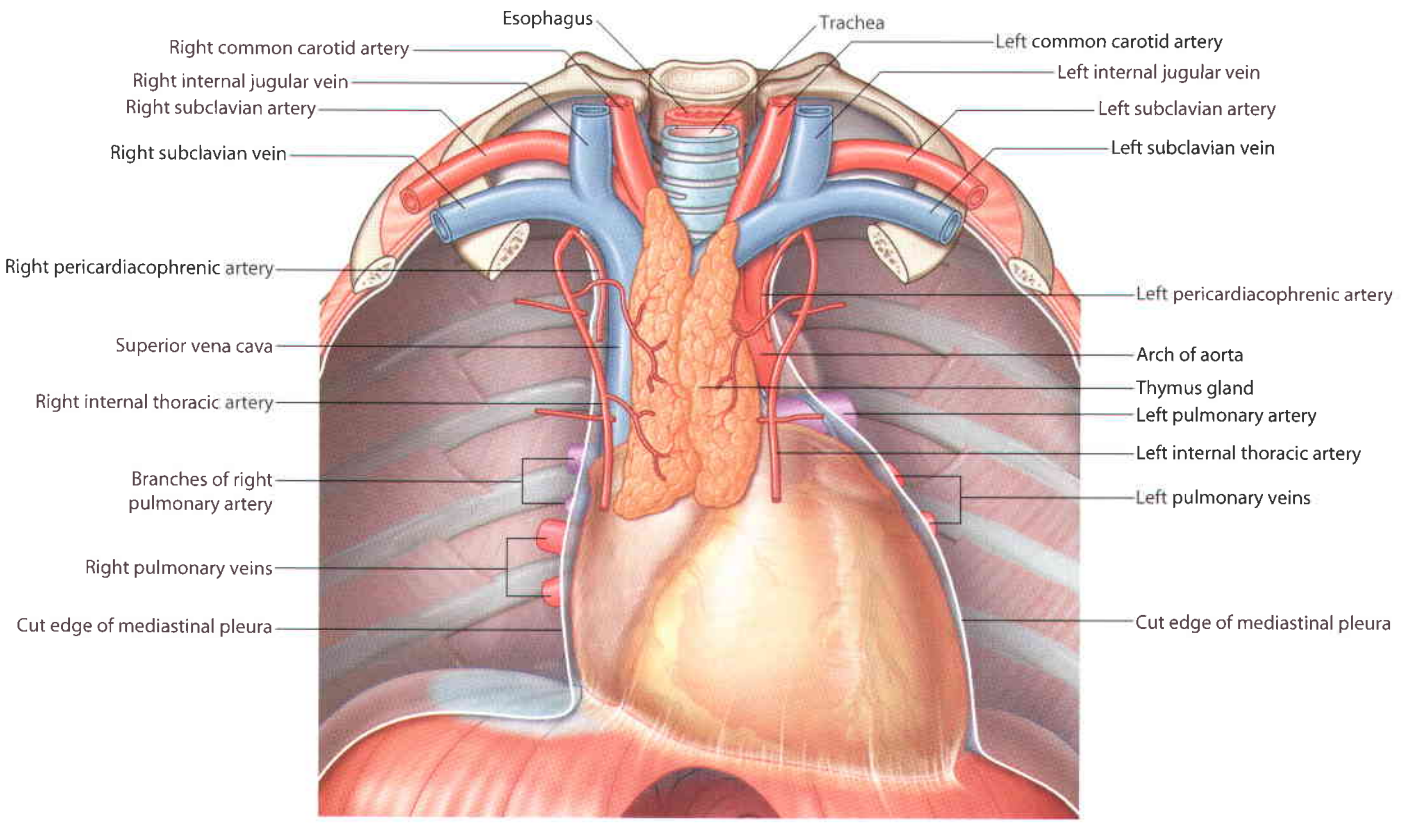
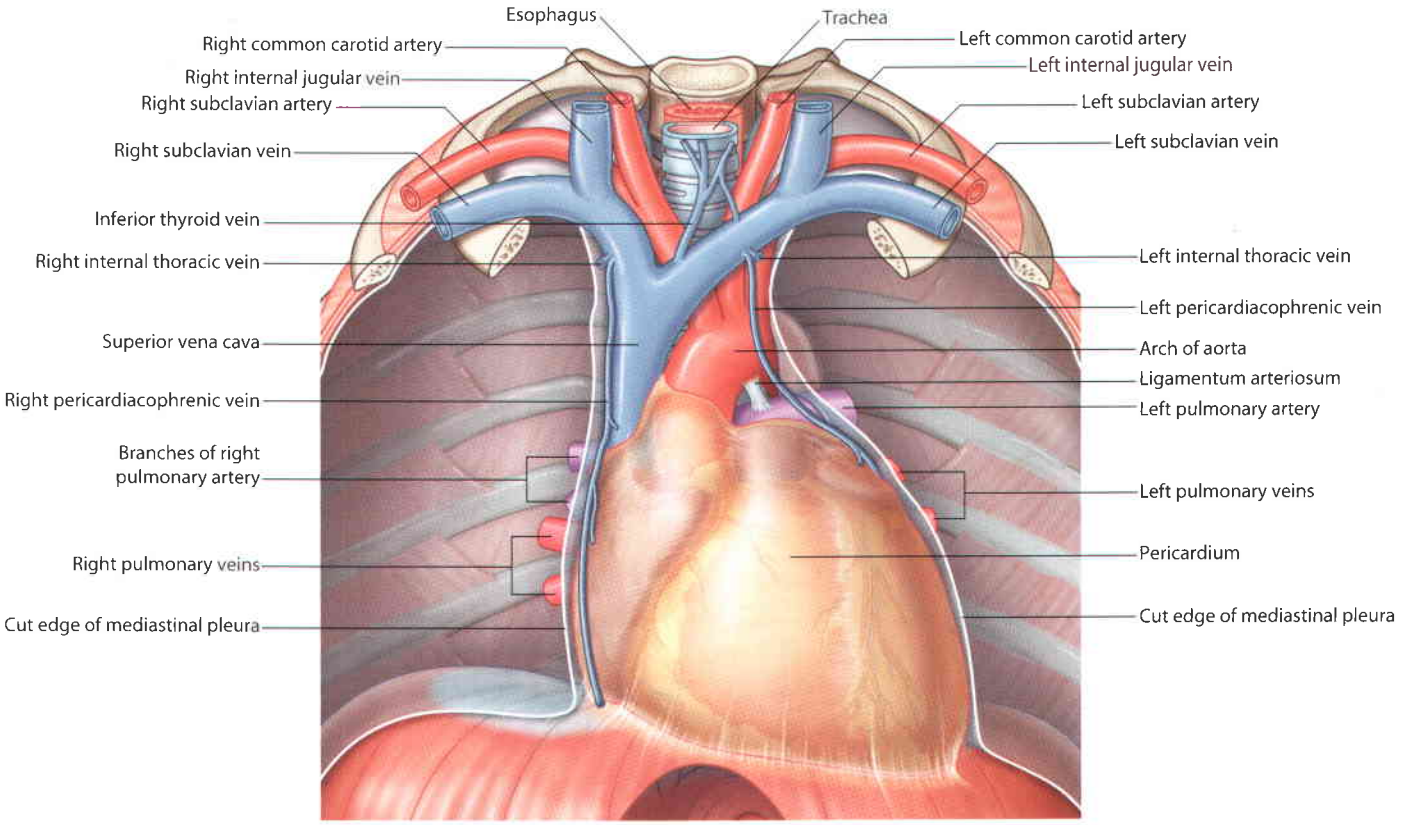
Cardiac plexus and nerves of the heart



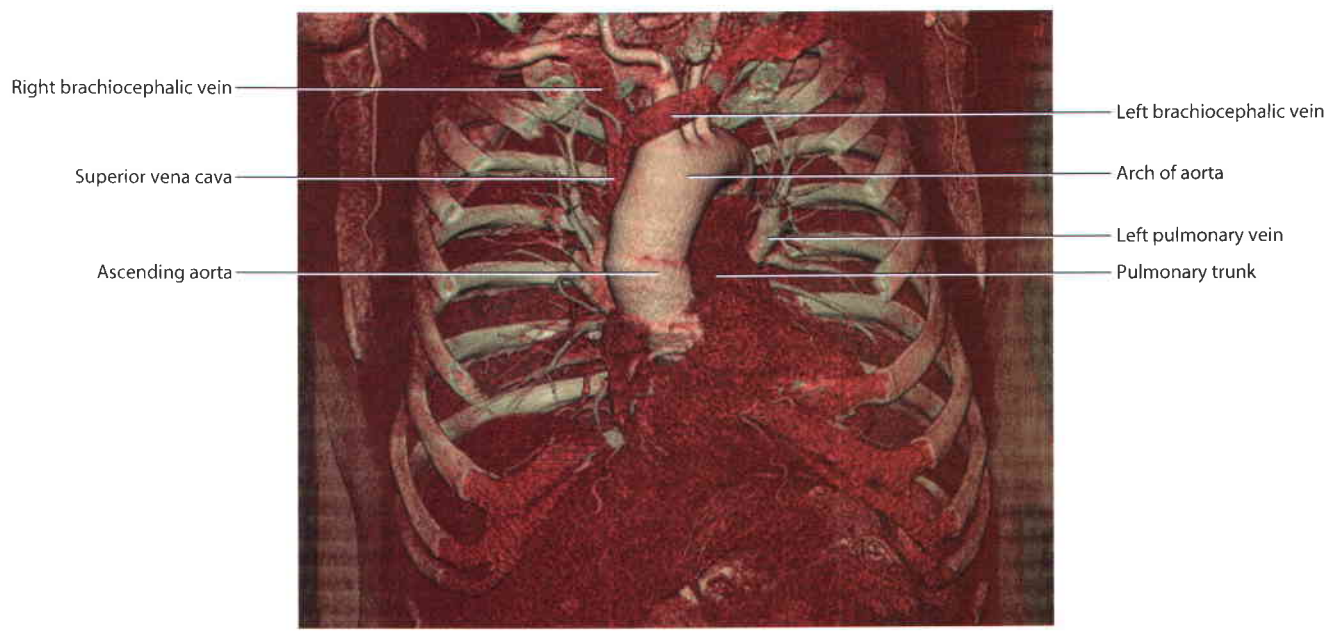
Surface projections of structures in the superior mediastinum



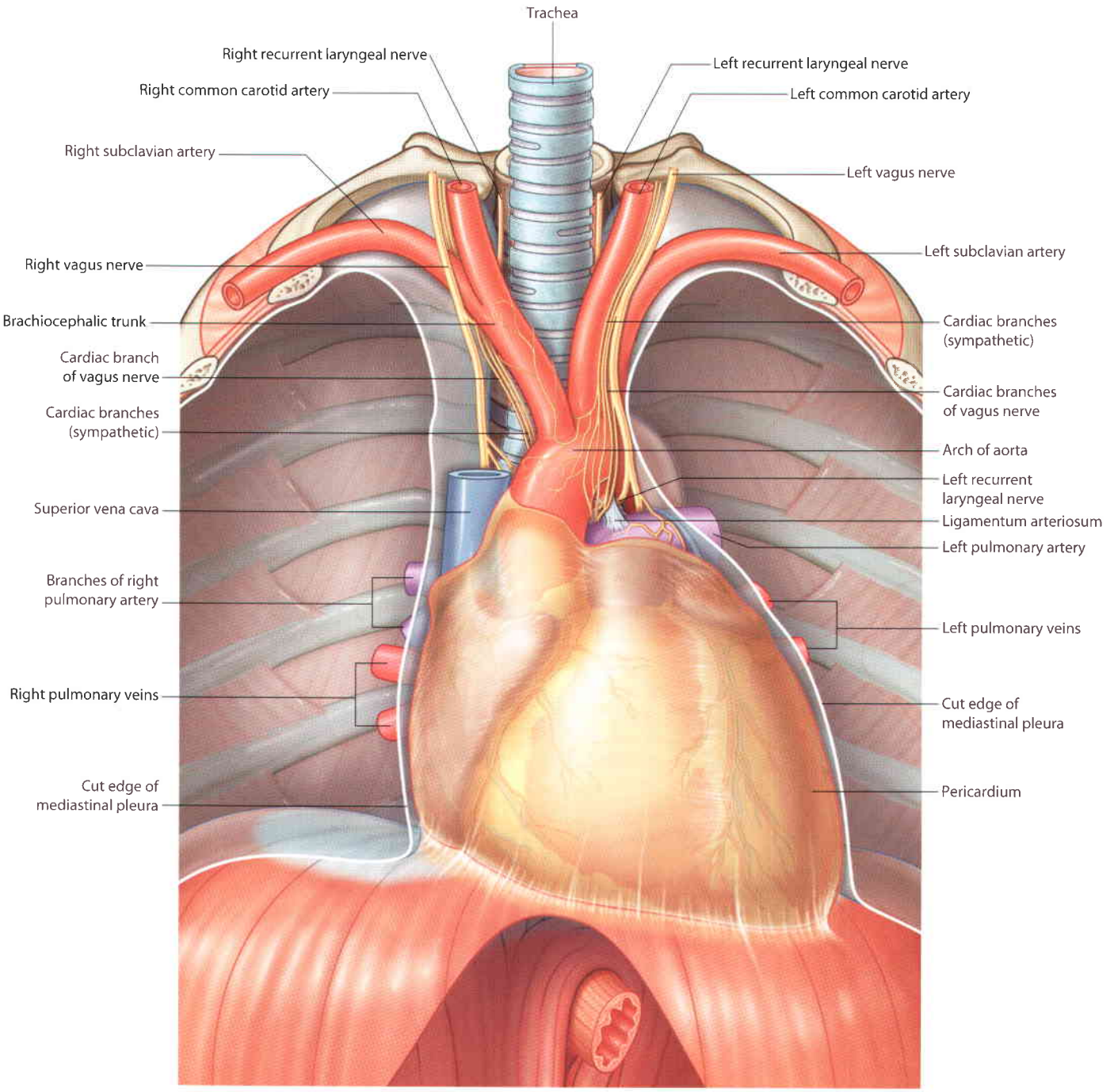
Thymus gland



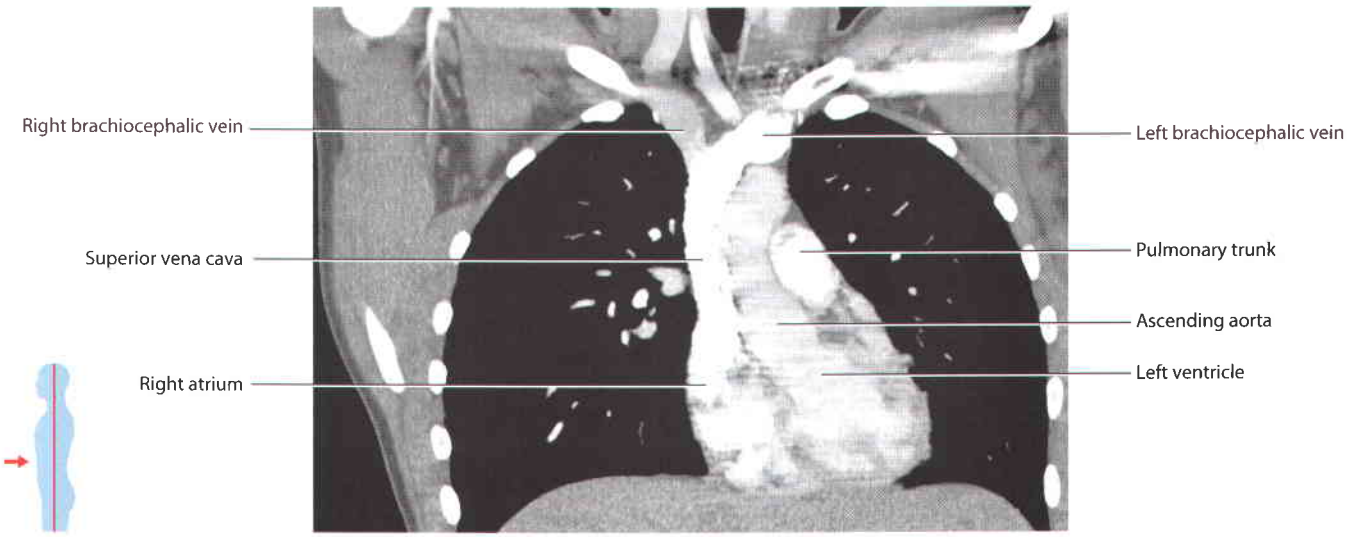
Veins of the superior mediastinum



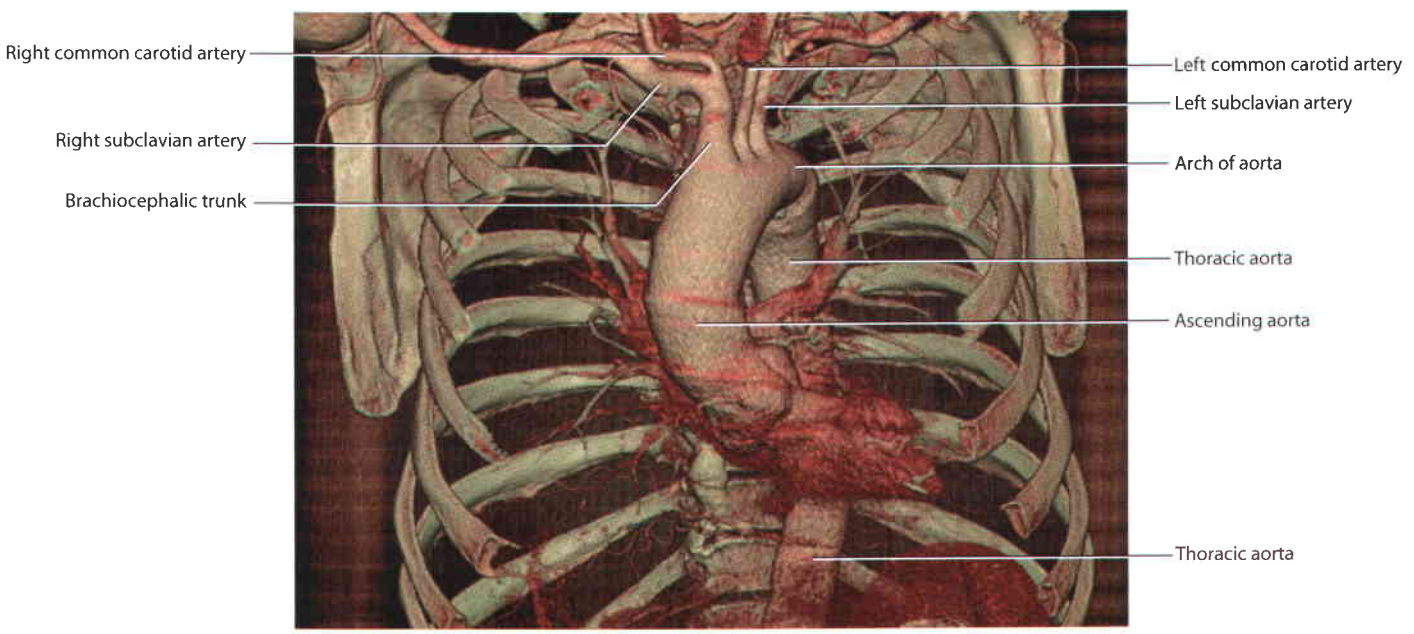
Anterior view of the superior mediastinum showing venous and arterial channels.
Volume-rendered anterior view using multidetector computed tomography



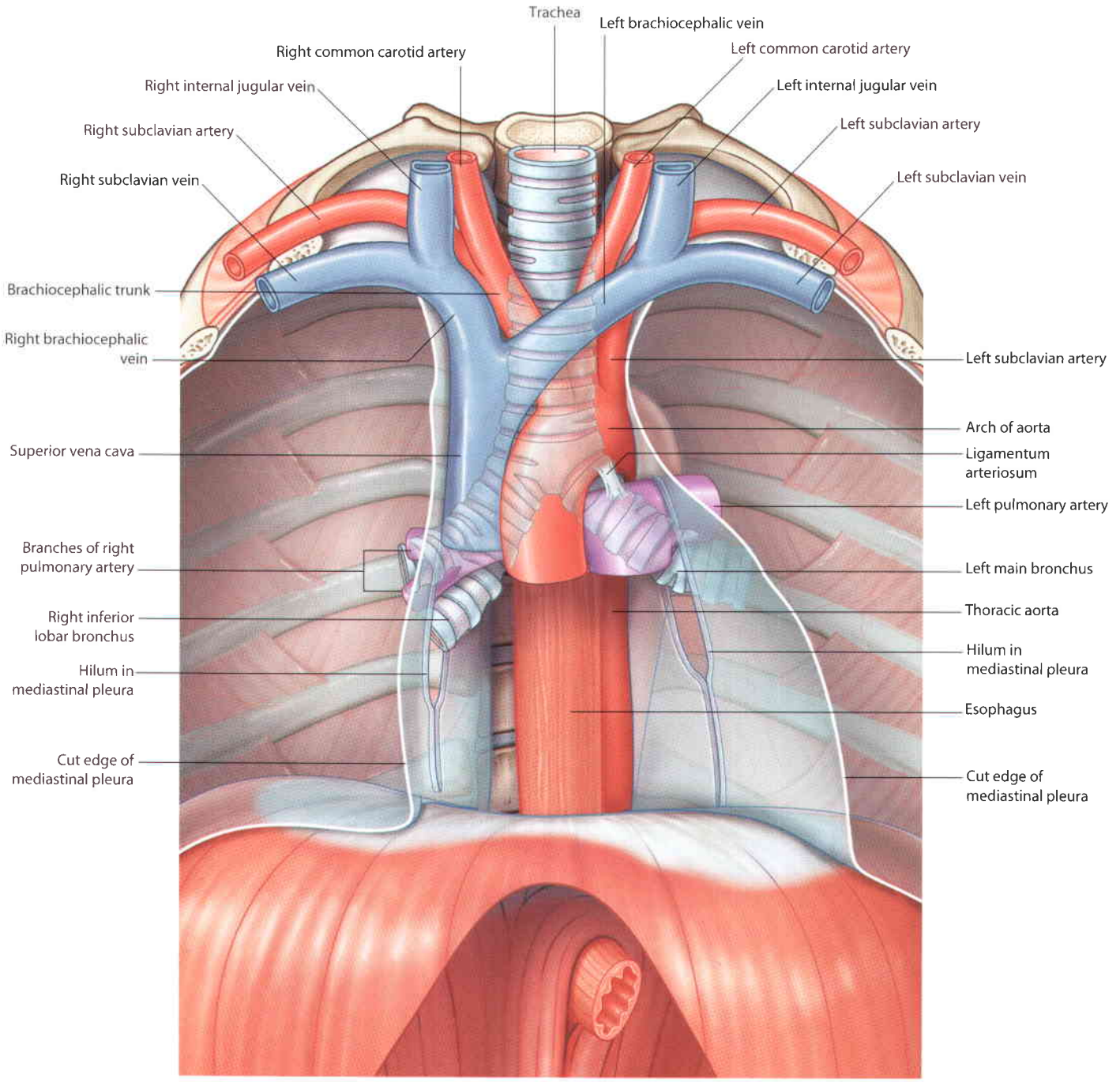
Arteries and nerves of the superior mediastinum



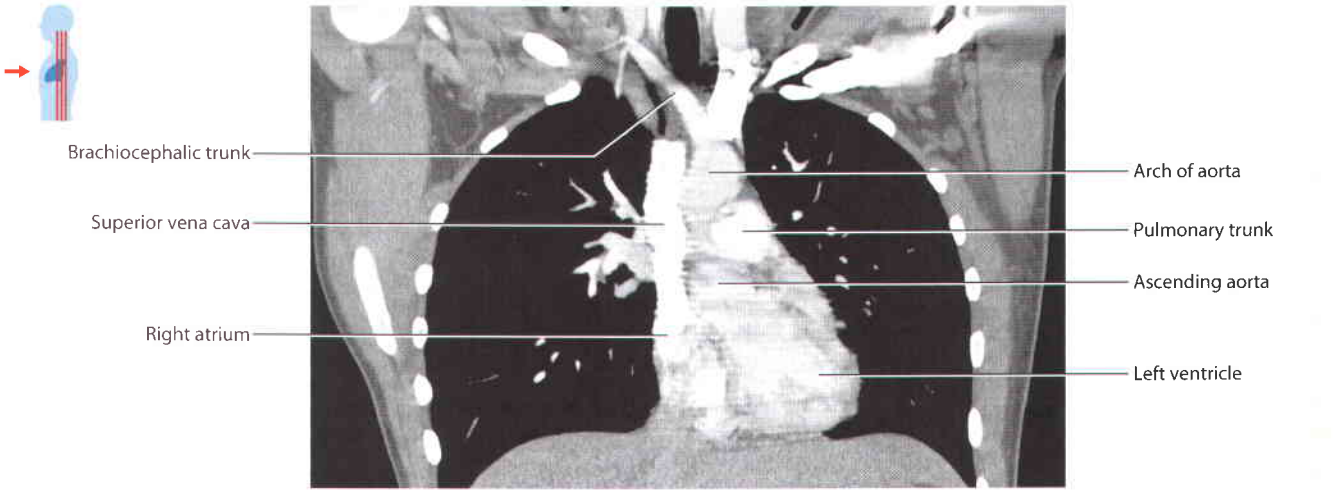
Positioning of venous channels in the superior mediastinum.
CT image, with contrast, in coronal plane



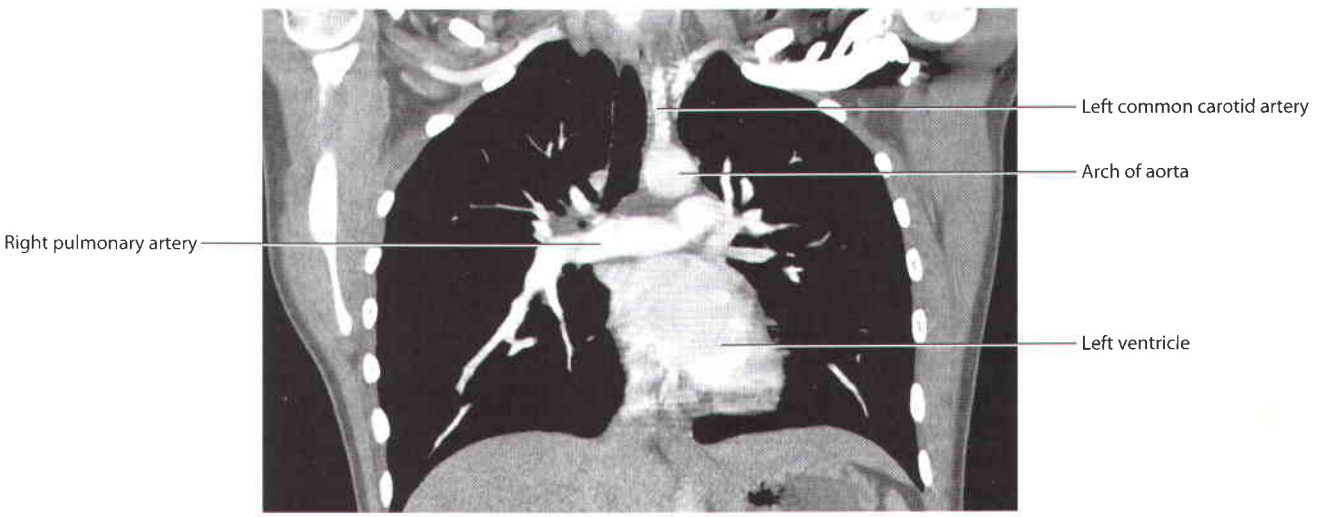
Anterior view of the superior mediastinum with the venous channels, pulmonary trunk, and heart removed.
Volume-rendered anterior view using multidetector computed tomography



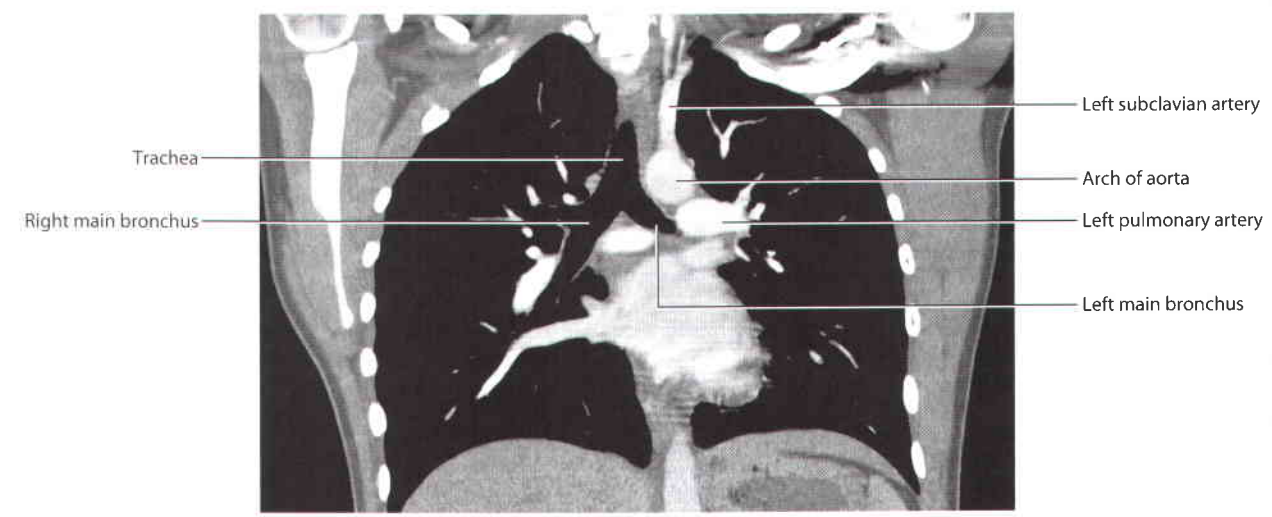
Trachea and structures relating to it in the superior mediastinum



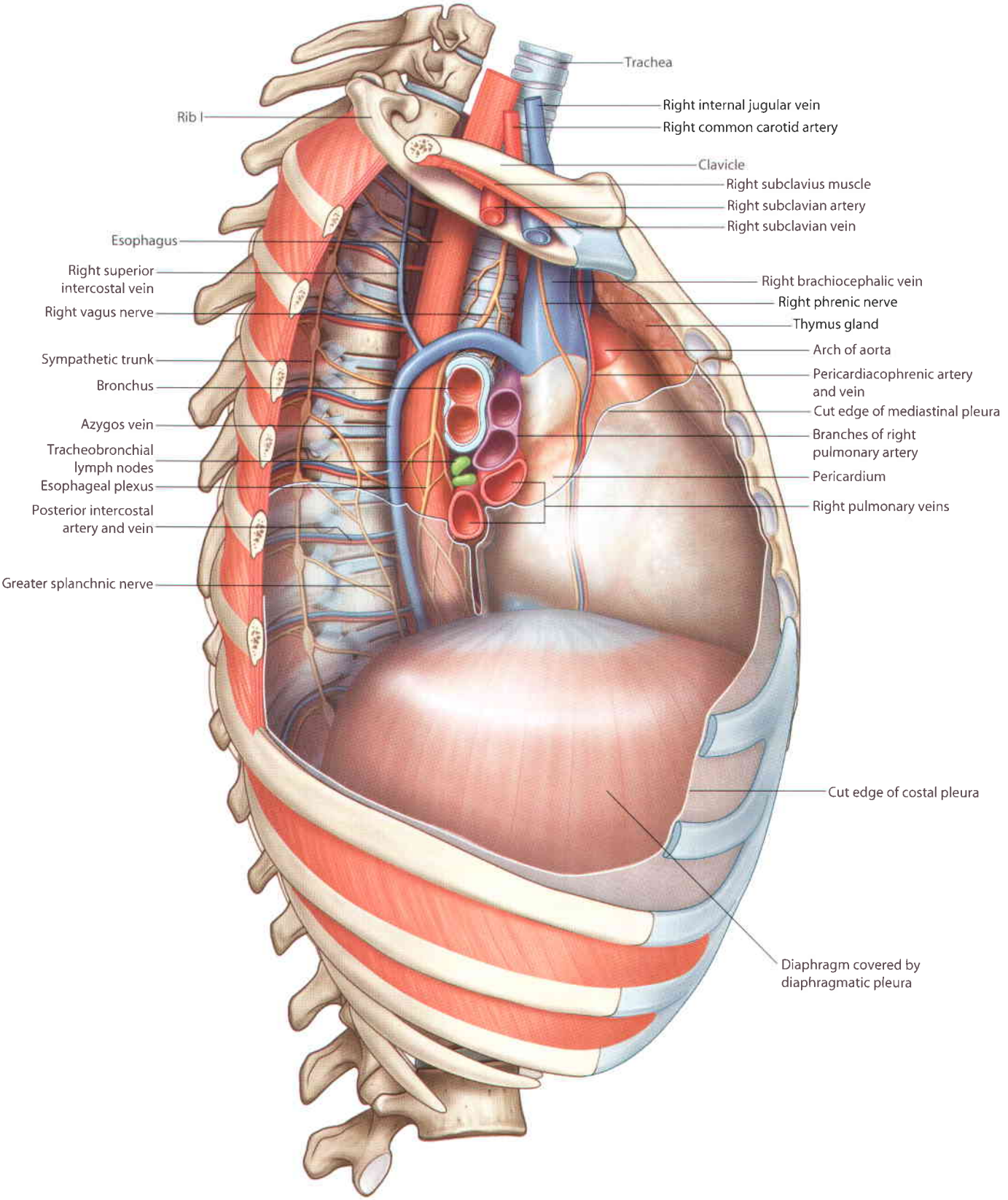
Positioning of brachiocephalic trunk in relation to other structures in the superior mediastinum.
CT image, with contrast, in coronal plane



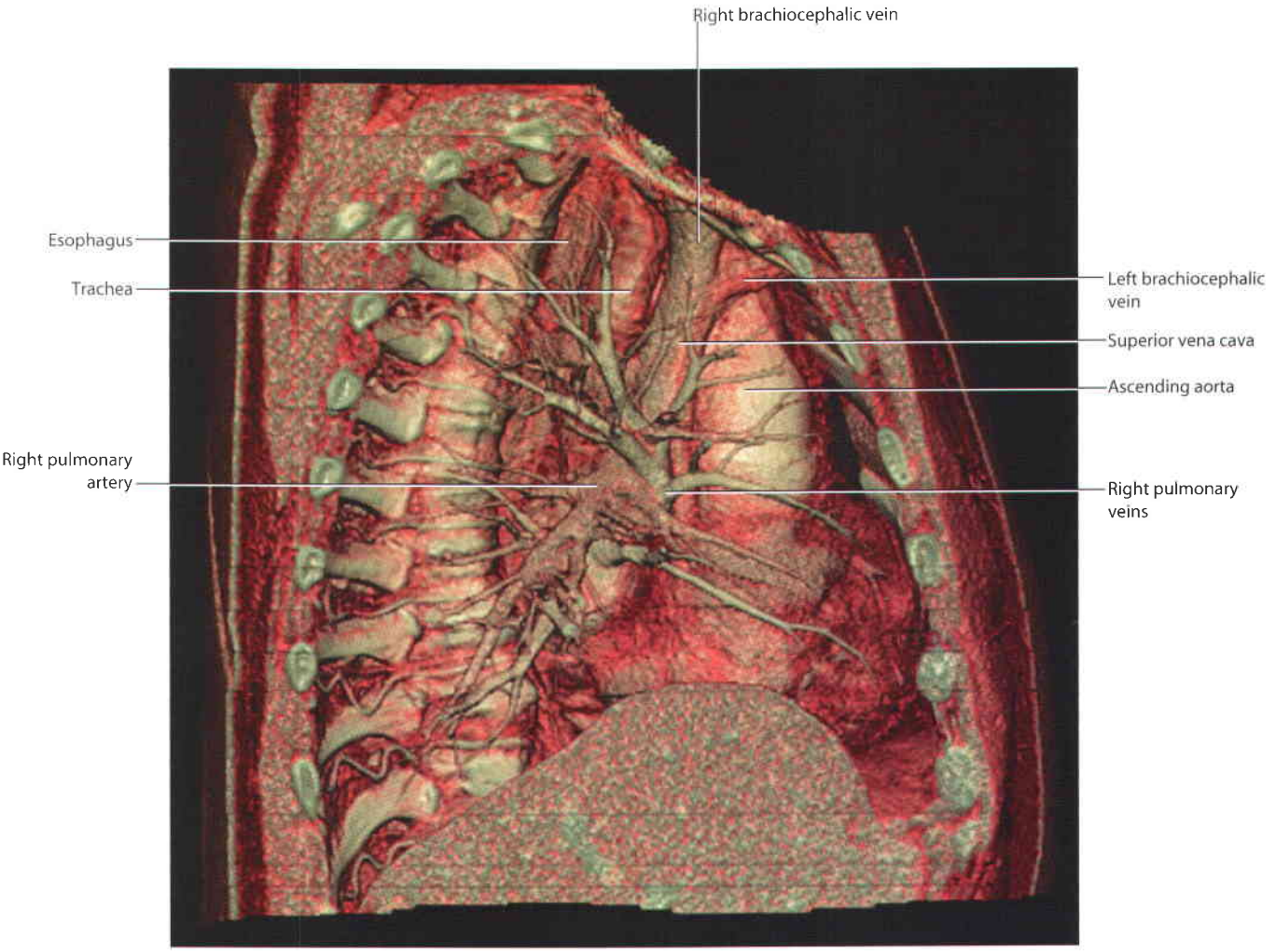
Positioning of left common carotid artery in relation to other structures in the superior mediastinum.
CT image, with contrast, in coronal plane



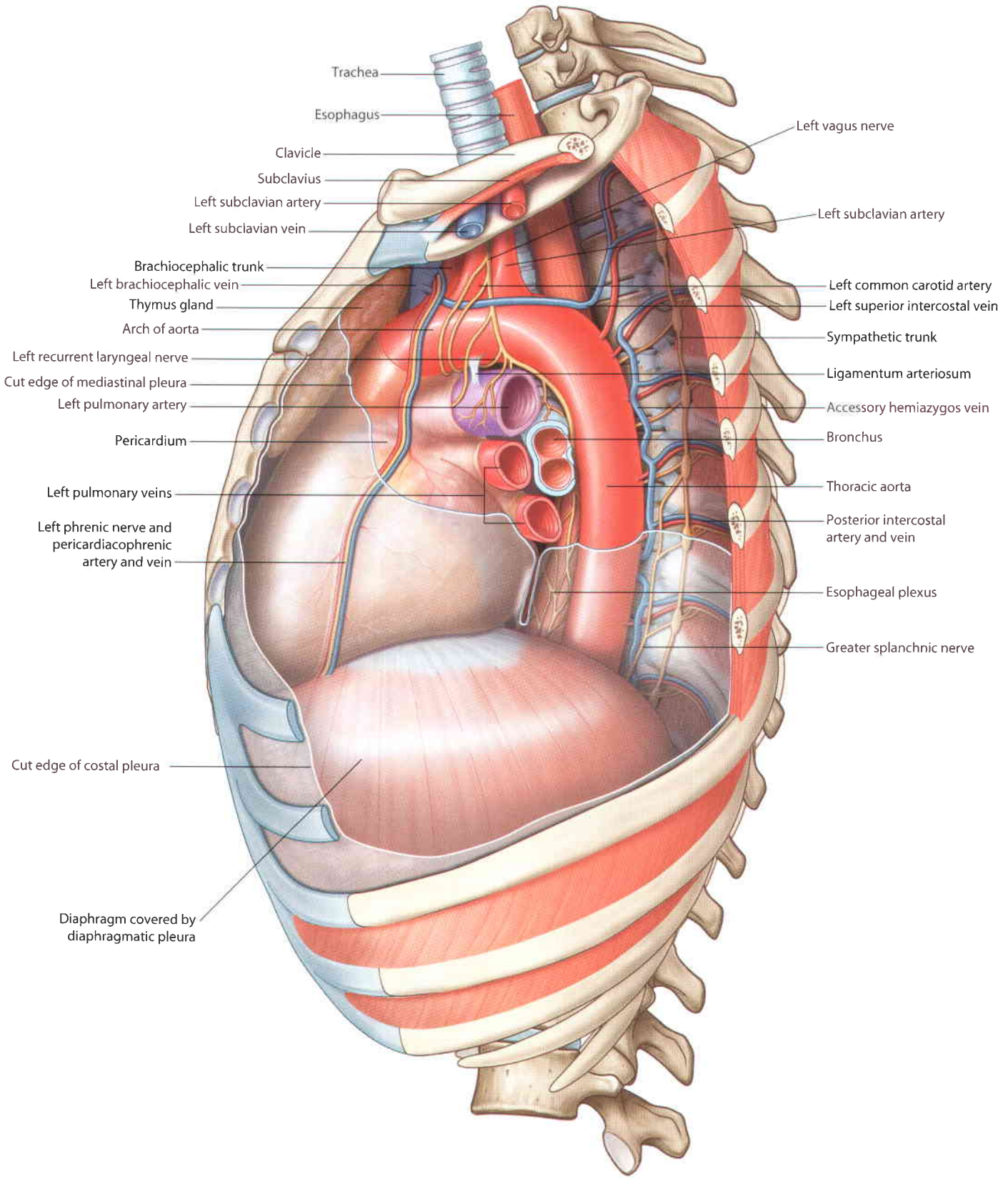
Positioning of left subclavian artery and the bifurcation of the trachea in relation to other structures in the superior mediastinum.
CT image, with contrast, in coronal plane



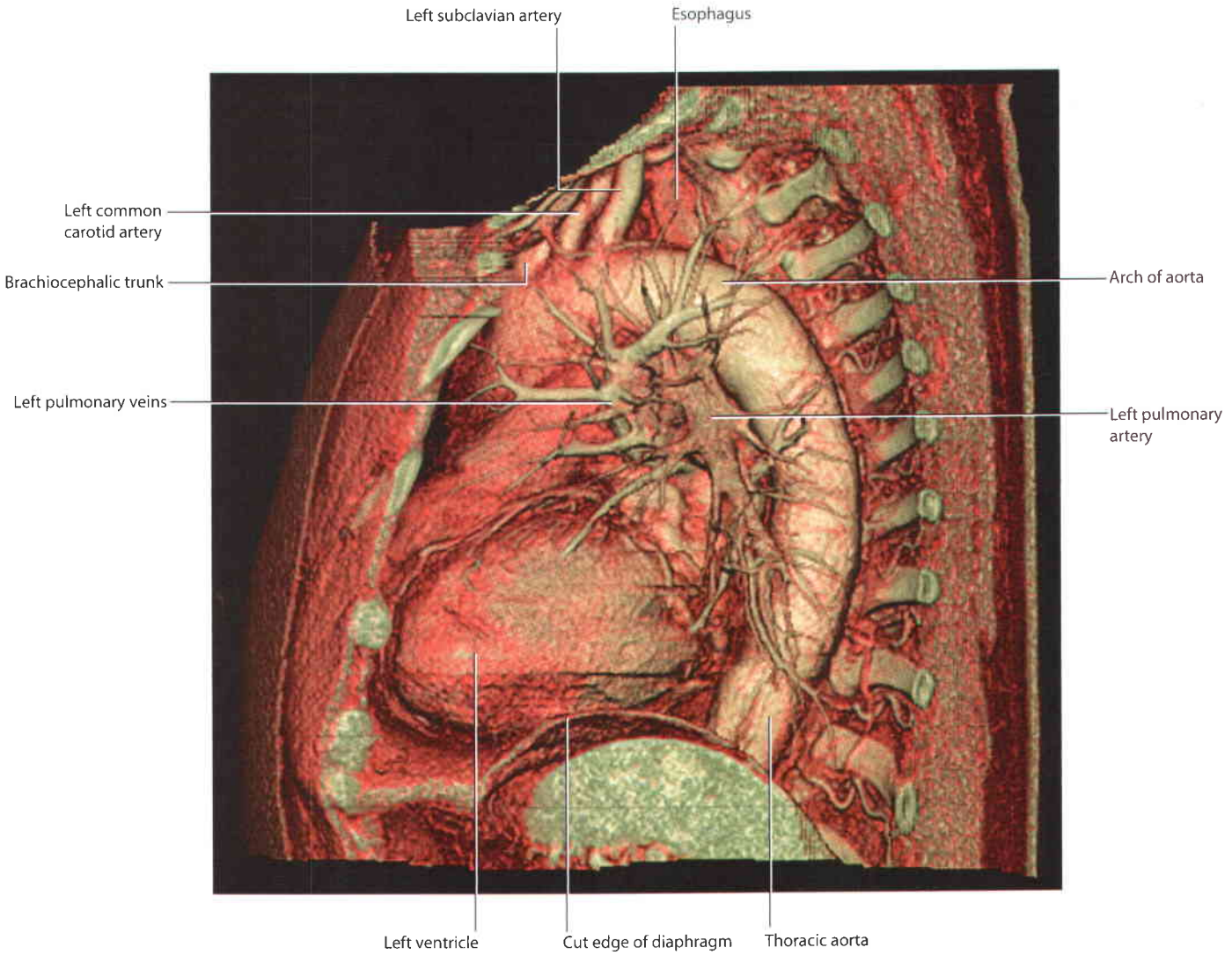
Right side of mediastinum and right thoracic cavity



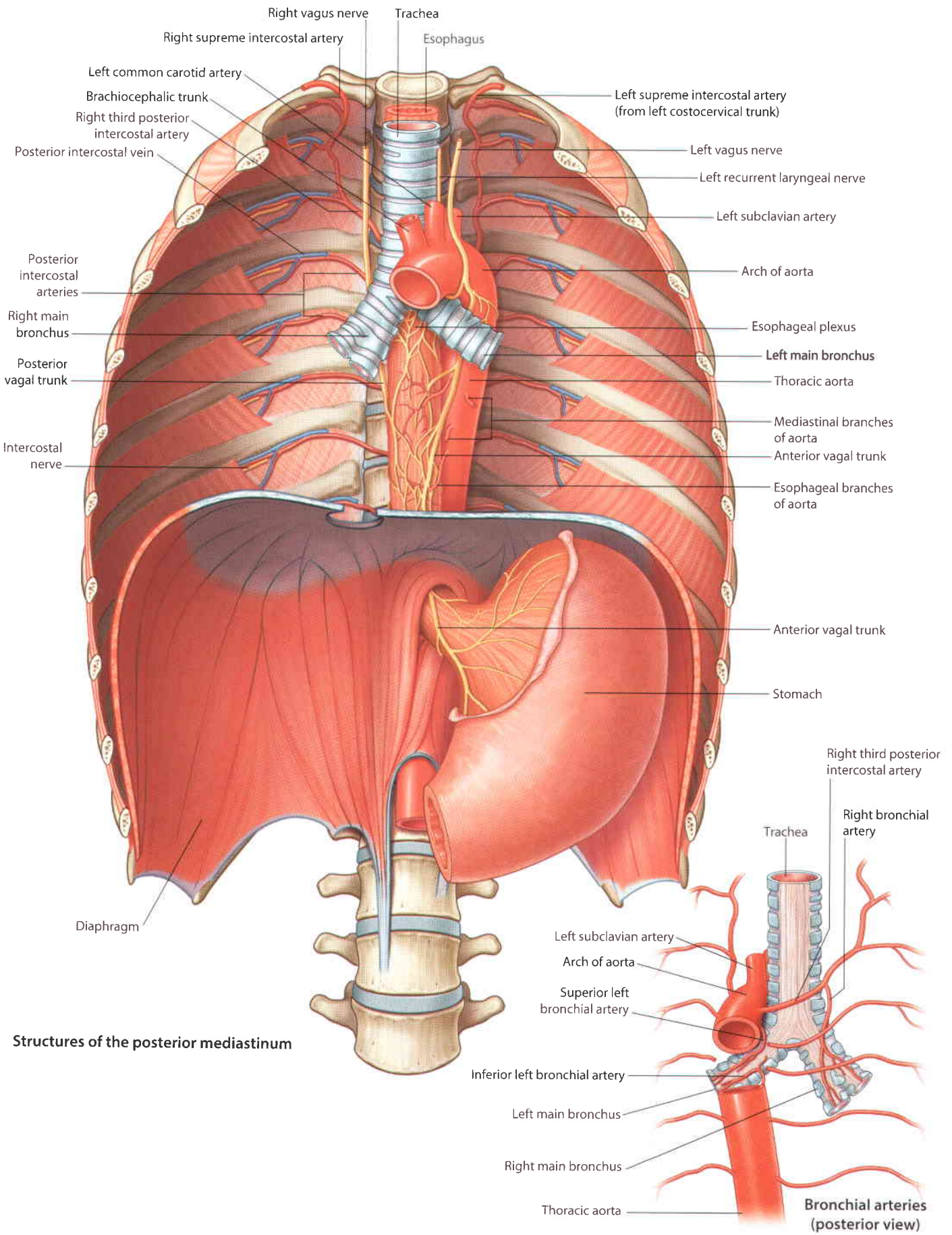
View of mediastinal structures from the right side of the thorax.
Volume-rendered lateral view from the right side using multidetector computed tomography



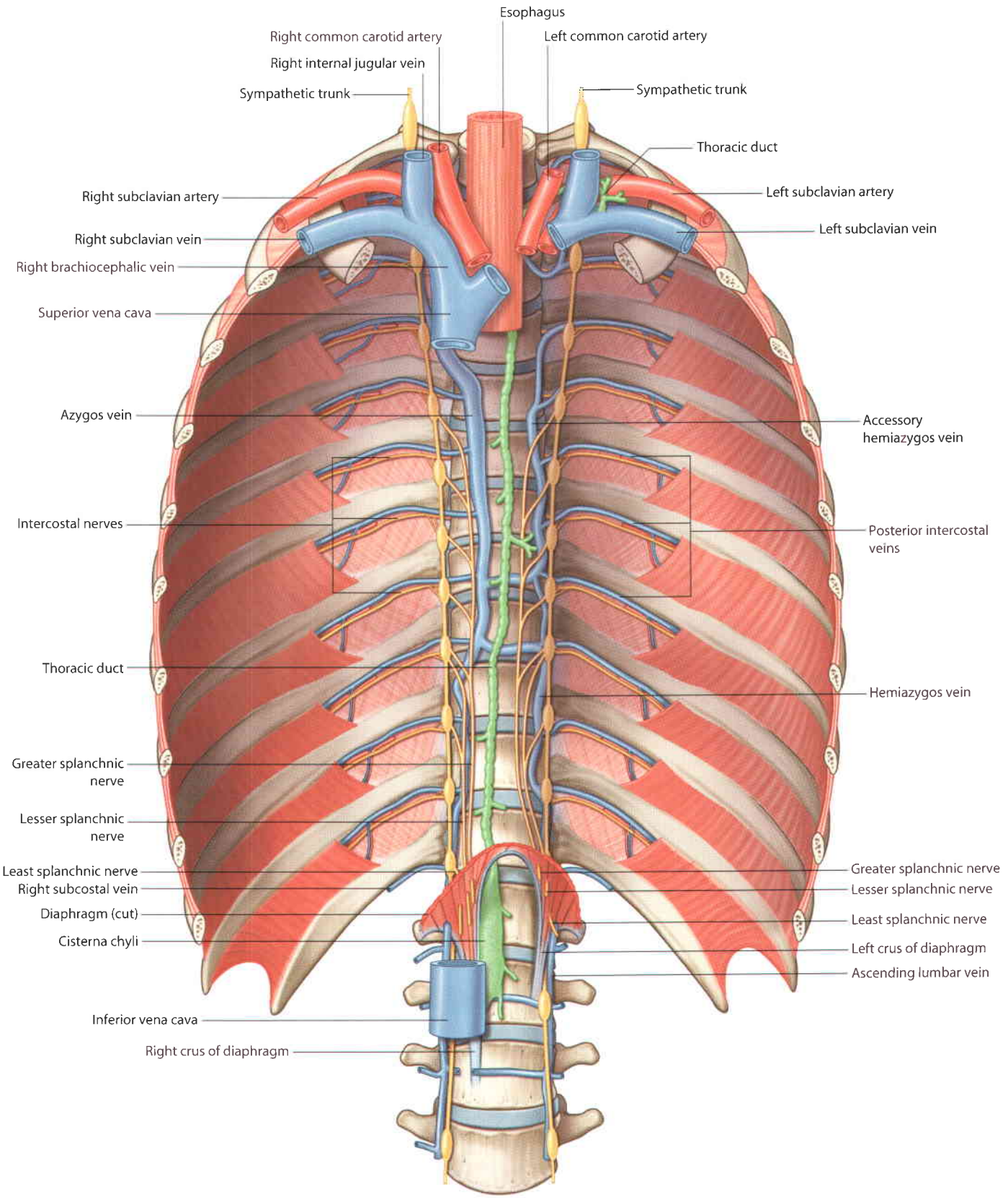
Left side of mediastinum and left thoracic cavity



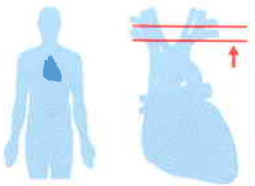
View of mediastinal structures from the left side of the thorax.
Volume-rendered lateral view from the left side using multidetector computed tomography



Structures of the posterior mediastinum



Structures of the posterior mediastinum (thoracic aorta and esophagus removed)



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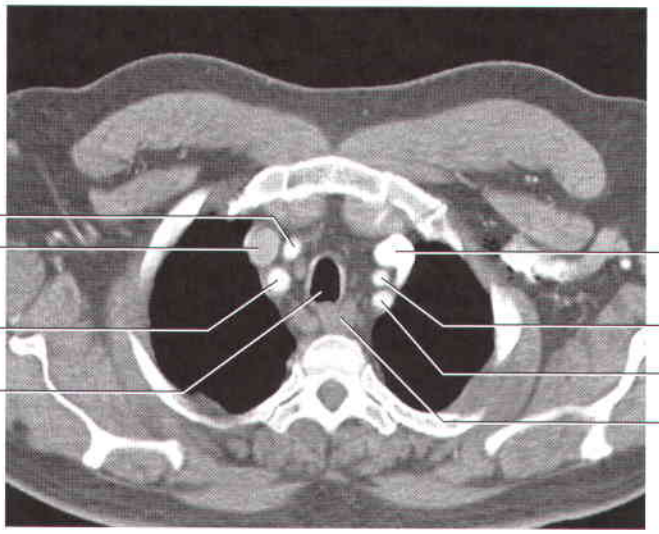
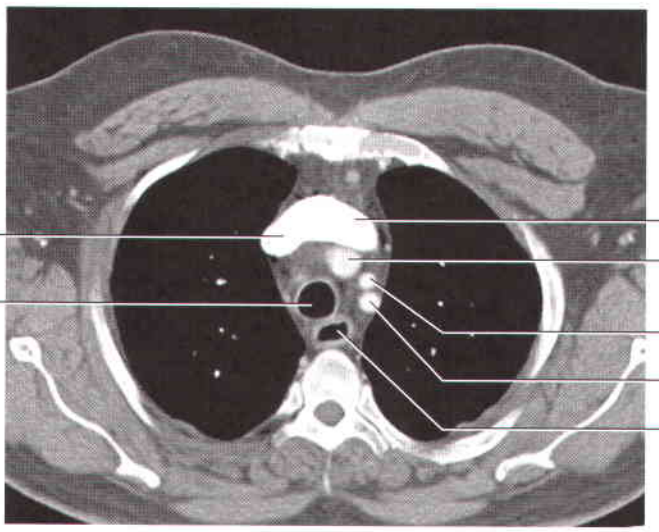
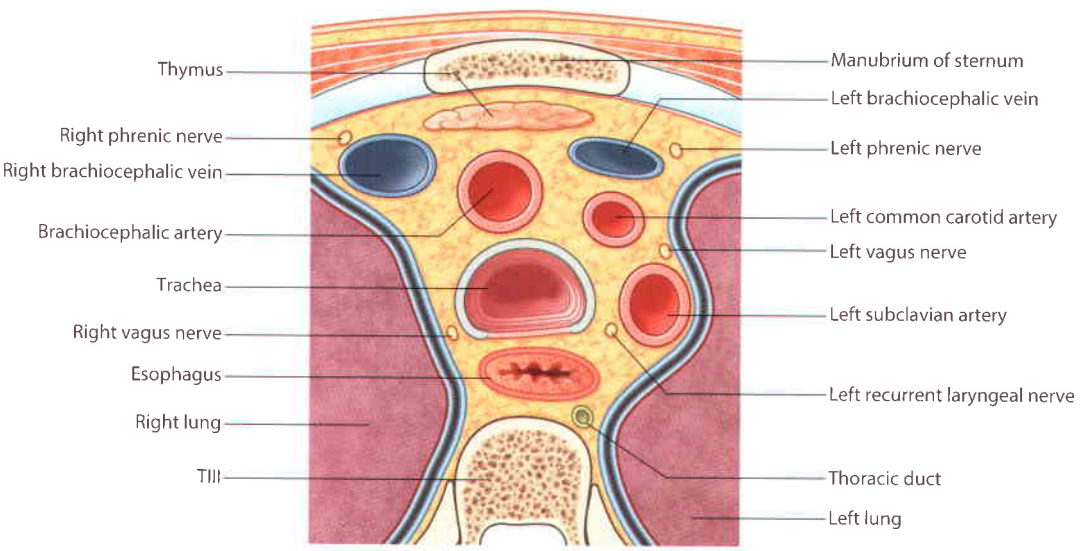


B

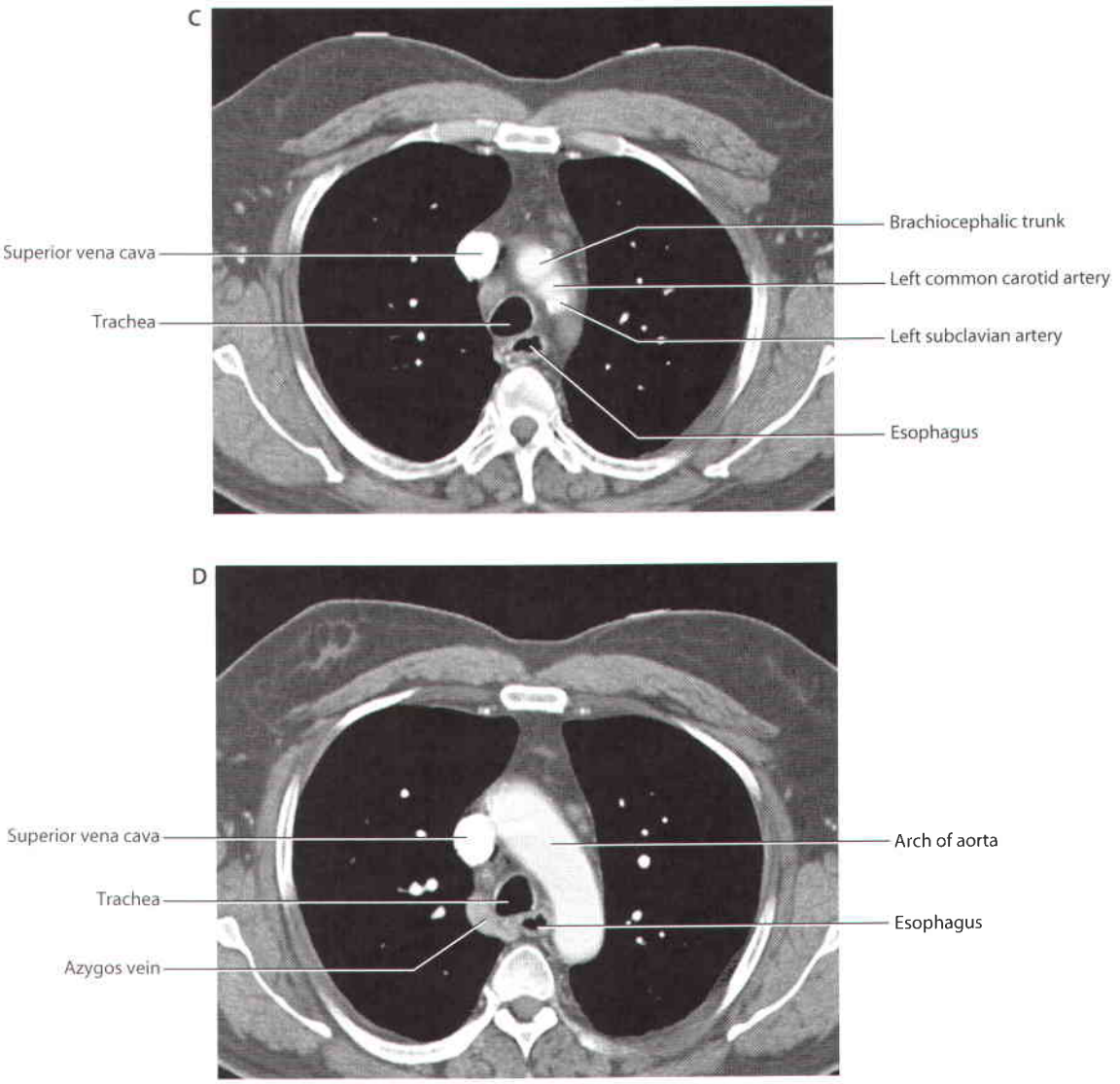


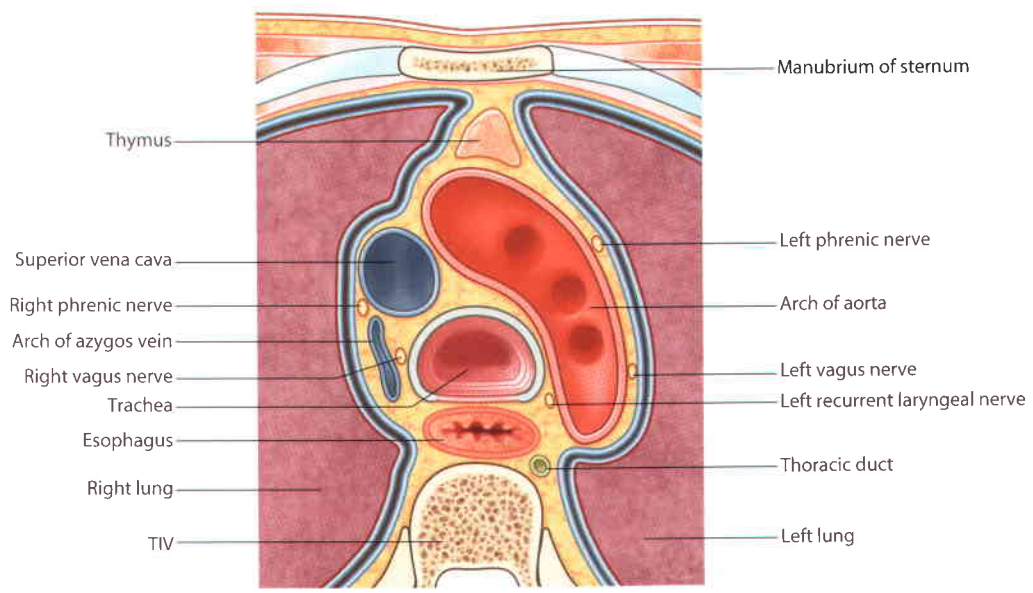
A through I – This is a series of images that pass through the thorax from superior to inferior showing the various mediastinal structures and their relationships with each other.

CT images, with contrast, in axial plane



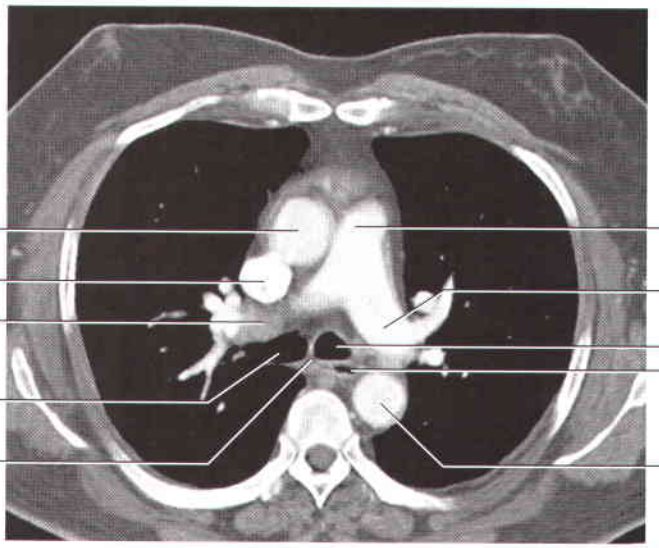
Transverse section through the superior mediastinum at the level of vertebra TIII





Transverse section through the superior mediastinum at the level of vertebra TIV

E



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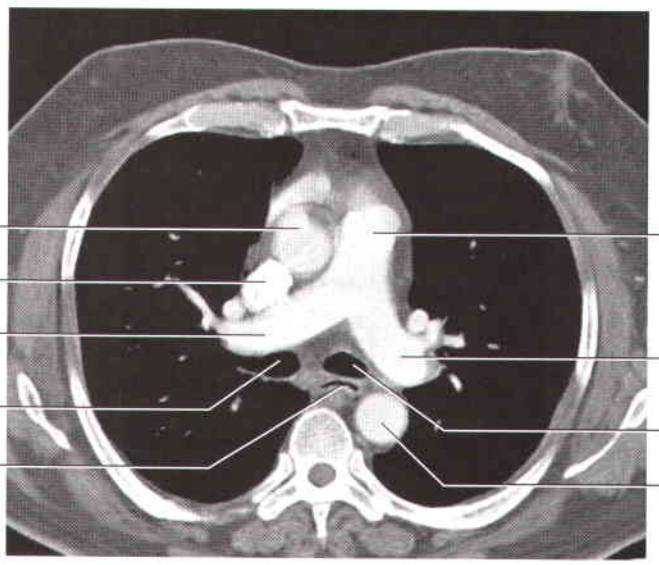
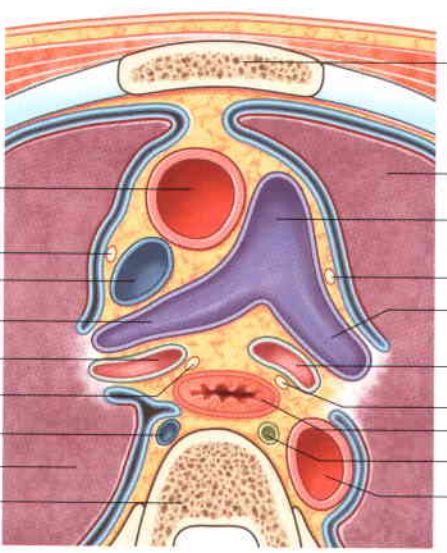
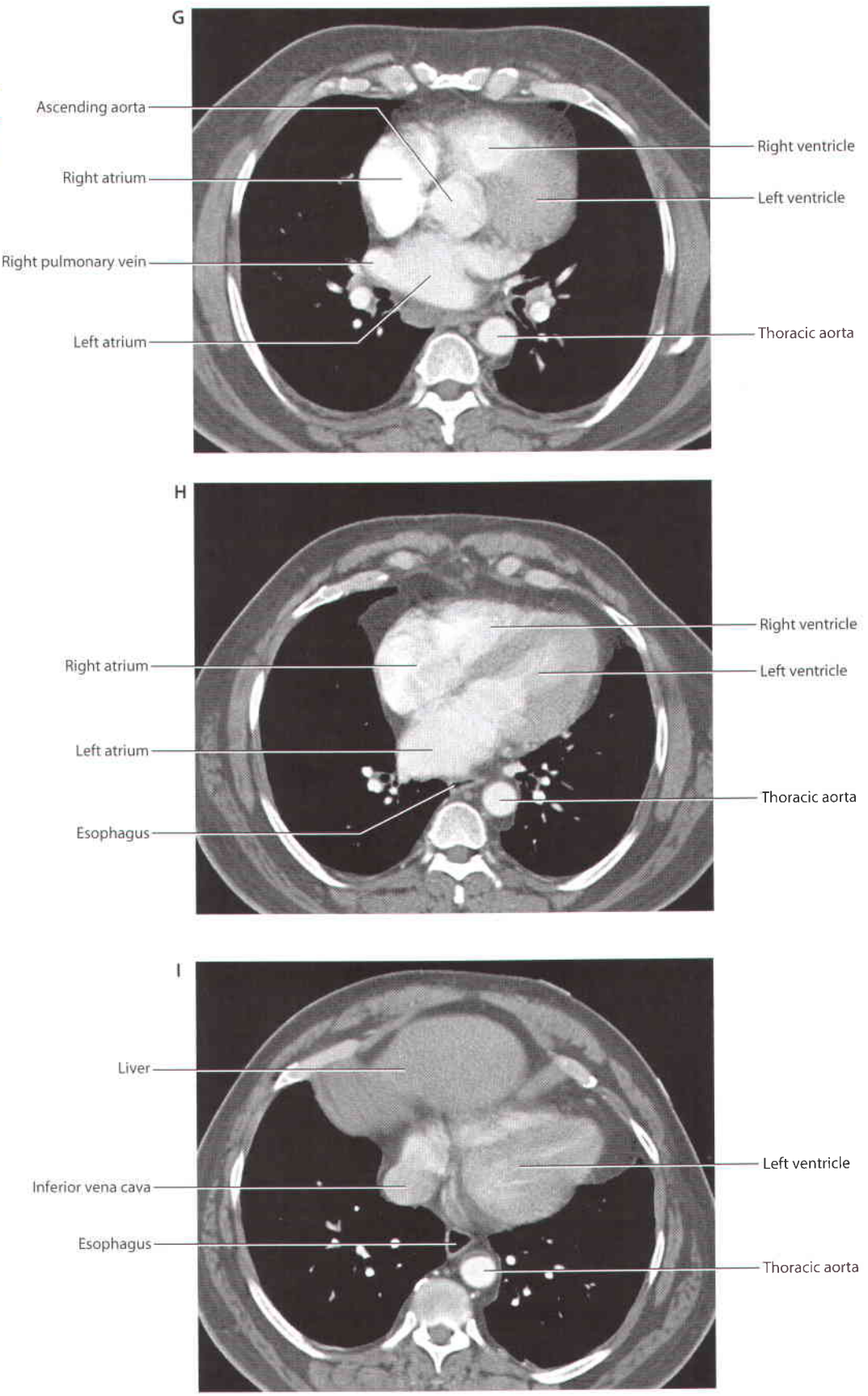


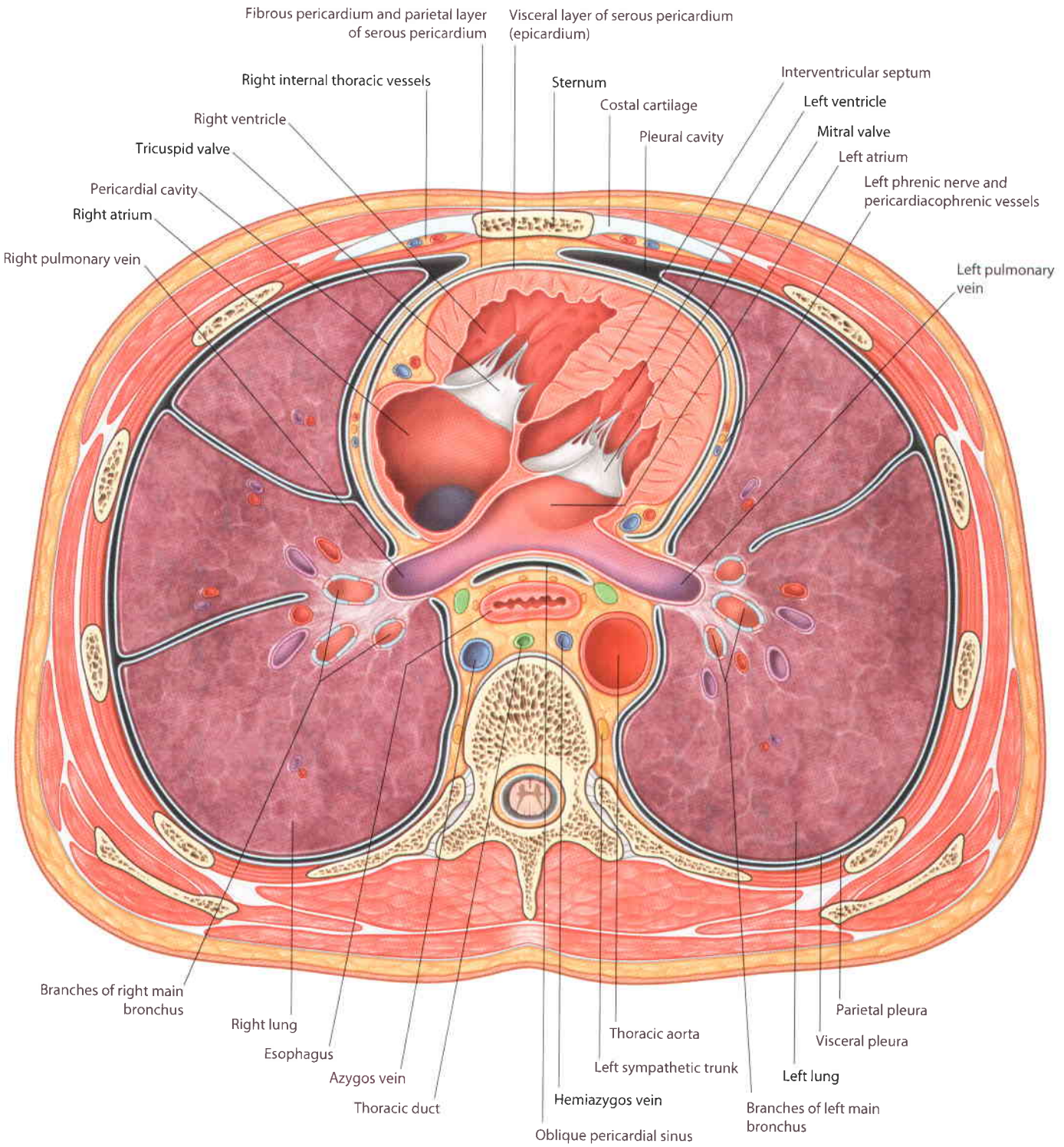


Transverse section through the superior mediastinum at the level of vertebra TV

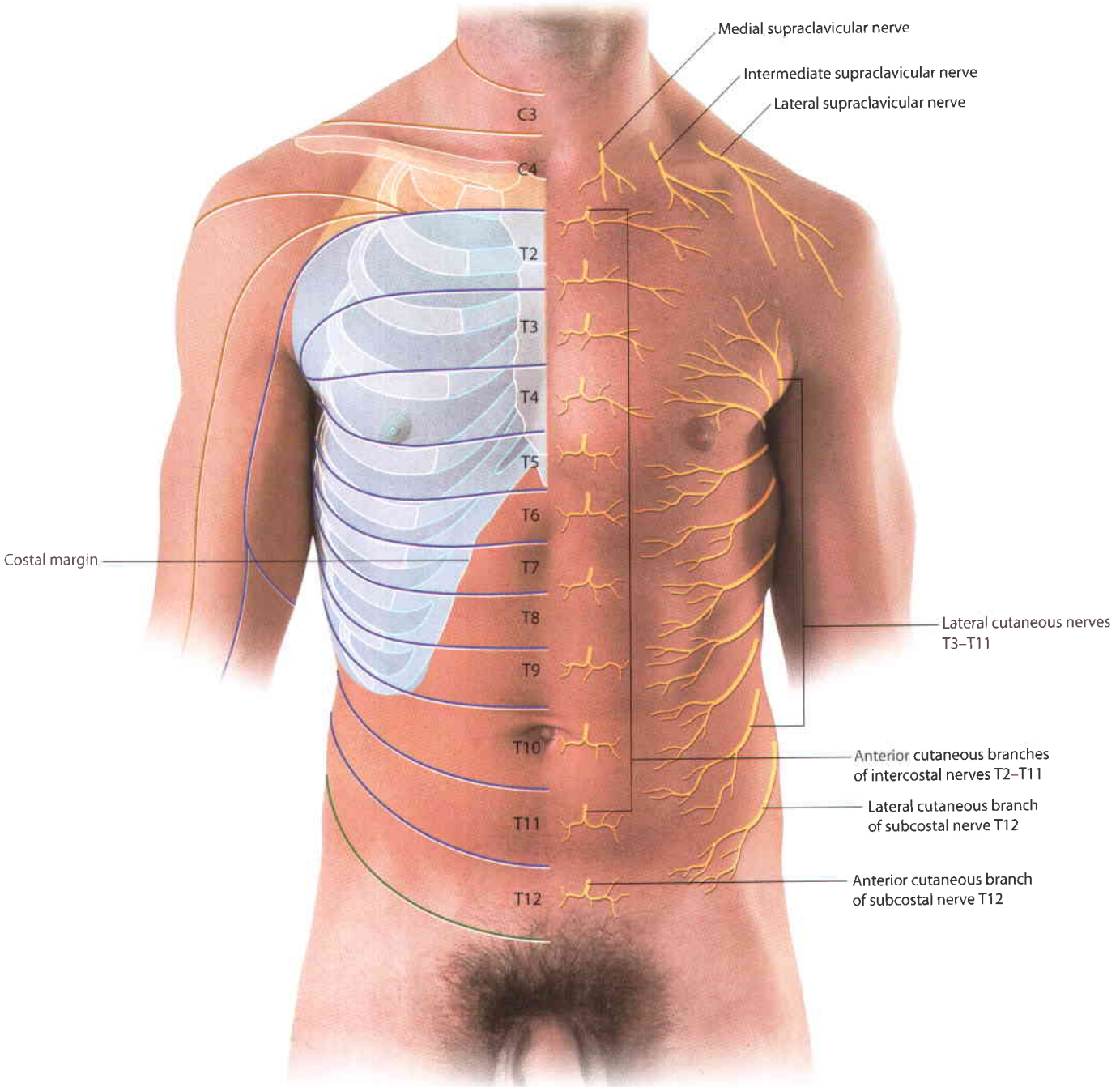


A through I – This is a series of images that pass through the thorax from superior to inferior showing the various mediastinal structures and their relationships with each other.

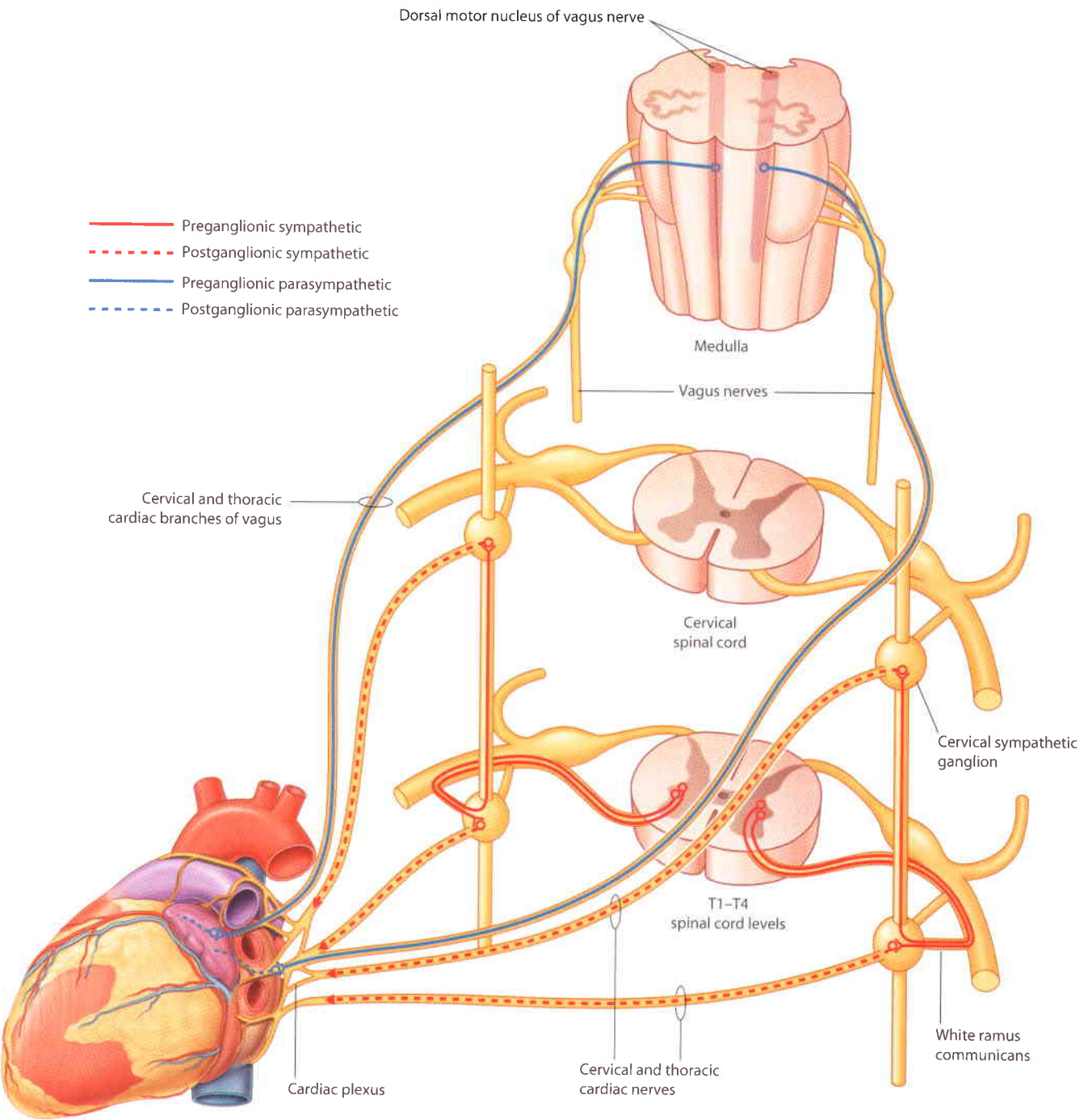
CT images, with contrast, in axial plane



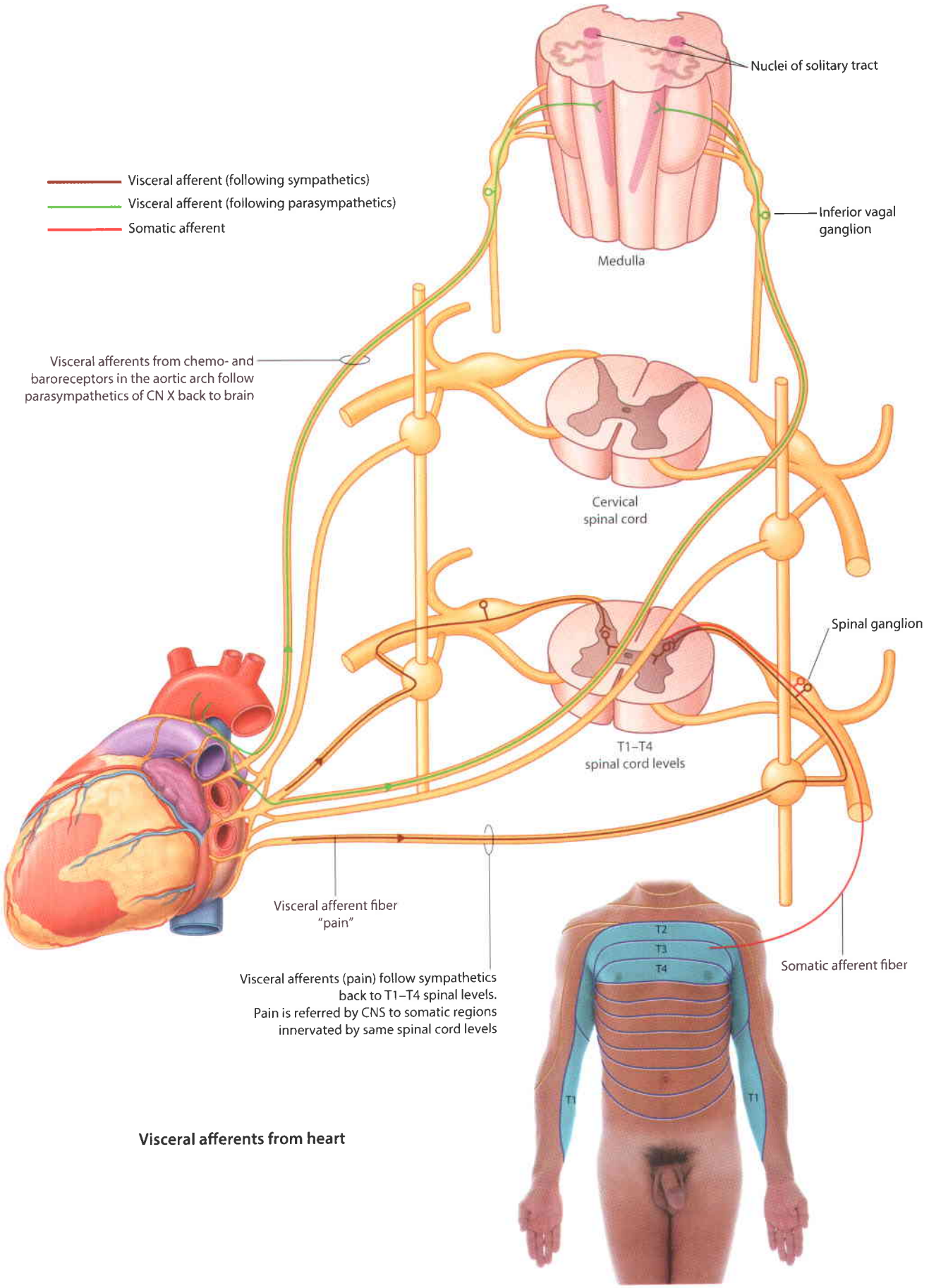
Transverse section through thorax (approximately TVII)



Dermatomes and cutaneous nerves of the thoracic region



Visceral efferent (motor) innervation of the heart (sympathetic and parasympathetic)



Visceral afferents from heart

4 ABDOMEN

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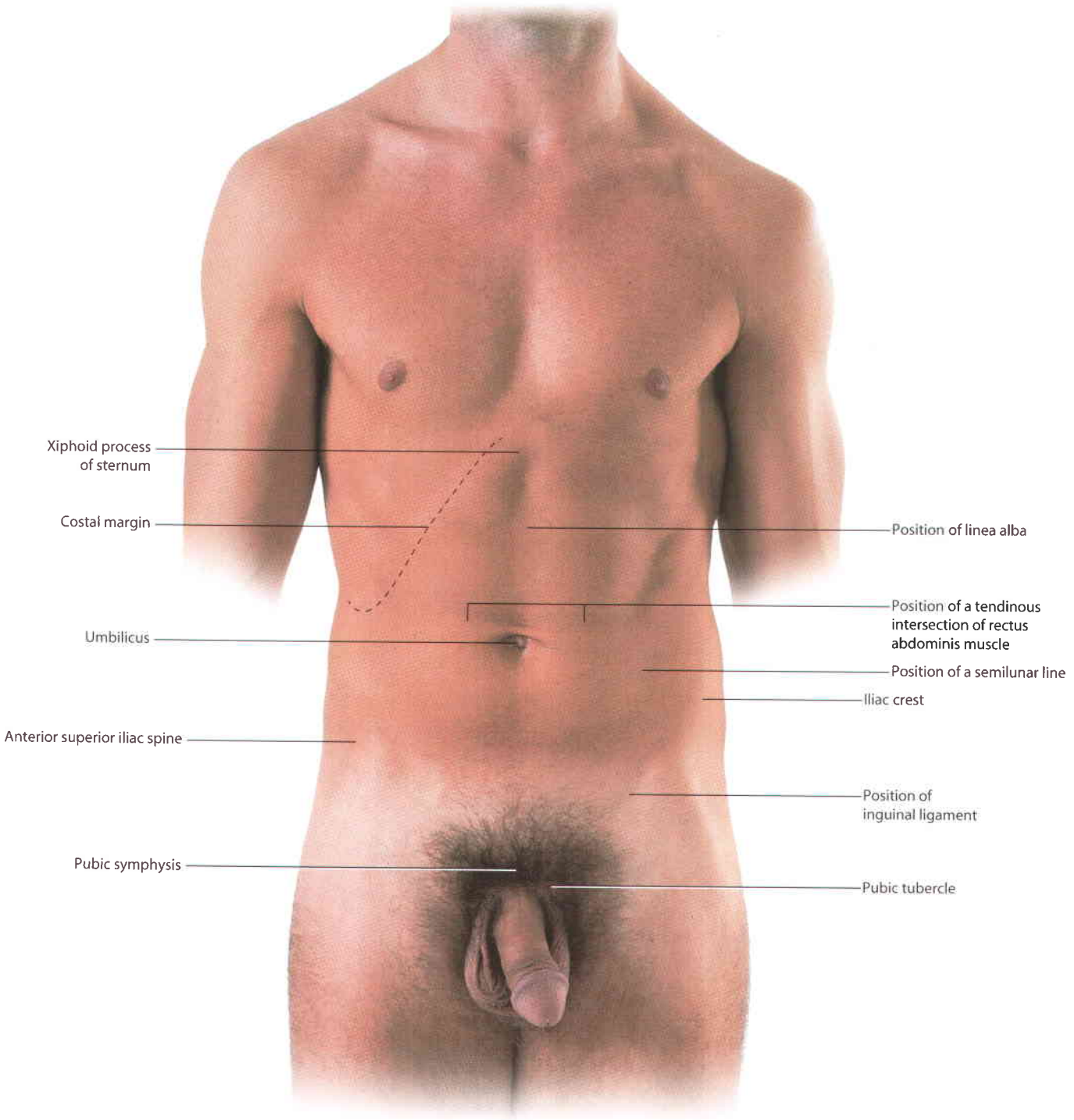
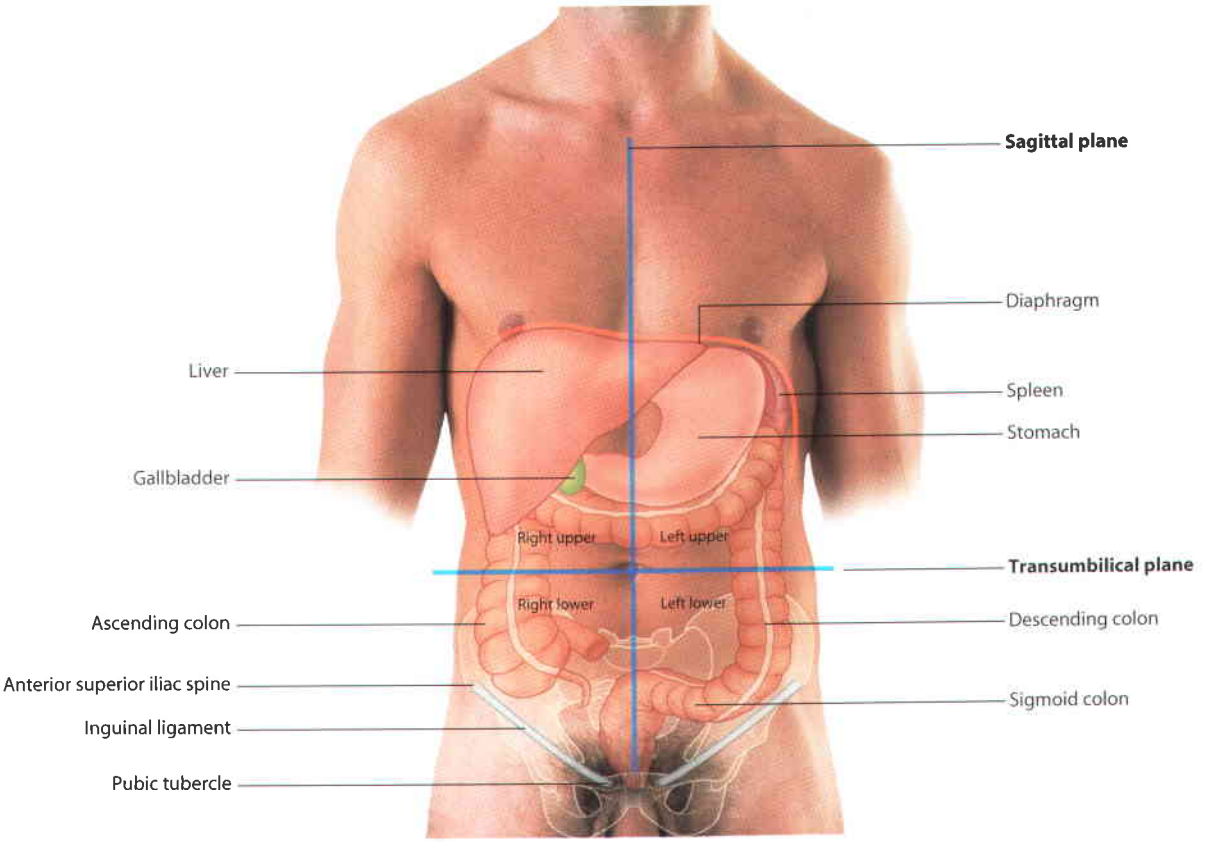
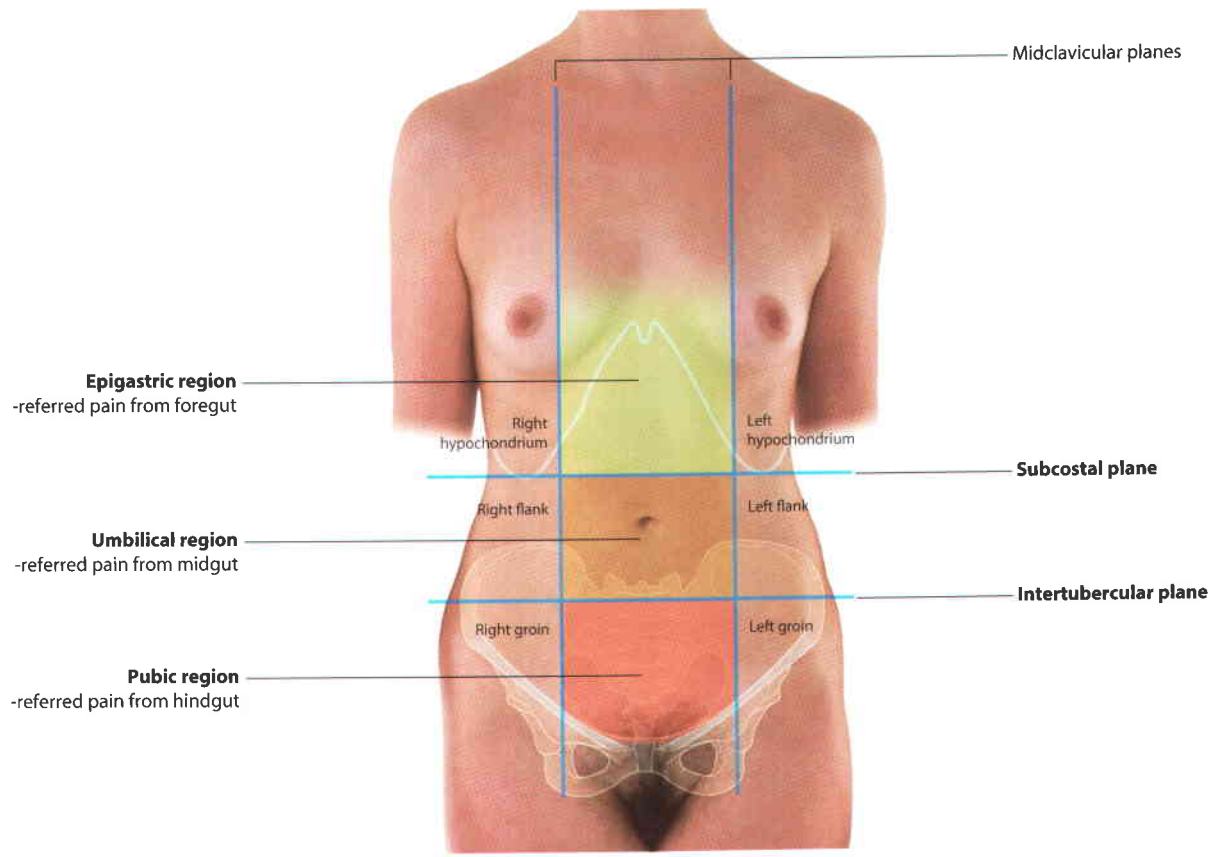


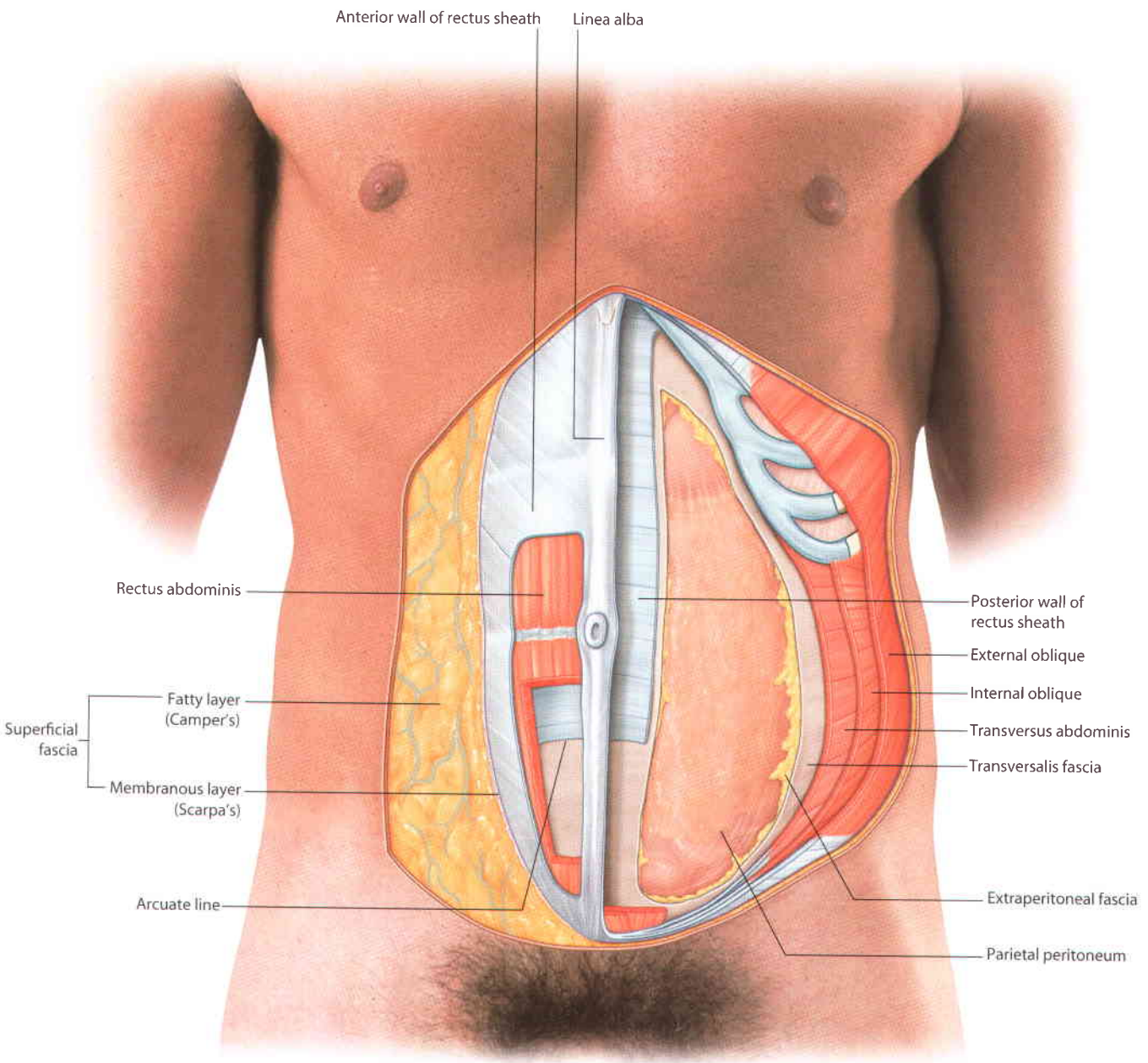
Anterior abdominal wall surface anatomy



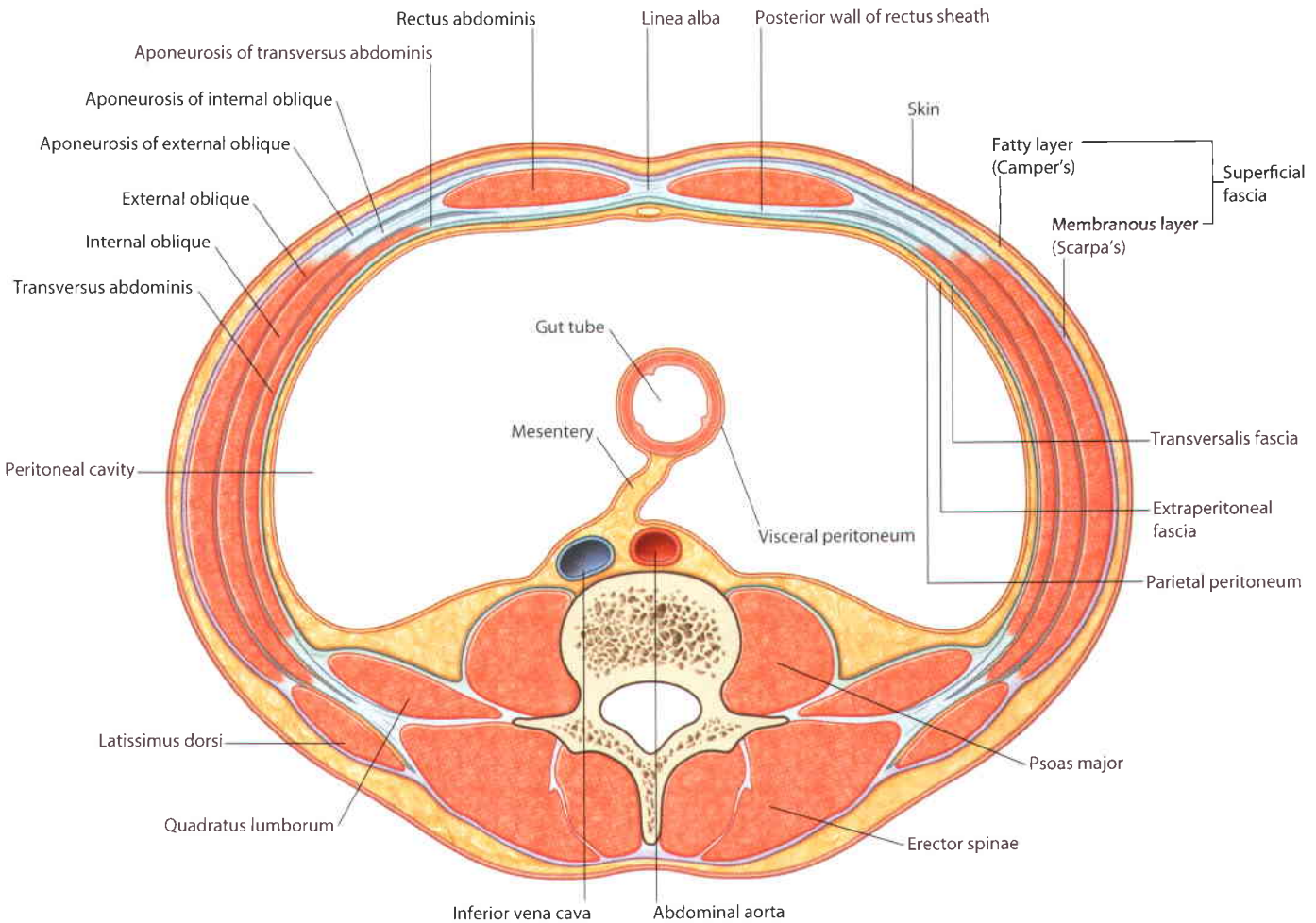
Abdominal quadrants and the positions of major viscera



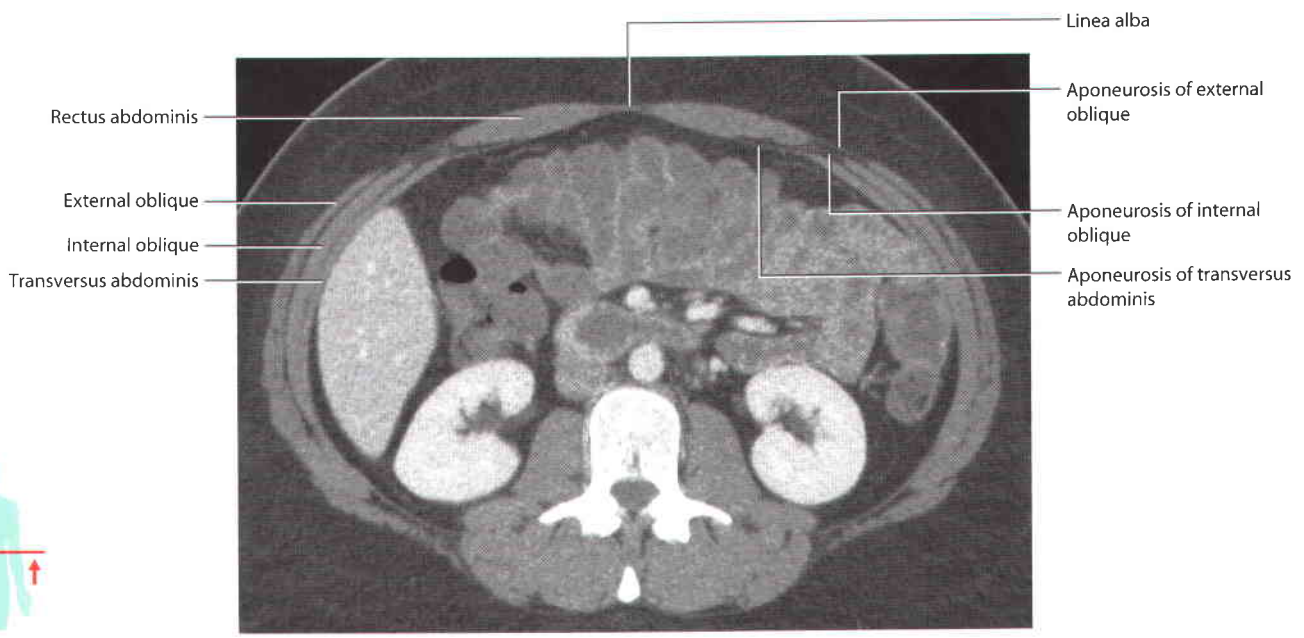
The nine regions of the abdomen

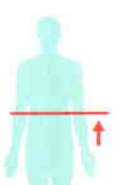


Layers of the abdominal wall

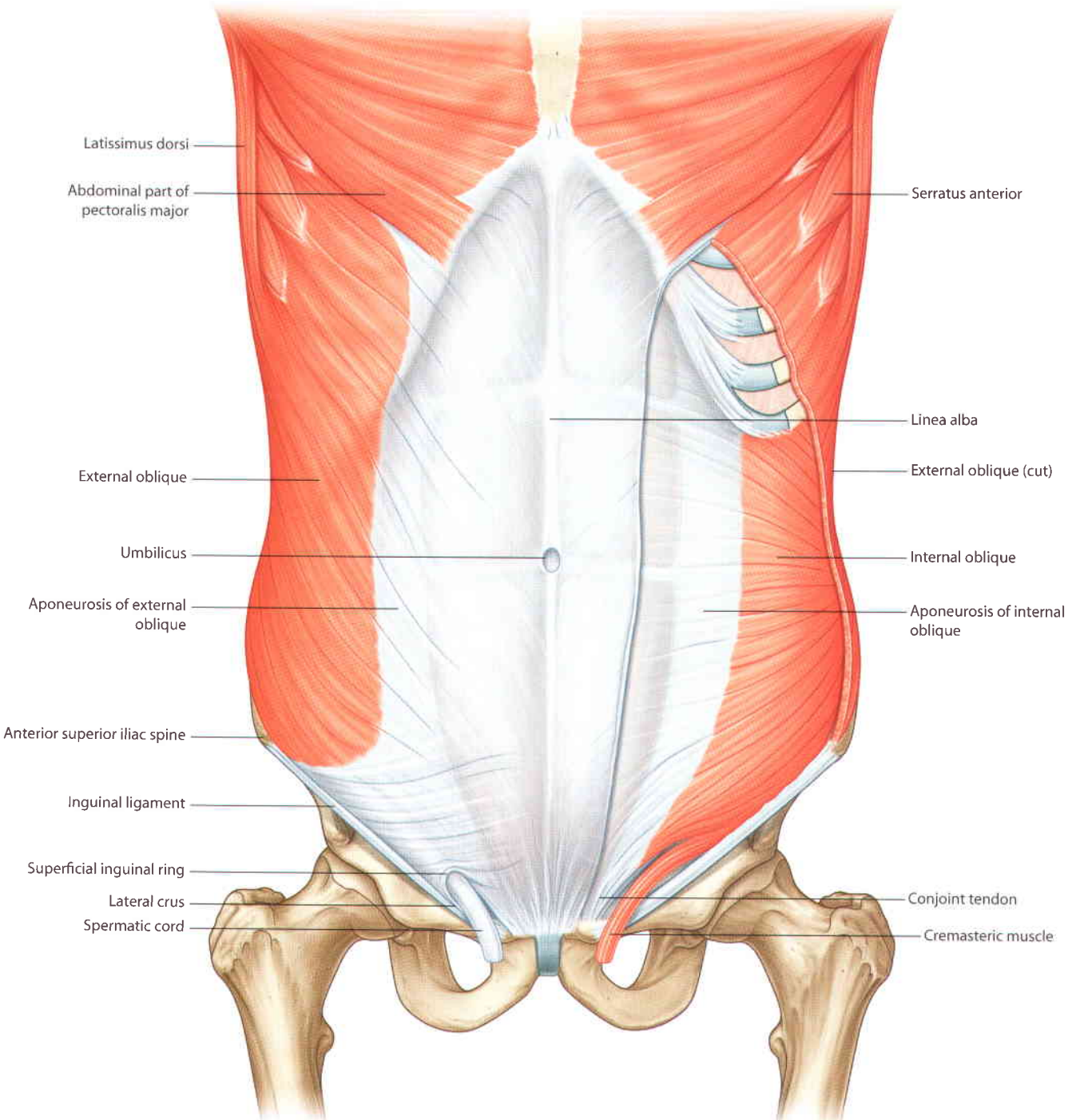


Transverse section showing the layers of the abdominal wall (above umbilicus)

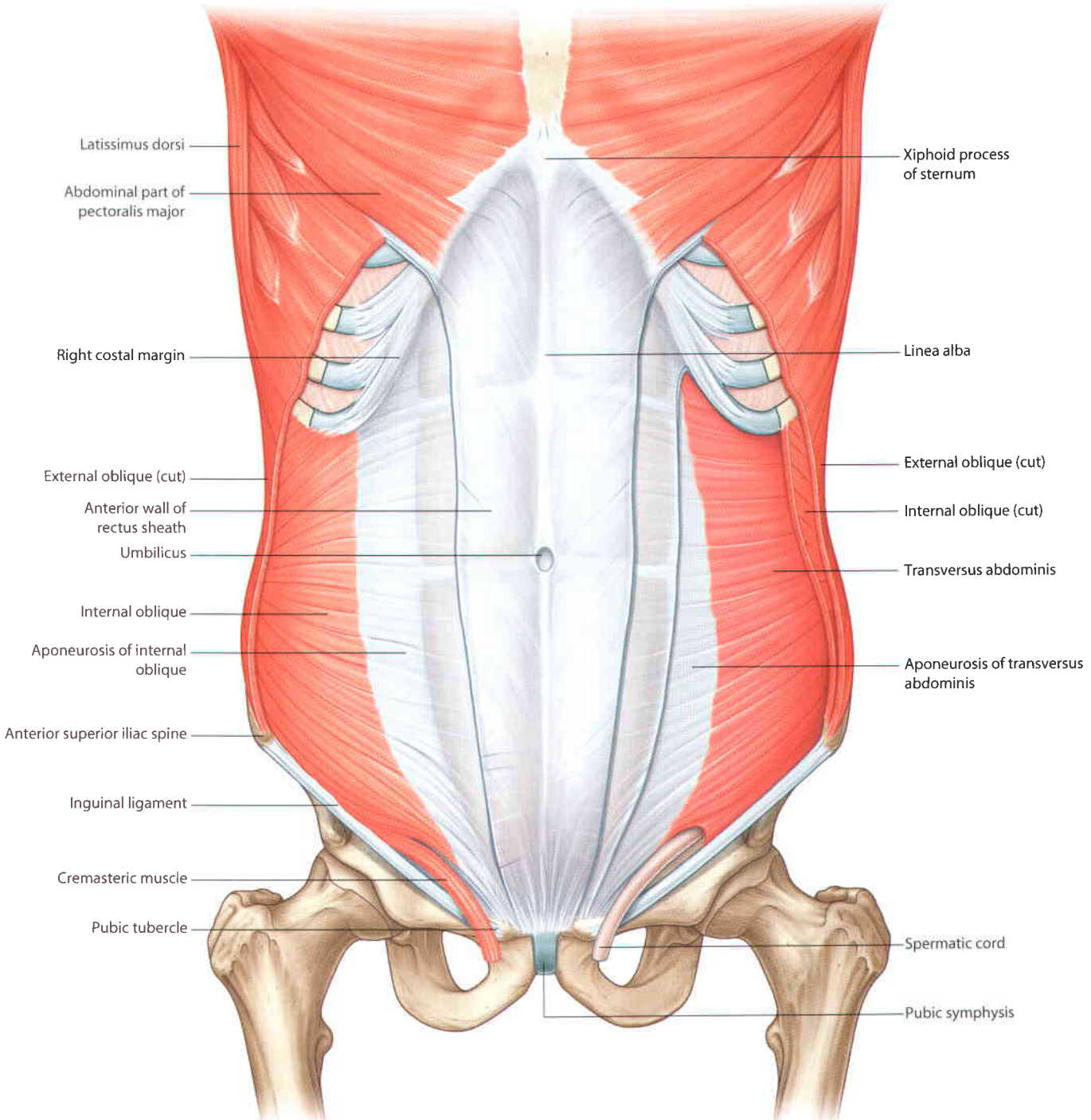




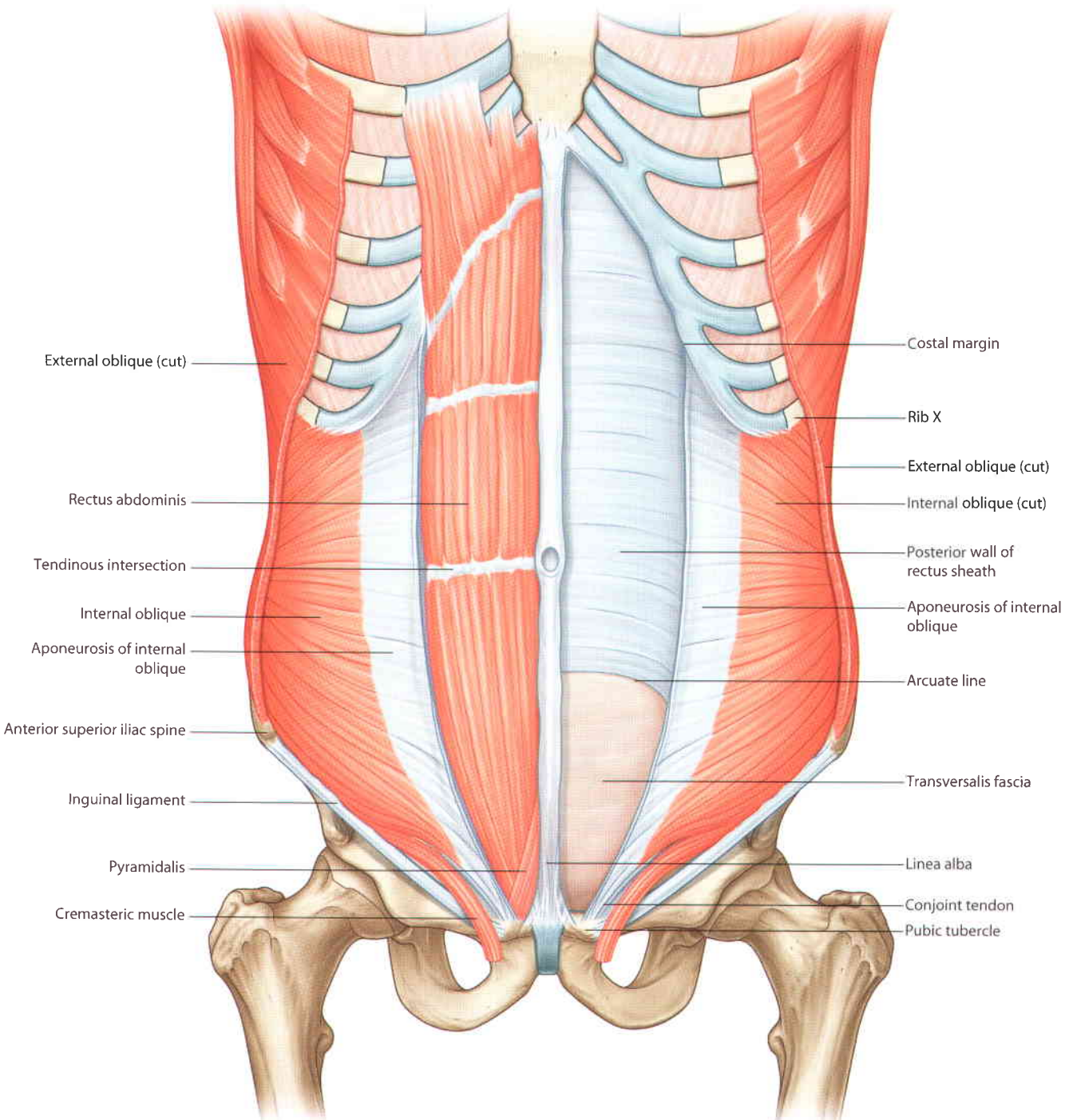
Layers of the abdominal wall.
CT image, with contrast, in axial plane



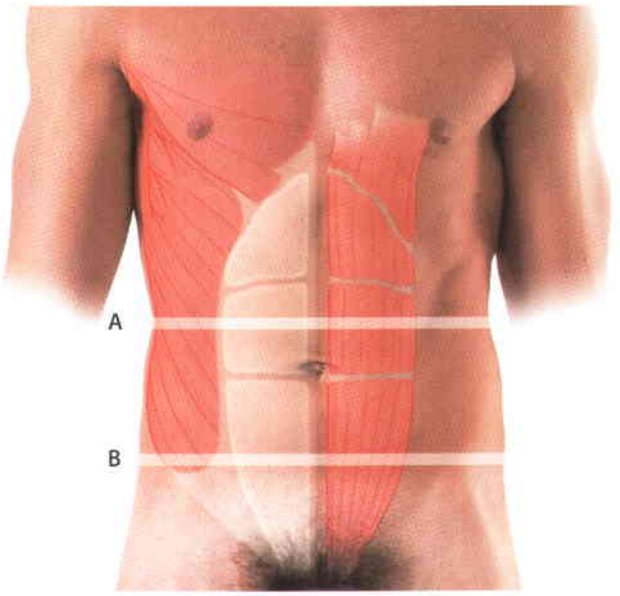
External and internal oblique muscles



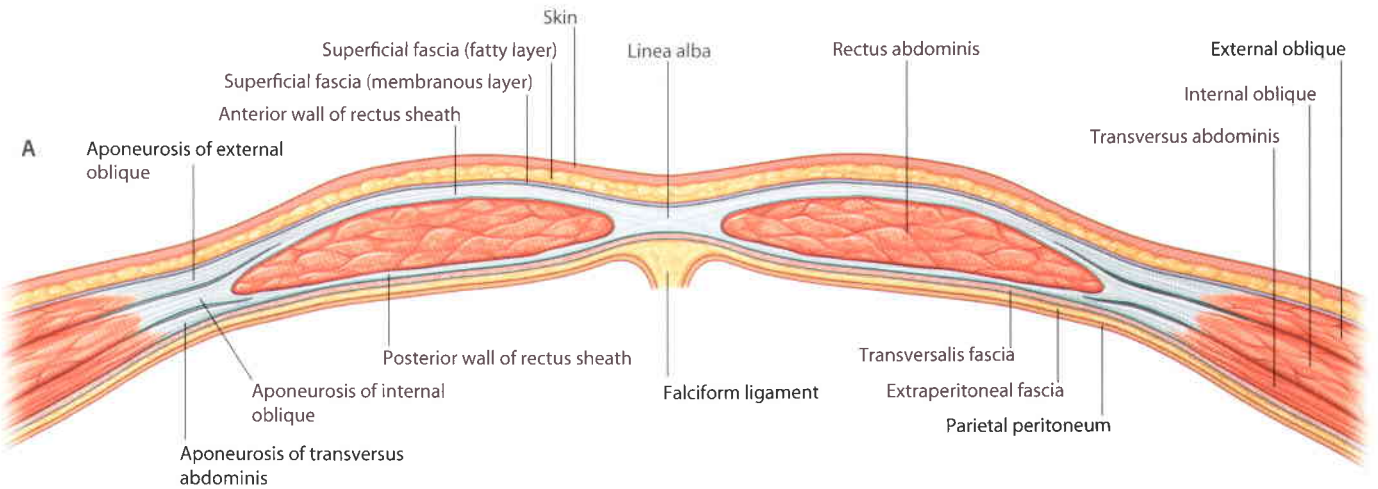
Internal oblique and transversus abdominis muscles

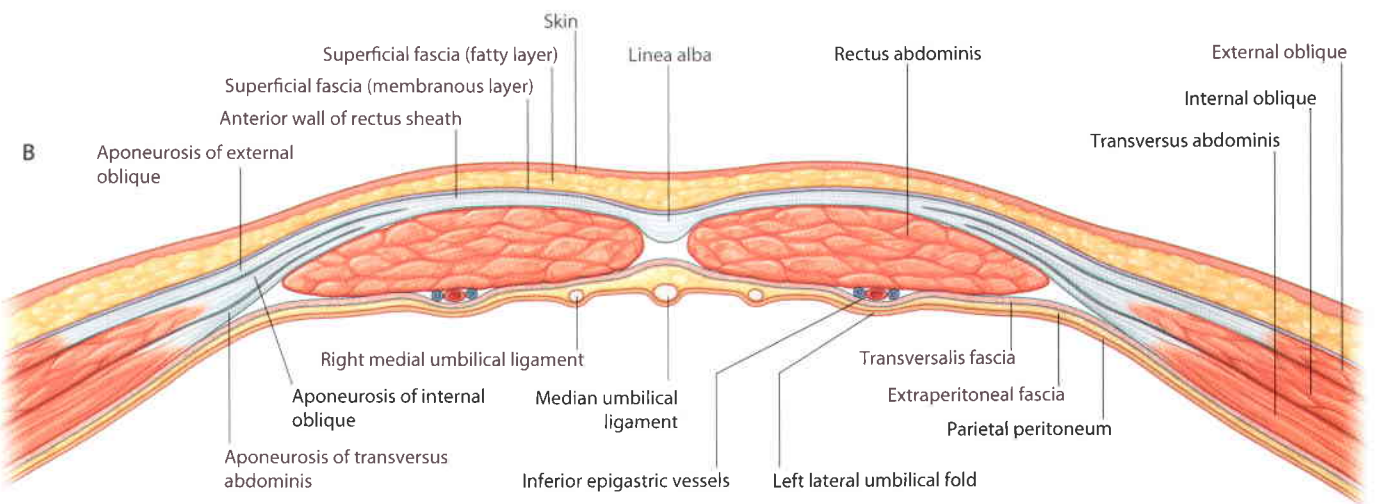


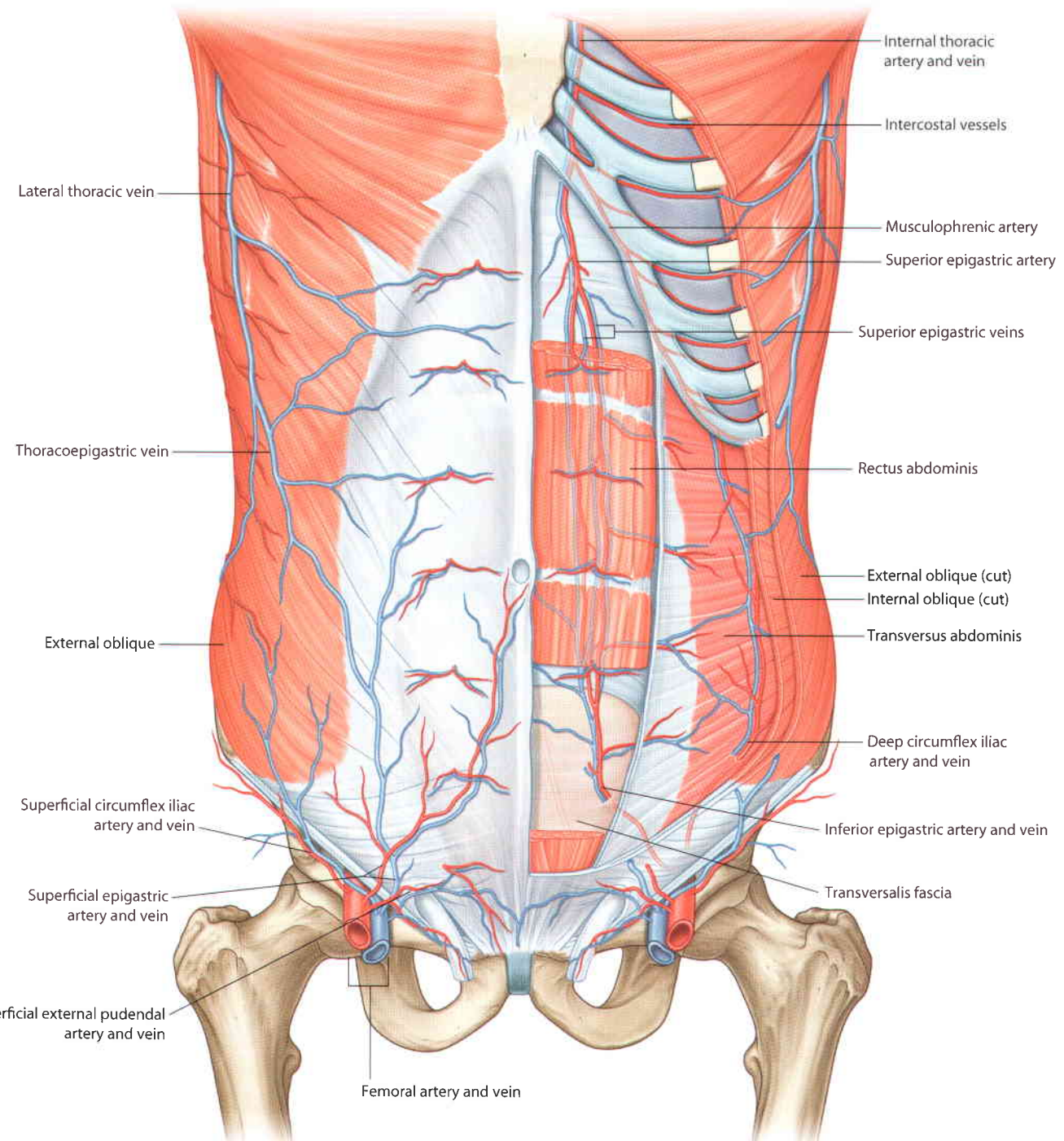
Rectus abdominis and pyramidalis muscles



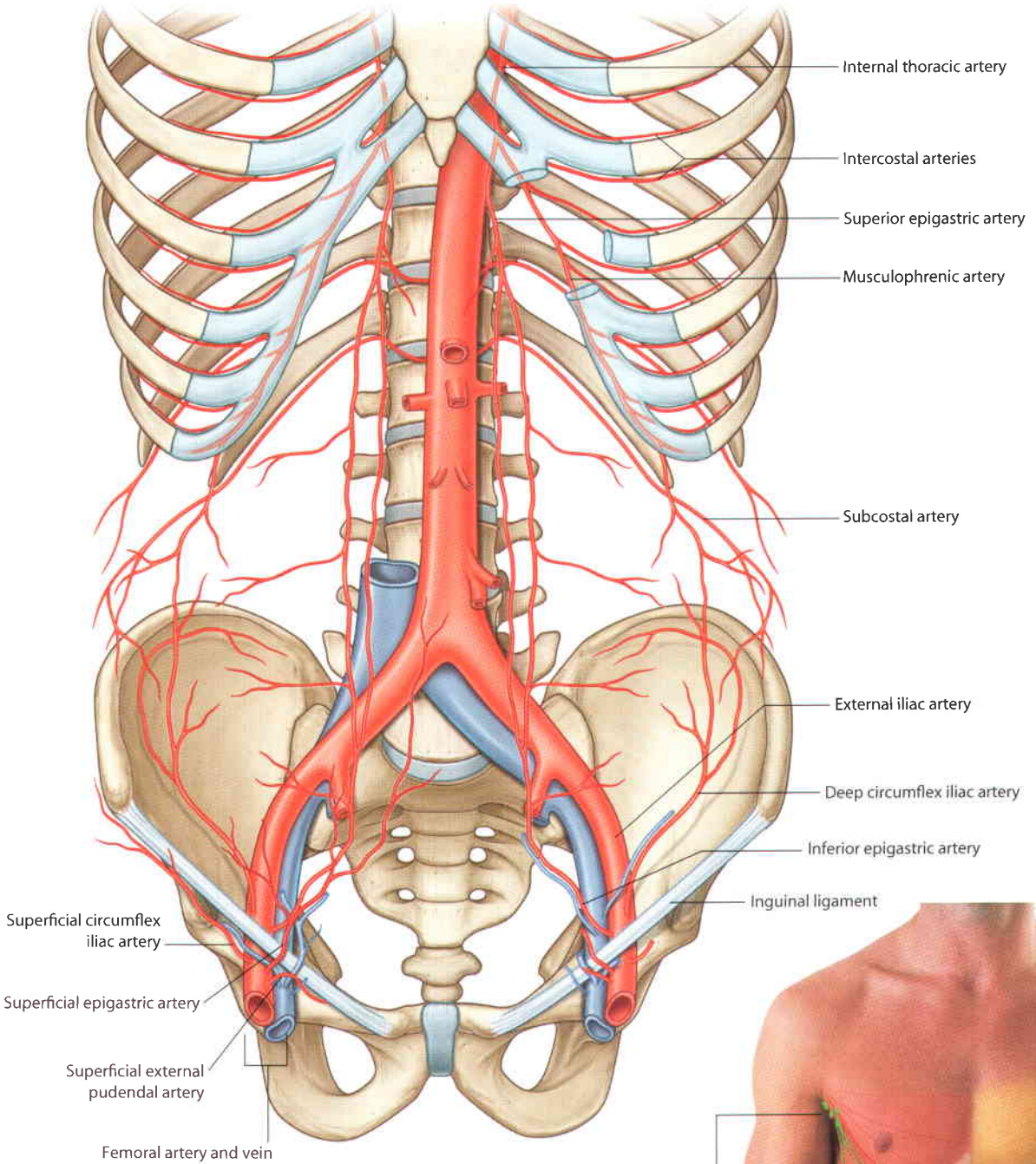
Organization of the rectus sheath.
A. Transverse section through the upper three quarters of the rectus sheath
B. Transverse section through the lower one quarter of the rectus sheath



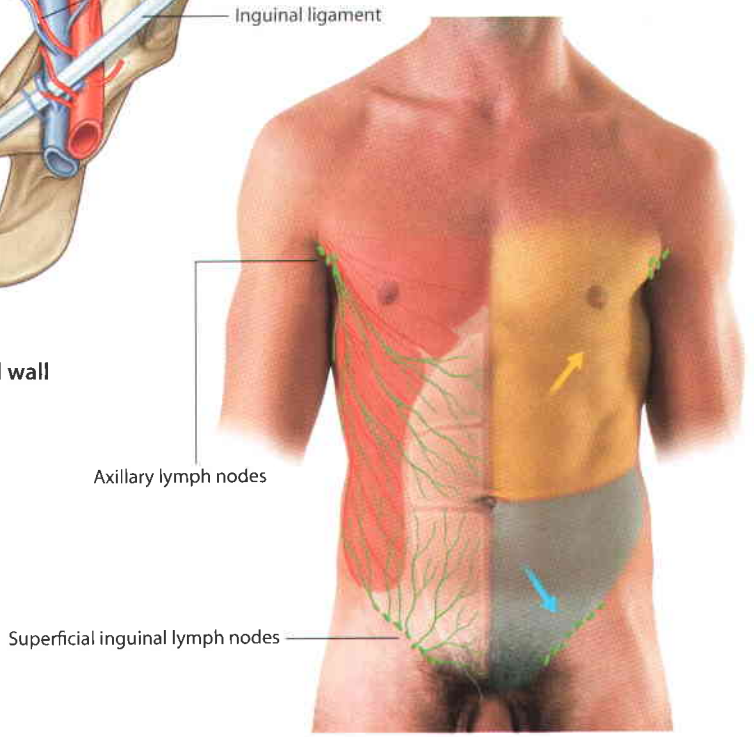




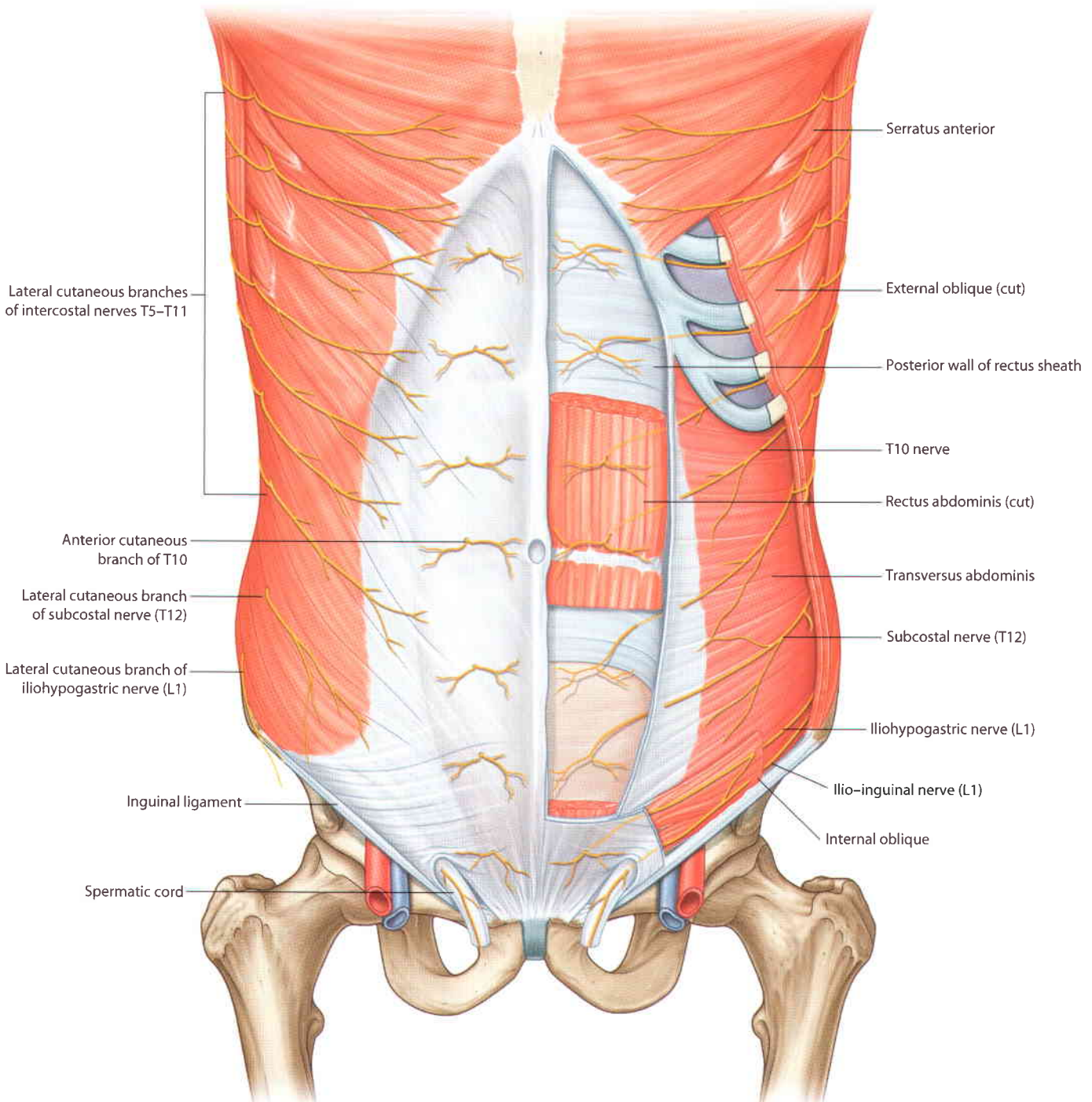
Vasculature of the anterior abdominal wall



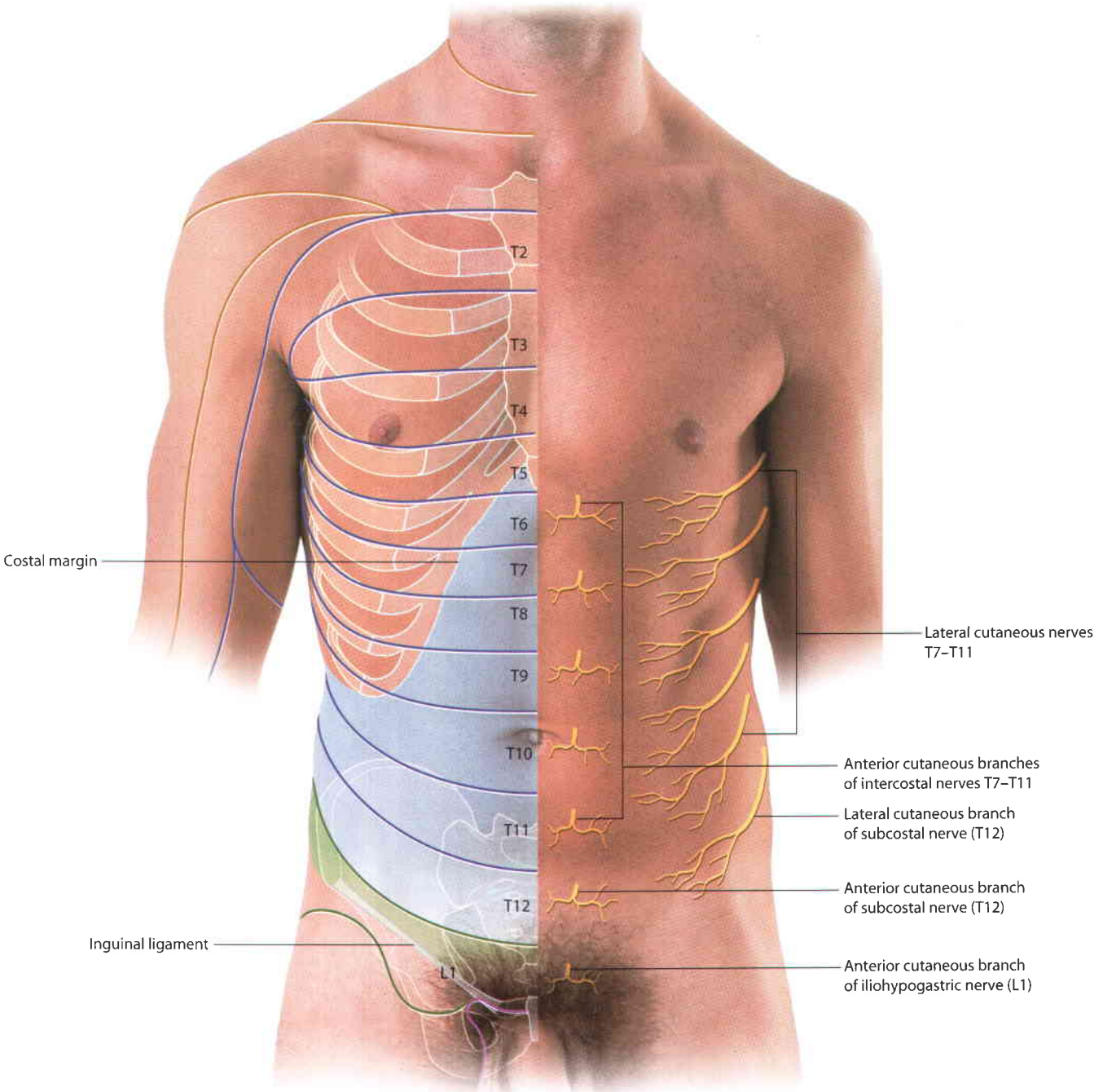
Arteries of the anterior abdominal wall



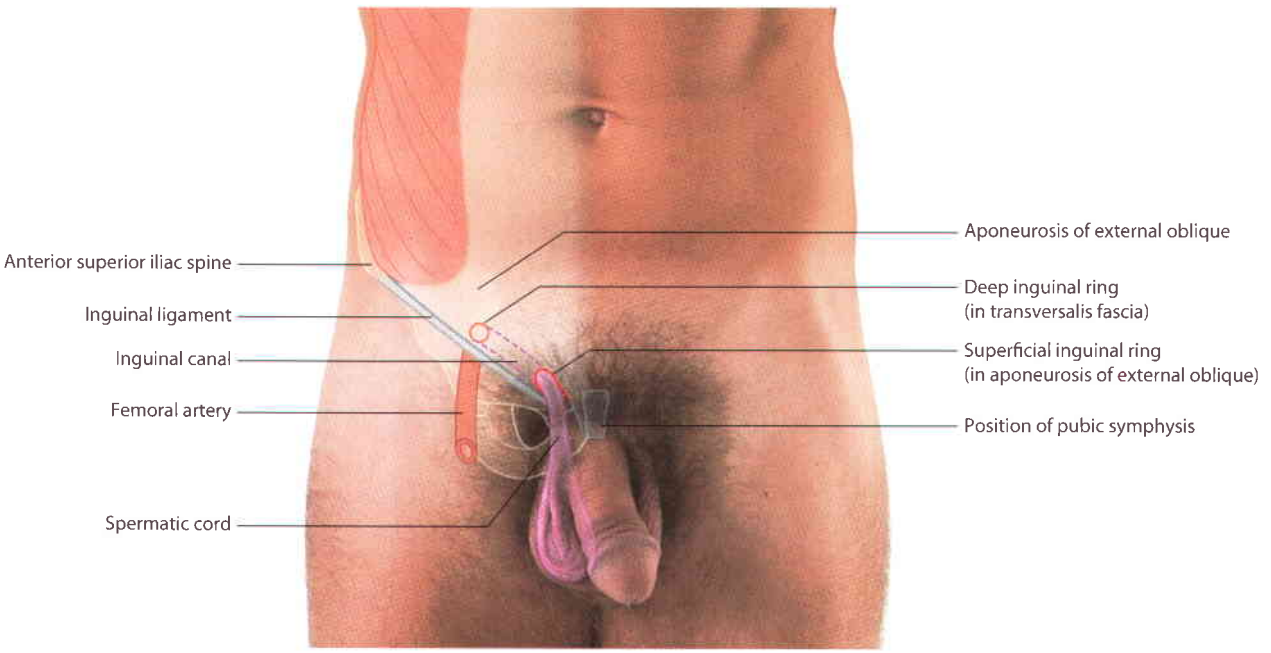
Superficial lymphatic drainage of the anterolateral abdominal wall



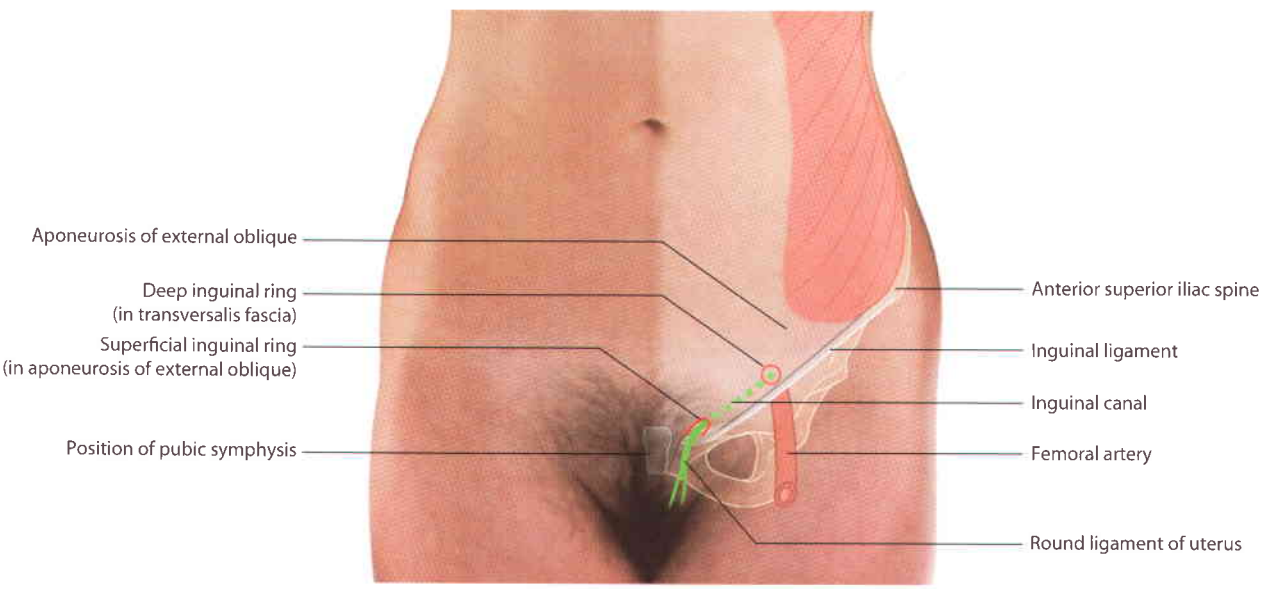
Nerves of the anterolateral abdominal wall



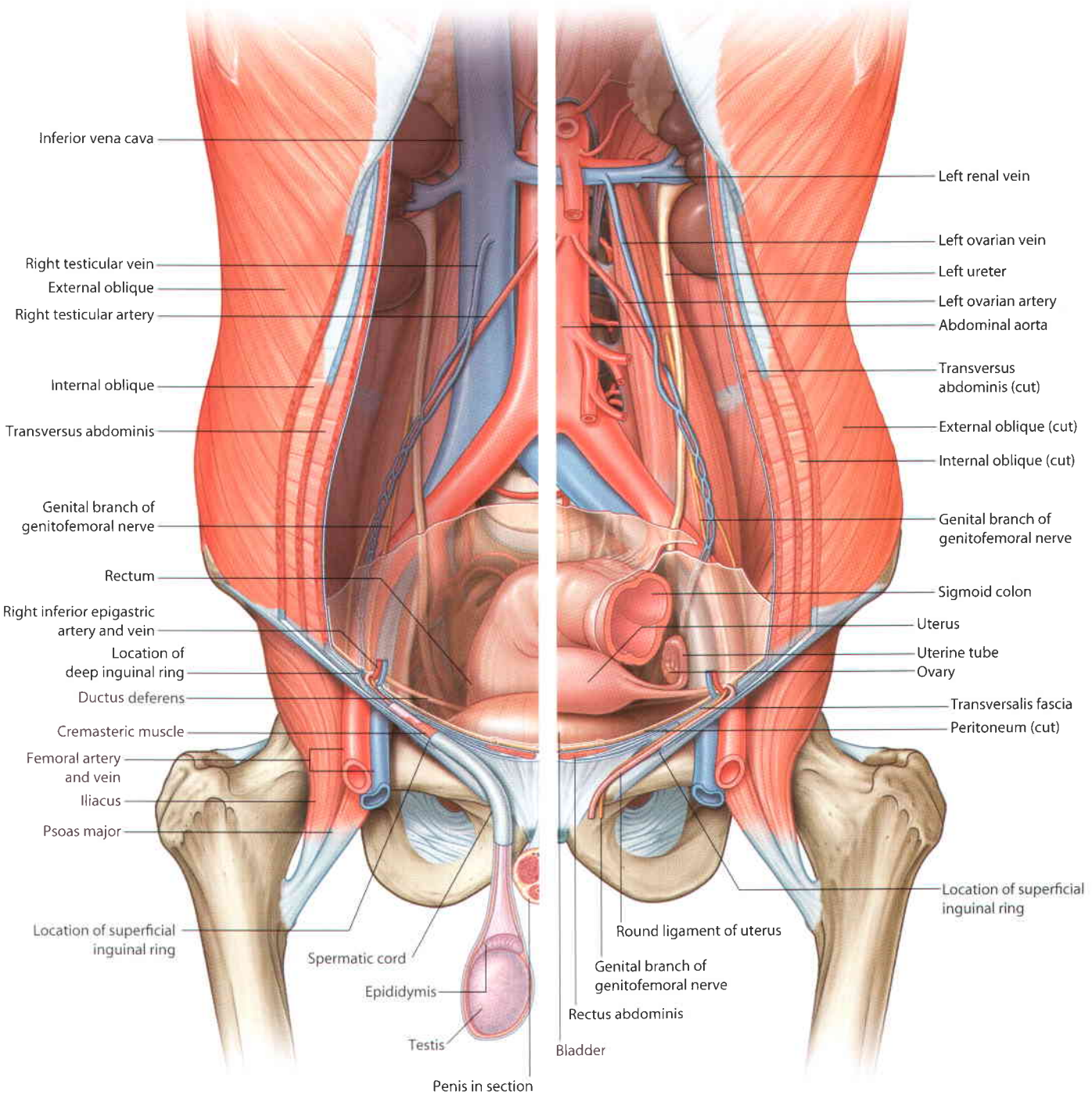
Dermatomes and cutaneous nerves of the anterolateral abdominal wall



Inguinal region in a man

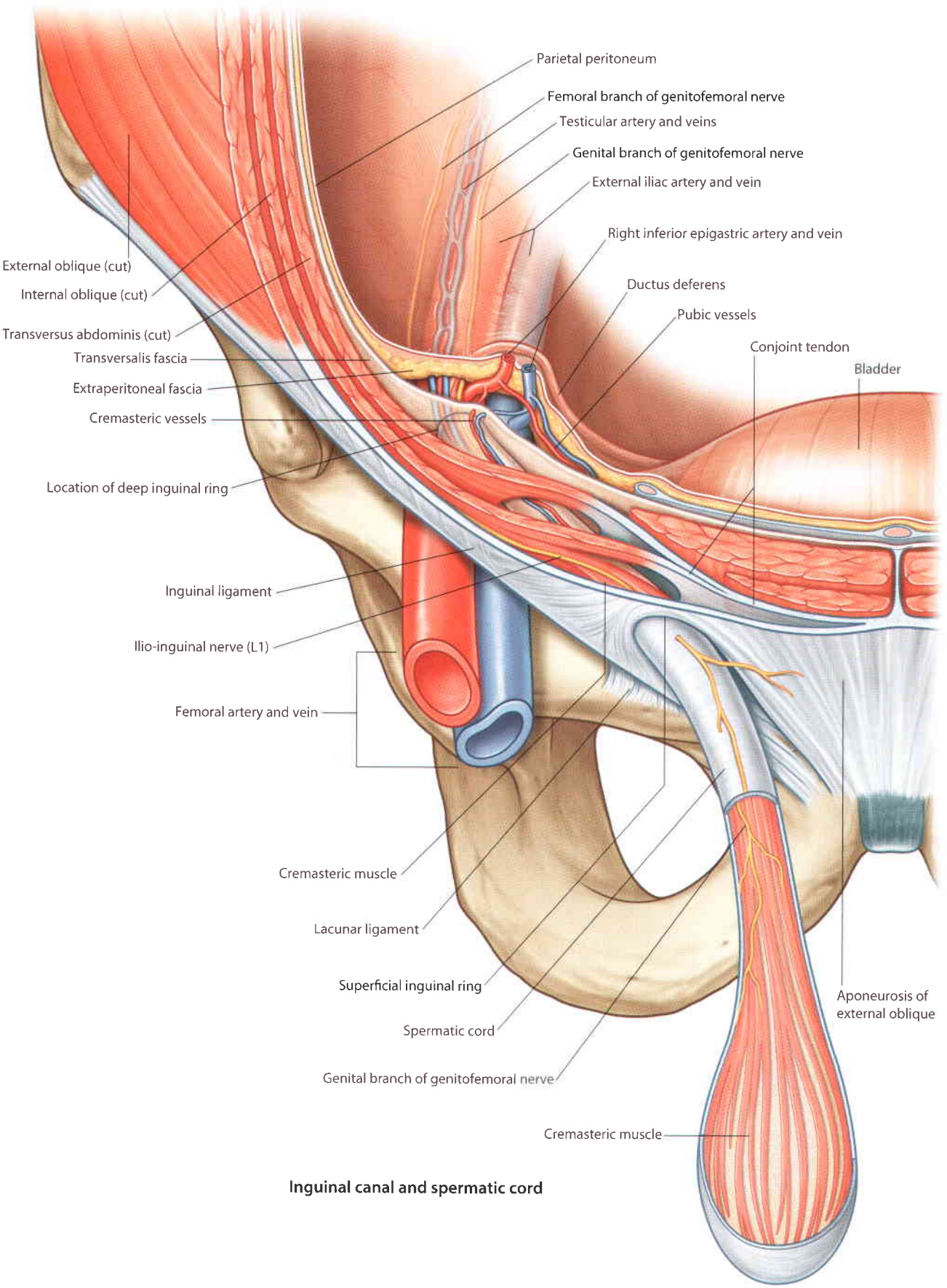


Inguinal region in a woman

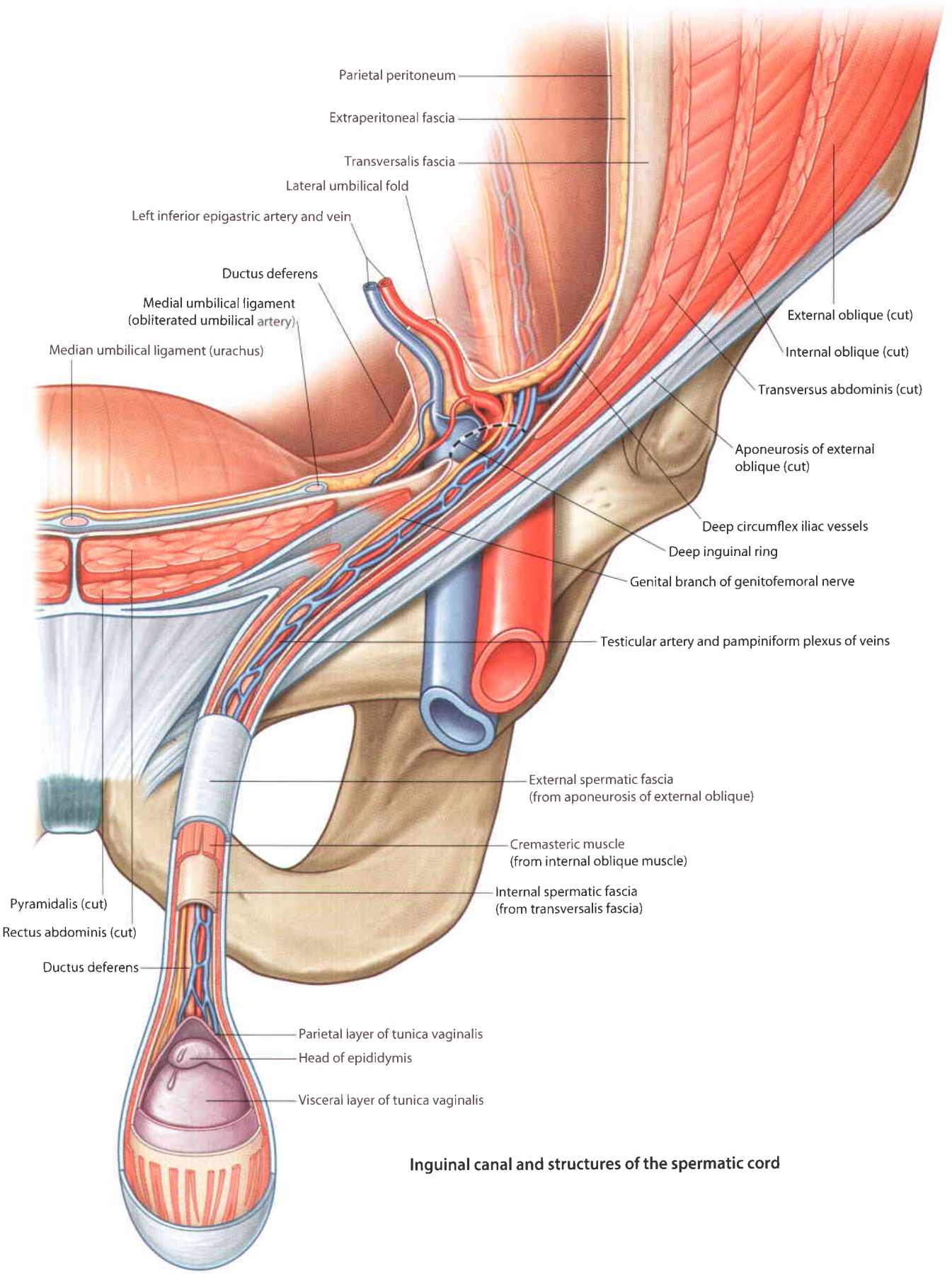


Inguinal region in men

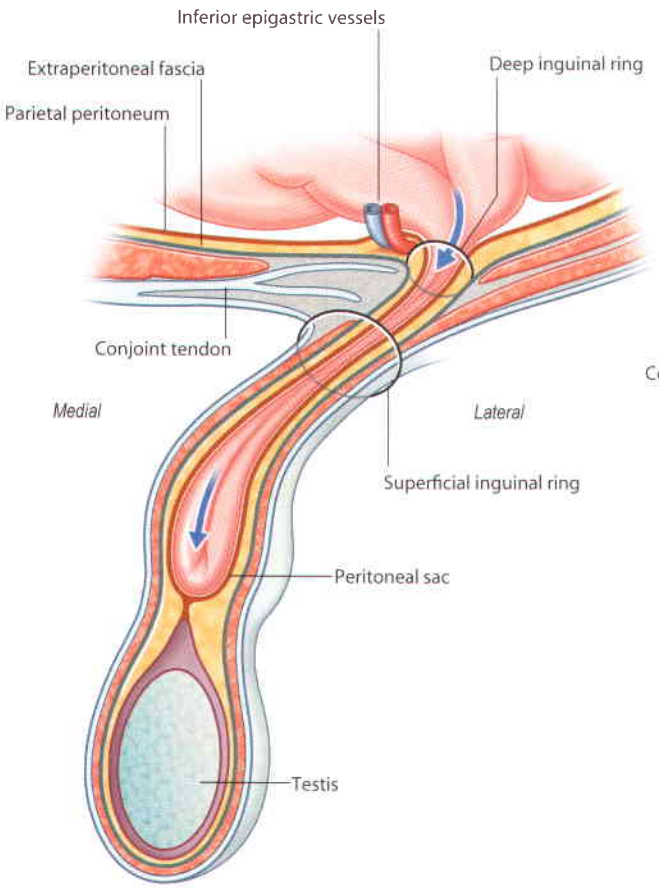
Inguinal region in women



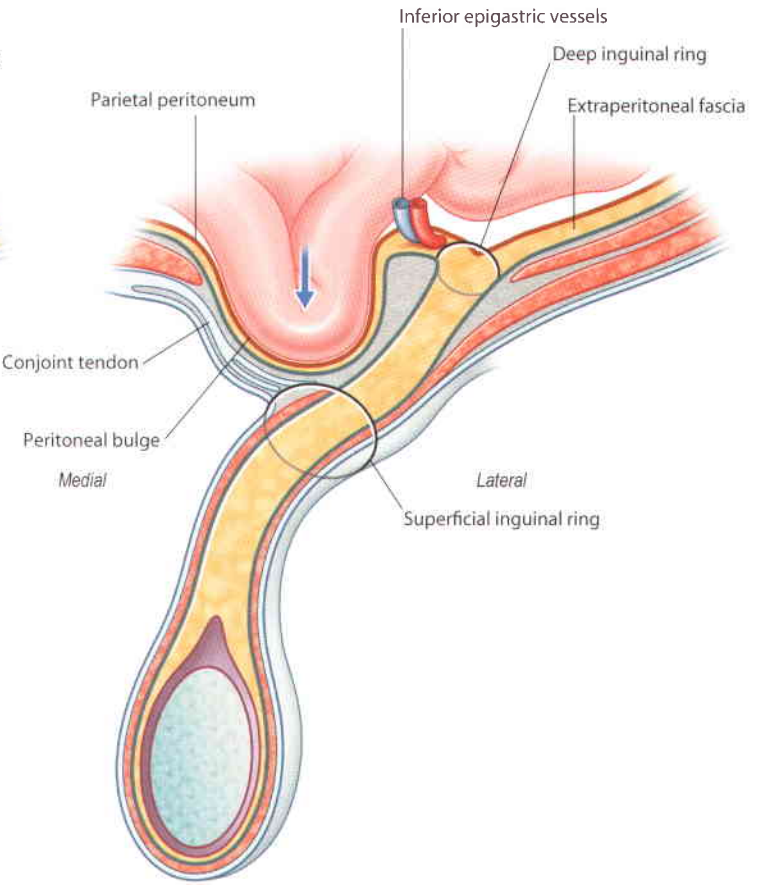
Inguinal canal and spermatic cord



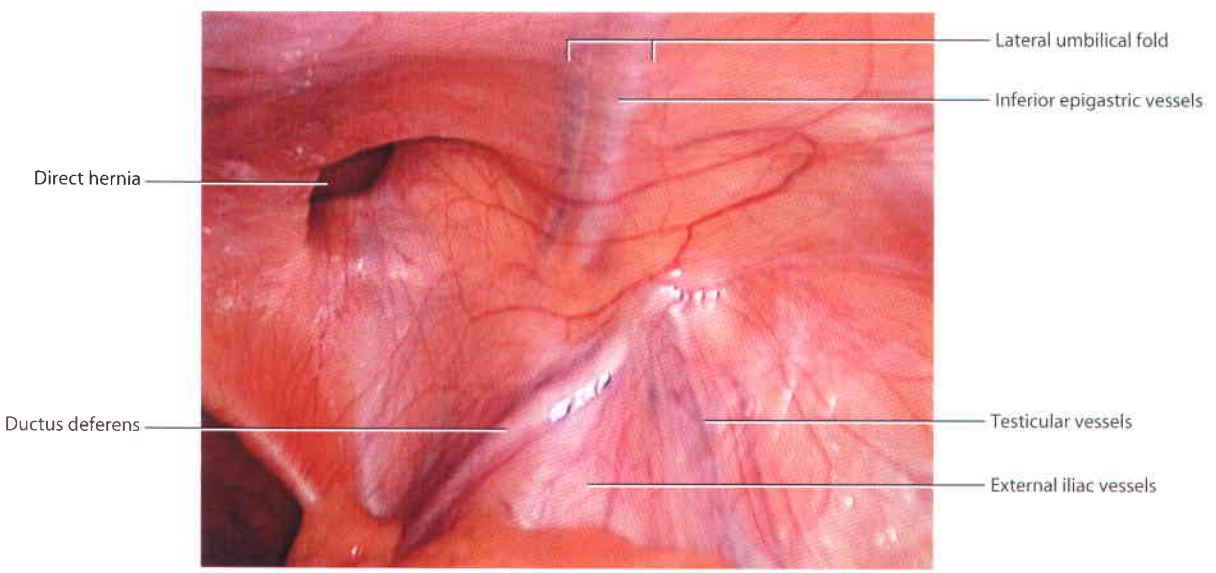
Inguinal canal and structures of the spermatic cord



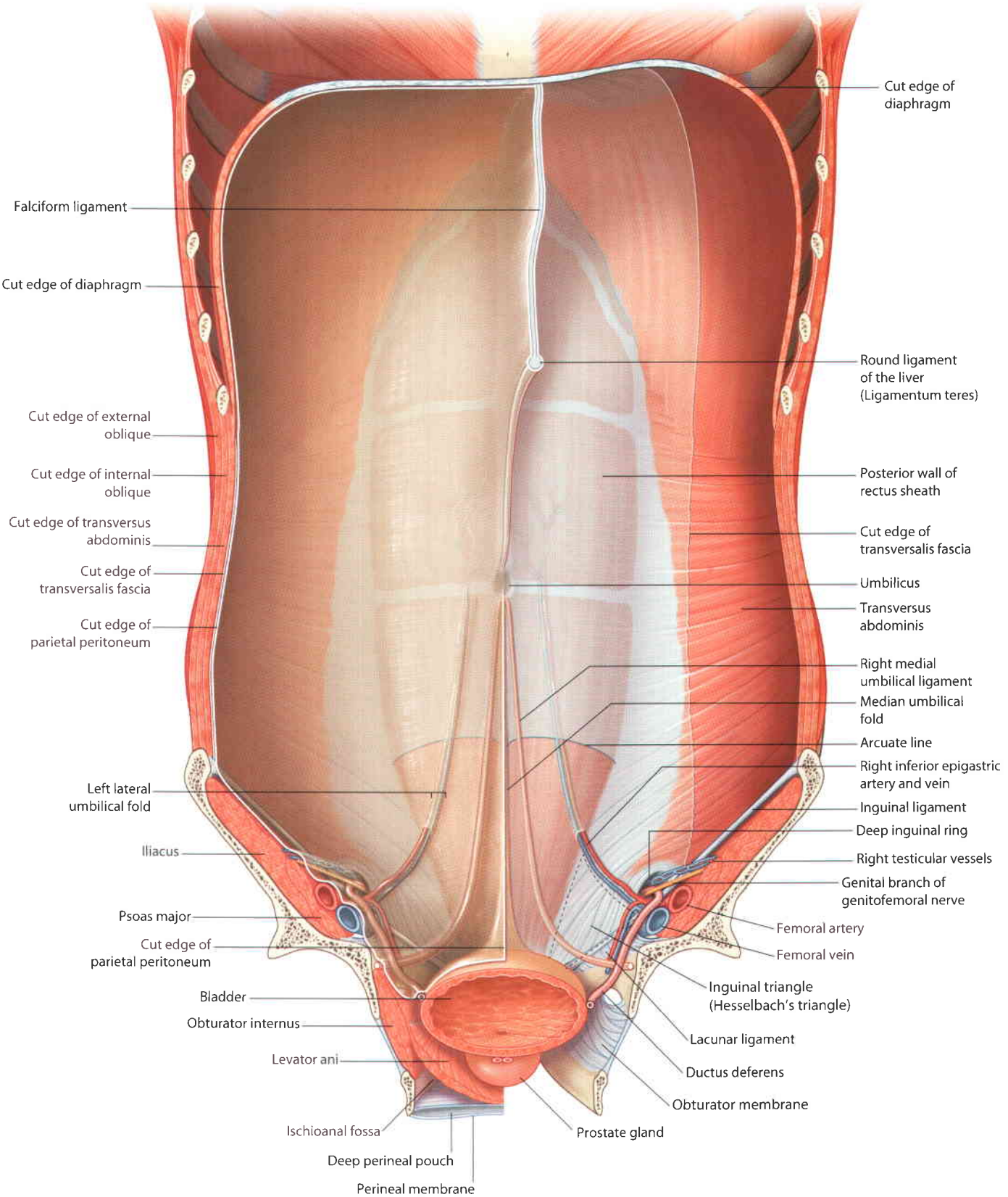
Indirect inguinal hernia



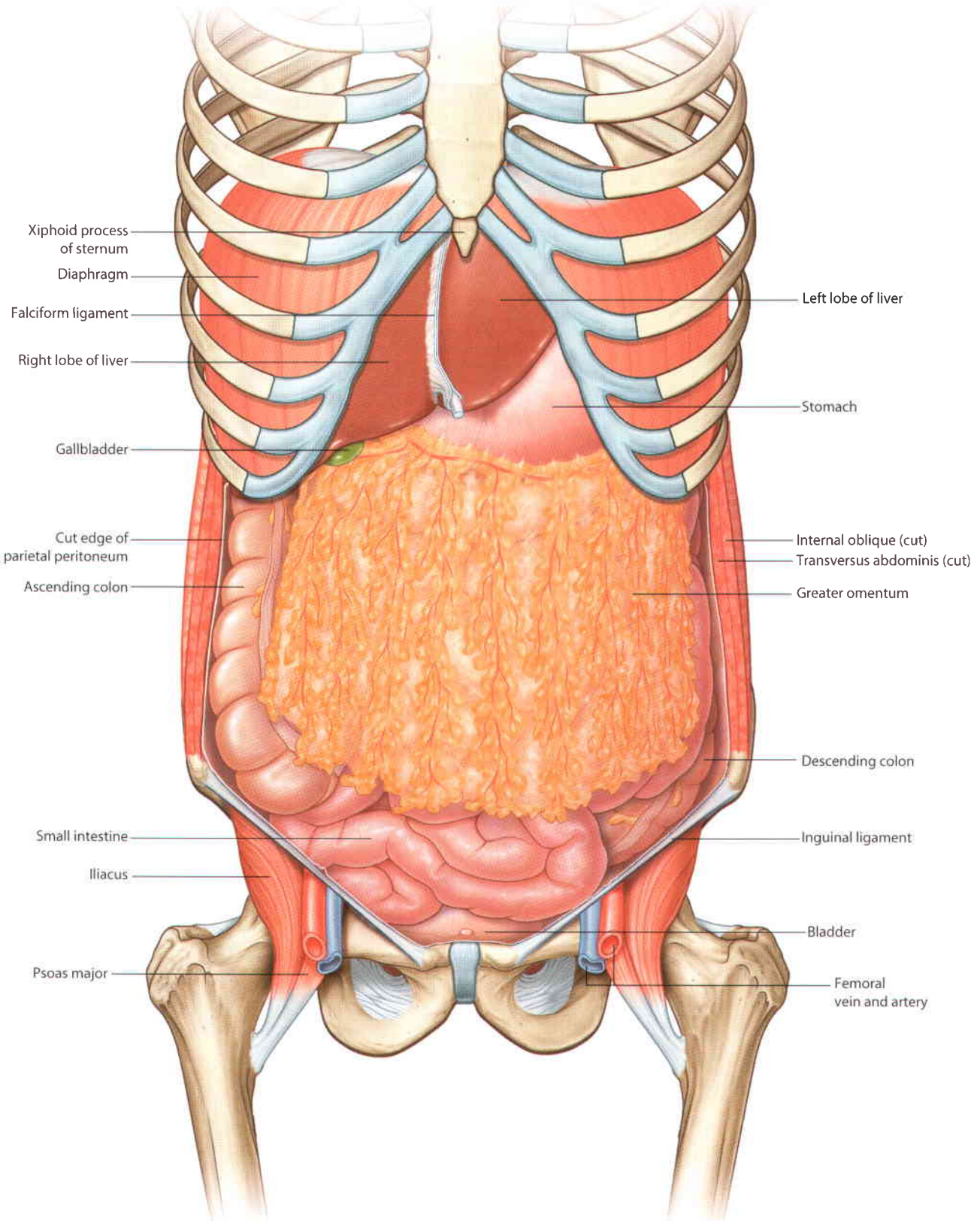
Direct inguinal hernia



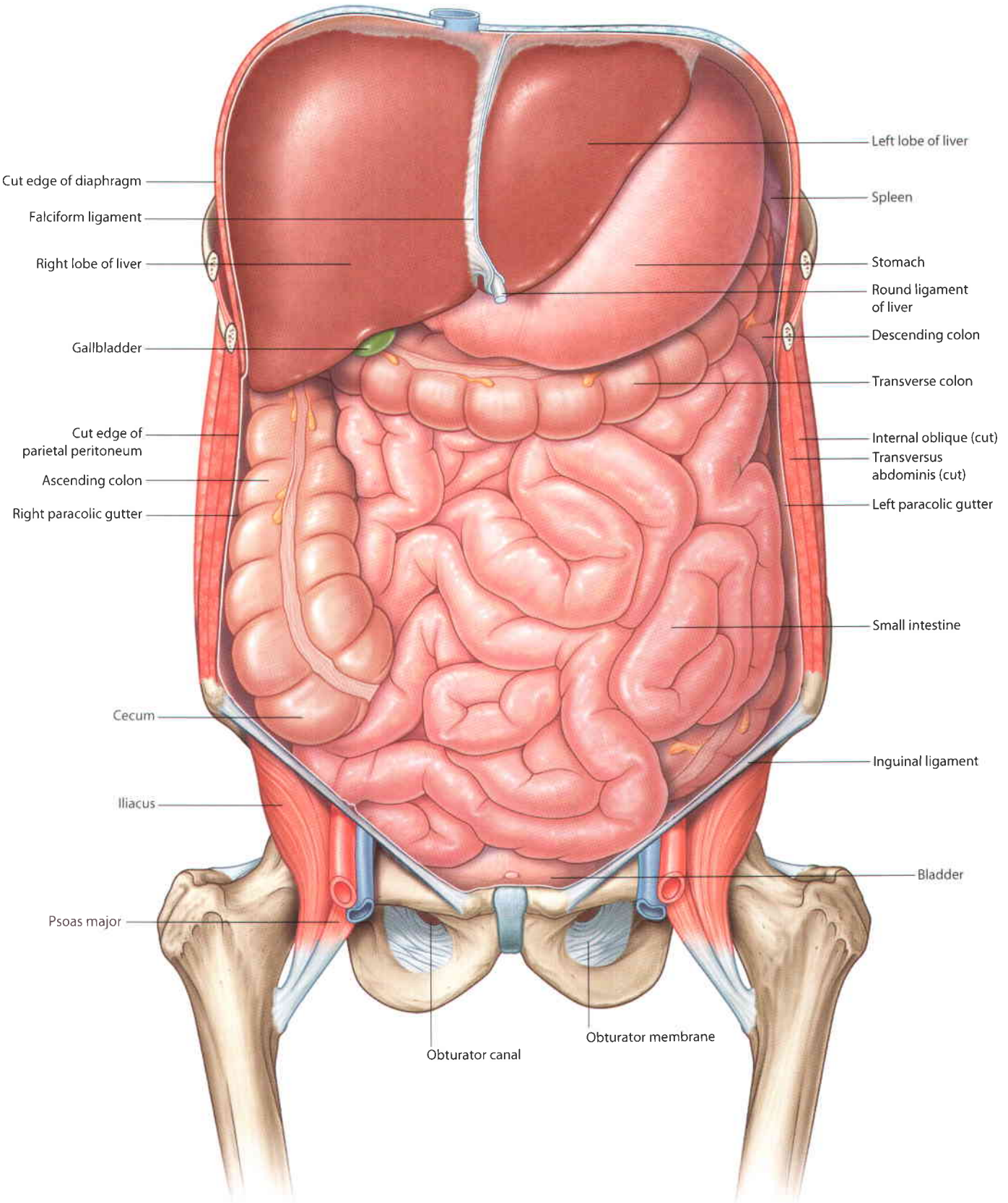
Right inguinal triangle.
Laparoscopic view showing the parietal peritoneum still covering the area (inside the peritoneal cavity looking anteroinferior)



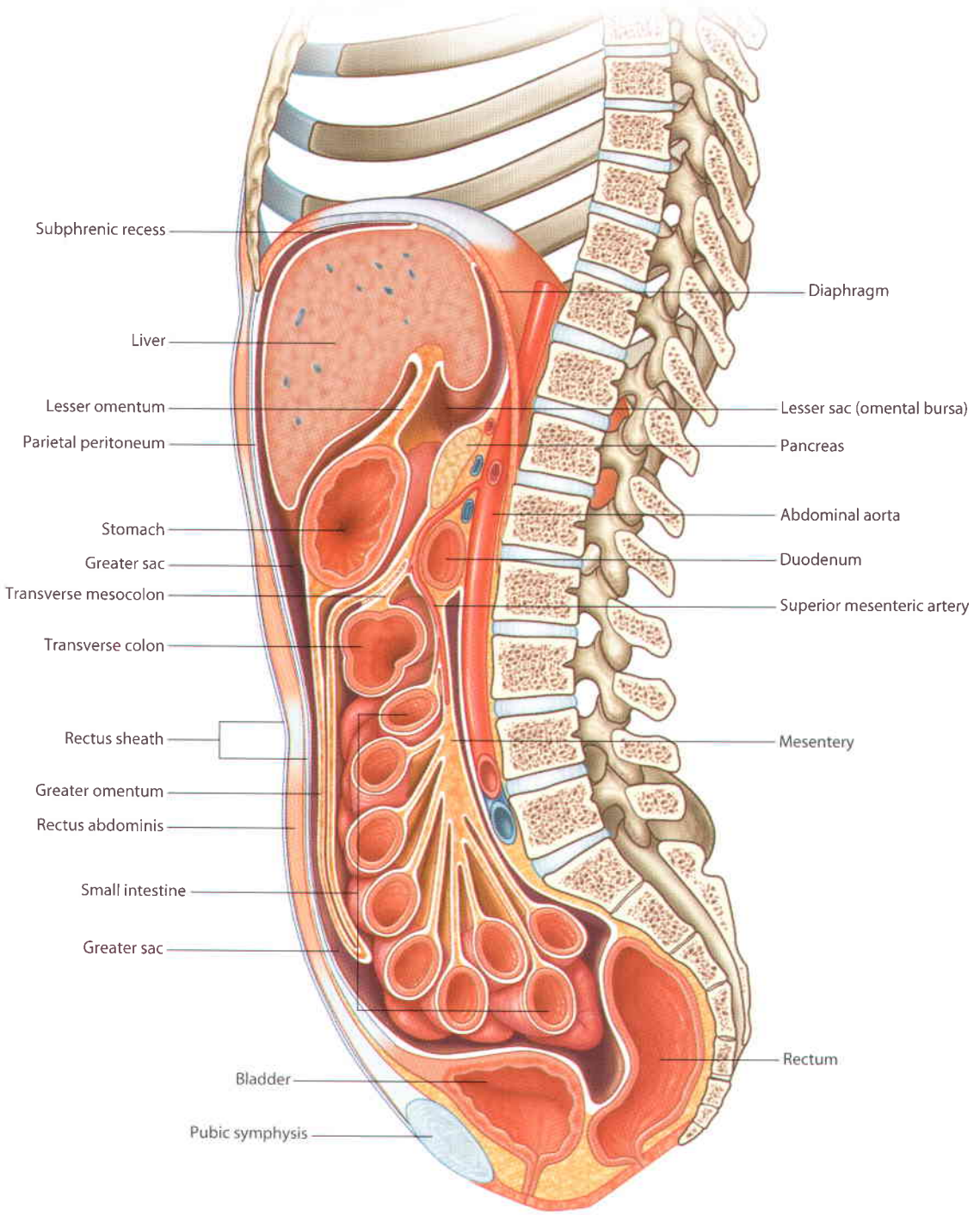
Internal view of anterior abdominal wall in men



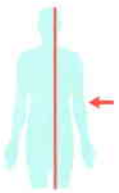
Greater omentum

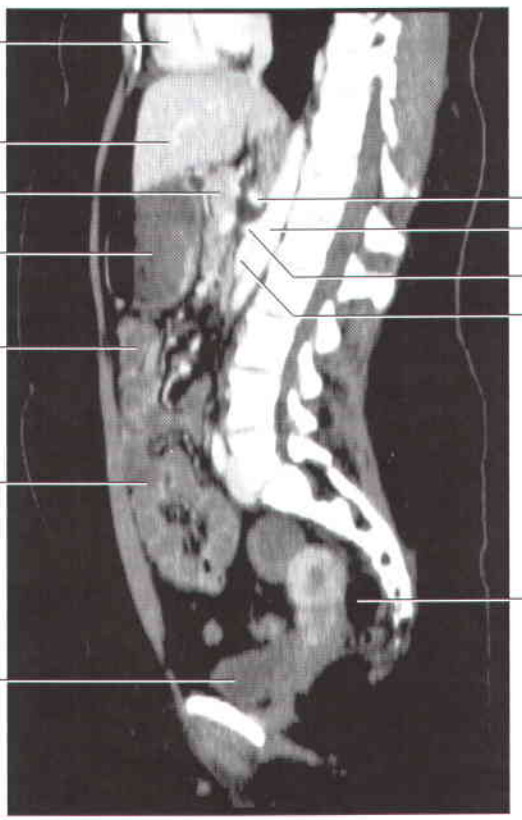


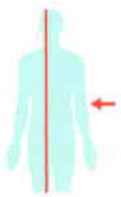
Abdominal viscera (greater omentum removed)

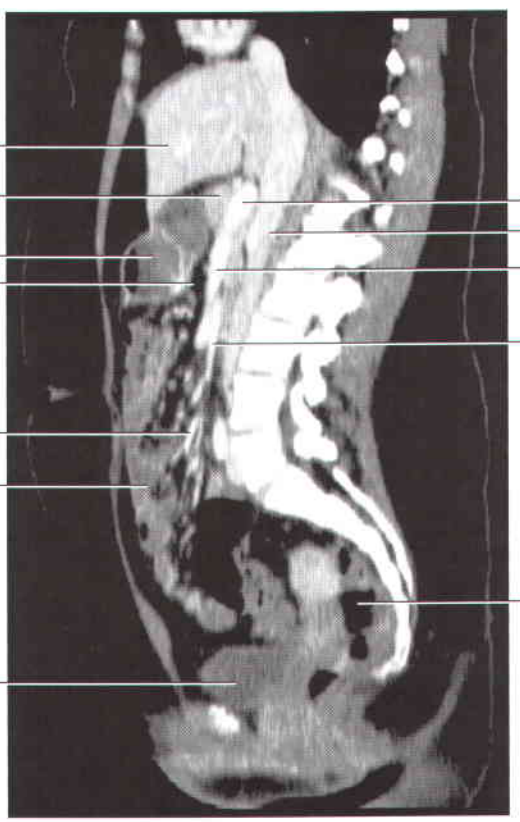


Greater and lesser sacs of the peritoneal cavity

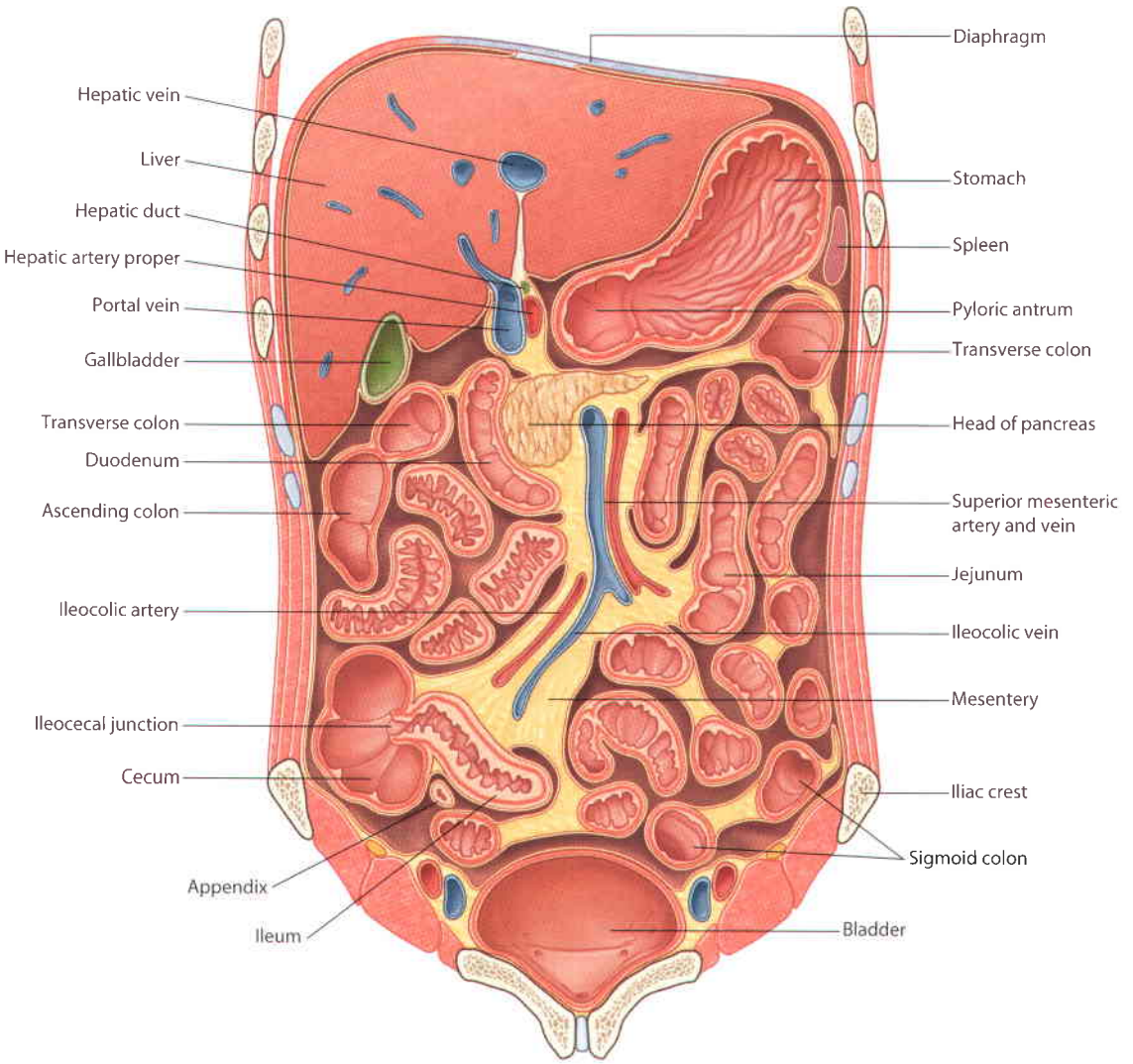




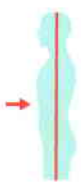


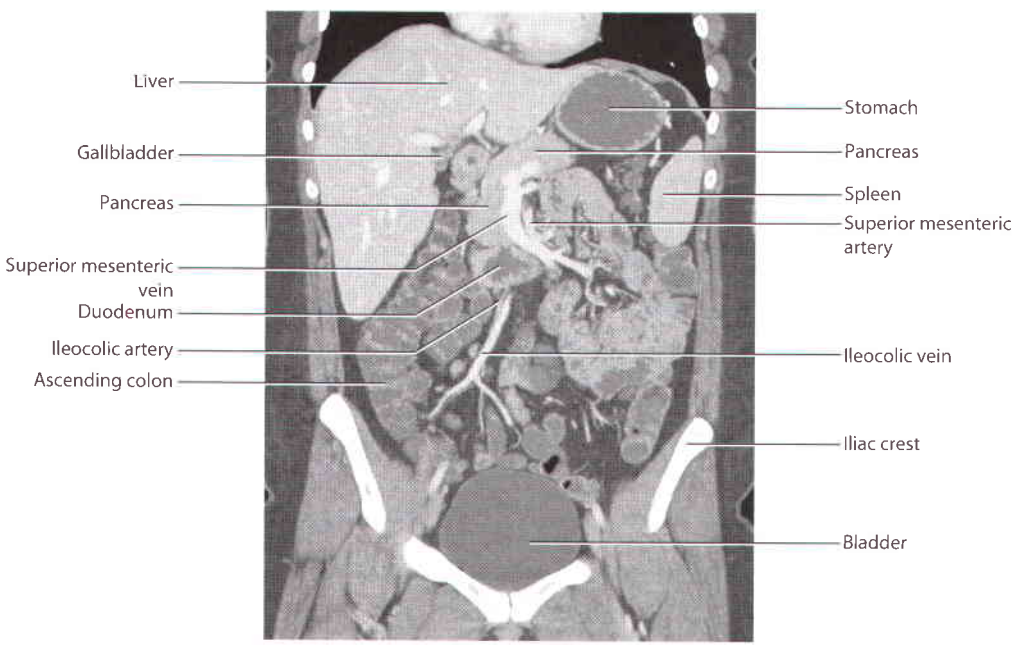


Arrangement of abdominal contents in peritoneal cavity.
CT images with contrast, in sagittal plane

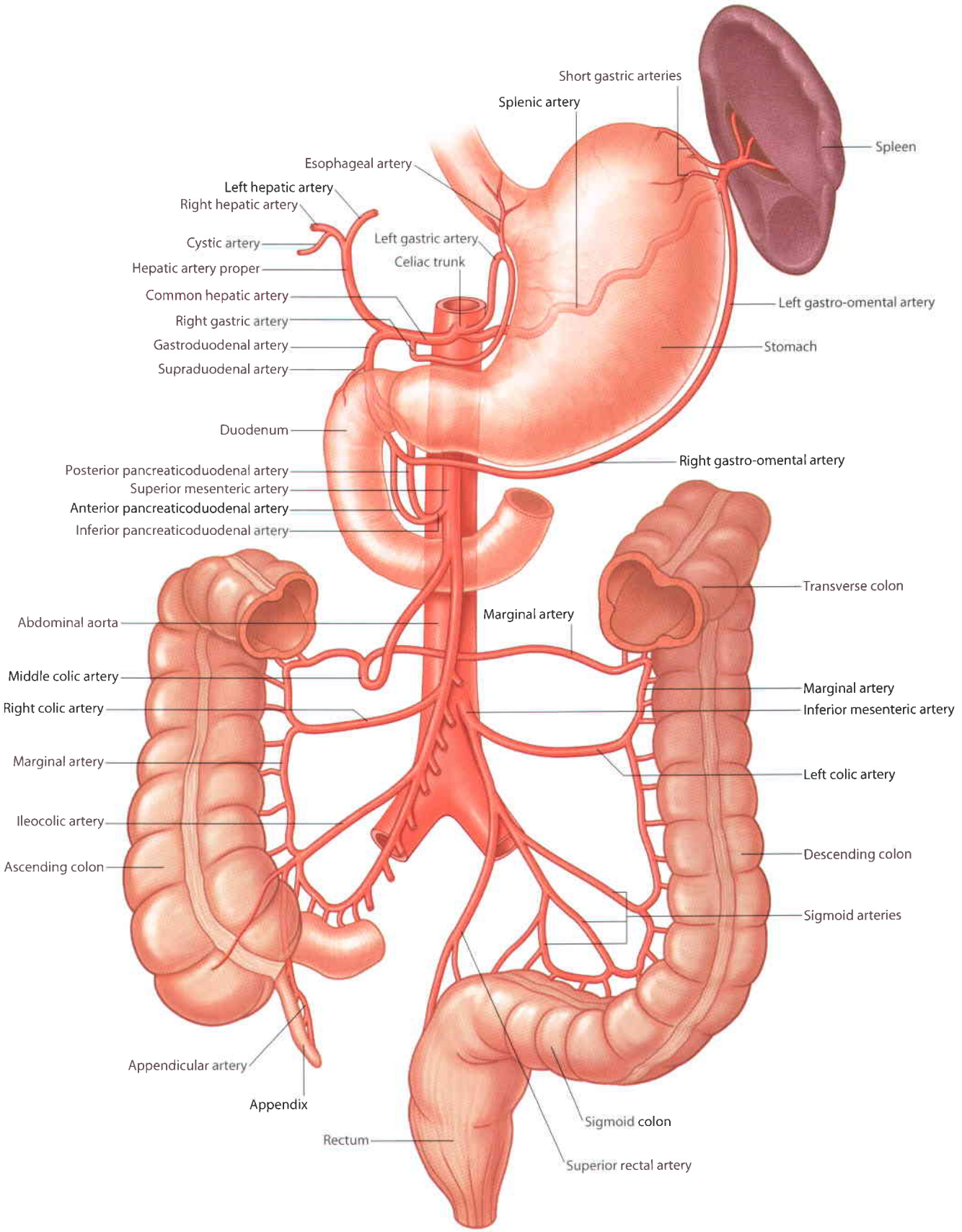


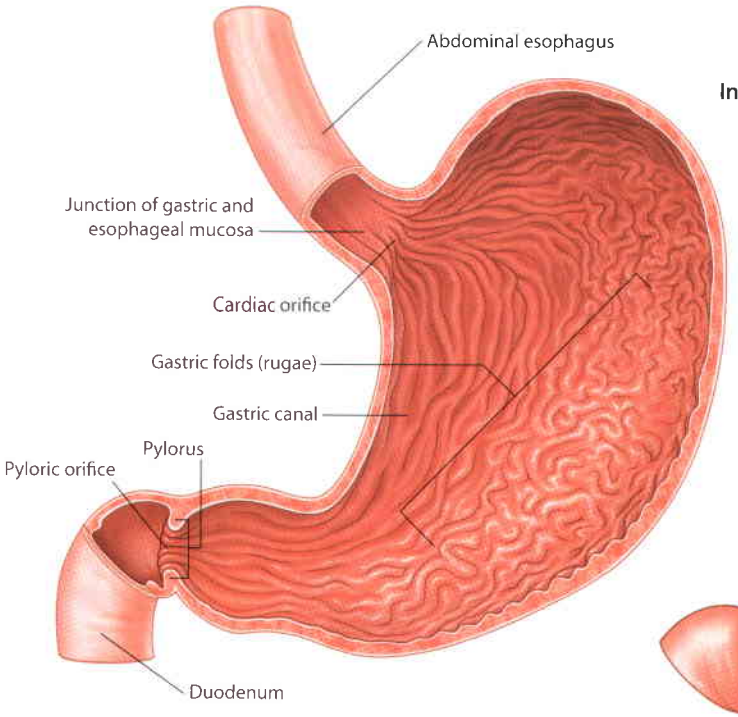
Coronal section



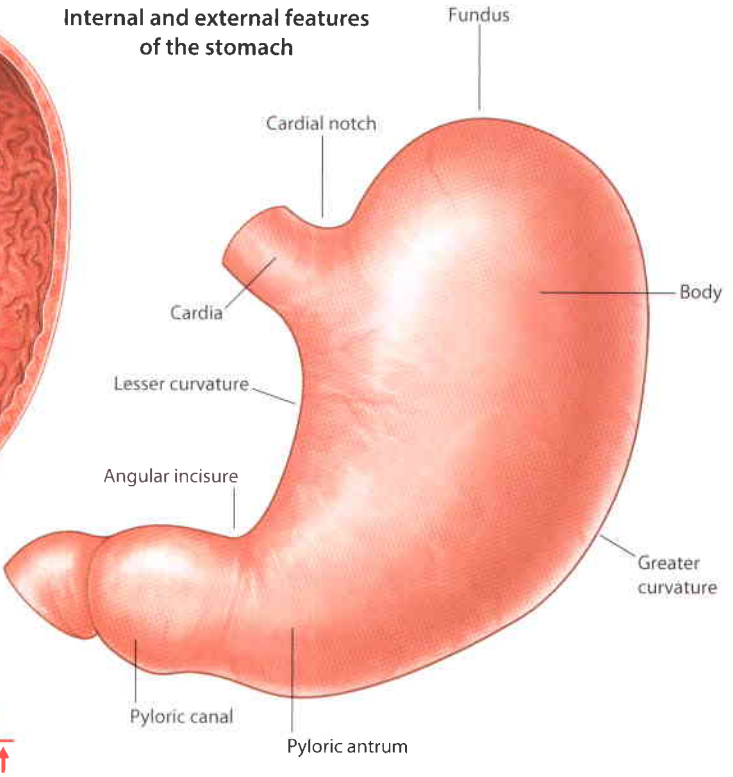


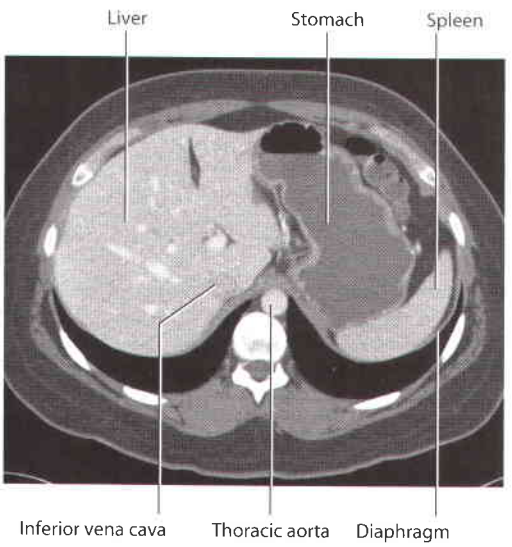
Coronal section.
CT image with contrast, in coronal plane

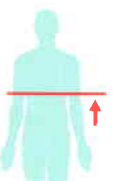

Short gastric arteries
Splenic artery
Spleen
Esophageal artery
Left hepatic artery
Right hepatic artery
Cystic artery
Left gastric artery
Celiac trunk
Hepatic artery proper
Common hepatic artery
Right gastric artery
Gastroduodenal artery
Supraduodenal artery
Left gastro-omental artery
Stomach
Duodenum
Right gastro-omental artery
Posterior pancreaticoduodenal artery
Superior mesenteric artery
Anterior pancreaticoduodenal artery
Inferior pancreaticoduodenal artery
Transverse colon
Abdominal aorta
Marginal artery
Middle colic artery
Marginal artery
Right colic artery
Inferior mesenteric artery
Marginal artery
Left colic artery
Ileocolic artery
Descending colon
Ascending colon
Sigmoid arteries
Appendicular artery
Appendix
Sigmoid colon
Rectum
Superior rectal artery



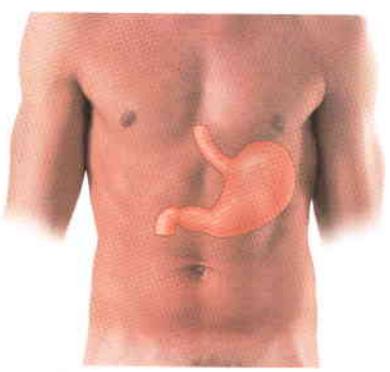
Internal and external features of the stomach



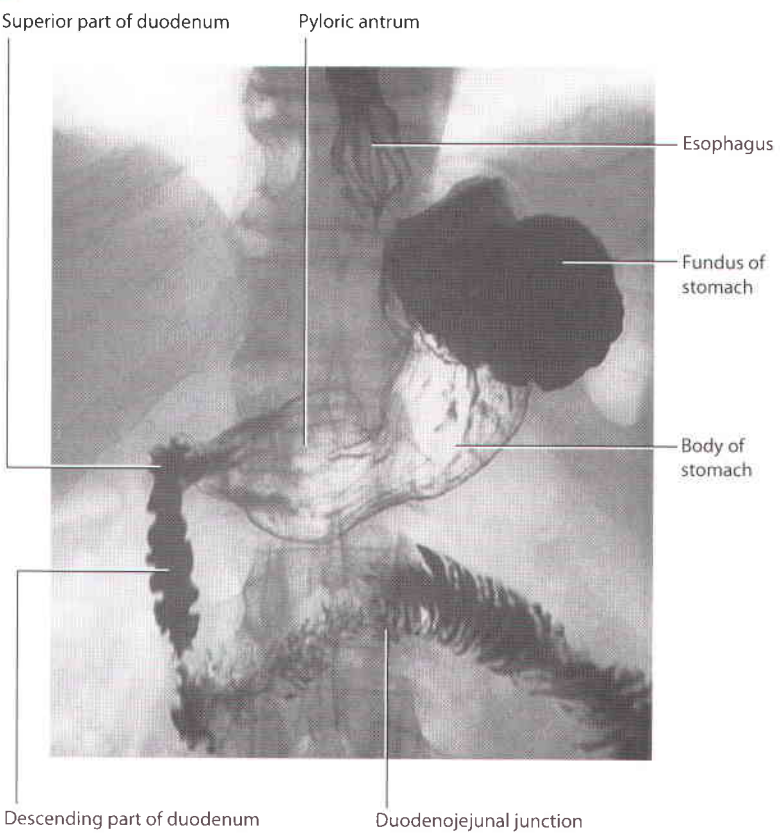




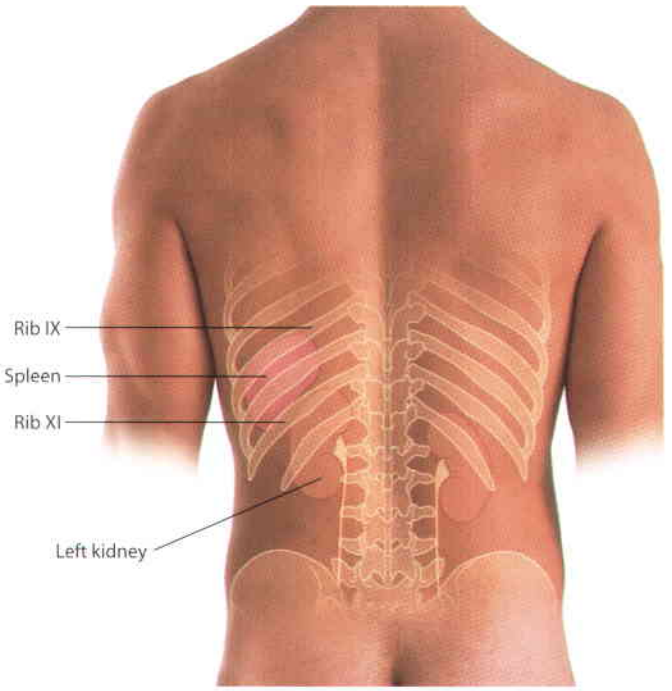
Positioning of the stomach.
CT image, with contrast, in axial plane



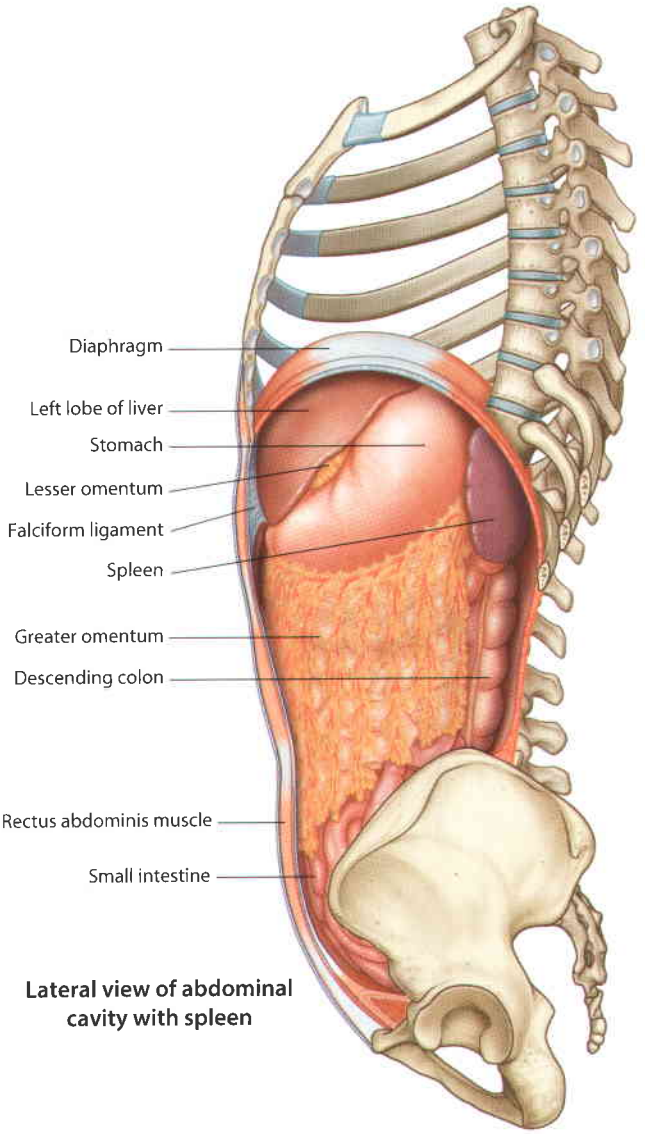
Surface projection of the stomach



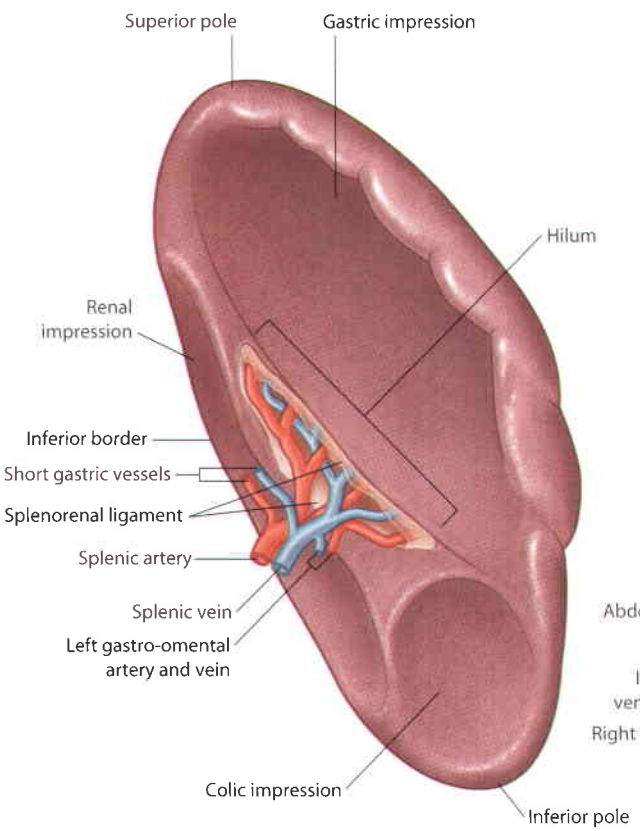
Stomach. Double contrast radiograph using barium



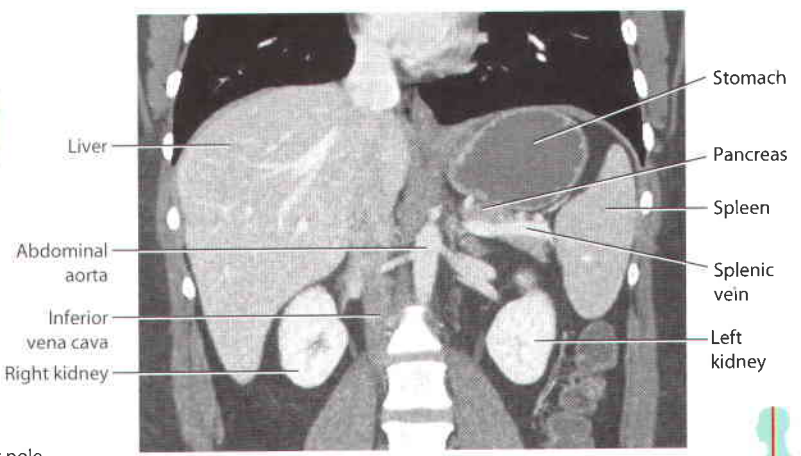
Surface projection of the spleen (posterior view)



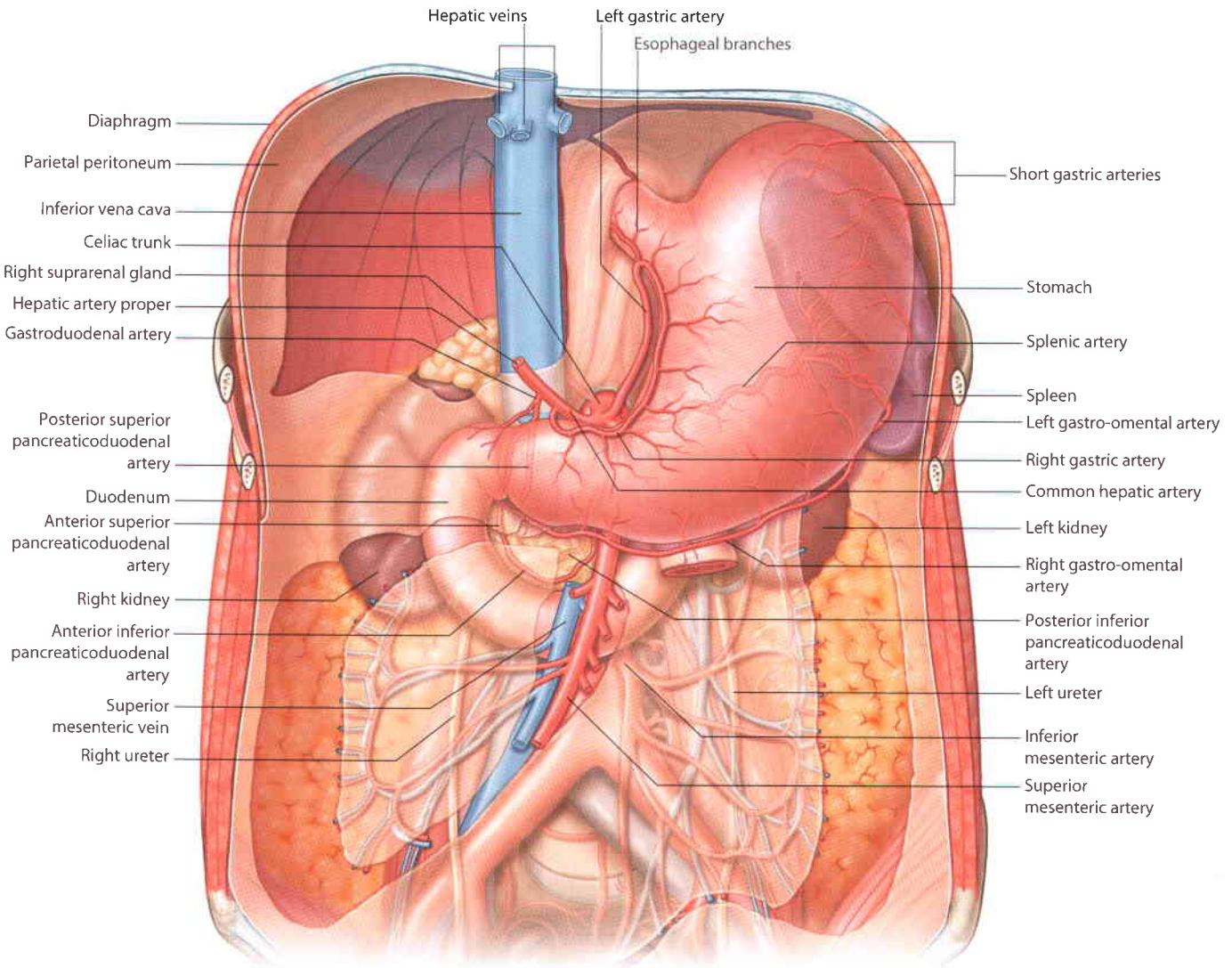
Lateral view of abdominal cavity with spleen



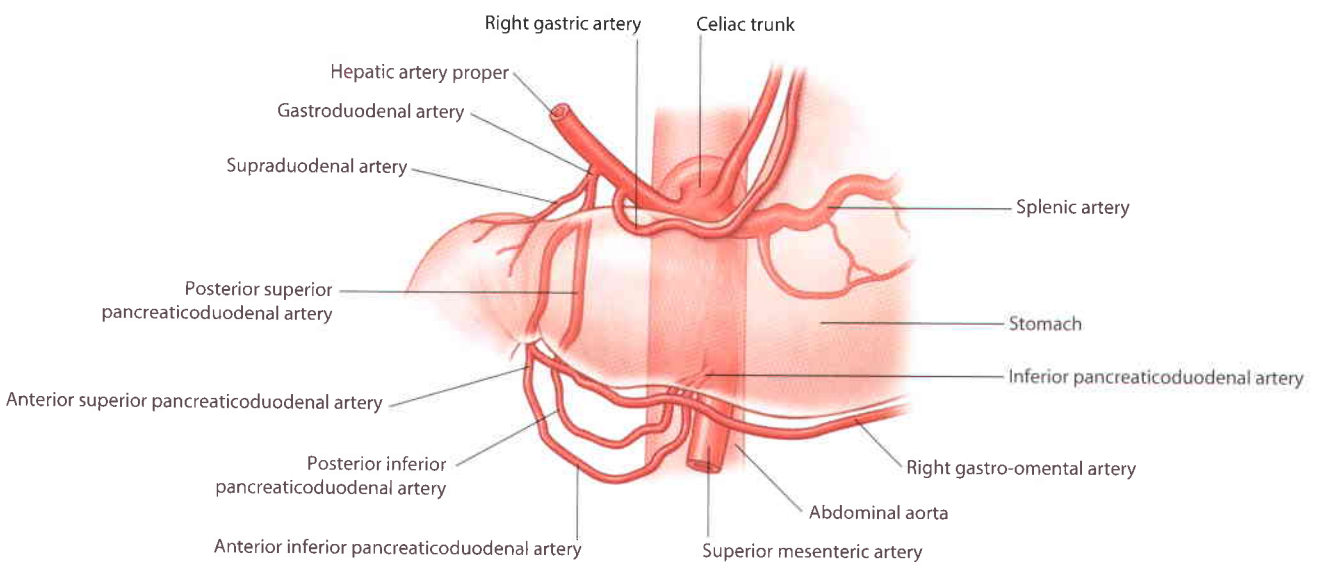
Surfaces and hilum of the spleen



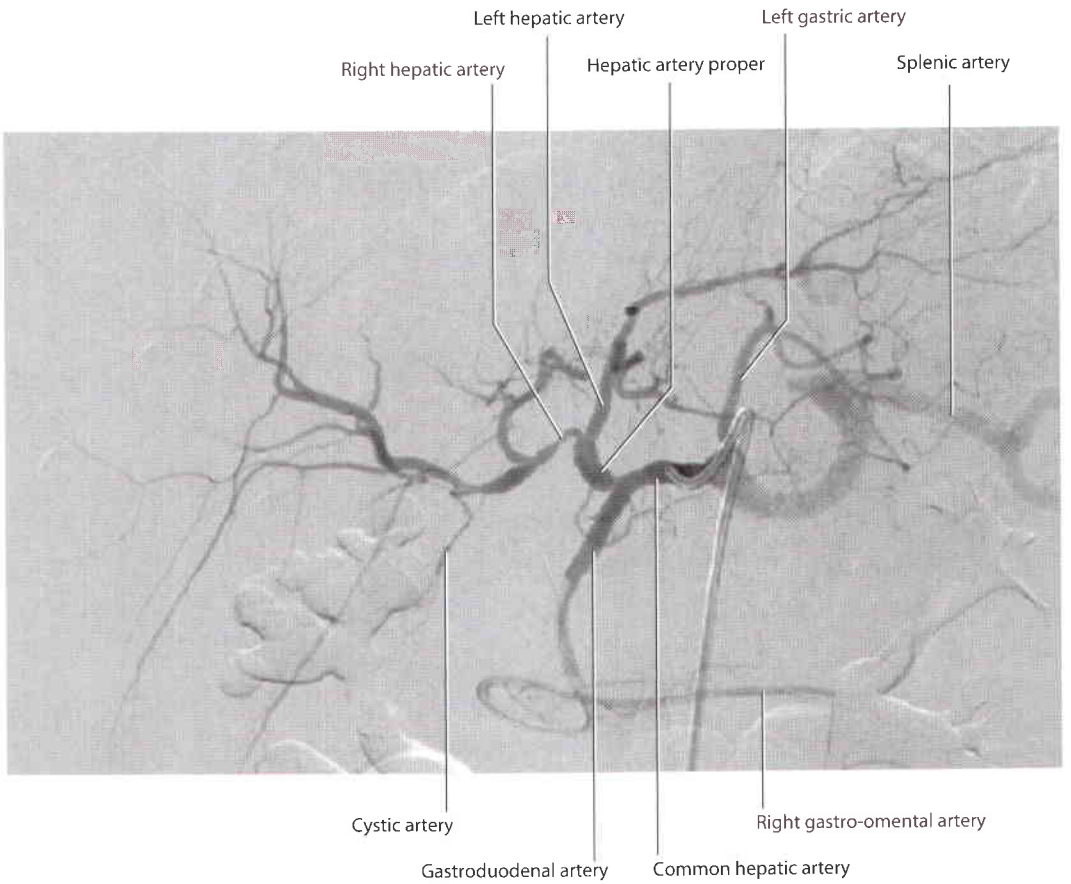
Location of the spleen.
CT image, with contrast, in coronal plane



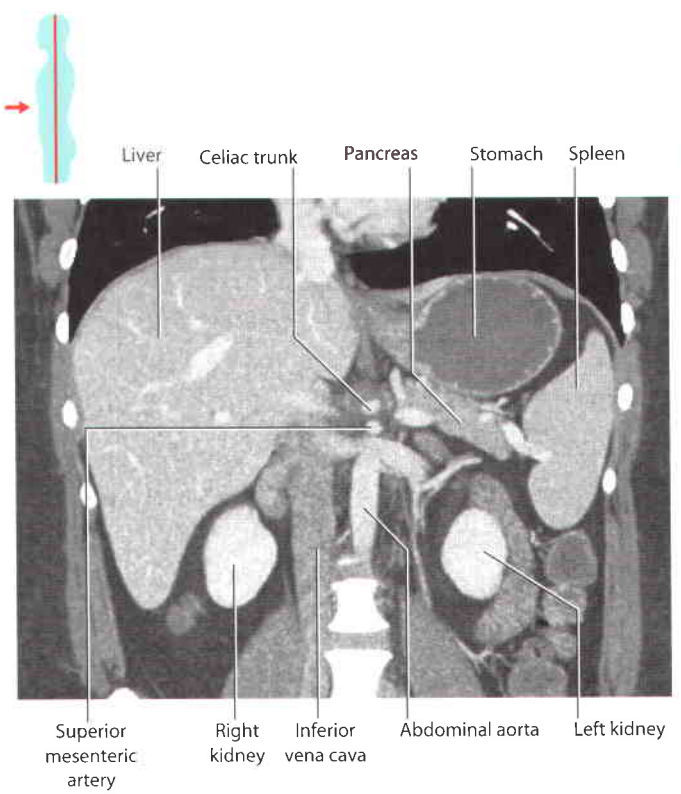
Distribution of the celiac trunk



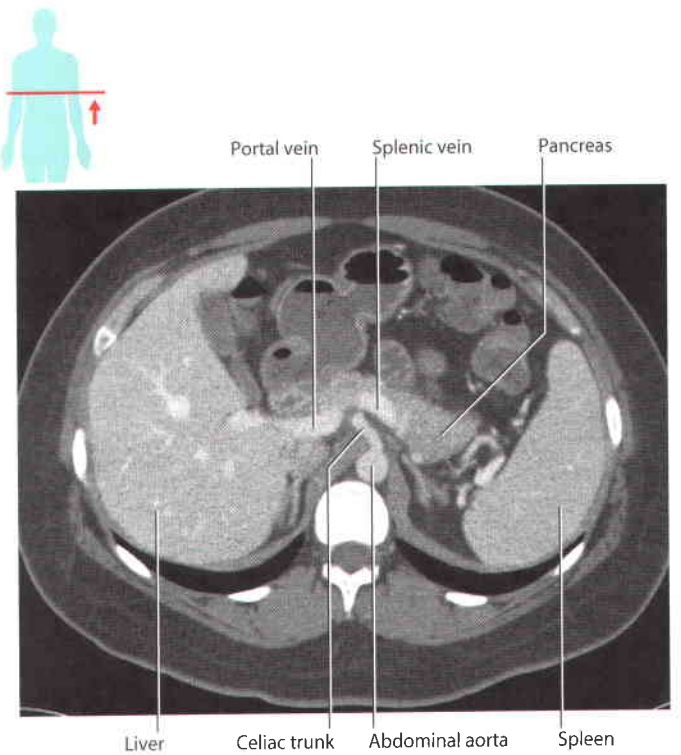
Branches of the gastroduodenal artery



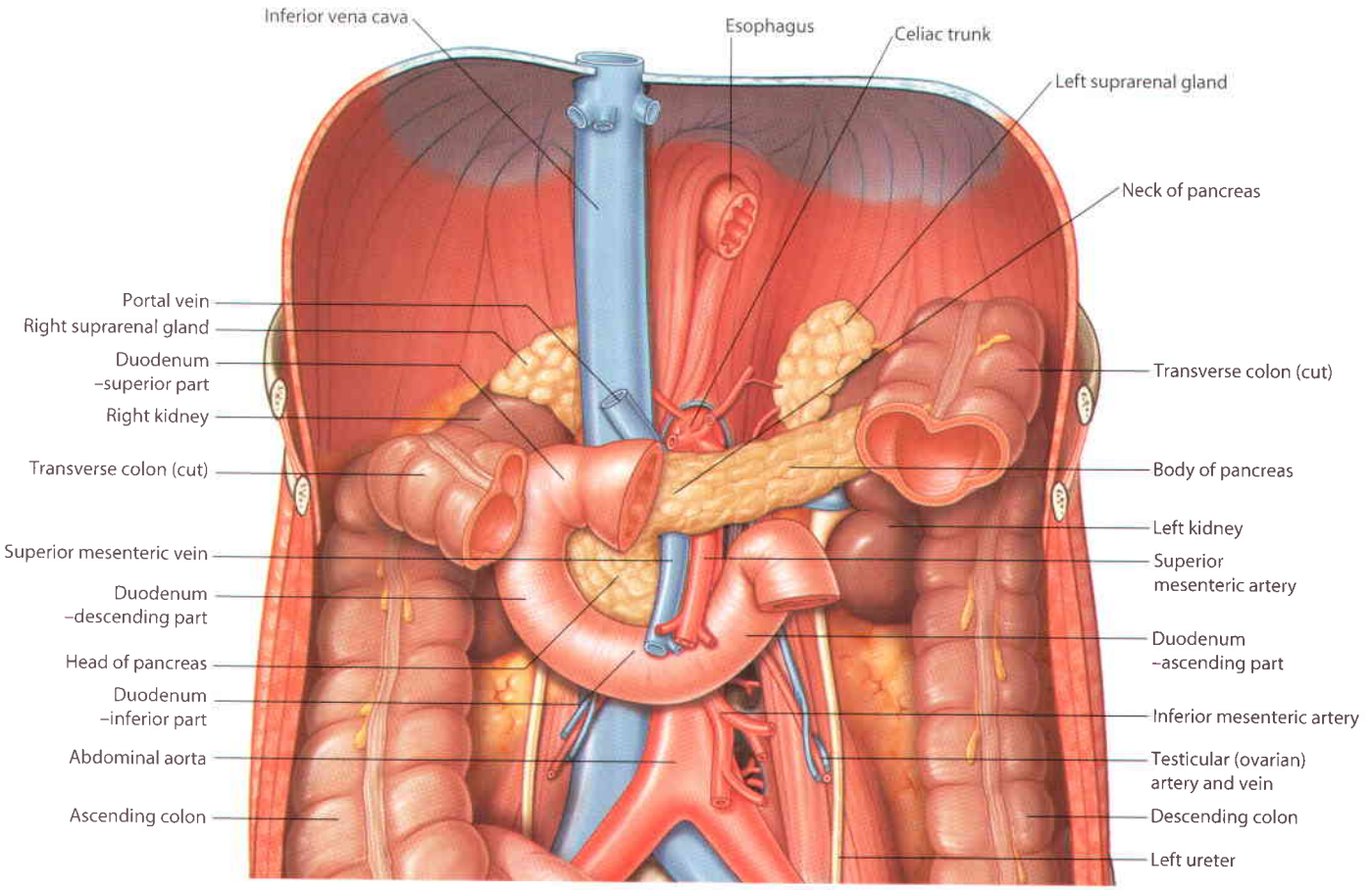
Digital subtraction angiography of the celiac trunk and its branches



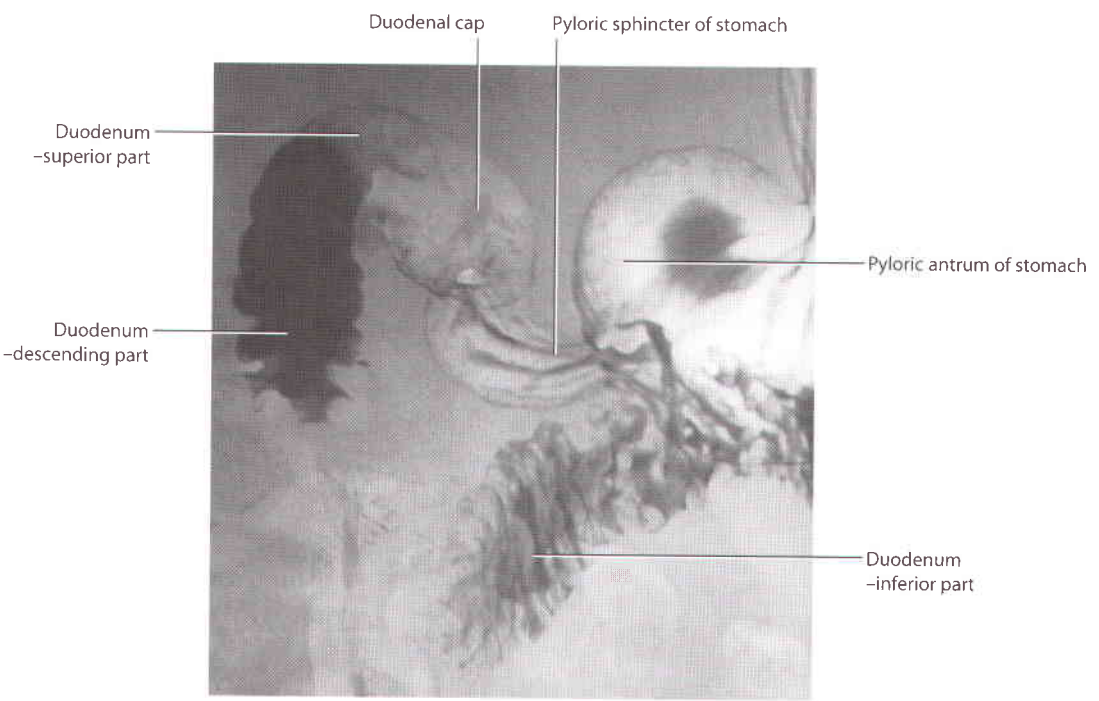
Positioning of the celiac trunk in relation to other structures.
CT image, with contrast, in coronal plane



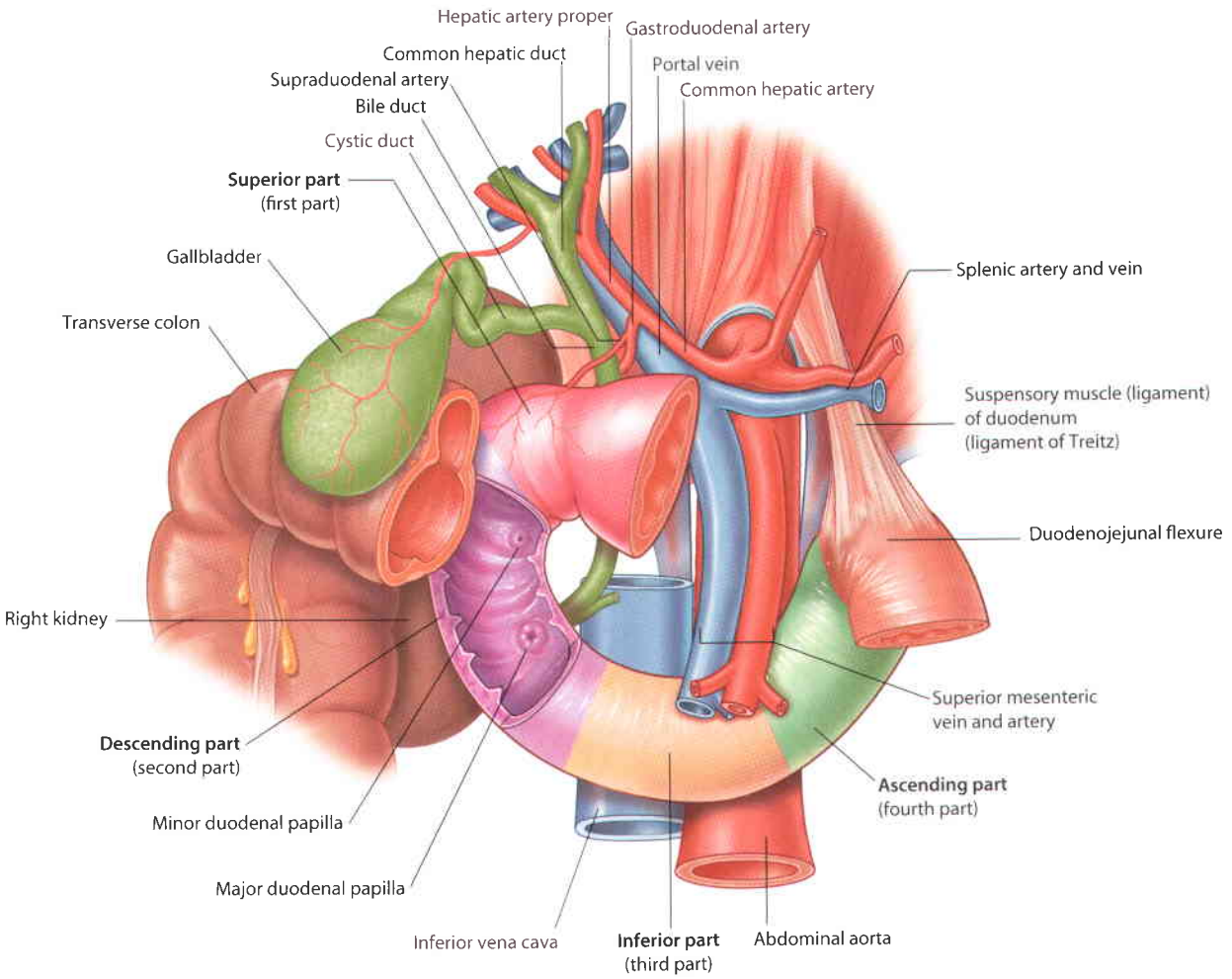
Branching of the celiac trunk from the abdominal aorta.
CT image, with contrast, in axial plane



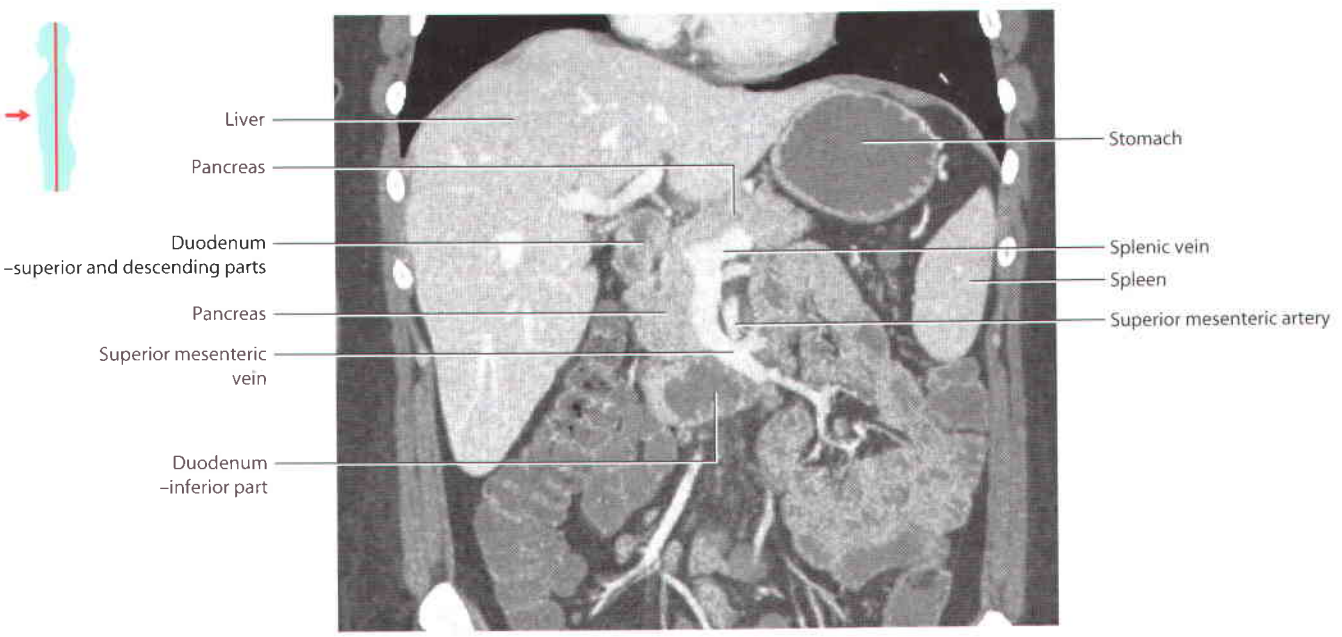
Duodenum in situ



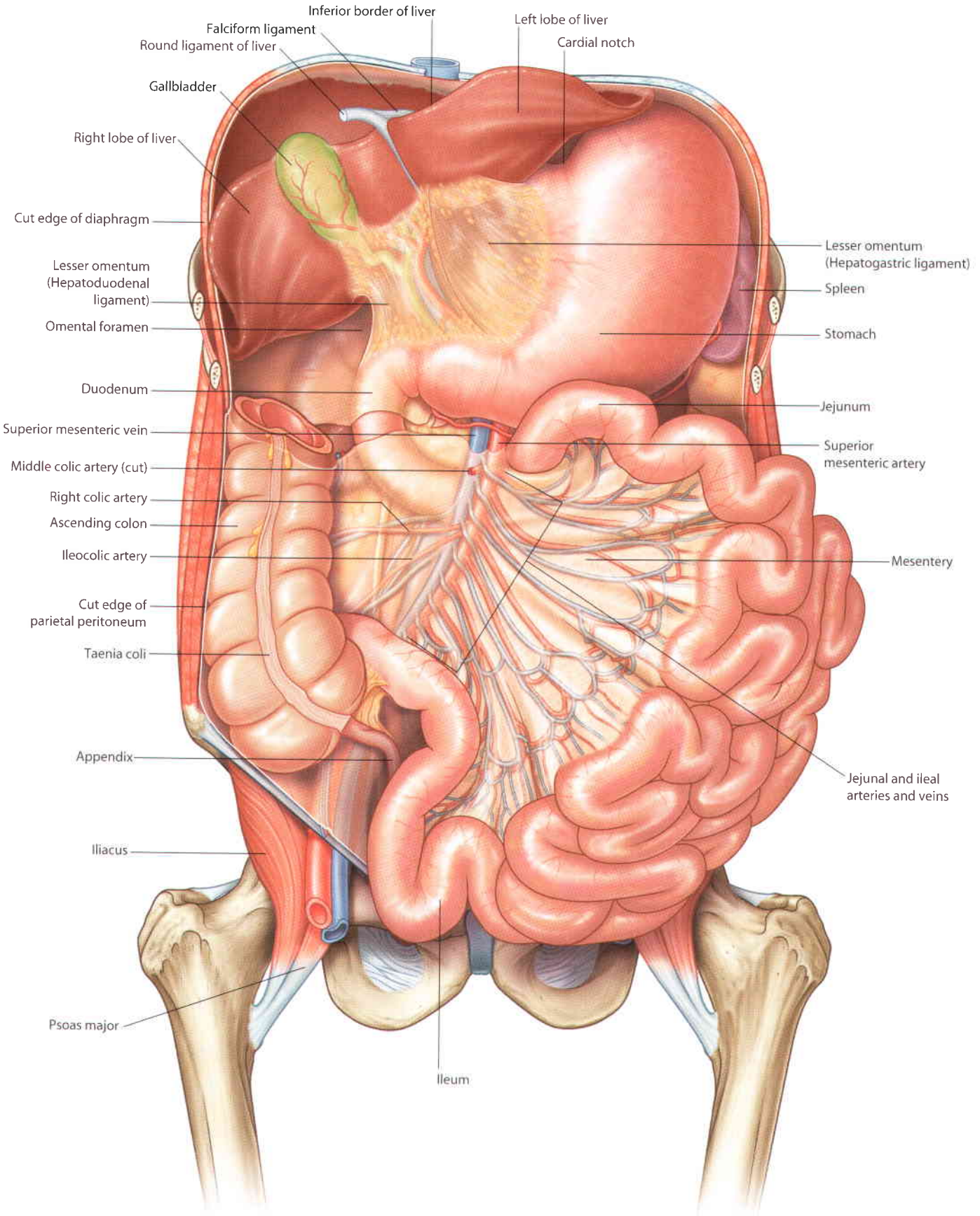
Double contrast radiograph showing the duodenal cap



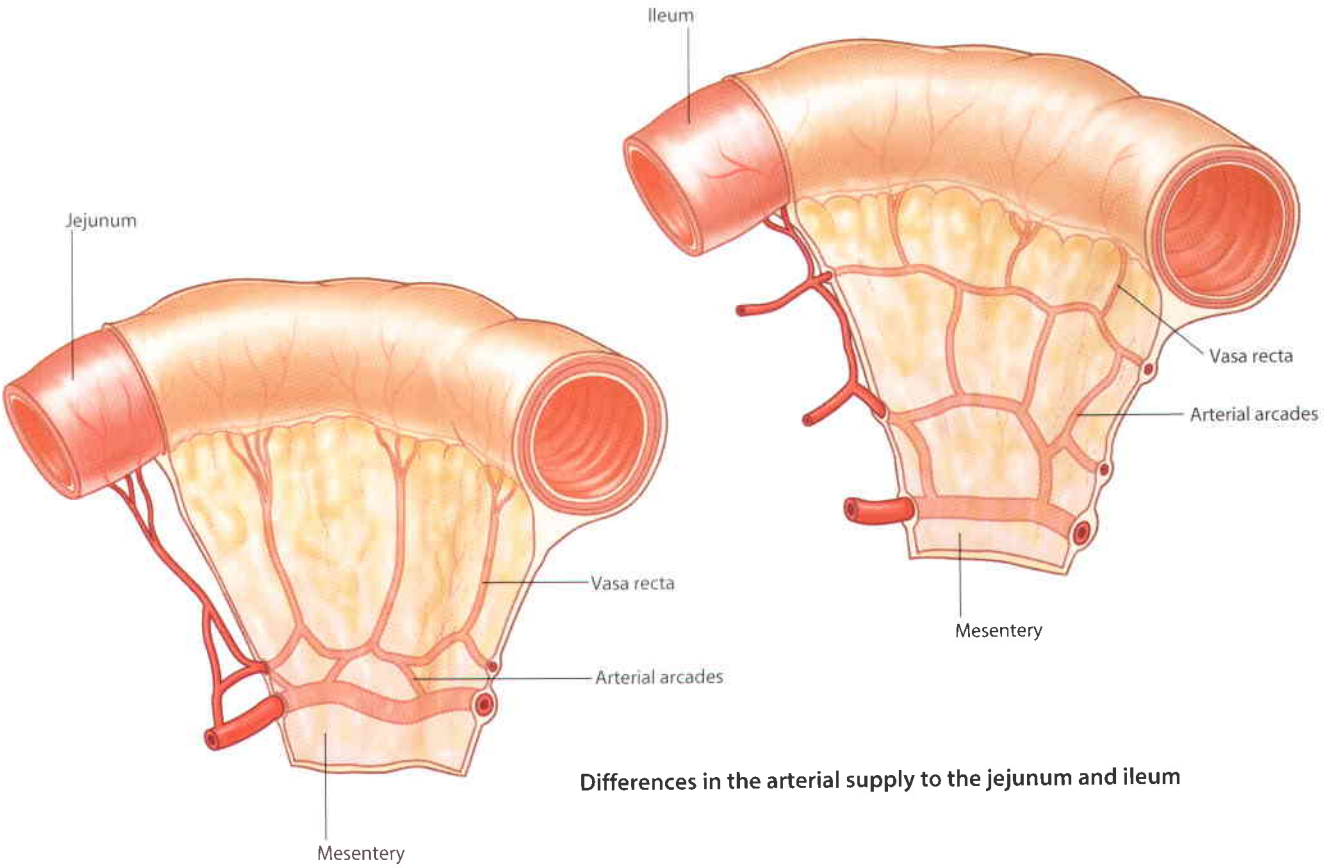
Parts of the duodenum and related structures



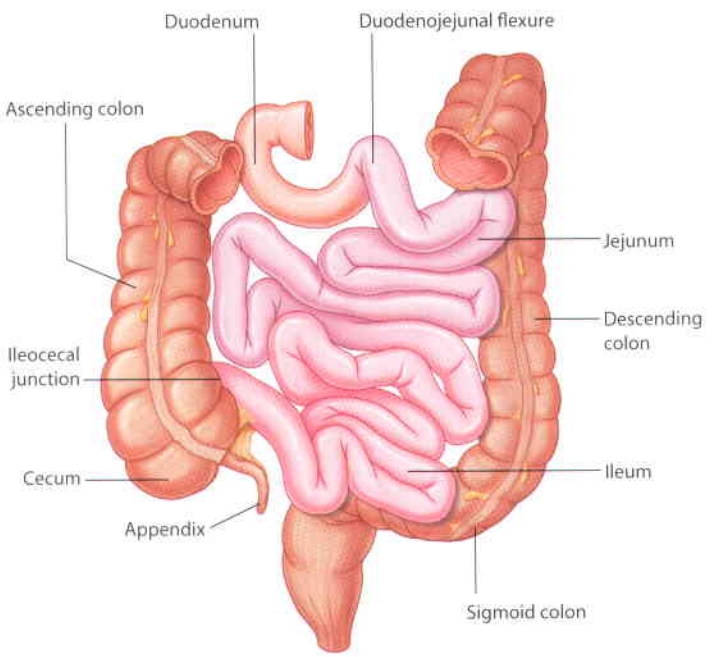
Relationship of duodenum to structures in the vicinity.
CT image, with contrast, in coronal plane



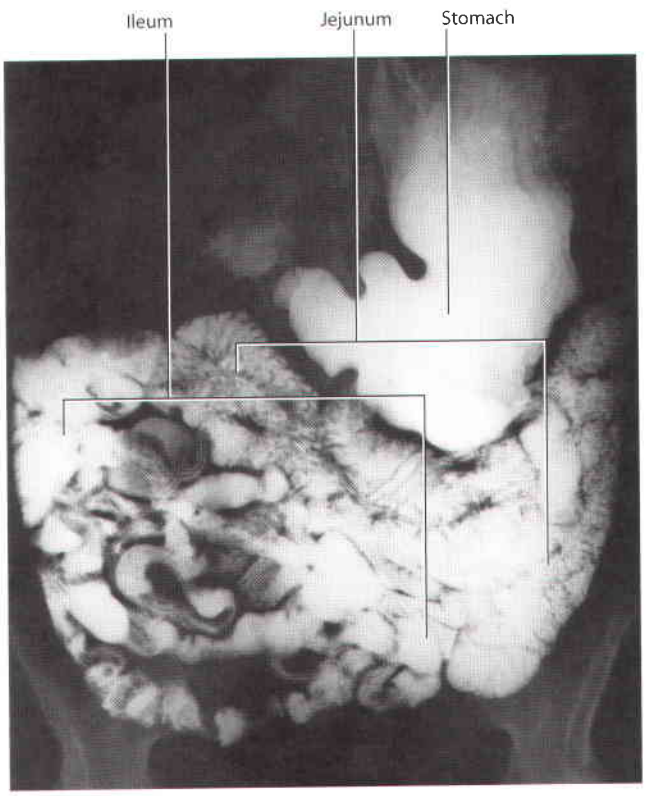
Small intestine displaced to show superior mesenteric vessels



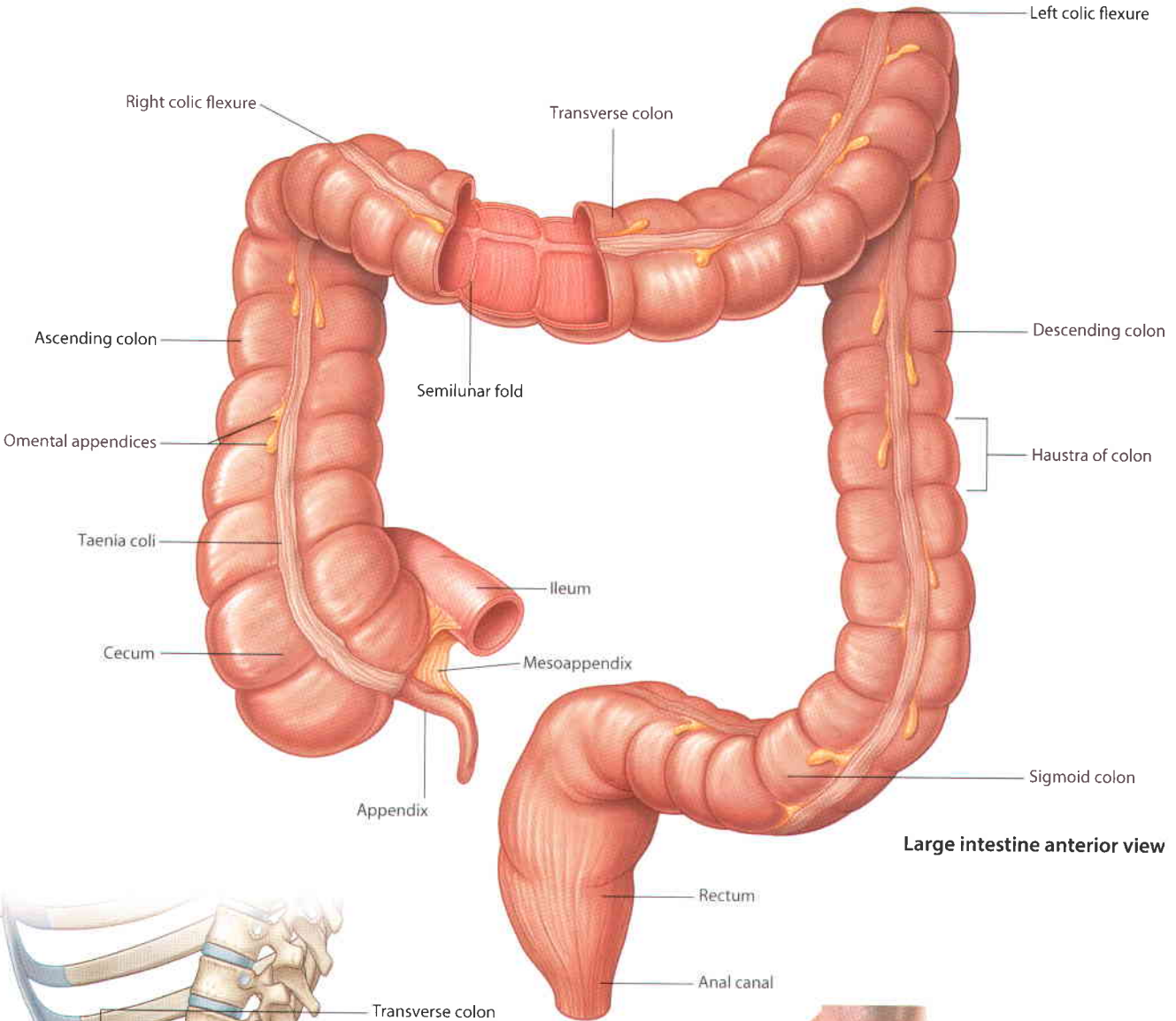
Differences in the arterial supply to the jejunum and ileum



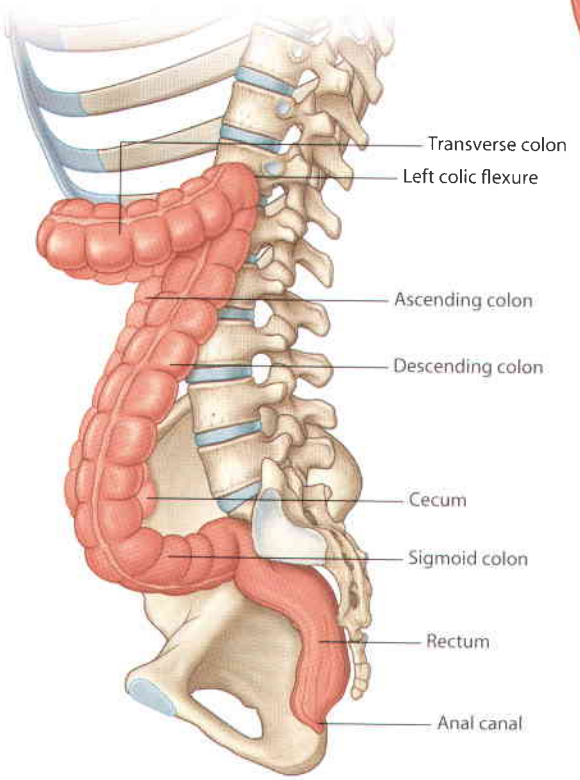
Jejunum and ileum



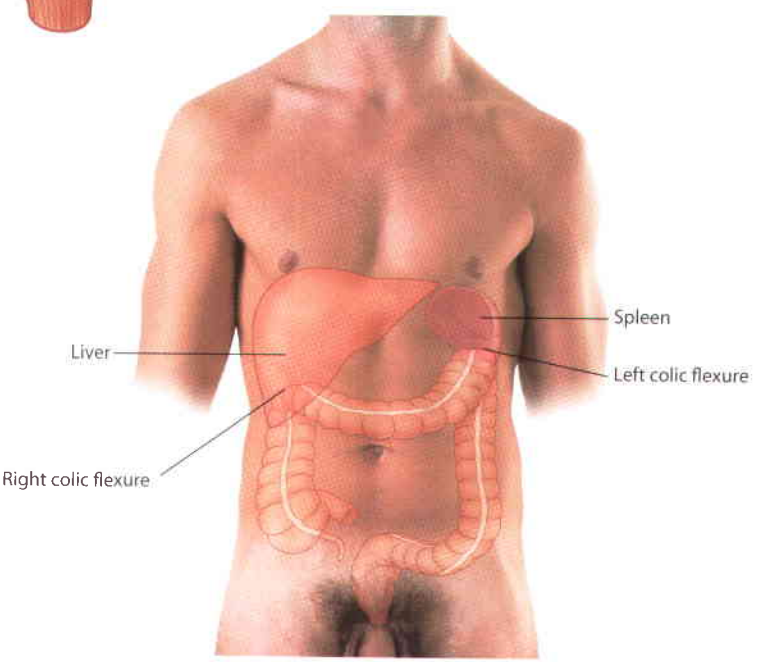
Radiograph using barium, showing jejunum and ileum



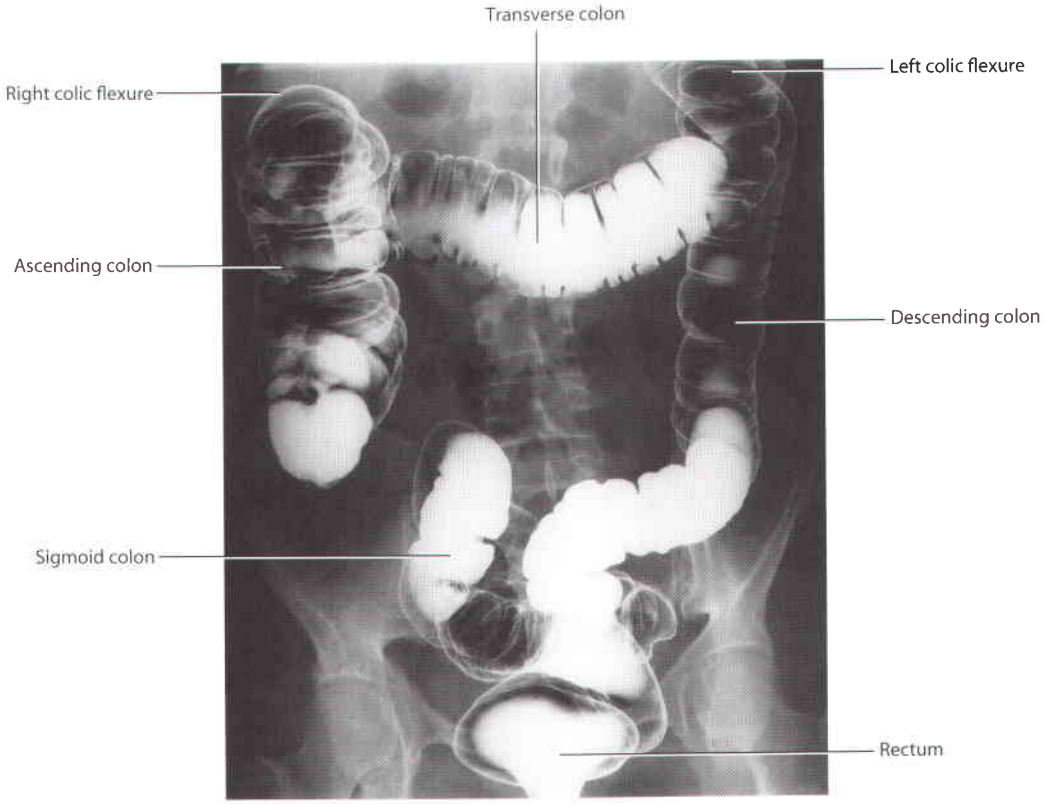
Large intestine anterior view



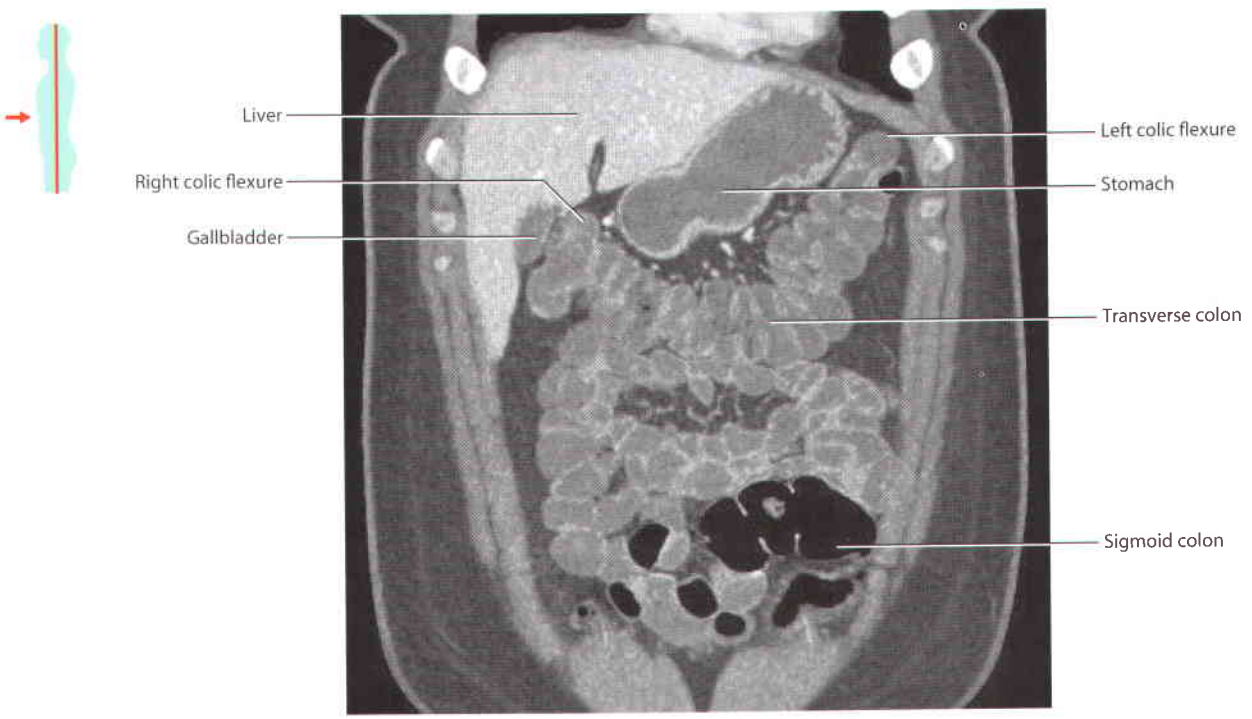
Large intestine left lateral view



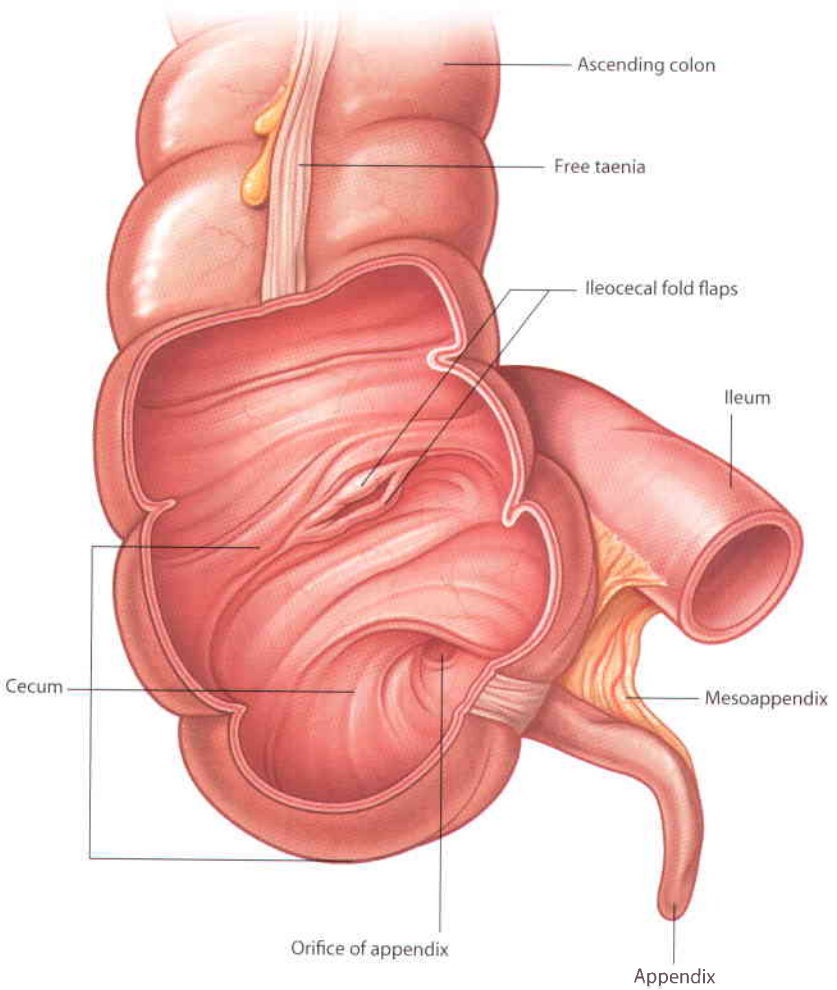
Surface projection of the large intestine



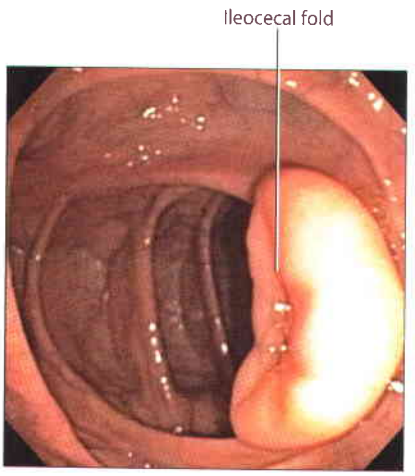
Radiograph using barium showing the large intestine



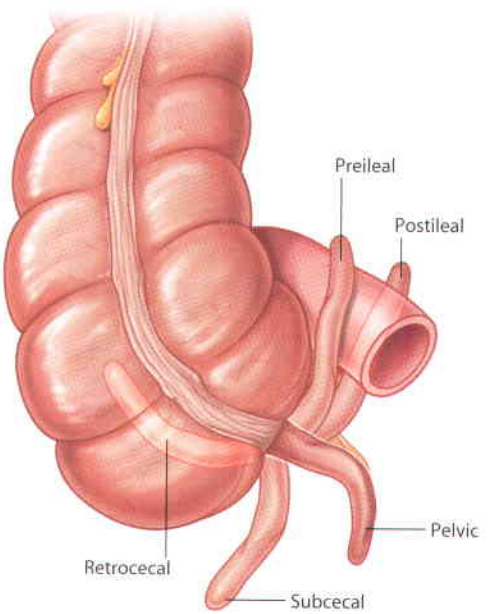
Transverse colon showing right and left colic flexures.
CT image, with contrast, in coronal plane



Ileocecal junction

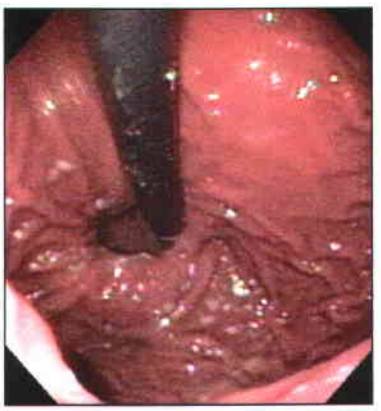


Colonoscopy showing ileocecal fold



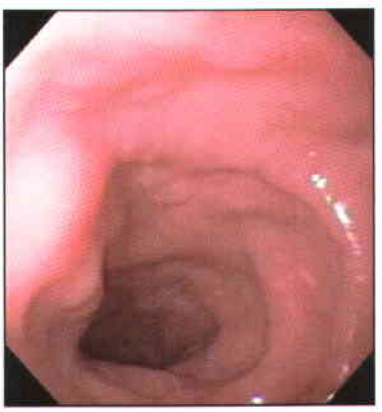
Positions of the appendix

A


B

C

D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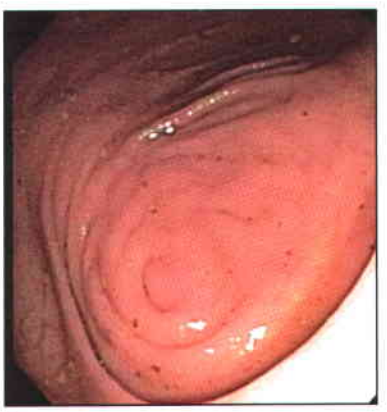
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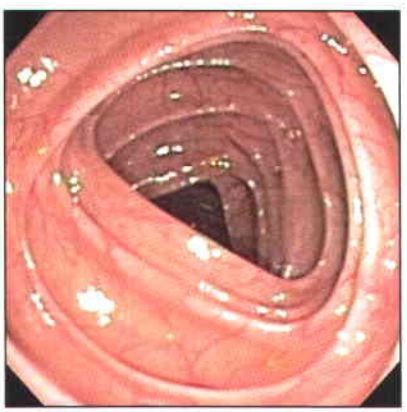
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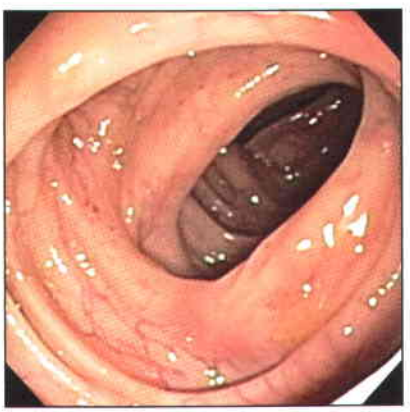
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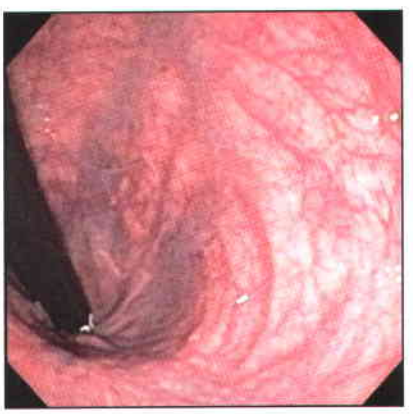
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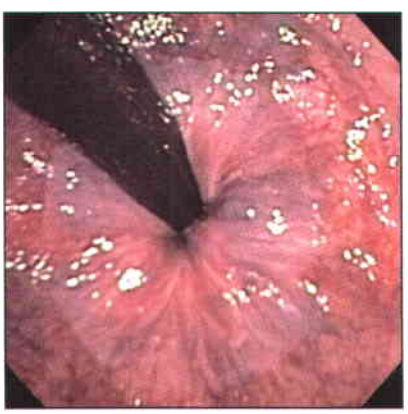
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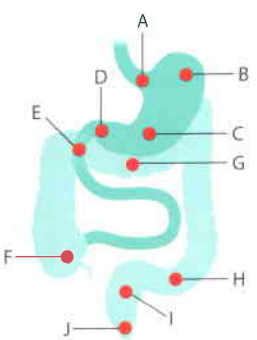
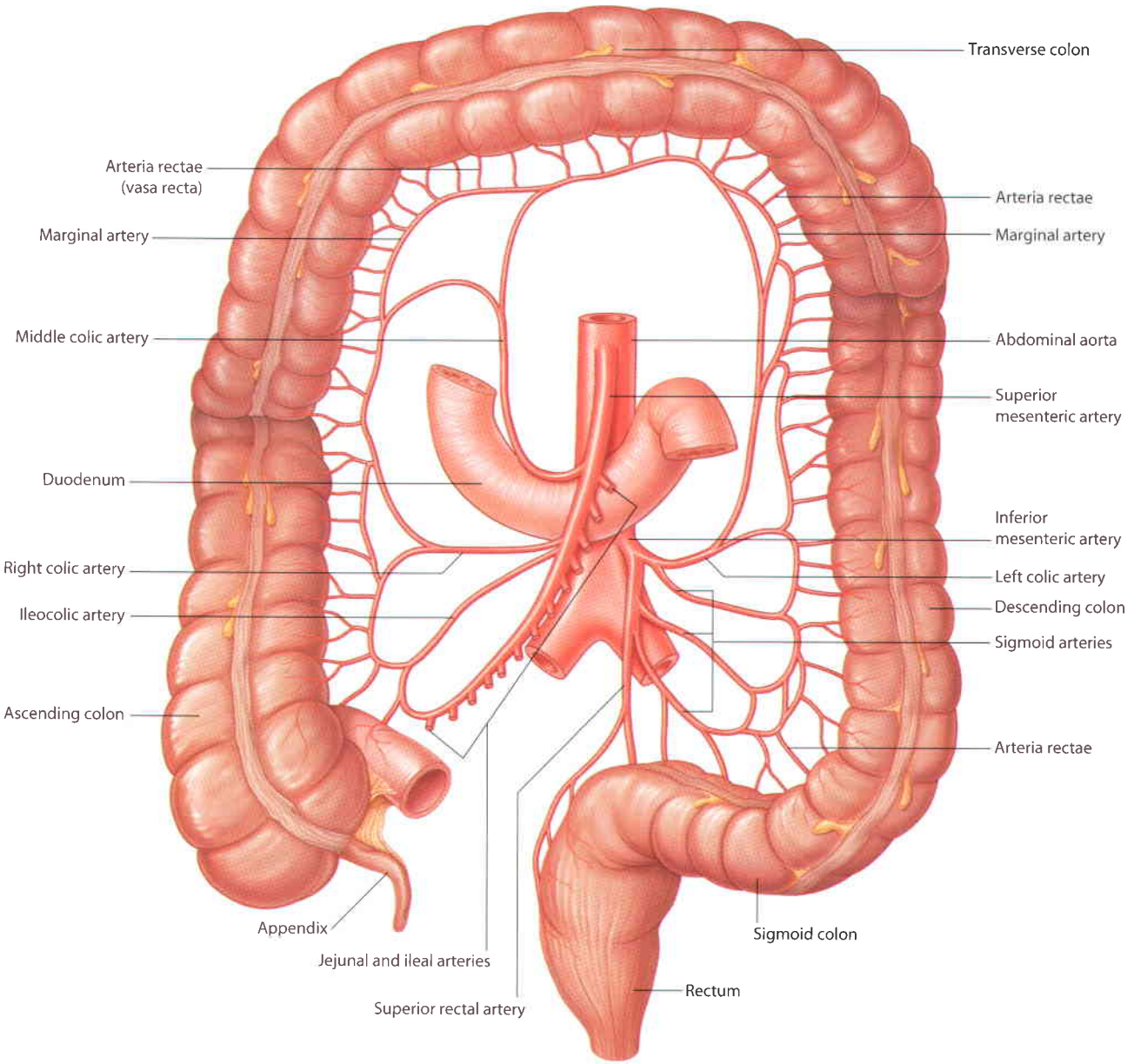
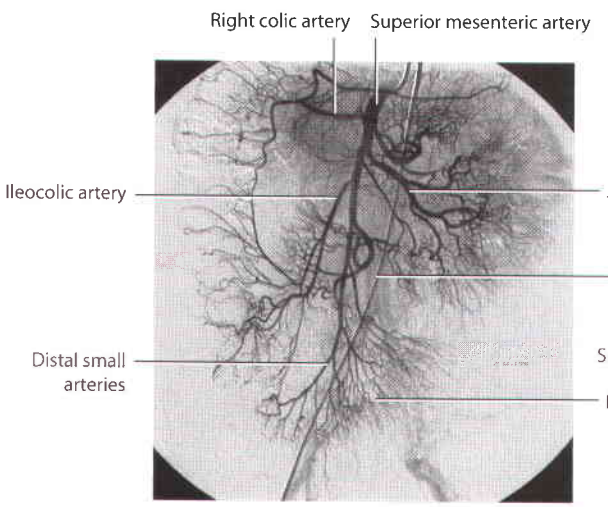


Endoscopy and colonoscopy showing different parts of the gastrointestinal tract.

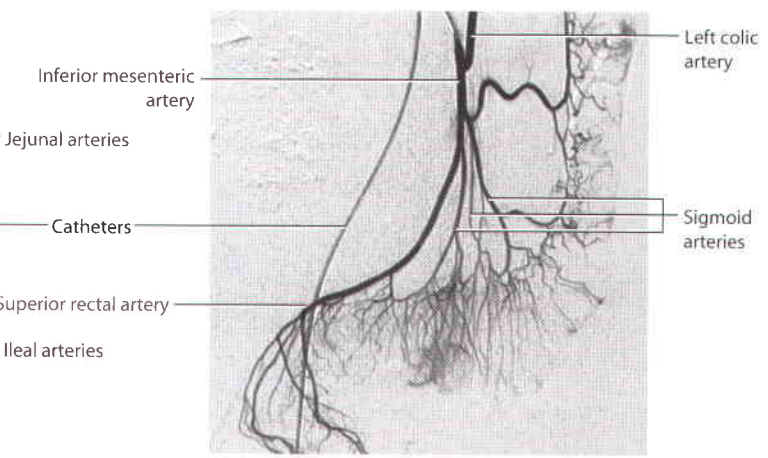
A. Gastroesophageal junction
B. Cardiac orifice and fundus of stomach-retroflexed view
C. Body of stomach
D. Pylorus of stomach and pyloric sphincter
E. Duodenum
F. Cecum showing appendiceal opening.
G. Transverse colon
H. Sigmoid colon
I. Rectum-retroflexed view
J. Pectinate line



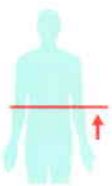
Superior and inferior mesenteric arteries

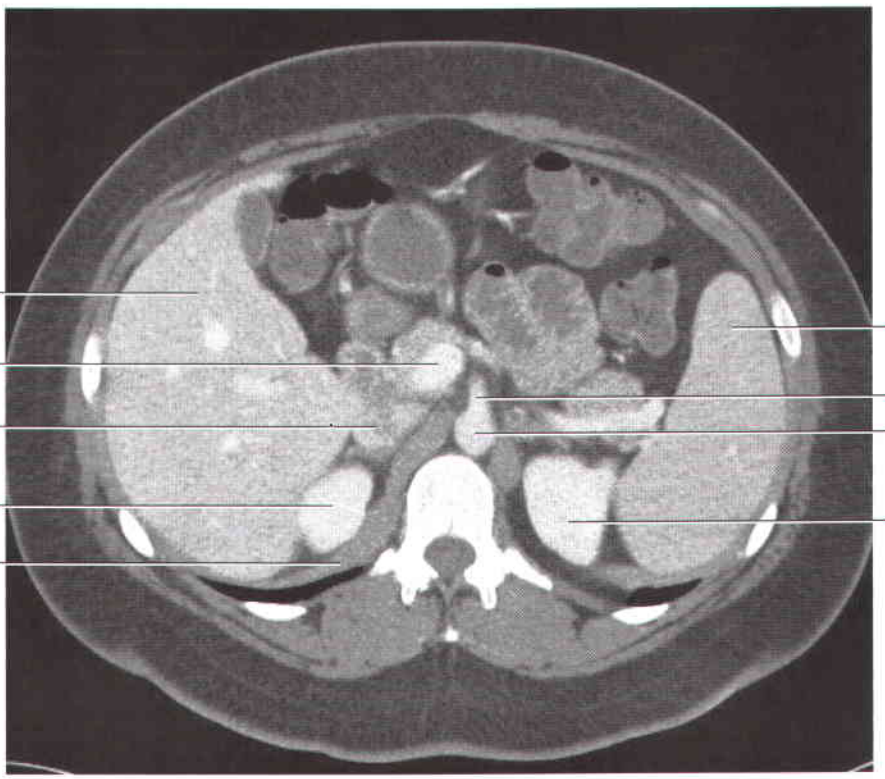


Digital subtraction angiography of the superior mesenteric artery and its branches

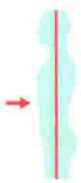


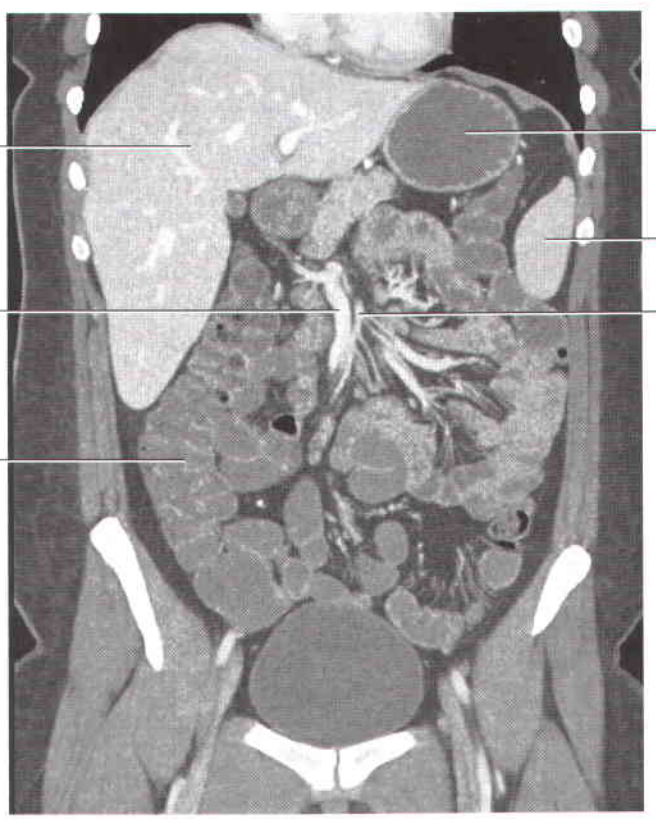
Digital subtraction angiography of the inferior mesenteric artery and its branches



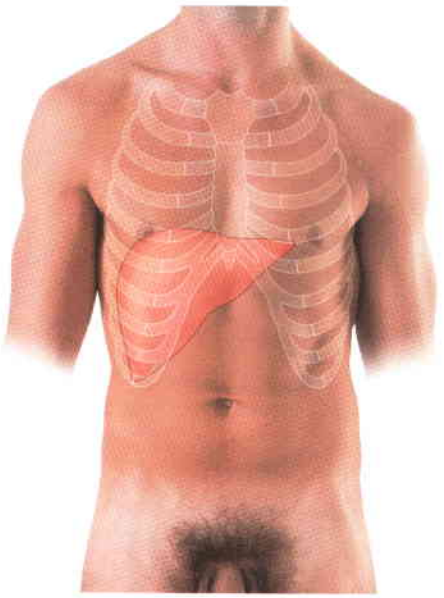


Branching of the superior mesenteric artery from the abdominal aorta.
CT image, with contrast, in axial plane

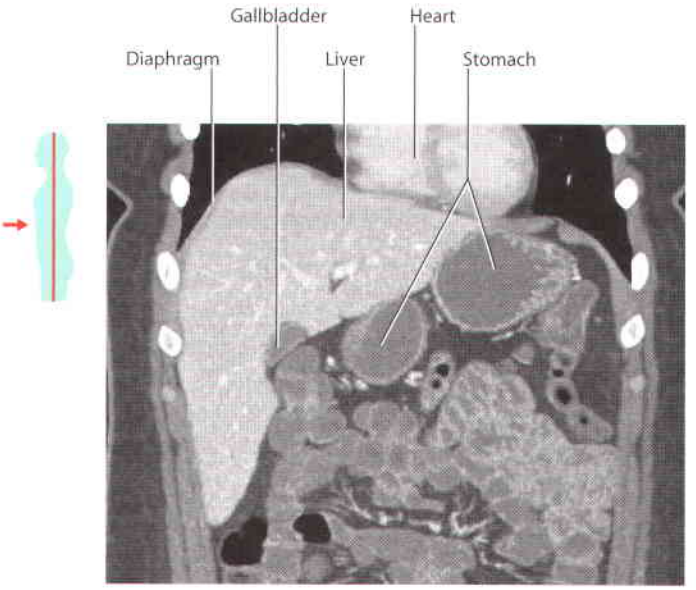




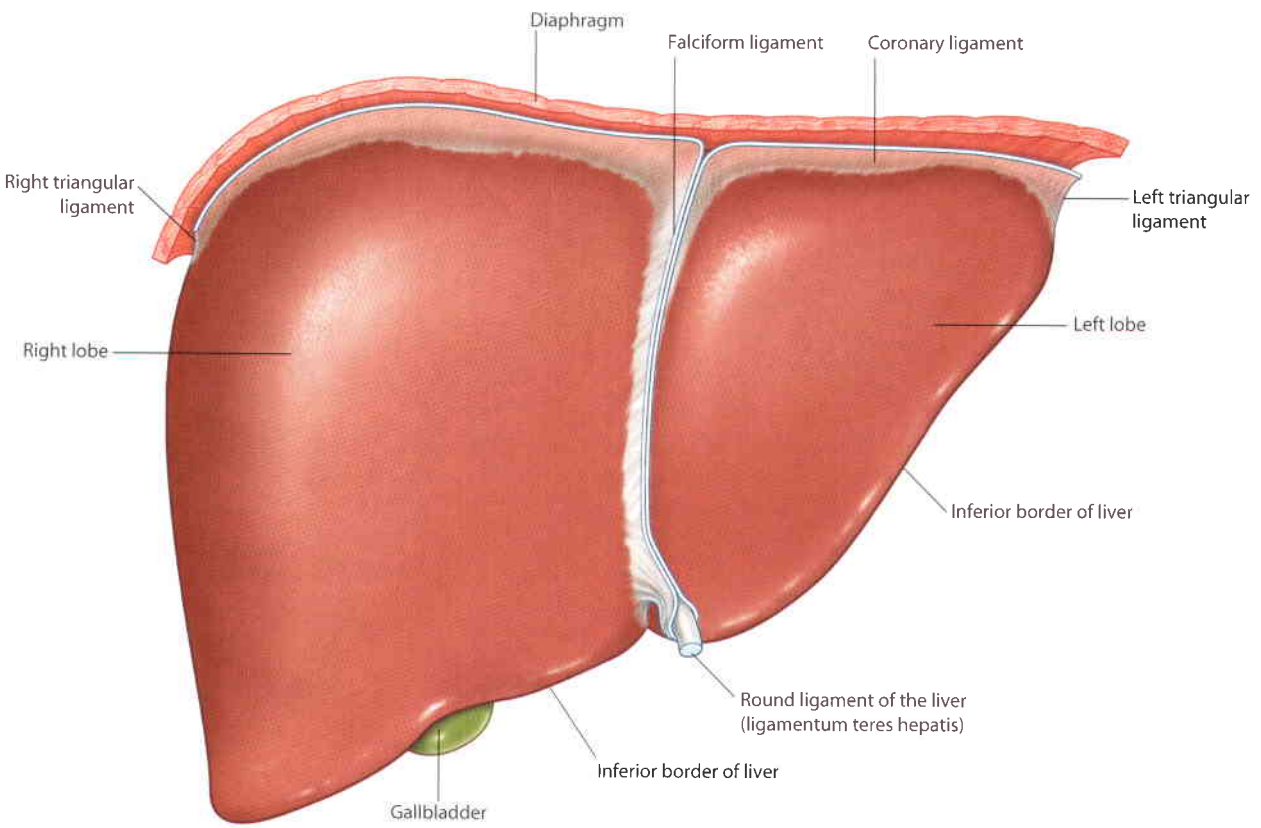
Positioning of the superior mesenteric artery in relation to other structures.
CT image, with contrast, in coronal plane



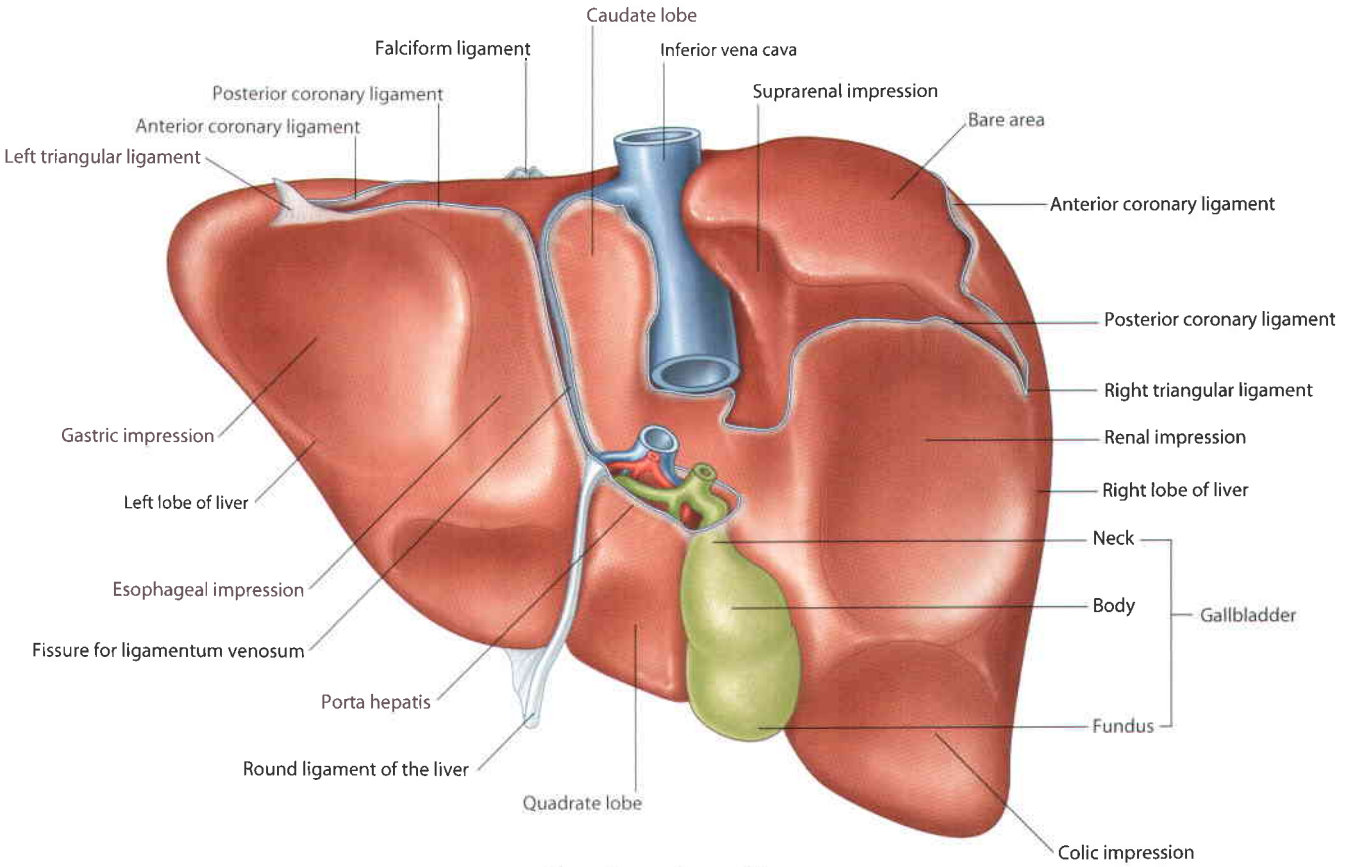
Surface projection of the liver anterior view



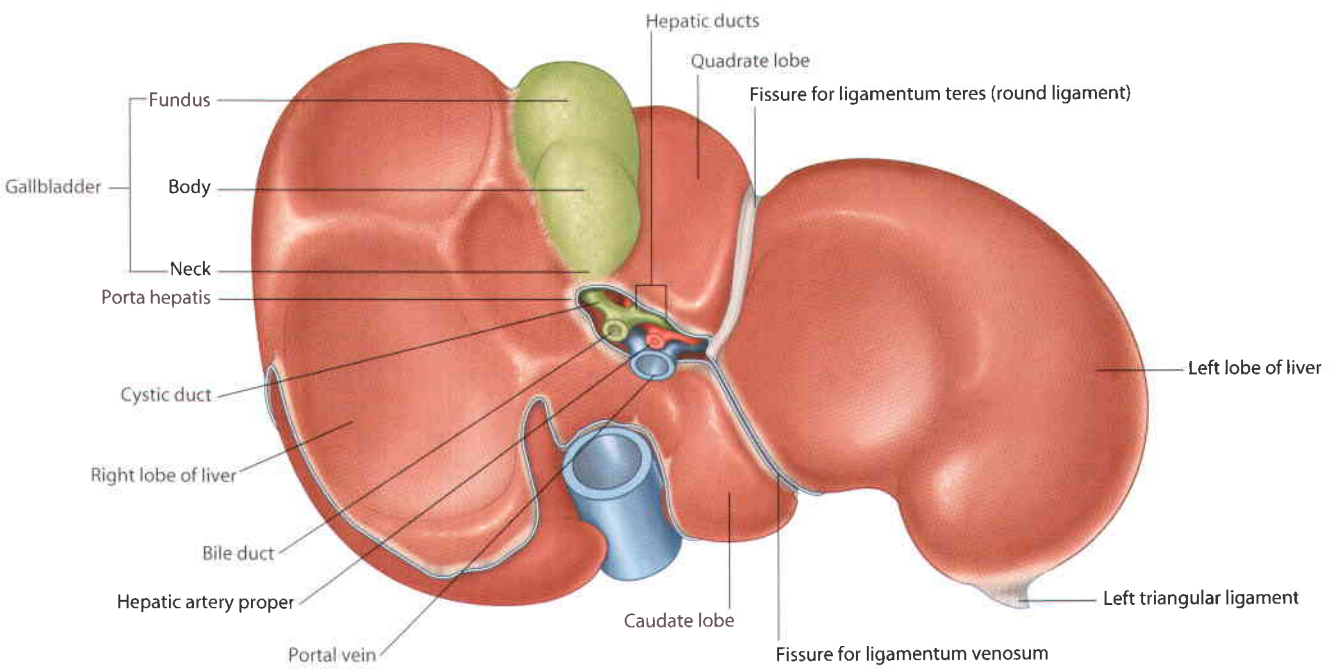
Location of the liver.
CT image, with contrast, in coronal plane



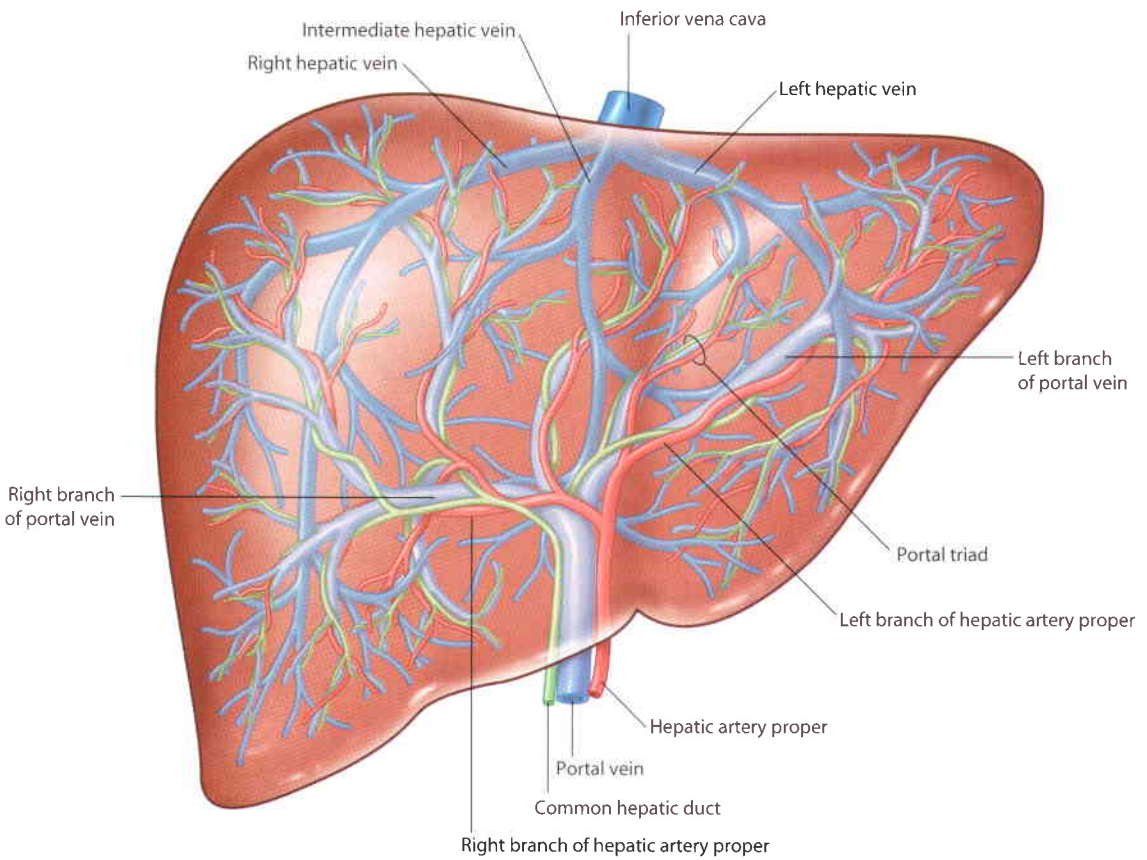
Anterior surface of liver



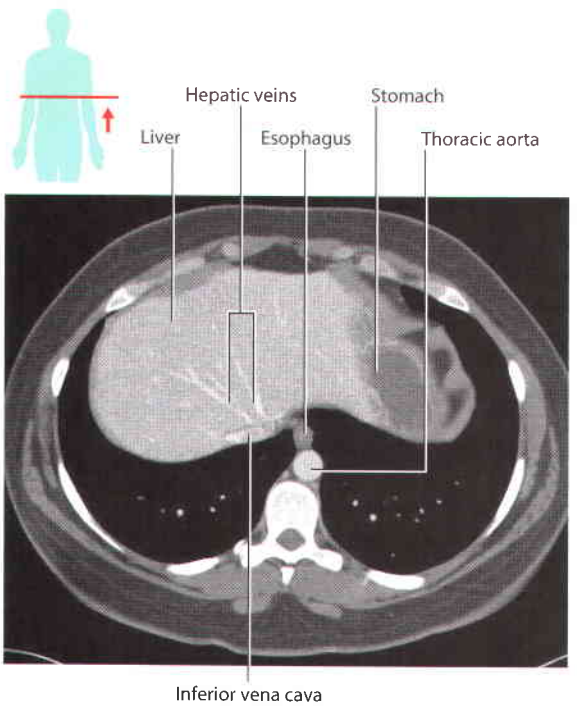
Posterior surface of liver



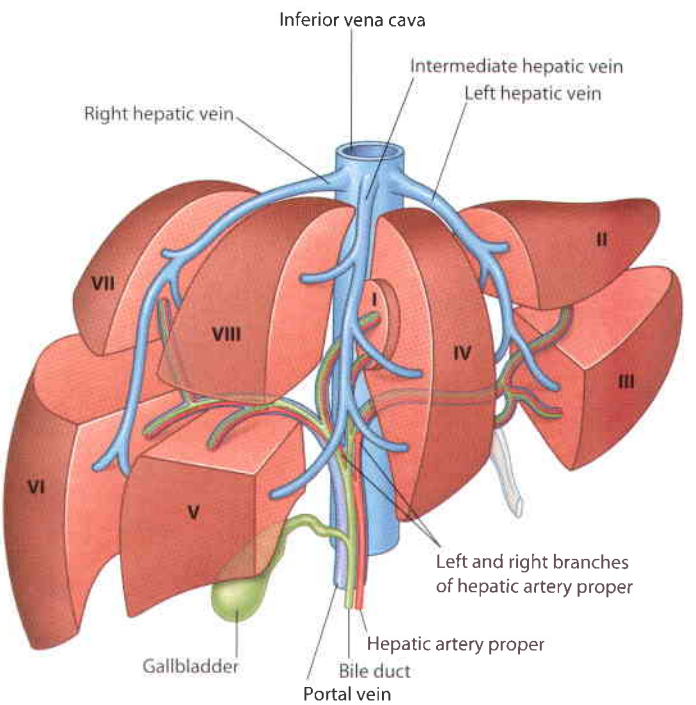
Visceral surface of liver



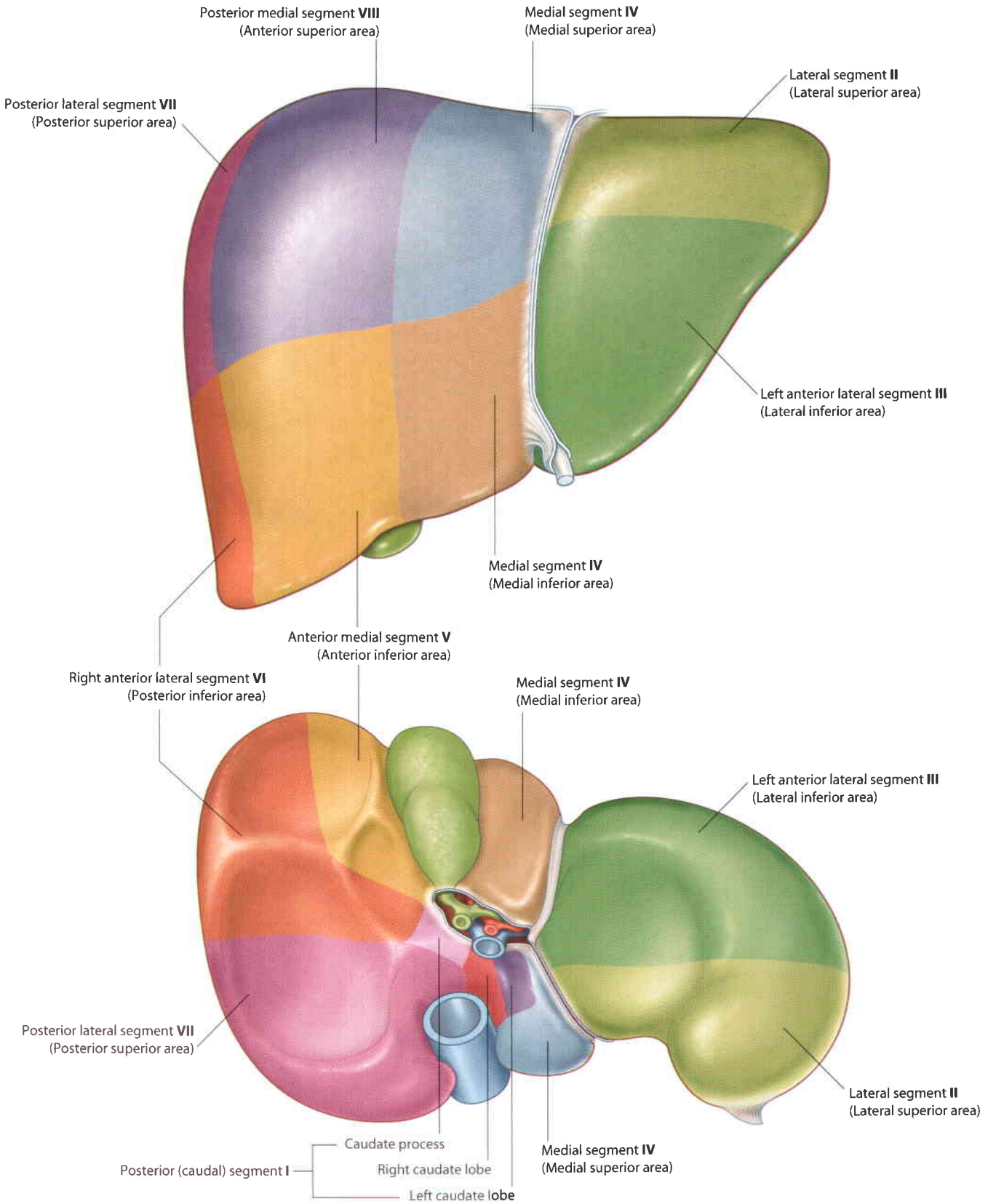
Anterior surface of liver with hepatic veins, portal vein, and associated vessels



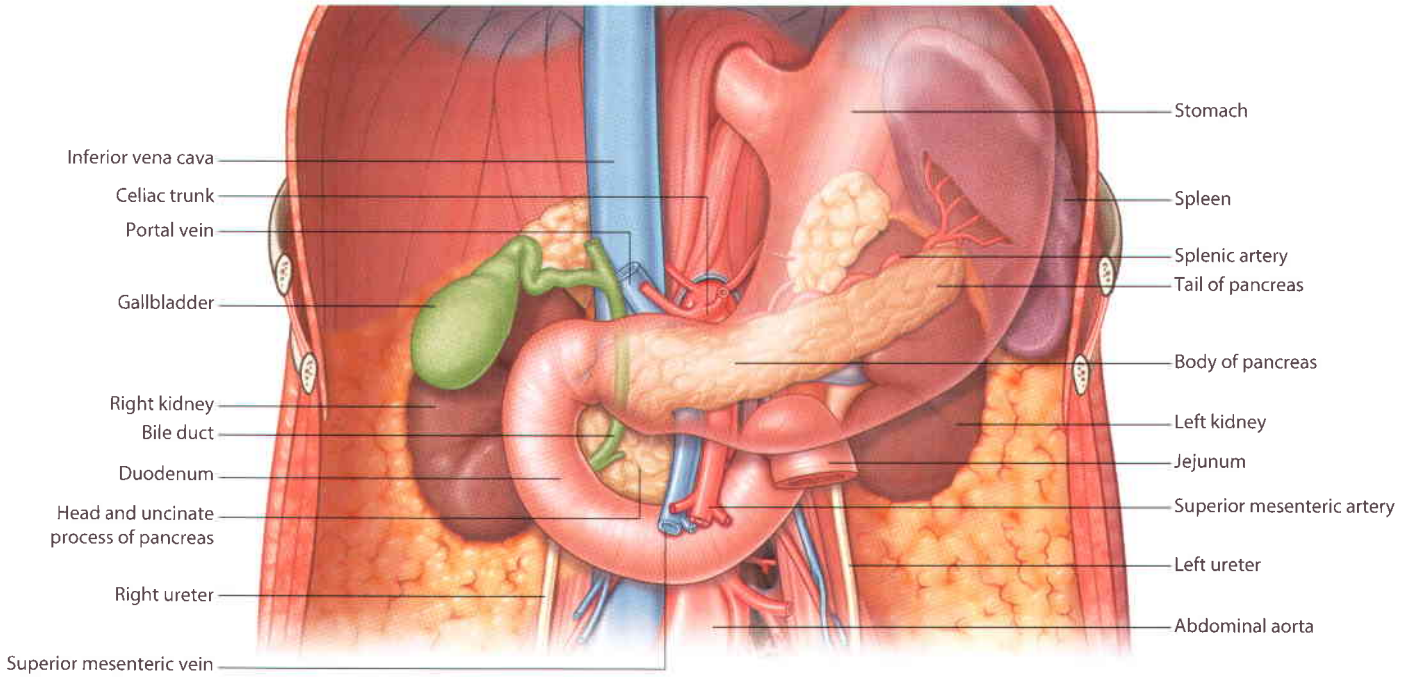
Hepatic veins entering the inferior vena cava in the substance of the liver.
CT image, with contrast, in axial plane



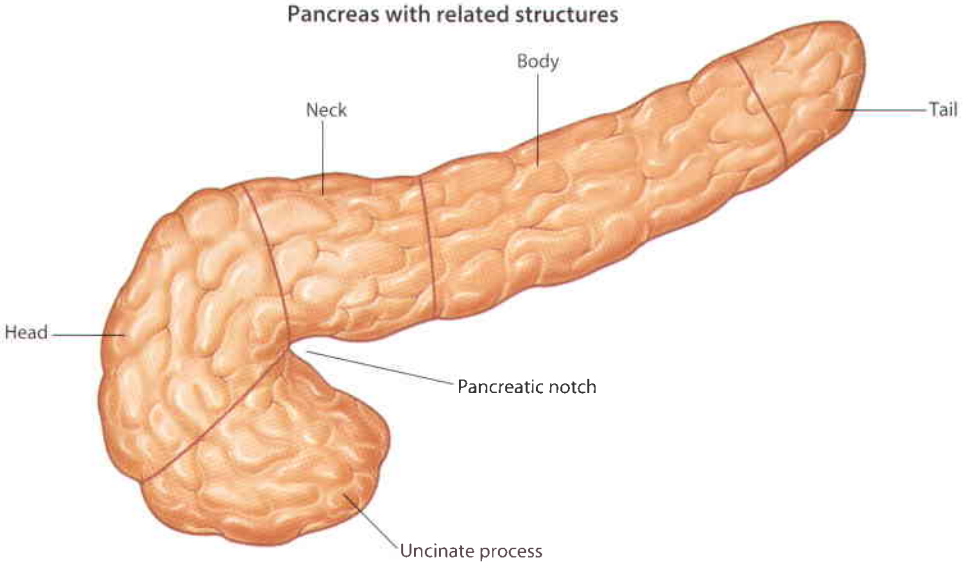
Arrangement of the hepatic venous segments



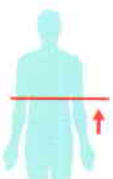
Segments of the liver shown on anterior and visceral surfaces

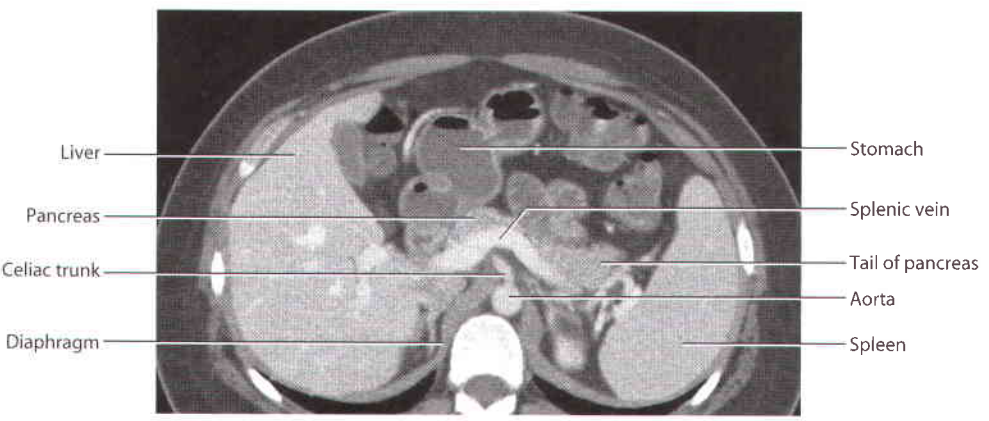


Pancreas with related structures

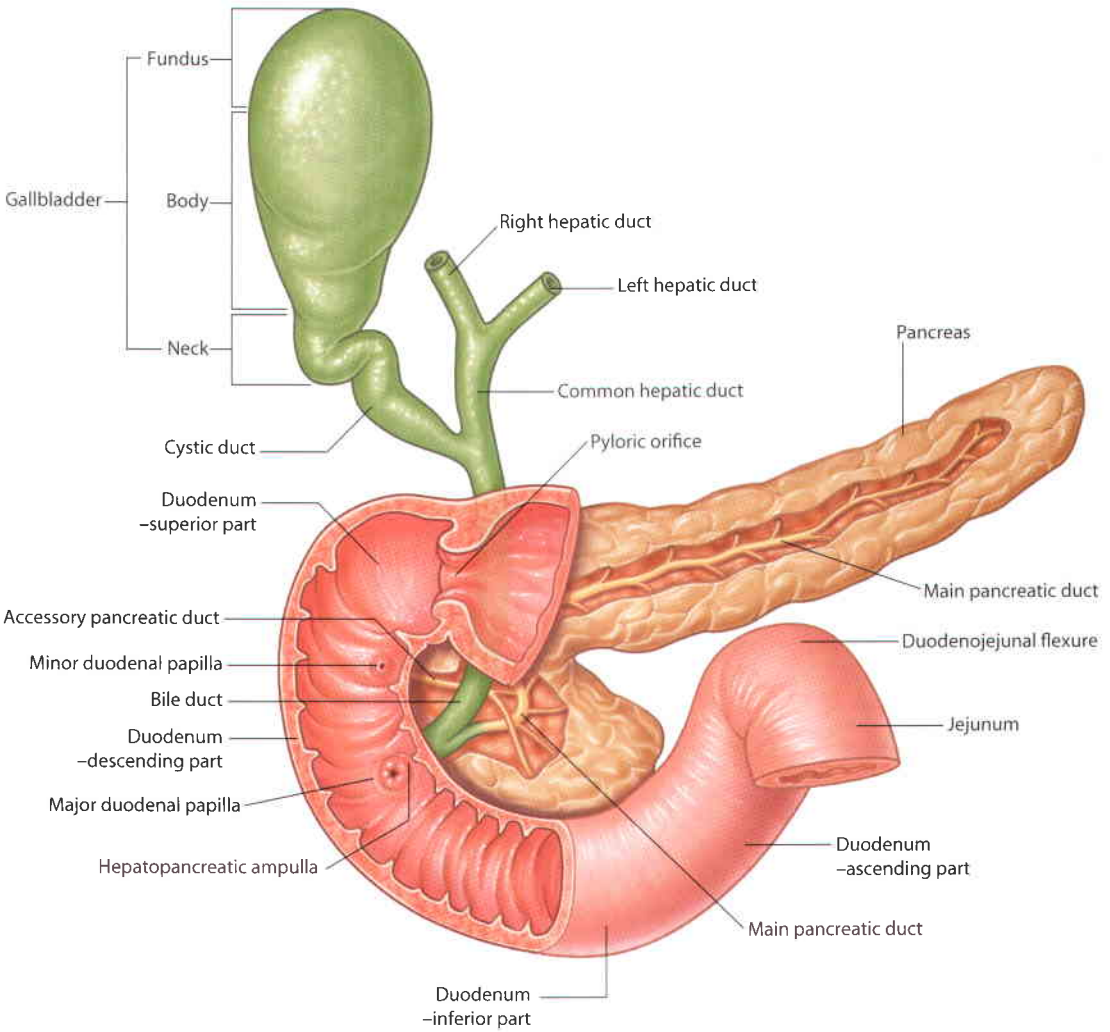


Anterior surface of the pancreas

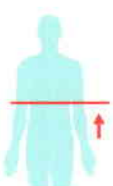


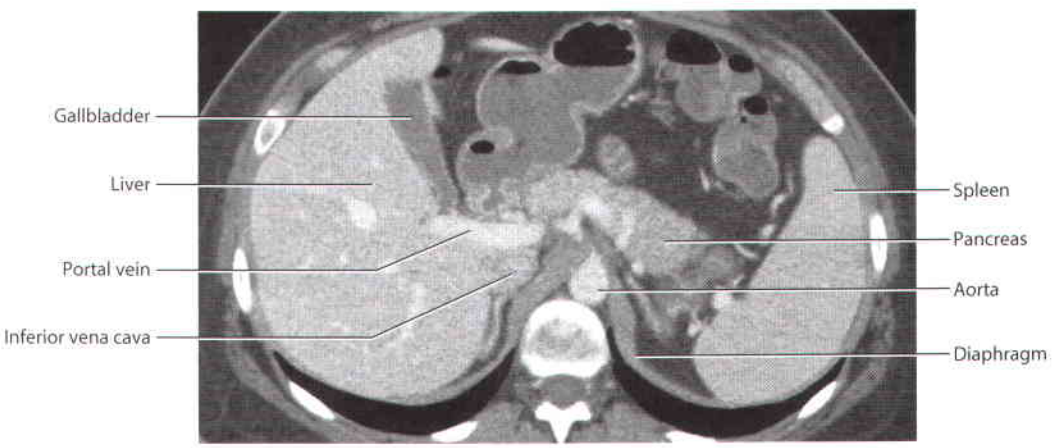


Pancreas.
CT image, with contrast, in axial plane

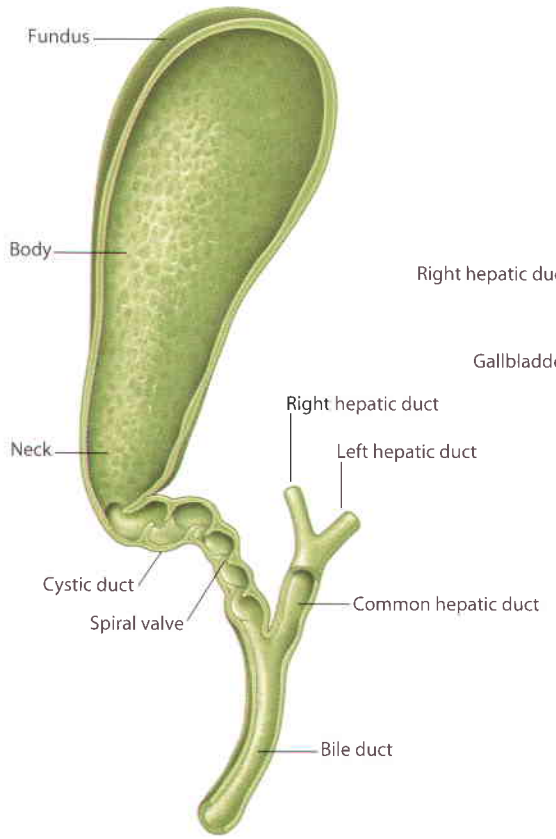


Bile and pancreatic ducts

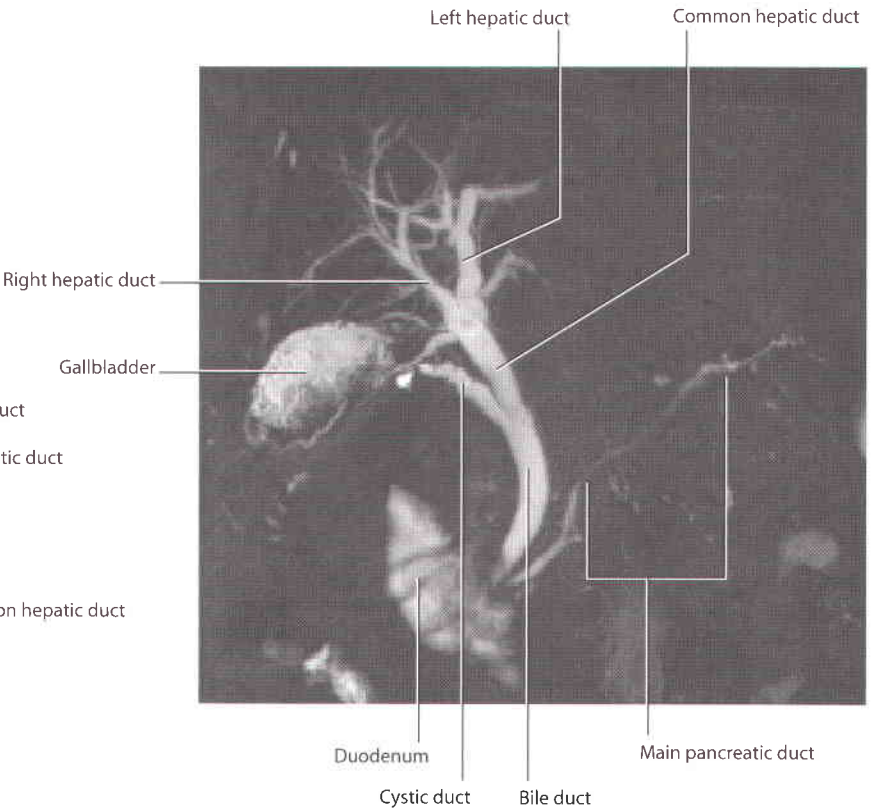




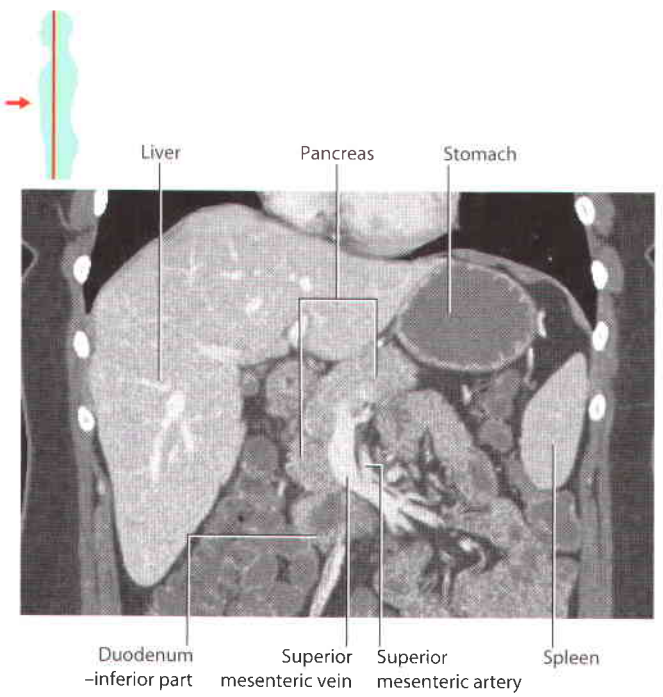
Positioning of the gallbladder in relation to other structures.
CT image, with contrast, in axial plane



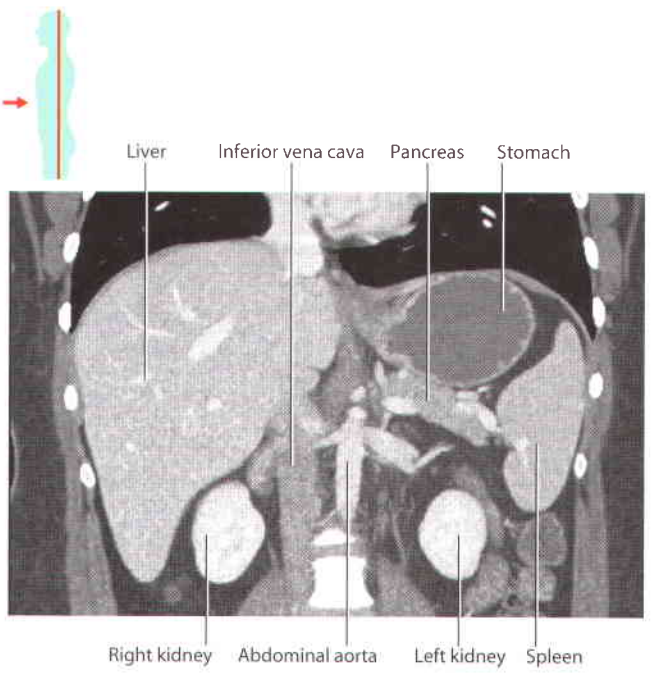
Section through gallbladder and bile ducts



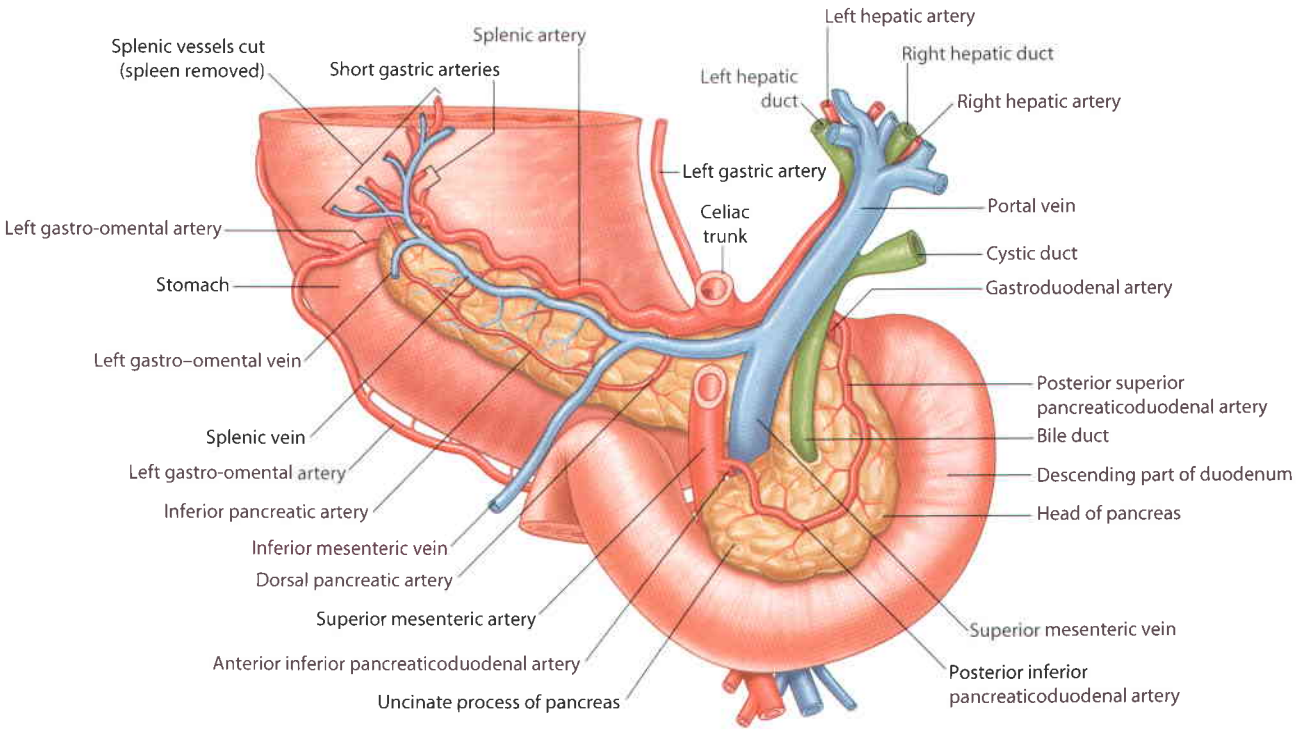
Bile duct system.
Percutaneous transhepatic cholangiogram



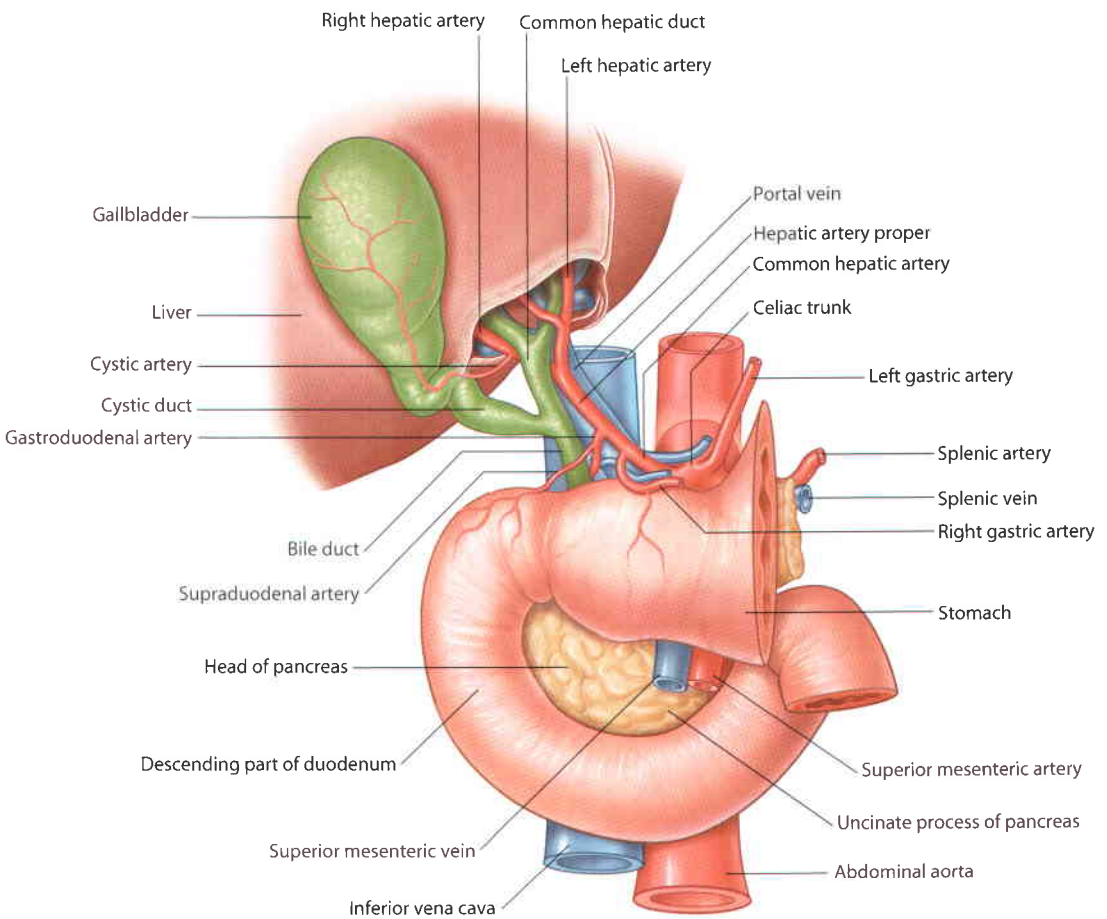
Positioning of the pancreas in relation to other structures.
CT image, with contrast, in coronal plane



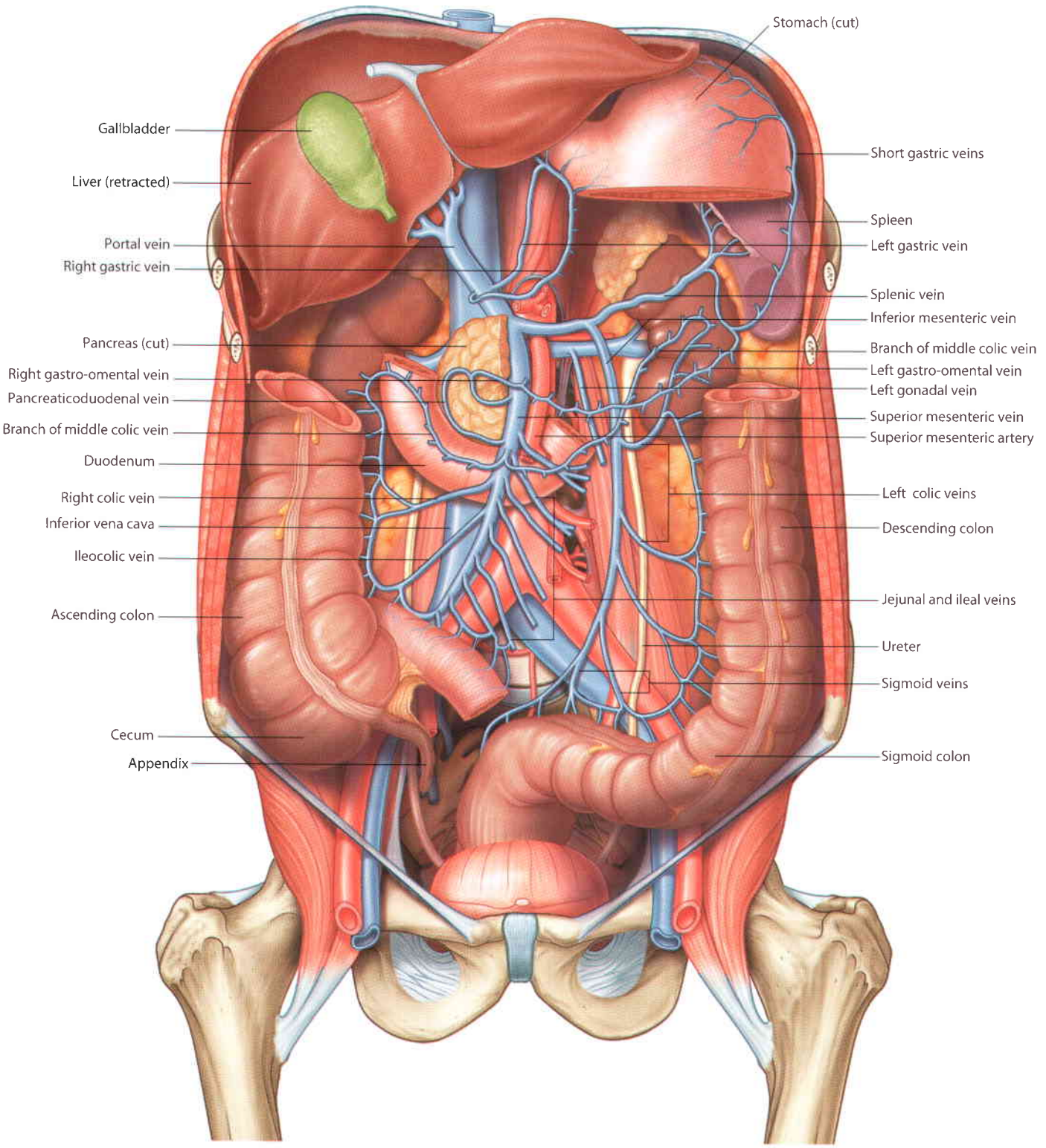
Relationship of pancreas to the stomach and spleen.
CT image, with contrast, in coronal plane



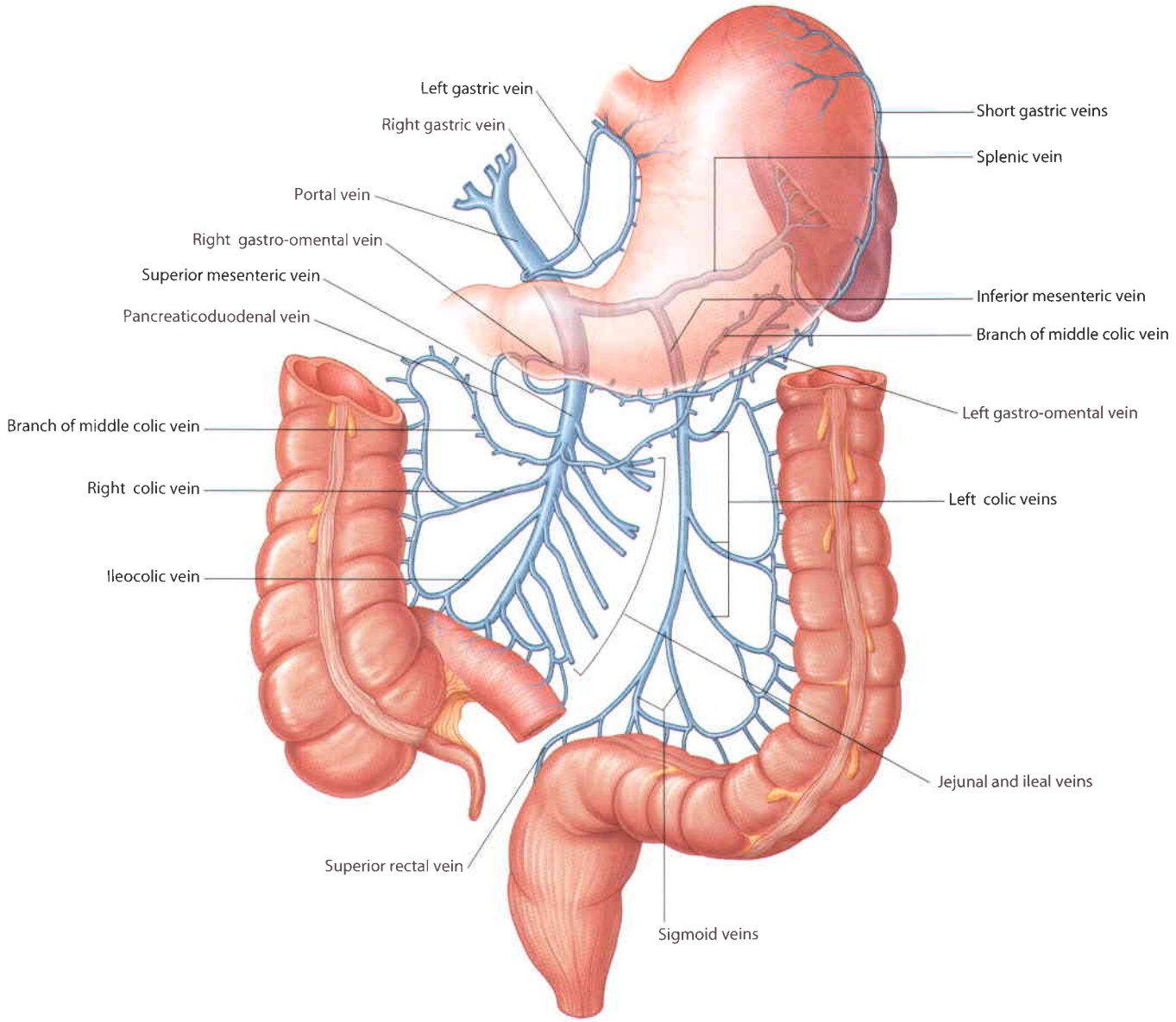
Vasculature of the pancreas posterior view



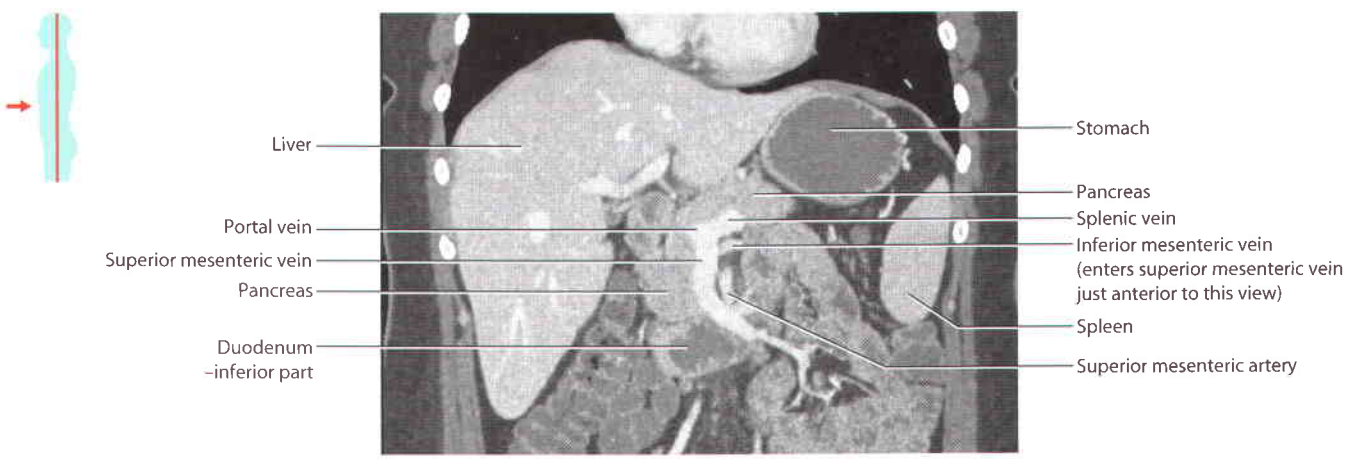
Distribution of the common hepatic artery



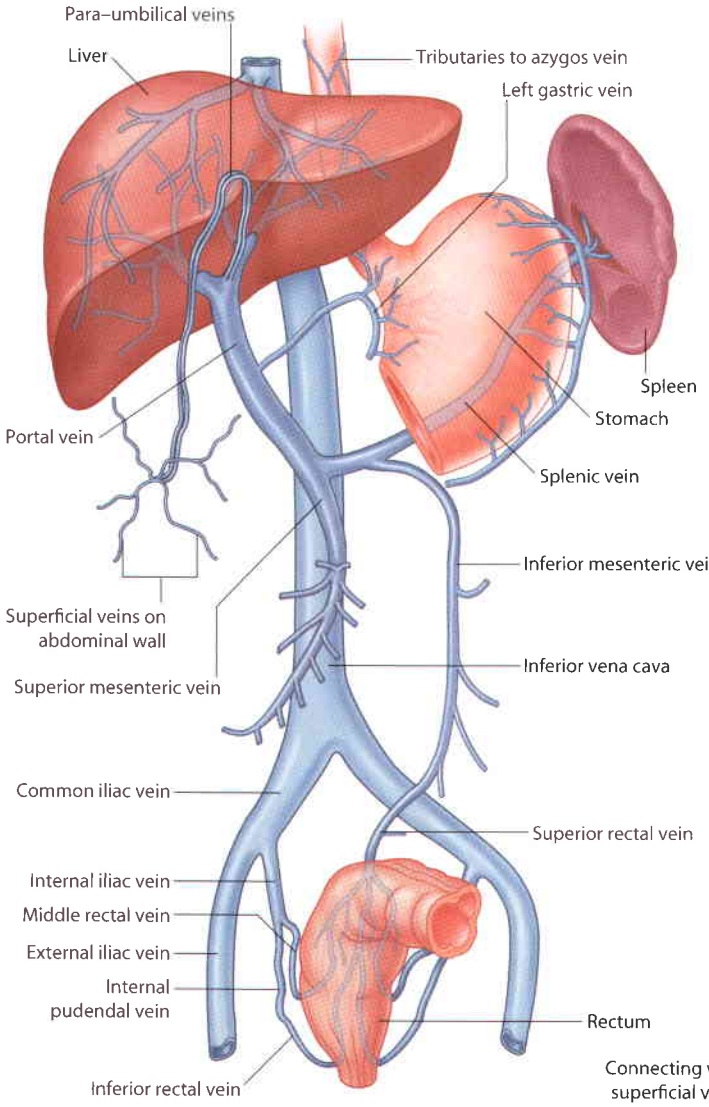
Venous drainage of the abdominal portion of the gastrointestinal tract in situ



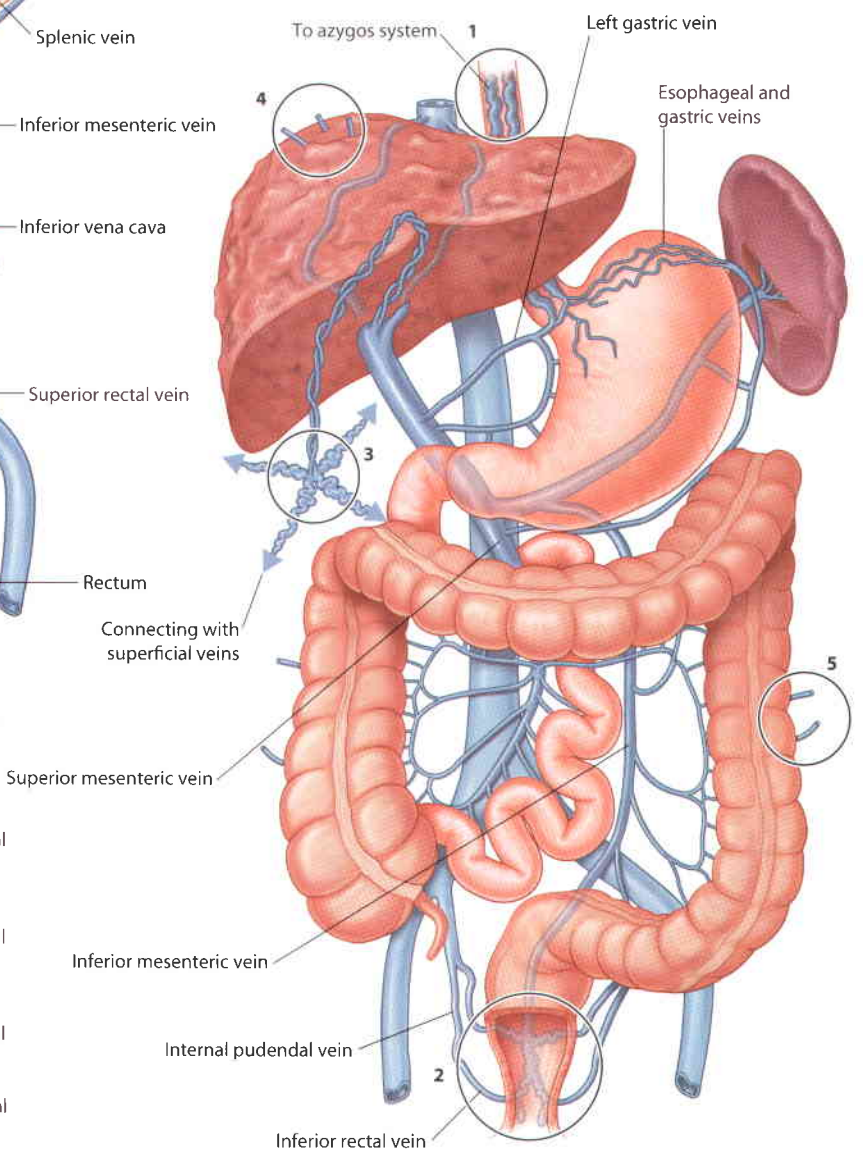
Venous drainage of the abdominal portion of the gastrointestinal tract



Formation of the portal vein.
CT image, with contrast, in coronal plane



Portosystemic anastomoses



Venous enlargement in portal hypertension(varices)

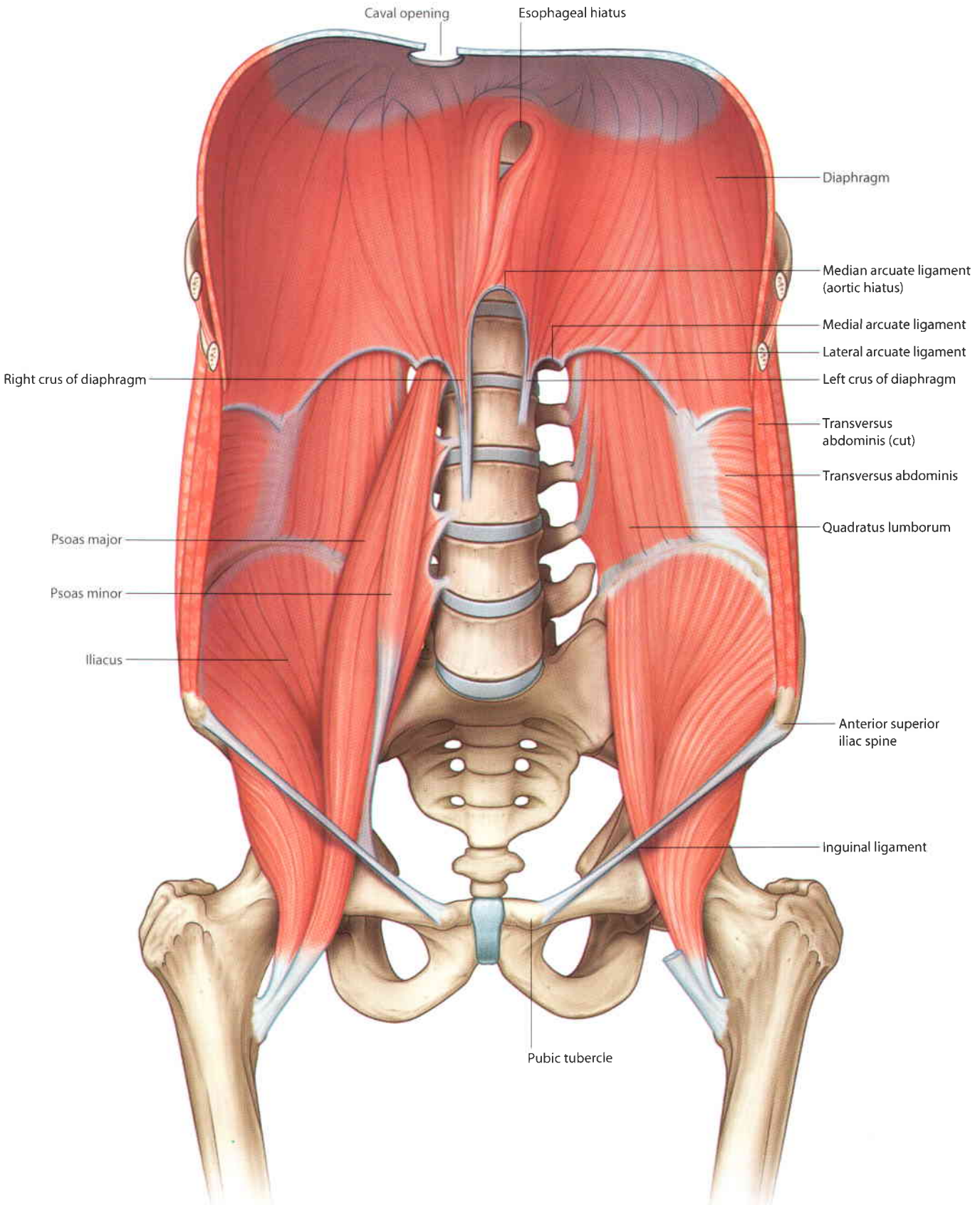
1 Esophageal varices:
swollen connections between systemic and portal systems at inferior end of esophagus

2 Hemorrhoids:
swollen connections between systemic and portal systems at inferior end of rectum and anal canal

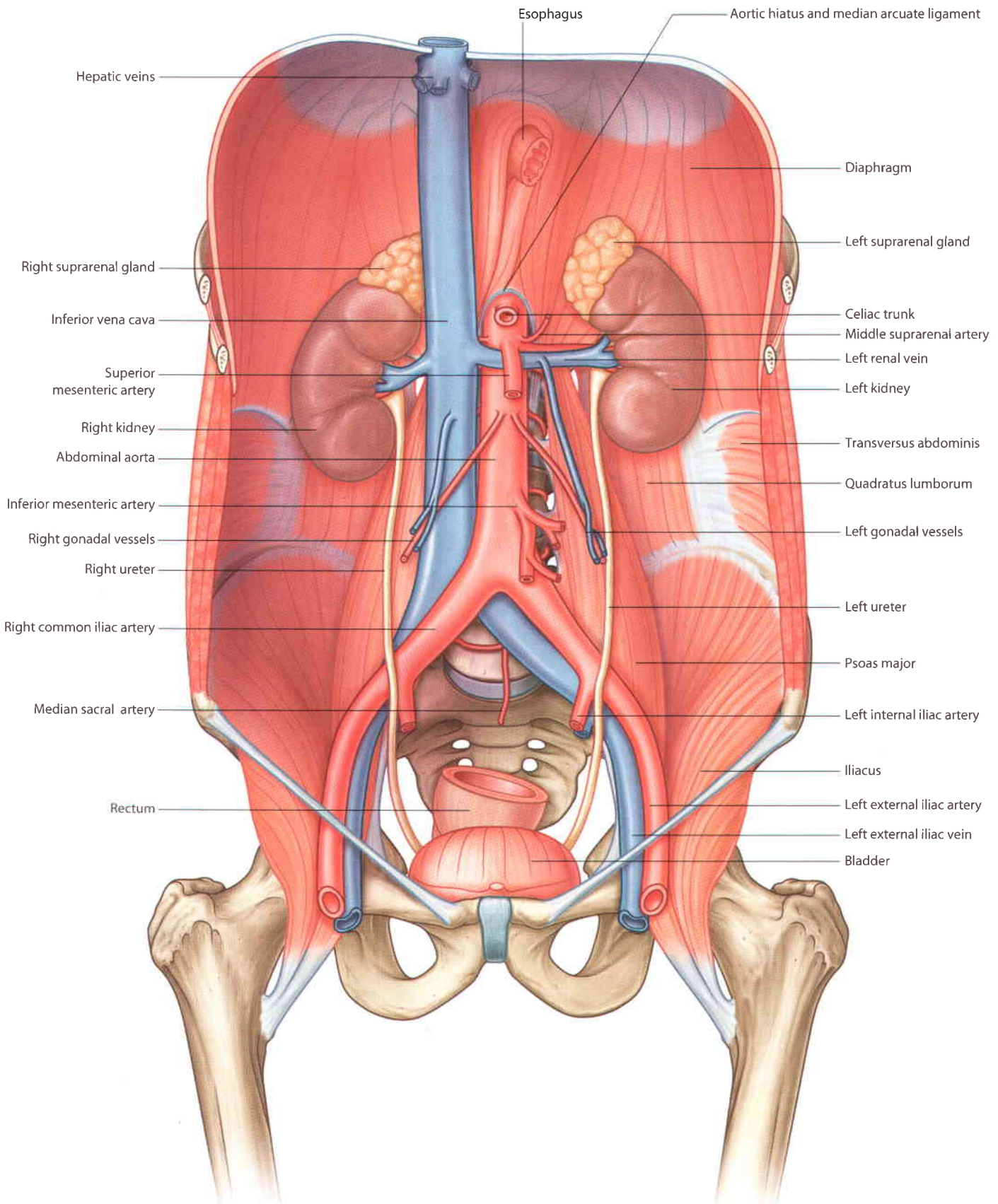
3 Caput medusae:
swollen connections between systemic and portal systems around umbilicus

4 Swollen connections between systemic and portal systems at bare area of liver

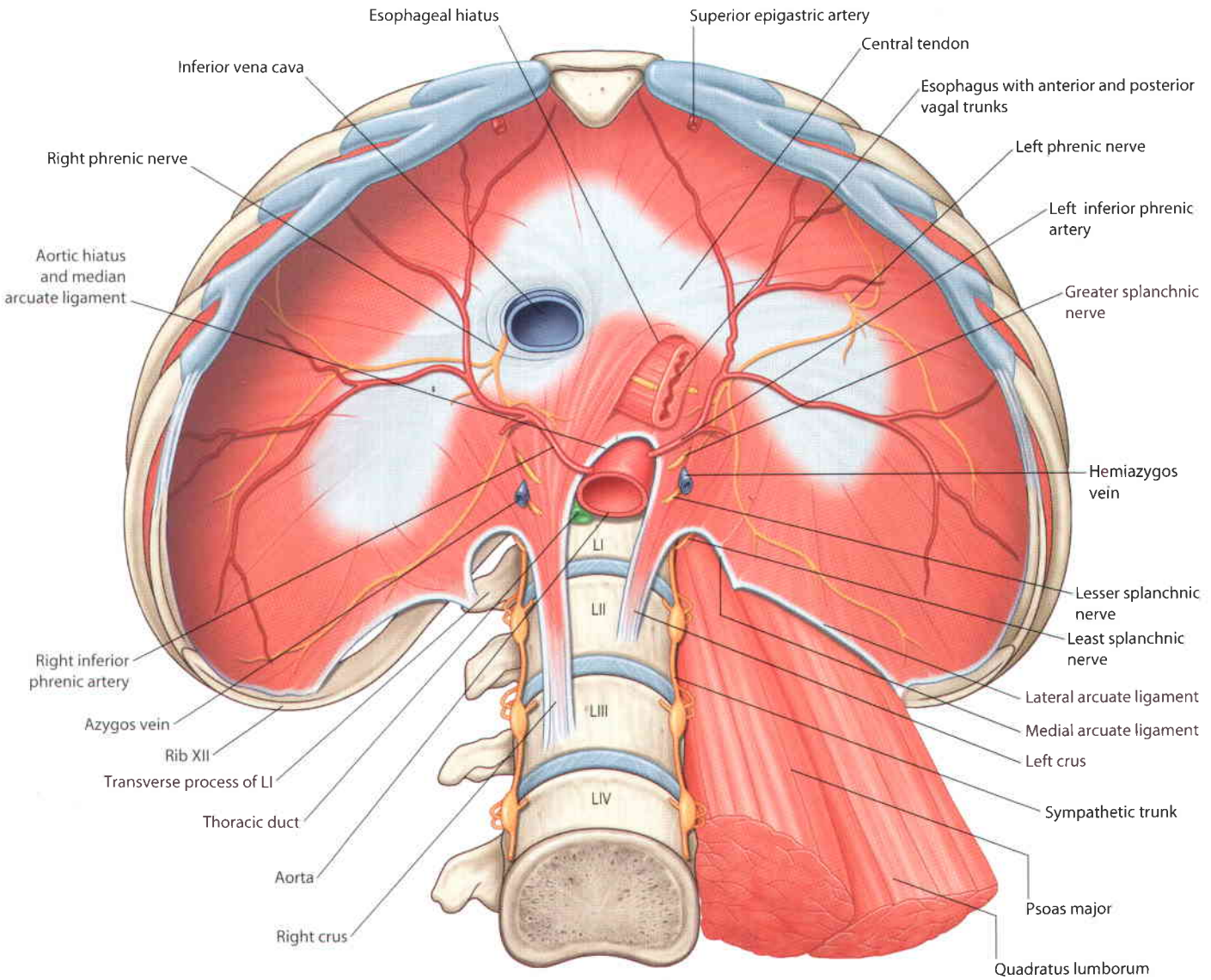
5 Swollen connections between veins associated with retroperitoneal parts of the gastro-intestinal tract and the body wall



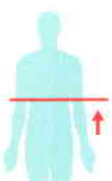
Muscles of the posterior abdominal wall

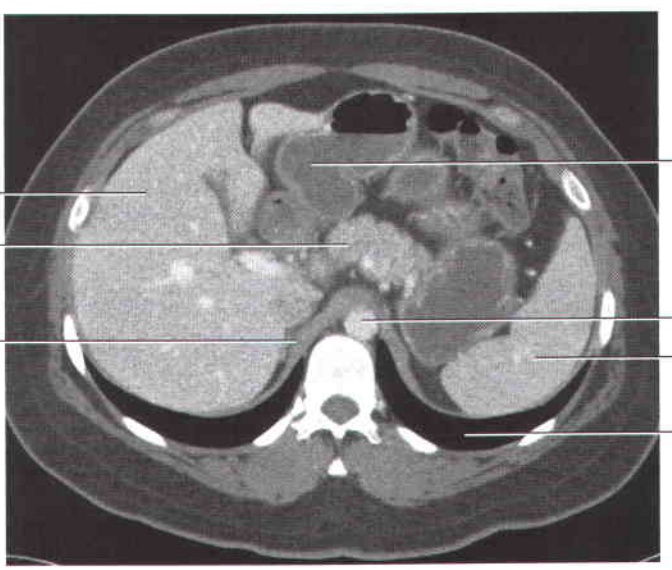


Vessels and their relationship to the posterior abdominal wall

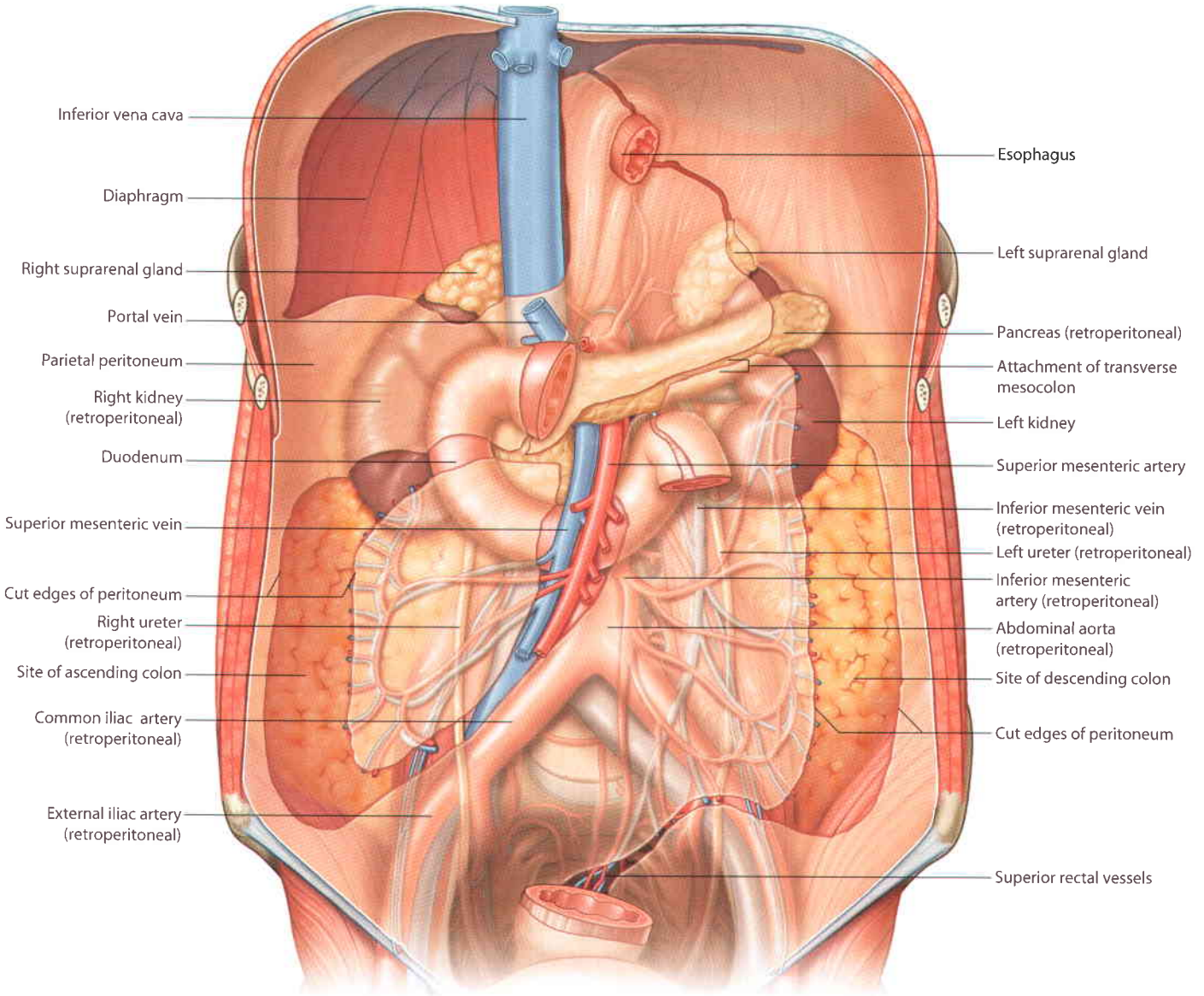


Inferior view of diaphragm

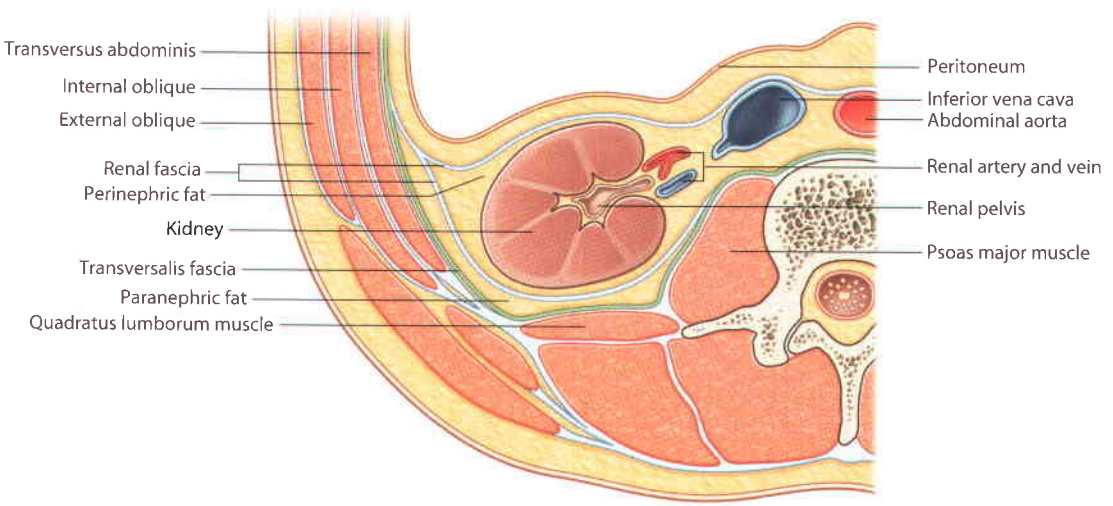




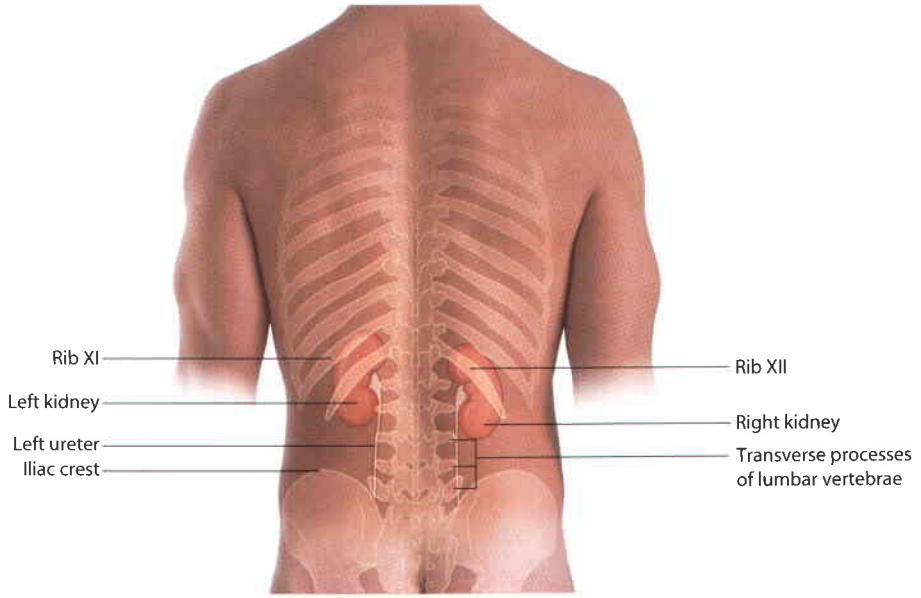
Positioning of the diaphragm in relation to other structures.
CT image, with contrast, in axial plane



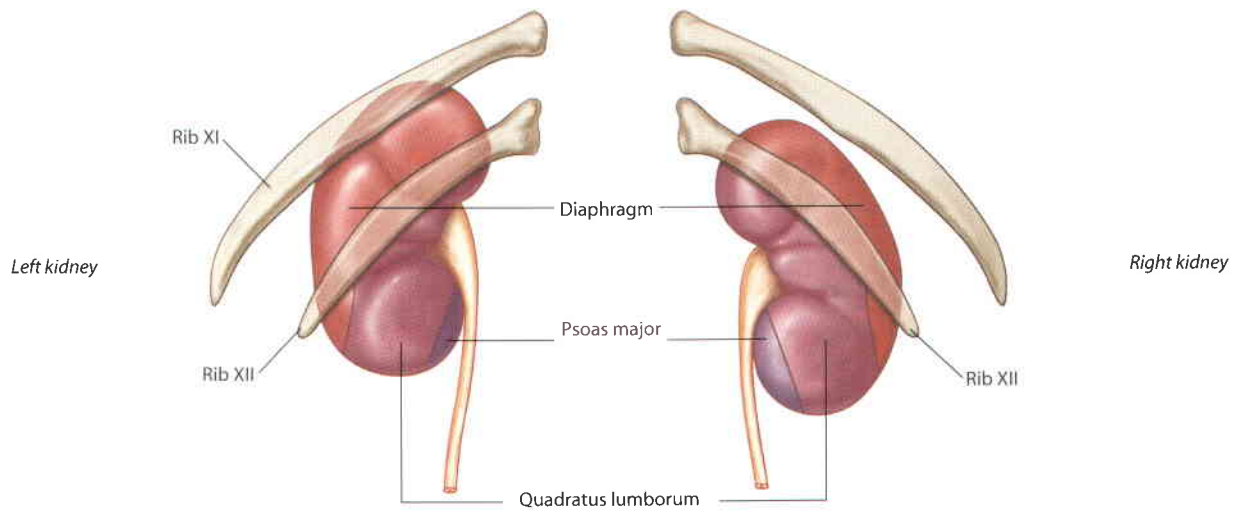
Peritoneum and the retroperitoneal position of the kidneys



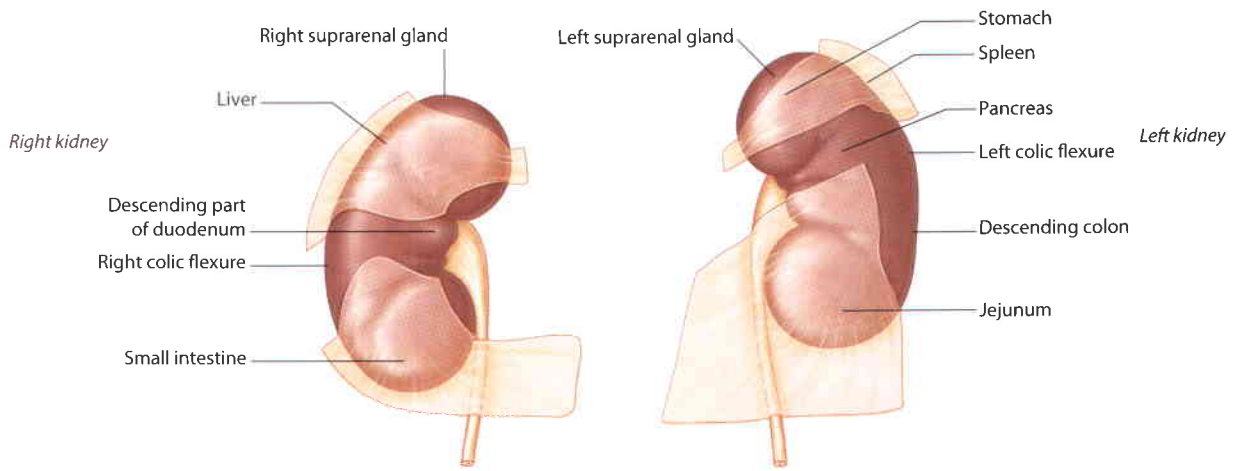
Organization of fat and fascia surrounding the kidneys



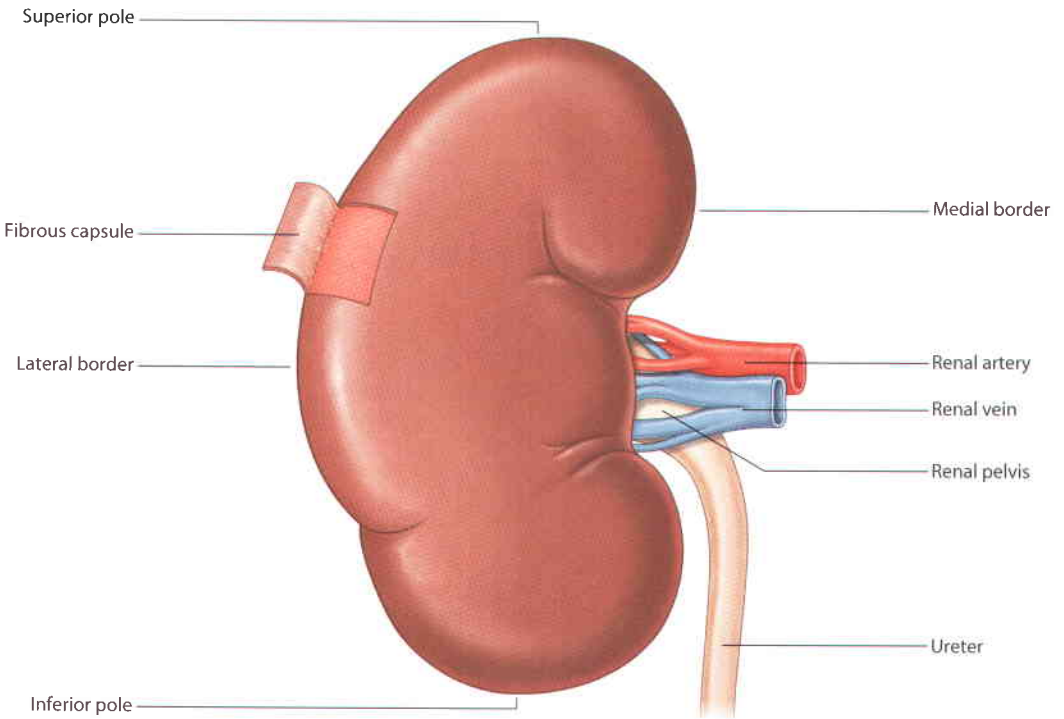
Surface projection of the kidneys and ureters (posterior view)



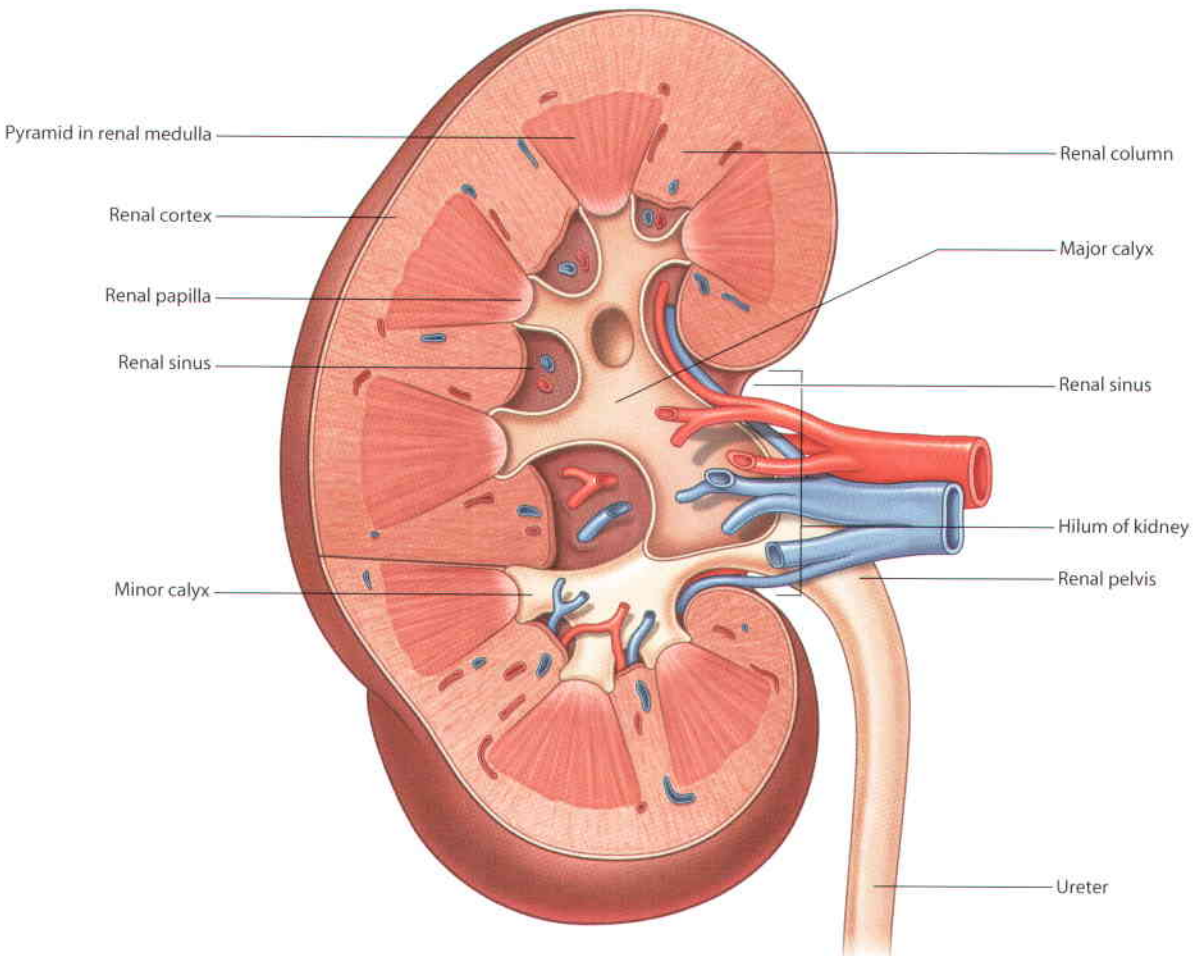
Structures related to the posterior surface of each kidney



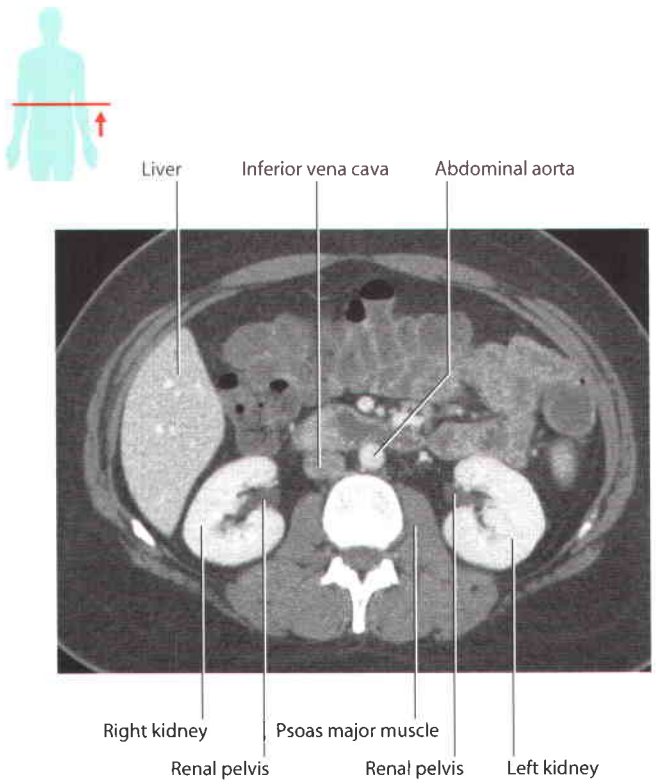
Structures related to the anterior surface of each kidney



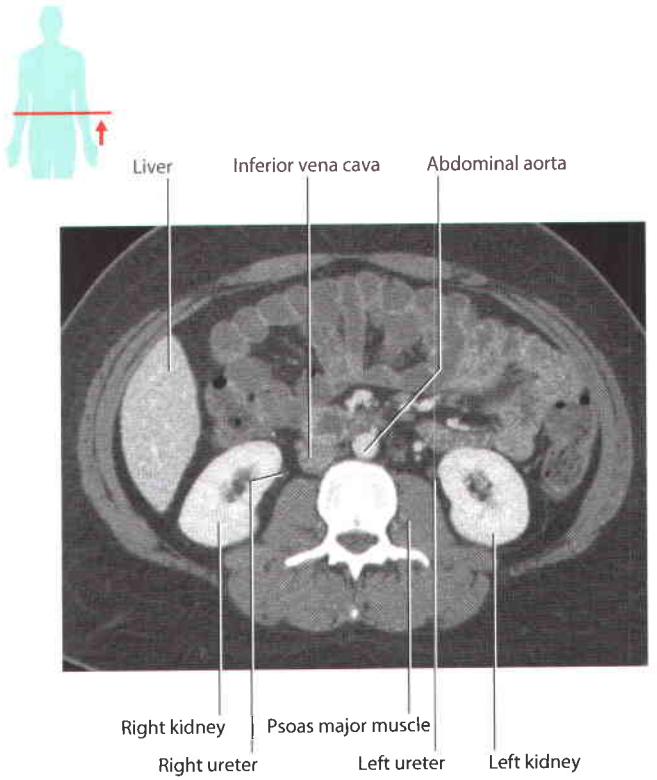
Anterior surface of right kidney



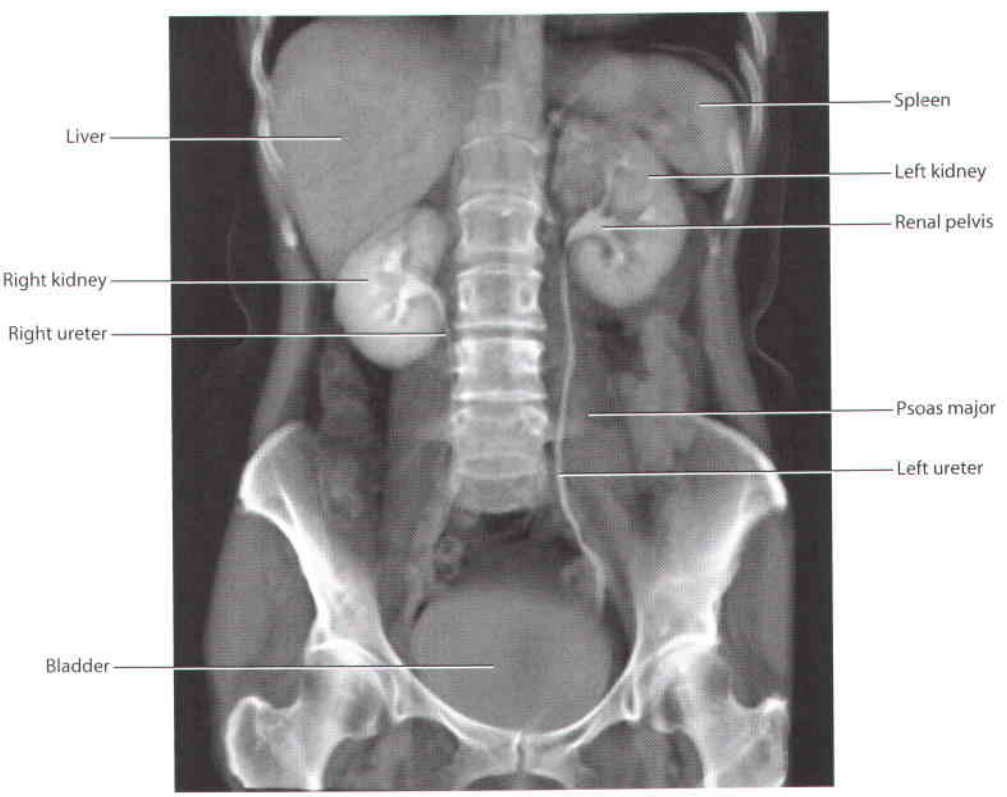
Internal structure of the right kidney



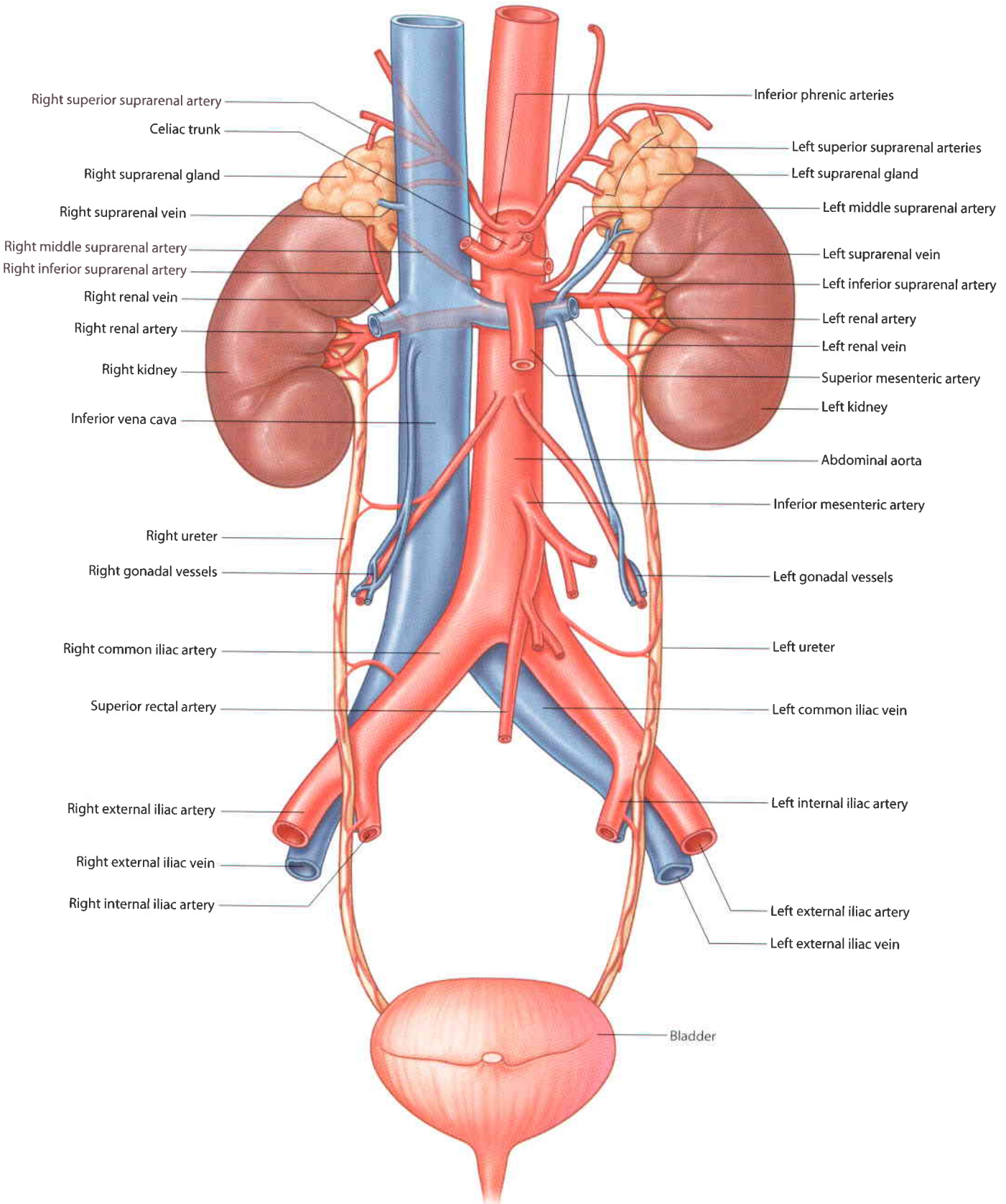
Renal pelvis.
CT image, with contrast, in axial plane



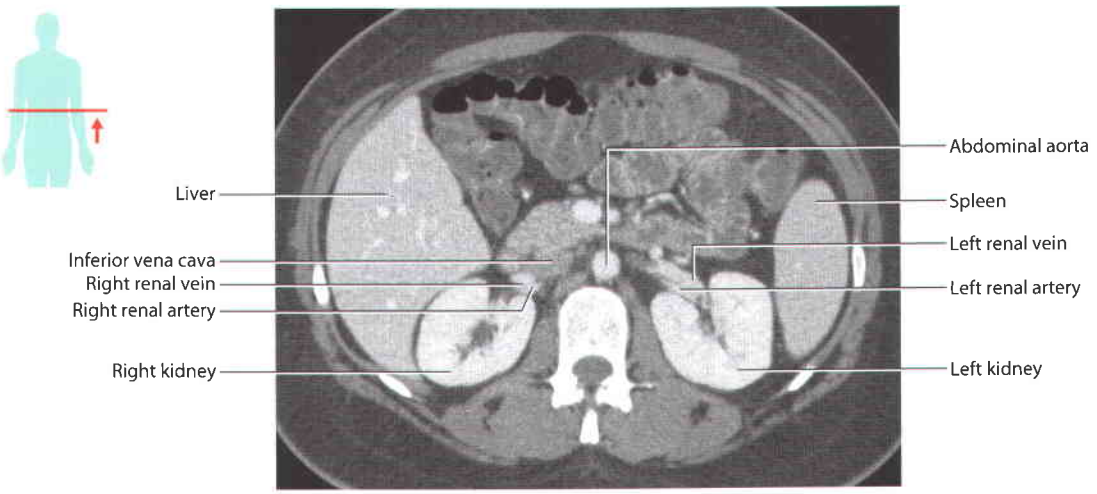
Location of ureters.
CT image, with contrast, in axial plane



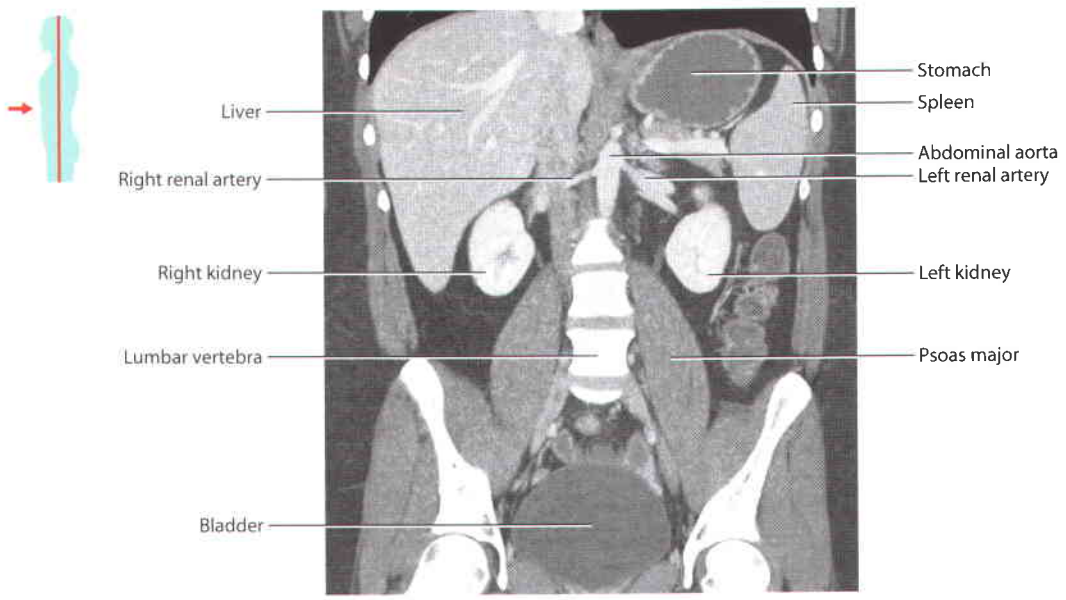
Pathway of ureter in relation to other structures.
Coronal view of 3-D urogram using multidetector computed tomography



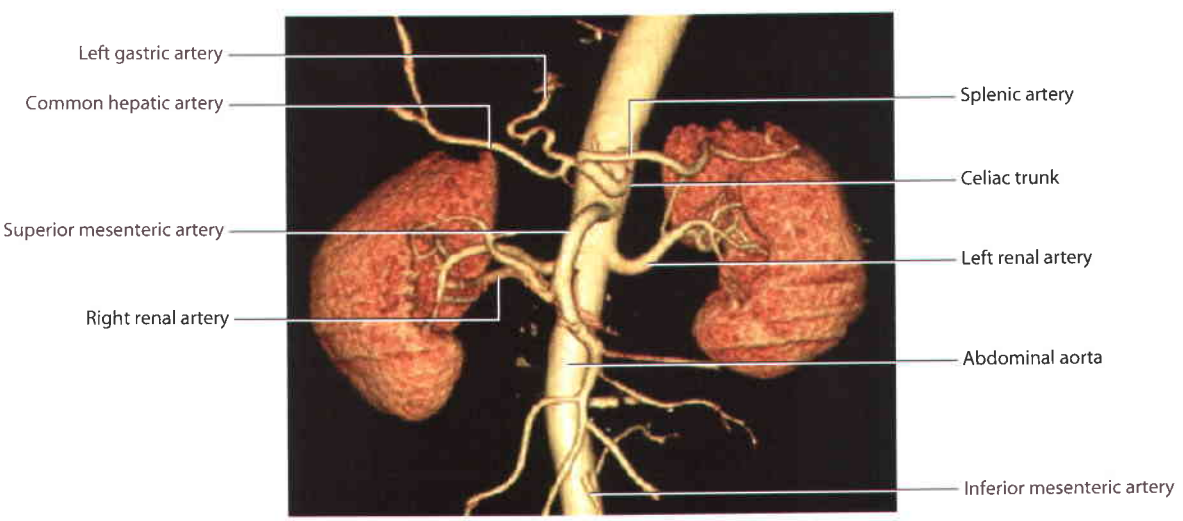
Vasculature relating to kidneys, suprarenal glands, and ureters



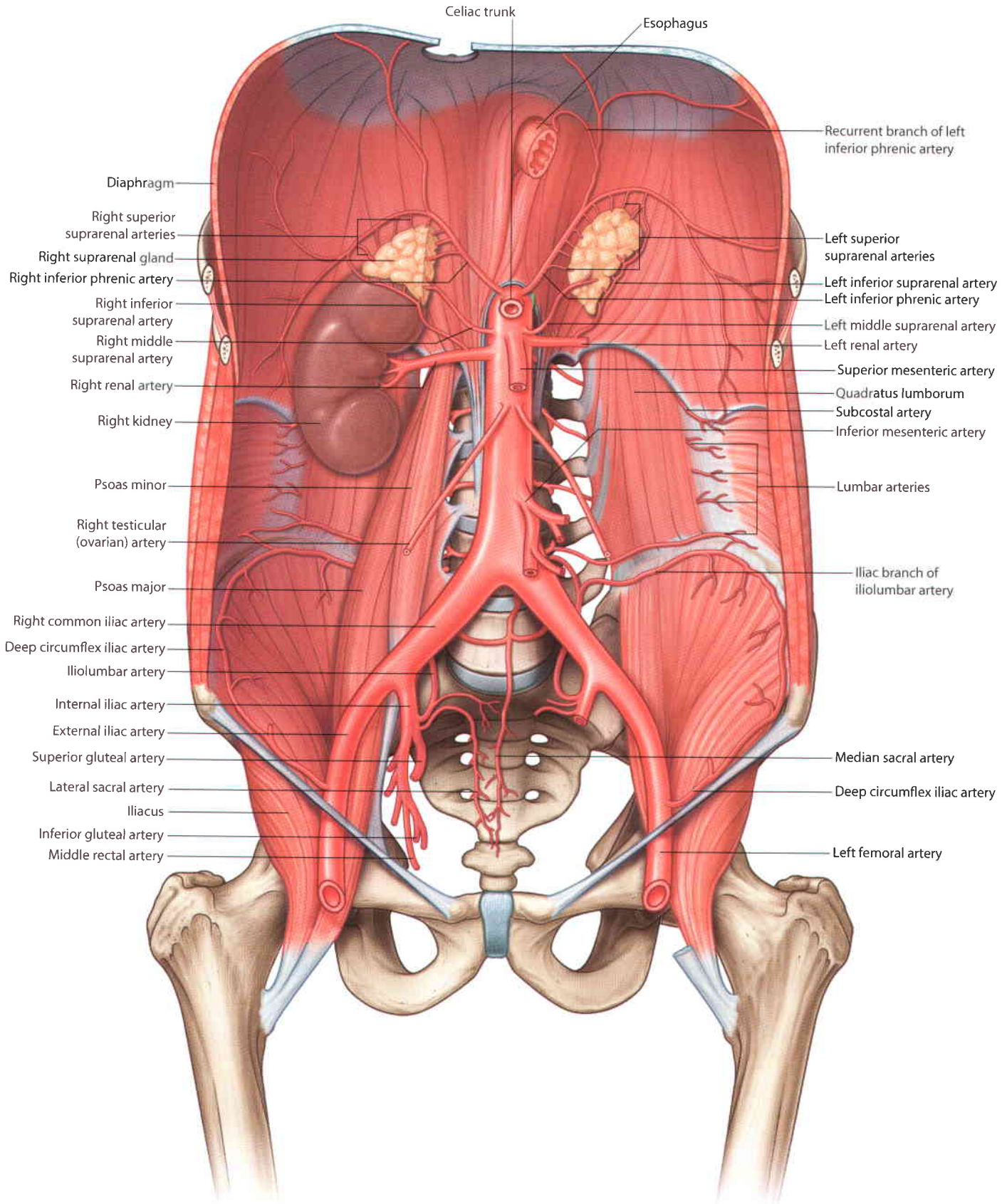
Renal vasculature.
CT image, with contrast, in axial plane



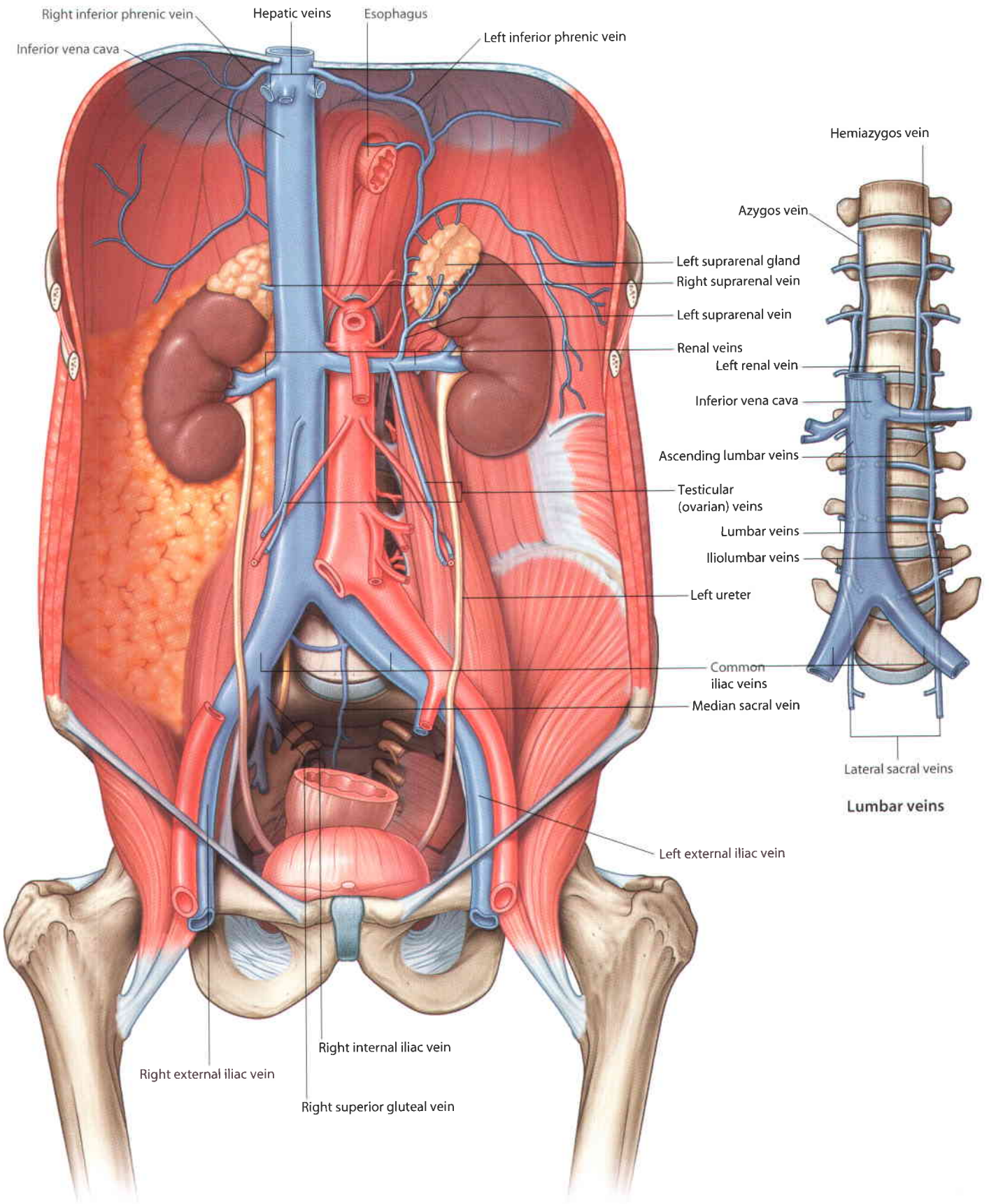
Renal arteries.
CT image, with contrast, in coronal plane



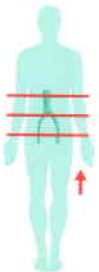
Renal arteries.
Volume-rendered anterior view using multidetector computer tomography

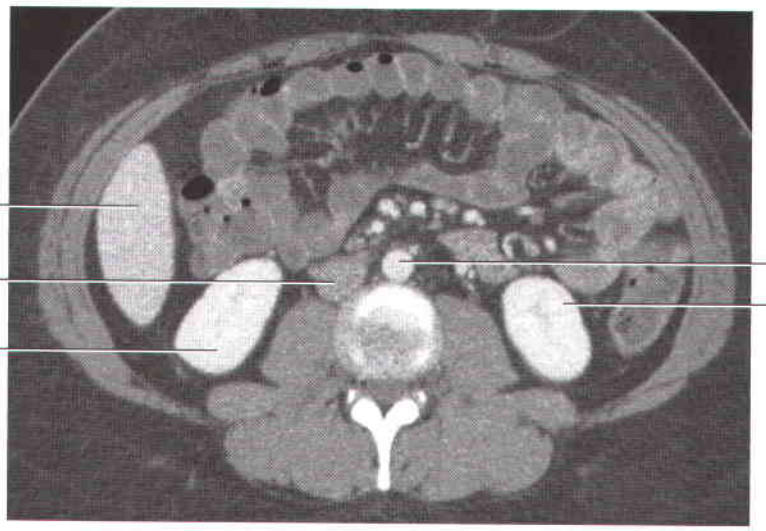


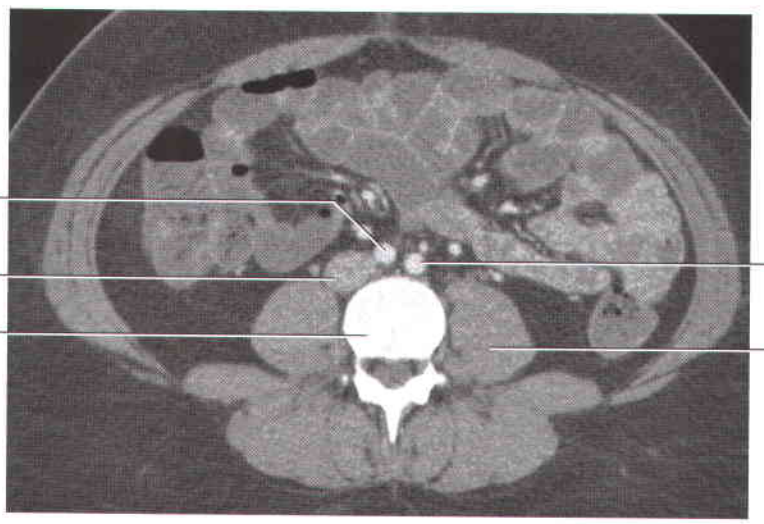
Abdominal aorta and branches

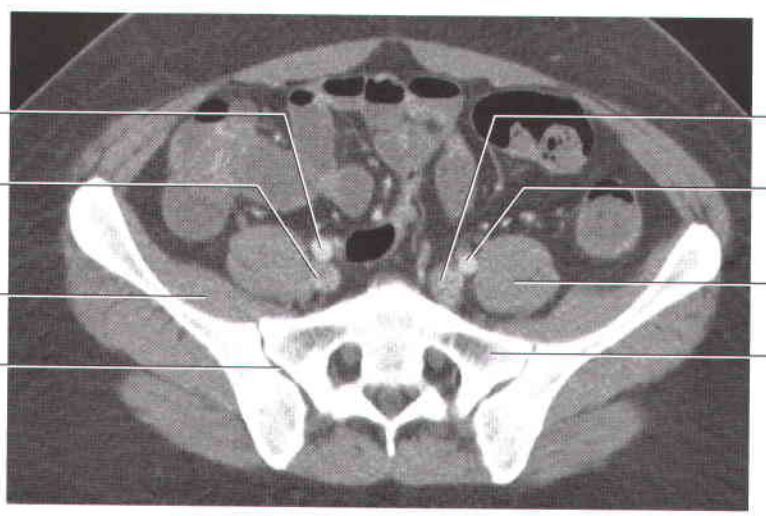


Inferior vena cava and tributaries

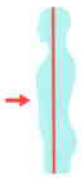


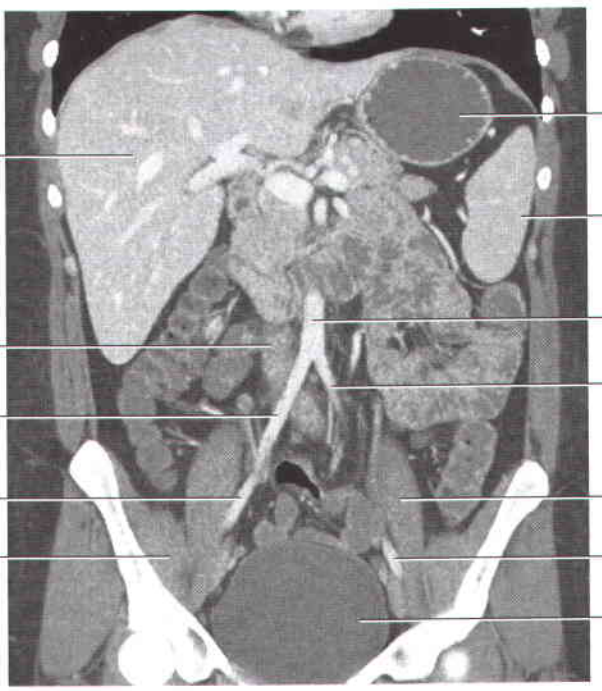


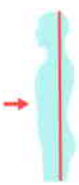


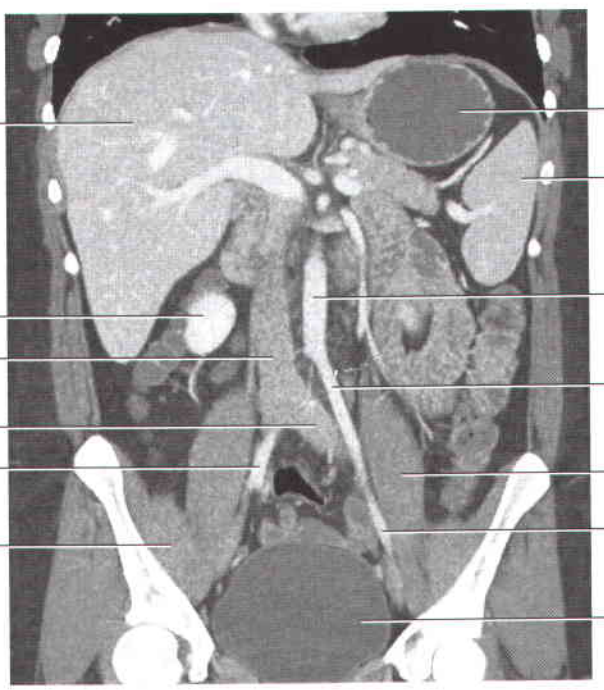


Abdominal aorta and inferior vena cava.
CT images, with contrast, in axial plane

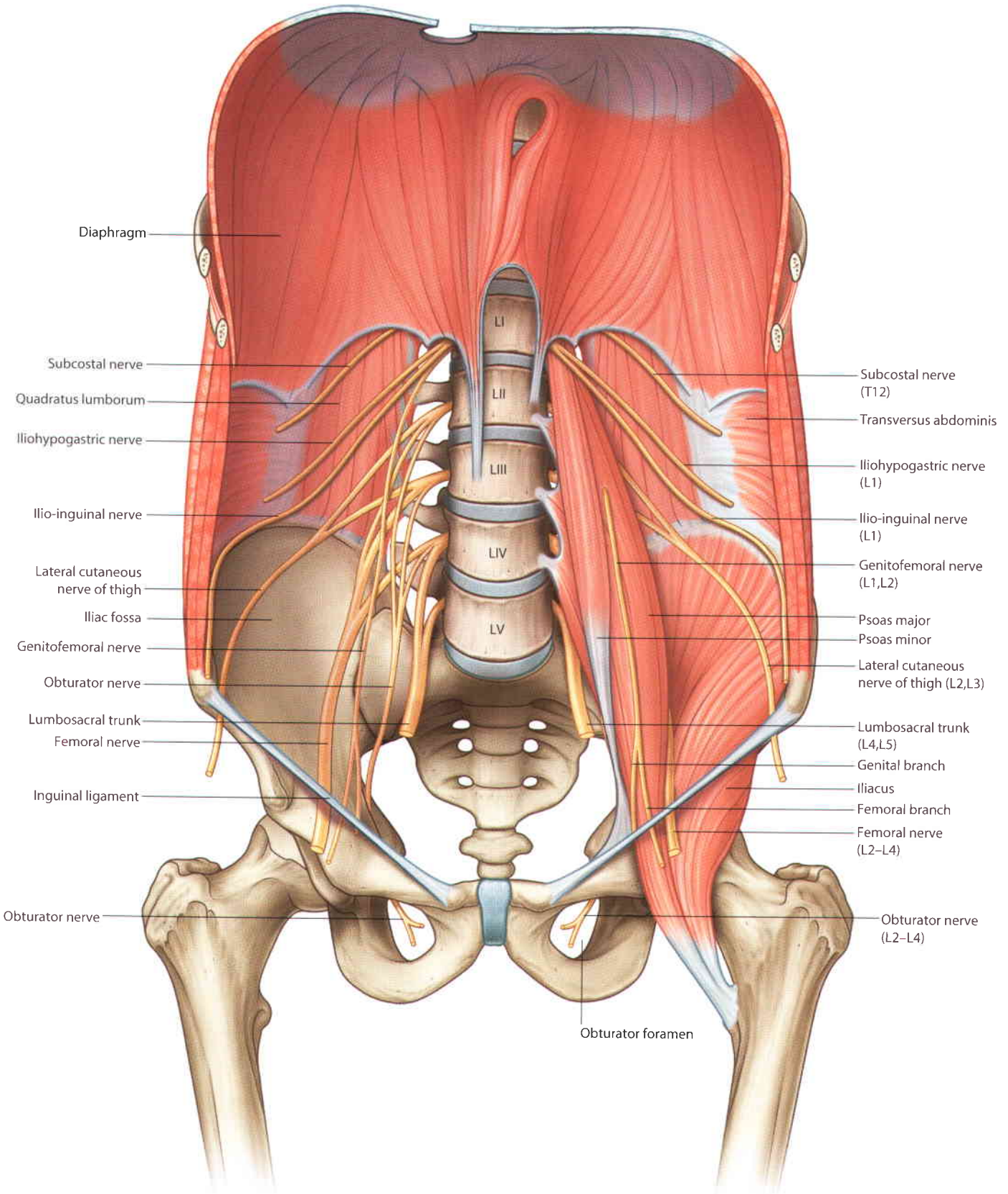




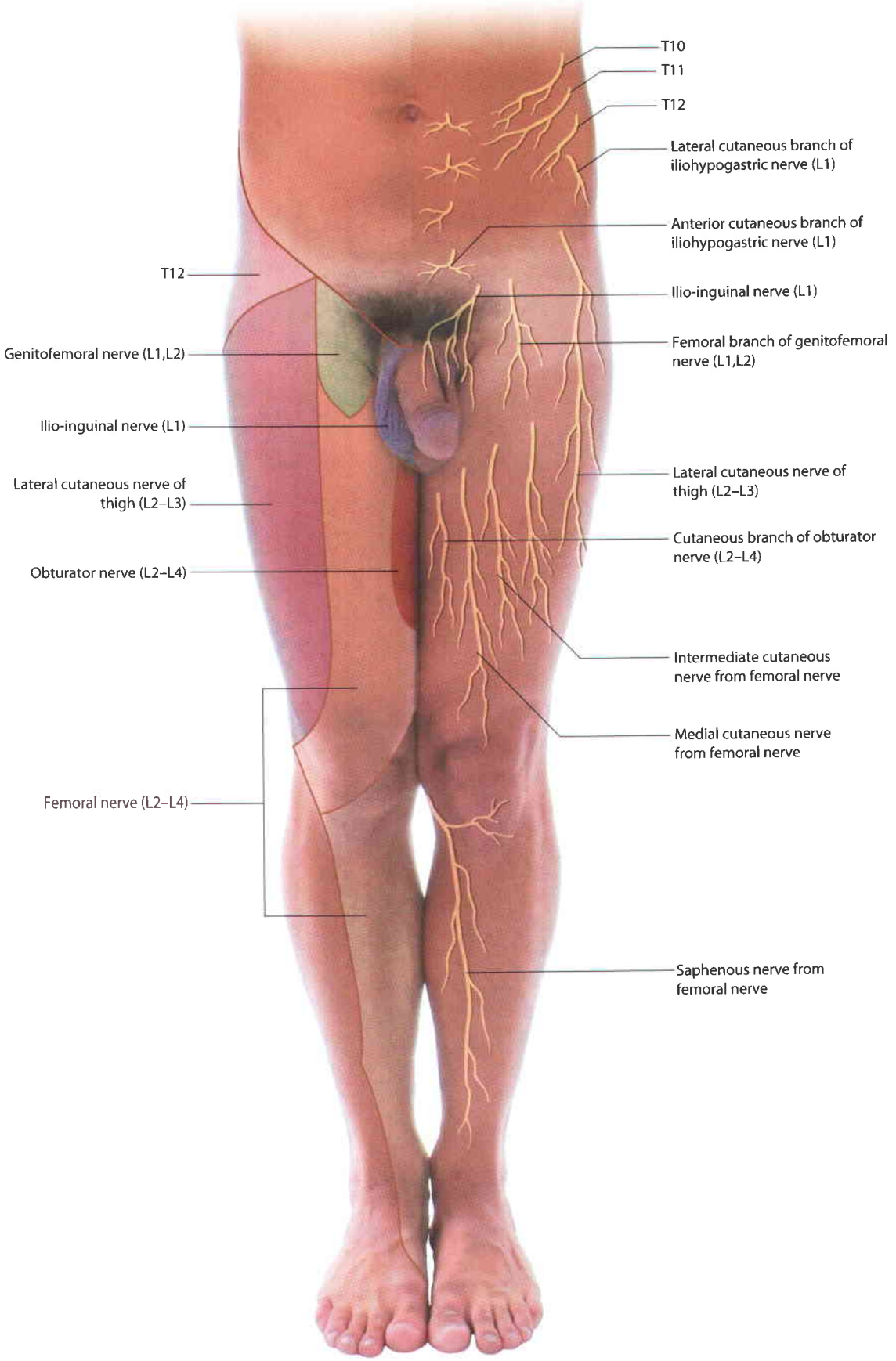




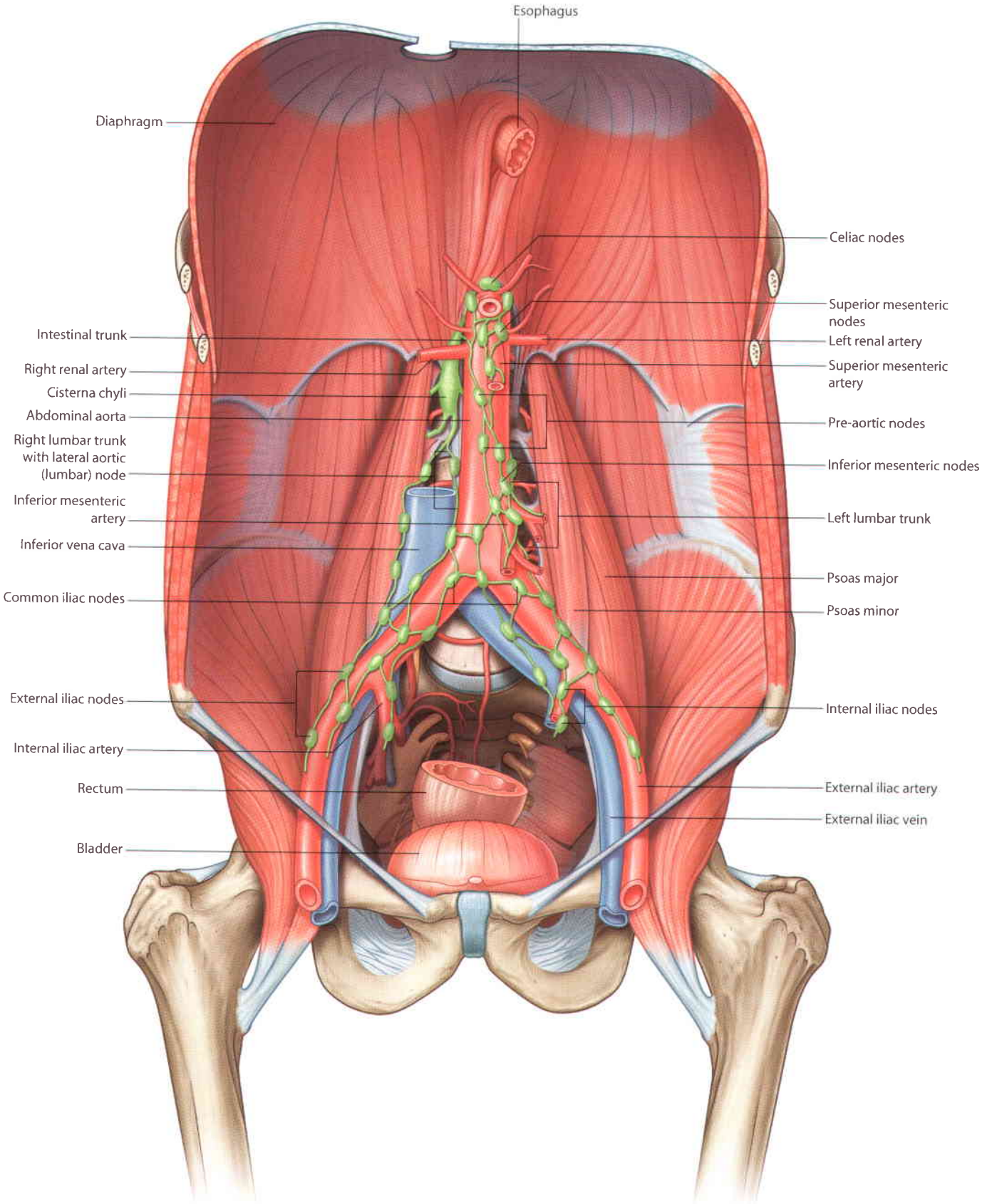
Positioning of the abdominal aorta and inferior vena cava in relation to other structures.
CT images, with contrast, in coronal plane



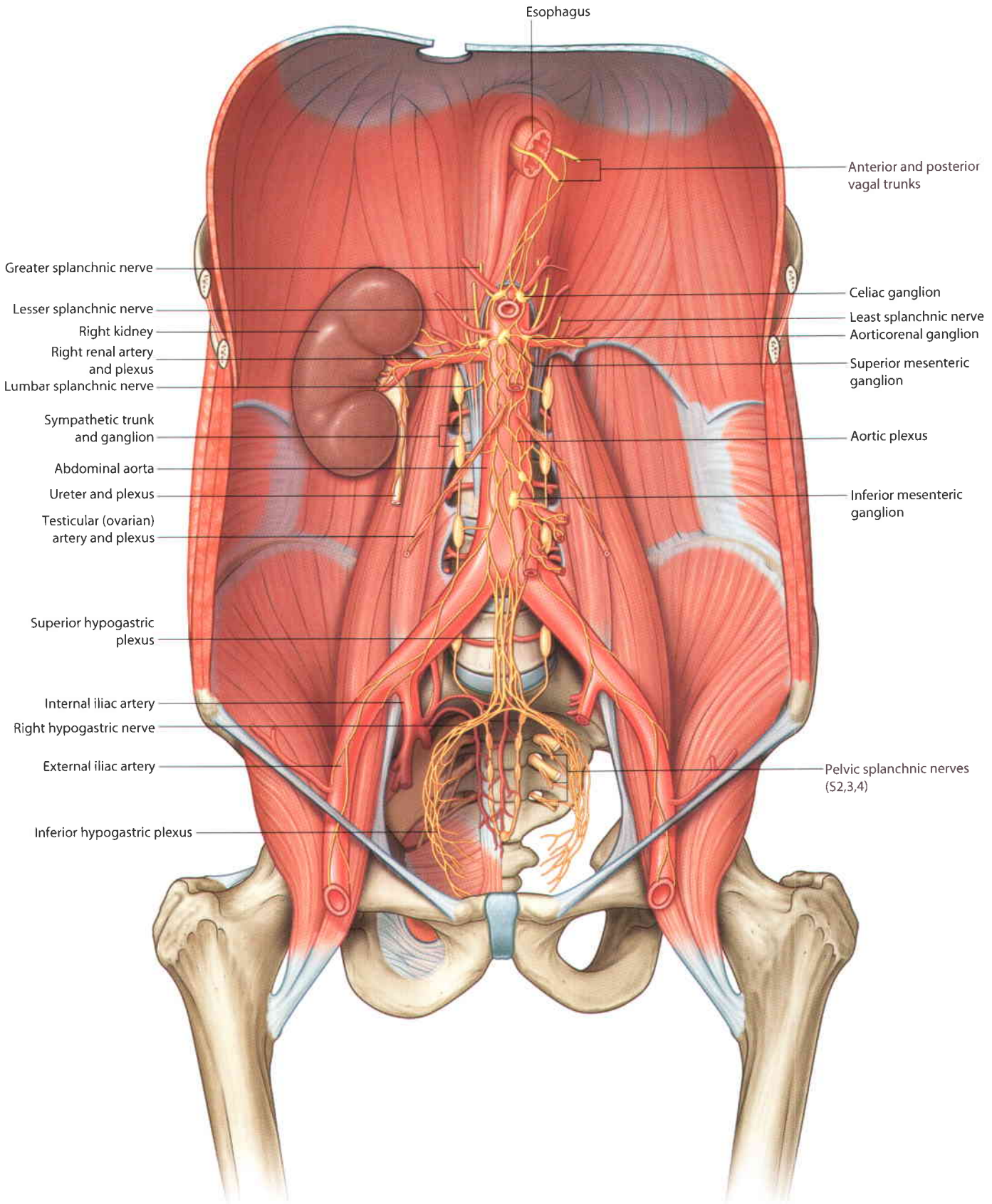
Lumbar plexus



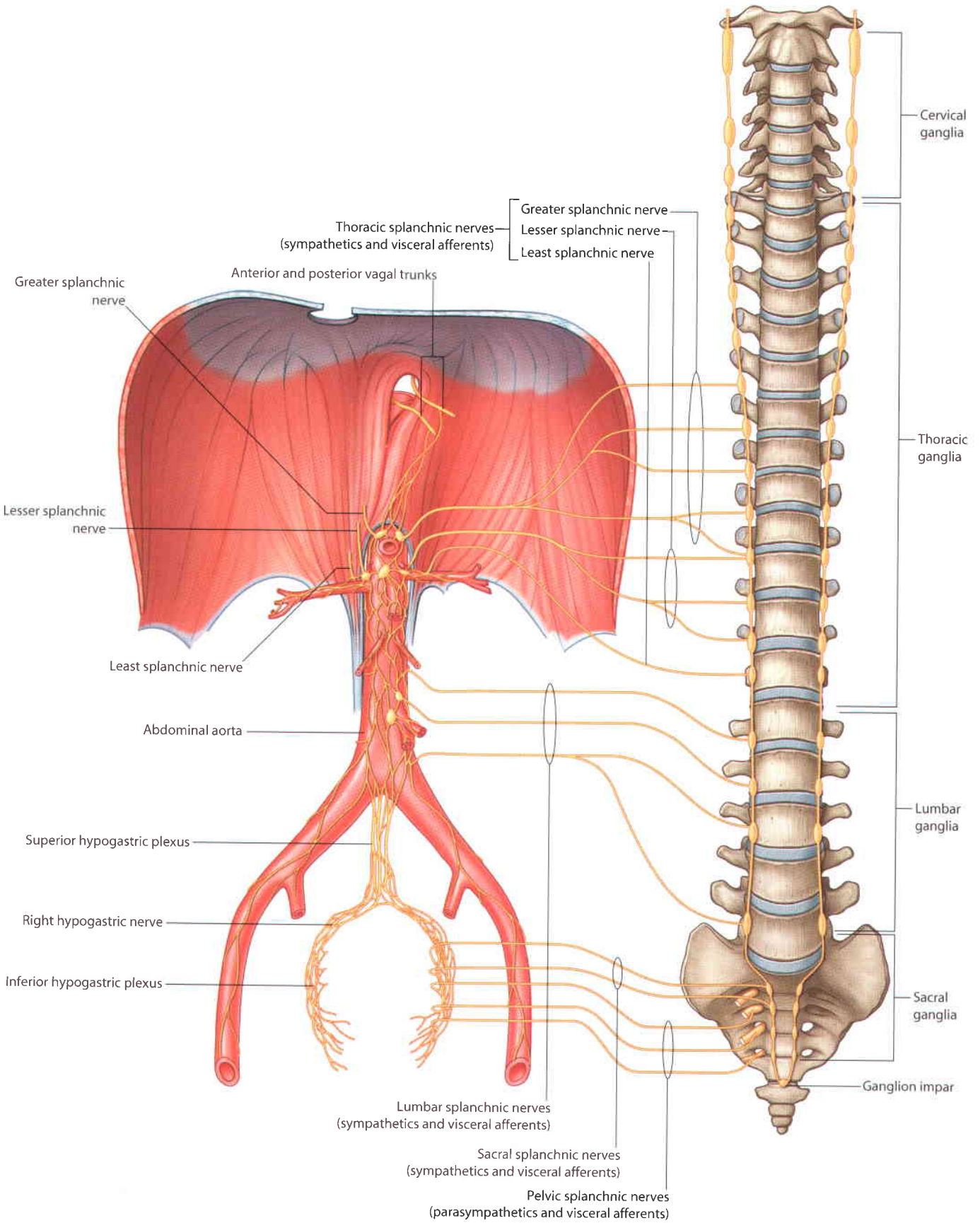
Cutaneous distribution of the nerves from the lumbar plexus



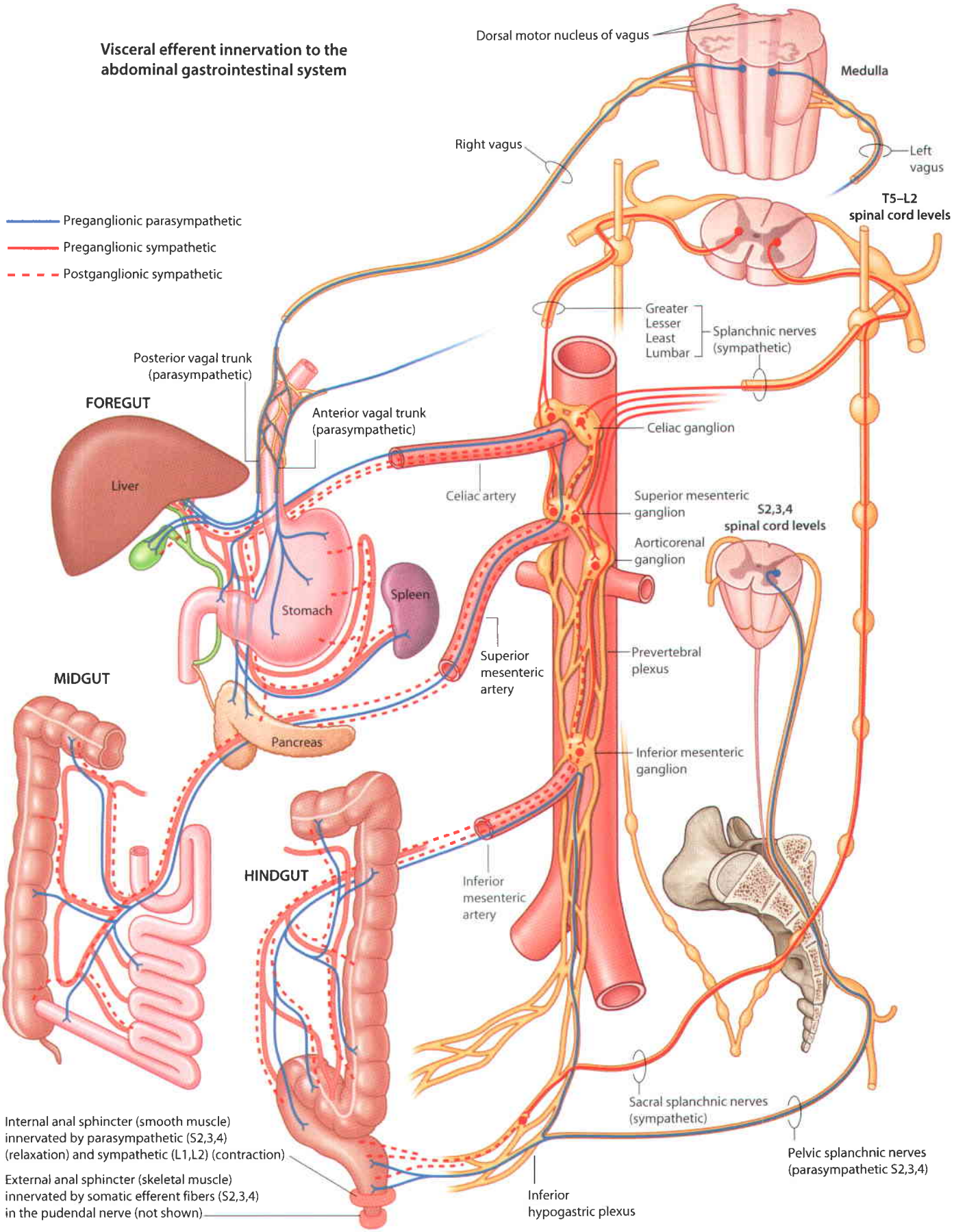
Abdominal lymphatics

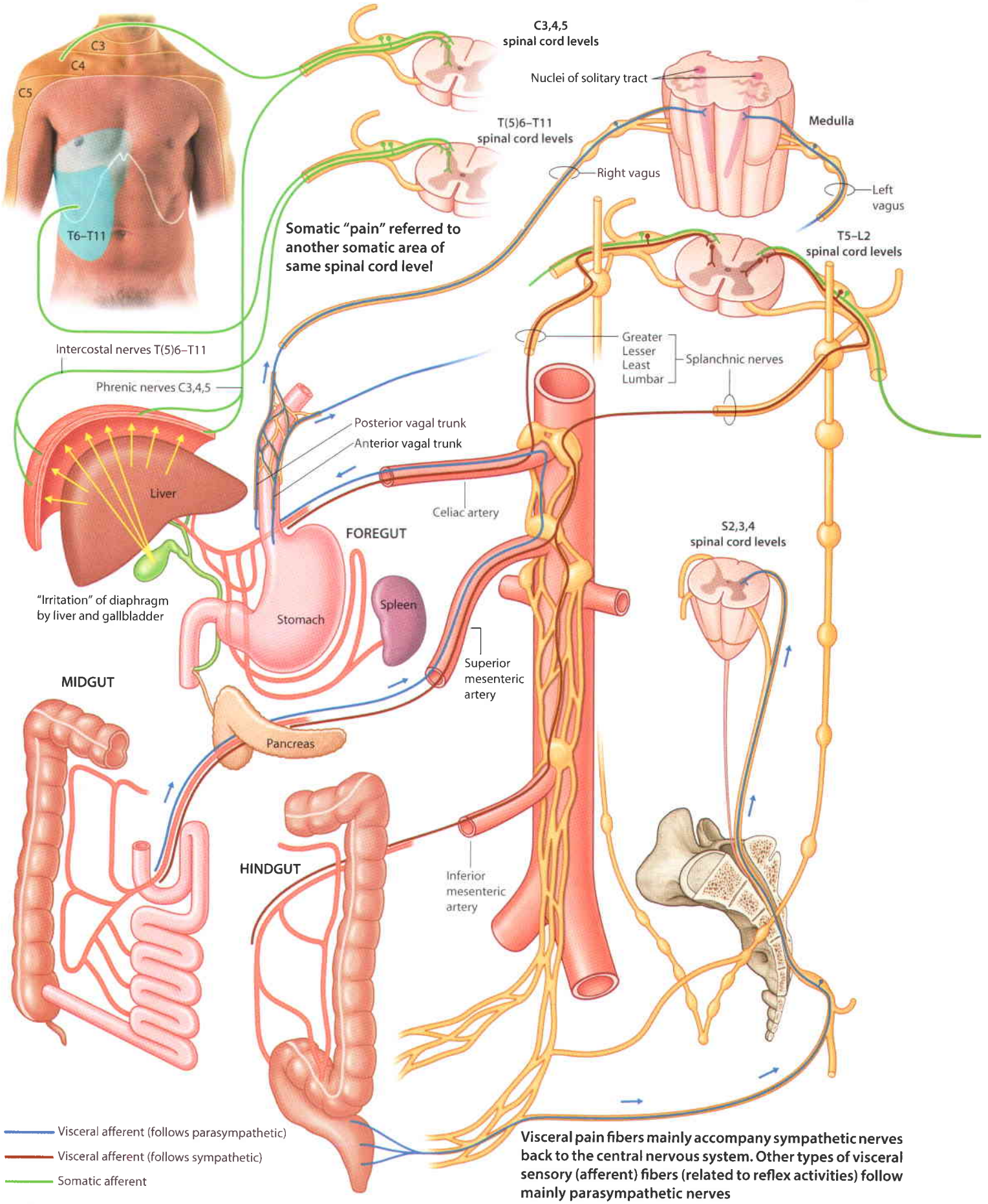


Prevertebral plexuses and ganglia with sympathetic trunks



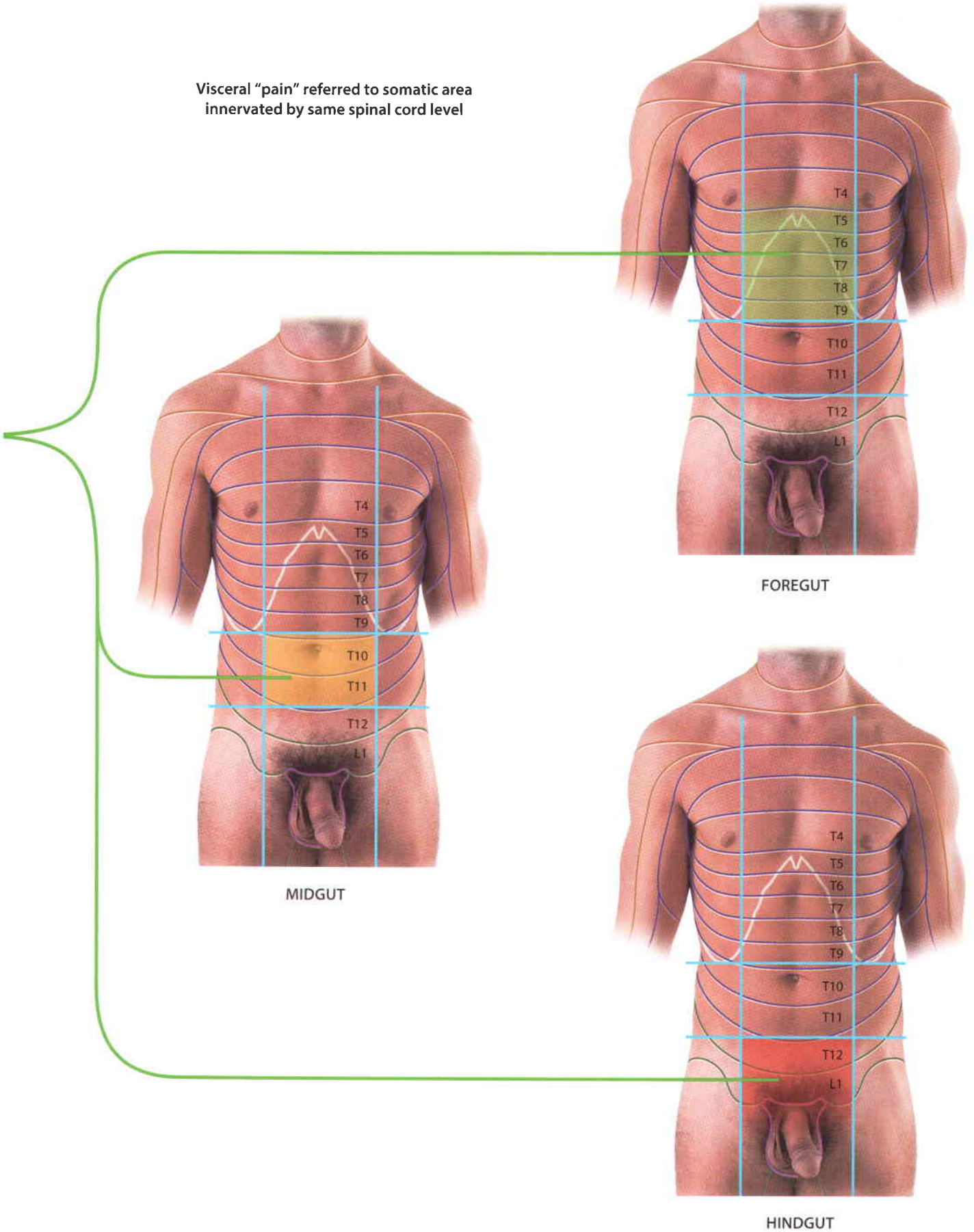
Splanchnic nerves

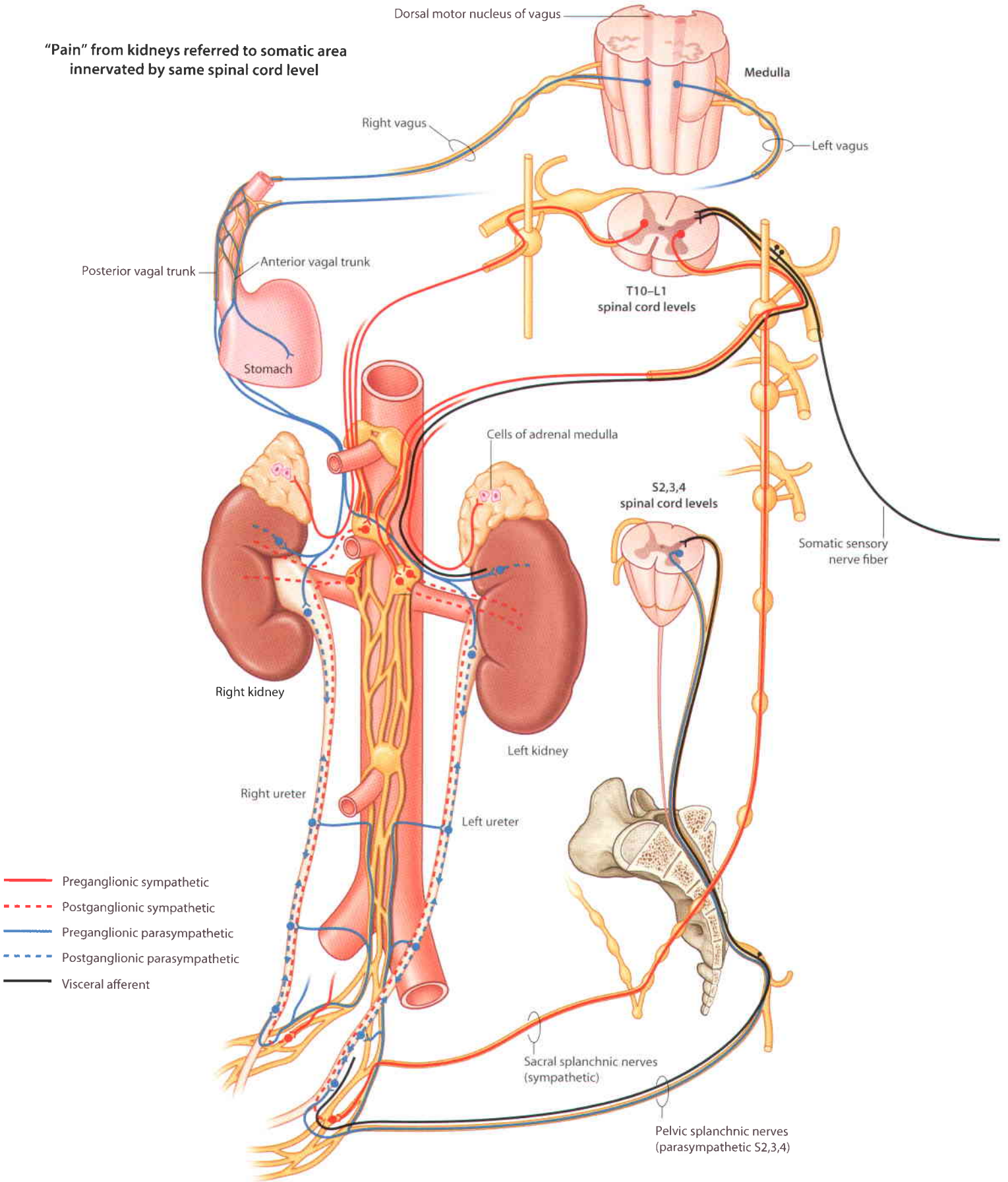

Visceral efferent innervation to the abdominal gastrointestinal system
Preganglionic parasympathetic
Preganglionic sympathetic
Postganglionic sympathetic
Dorsal motor nucleus of vagus
Medulla
Right vagus
Left vagus
T5–L2 spinal cord levels
Greater
Lesser
Least
Lumbar
Splanchnic nerves (sympathetic)
Posterior vagal trunk (parasympathetic)
FOREGUT
Anterior vagal trunk (parasympathetic)
Celiac ganglion
Liver
Celiac artery
Superior mesenteric ganglion
S2,3,4 spinal cord levels
Aorticorenal ganglion
Stomach
Spleen
Prevertebral plexus
Superior mesenteric artery
MIDGUT
Pancreas
Inferior mesenteric ganglion
HINDGUT
Inferior mesenteric artery
Sacral splanchnic nerves (sympathetic)
Internal anal sphincter (smooth muscle) innervated by parasympathetic (S2,3,4) (relaxation) and sympathetic (L1,L2) (contraction)
External anal sphincter (skeletal muscle) innervated by somatic efferent fibers (S2,3,4) in the pudendal nerve (not shown)
Inferior hypogastric plexus
Pelvic splanchnic nerves (parasympathetic S2,3,4)

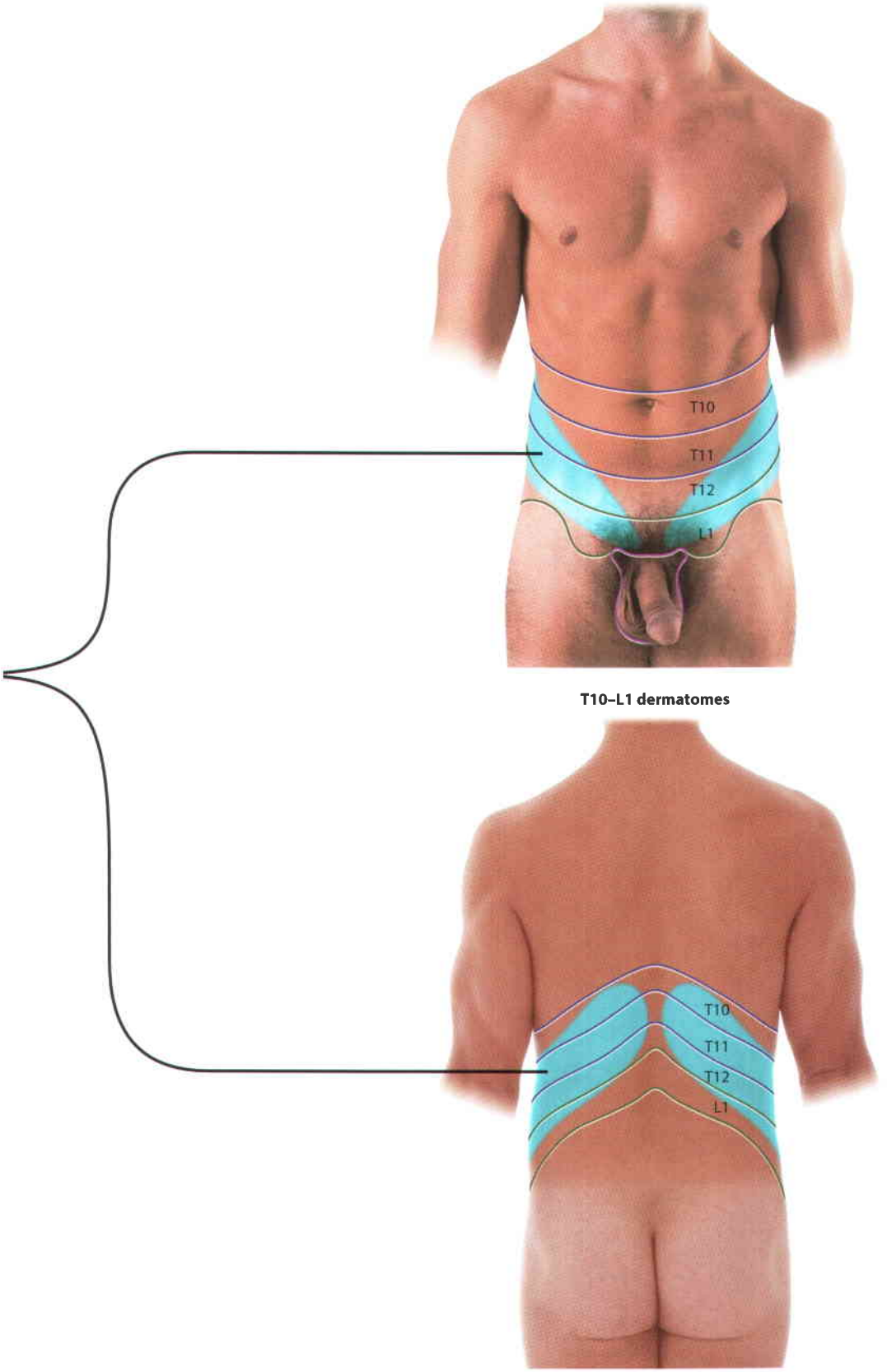


Visceral pain fibers mainly accompany sympathetic nerves back to the central nervous system. Other types of visceral sensory (afferent) fibers (related to reflex activities) follow mainly parasympathetic nerves

Visceral "pain" referred to somatic area innervated by same spinal cord level




"Pain" from kidneys referred to somatic area innervated by same spinal cord level
Dorsal motor nucleus of vagus
Medulla
Right vagus
Left vagus
Posterior vagal trunk
Anterior vagal trunk
T10–L1 spinal cord levels
Stomach
Cells of adrenal medulla
S2,3,4 spinal cord levels
Somatic sensory nerve fiber
Right kidney
Left kidney
Right ureter
Left ureter
Sacral splanchnic nerves (sympathetic)
Pelvic splanchnic nerves (parasympathetic S2,3,4)
Preganglionic sympathetic
Postganglionic sympathetic
Preganglionic parasympathetic
Postganglionic parasympathetic
Visceral afferent



T10–L1 dermatomes

Pain fibers mainly follow sympathetic nerves to the central nervous system (CNS). This pain is 'referred' by the CNS to the somatic area innervated by the same spinal levels. Other types of visceral afferent (sensory) fibers (related to reflex activities) follow mainly parasympathetic nerves

5

PELVIS AND PERINEUM

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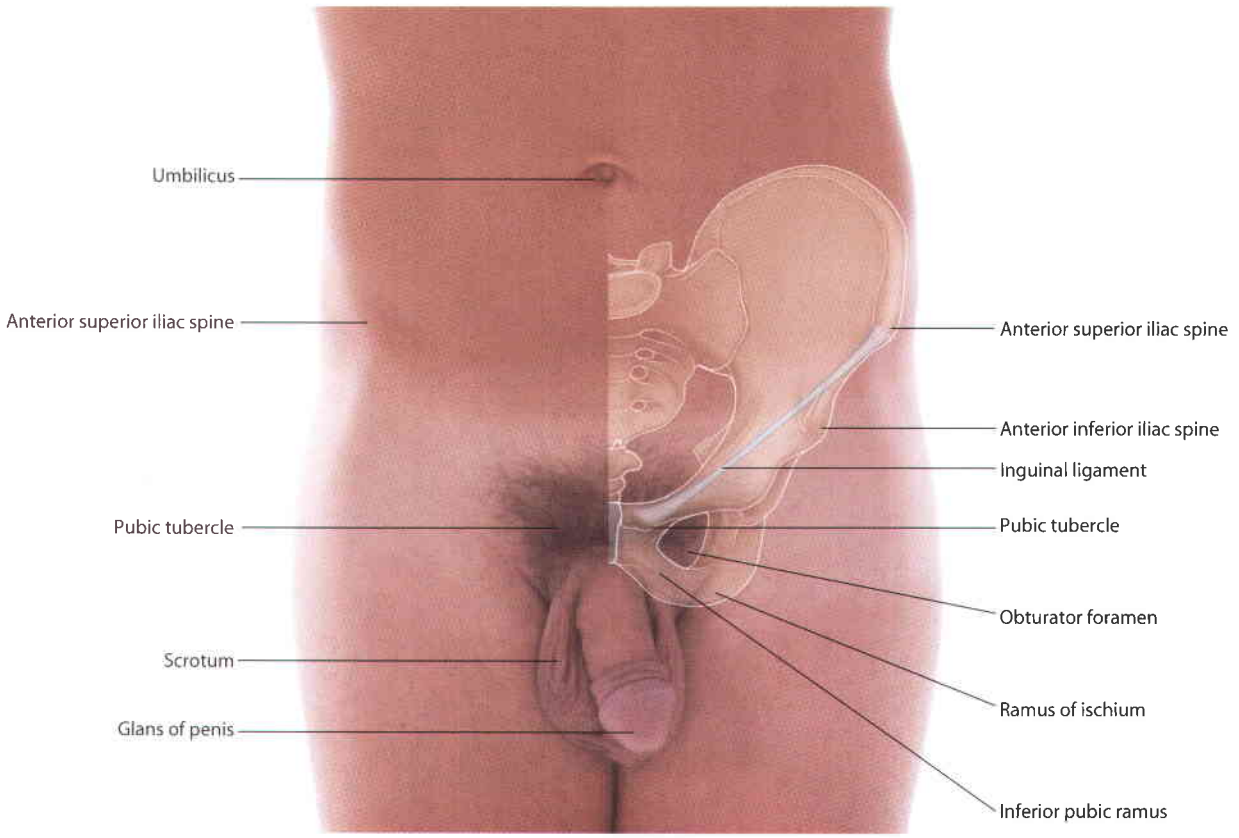
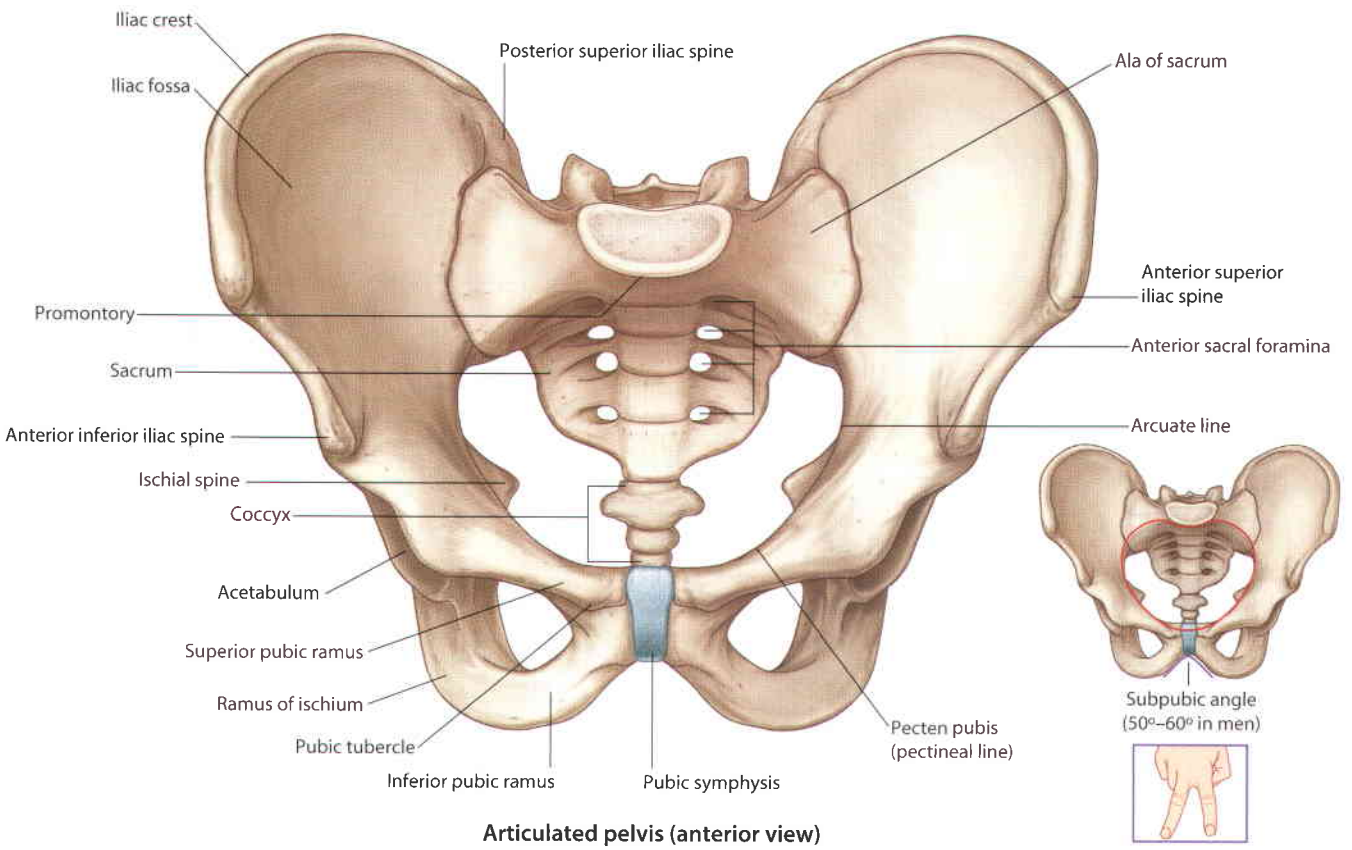
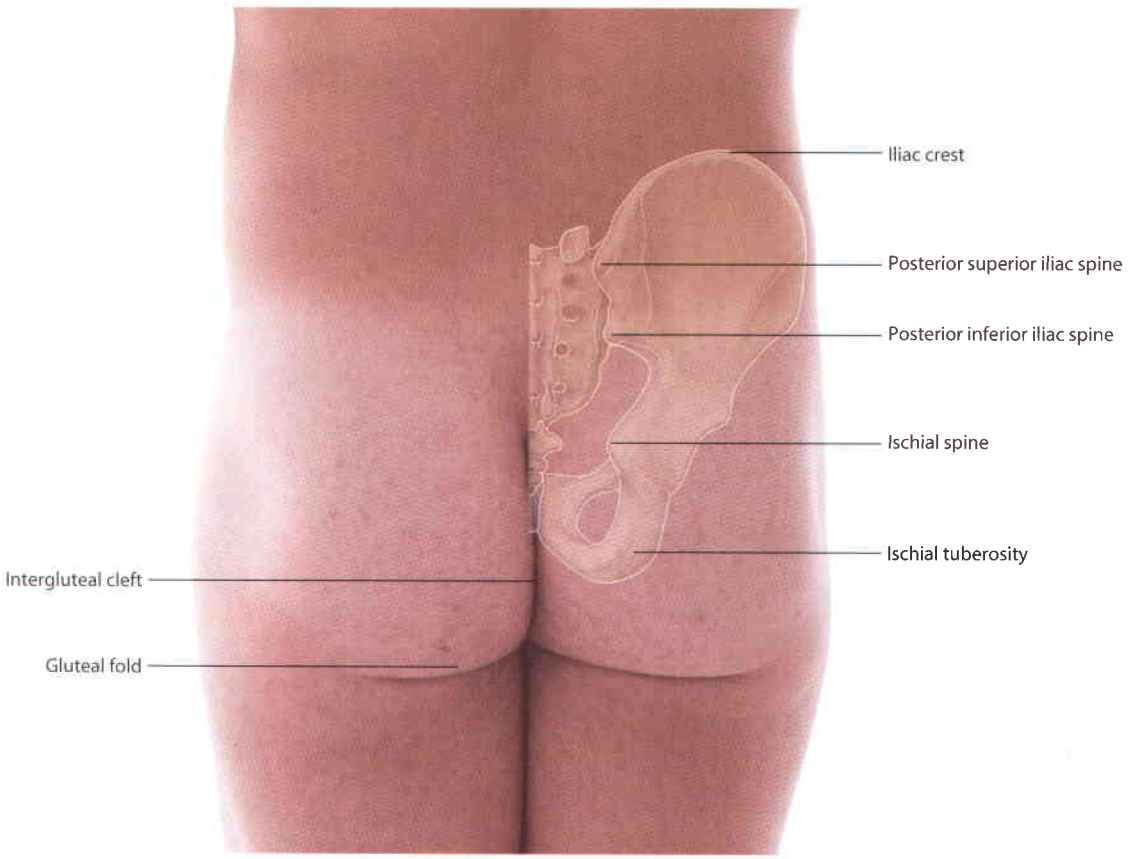


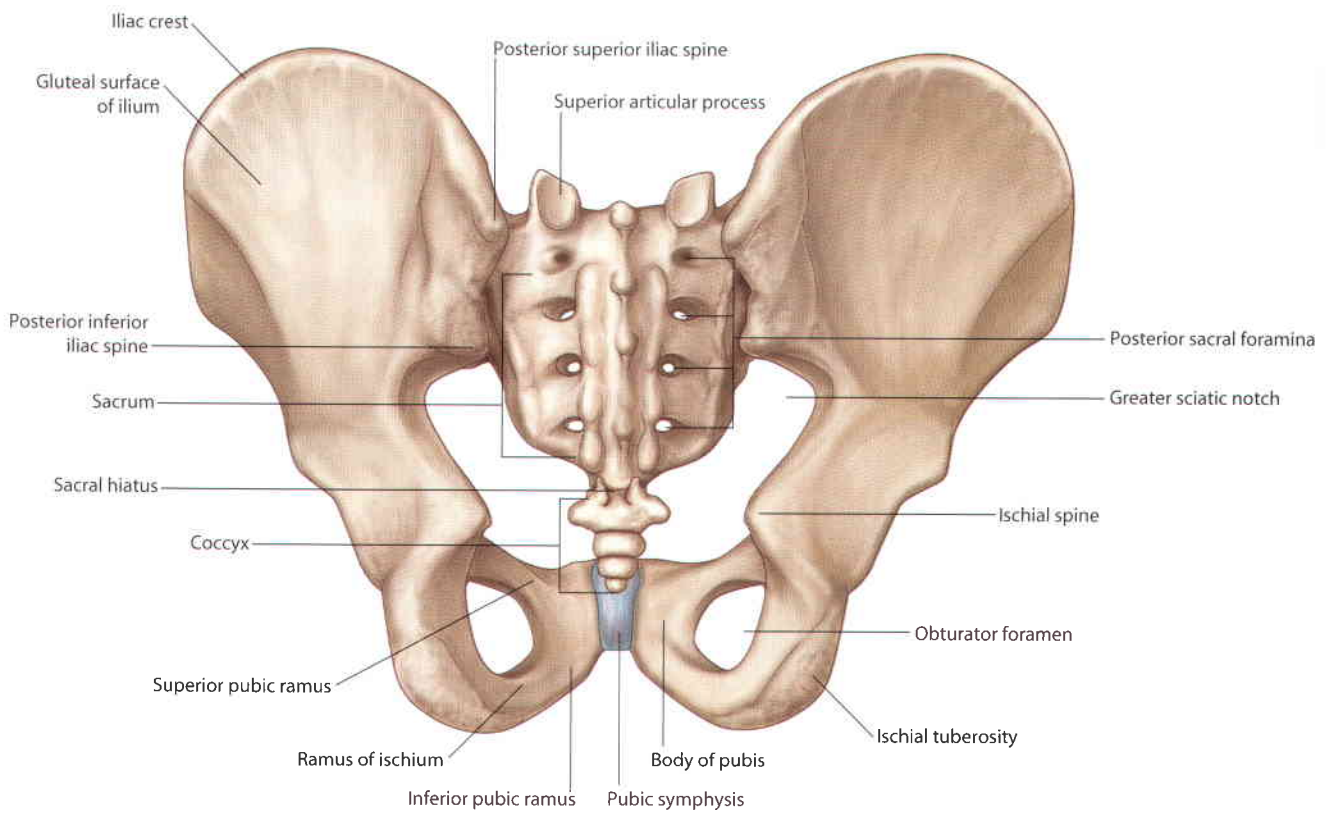
Surface anatomy with bones (anterior view)



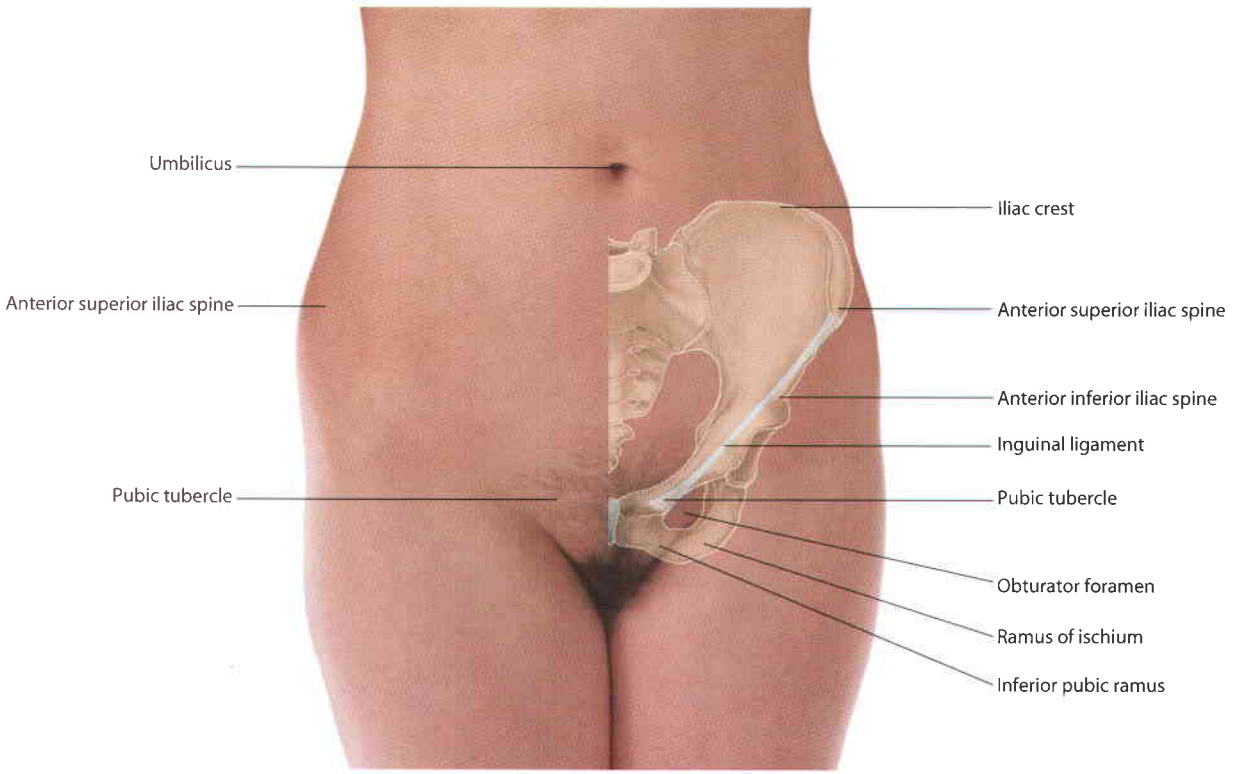
Articulated pelvis (anterior view)



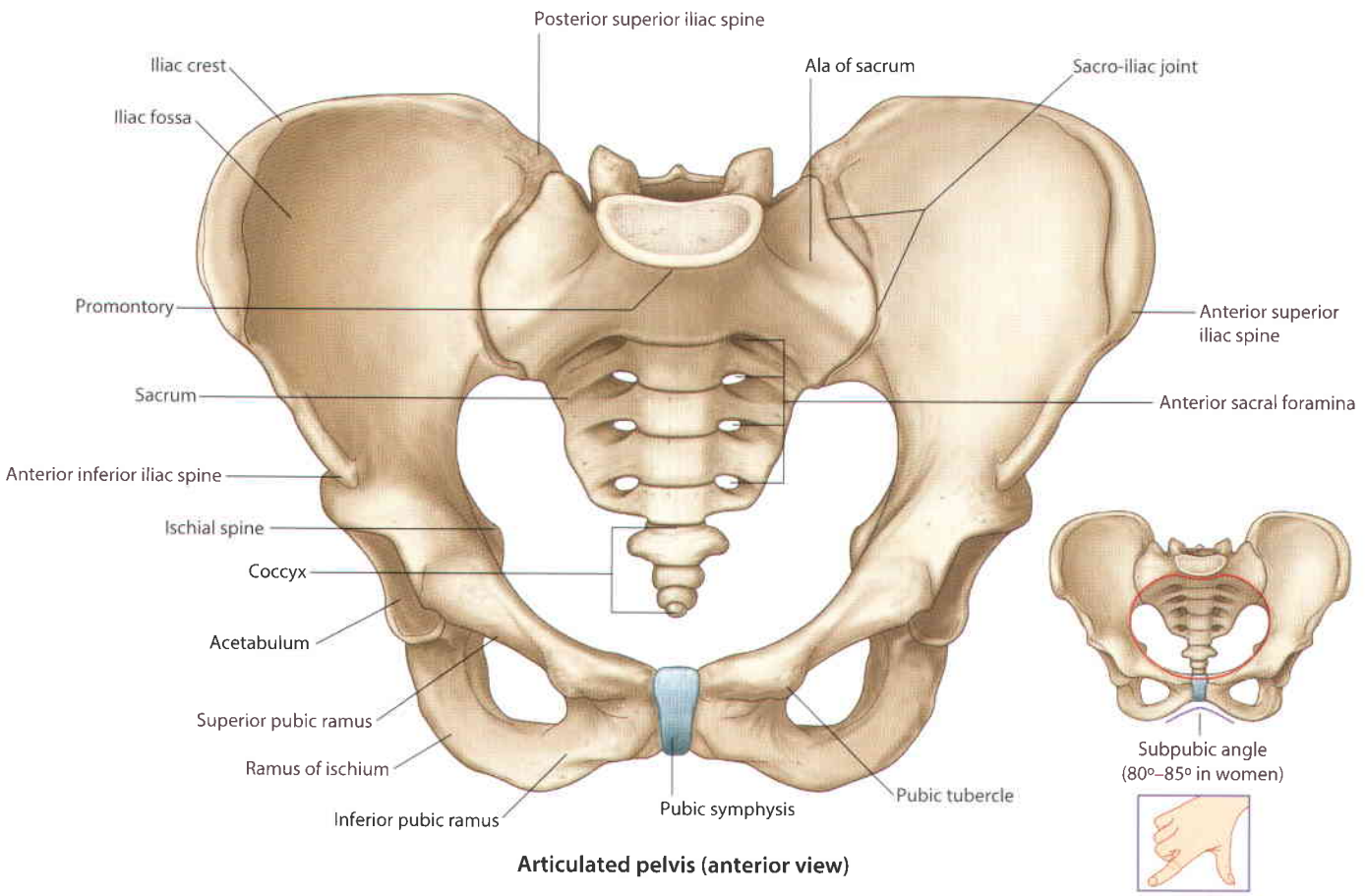
Surface anatomy with bones (posterior view)



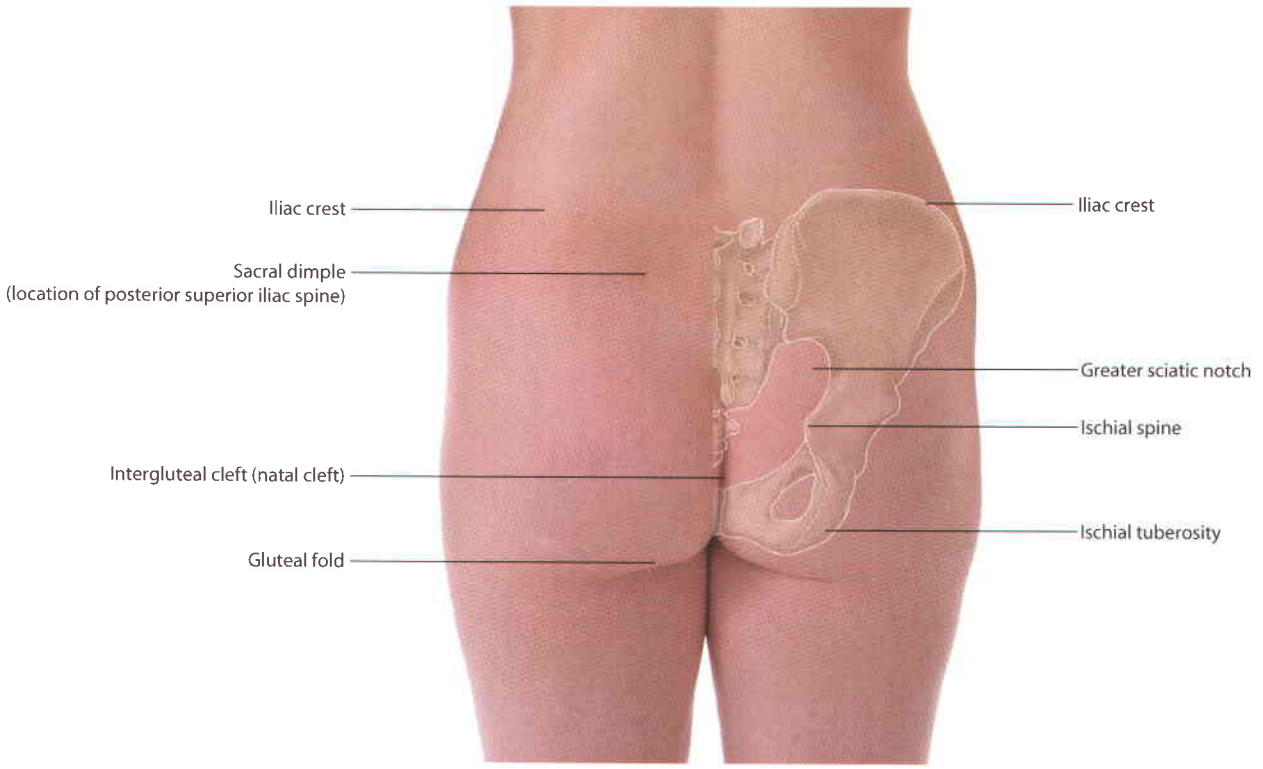
Articulated pelvis (posterior view)



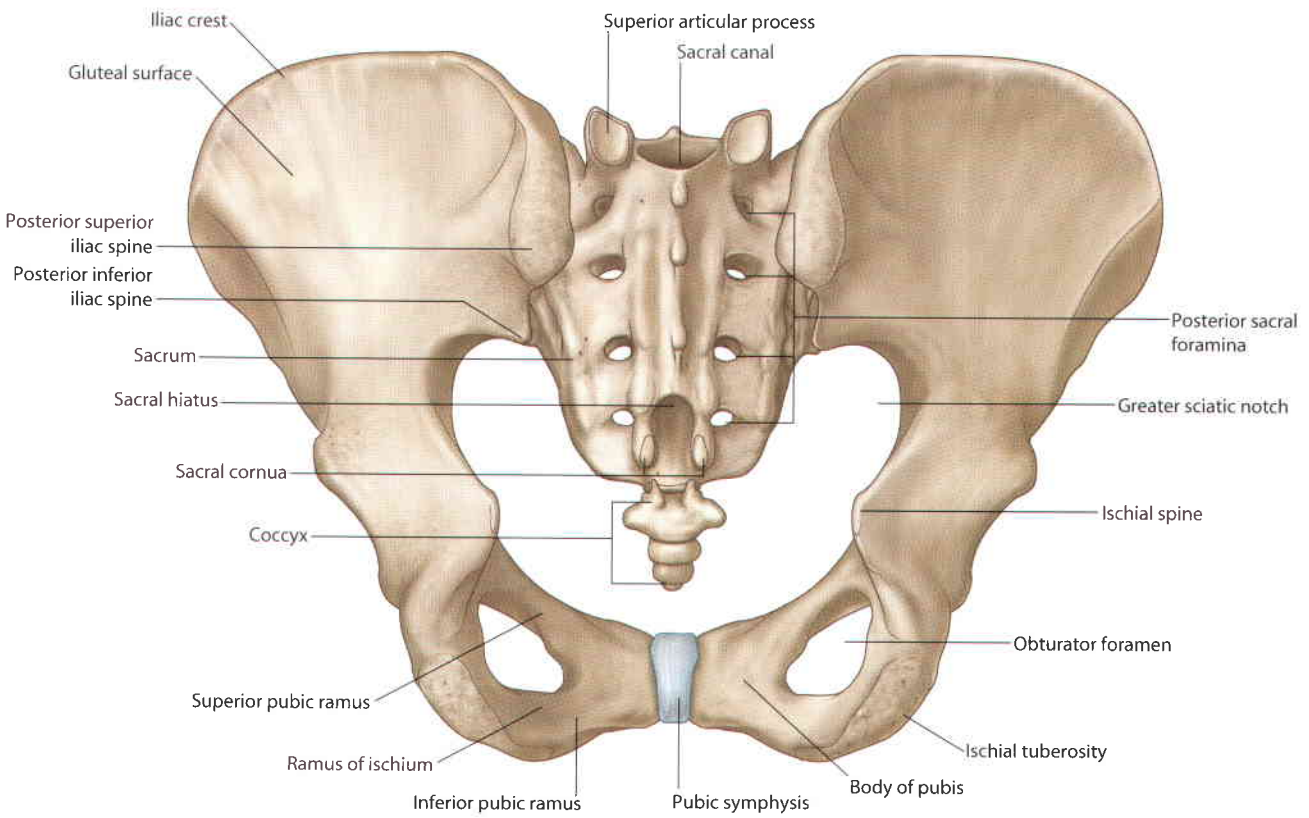
Surface anatomy with bones (anterior view)



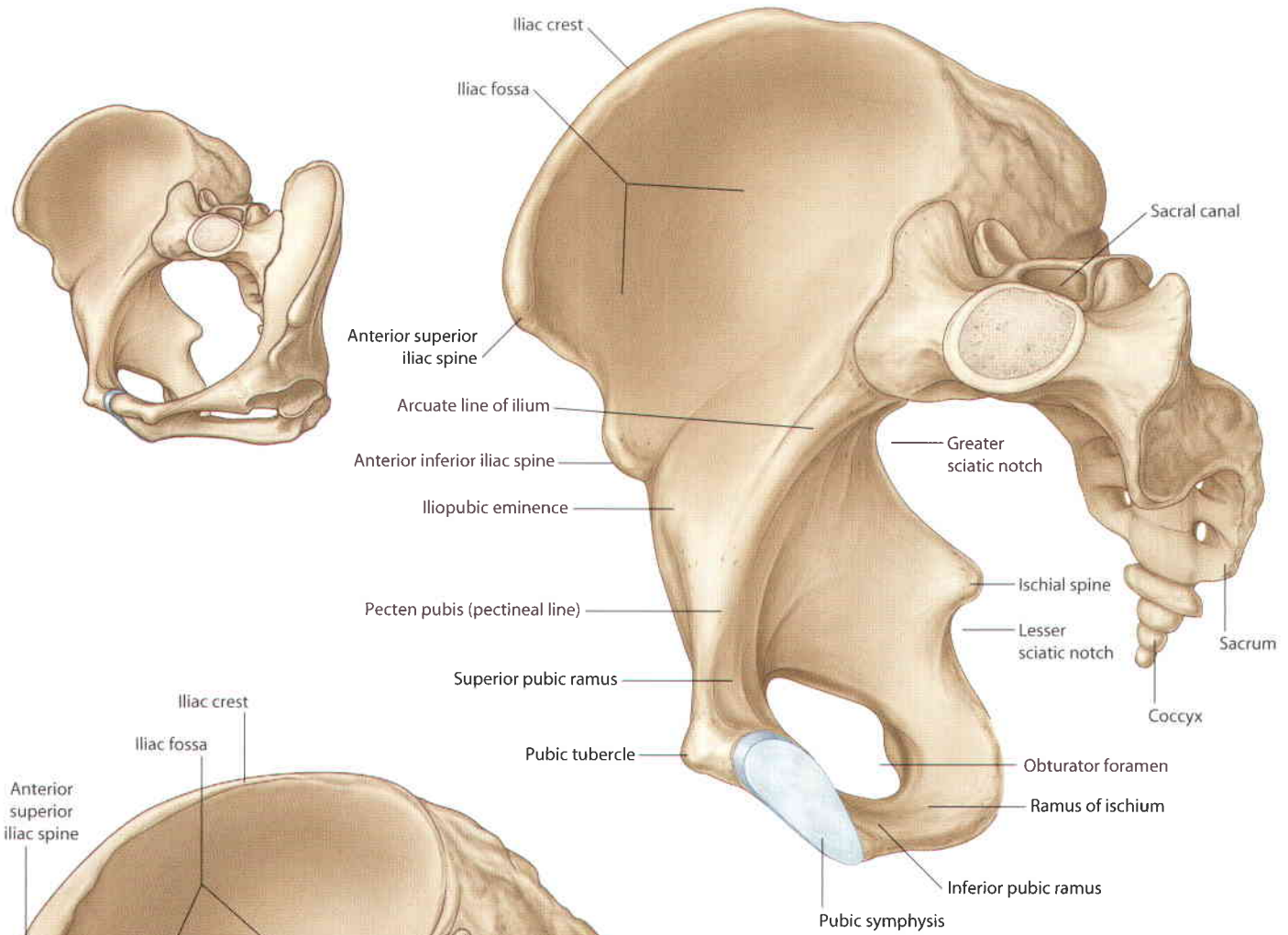
Articulated pelvis (anterior view)



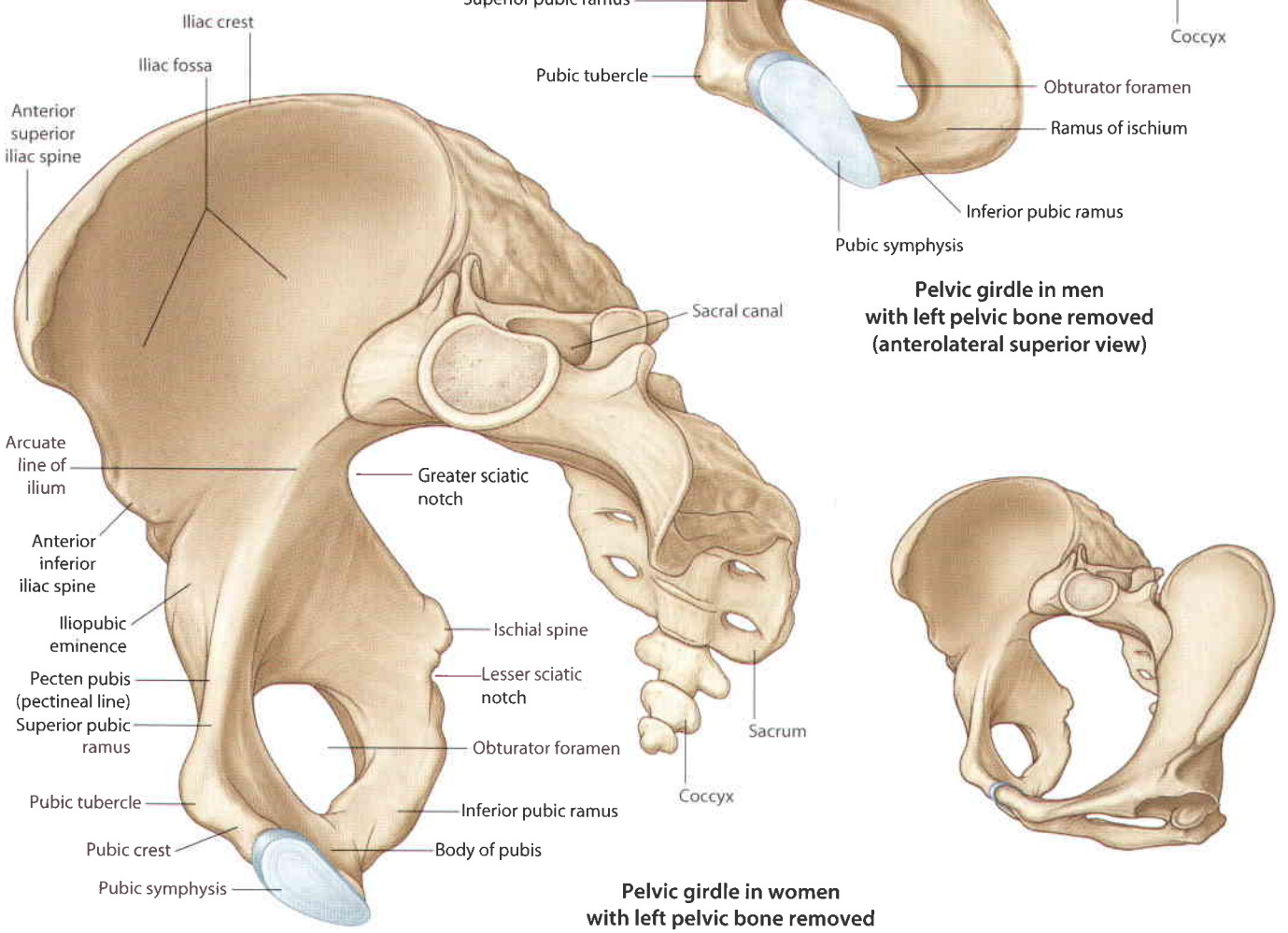
Surface anatomy with bones (posterior view)



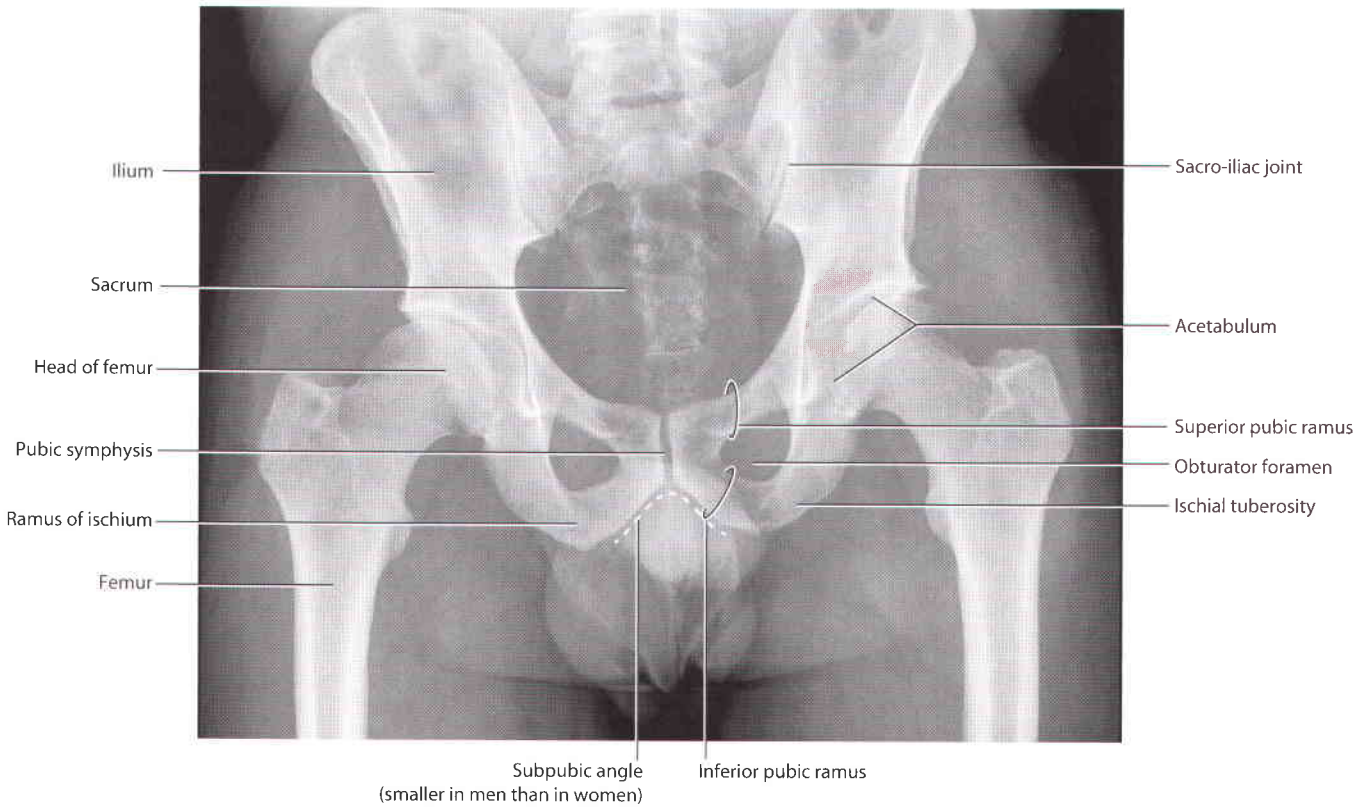
Articulated pelvis (posterior view)



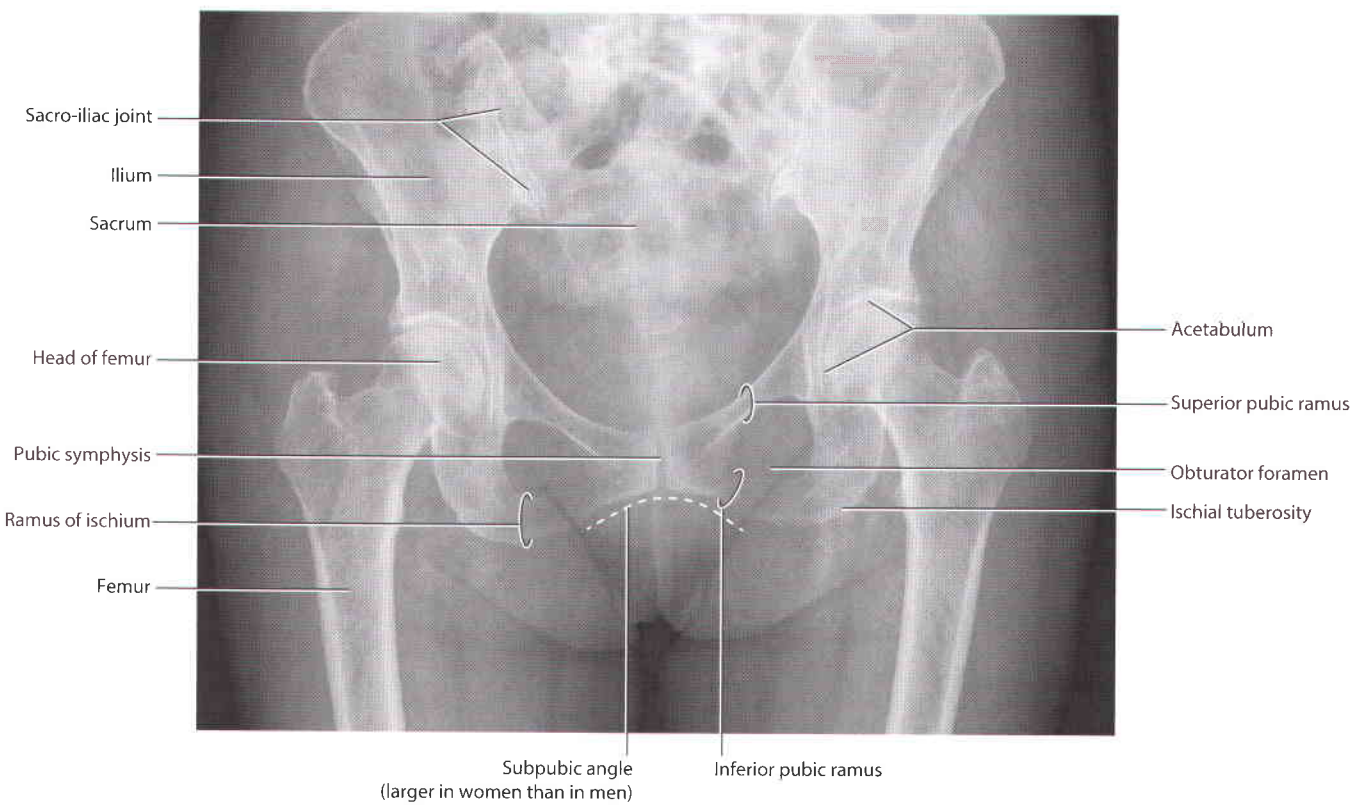
Pelvic girdle in men with left pelvic bone removed (anterolateral superior view)



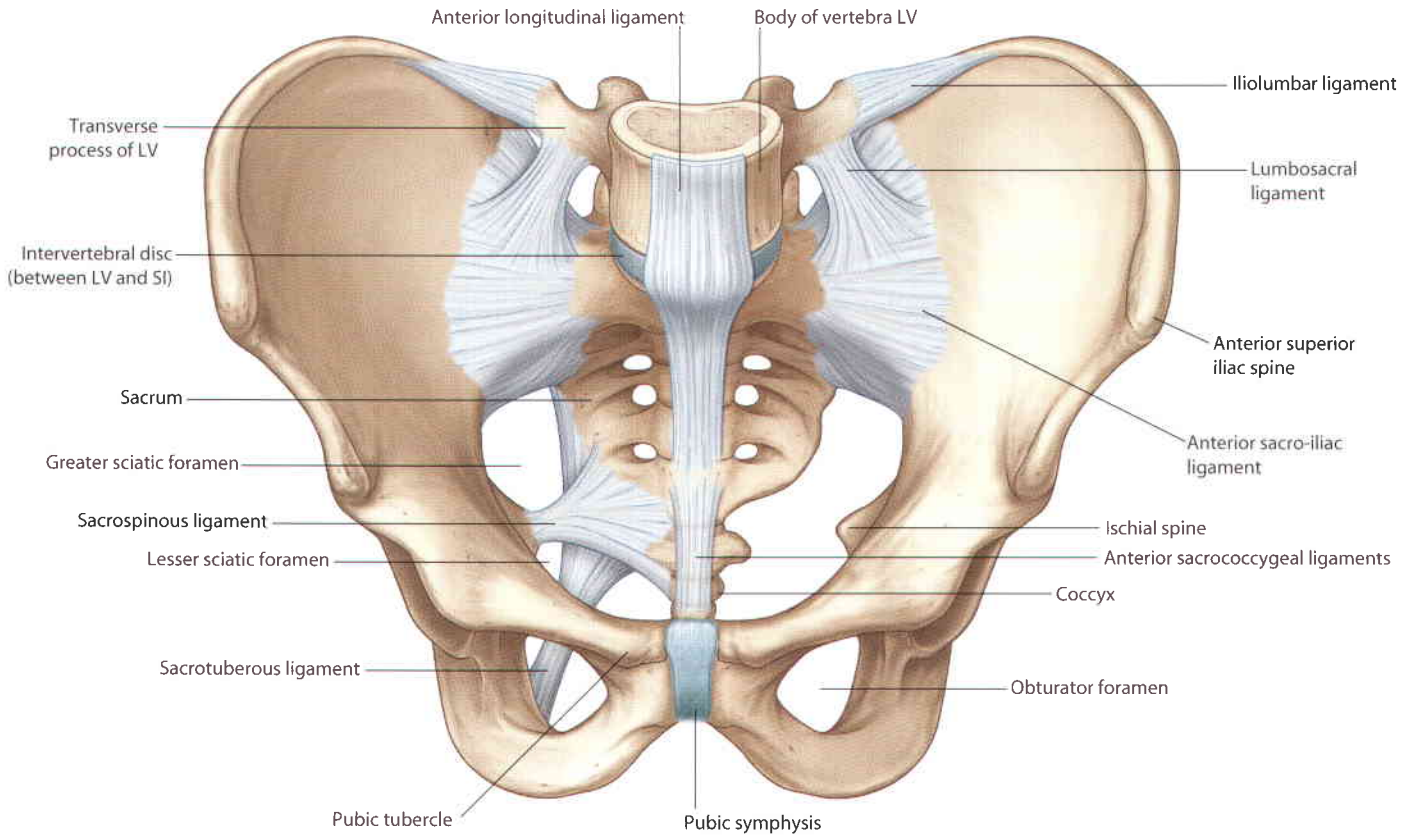
Pelvic girdle in women with left pelvic bone removed (anterolateral superior view)



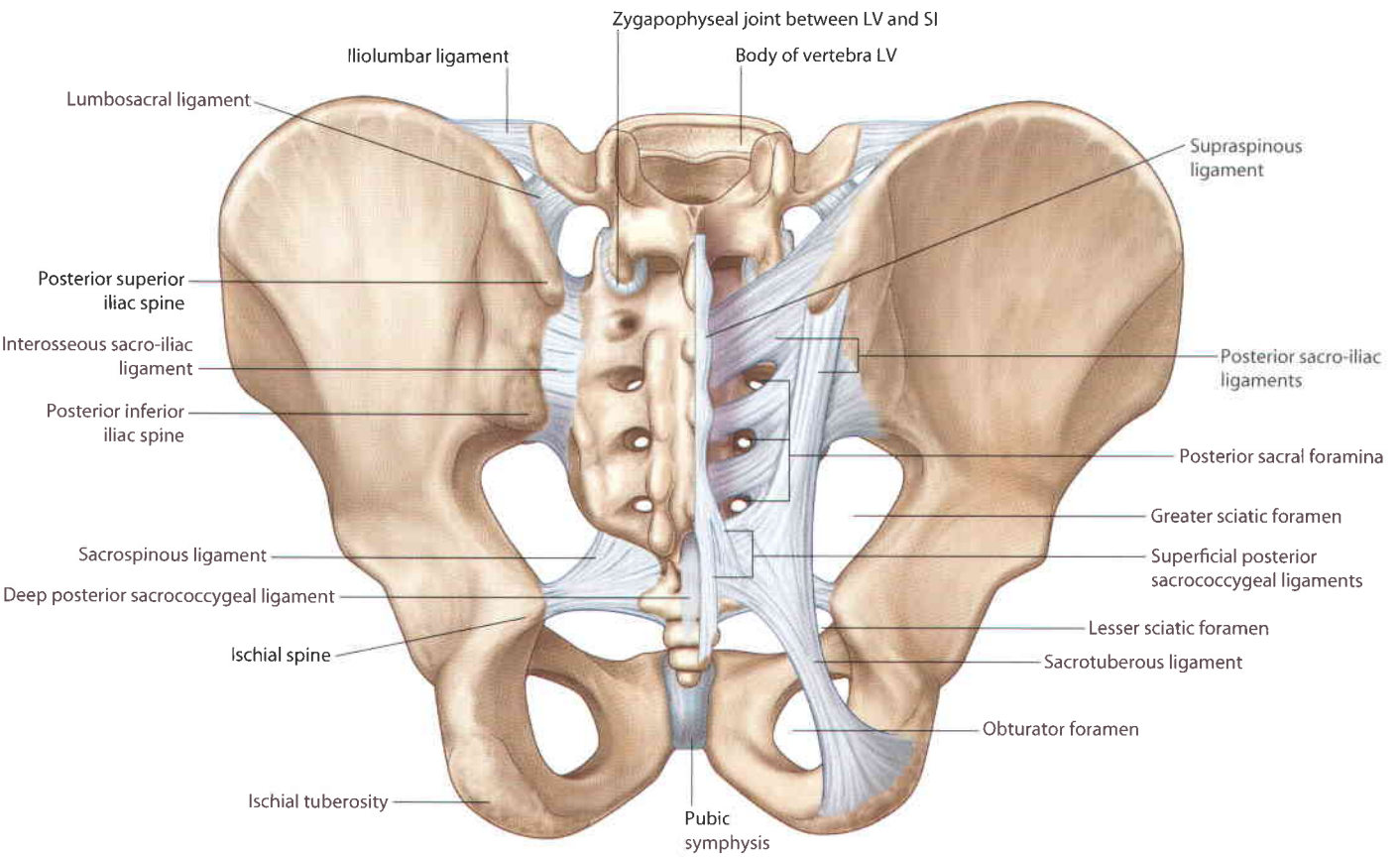
Male bony pelvis.
Radiograph, anterior-posterior view



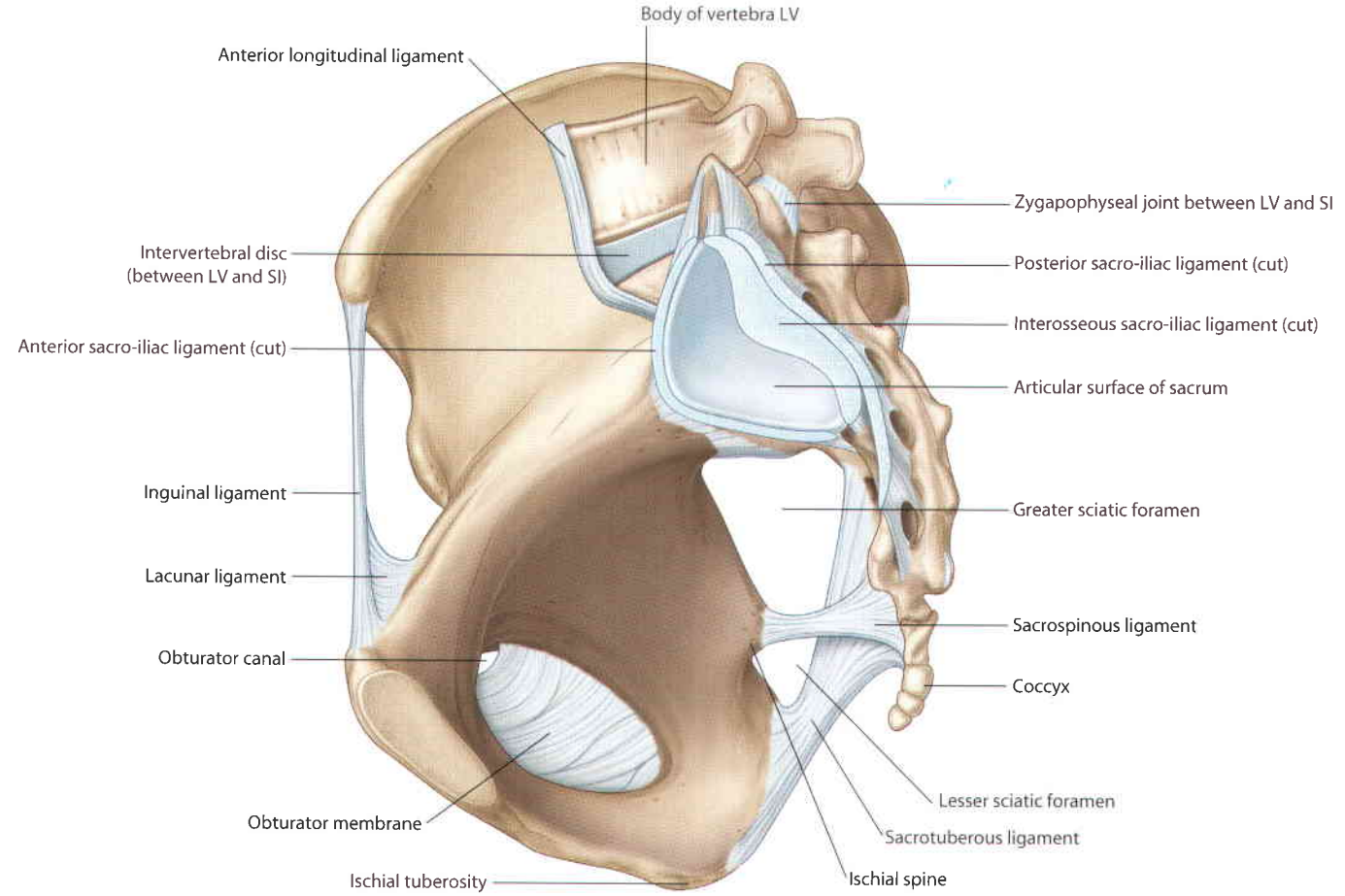
Female bony pelvis.
Radiograph, anterior-posterior view



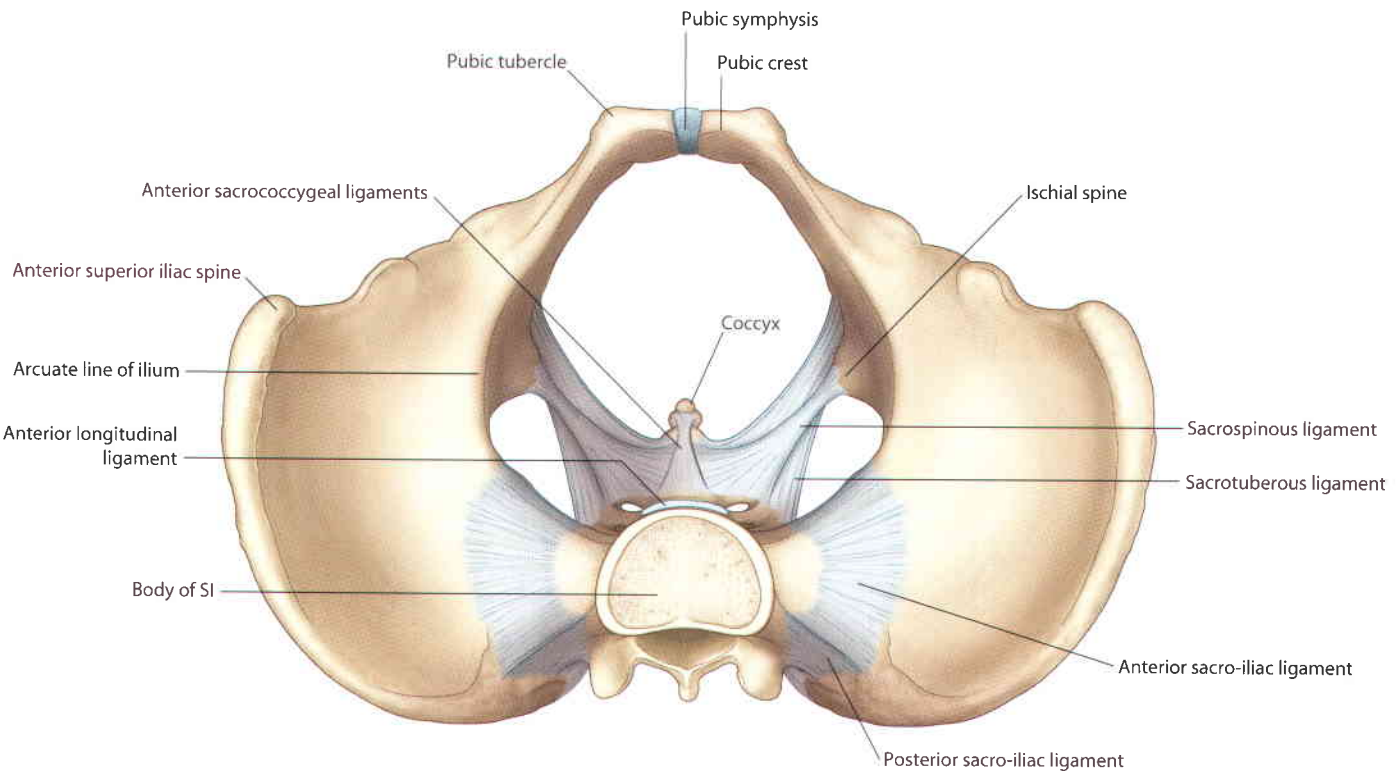
Lumbosacral joints and associated ligaments (anterior view)



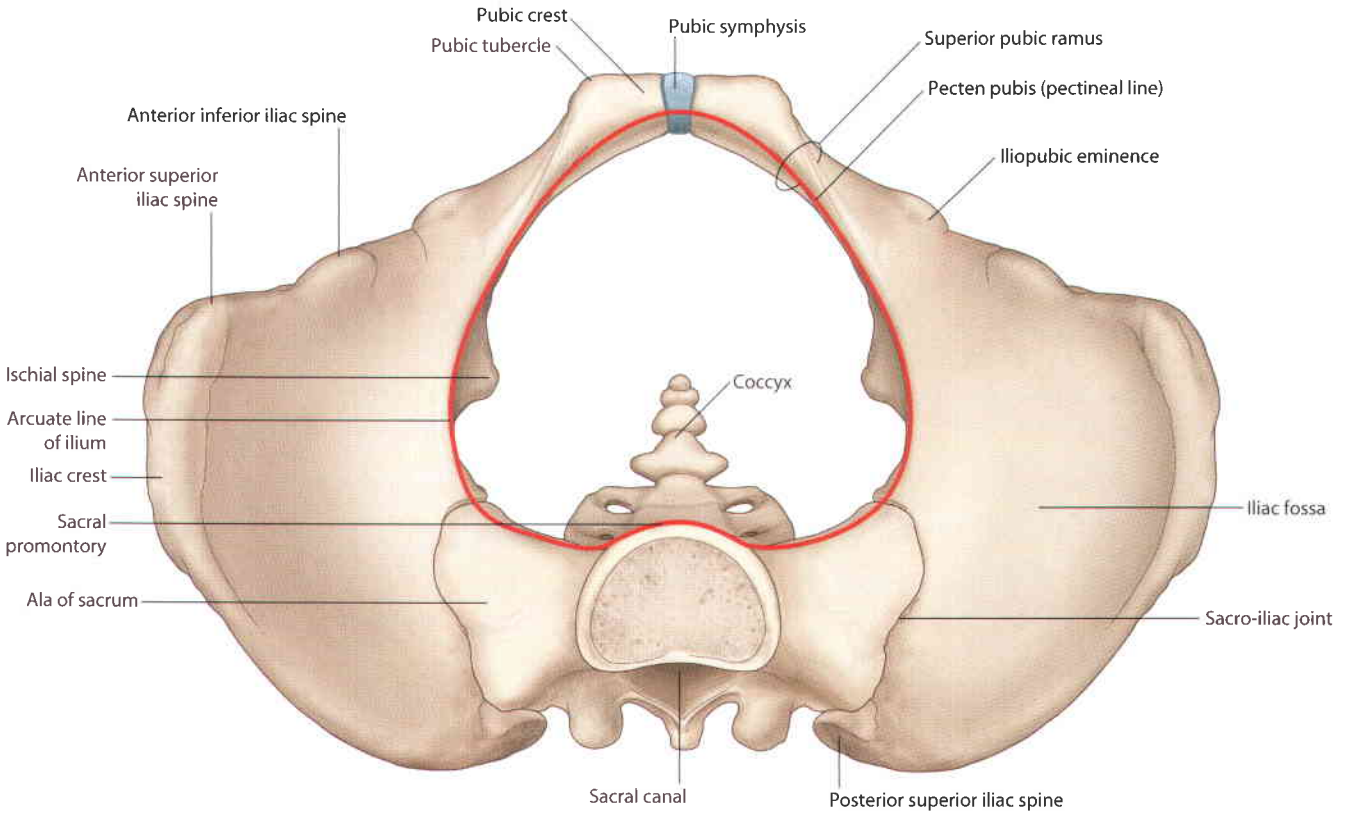
Lumbosacral joints and associated ligaments (posterior view)



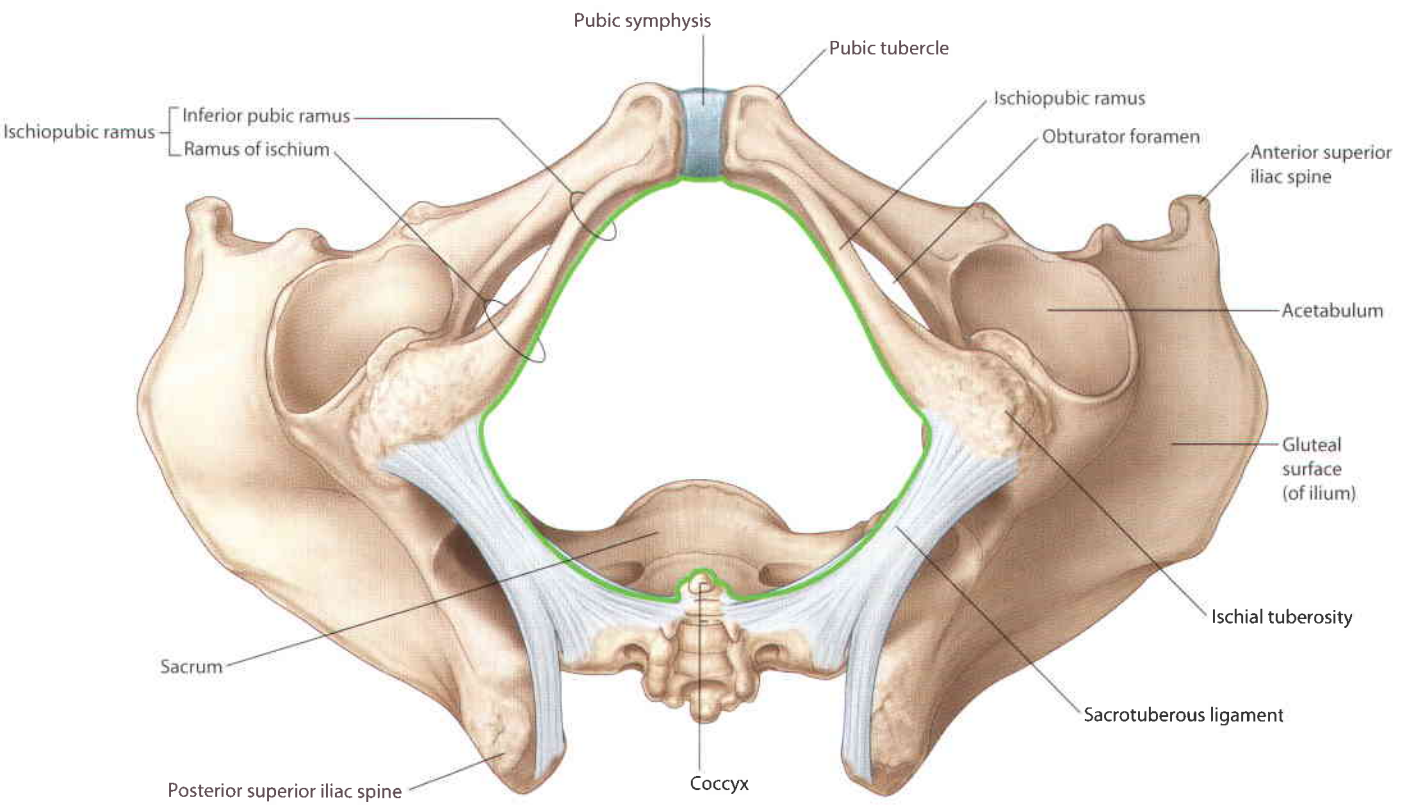
Sacro-iliac joints and associated ligaments (lateral view with left pelvic bone removed)



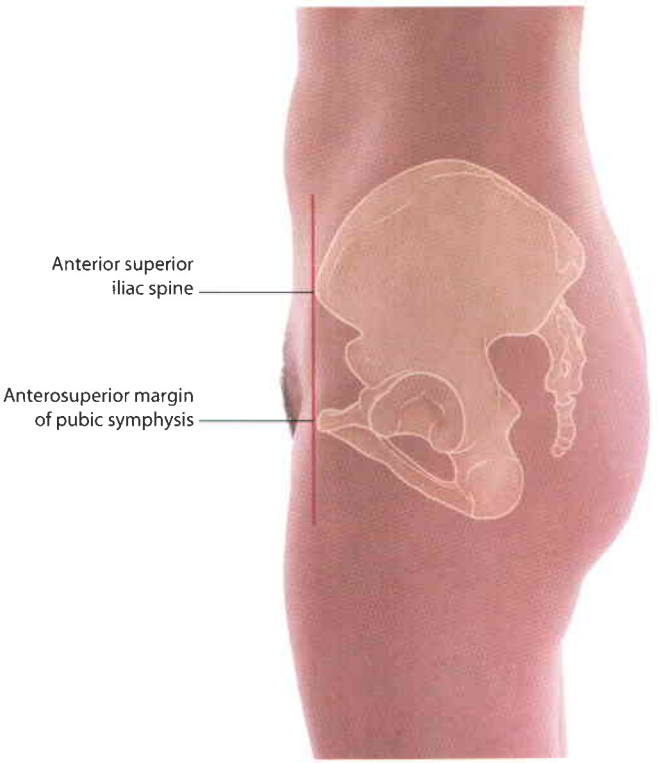
Sacro-iliac joints (anterosuperior view)



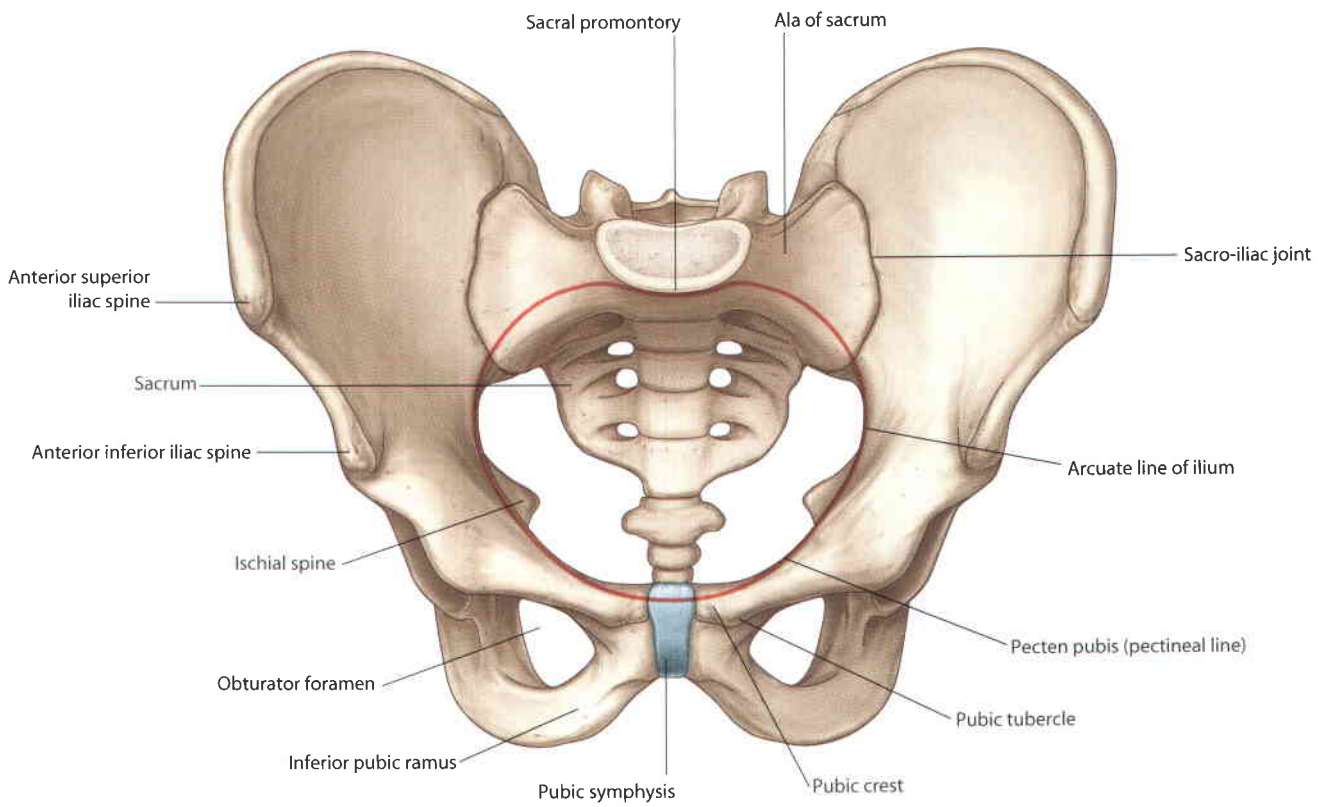
Pelvic inlet (shown in red; anterosuperior view)



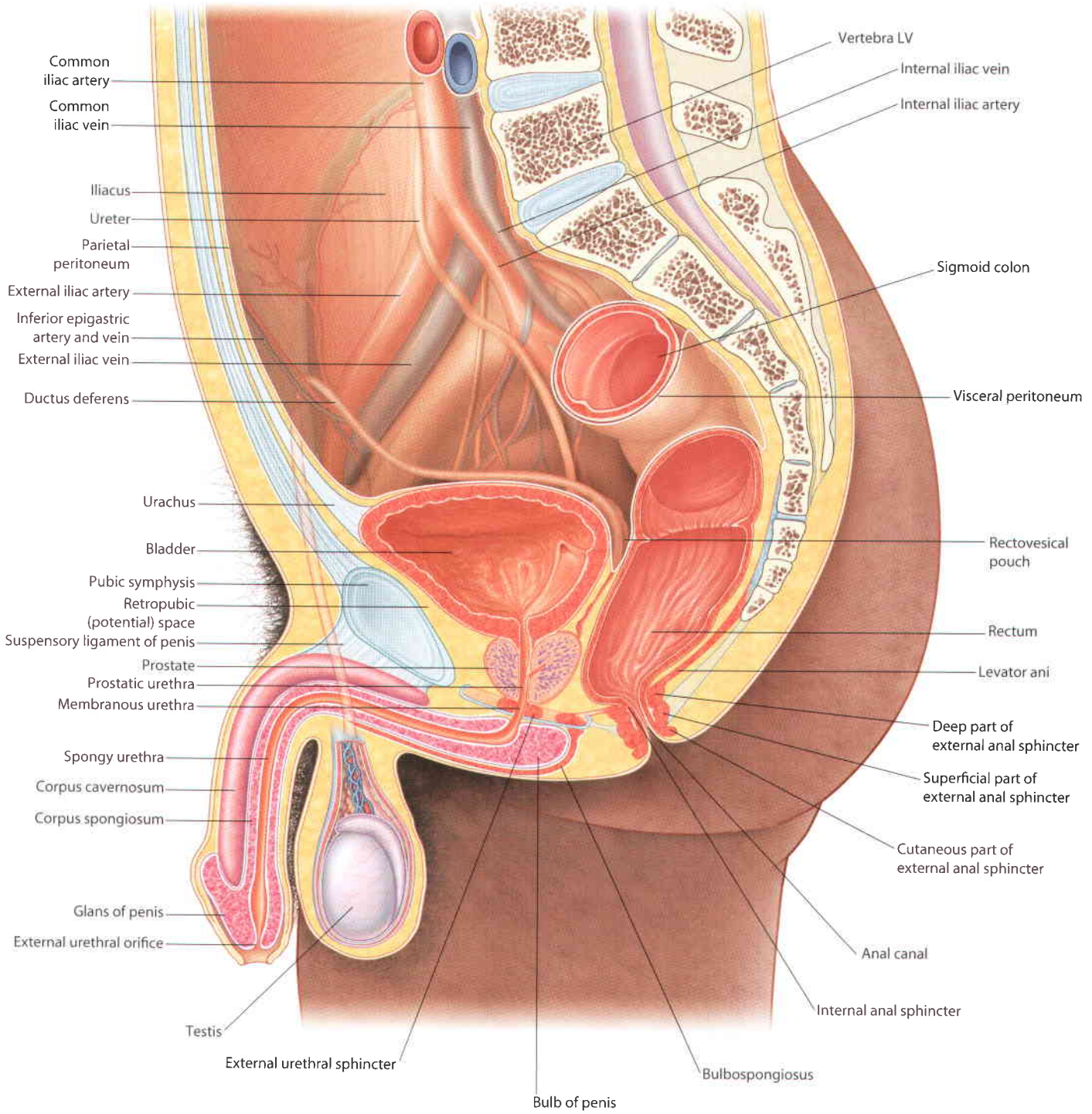
Pelvic outlet (shown in green; anteroinferior view)



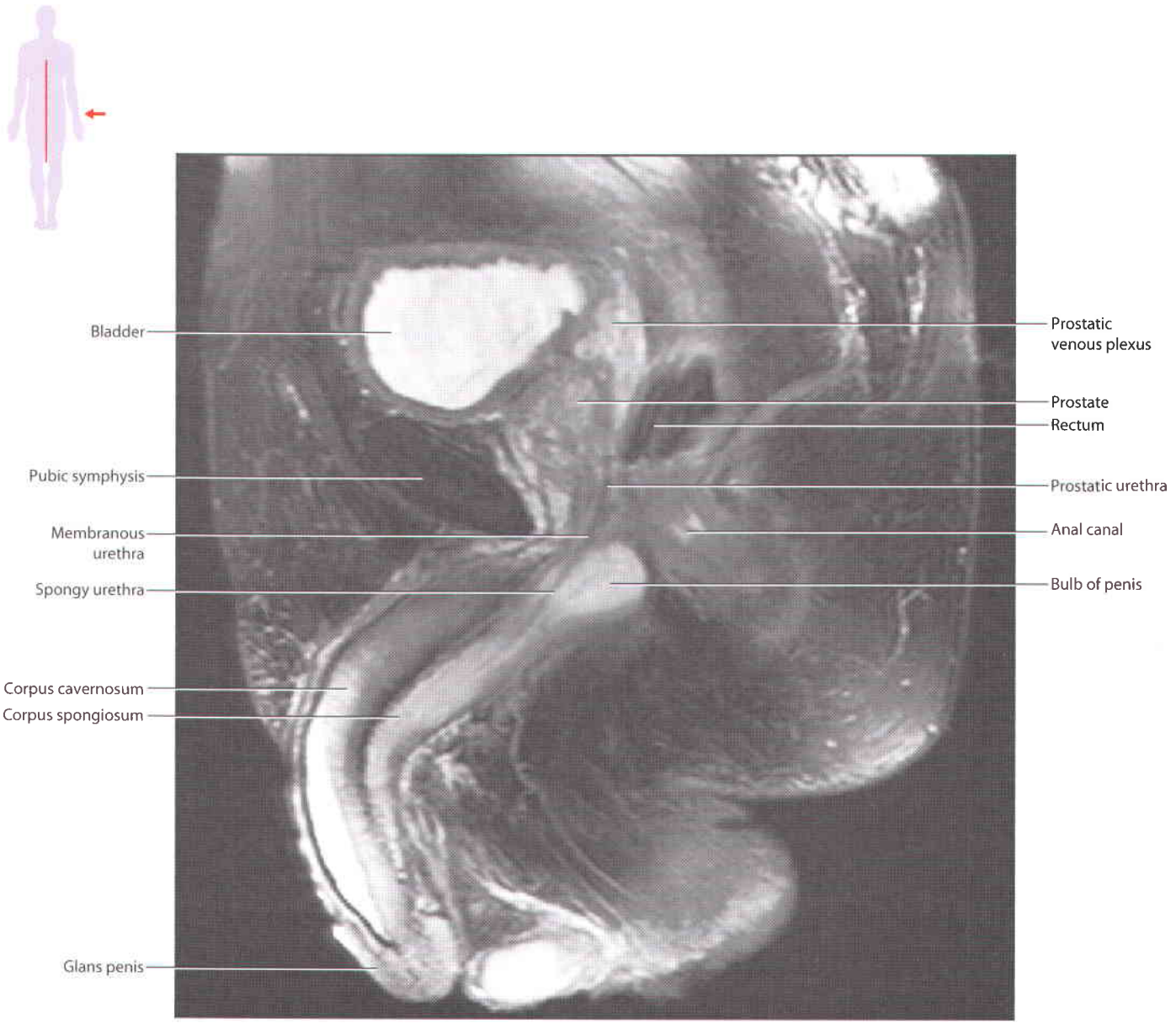
Pelvic orientation in anatomical position (lateral view)



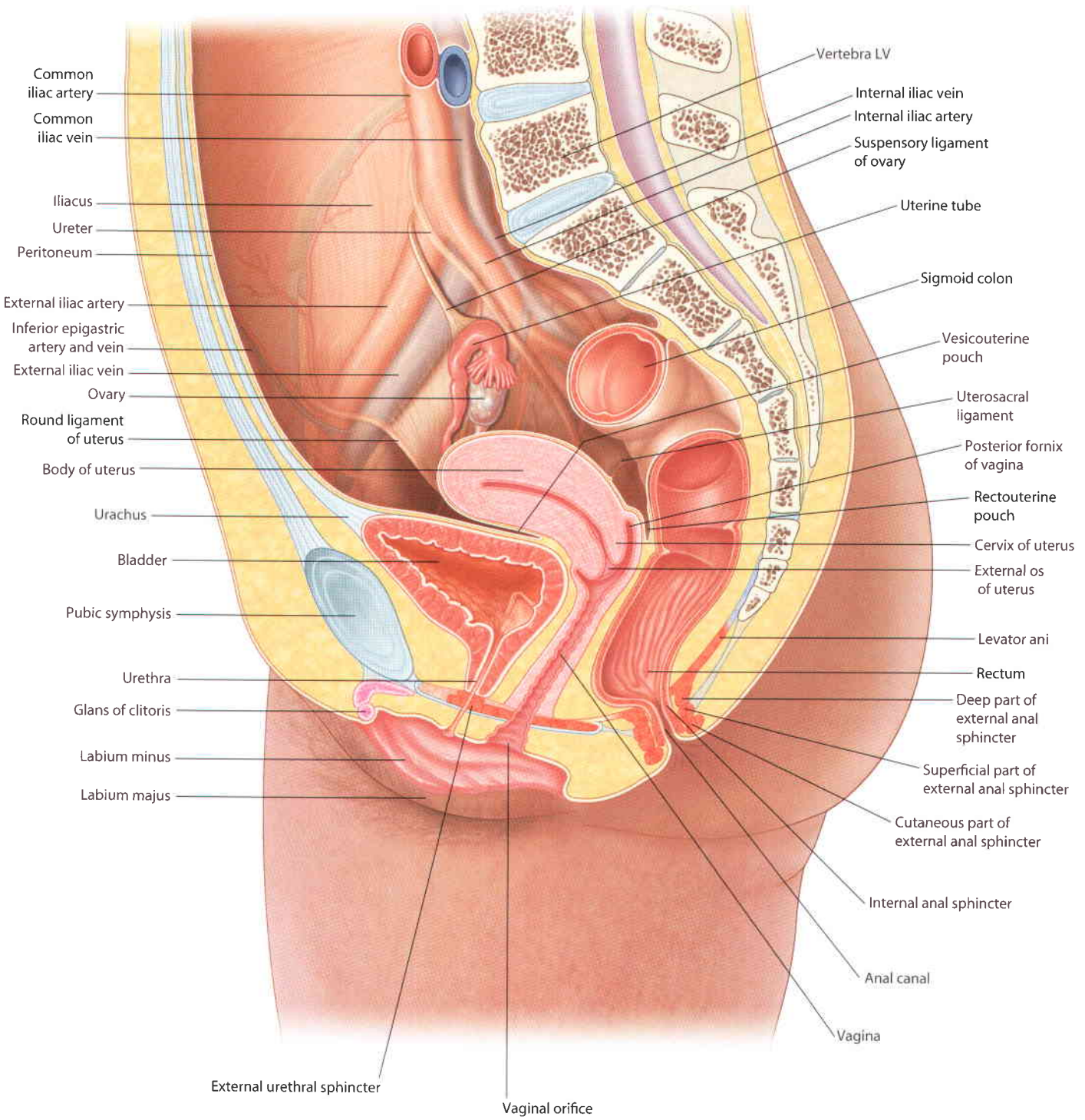
Pelvic brim (shown in red; anterior view)



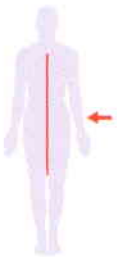
Pelvic viscera and perineum in men *in situ* (sagittal section)

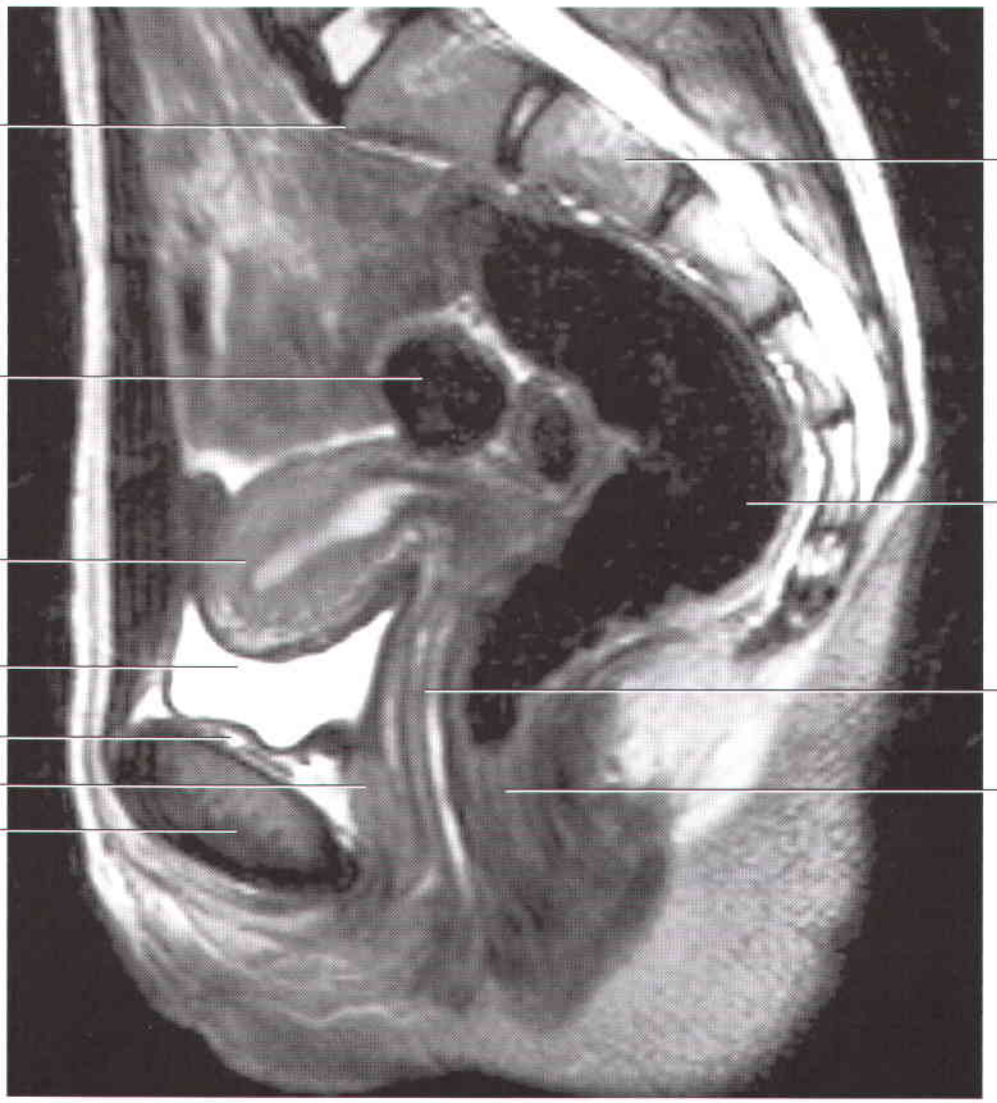


Pelvic viscera in men.
T2-weighted MR image in sagittal plane

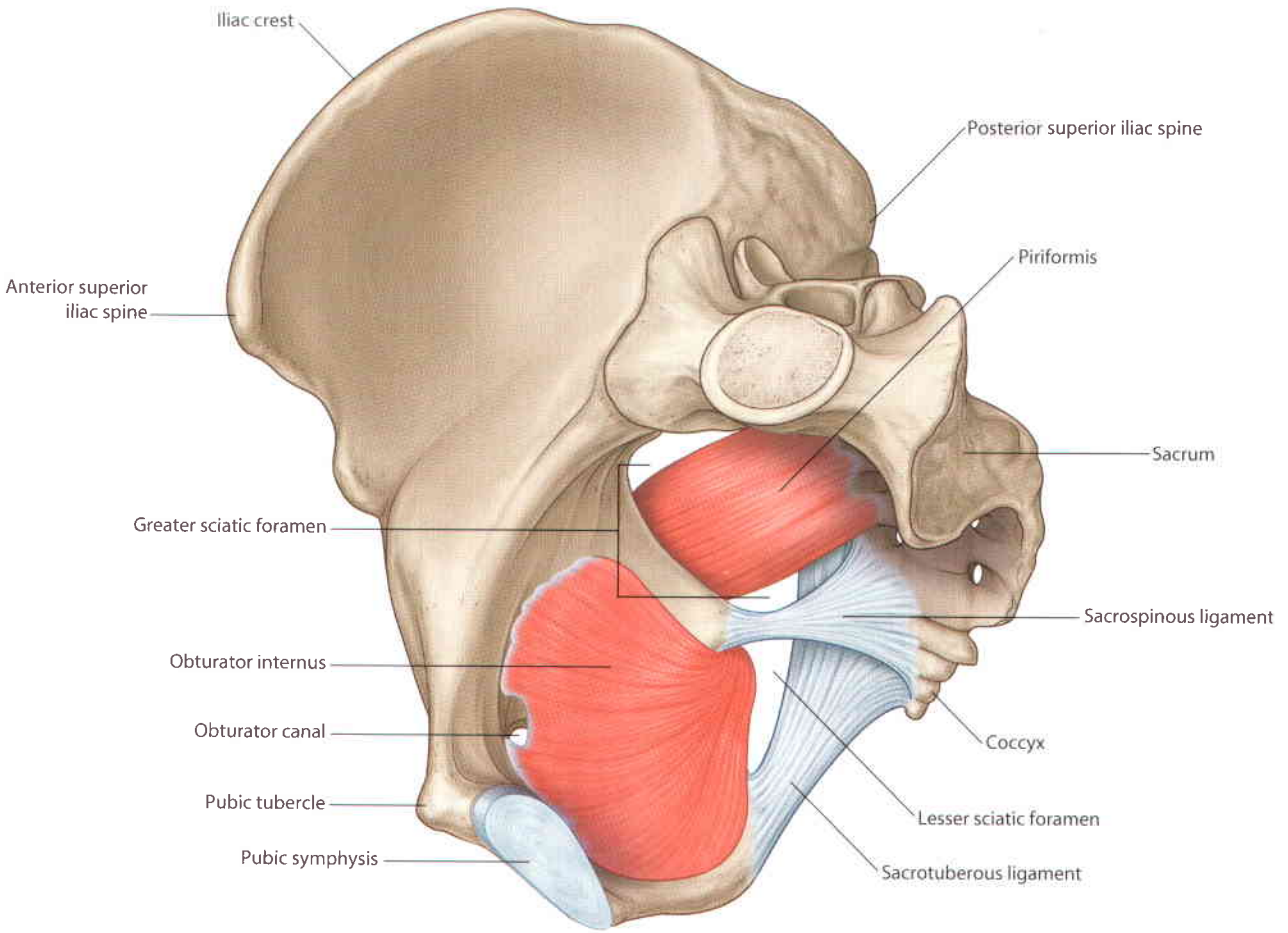


Pelvic viscera and perineum in women *in situ* (sagittal section)

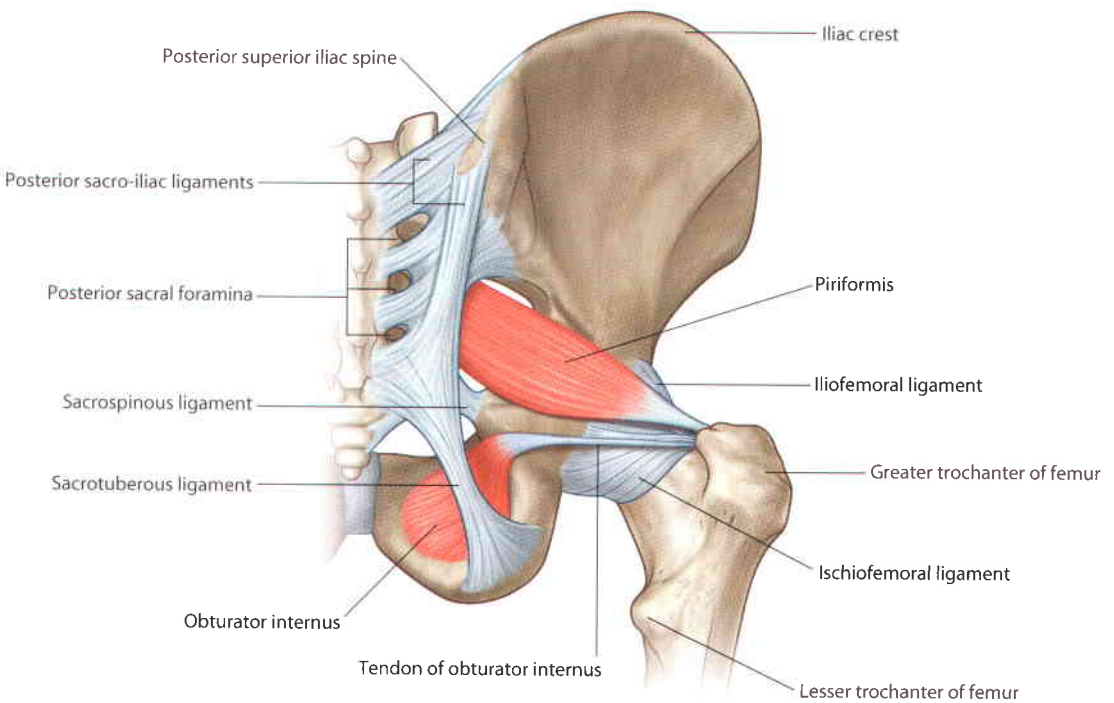




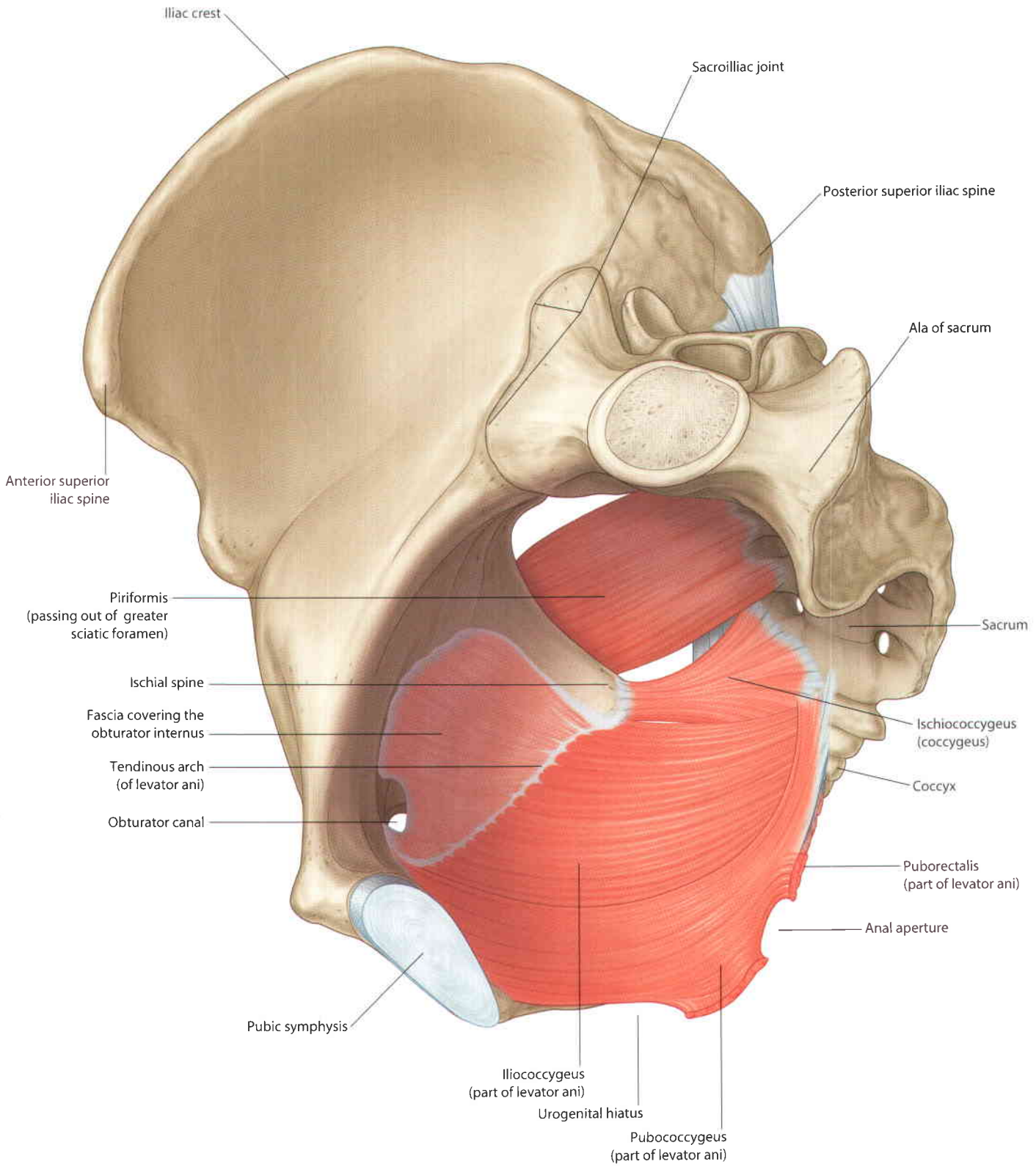
Pelvic viscera in women.
T2-weighted MR image in sagittal plane



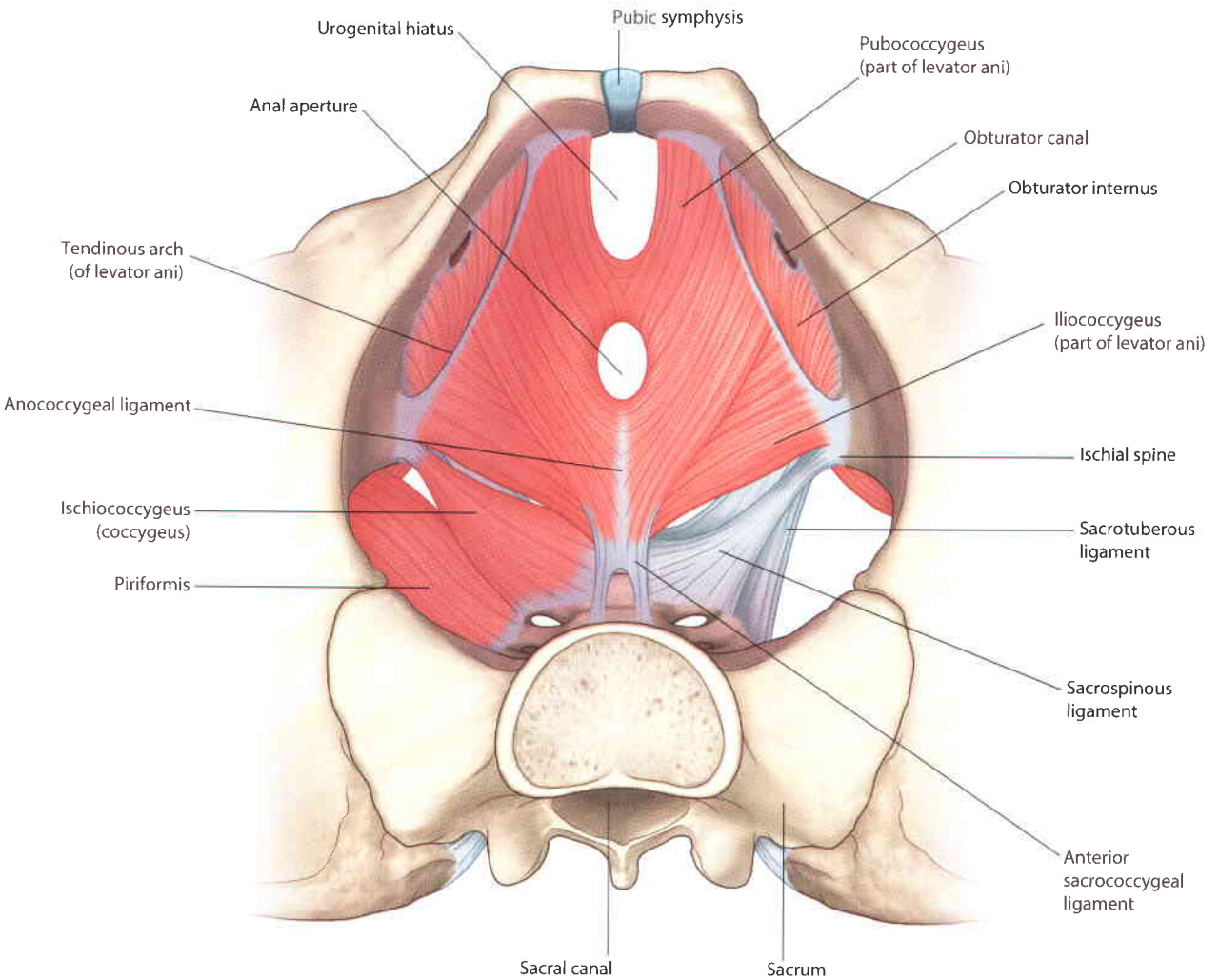
Obturator internus and piriformis muscles (oblique medial view)



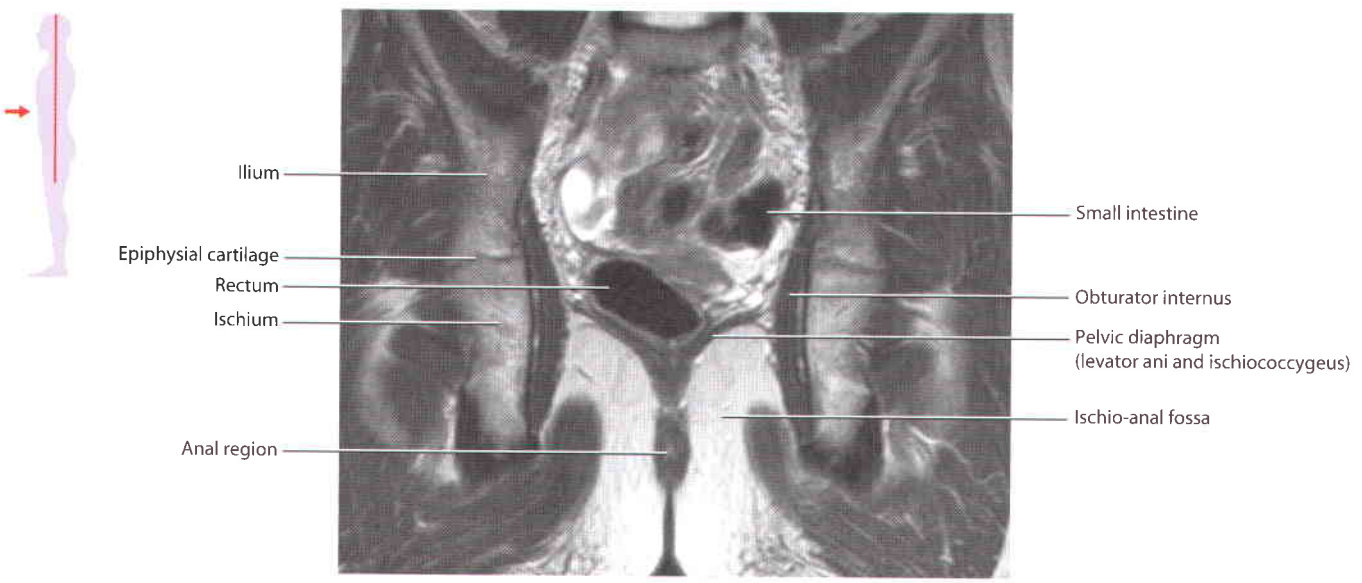
Obturator internus and piriformis muscles (posterior view)



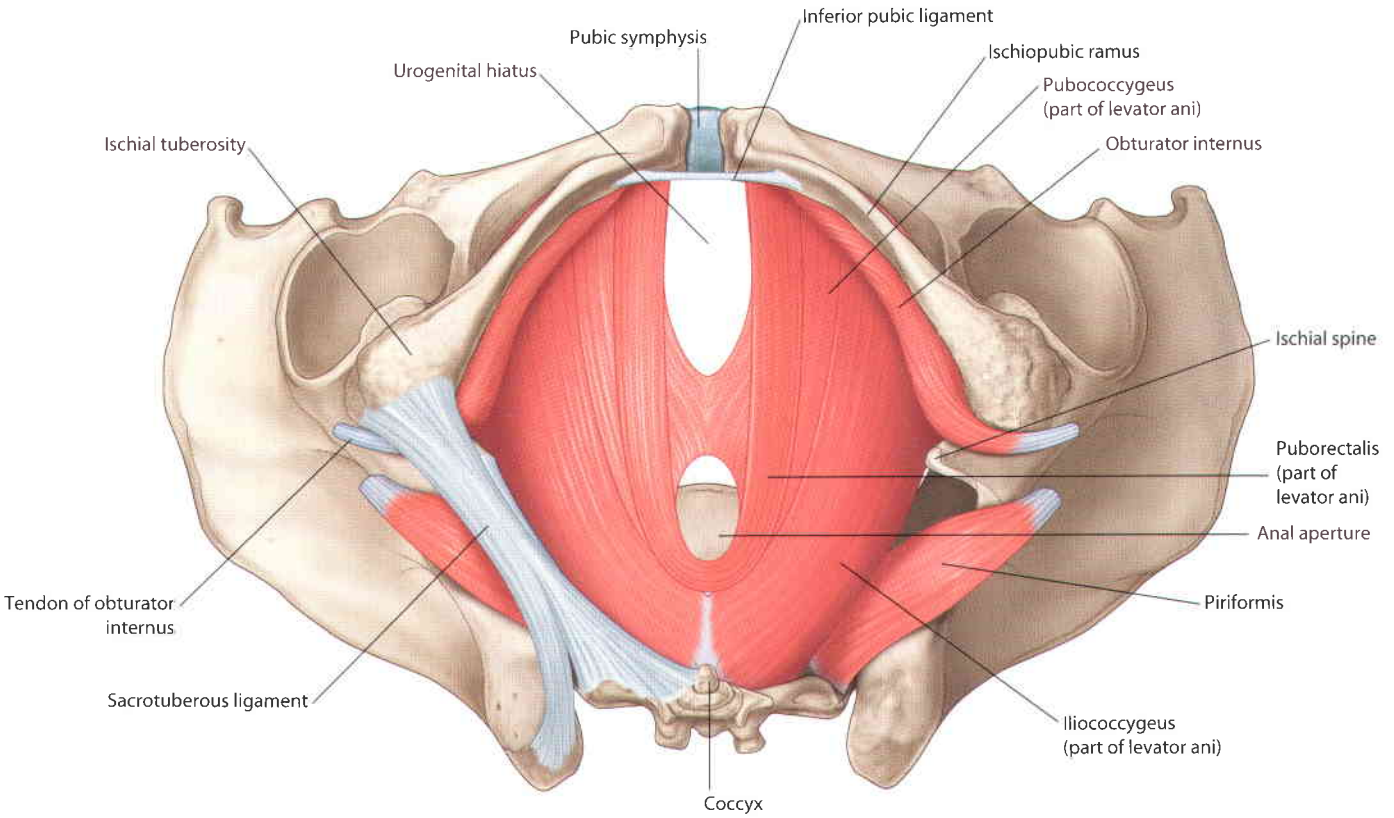
Levator ani and ischiococcygeus (coccygeus) muscles (oblique sagittal view)



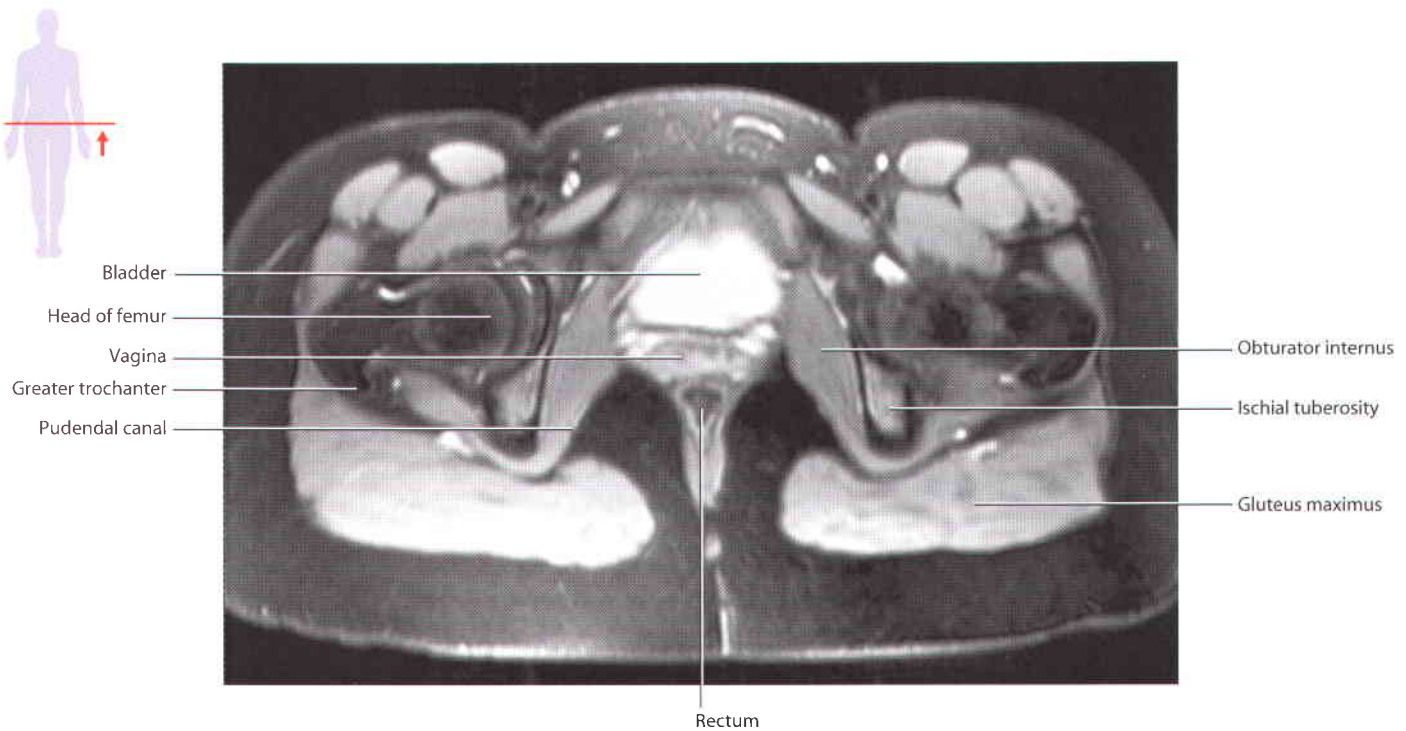
Levator ani and ischiococcygeus (coccygeus) muscles (anterosuperior view)



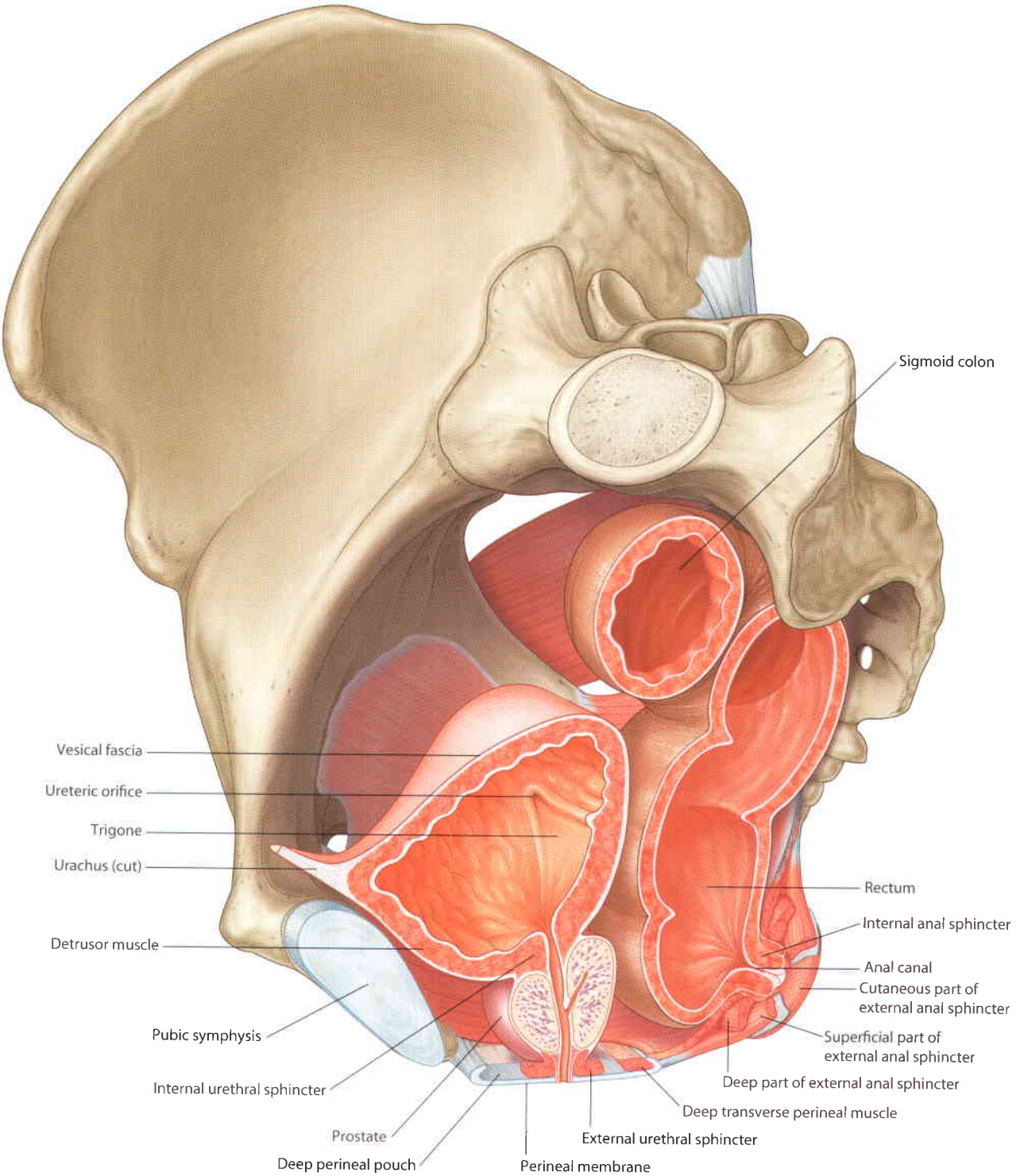
Pelvic diaphragm in relation to other structures in the pelvic cavity and perineum.
T2-weighted MR image in coronal plane



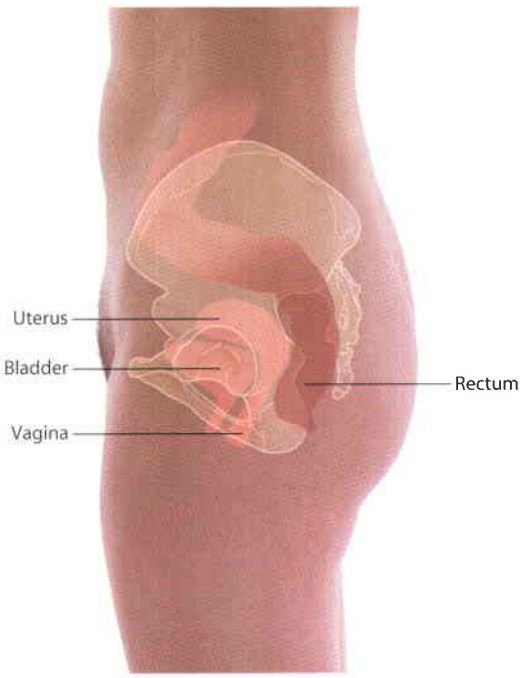
Levator ani muscle (inferior view)



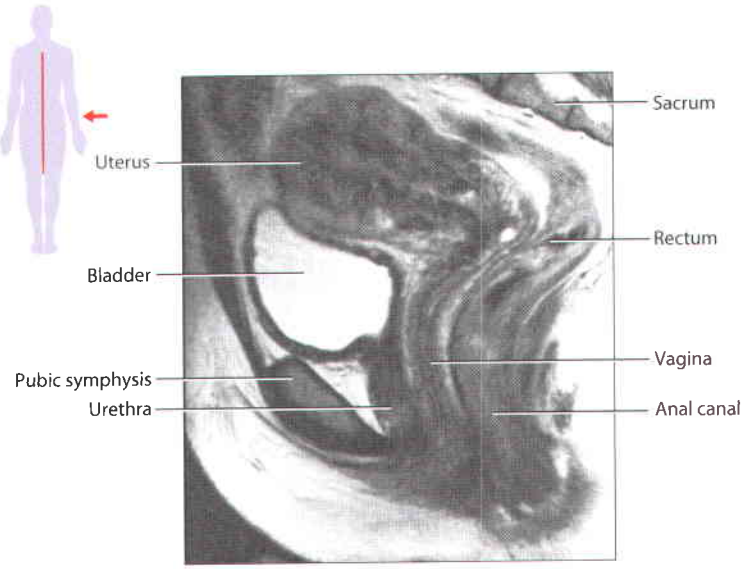
Obturator internus muscle and its relationship to other pelvic structures.
T2-weighted MR image in axial plane



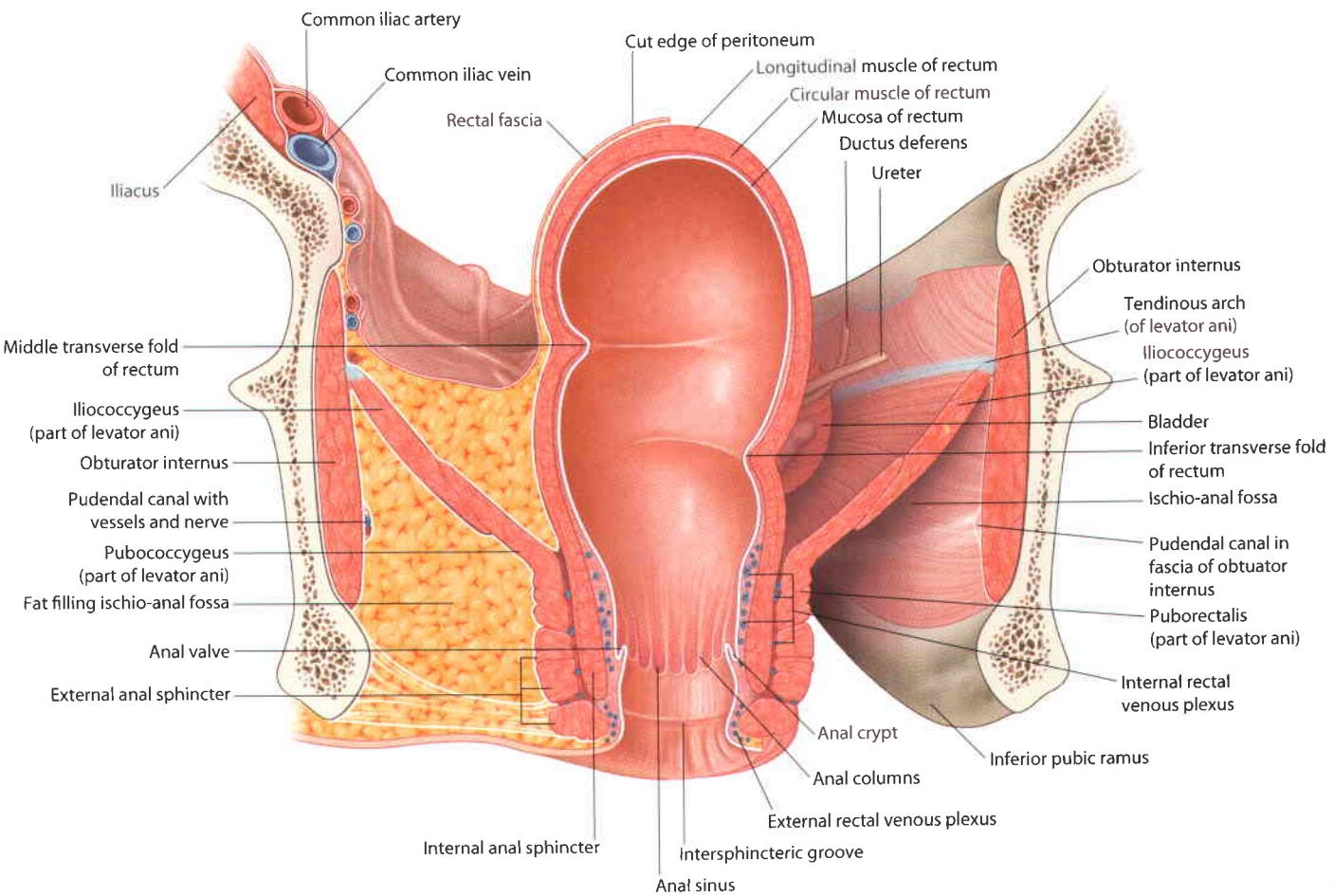
Bladder, prostate, and rectum within pelvic cavity in men (oblique sagittal view)



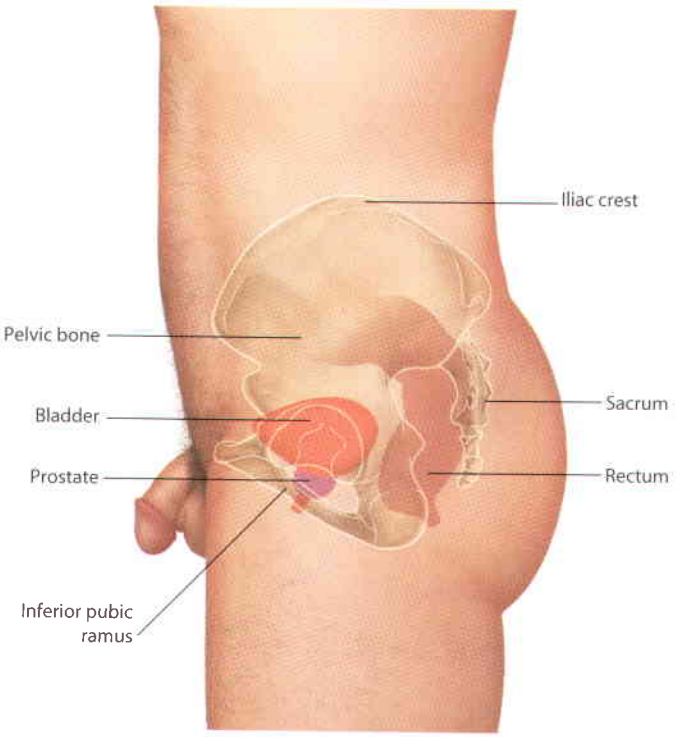
Surface projection of the rectum in women



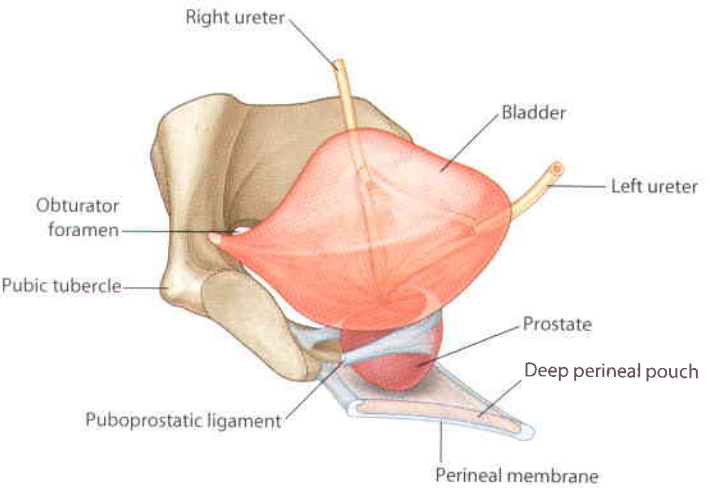
Positioning of the rectum and anal canal in relation to the other female pelvic viscera.
T2-weighted MR image in sagittal plane



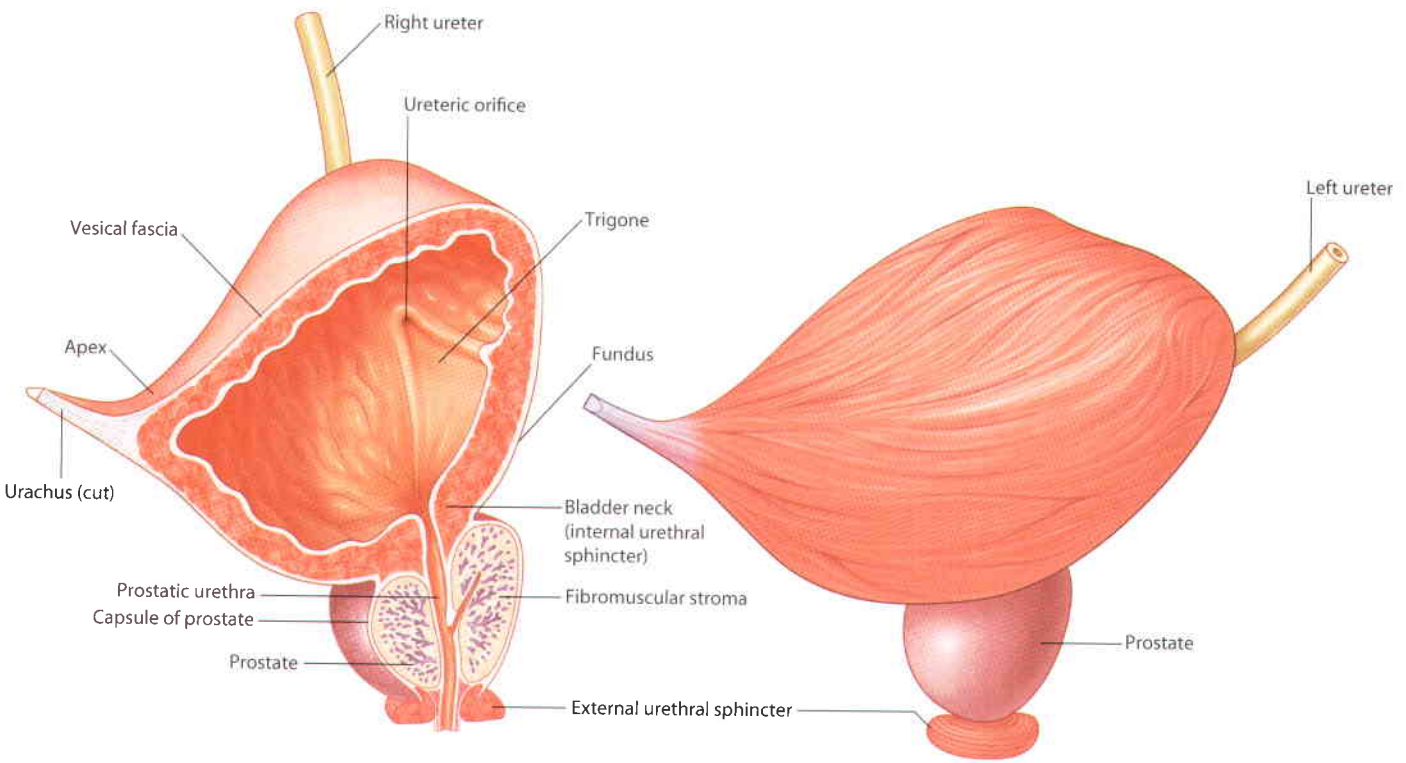
Coronal section through rectum and anal canal (posterior view)



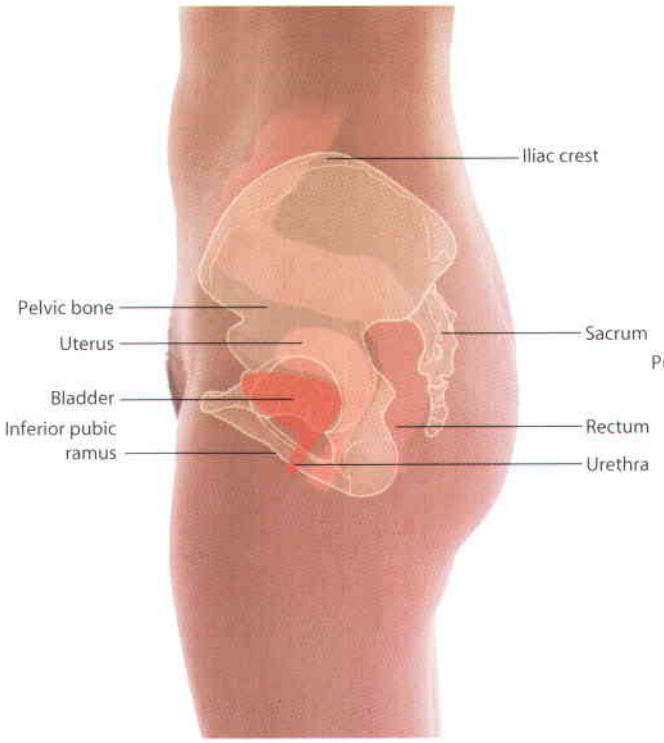
Surface projection of the bladder in men (lateral view)



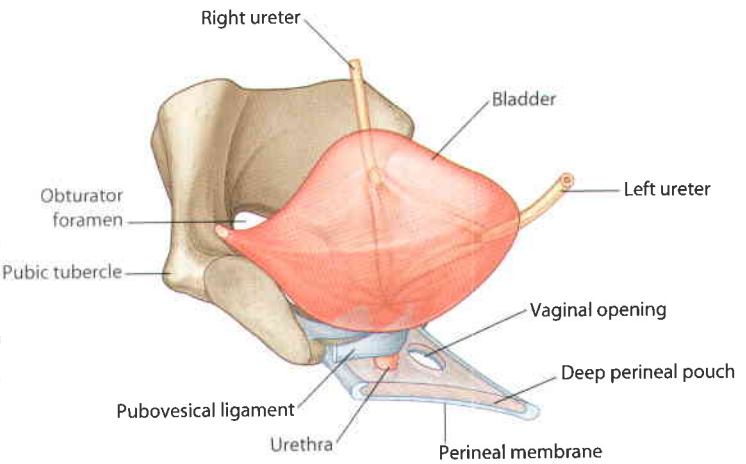
Puboprostatic ligament



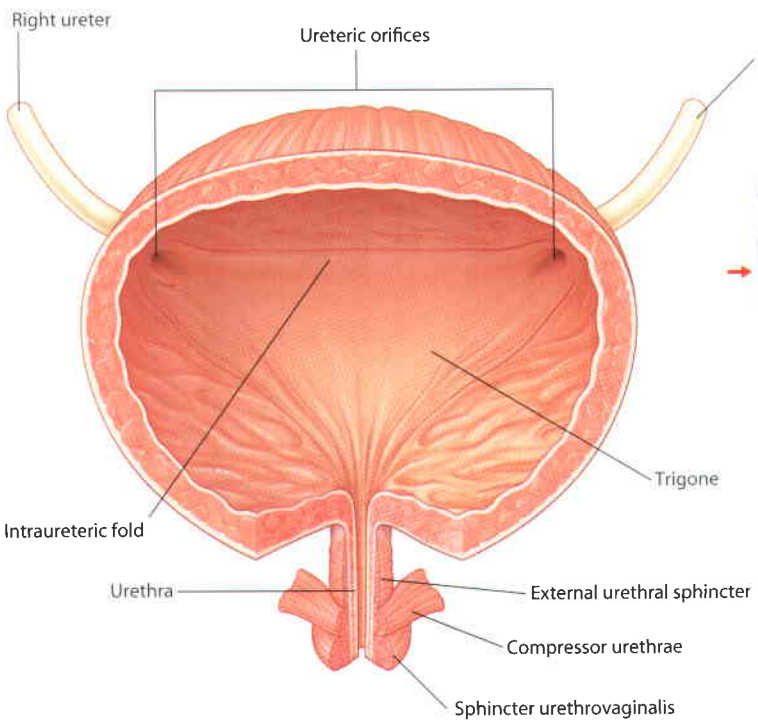
Urinary bladder in men



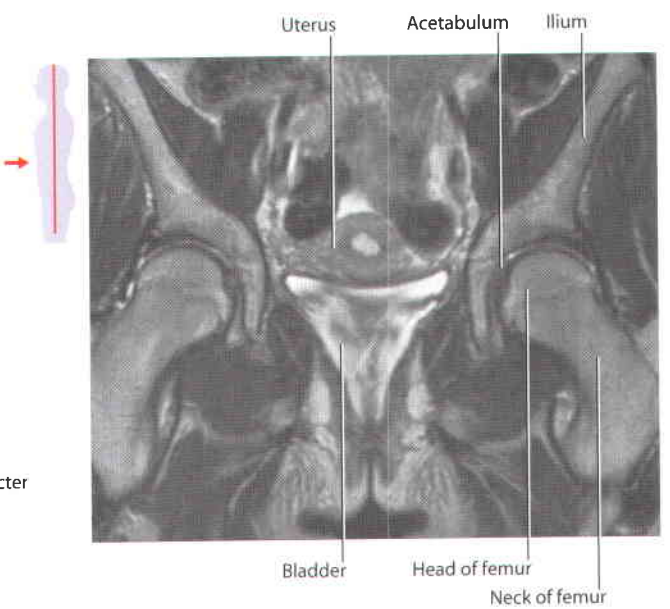
Surface projection of the bladder in women (lateral view)



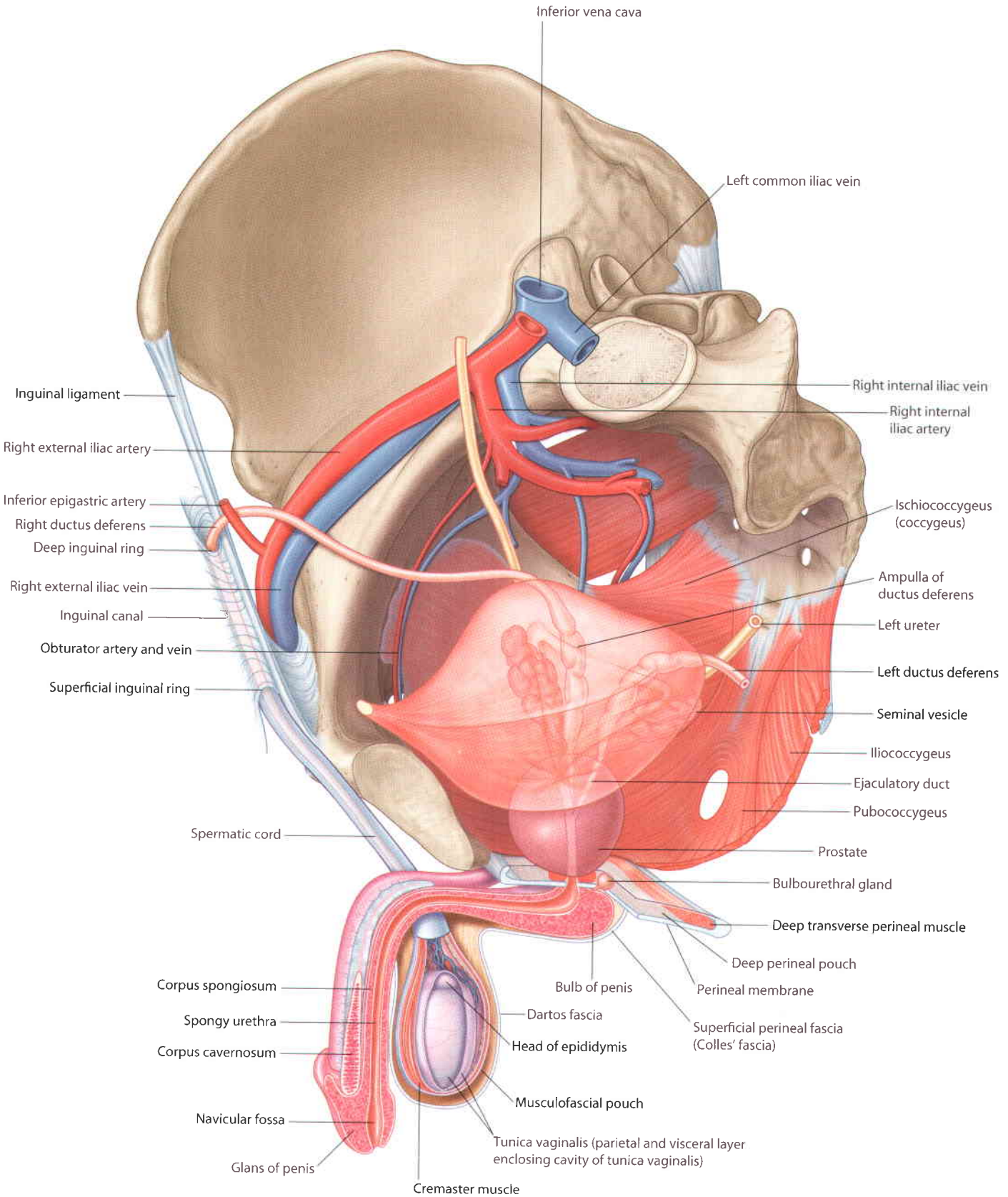
Pubovesical ligament



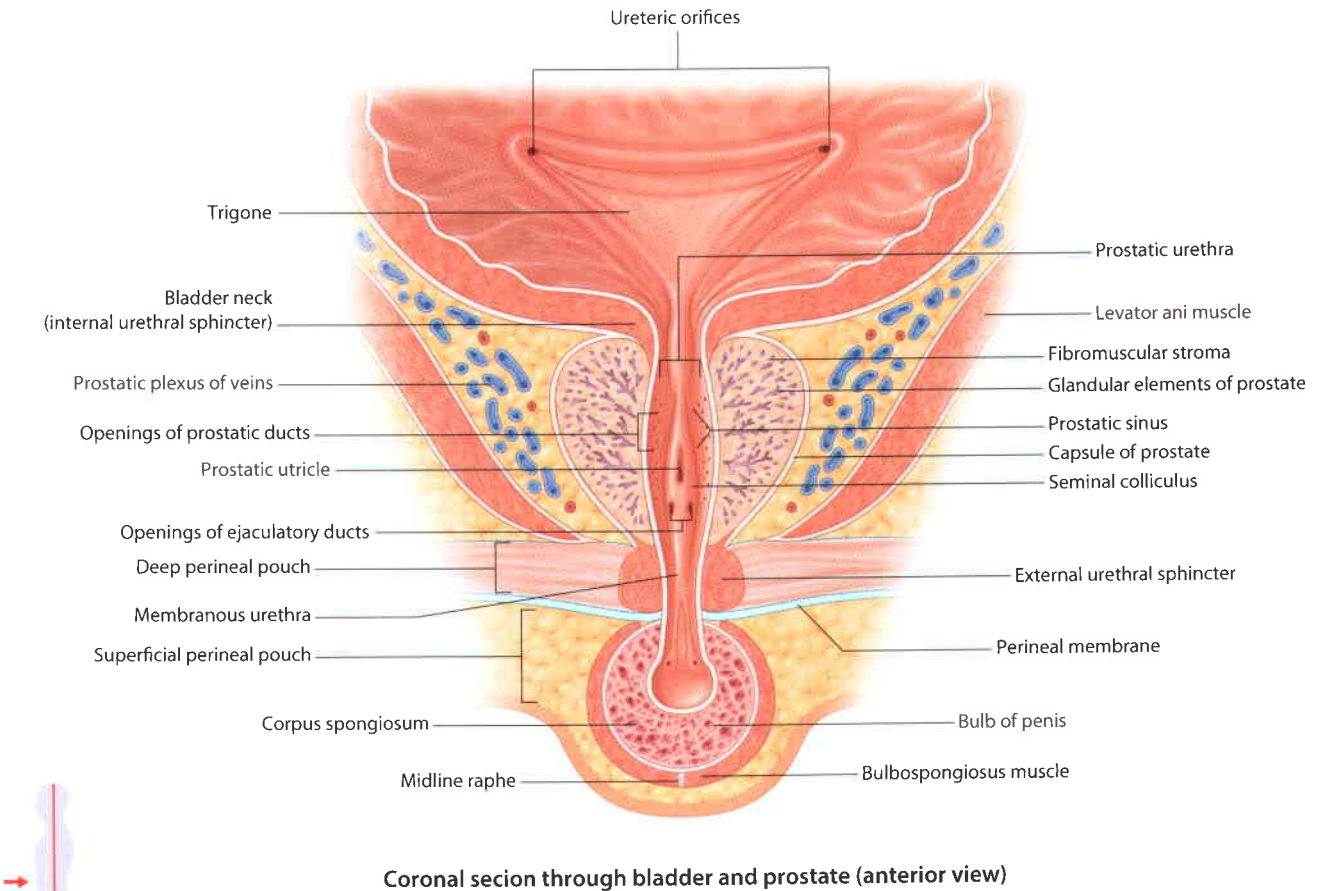
Urinary bladder and urethral sphincter muscles in women (anterior view of posterior wall)



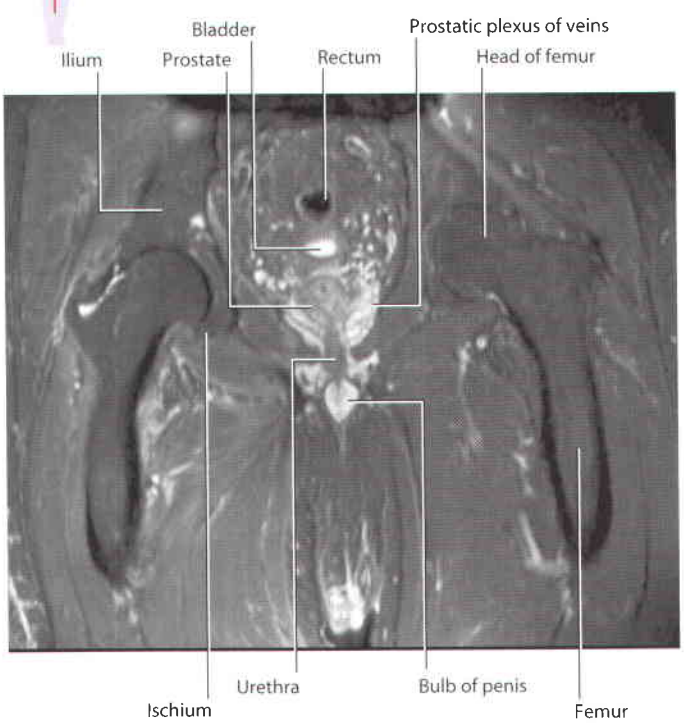
Appearance and positioning of the bladder in relation to other structures in the female pelvic cavity.
T2-weighted MR image in coronal plane



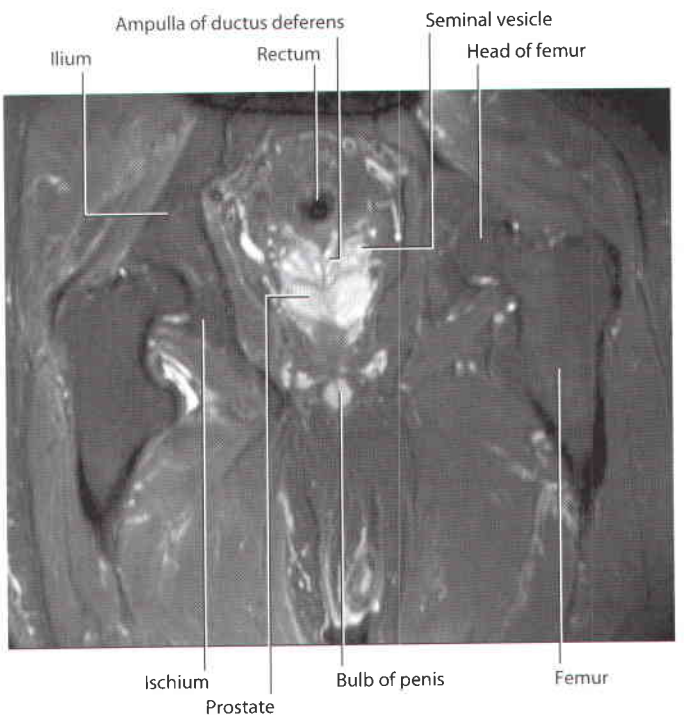
Reproductive system in men (oblique sagittal view)



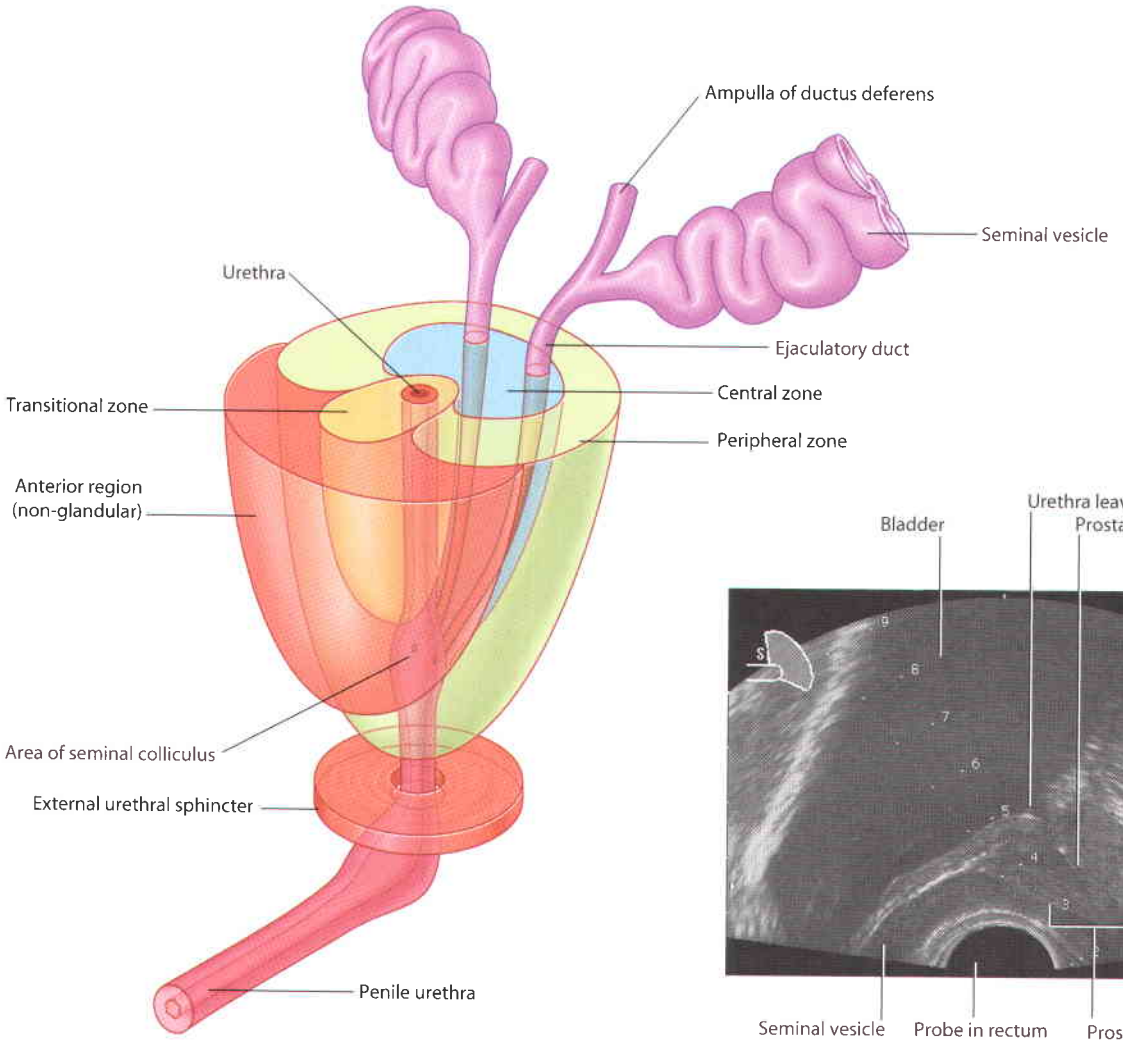
Coronal secion through bladder and prostate (anterior view)



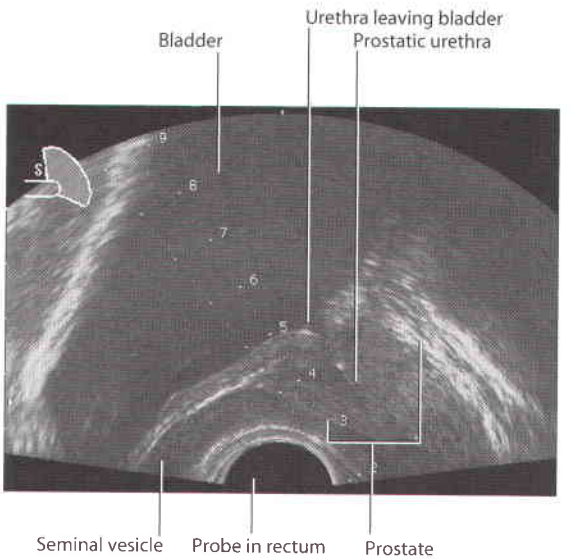
Appearance and positioning of bladder and prostate in relation to other structures in the male pelvis and perineum.
T2-weighted MR image in coronal plane



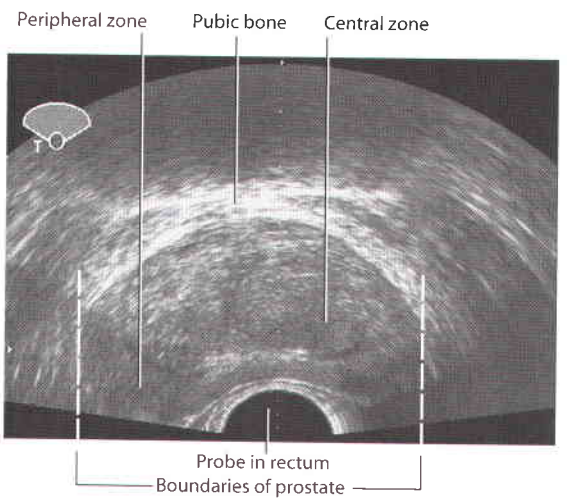
Appearance and positioning of ductus deferens, and seminal vesicles in relation to other structures in the male pelvis and perineum.
T2-weighted MR image in coronal plane



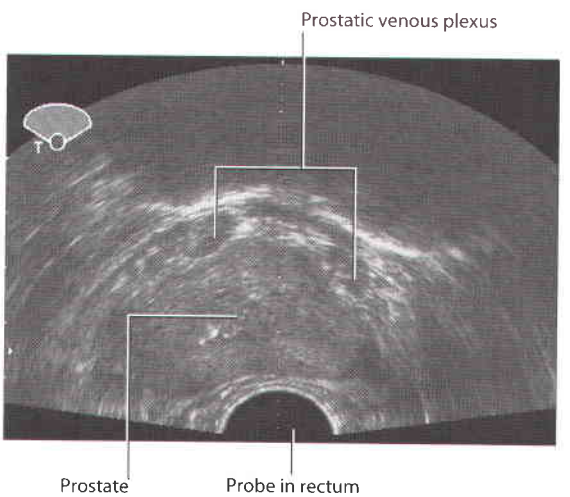
Zonal anatomy of the prostate gland. Most carcinomas originate in the peripheral zone. Benign prostatic hypertrophy (BPH) affects mainly the transitional zone



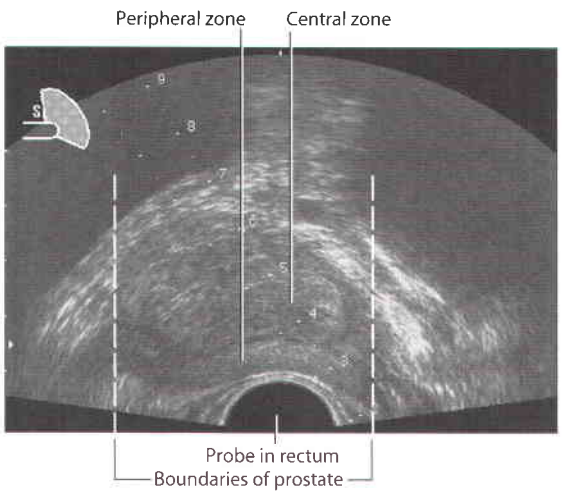
Rectal ultrasound imaging of the prostate, bladder, and seminal vesicle. Sagittal view also showing the urethra



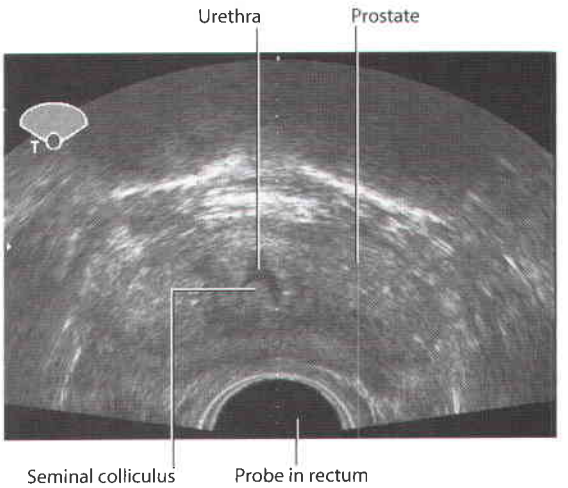
Rectal ultrasound imaging of the prostate. Axial view showing the central and peripheral zones



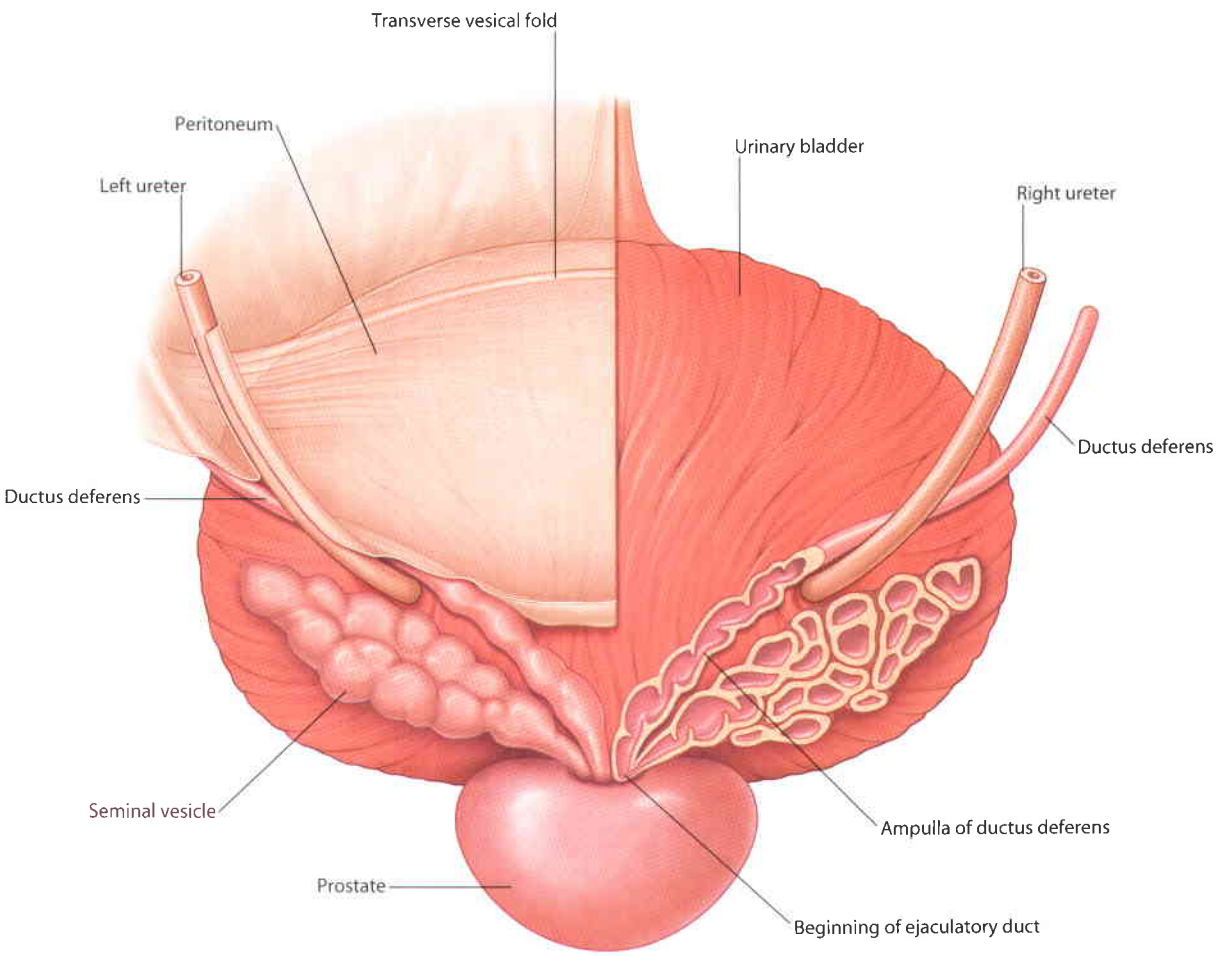
Rectal ultrasound imaging of the prostate. Axial view showing the surrounding plexus of veins



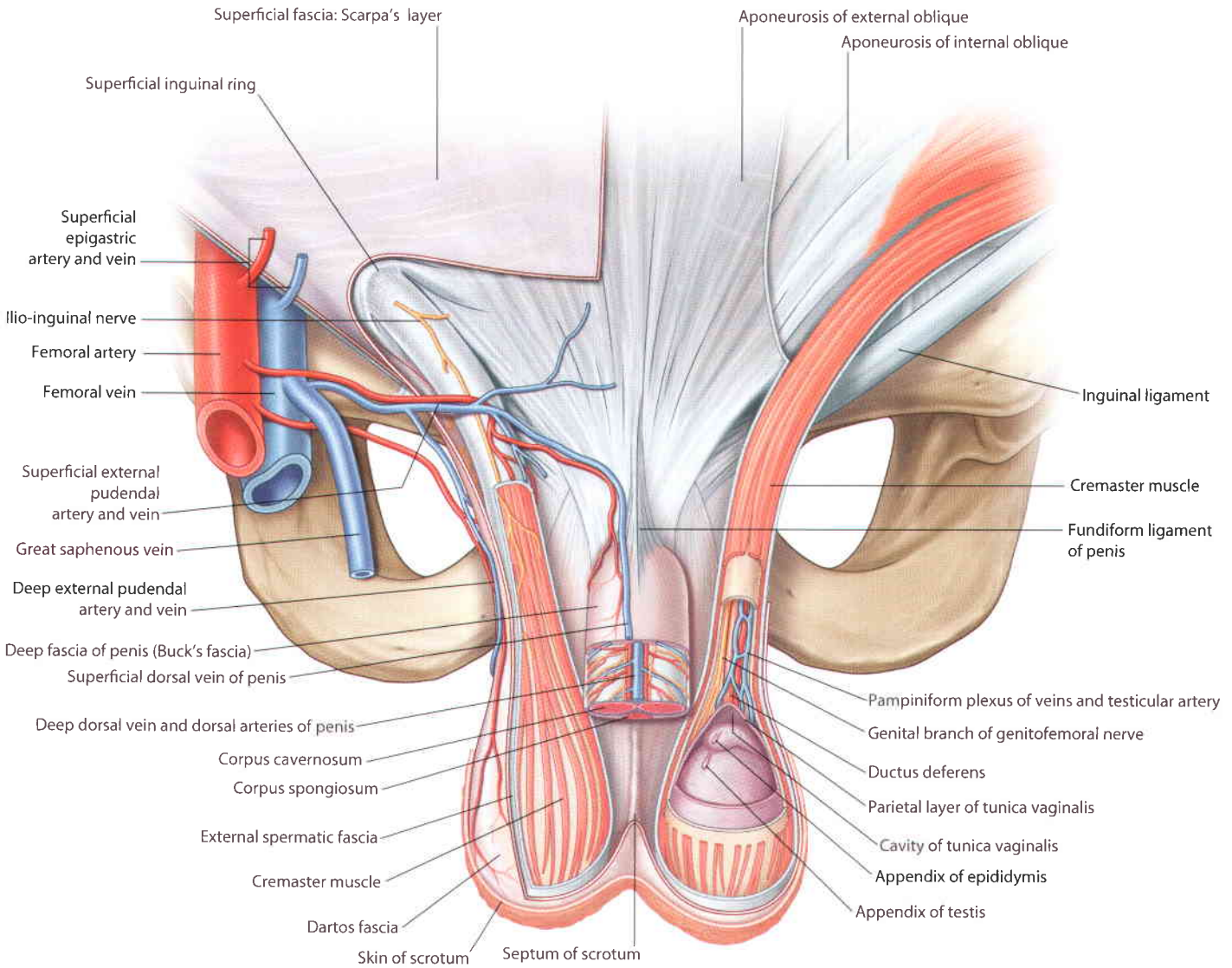
Rectal ultrasound imaging of the prostate.
Sagittal view showing the central and peripheral zones



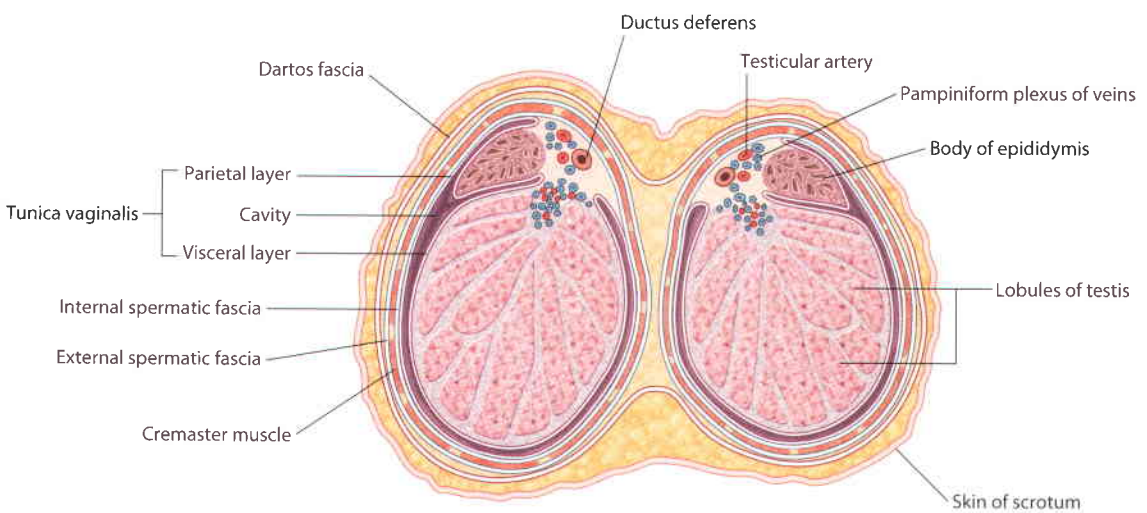
Rectal ultrasound imaging of the prostate.
Axial view showing the urethra and seminal colliculus



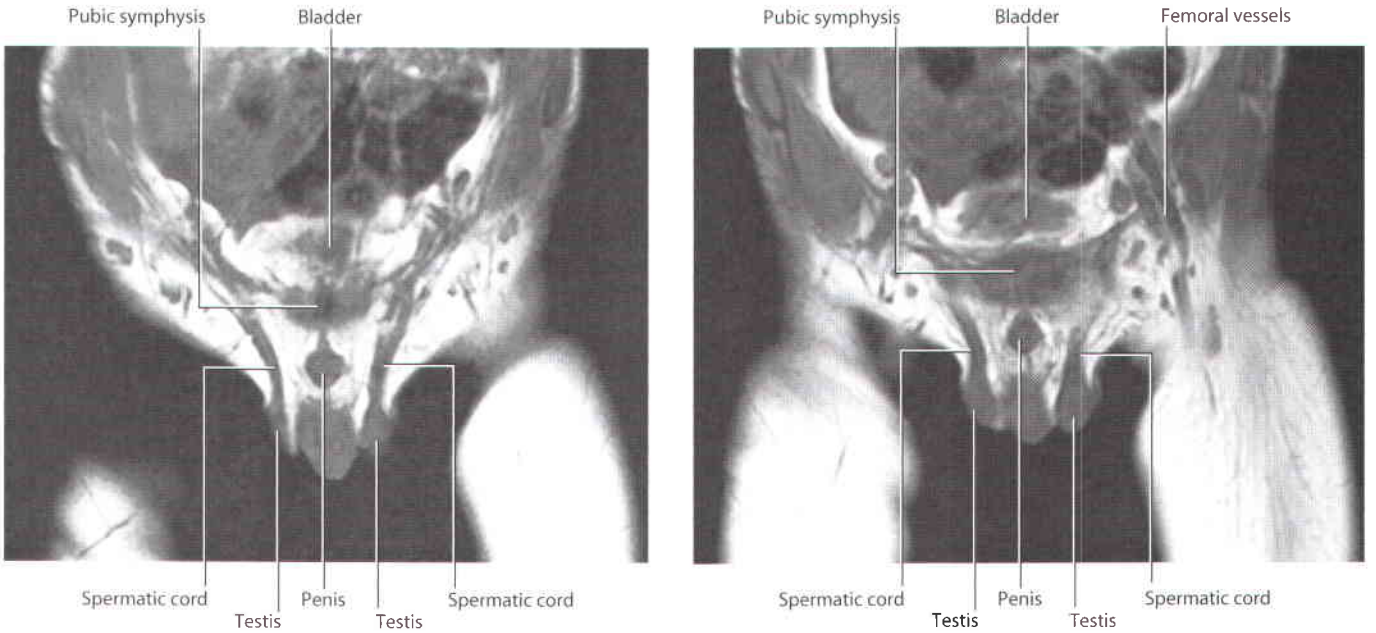
Bladder and prostate (posterior view)



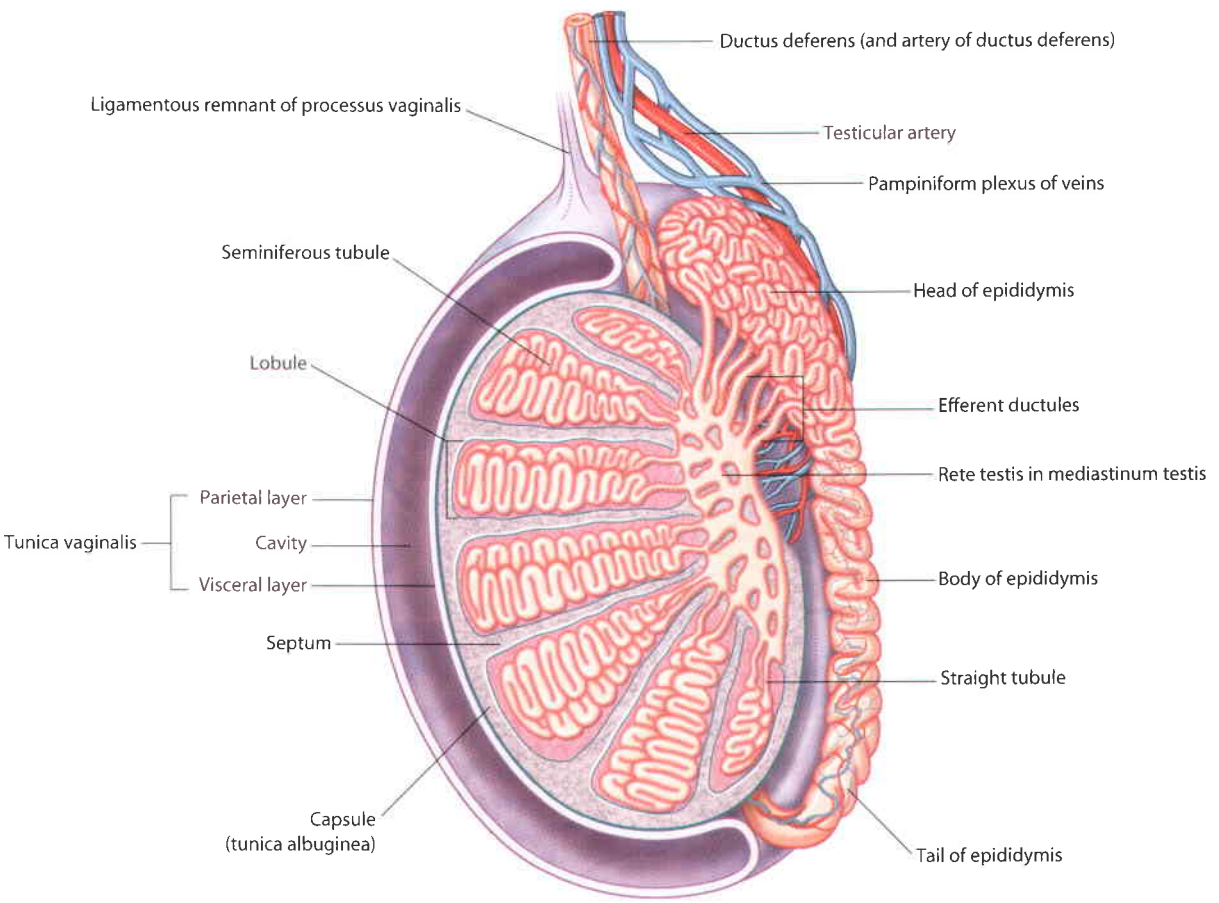
Contents of the scrotum (anterior view)



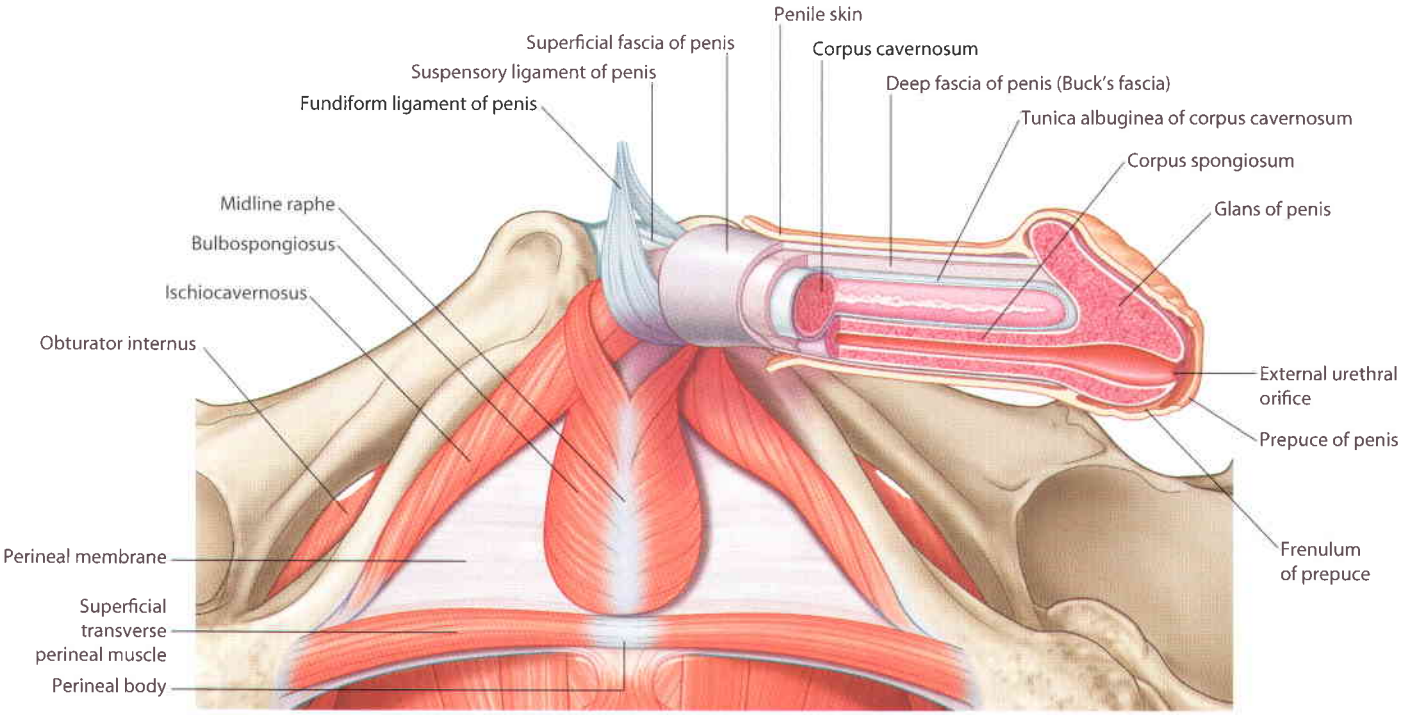
Transverse section through the scrotum and testes



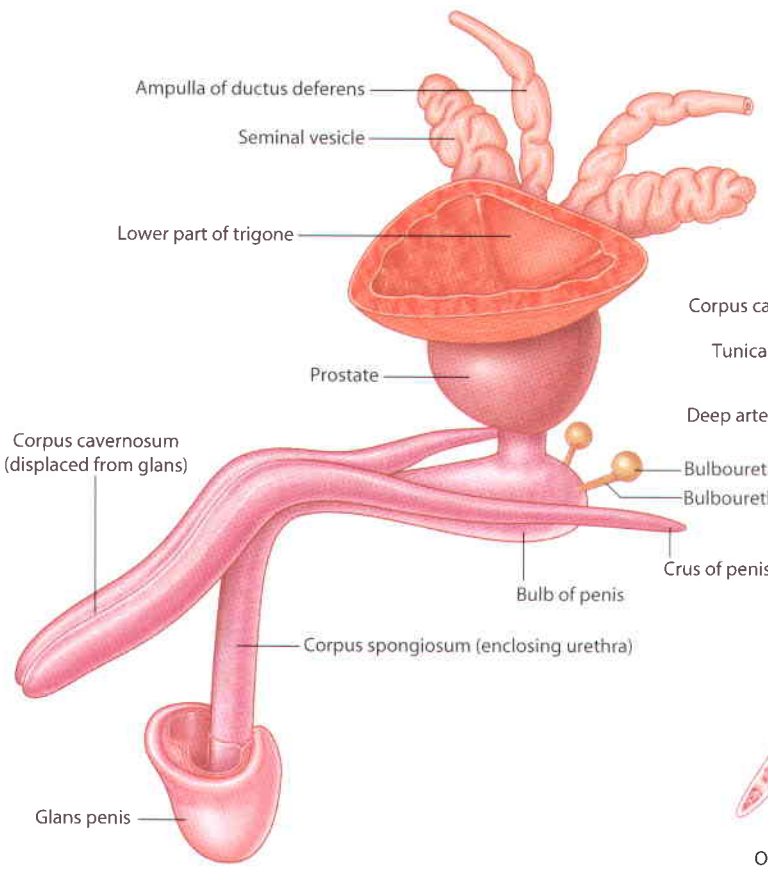
Spermatic cord appearance and positioning in a young male.
T1-weighted MR images in coronal plane



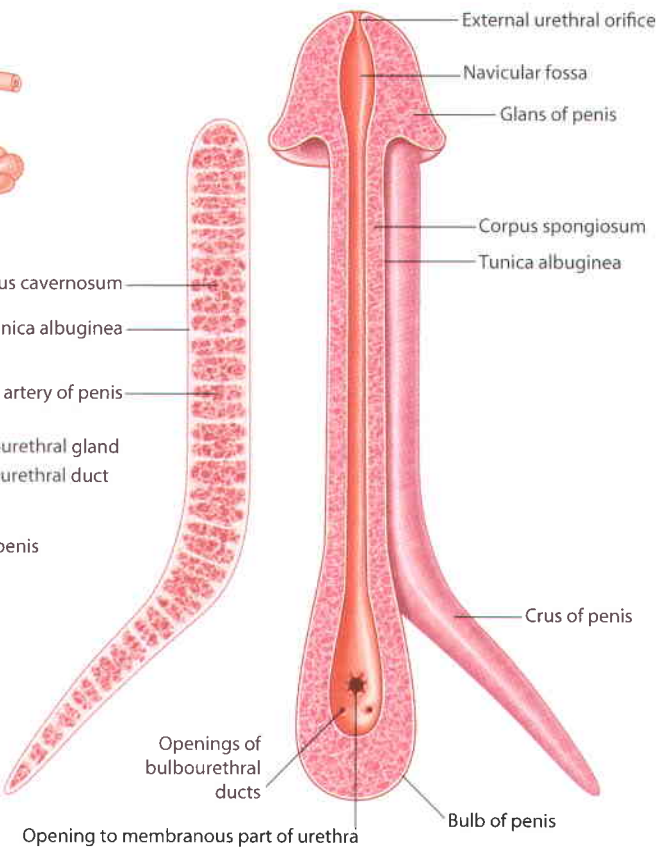
Testis and surrounding structures



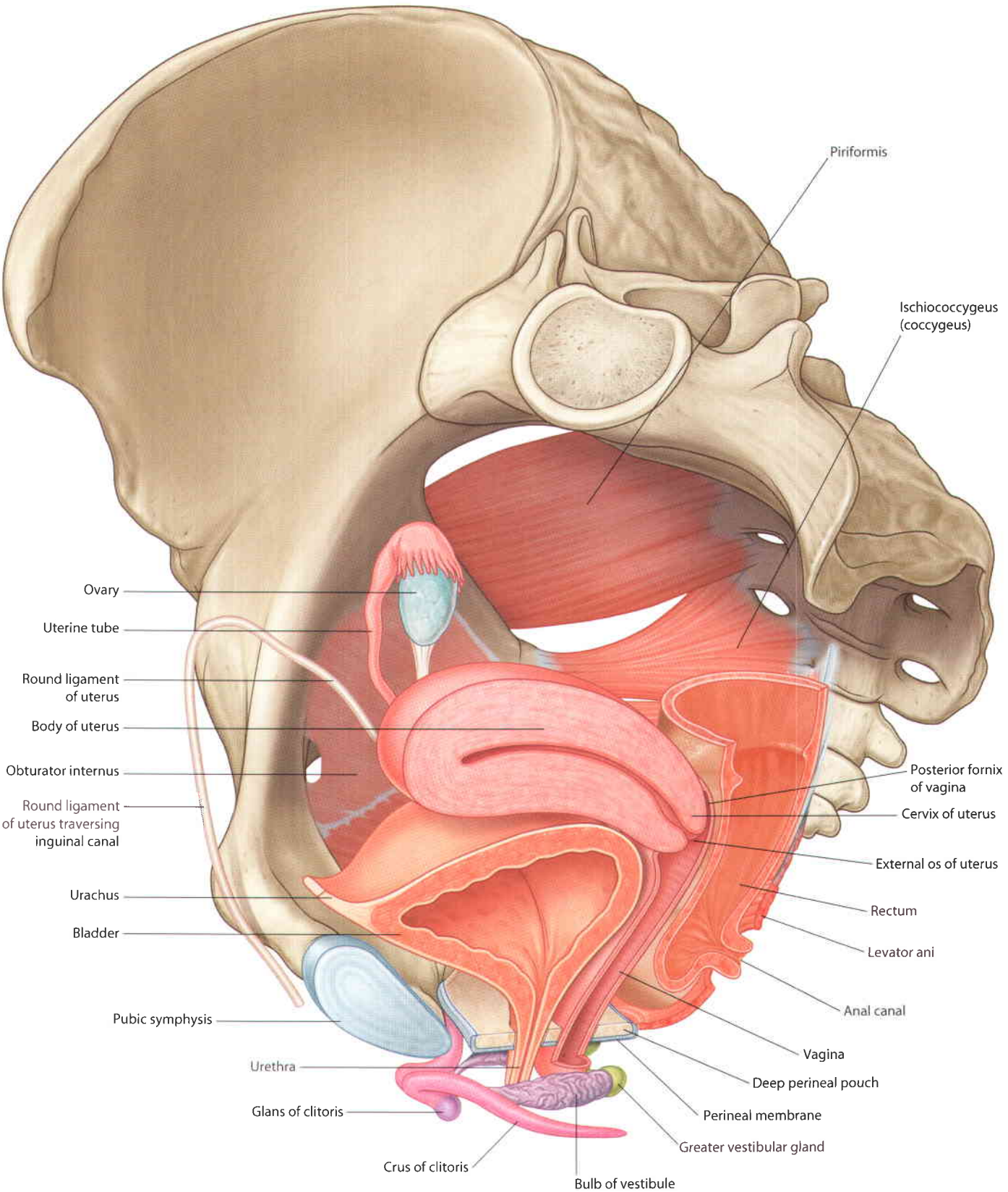
Structure of the penis



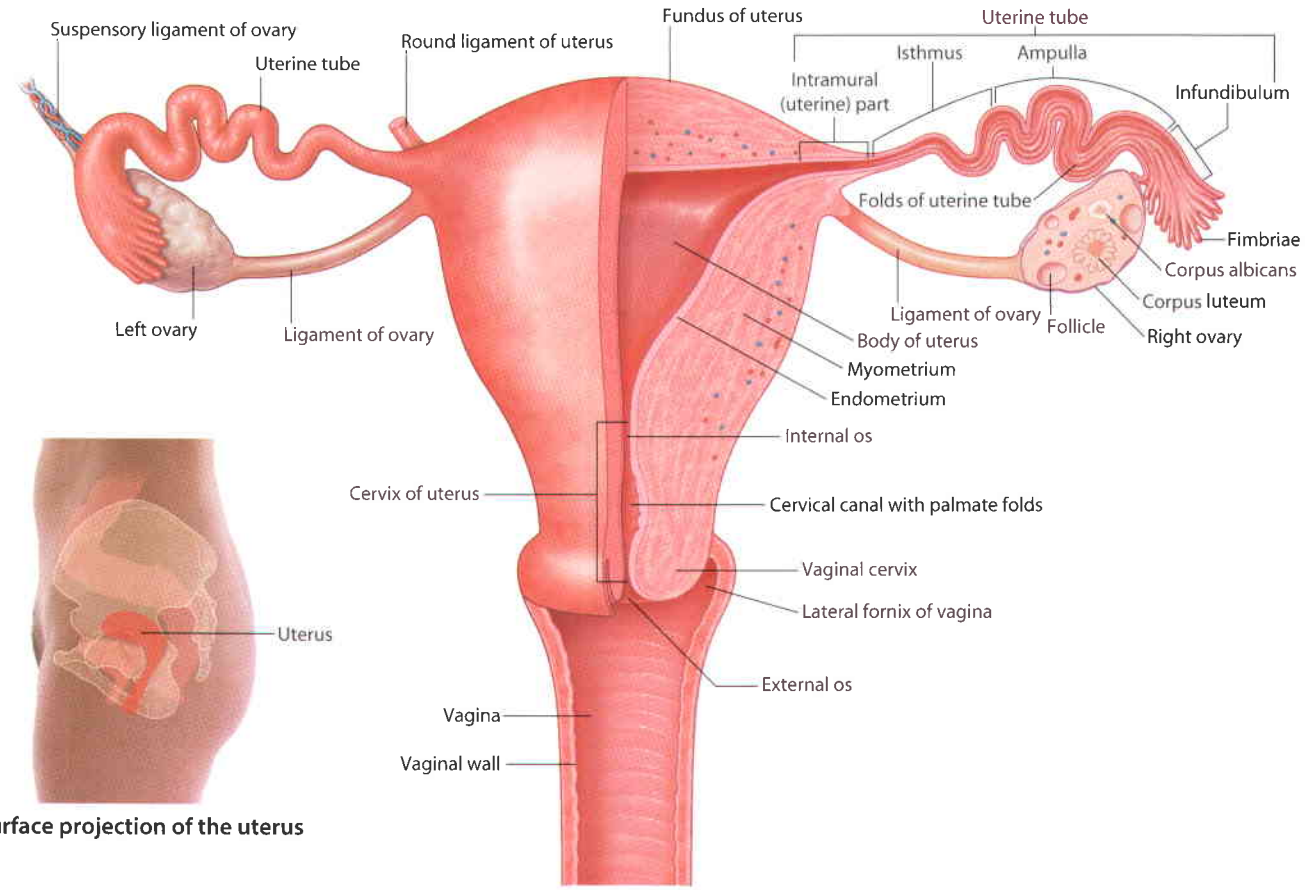
Structure of the penis



Roof of spongy urethra (inferior view)

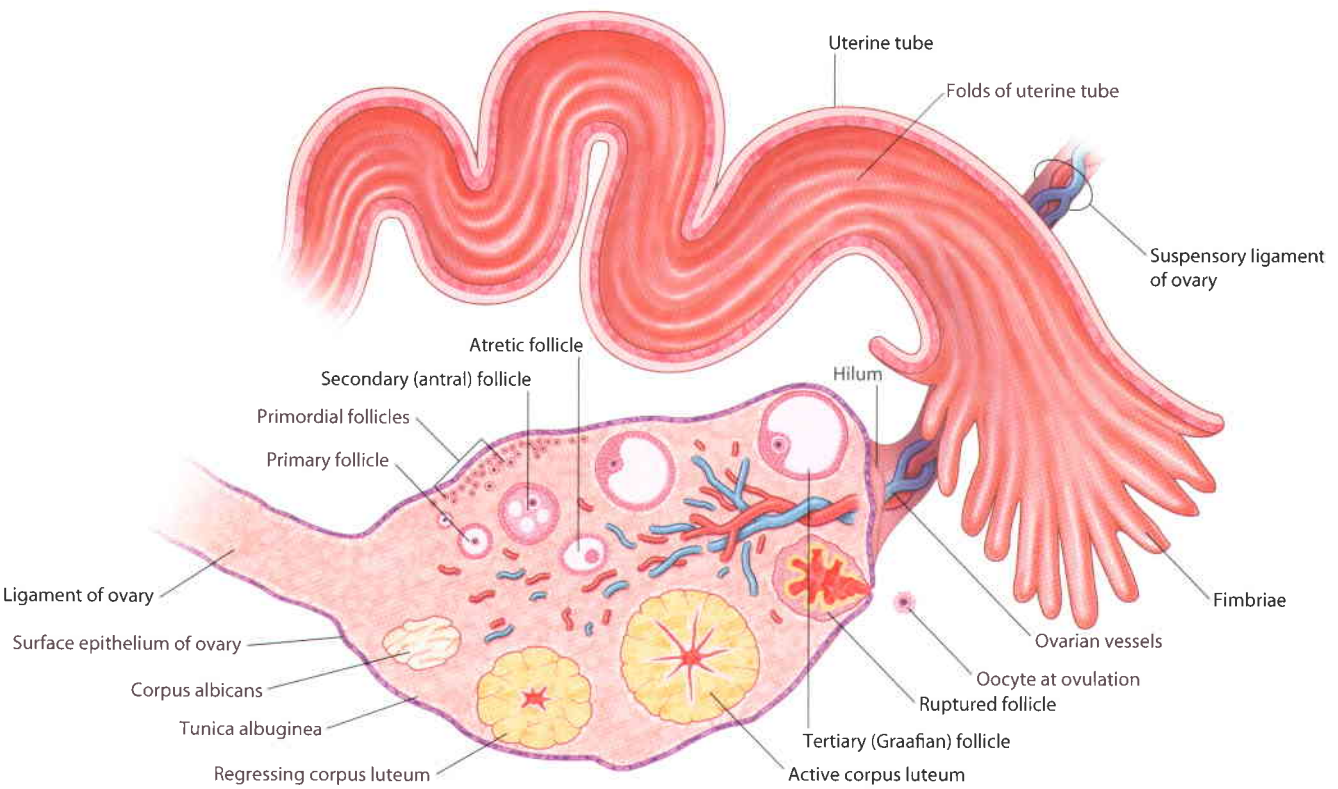


Reproductive system in women (oblique sagittal view)

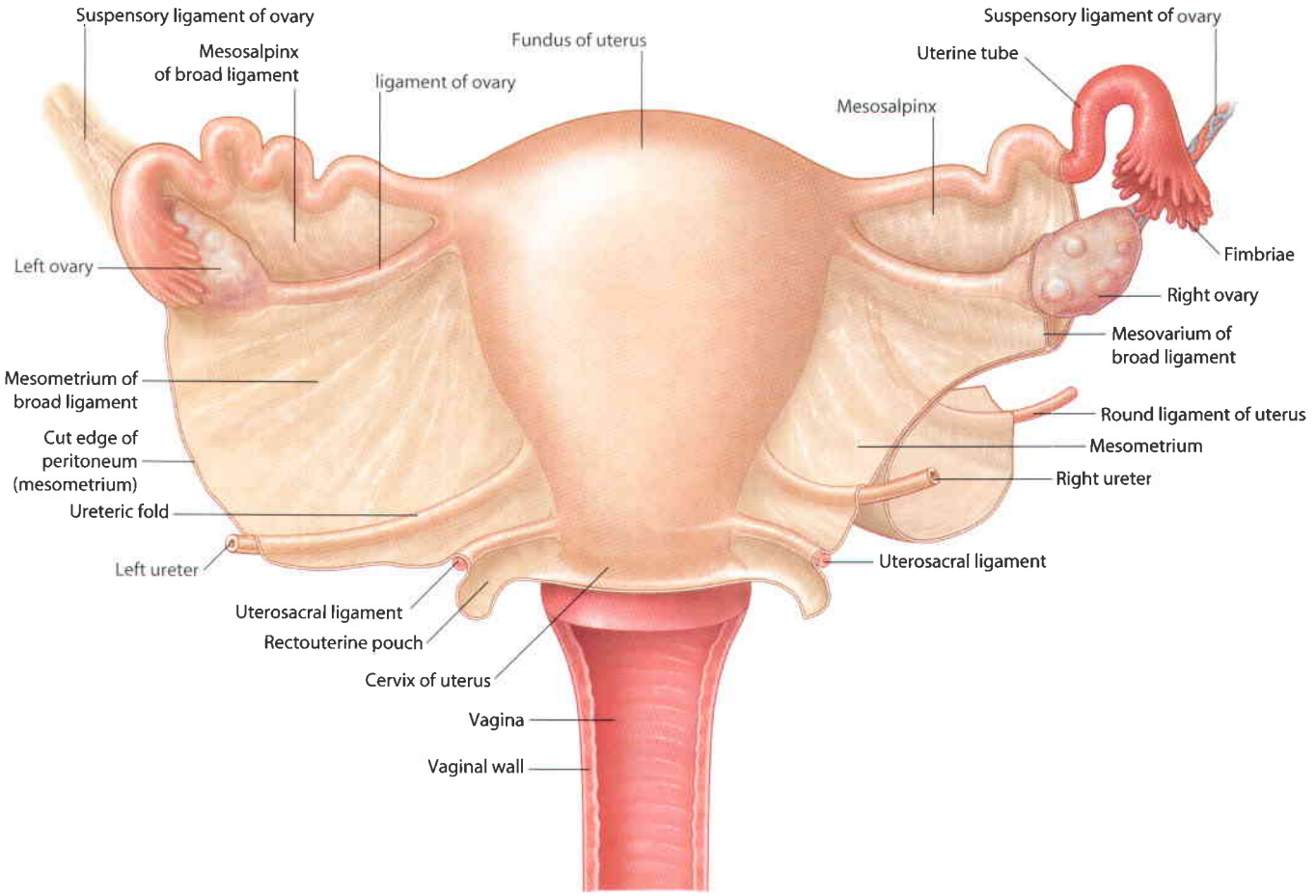


Surface projection of the uterus

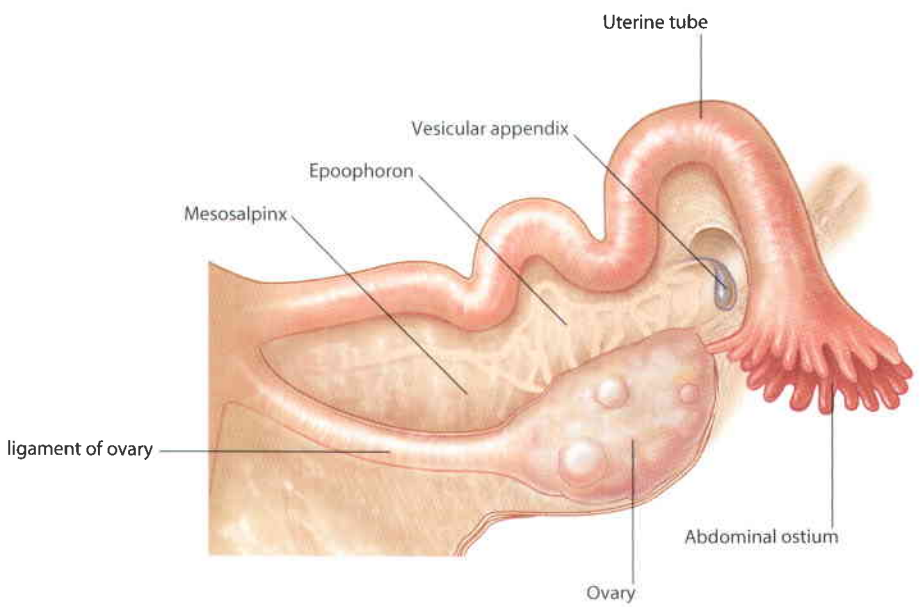
Structure of the uterus and ovaries (posterior view)



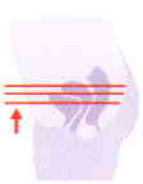
Structure of the uterine tube and ovary (posterior view)



Uterus and broad ligament (posterior view)



Uterine tube and ovary (posterior view)



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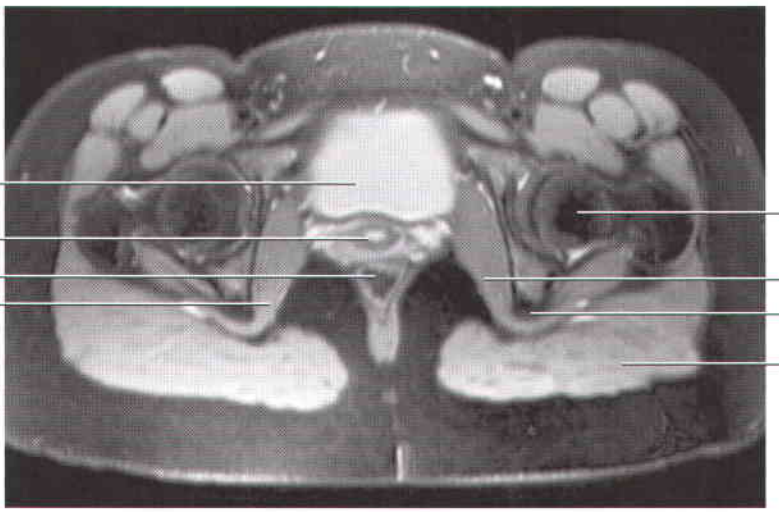

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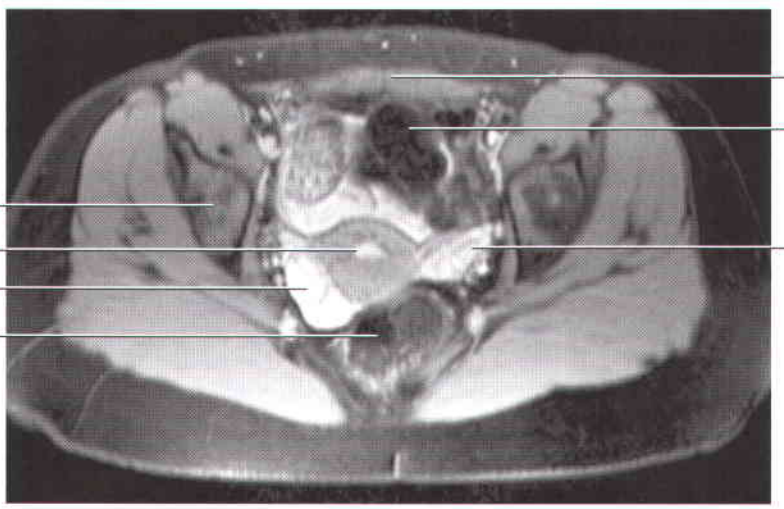

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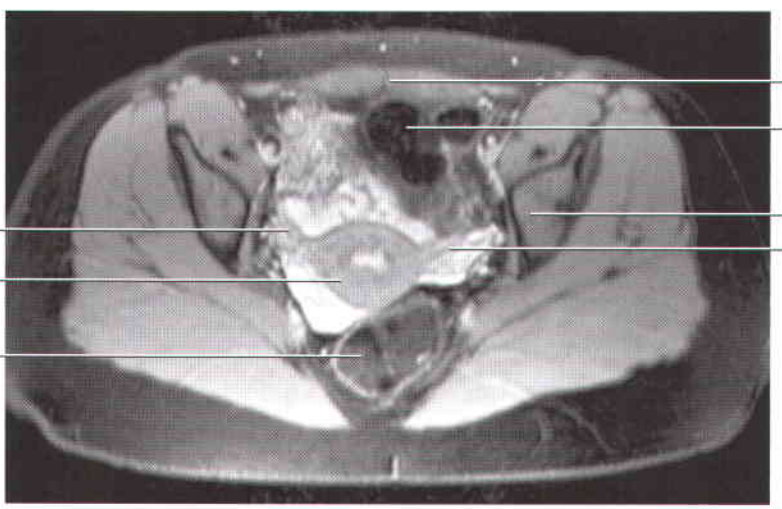
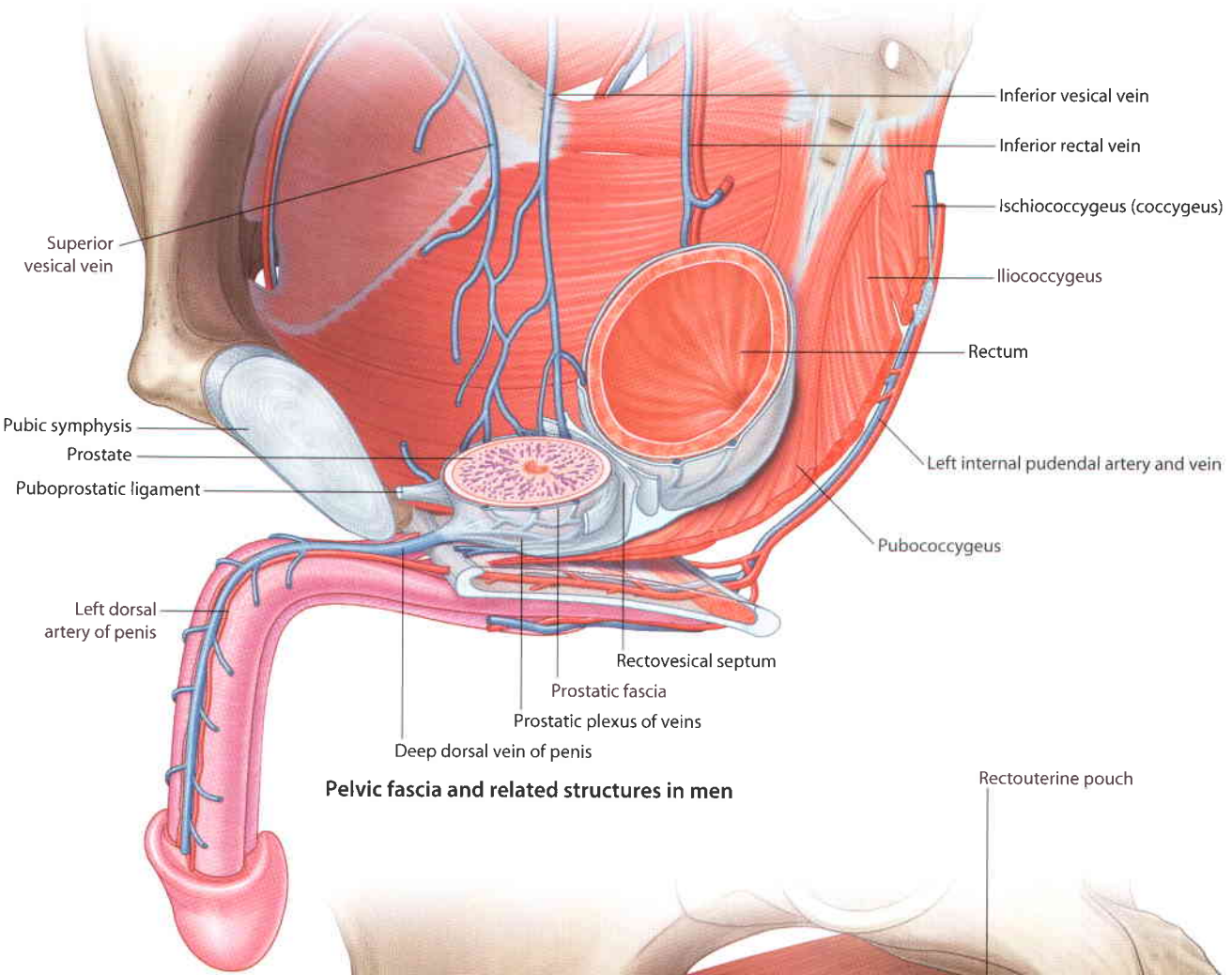
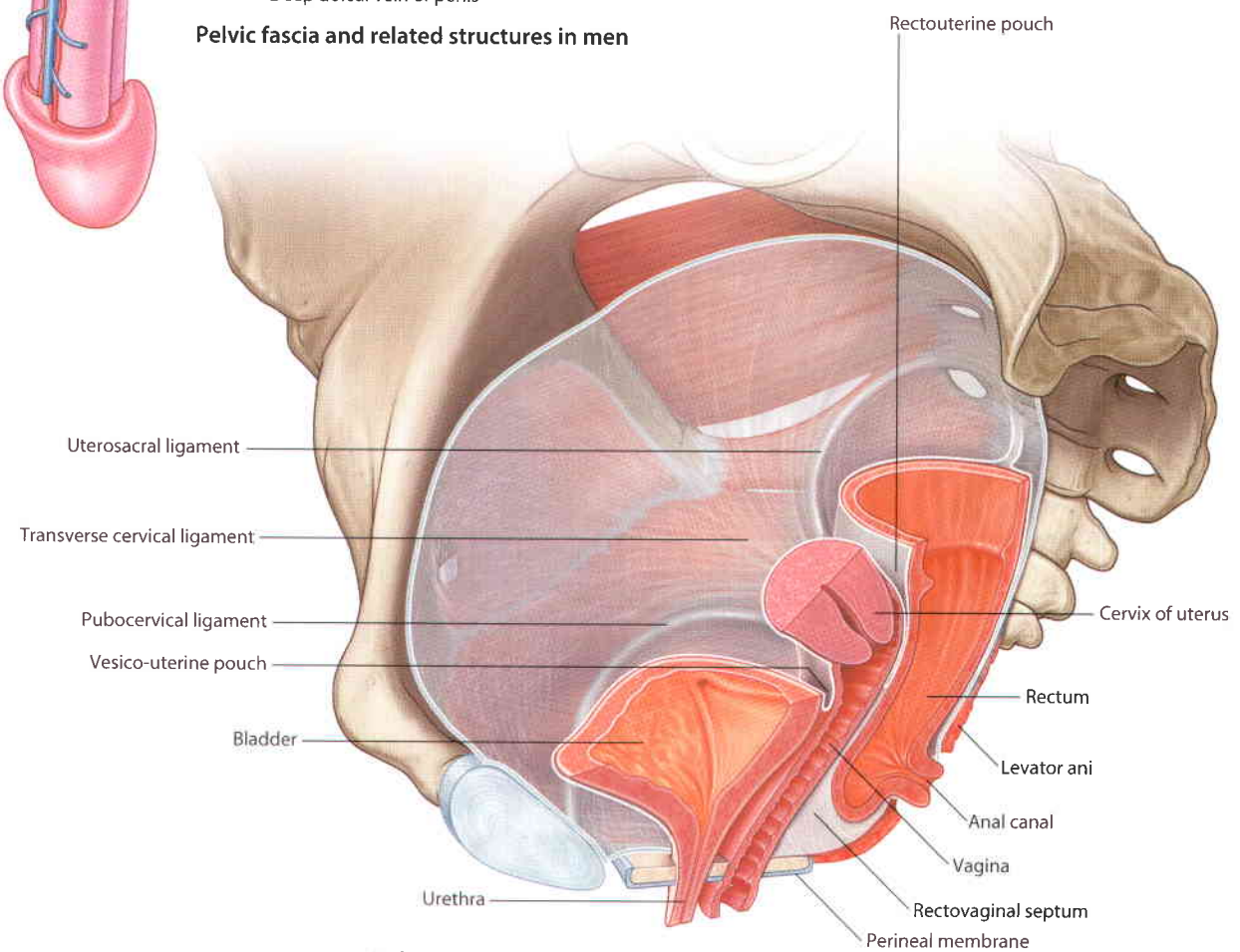


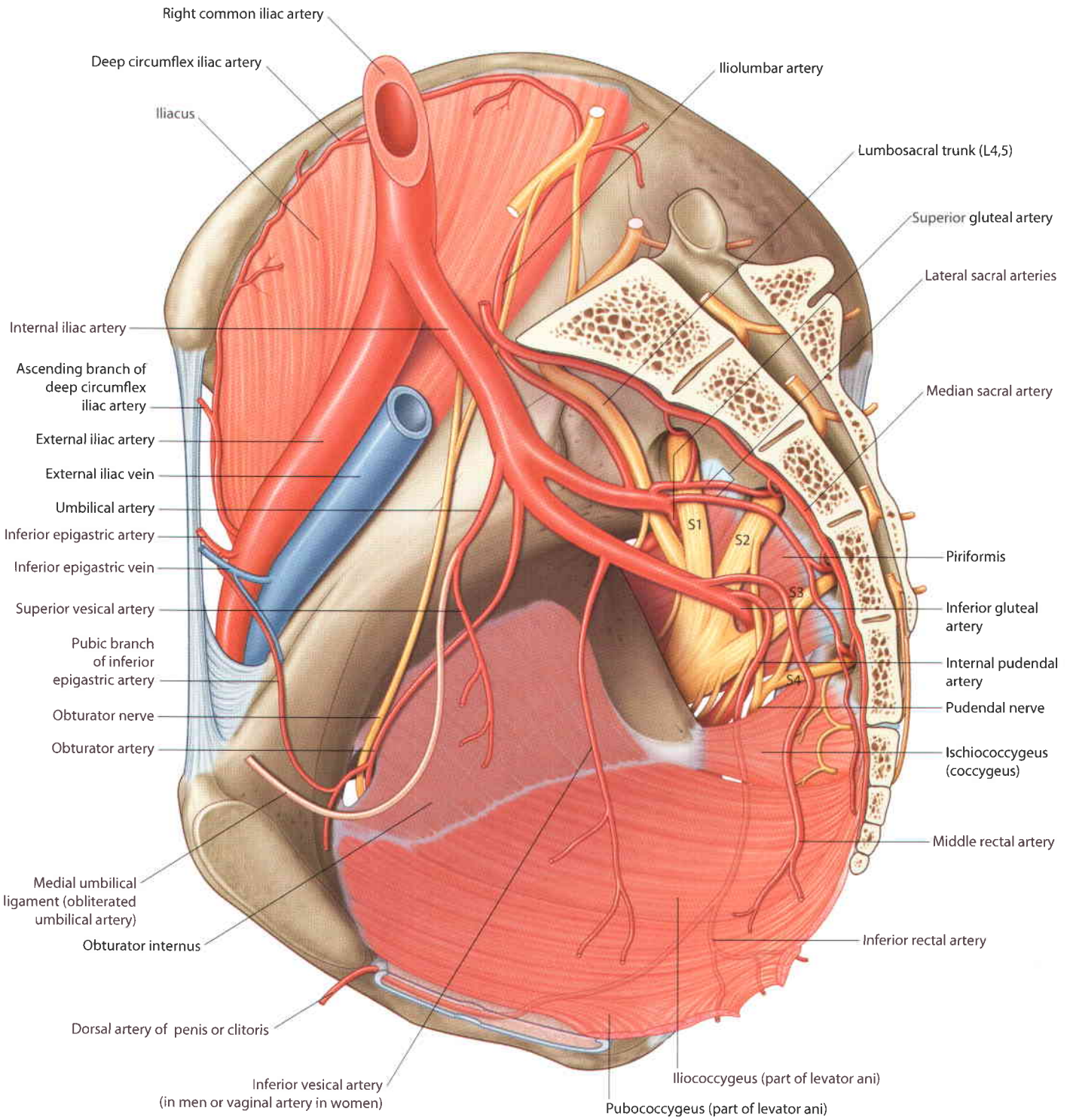
Appearance of cervix of uterus, uterus, ovaries, and uterine tubes in relation to other pelvic structures.
T2-weighted MR images in axial plane



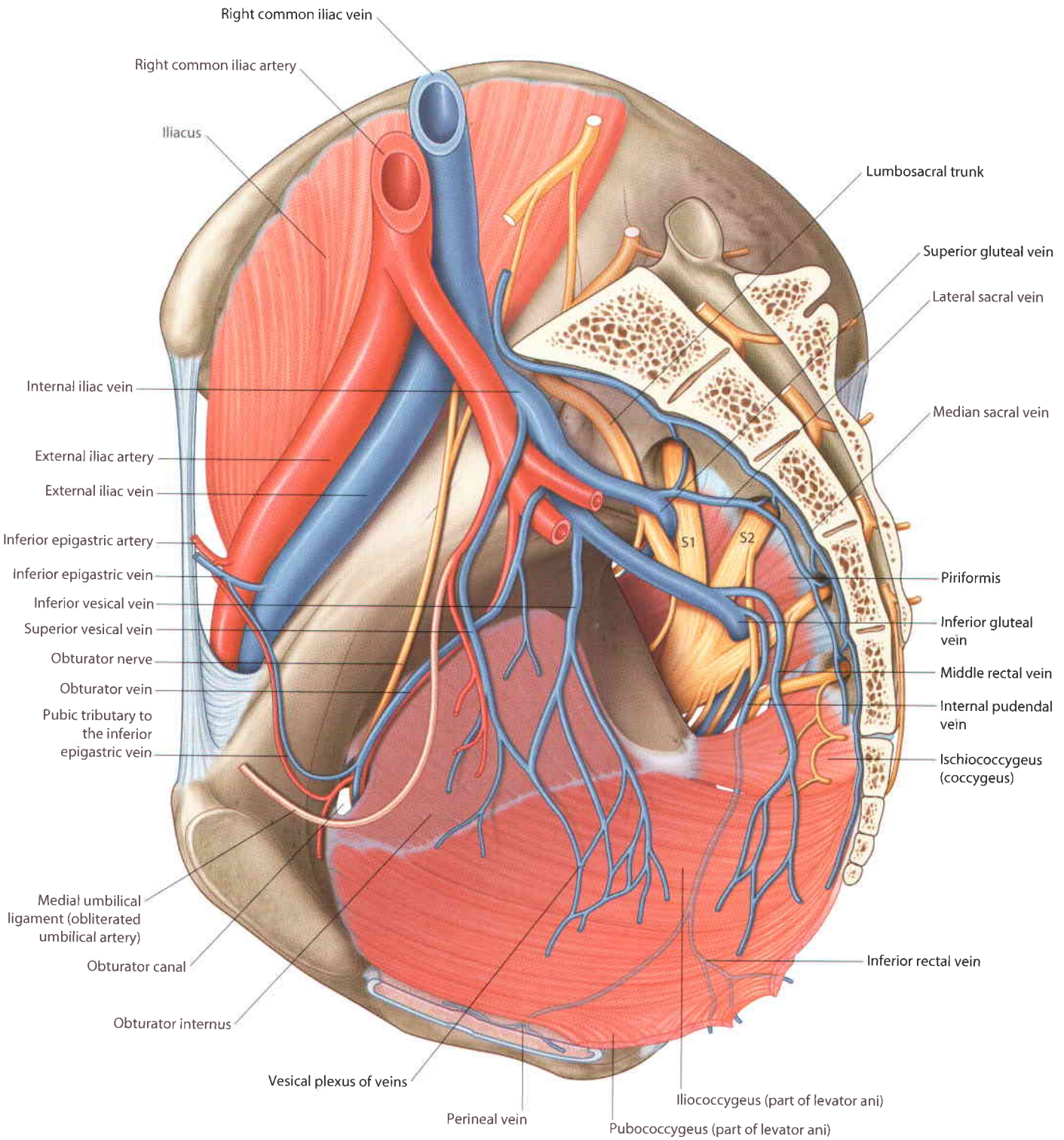
Pelvic fascia and related structures in men



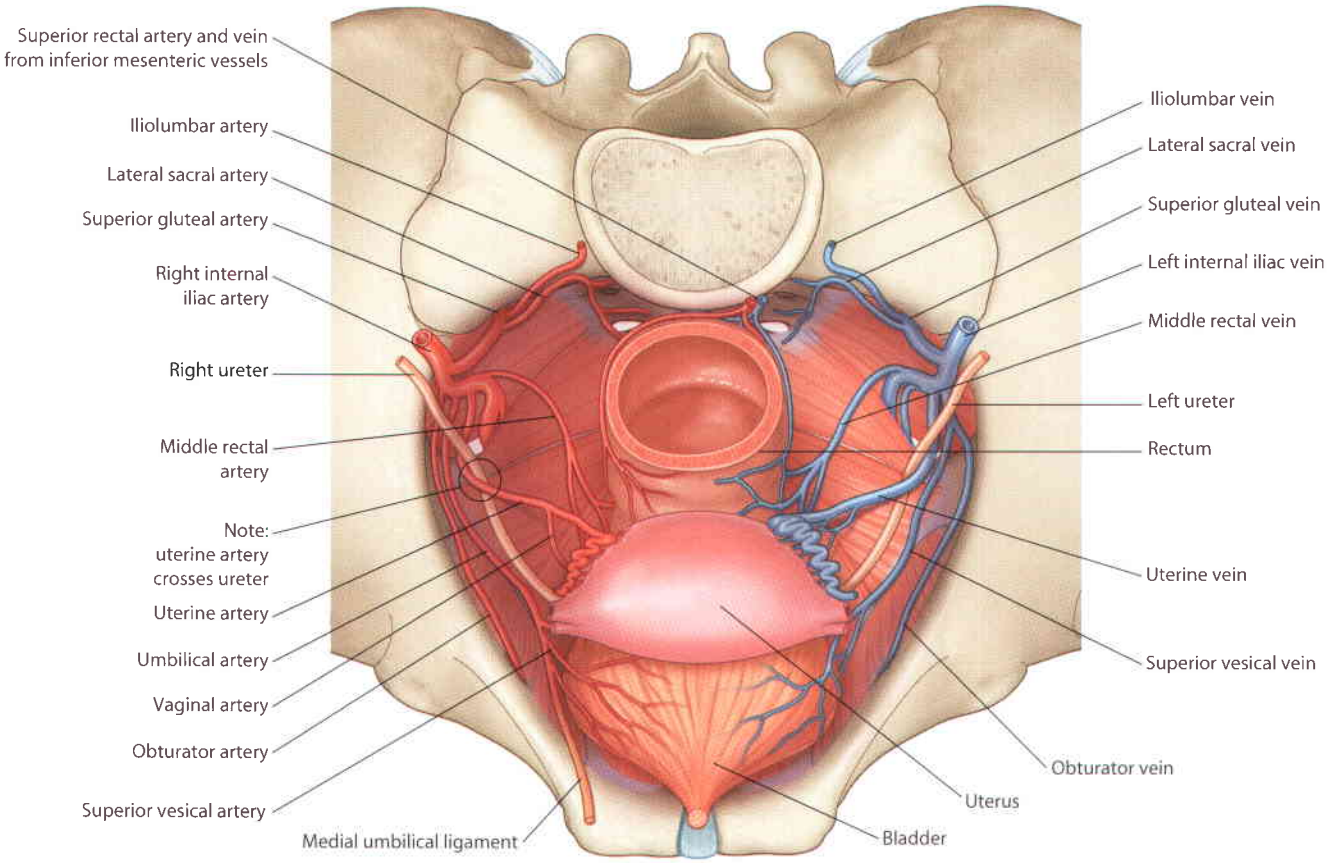
Pelvic fascia and related structures in women



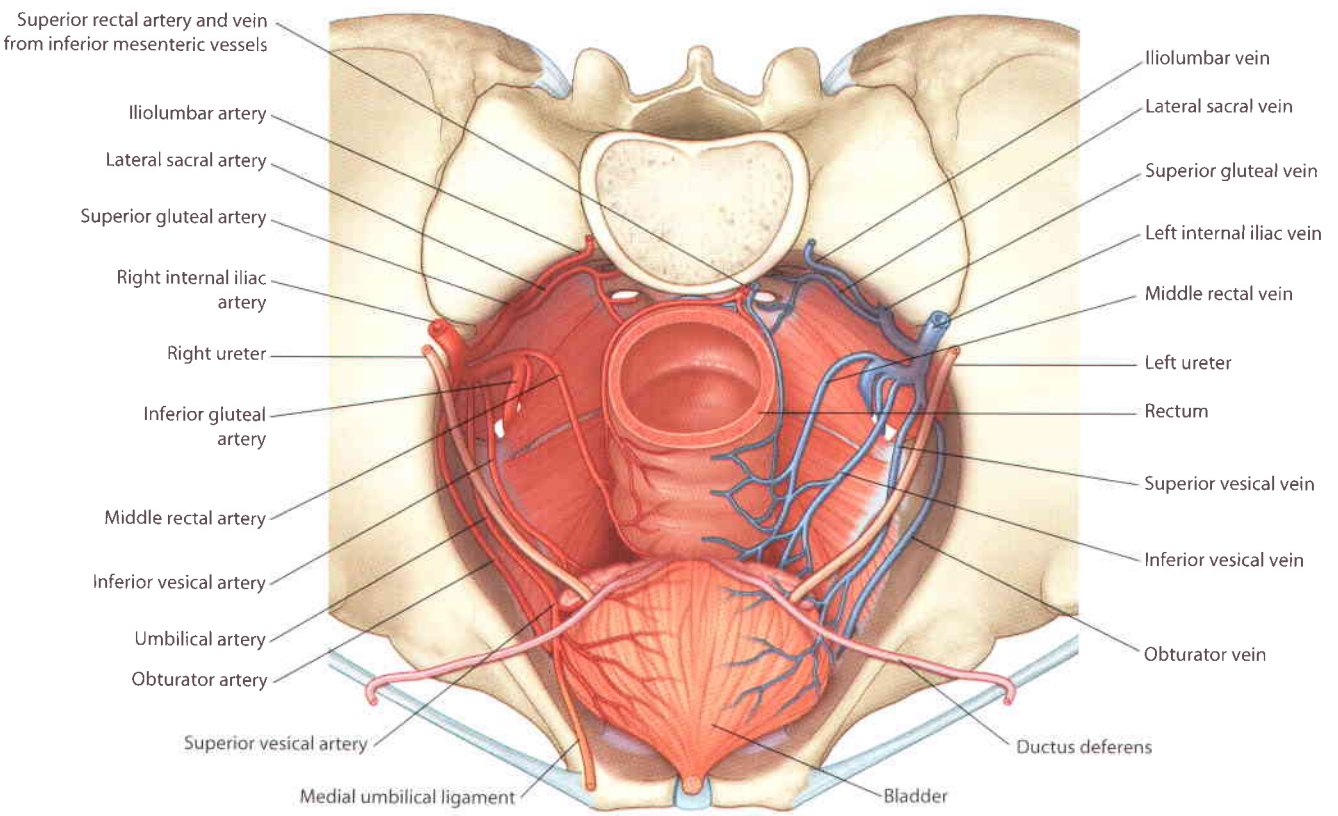
Arterial supply to the pelvis (right side sagittal view)



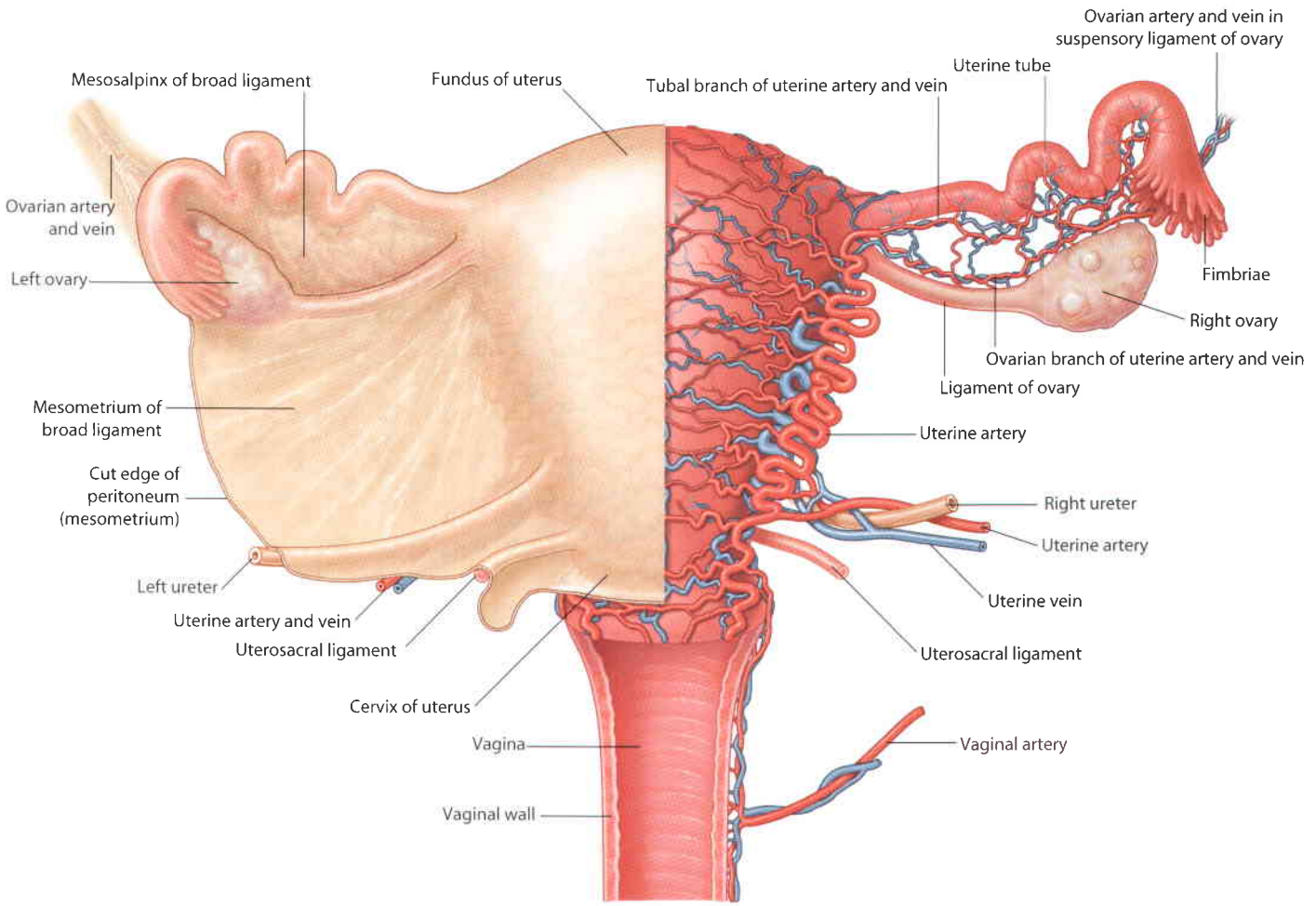
Veins of the pelvis
(right side sagittal view)



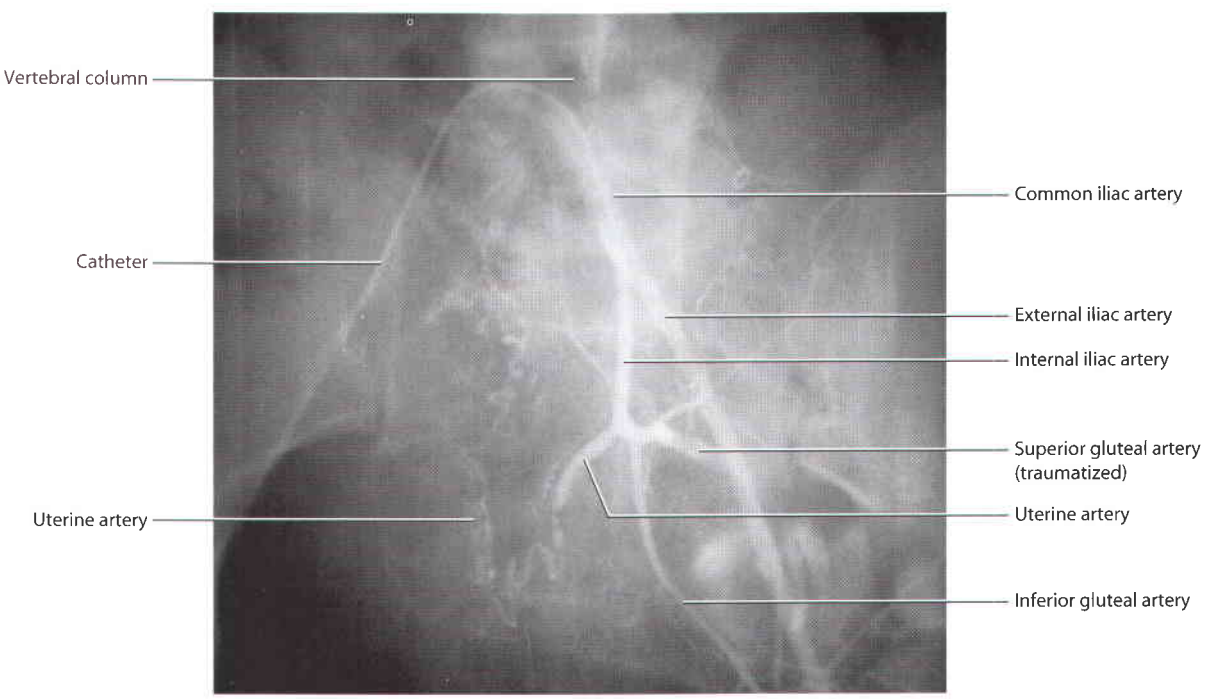
Vasculature of the pelvic viscera in women (superior view)



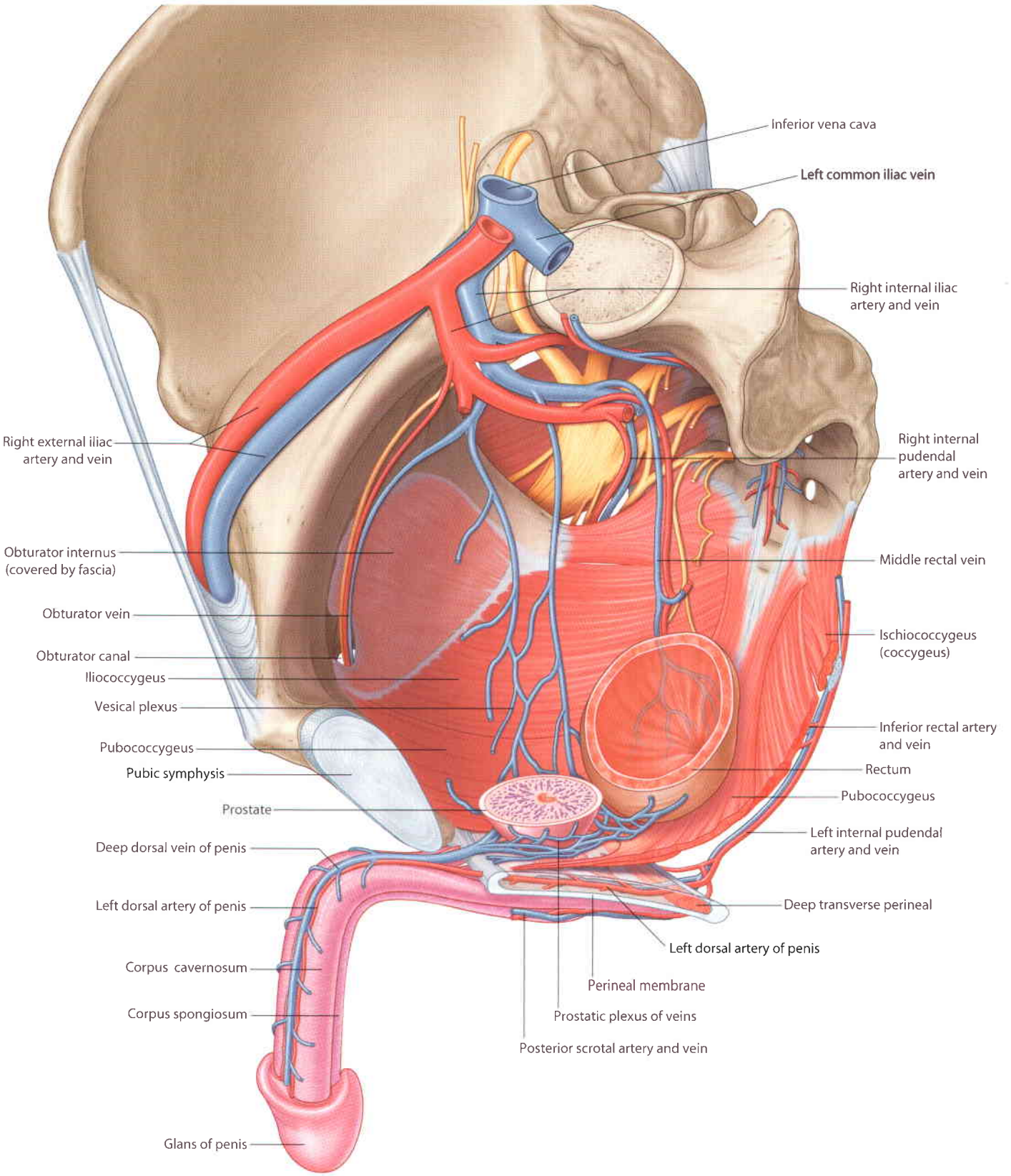
Vasculature of the pelvic viscera in men (superior view)



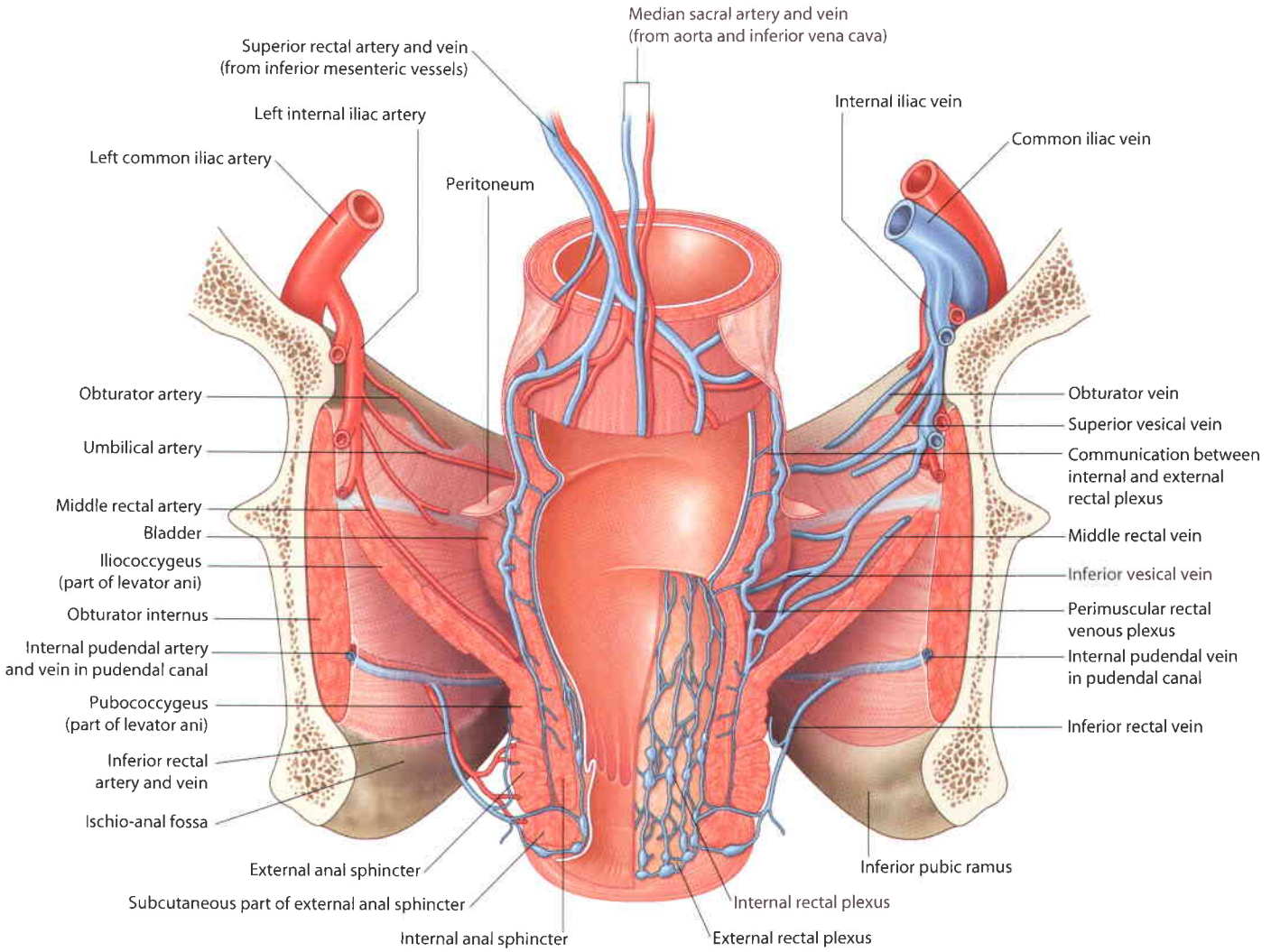
Vascular supply to uterus (posterior view)



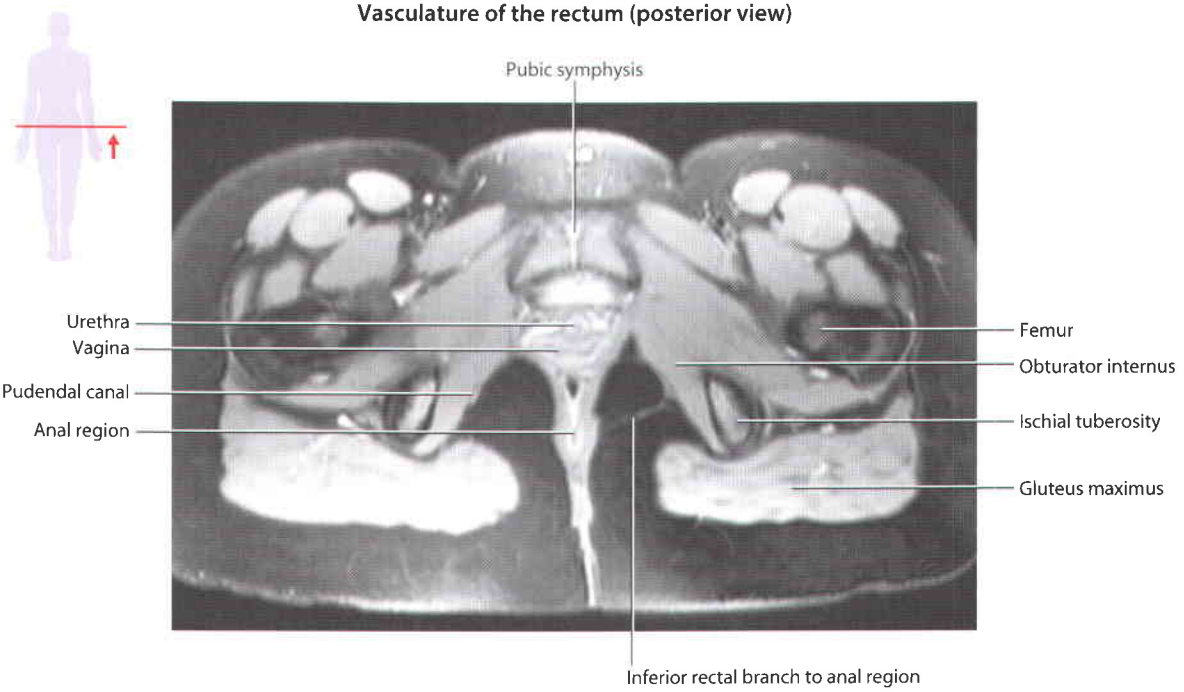
Vascular supply to uterus.
Angiogram



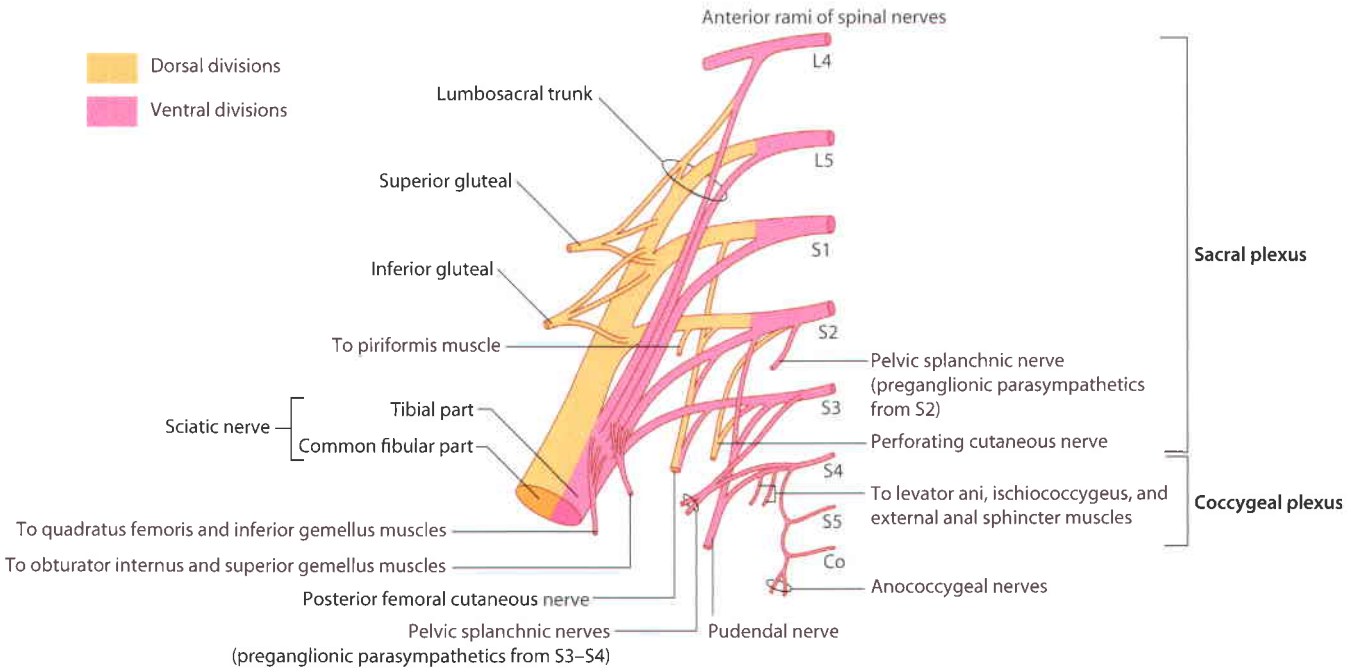
Venous drainage of pelvic viscera in men (oblique sagittal view)



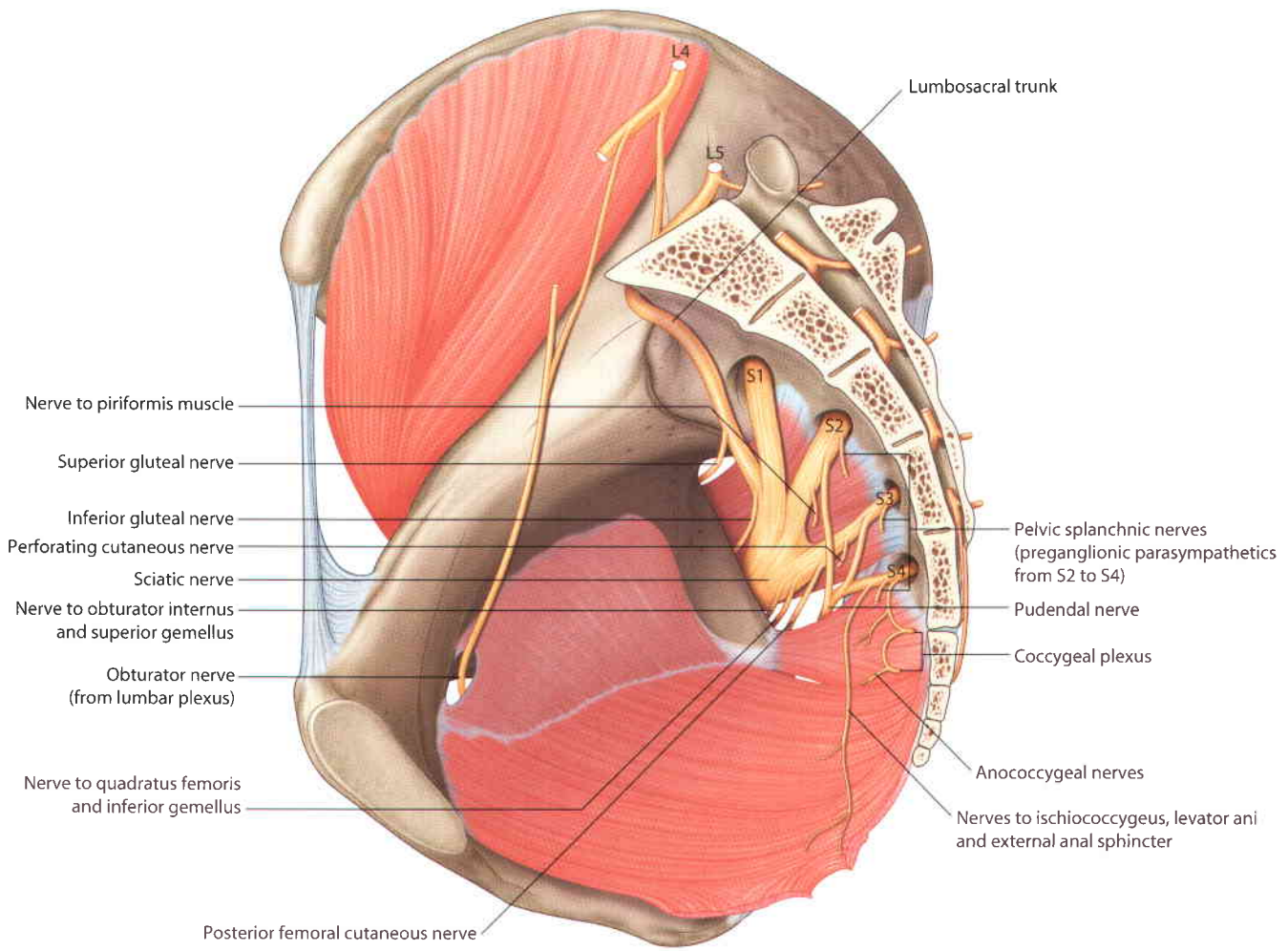
Vasculature of the rectum (posterior view)



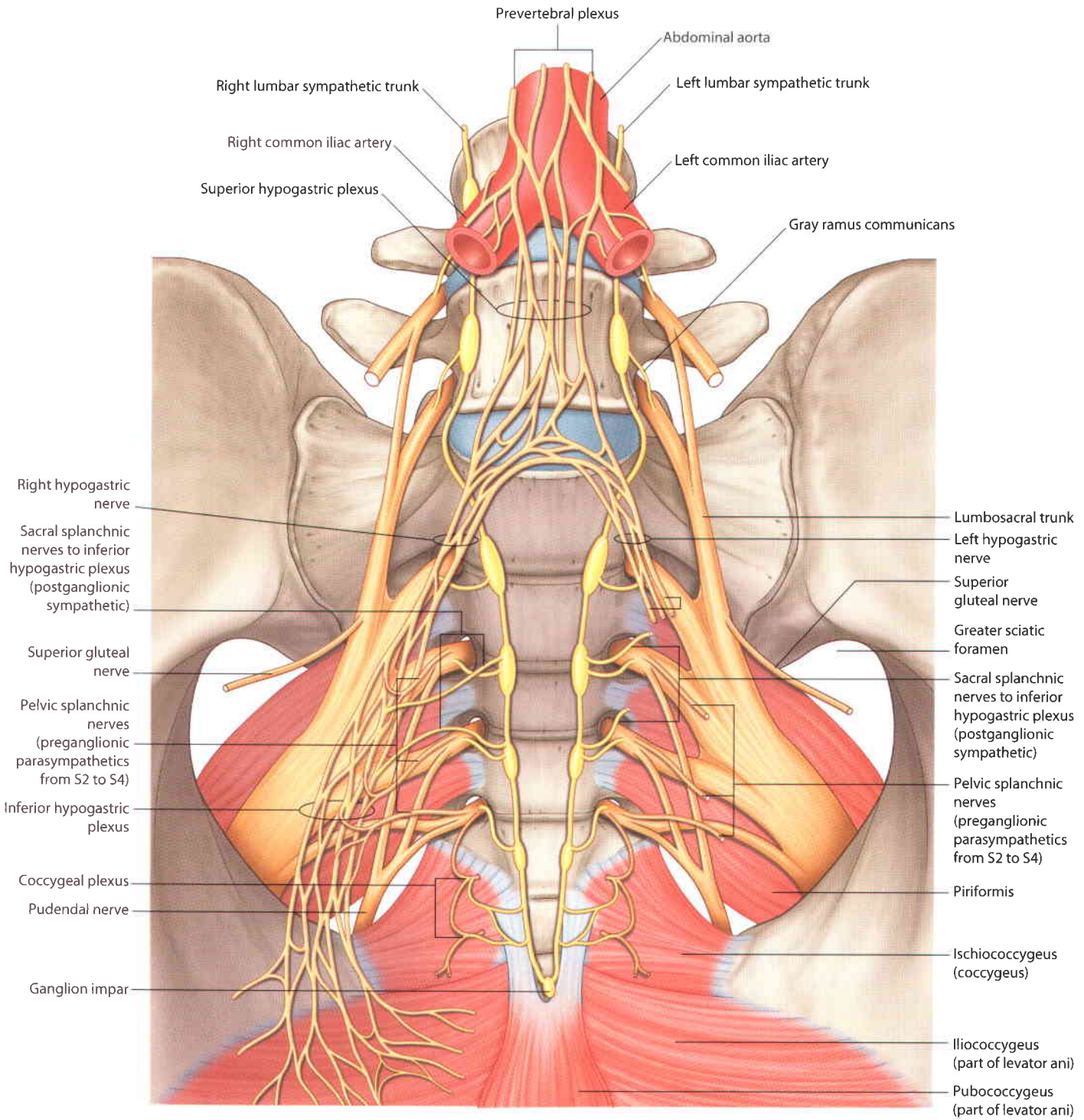
Inferior rectal neurovascular bundle crossing the ischio-anal fossa.
T2-weighted MR image in axial plane



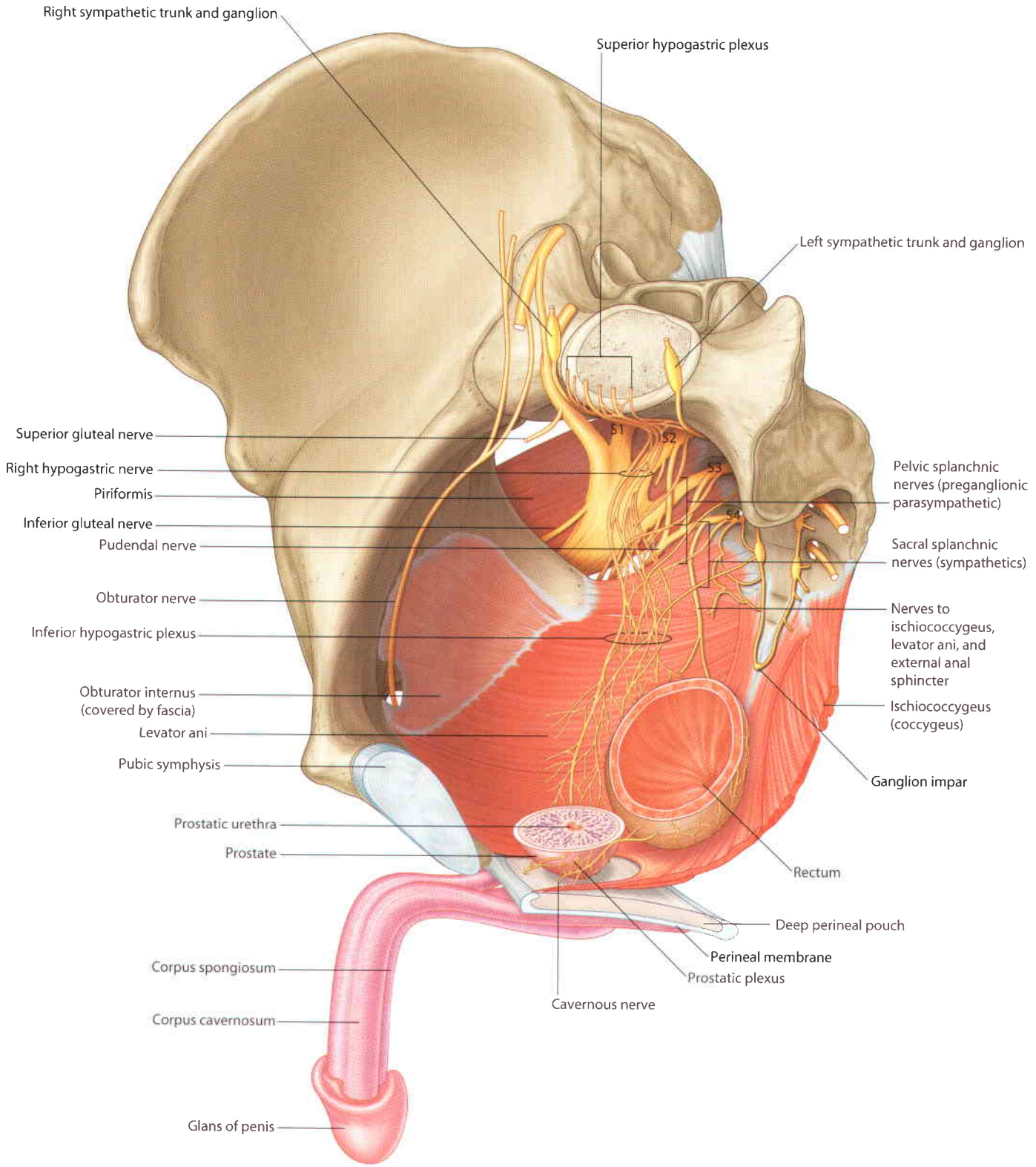
Components and branches of the sacral and coccygeal nerve plexuses



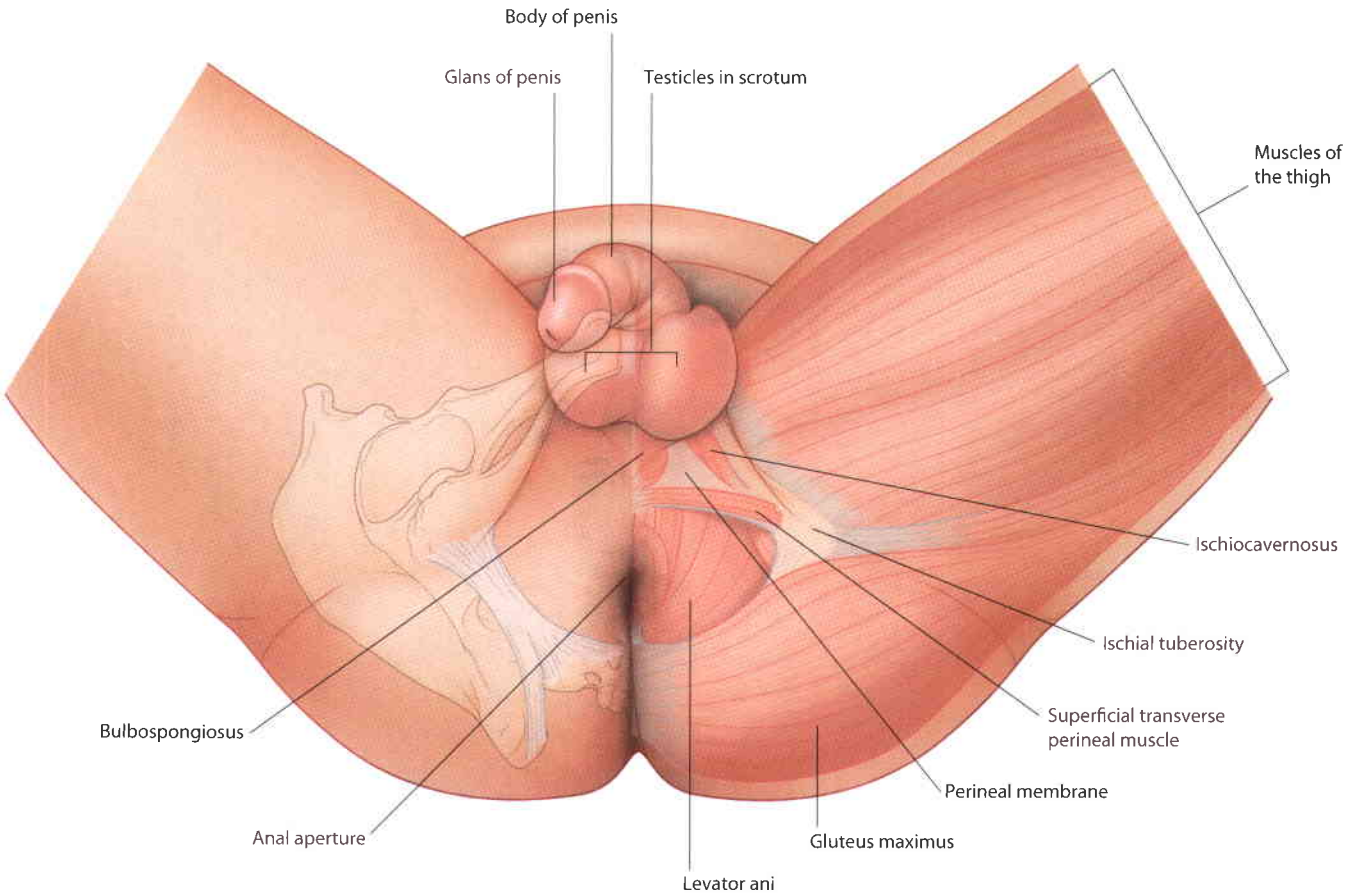
Sacral and coccygeal nerve plexuses within the pelvic cavity (sagittal view)



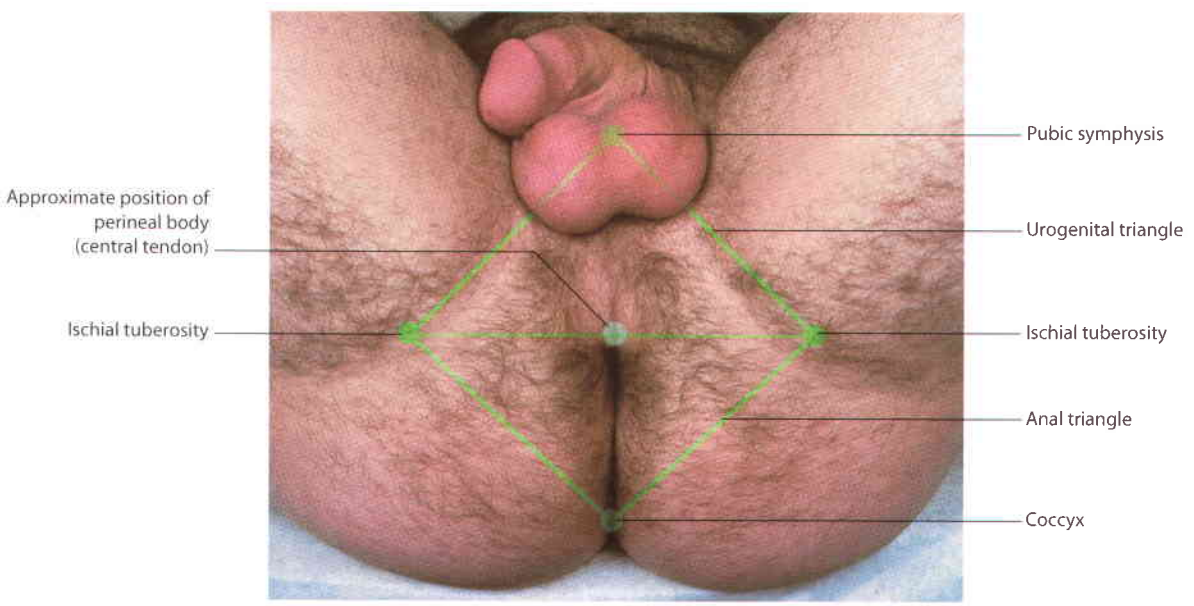
Pelvic extensions of the prevertebral nerve plexus (anterior view)



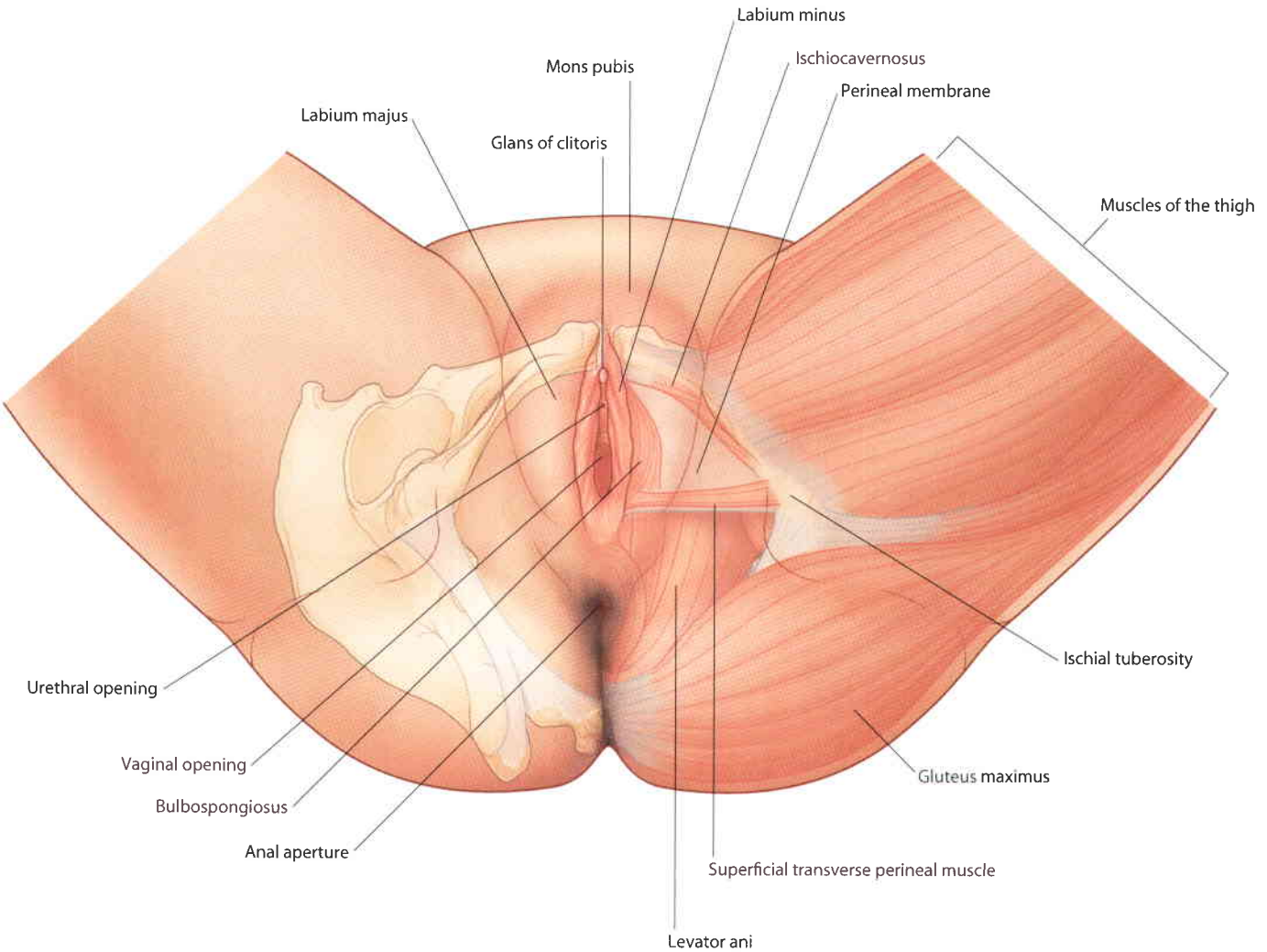
Hypogastric nerve plexuses (oblique sagittal view)



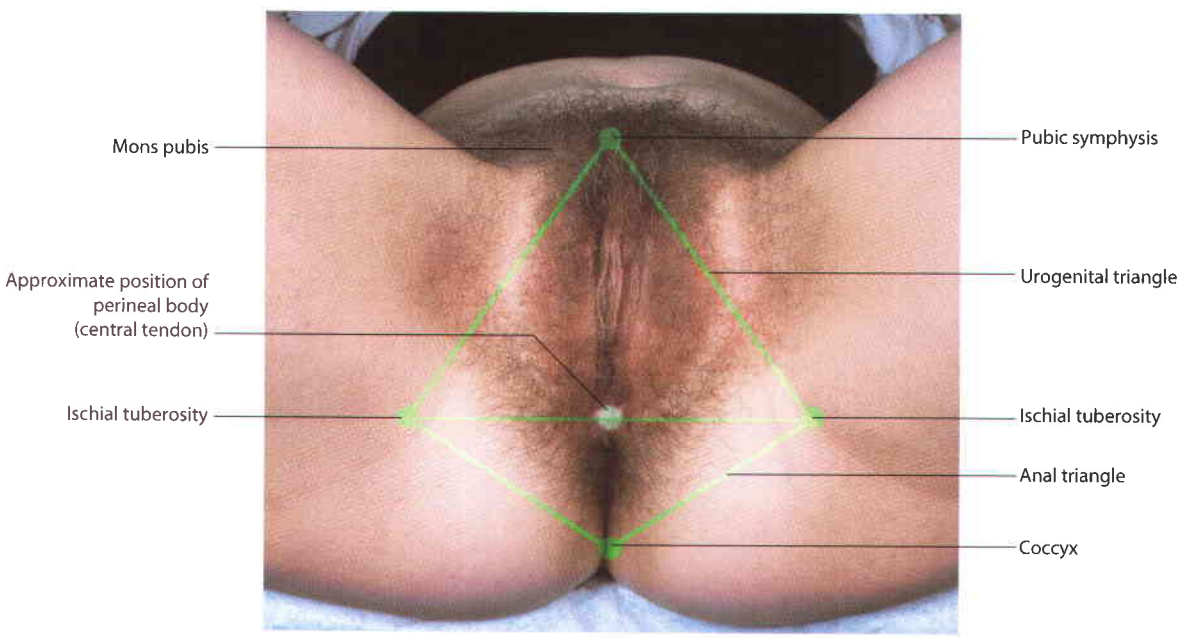
Structures of the perineum in men



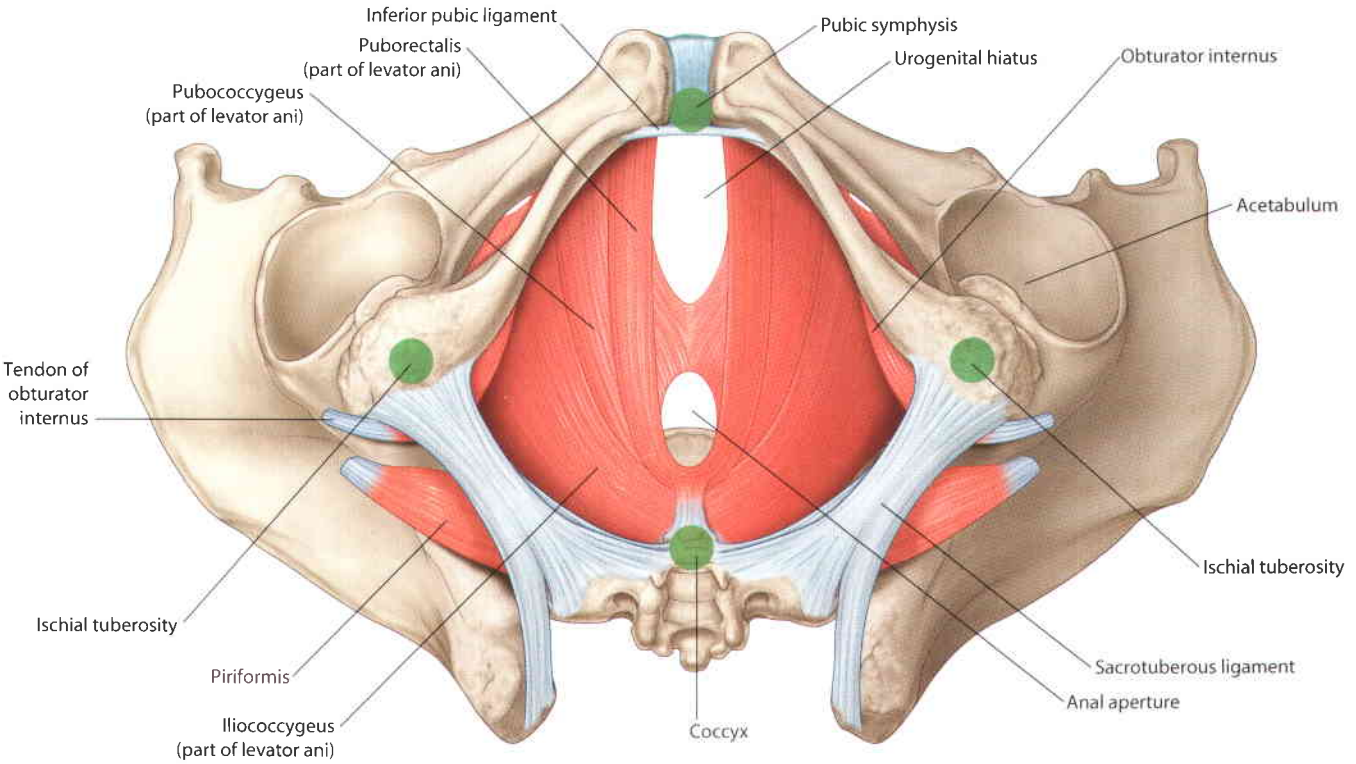
Surface anatomy of the perineum in men



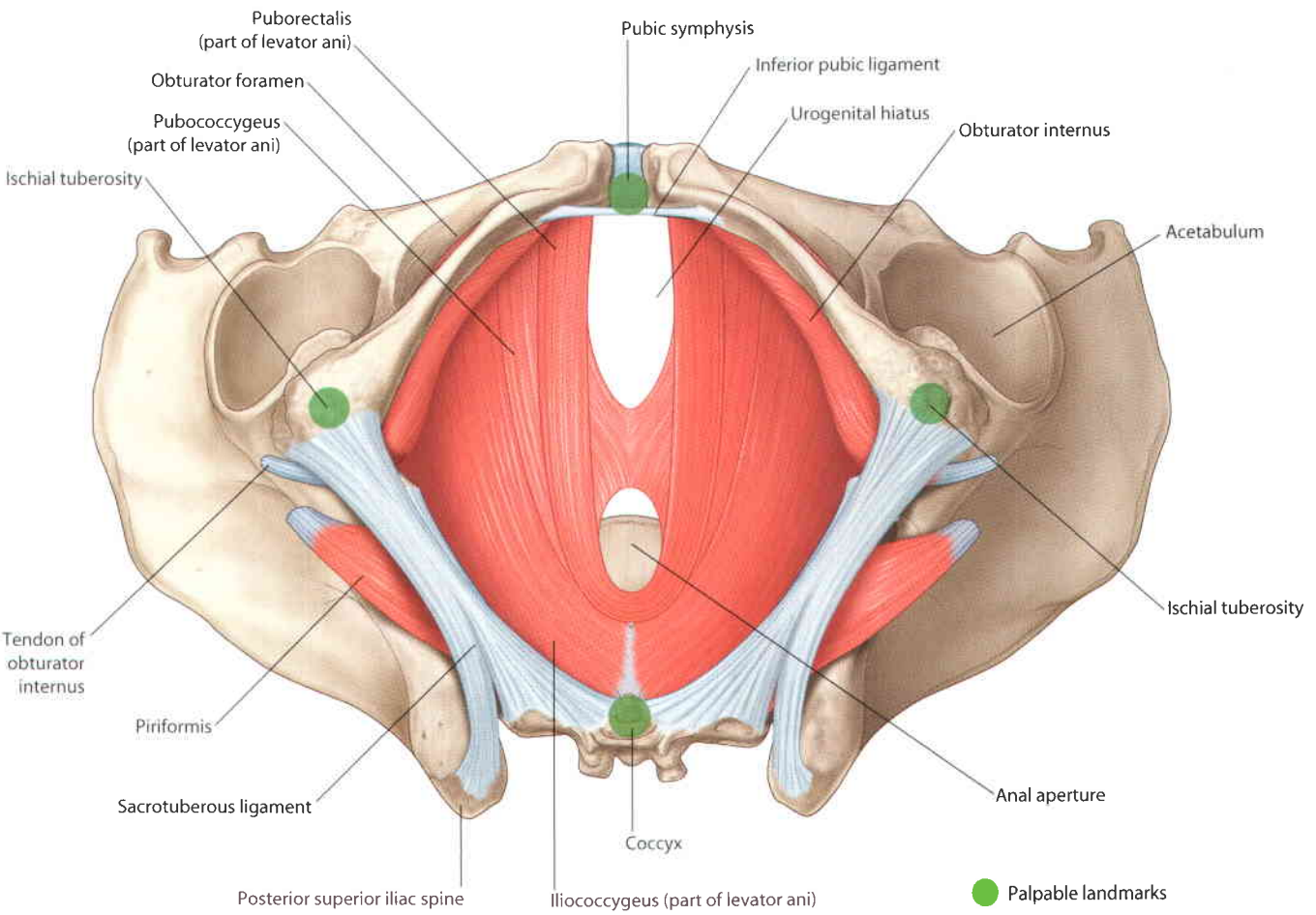
Structures of the perineum in women



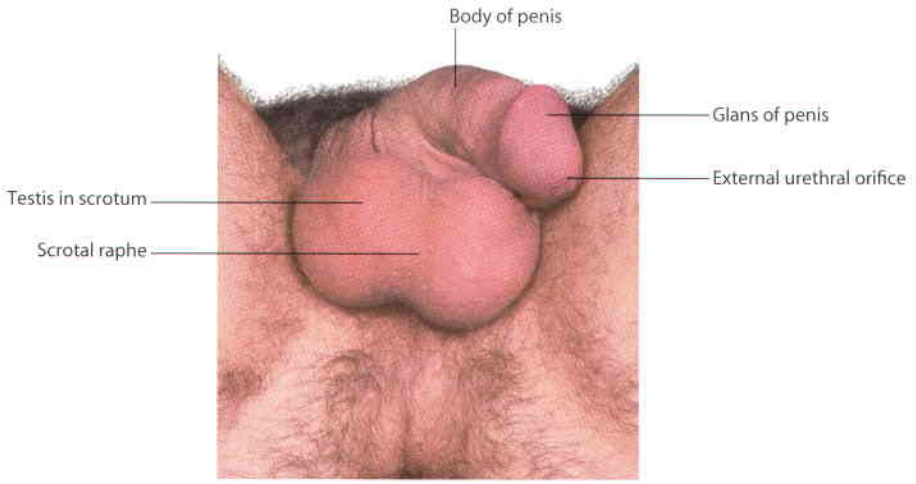
Surface anatomy of the perineum in women



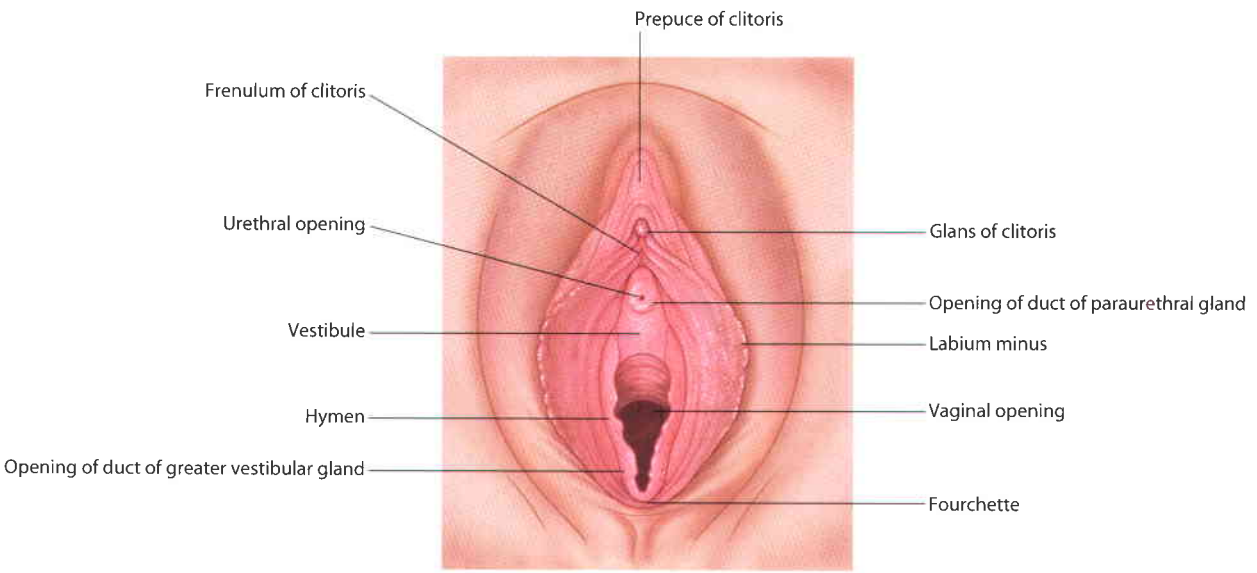
Borders and ceiling of the perineum in men

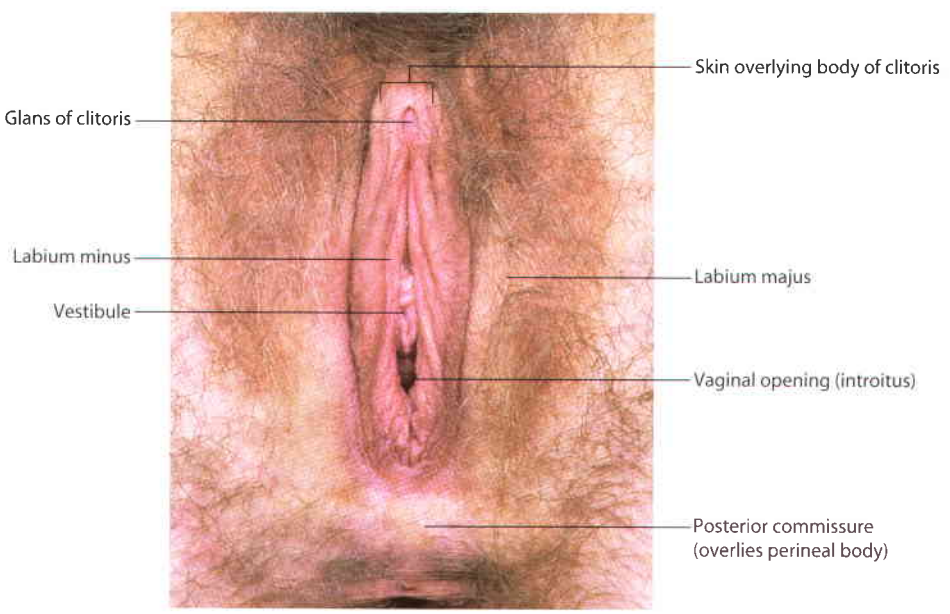


Borders and ceiling of the perineum in women

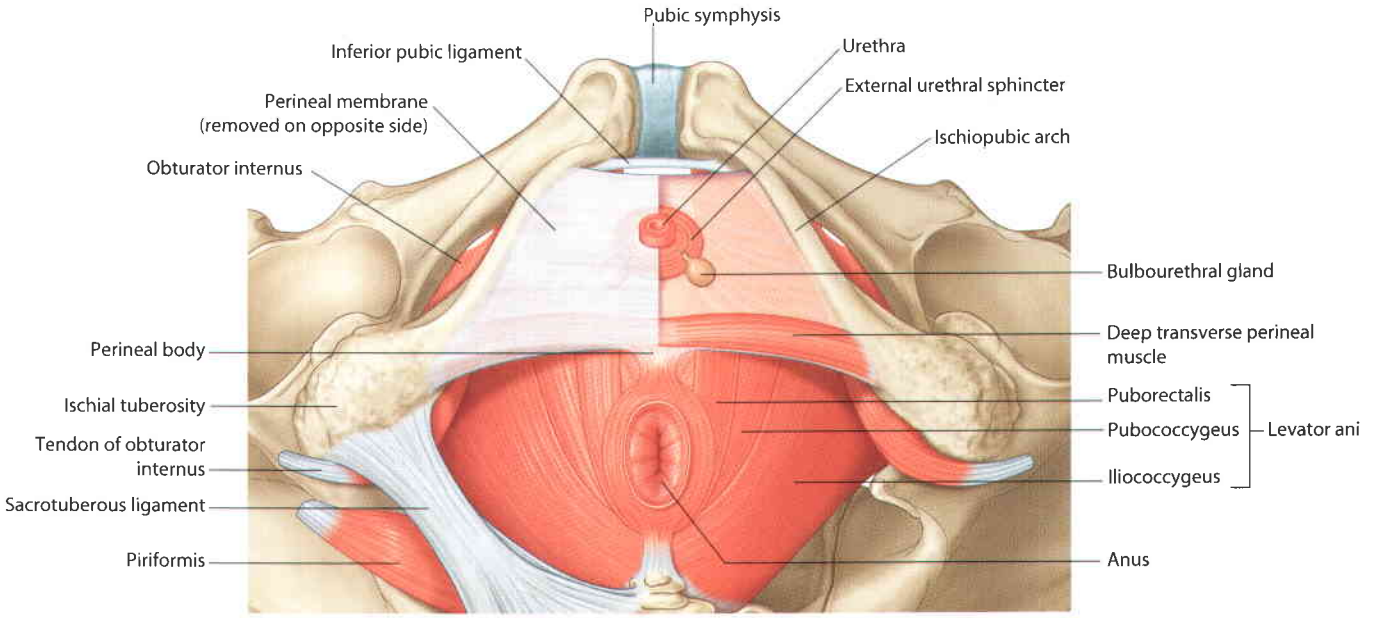


Superficial features of the perineum in men

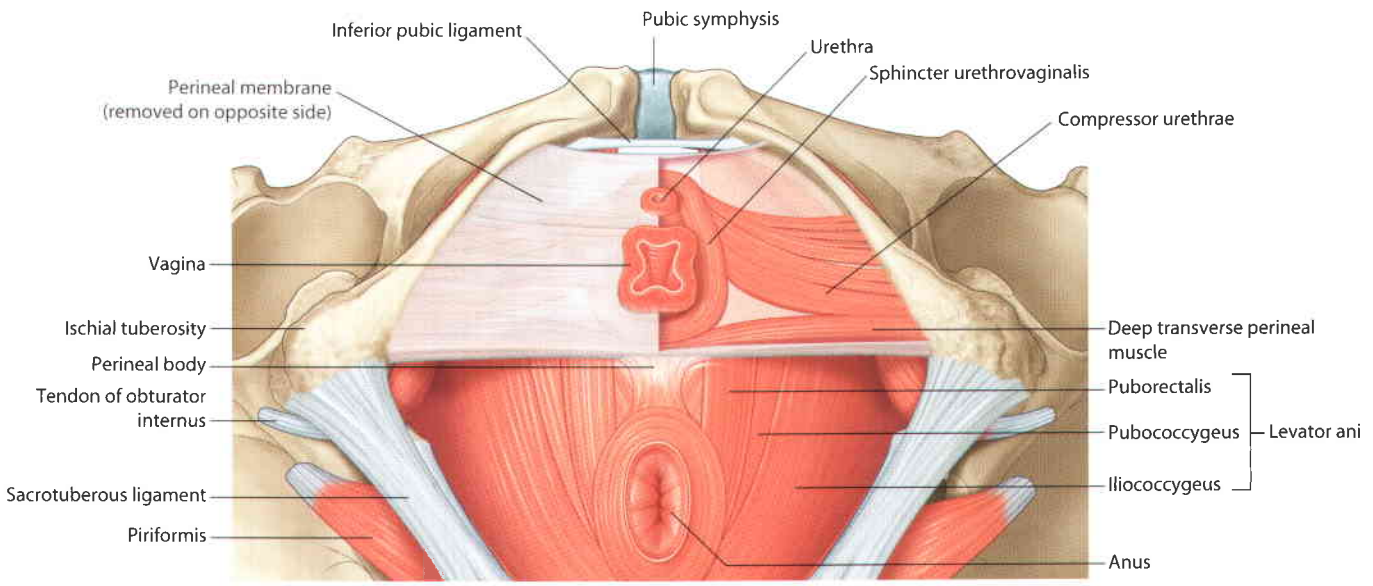




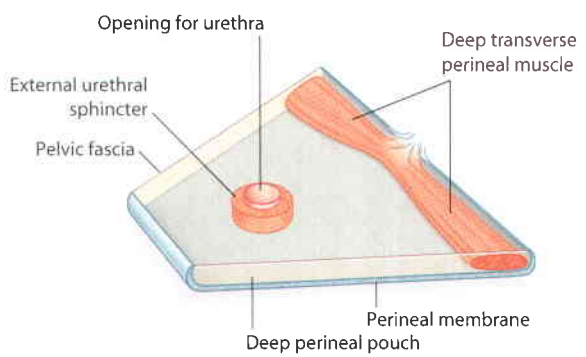
Superficial features of the perineum in women



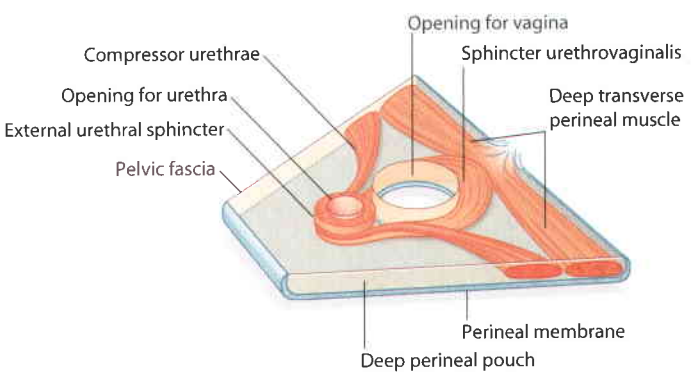
Muscles of deep perineal pouch in men
(perineal membrane removed on left side to expose deep perineal pouch)



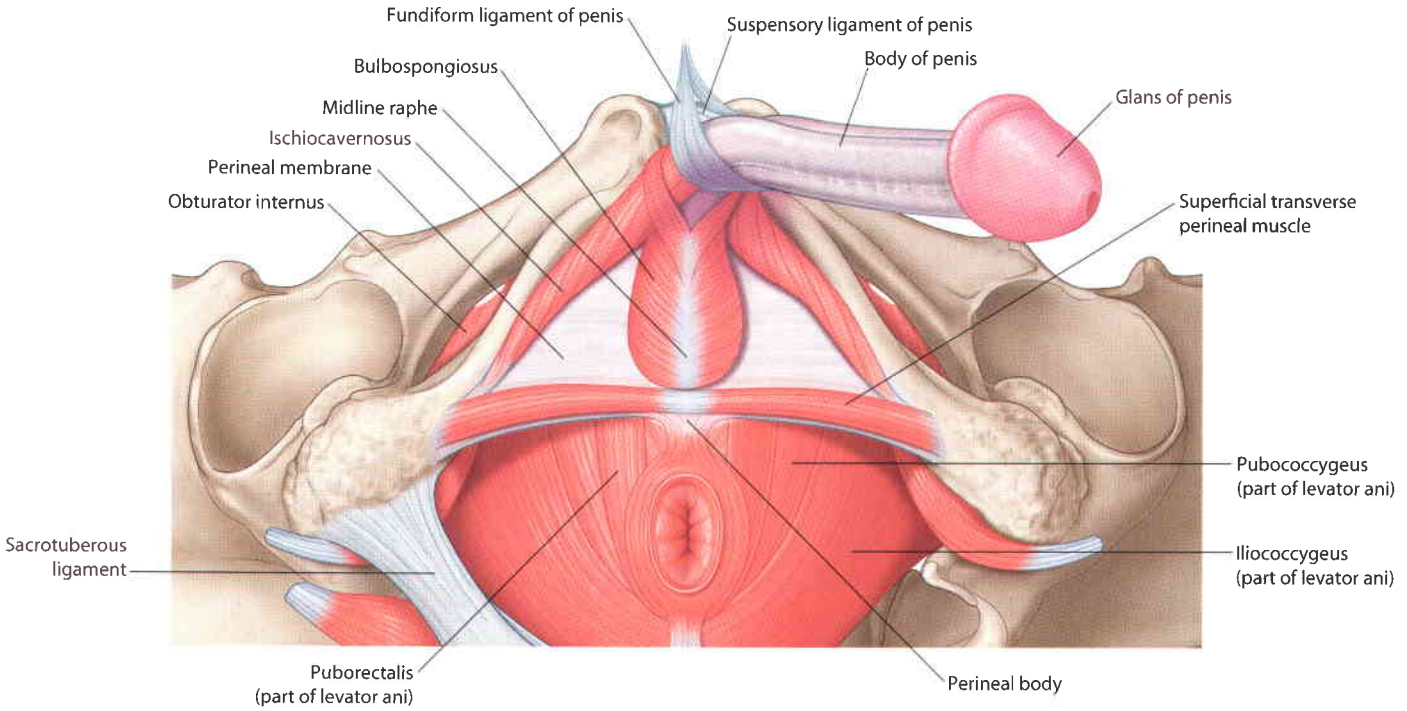
Muscles of deep perineal pouch in women
(perineal membrane removed on left side to expose deep perineal pouch)



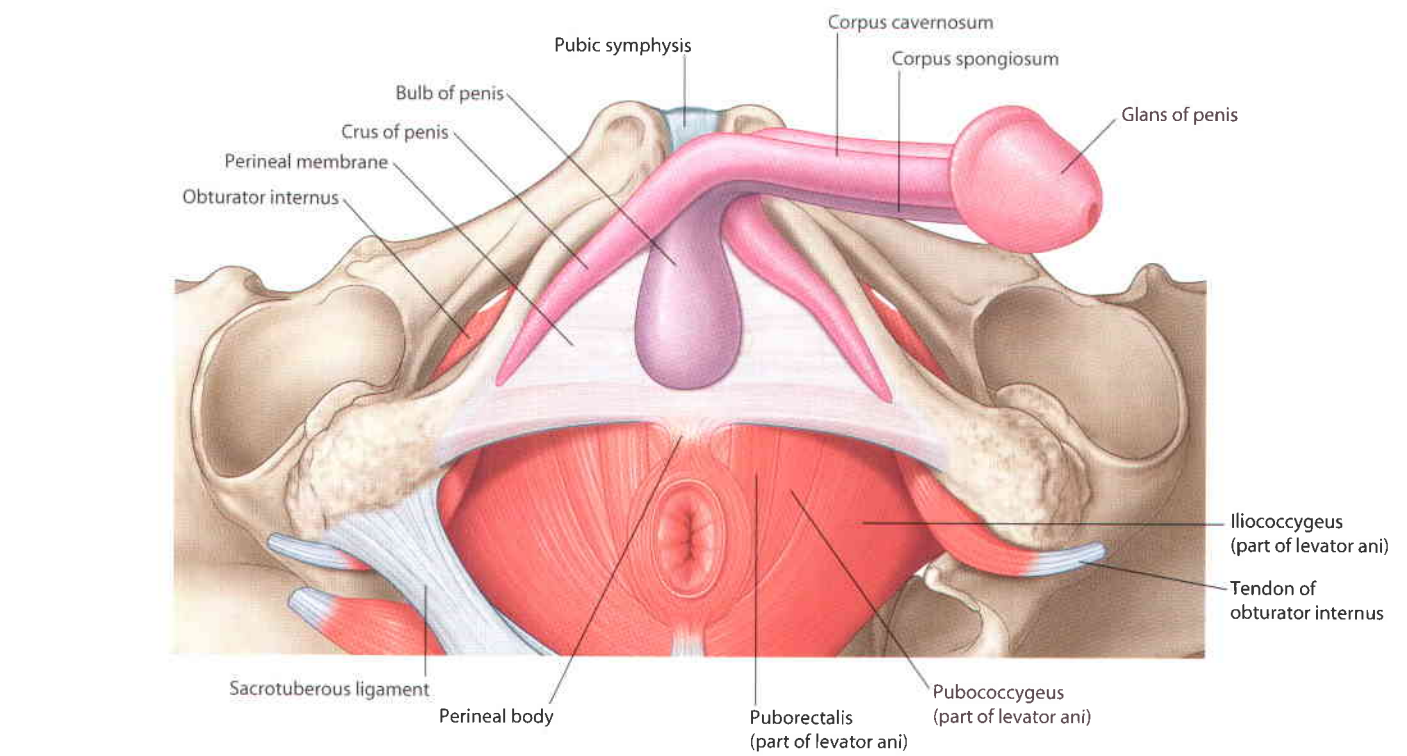
Muscles of deep perineal pouch in men



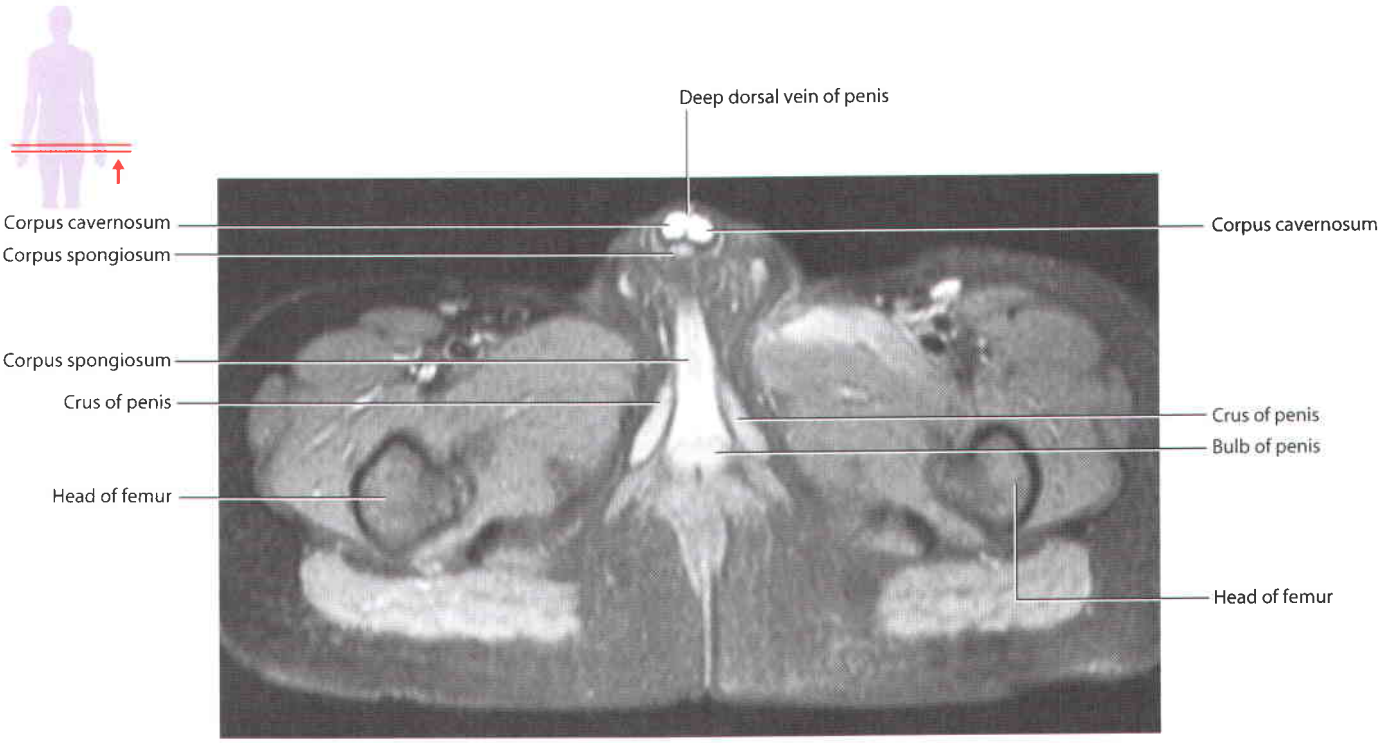
Muscles of deep perineal pouch in women



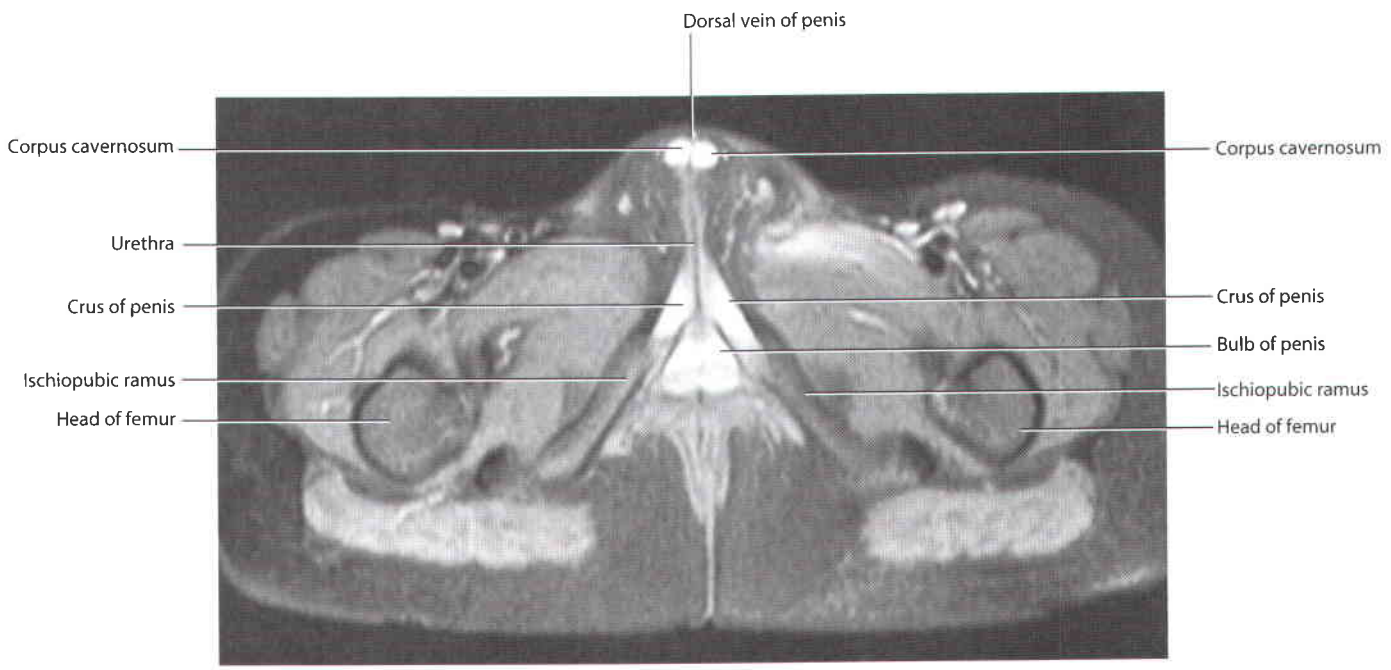
Muscles of the superficial perineal pouch in men



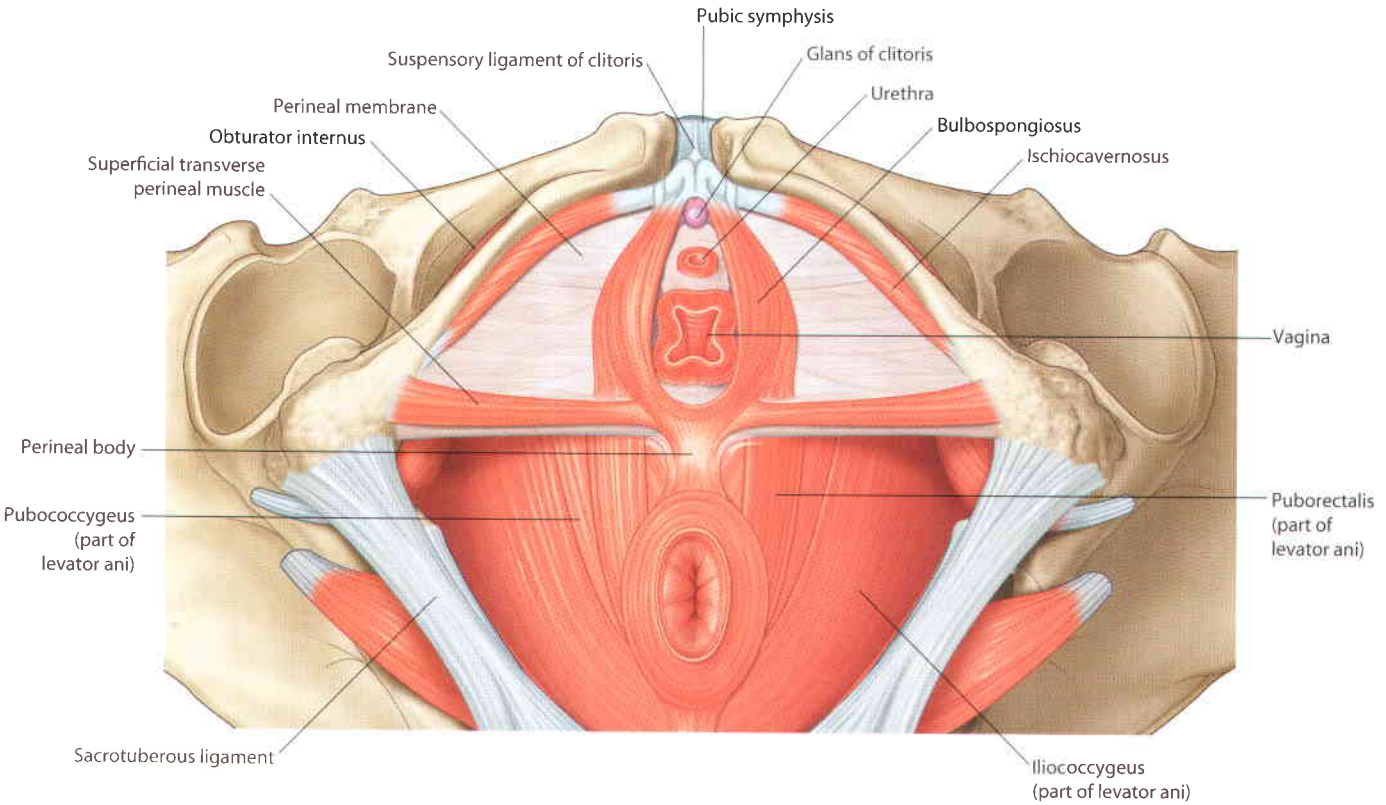
Erectile tissues of the superficial perineal pouch in men



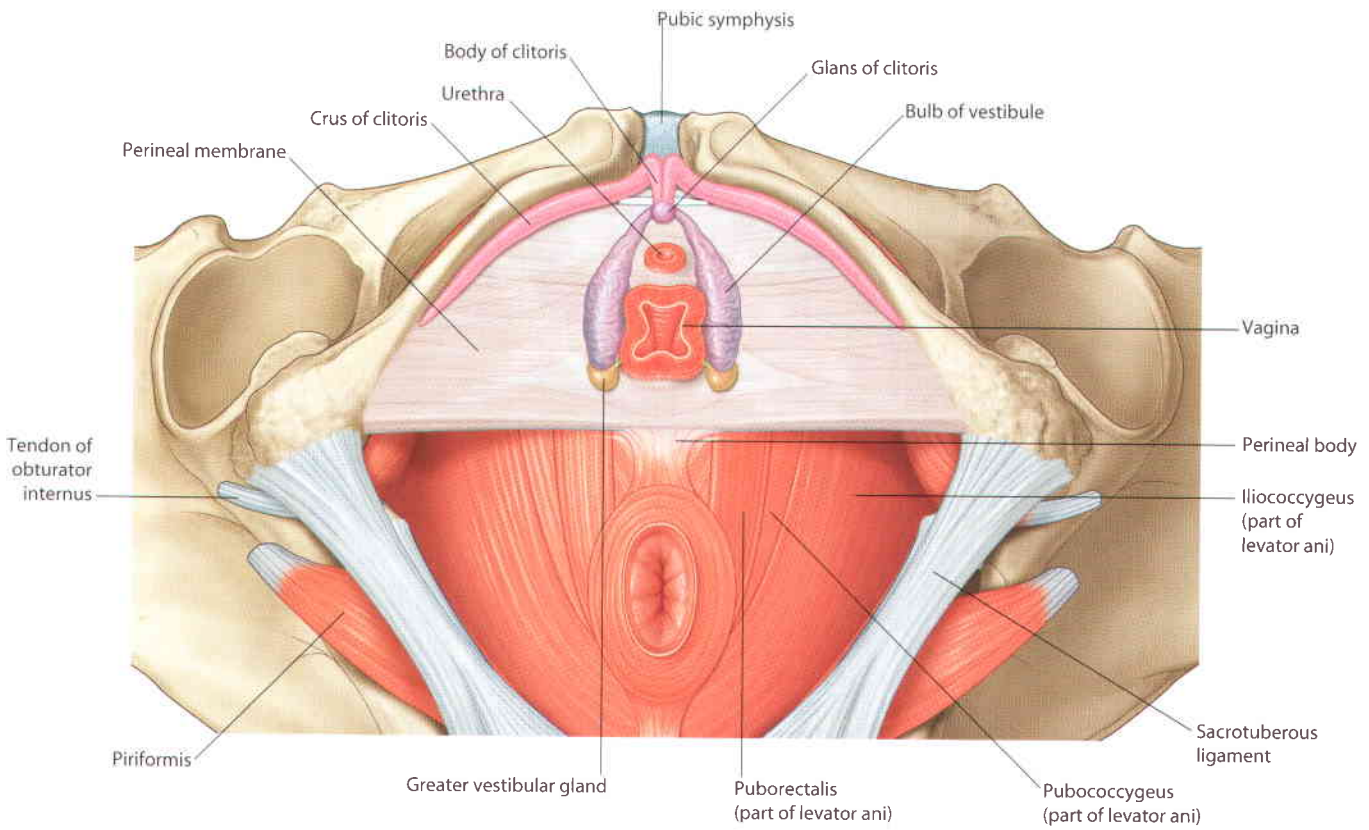
Erectile tissues in relation to other structures in the male perineum.
T2-weighted MR image in axial plane



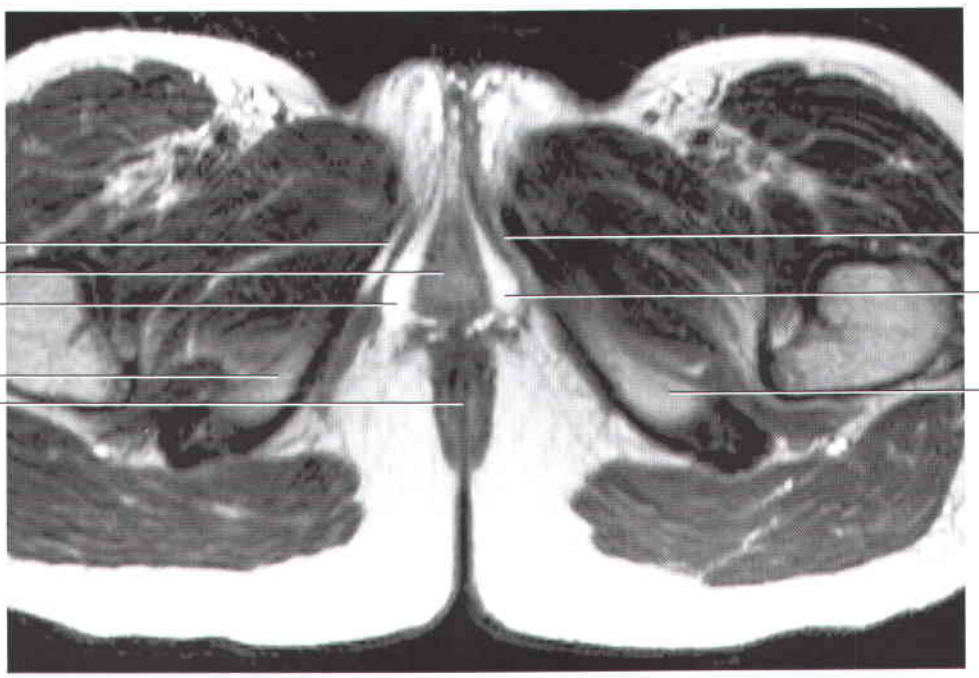
Erectile tissues in relation to other structures in the male perineum.
T2-weighted MR image in axial plane



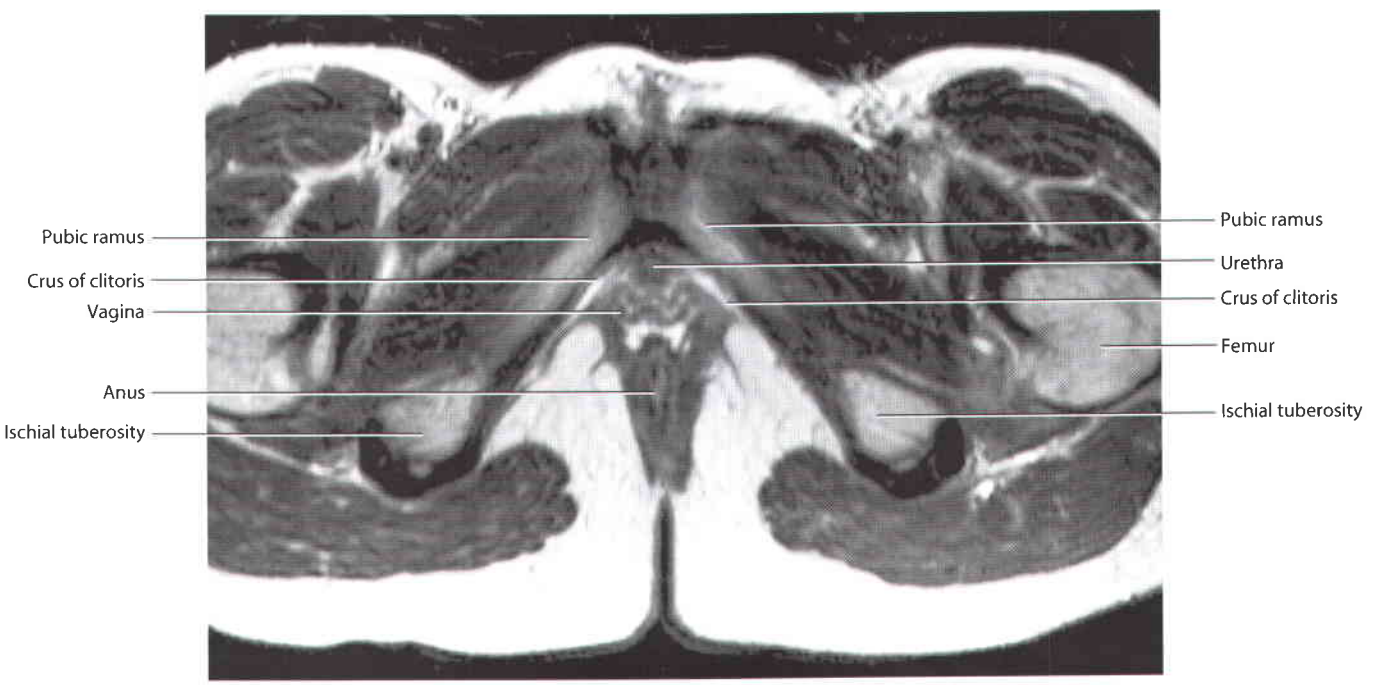
Muscles of the superficial perineal pouch in women



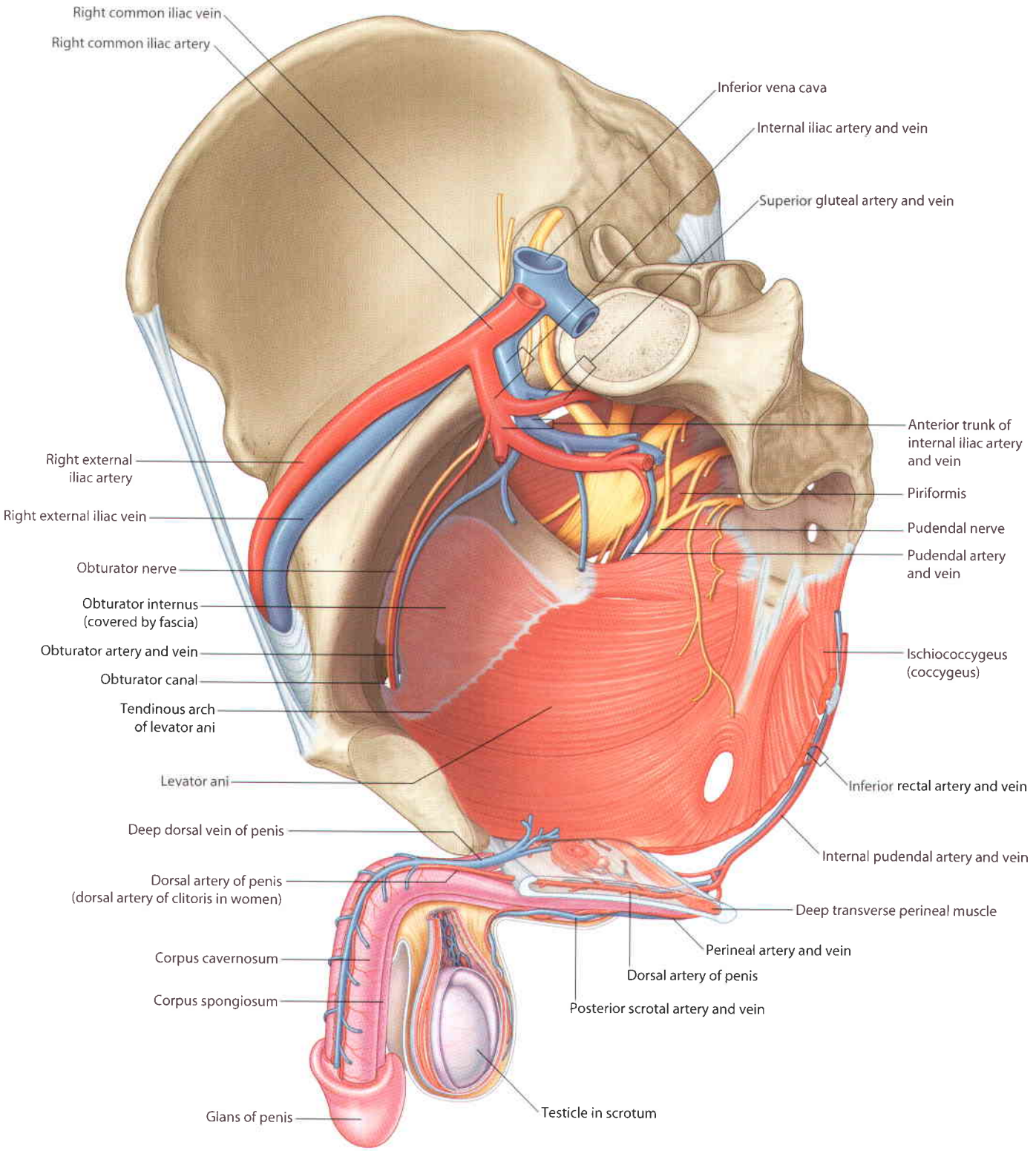
Erectile tissues of the superficial perineal pouch in women



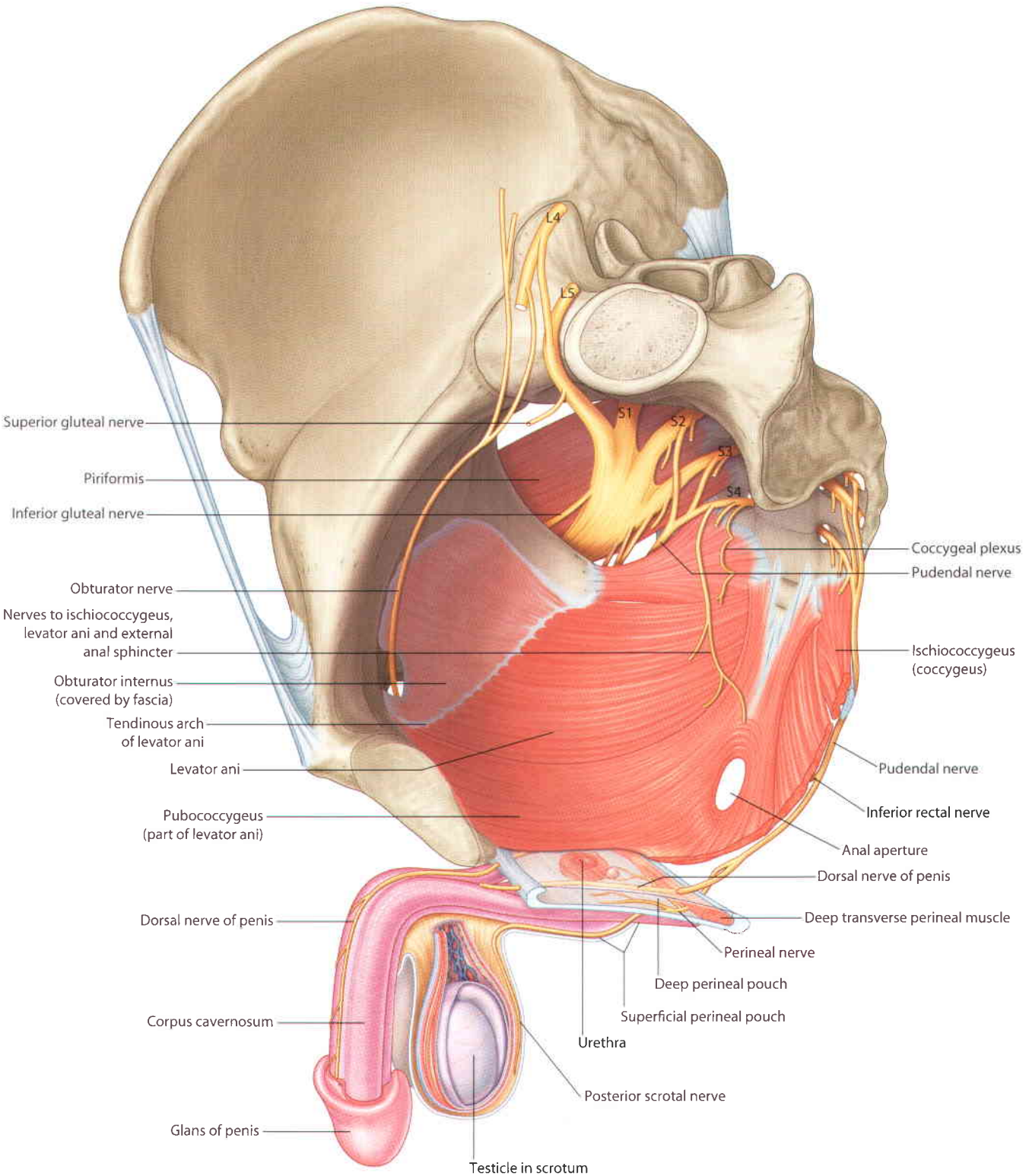
Erectile tissues in relation to other structures in the female perineum.
T2-weighted MR image in axial plane



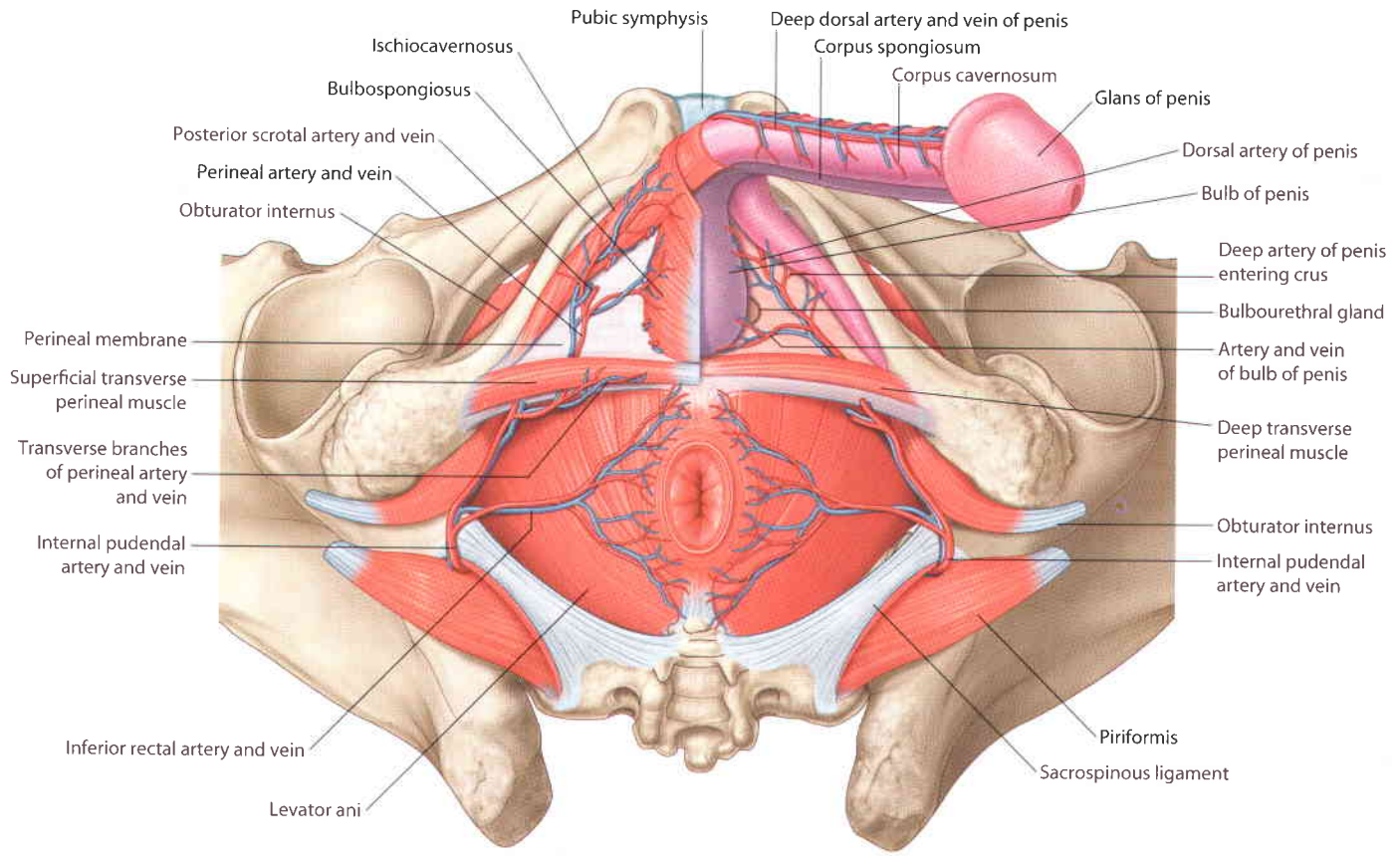
Erectile tissues in relation to other structures in the female perineum.
T2-weighted MR image in axial plane



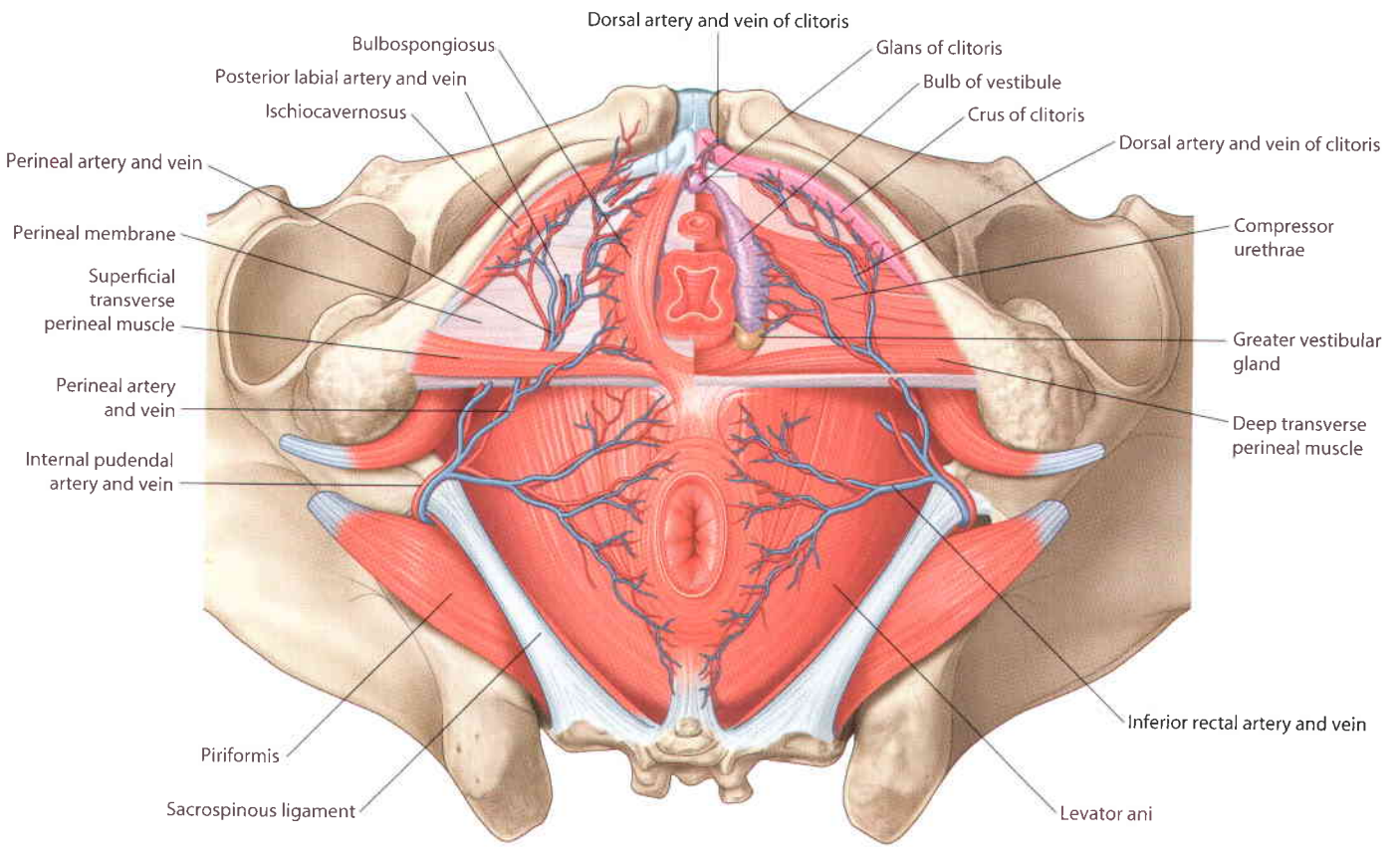
Course of internal pudendal artery and vein in men (oblique sagittal view)



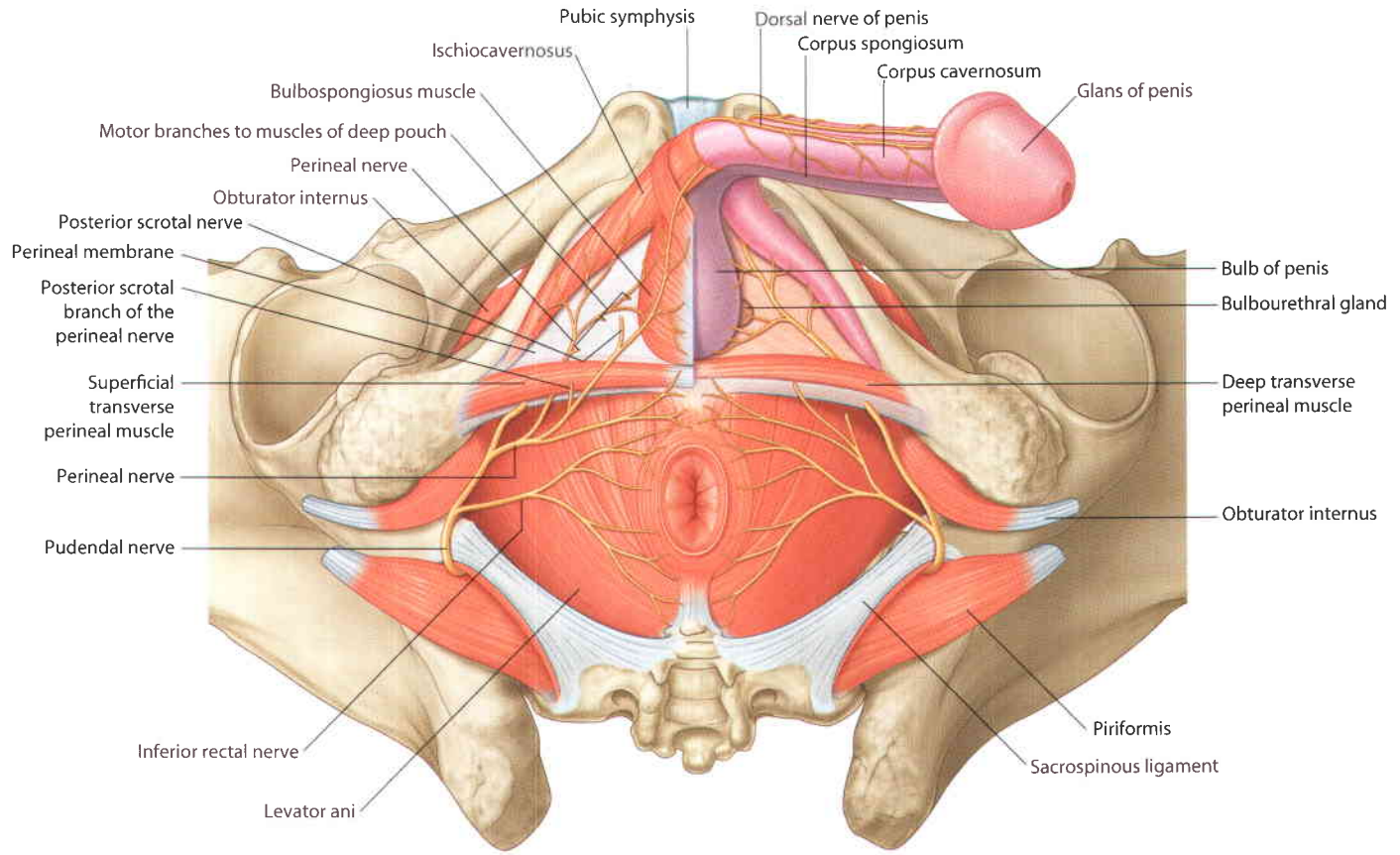
Course of pudendal nerve in men (oblique sagittal view)



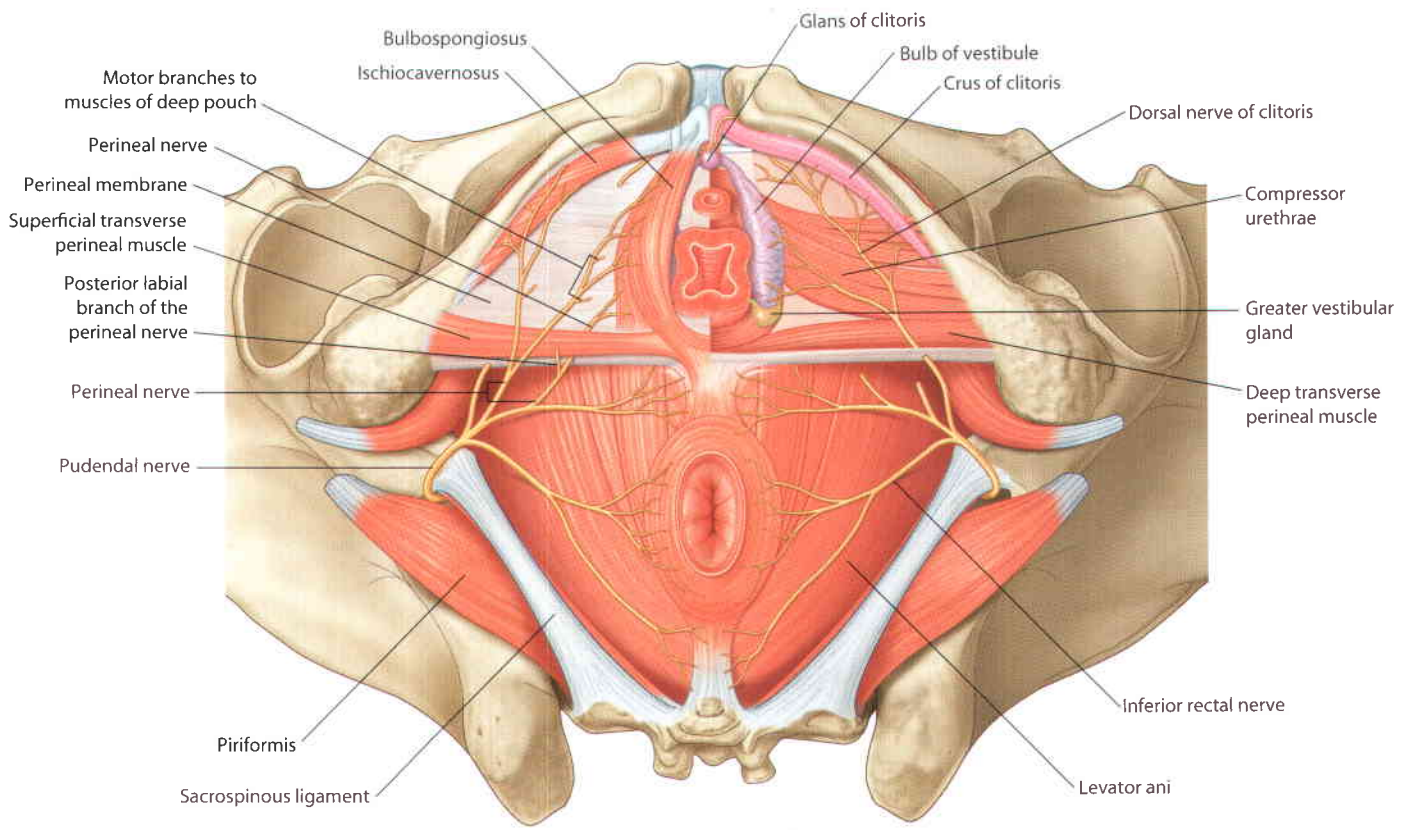
Arteries and veins of perineum in men
(perineal membrane removed on left side to expose deep perineal pouch, inferior view)



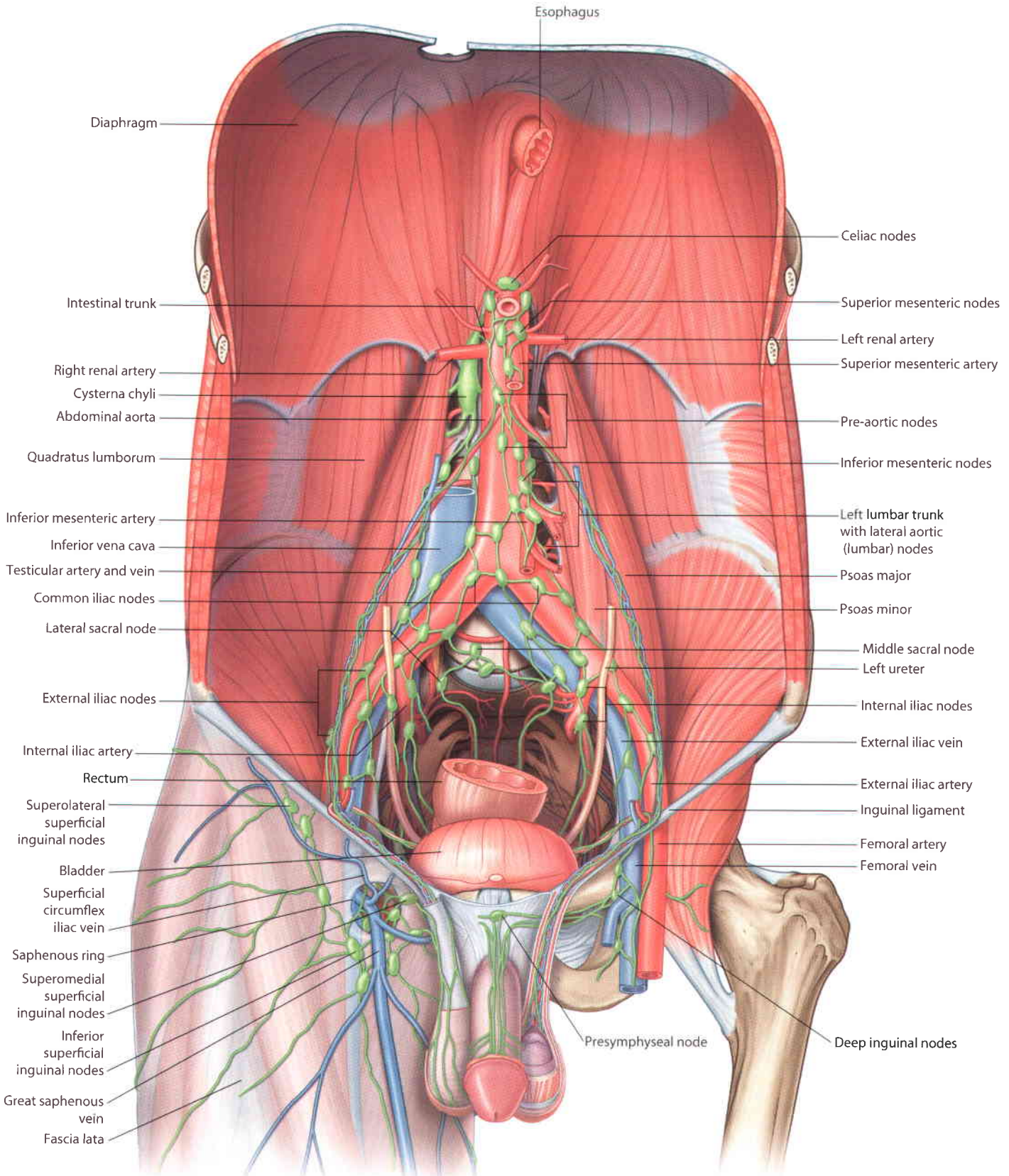
Arteries and veins of perineum in women
(perineal membrane removed on left side to expose deep perineal pouch, inferior view)



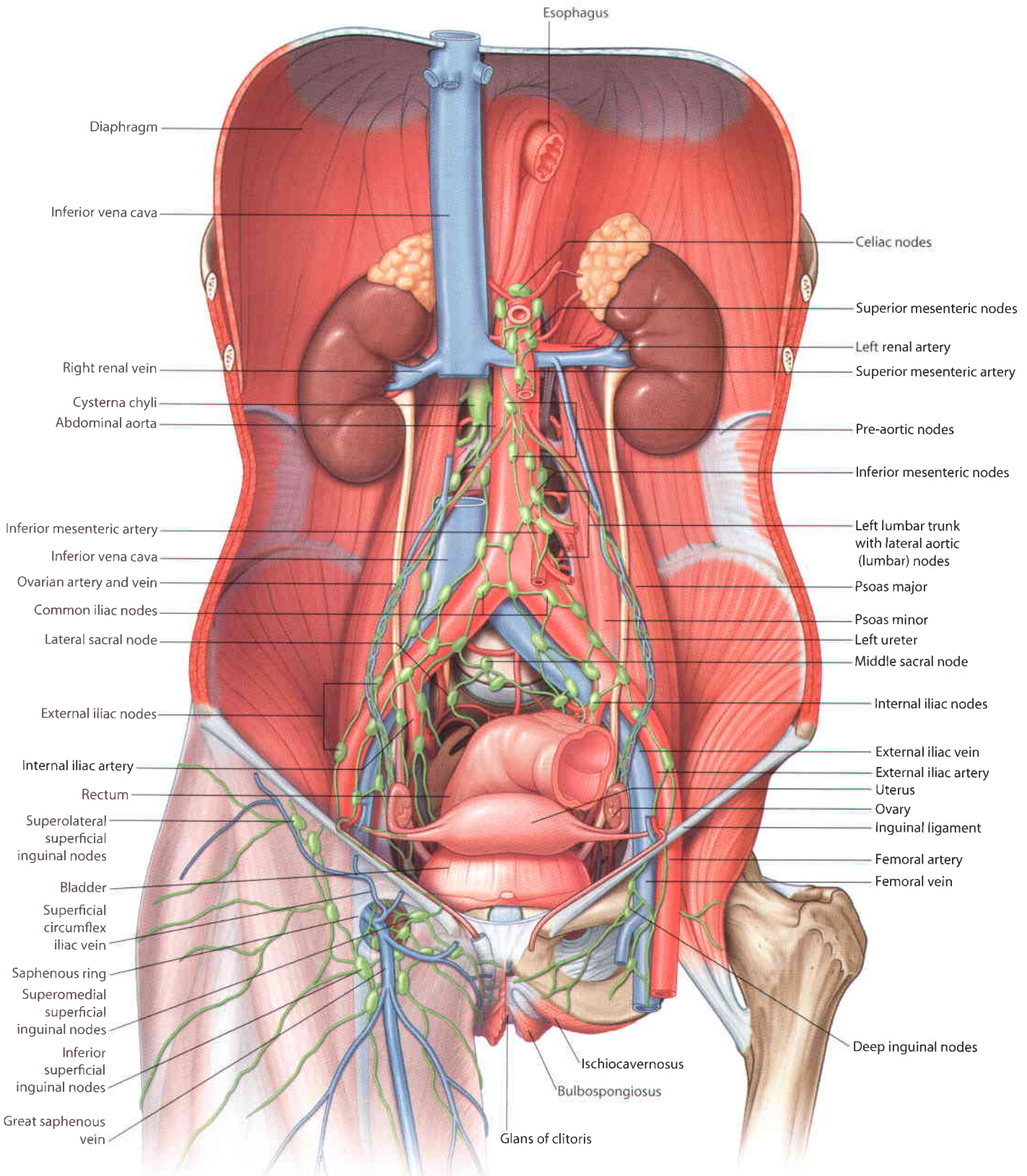
Nerves of the perineum in men
(perineal membrane removed on left side to expose deep perineal pouch, inferior view)



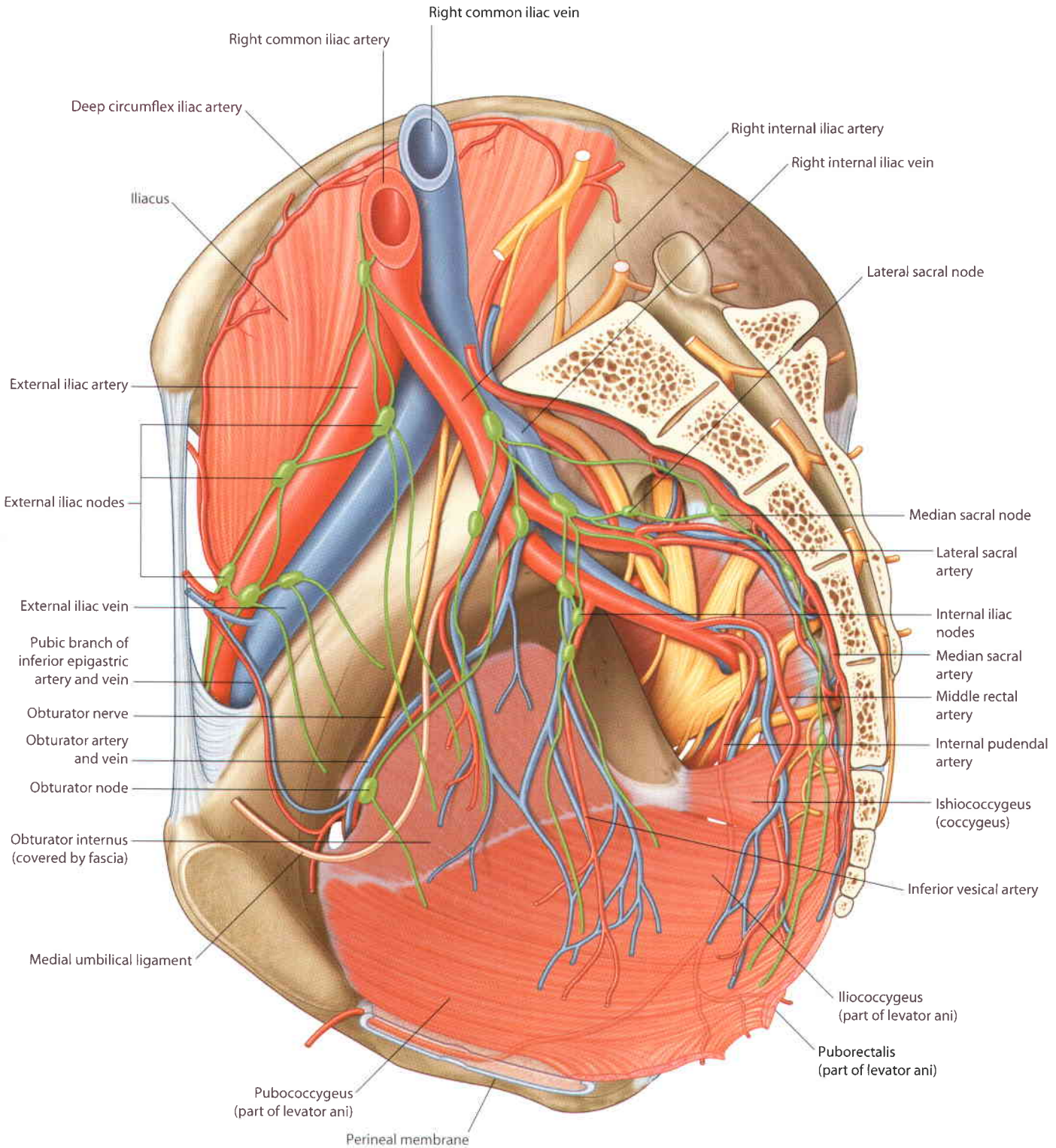
Nerves of the perineum in women
(perineal membrane removed on left side to expose deep perineal pouch, inferior view)



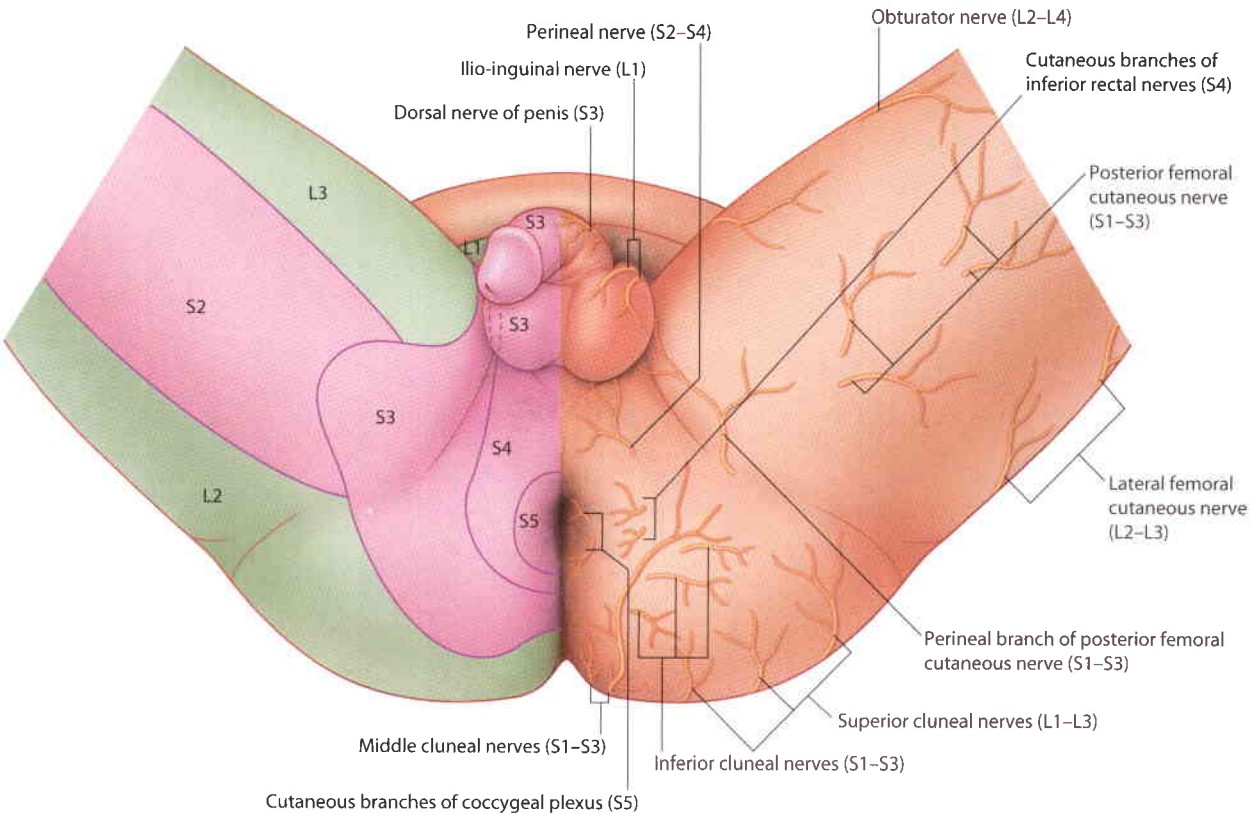
Lymphatics of pelvis and perineum in men



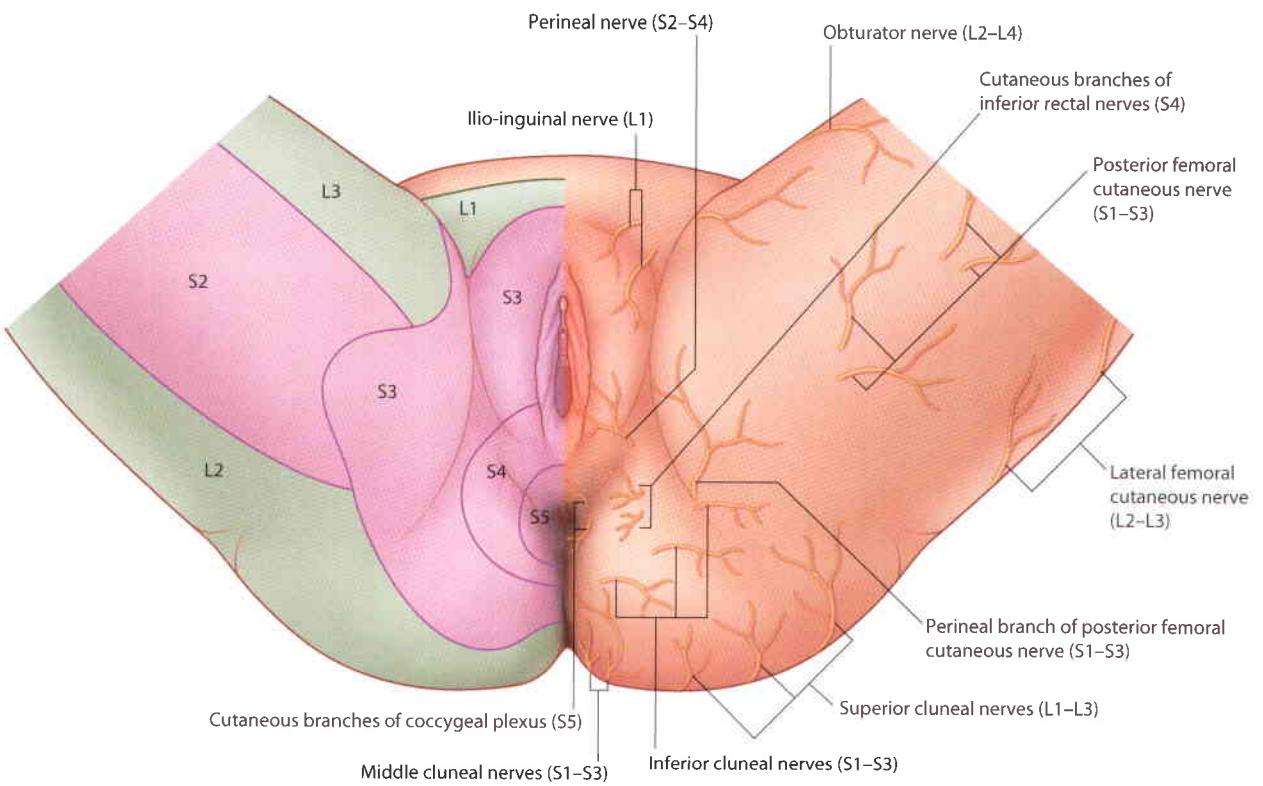
Lymphatics of pelvis and perineum in women



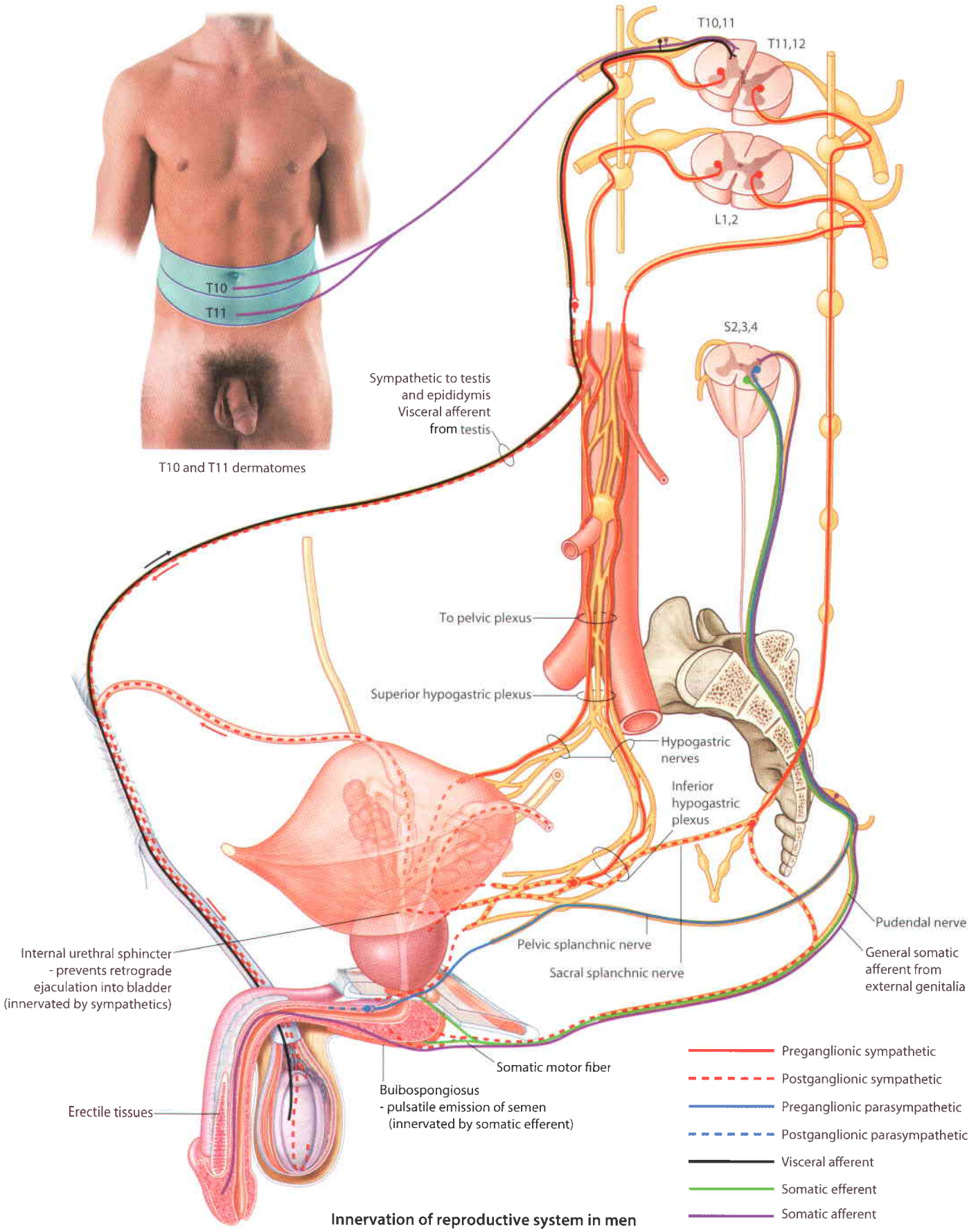
Lymphatics of pelvic cavity (sagittal view)



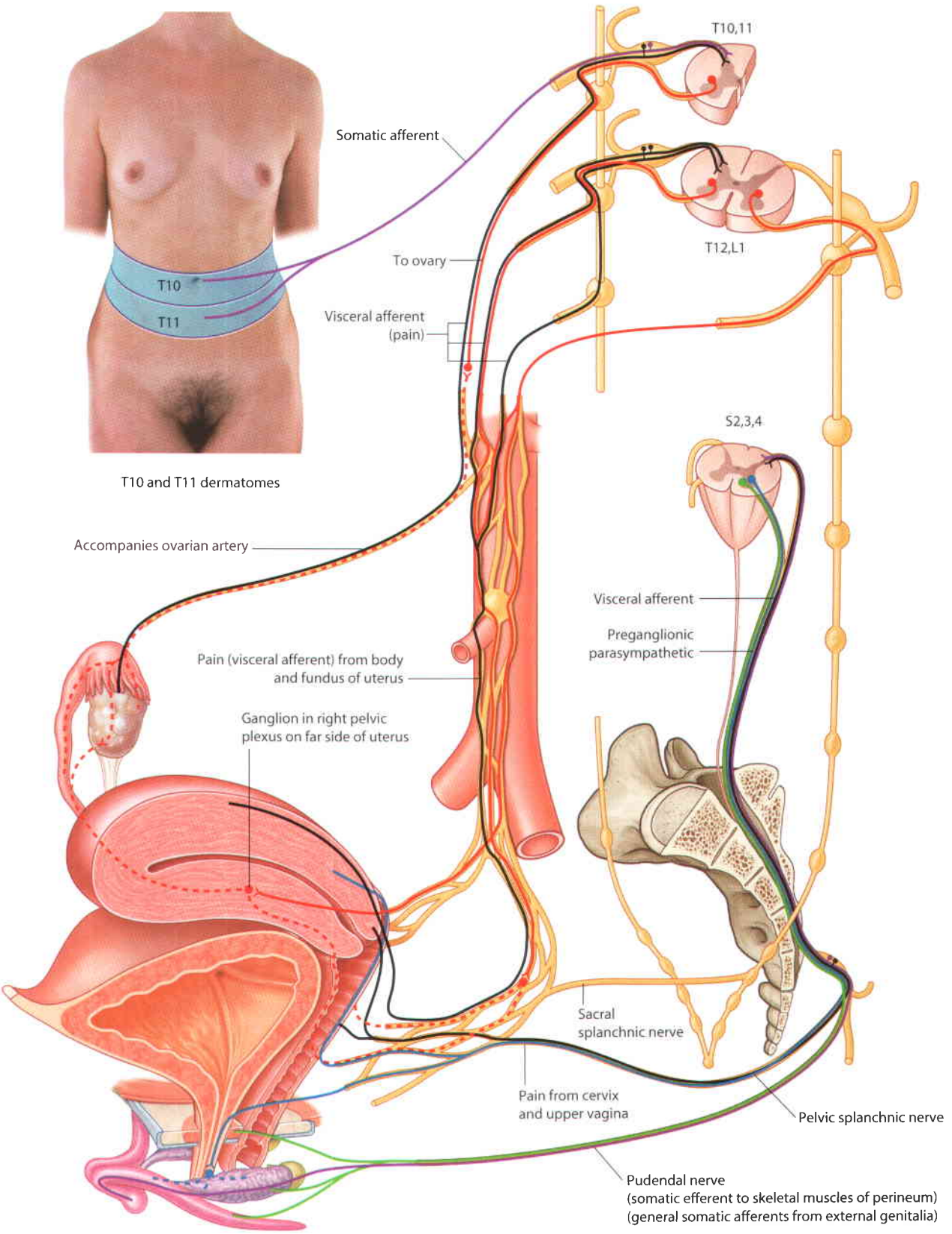
Dermatomes and cutaneous nerves of perineum in men



Dermatomes and cutaneous nerves of perineum in women

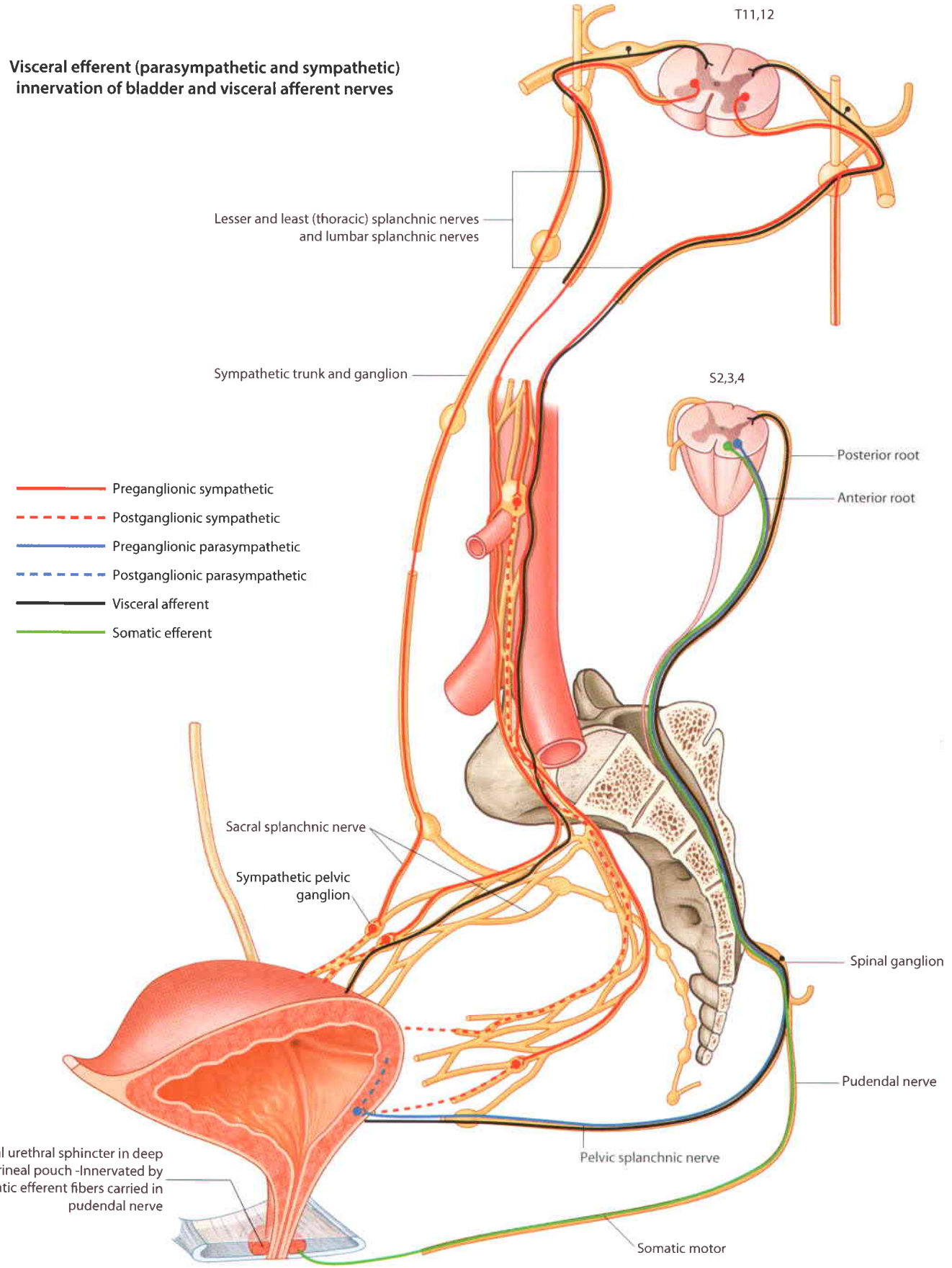


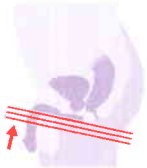
Innervation of reproductive system in men



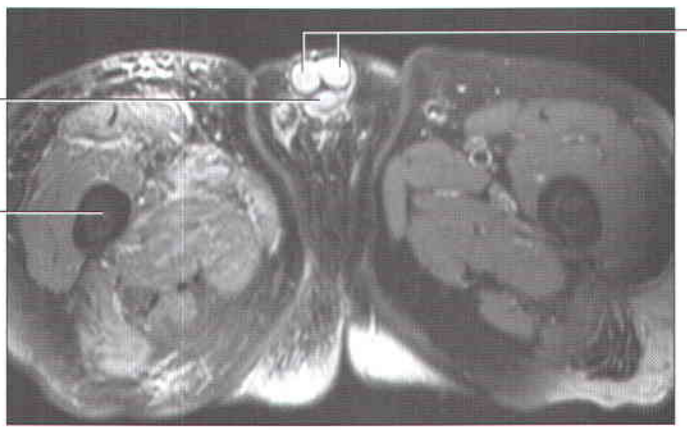
Innervation of reproductive system in women

Visceral efferent (parasympathetic and sympathetic) innervation of bladder and visceral afferent nerves

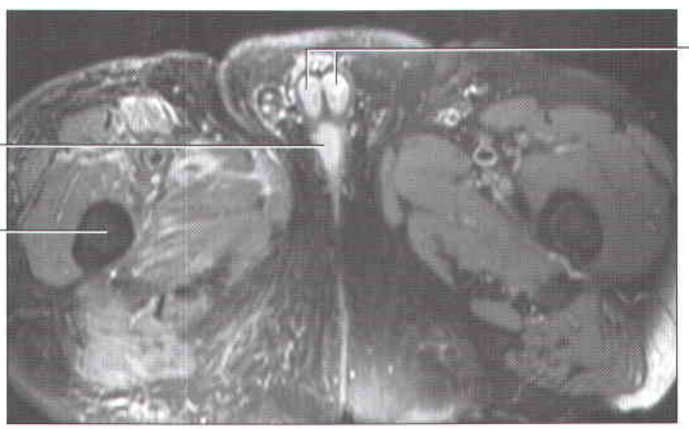




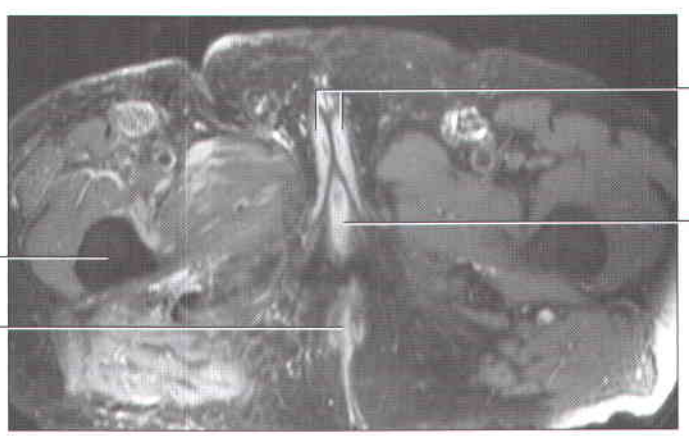
A



B



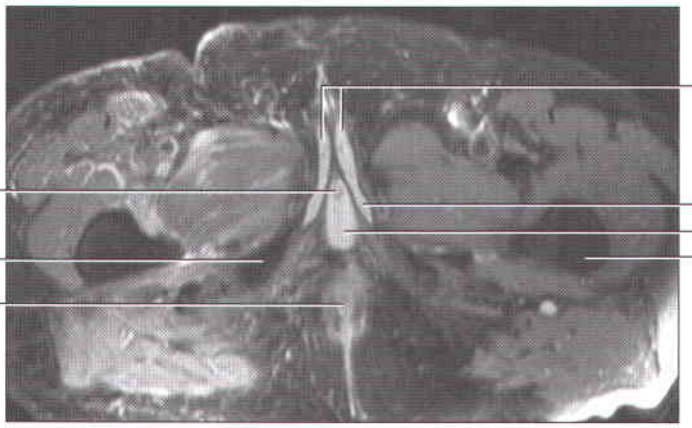
C



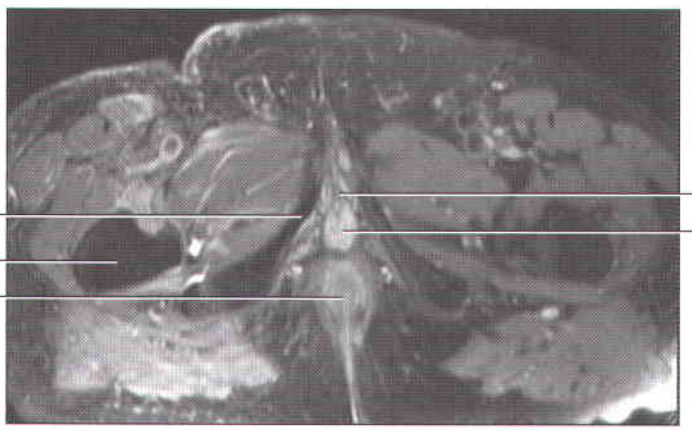
A through C – Series of axial images that pass through the pelvic cavity and perineum from inferior to superior showing the various structures and their relationships with each other.

T2-weighted MR images in axial plane

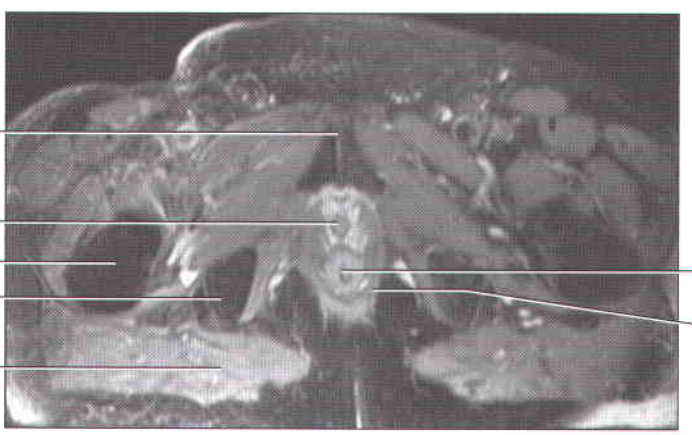
D



E

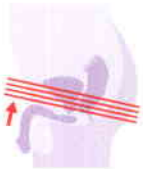


F

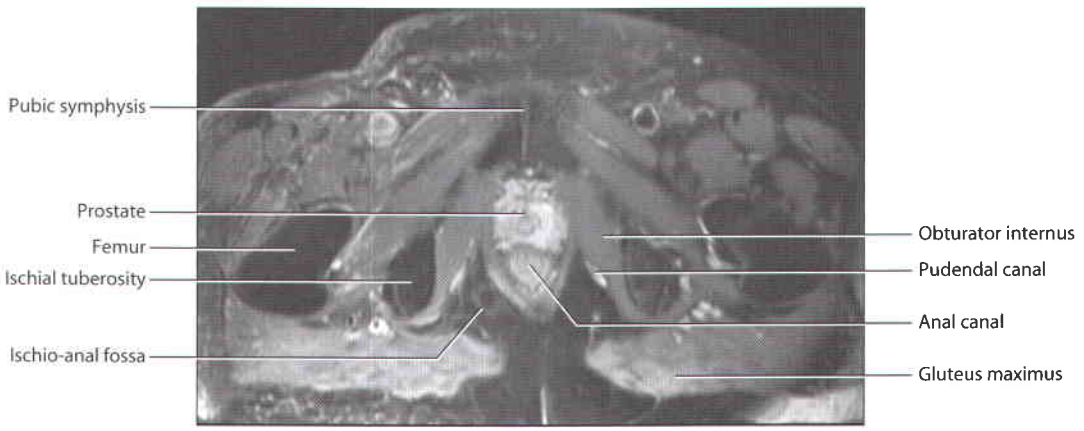


D through J – Series of axial images that pass through the pelvic cavity and perineum from inferior to superior showing the various structures and their relationships with each other.

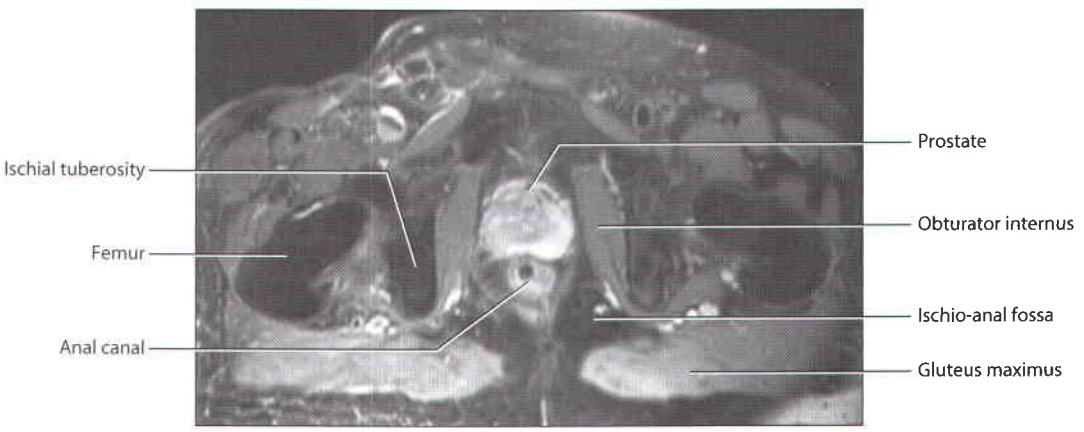
T2-weighted MR images in axial plane



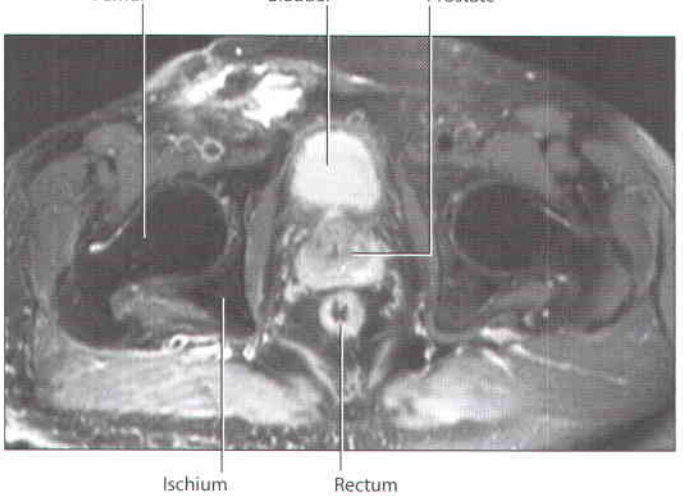
G


Pubic symphysis
Prostate
Femur
Ischial tuberosity
Ischio-anal fossa
Obturator internus
Pudendal canal
Anal canal
Gluteus maximus

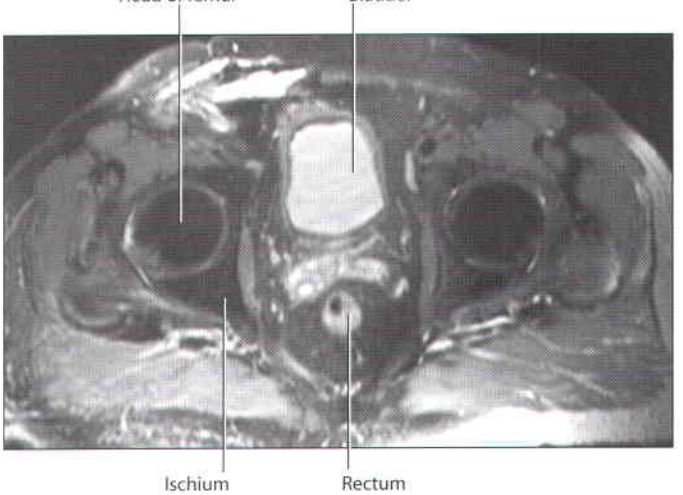
H

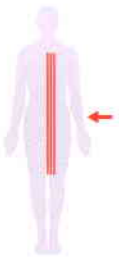

Ischial tuberosity
Femur
Anal canal
Prostate
Obturator internus
Ischio-anal fossa
Gluteus maximus

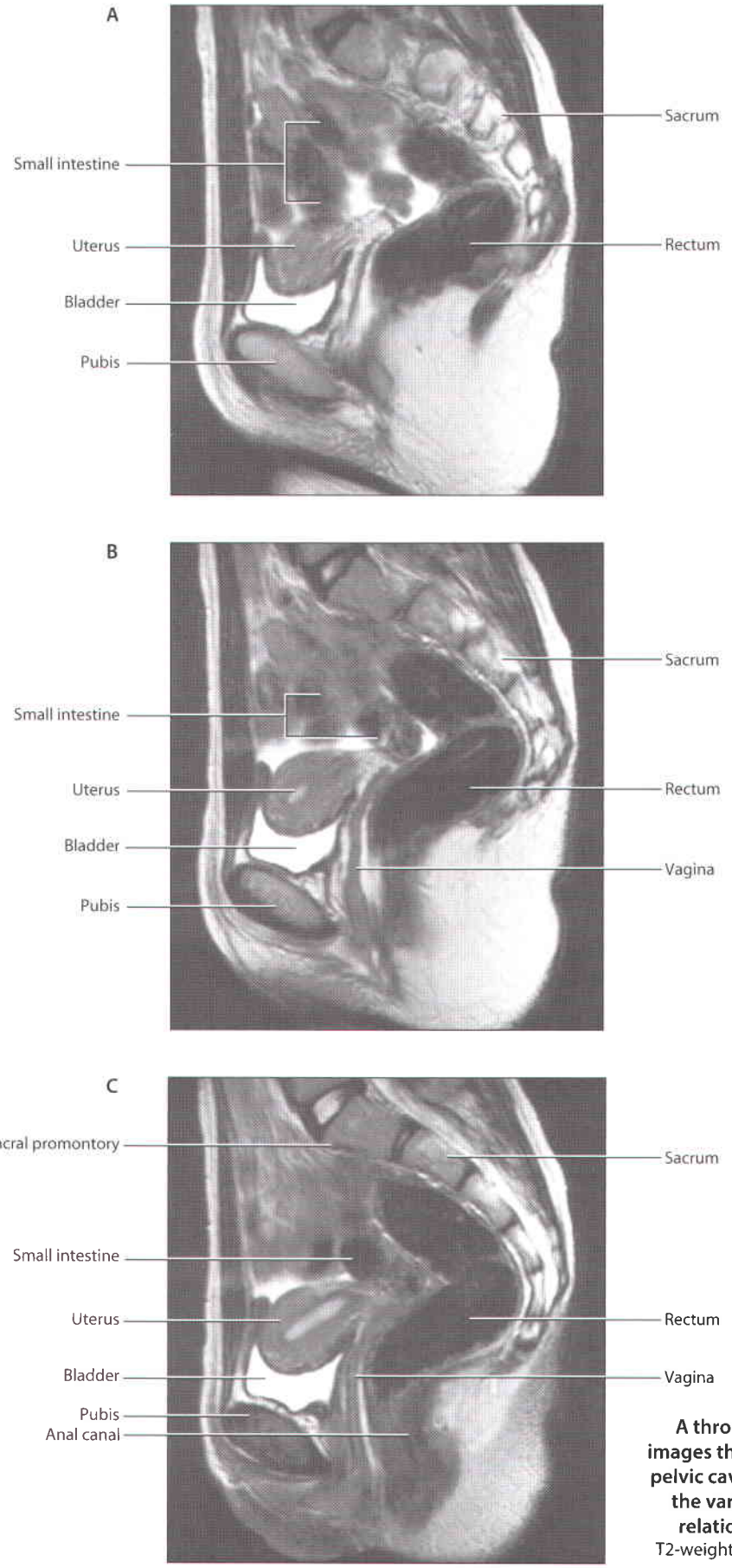
I


Femur
Bladder
Prostate
Ischium
Rectum

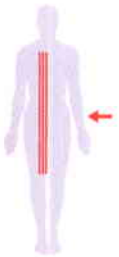
J


Head of femur
Bladder
Ischium
Rectum

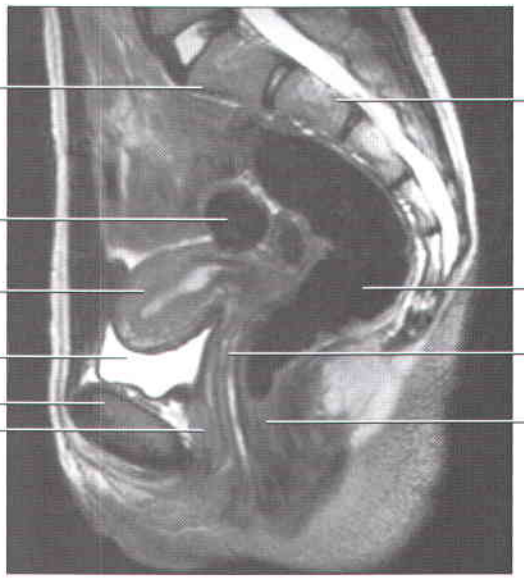




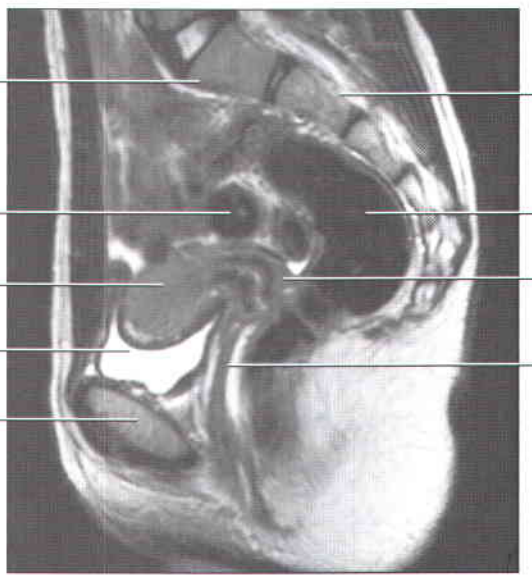
A through F – Series of sagittal images that pass through the female pelvic cavity and perineum showing the various structures and their relationships with each other.
T2-weighted MR images in sagittal plane



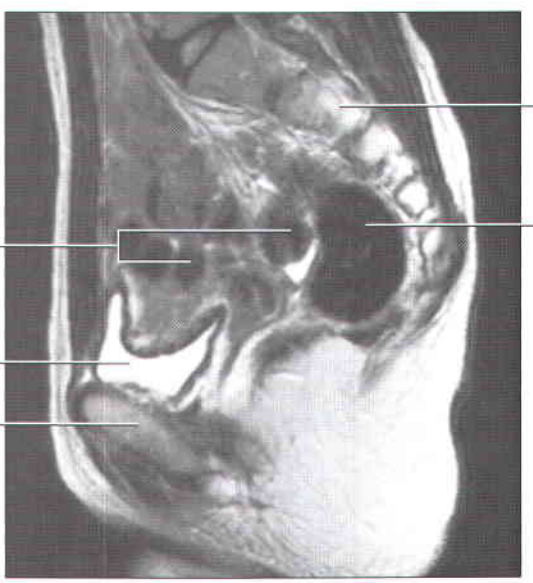
D

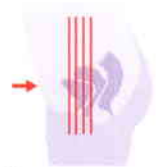

Sacral promontory
Small intestine
Uterus
Bladder
Pubic symphysis
Urethra
Sacrum
Rectum
Vagina
Anal canal

E

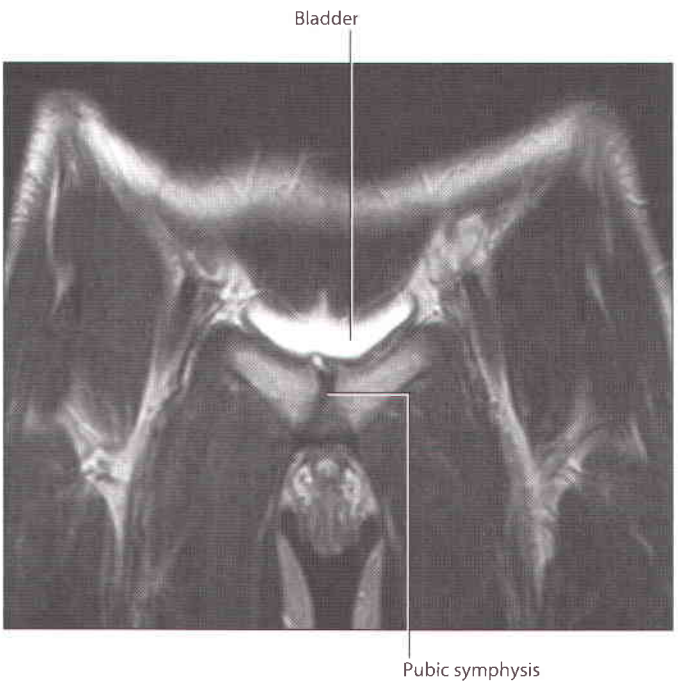

Sacral promontory
Small intestine
Uterus
Bladder
Pubis
Sacrum
Rectum
Cervix
Vagina

F

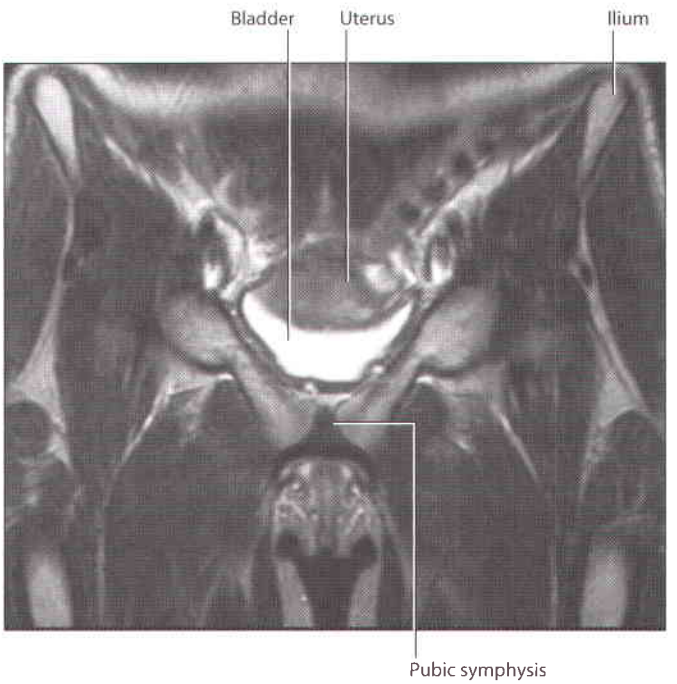

Small intestine
Bladder
Pubis
Sacrum
Rectum



A



B



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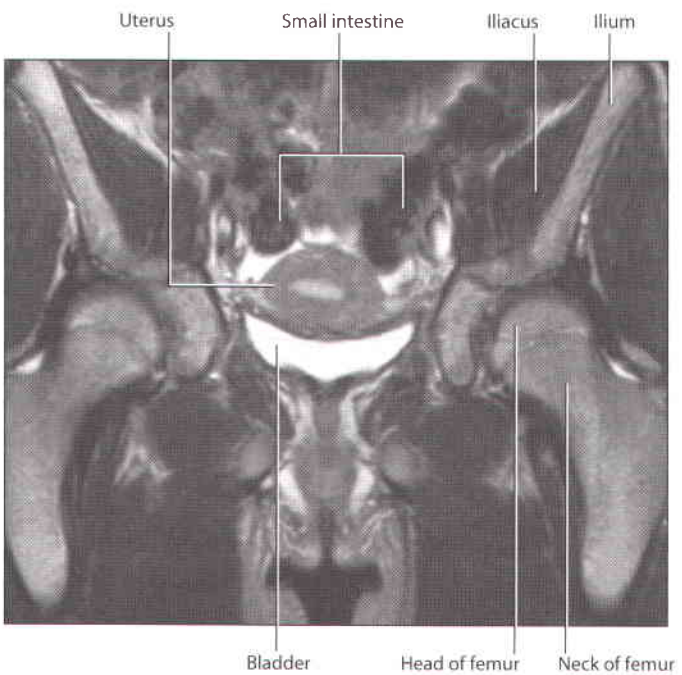

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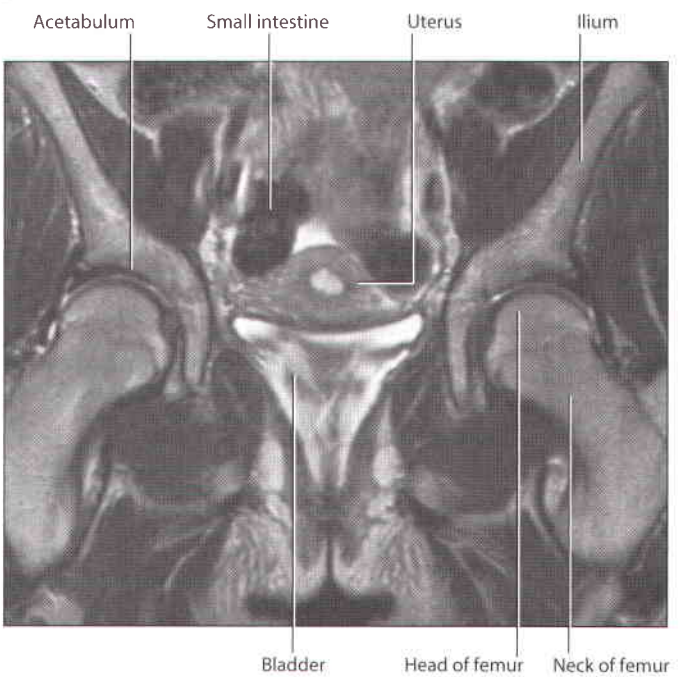
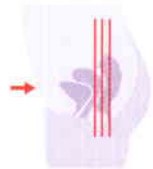
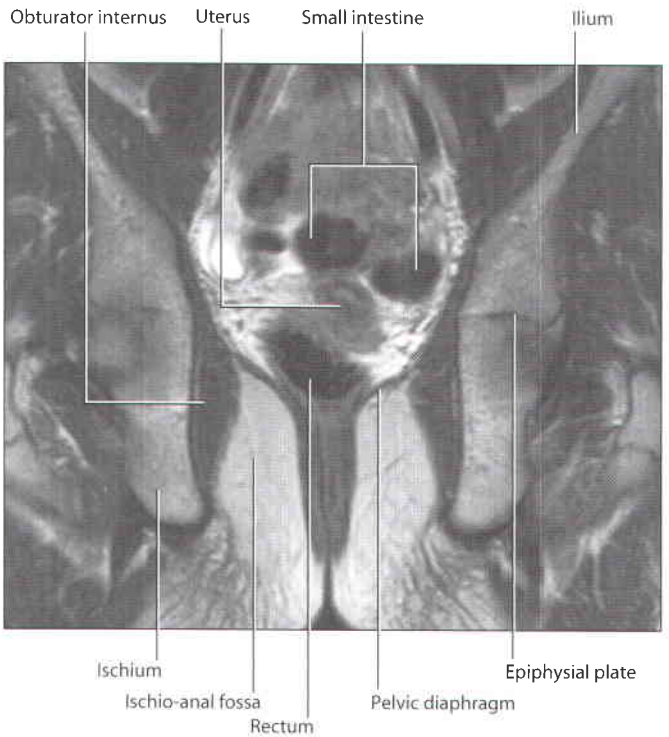


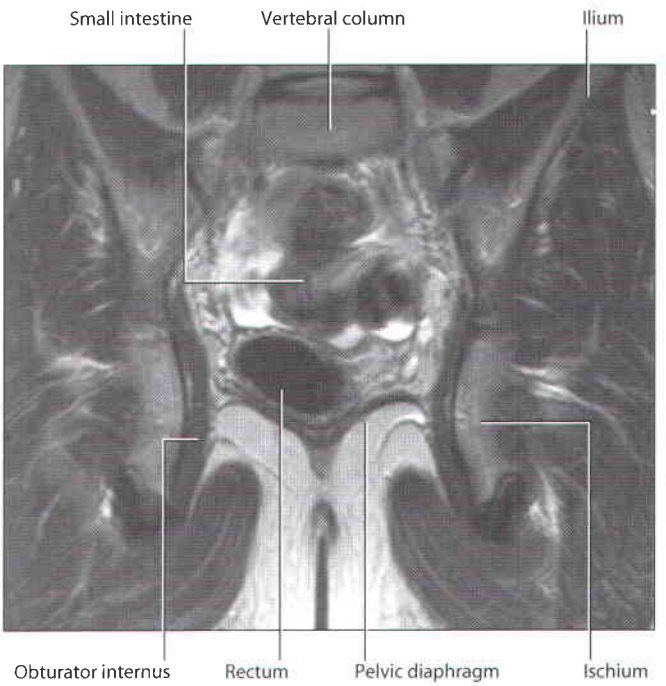
A through G – Series of coronal images that pass through the pelvic cavity and perineum from anterior to posterior showing the various structures and their relationships with each other.
T2-weighted MR images in coronal plane



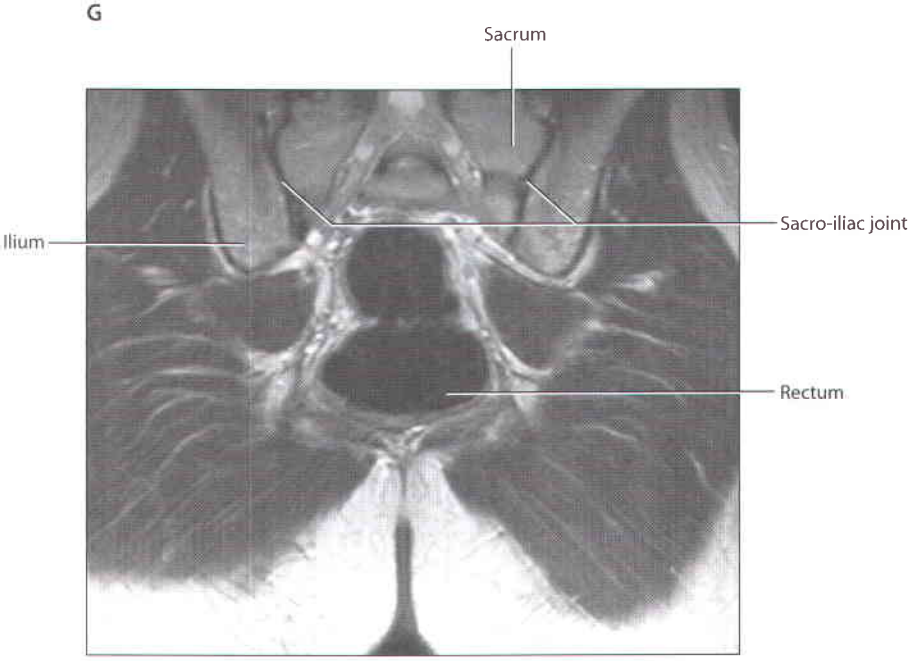
E

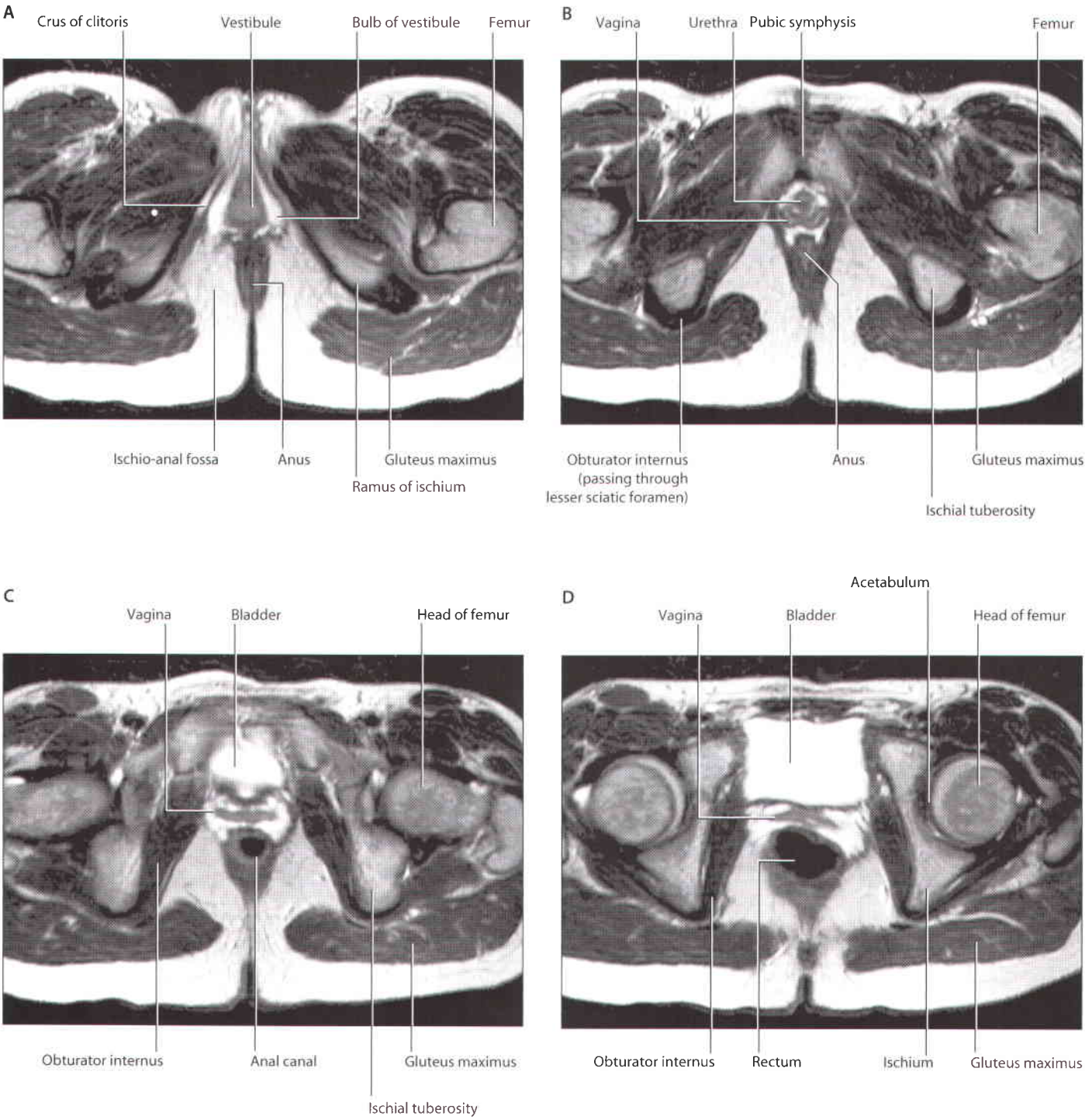

Obturator internus
Uterus
Small intestine
Ilium
Ischium
Ischio-anal fossa
Rectum
Pelvic diaphragm
Epiphysial plate

F

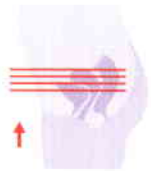

Small intestine
Vertebral column
Ilium
Obturator internus
Rectum
Pelvic diaphragm
Ischium

G

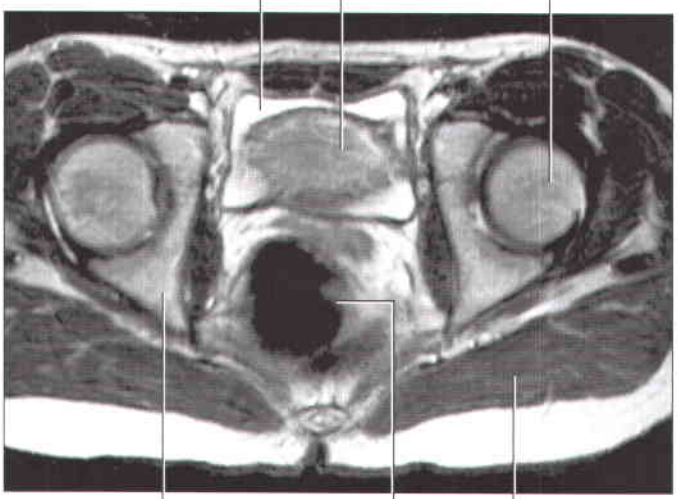

Sacrum
Ilium
Sacro-iliac joint
Rectum



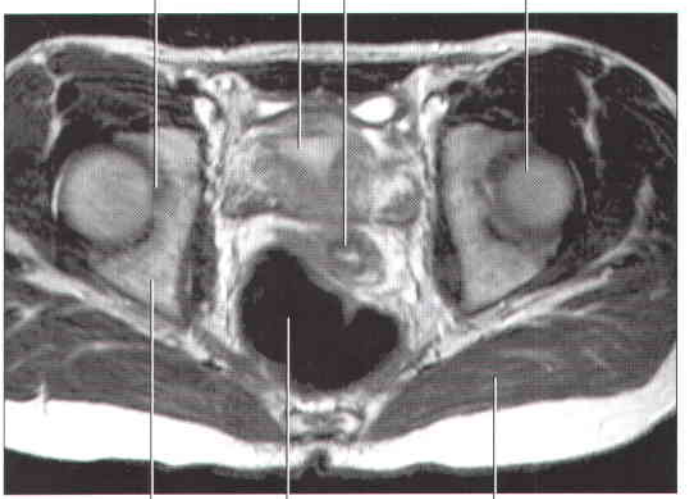
A through H – Series of axial images that pass through the pelvic cavity and perineum from inferior to superior showing the various structures and their relationships with each other.
T2-weighted MR images in axial plane



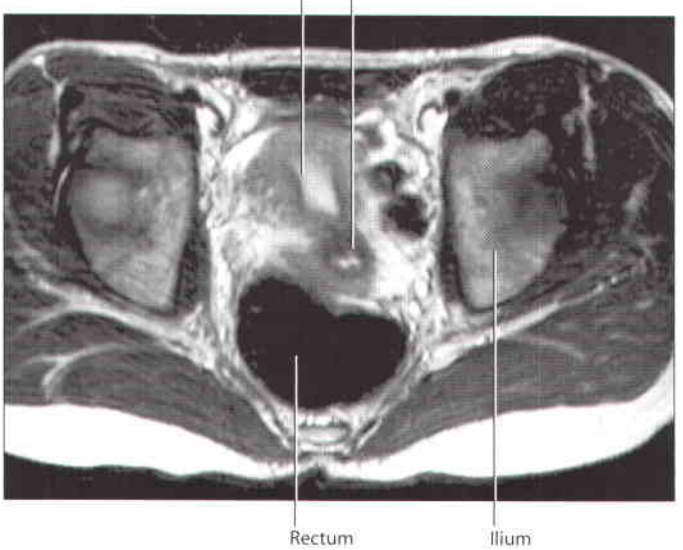
E


Bladder
Uterus
Head of femur
Ischium
Rectum
Gluteus maximus

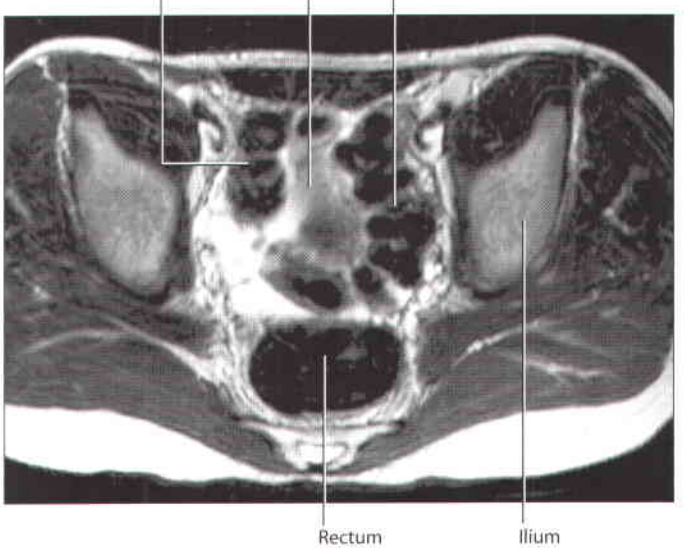
F


Acetabulum
Uterus
Cervix
Head of femur
Ischium
Rectum
Gluteus maximus

G


Uterus
Cervix
Rectum
Ilium

H


Small intestine
Uterus
Sigmoid colon
Rectum
Ilium

6

LOWER LIMB

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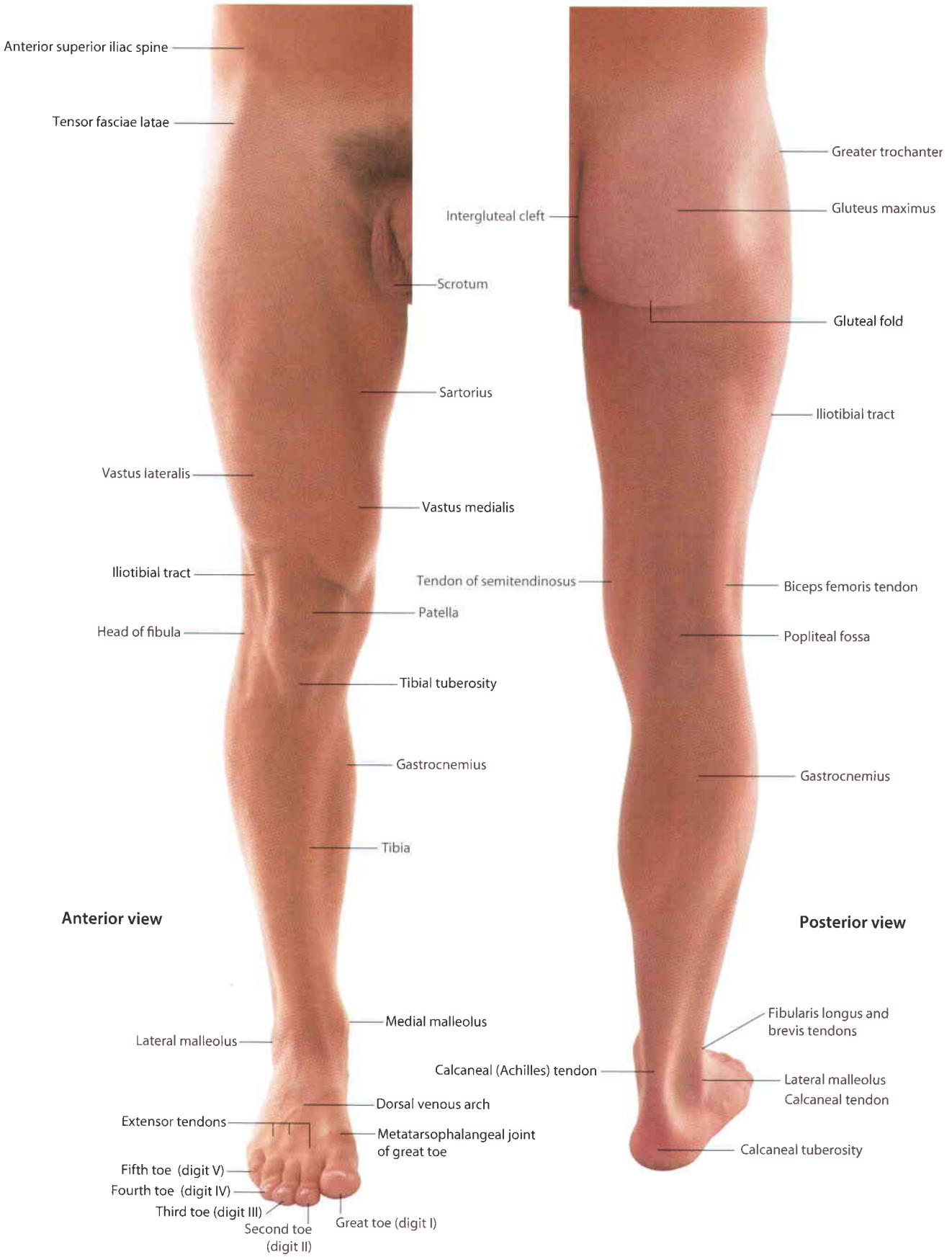
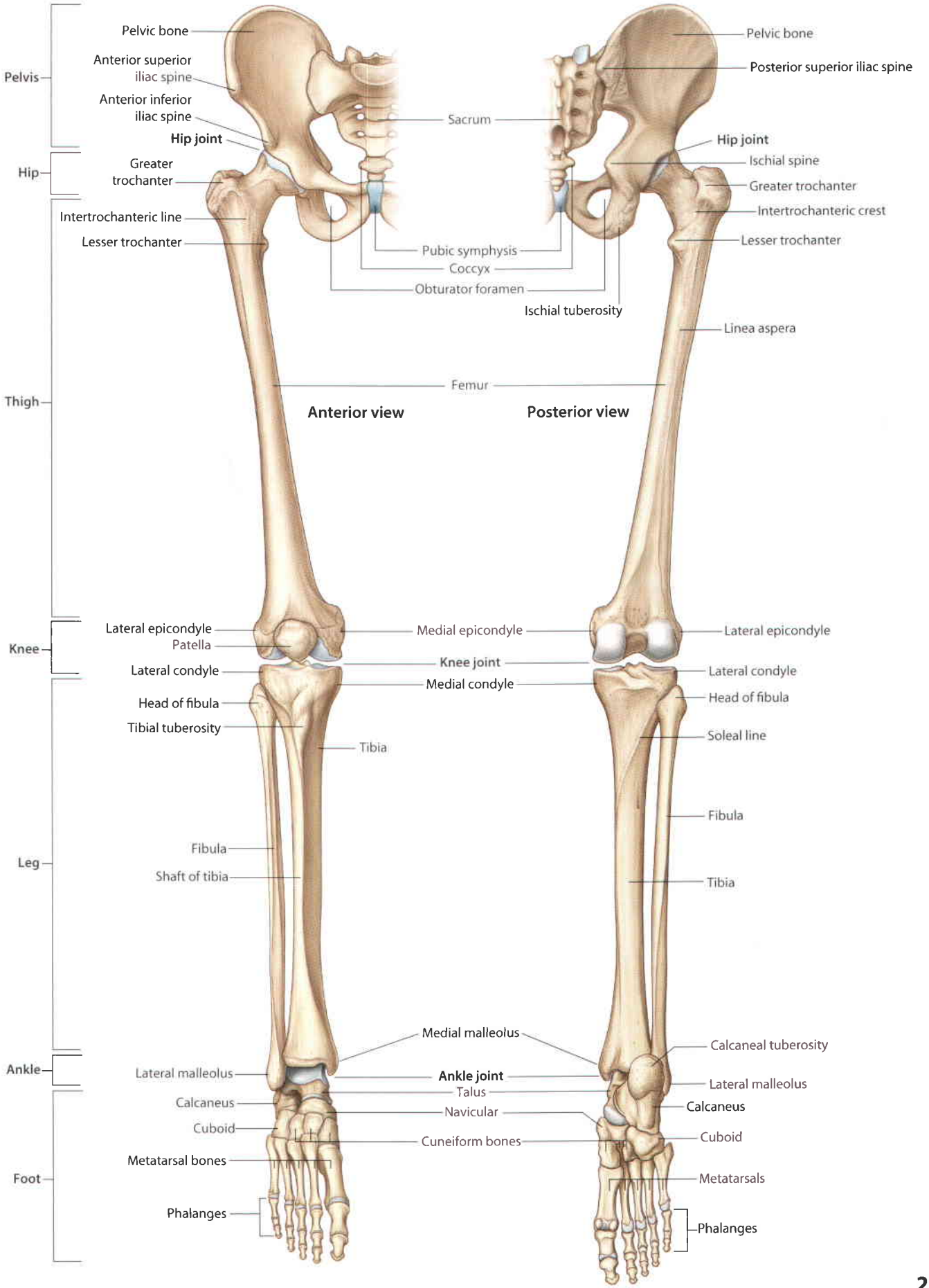
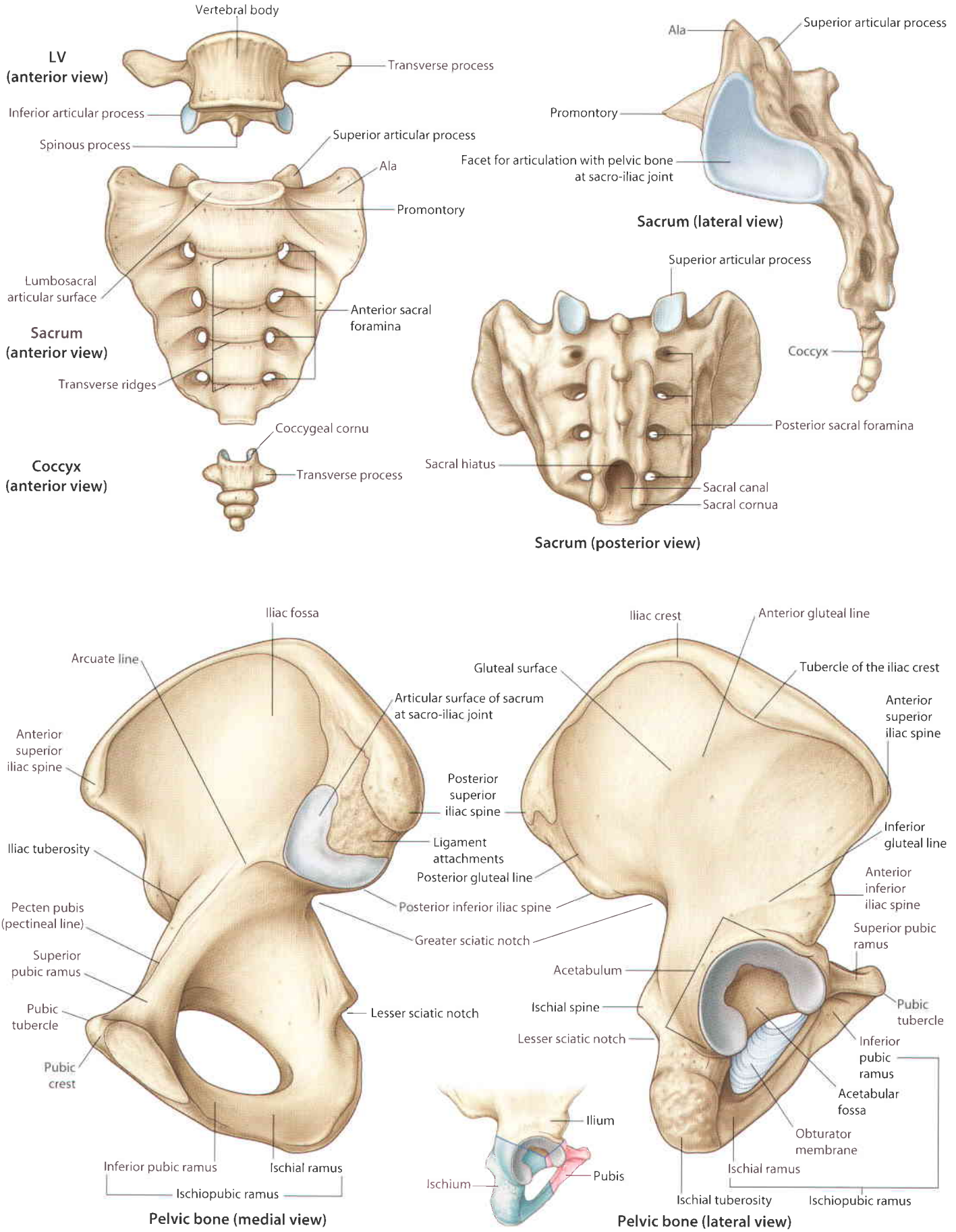

Anterior superior iliac spine
Tensor fasciae latae
Scrotum
Sartorius
Vastus lateralis
Vastus medialis
Iliotibial tract
Patella
Head of fibula
Tibial tuberosity
Gastrocnemius
Tibia
Anterior view
Medial malleolus
Lateral malleolus
Dorsal venous arch
Extensor tendons
Metatarsophalangeal joint of great toe
Fifth toe (digit V)
Fourth toe (digit IV)
Third toe (digit III)
Second toe (digit II)
Great toe (digit I)
Greater trochanter
Intergluteal cleft
Gluteus maximus
Gluteal fold
Iliotibial tract
Tendon of semitendinosus
Biceps femoris tendon
Popliteal fossa
Gastrocnemius
Posterior view
Fibularis longus and brevis tendons
Calcaneal (Achilles) tendon
Lateral malleolus
Calcaneal tendon
Calcaneal tuberosity


Pelvis
Hip
Thigh
Knee
Leg
Ankle
Foot
Pelvic bone
Anterior superior iliac spine
Anterior inferior iliac spine
Hip joint
Greater trochanter
Intertrochanteric line
Lesser trochanter
Sacrum
Pubic symphysis
Coccyx
Obturator foramen
Ischial tuberosity
Femur
Anterior view
Posterior view
Pelvic bone
Posterior superior iliac spine
Hip joint
Ischial spine
Greater trochanter
Intertrochanteric crest
Lesser trochanter
Linea aspera
Lateral epicondyle
Patella
Lateral condyle
Head of fibula
Tibial tuberosity
Tibia
Fibula
Shaft of tibia
Medial epicondyle
Knee joint
Medial condyle
Lateral epicondyle
Lateral condyle
Head of fibula
Soleal line
Fibula
Tibia
Medial malleolus
Lateral malleolus
Ankle joint
Talus
Calcaneus
Navicular
Cuboid
Cuneiform bones
Metatarsal bones
Phalanges
Calcaneal tuberosity
Lateral malleolus
Calcaneus
Cuboid
Metatarsals
Phalanges


LV
(anterior view)
Vertebral body
Transverse process
Inferior articular process
Spinous process
Superior articular process
Ala
Promontory
Lumbosacral articular surface
Anterior sacral foramina
Sacrum
(anterior view)
Transverse ridges
Coccygeal cornu
Coccyx
(anterior view)
Transverse process
Ala
Superior articular process
Promontory
Facet for articulation with pelvic bone at sacro-iliac joint
Sacrum (lateral view)
Coccyx
Superior articular process
Posterior sacral foramina
Sacral hiatus
Sacral canal
Sacral cornua
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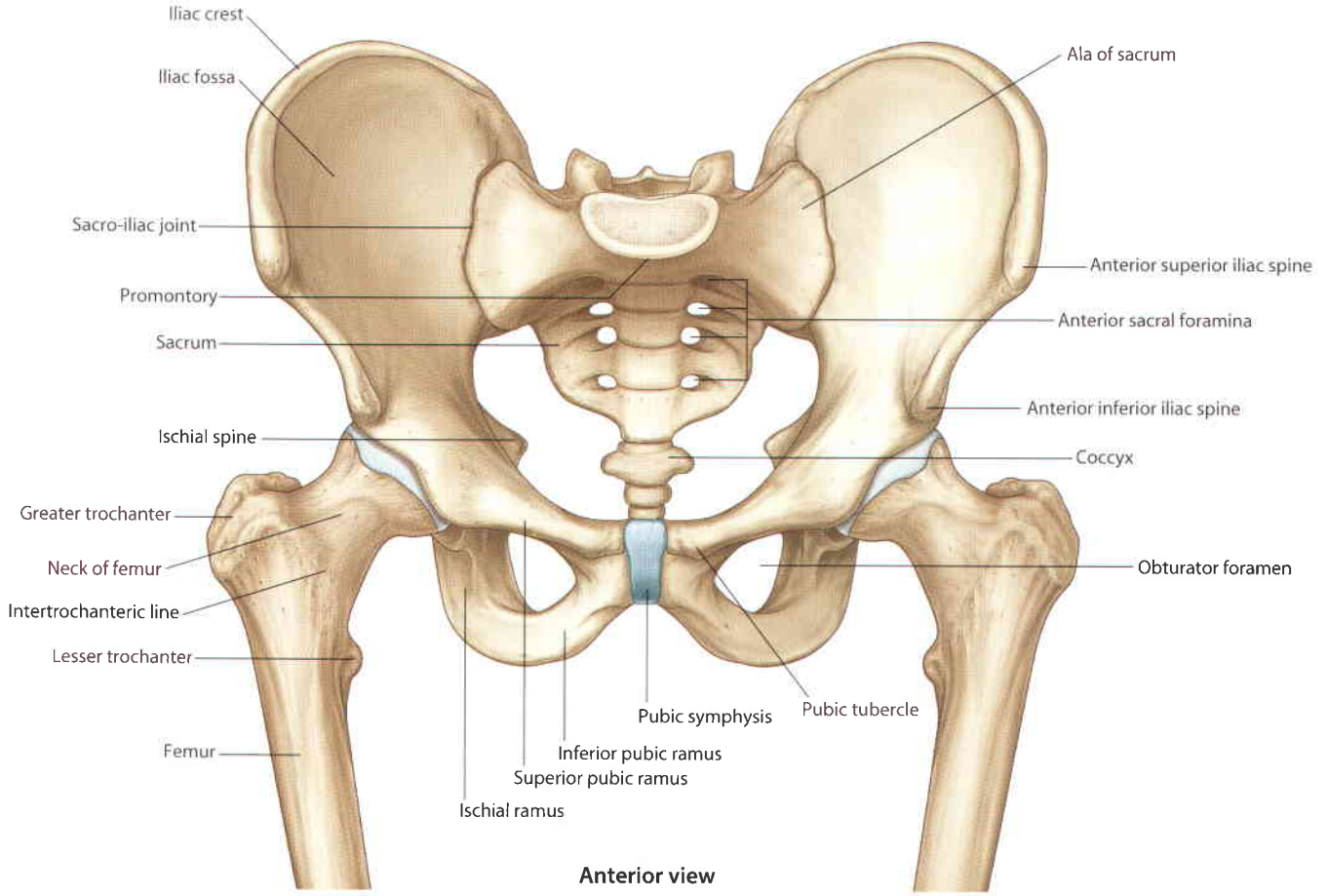
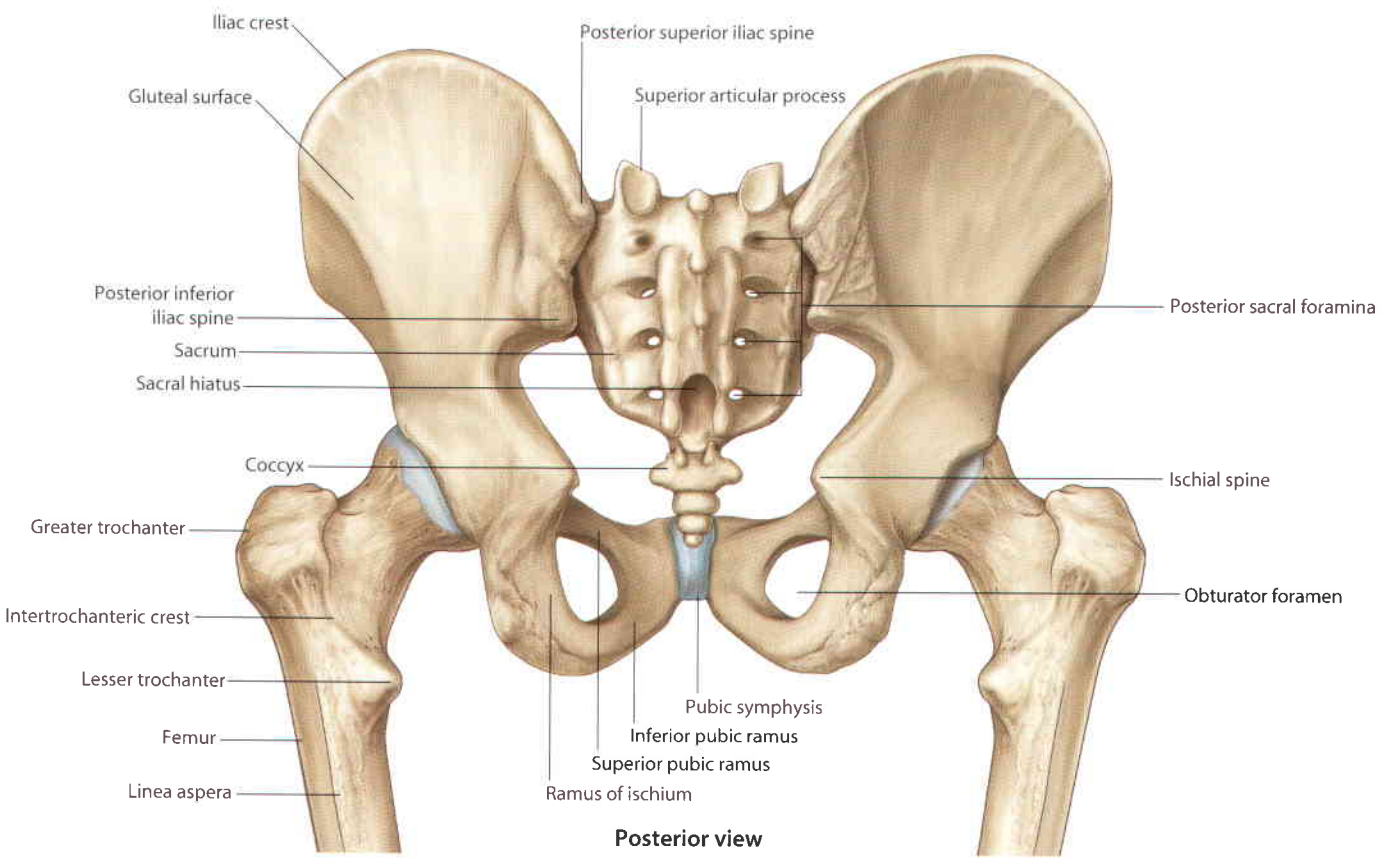
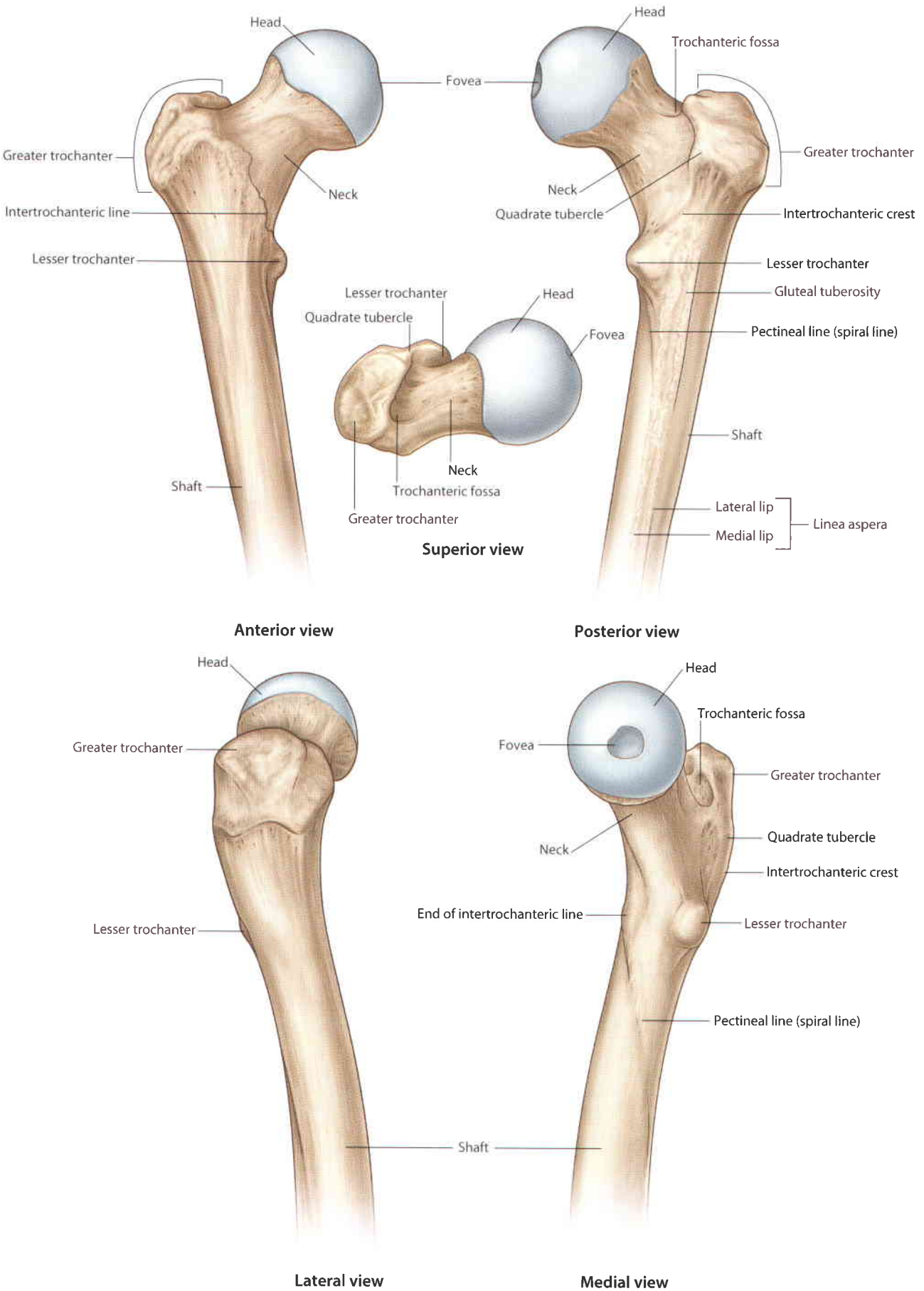
Iliac fossa
Arcuate line
Articular surface of sacrum at sacro-iliac joint
Anterior superior iliac spine
Posterior superior iliac spine
Iliac tuberosity
Ligament attachments
Posterior gluteal line
Posterior inferior iliac spine
Pecten pubis (pectineal line)
Greater sciatic notch
Superior pubic ramus
Pubic tubercle
Lesser sciatic notch
Pubic crest
Inferior pubic ramus
Ischial ramus
Ischiopubic ramus
Pelvic bone (medial view)
Iliac crest
Anterior gluteal line
Gluteal surface
Tubercle of the iliac crest
Anterior superior iliac spine
Inferior gluteal line
Anterior inferior iliac spine
Superior pubic ramus
Acetabulum
Ischial spine
Pubic tubercle
Lesser sciatic notch
Inferior pubic ramus
Acetabular fossa
Obturator membrane
Ischial ramus
Ischial tuberosity
Ischiopubic ramus
Pelvic bone (lateral view)
Ilium
Ischium
Pubis

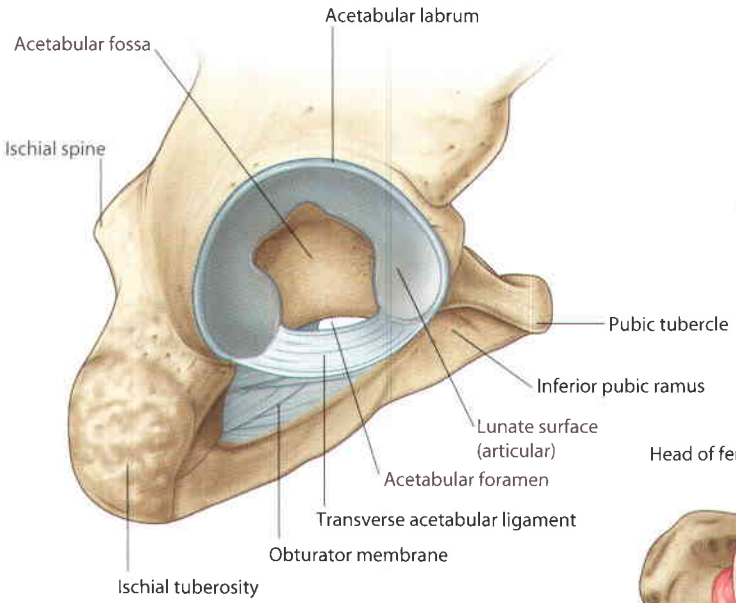


Anterior view

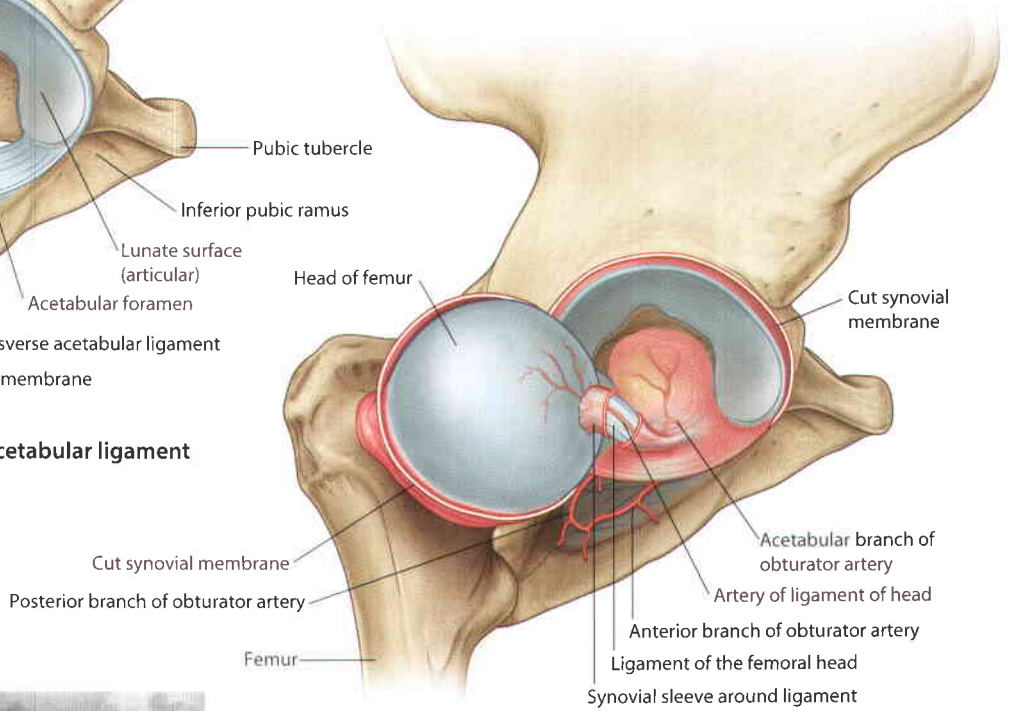


Posterior view

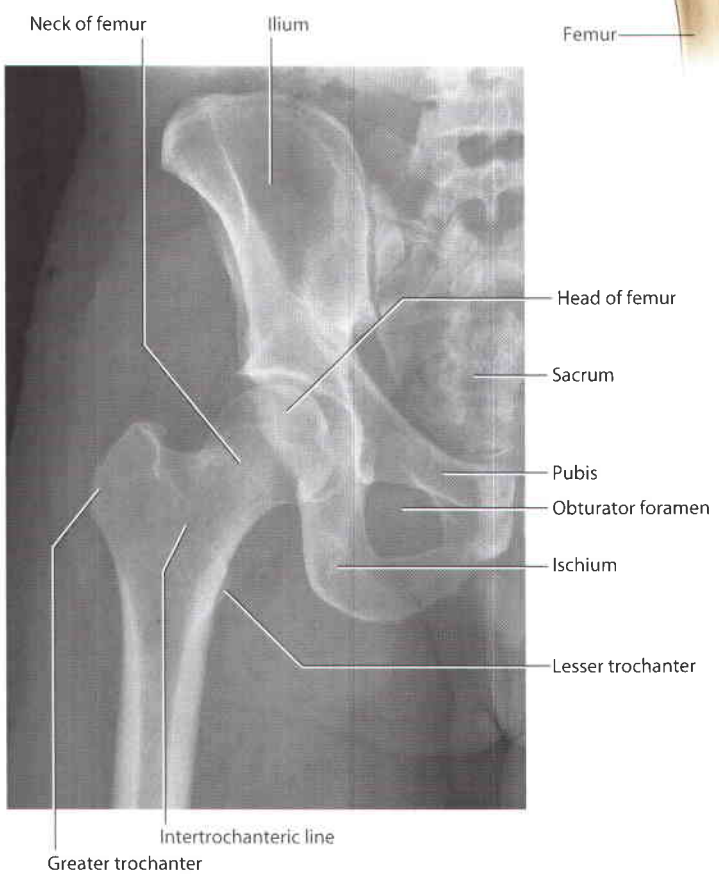

Head
Fovea
Greater trochanter
Neck
Intertrochanteric line
Lesser trochanter
Shaft
Anterior view
Lesser trochanter
Quadrate tubercle
Head
Fovea
Neck
Trochanteric fossa
Greater trochanter
Superior view
Head
Trochanteric fossa
Greater trochanter
Neck
Quadrate tubercle
Intertrochanteric crest
Lesser trochanter
Gluteal tuberosity
Pectineal line (spiral line)
Shaft
Lateral lip
Medial lip
Linea aspera
Posterior view
Head
Greater trochanter
Lesser trochanter
Shaft
Lateral view
Head
Trochanteric fossa
Fovea
Greater trochanter
Neck
Quadrate tubercle
Intertrochanteric crest
End of intertrochanteric line
Lesser trochanter
Pectineal line (spiral line)
Medial view



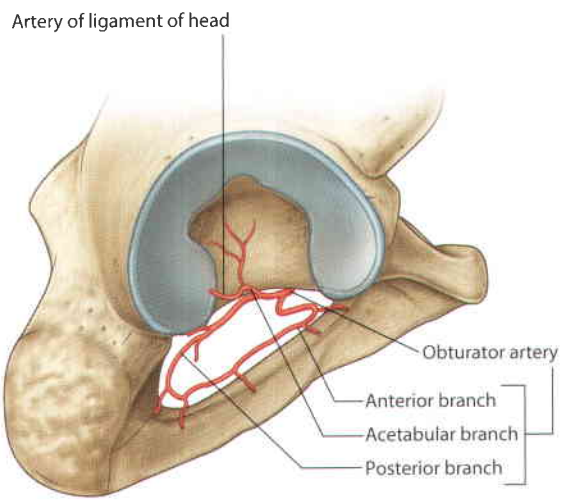
Acetabular fossa and transverse acetabular ligament



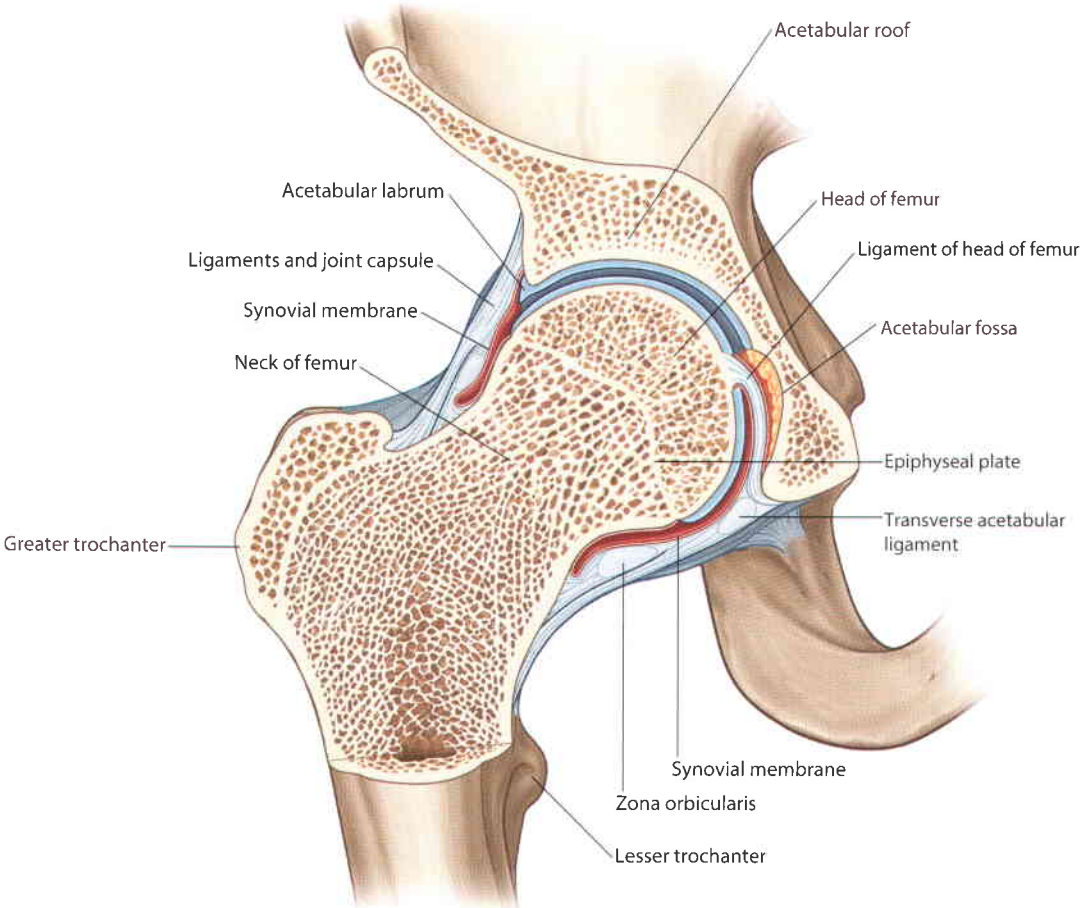
Ligament of head of femur.
The head of the femur has been laterally rotated



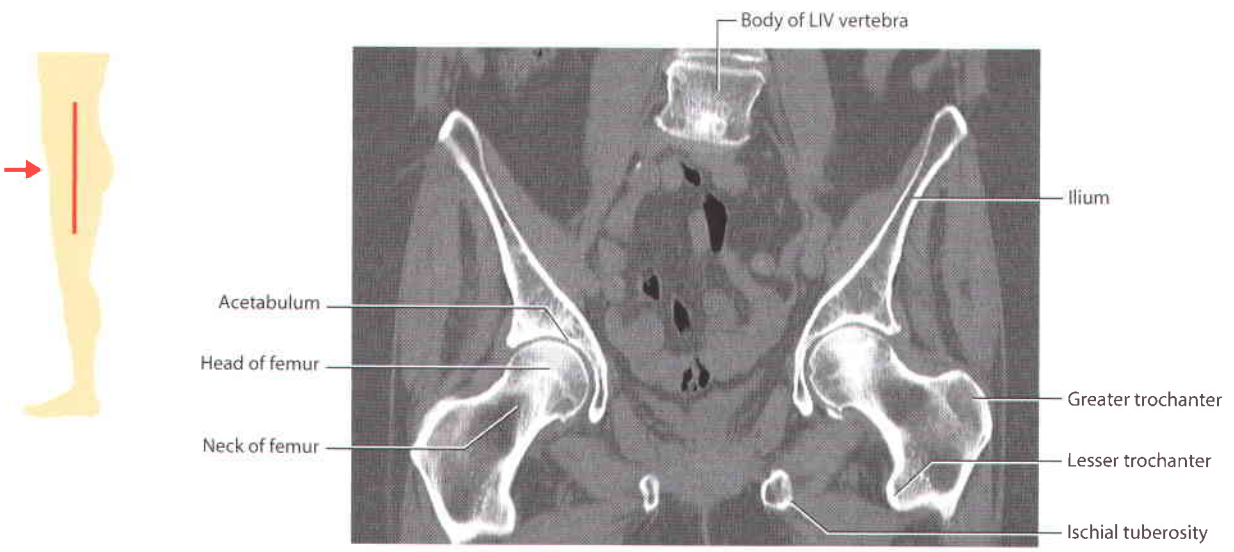
Normal hip joint.
Radiograph, AP view



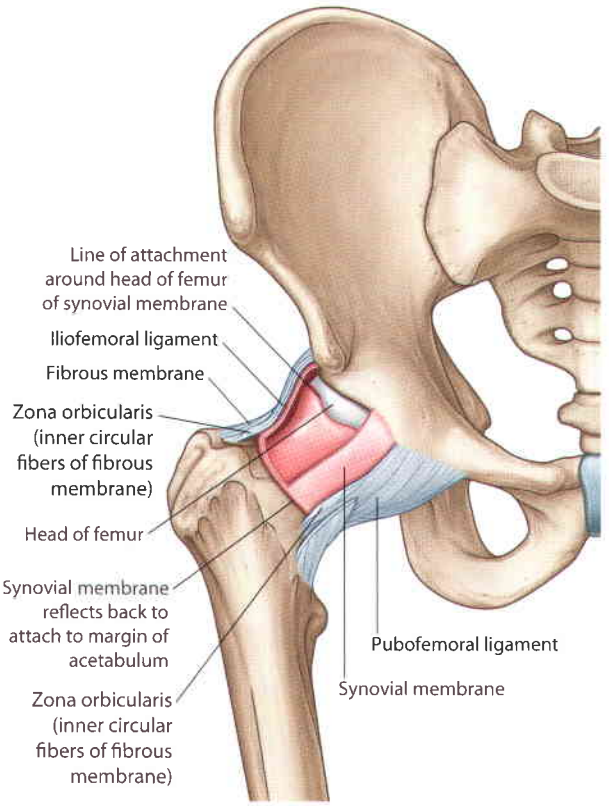
Obturator artery and branches



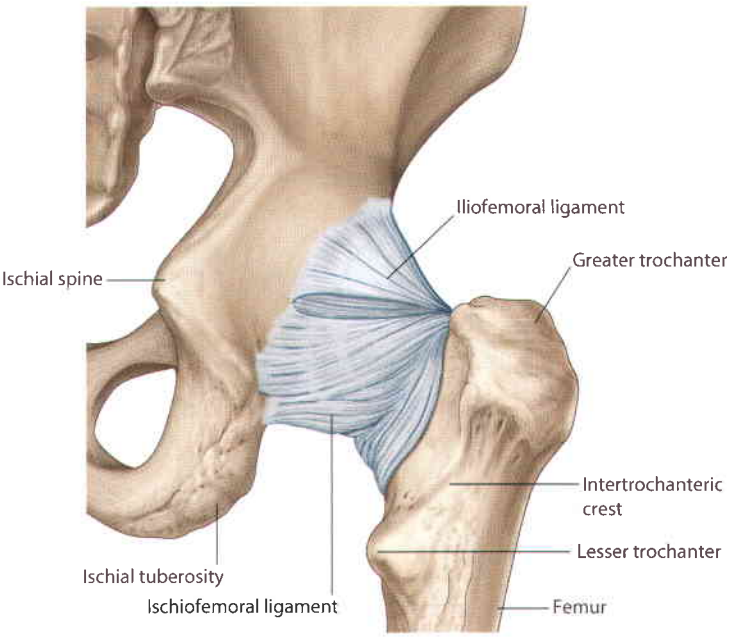
Coronal section through hip joint



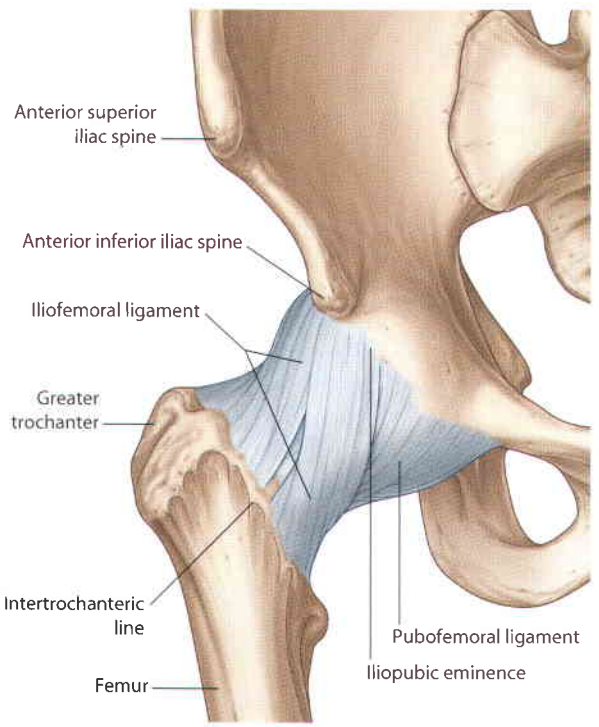
Hip joints.
CT image in coronal plane



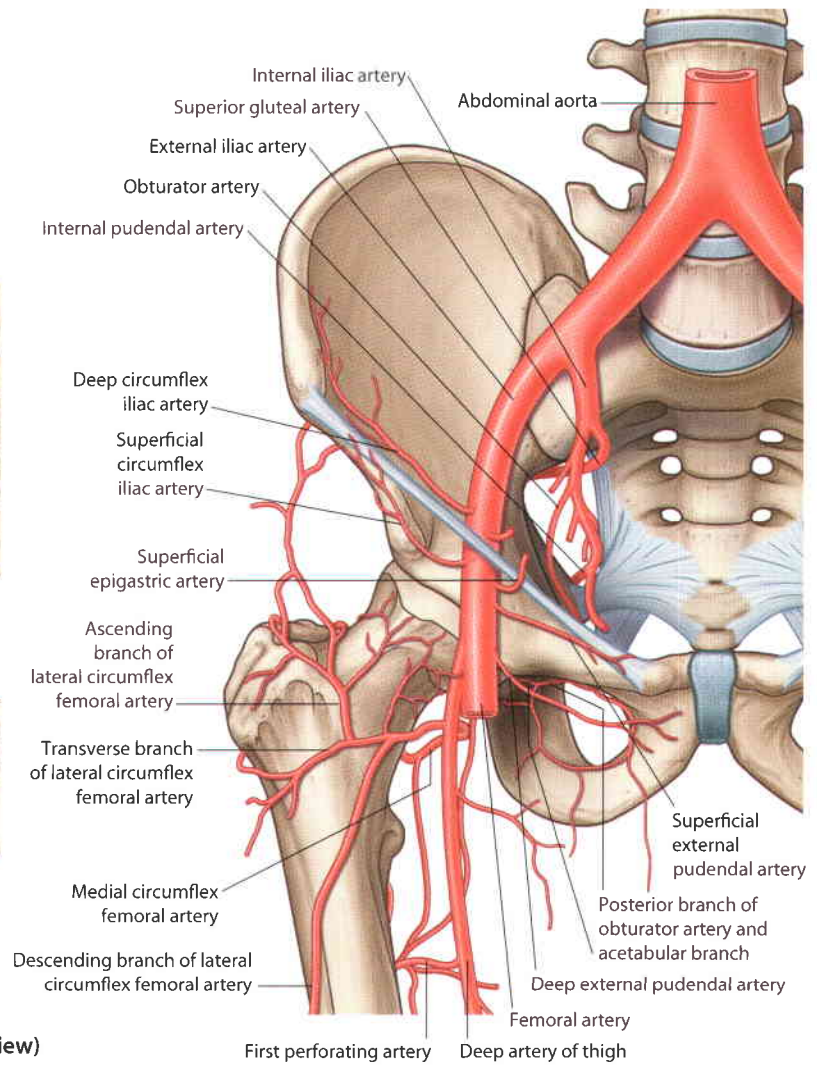
Joint capsule and synovial membrane



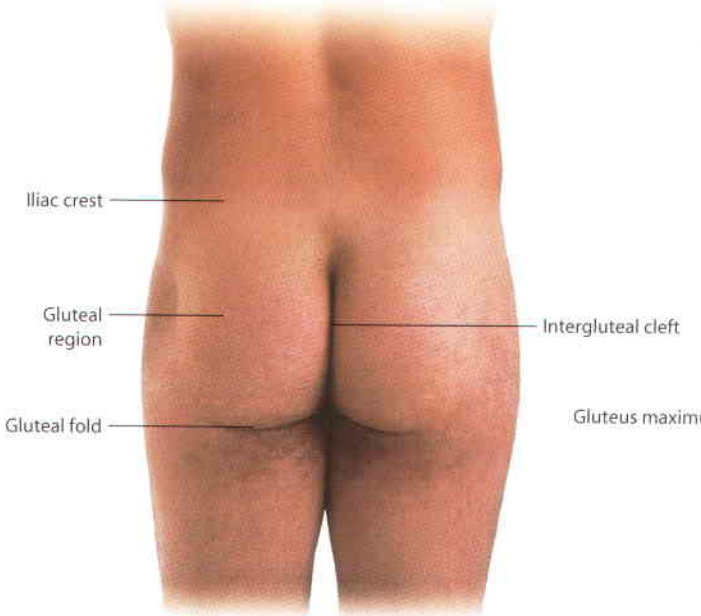
Ischiofemoral ligament (posterior view)



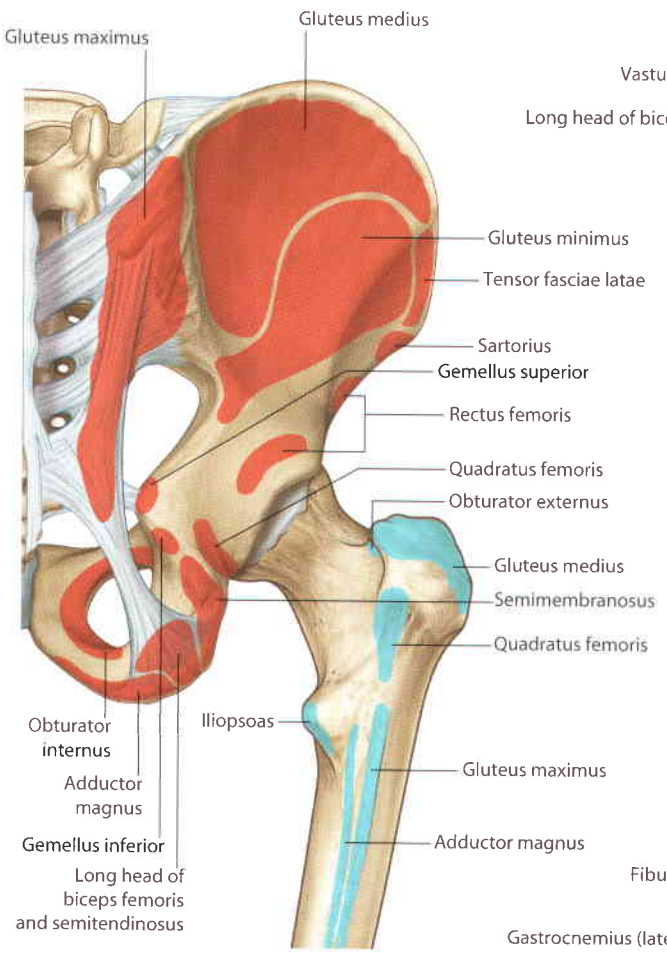
Iliofemoral and pubofemoral ligaments (anterior view)



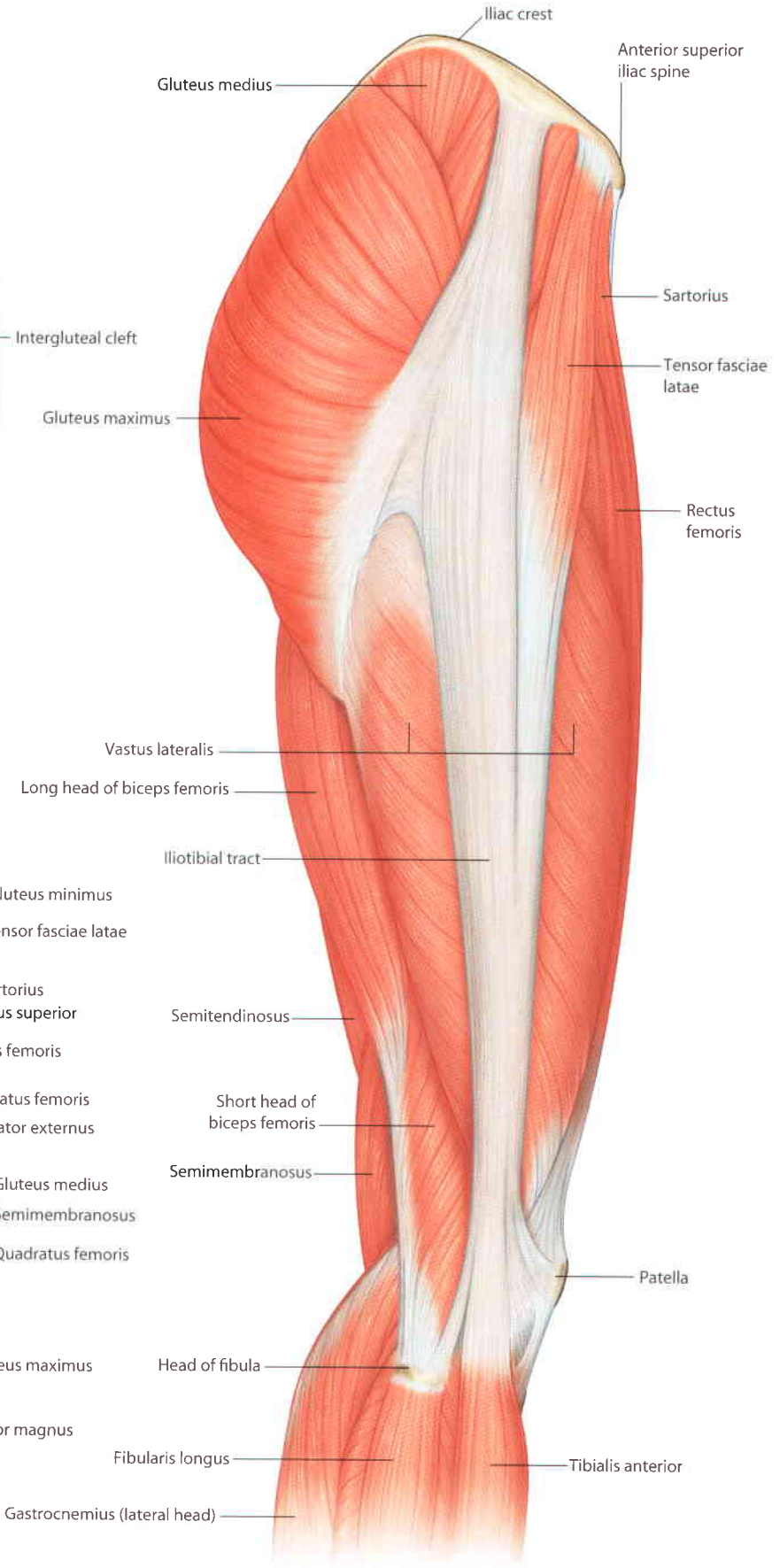
Arterial supply of the hip joint



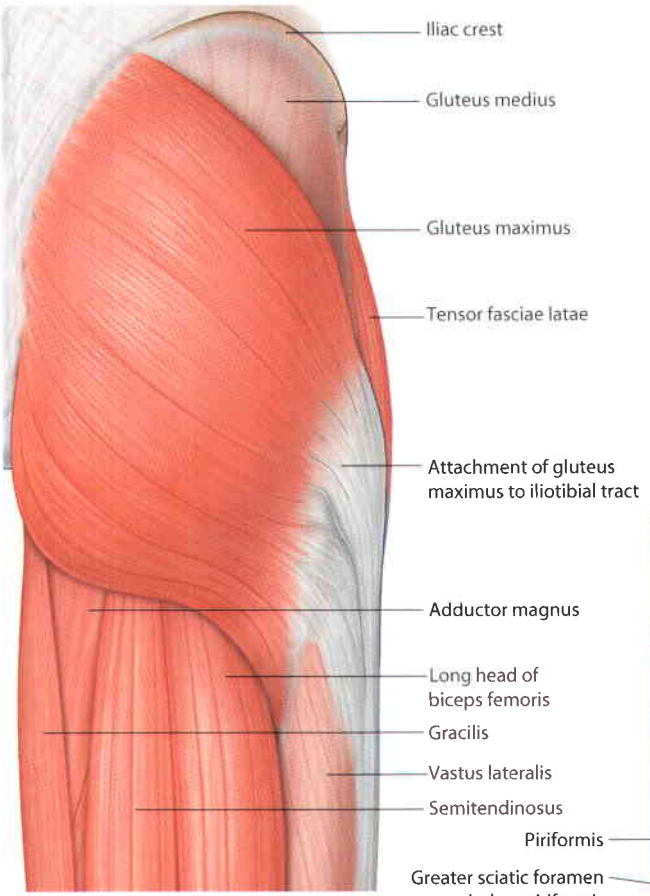
Surface anatomy of the gluteal region



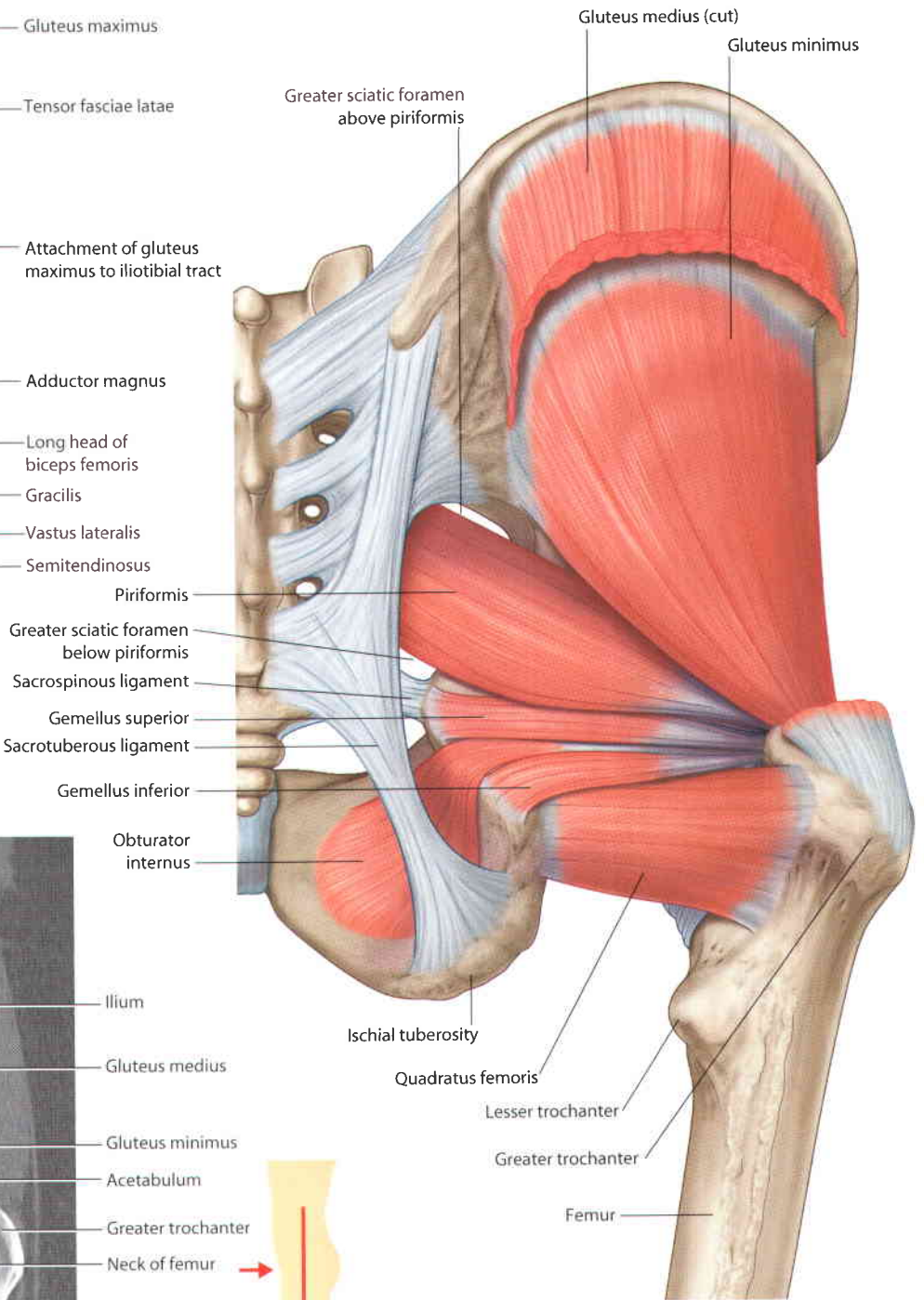
Muscle attachments of the gluteal region



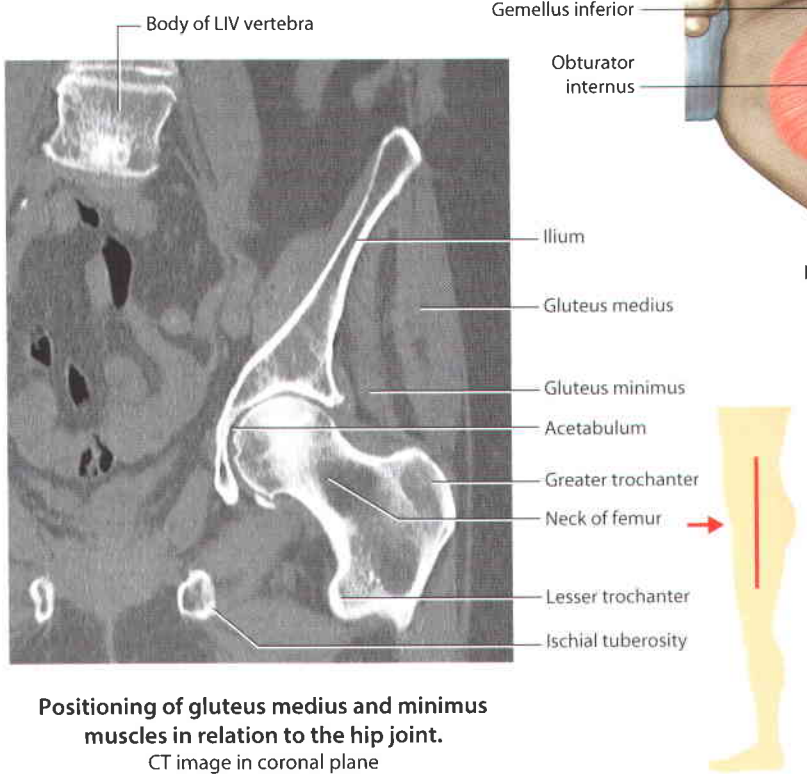
Muscles of the hip and thigh (lateral view)



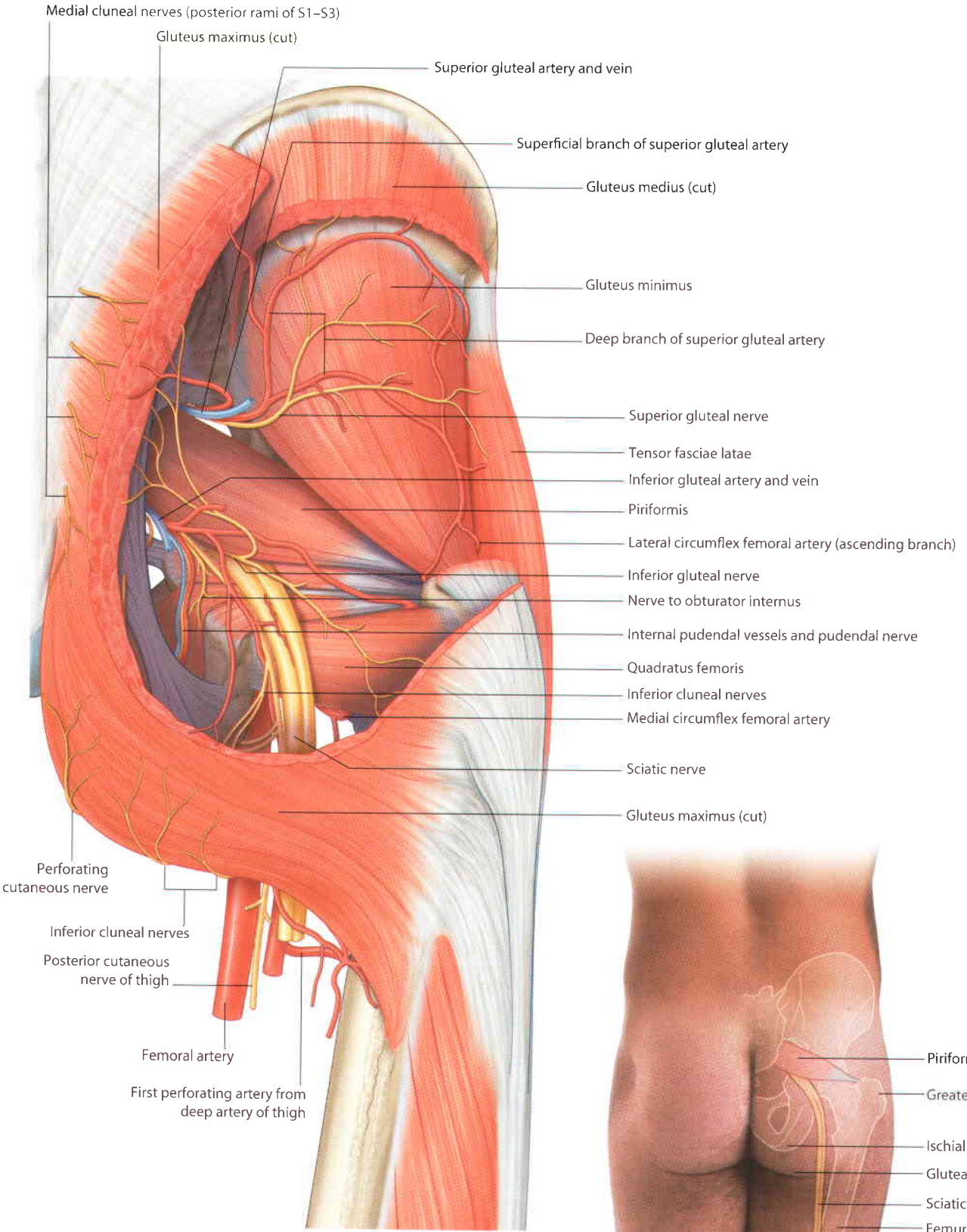
Superficial muscles of the gluteal region (posterior view)



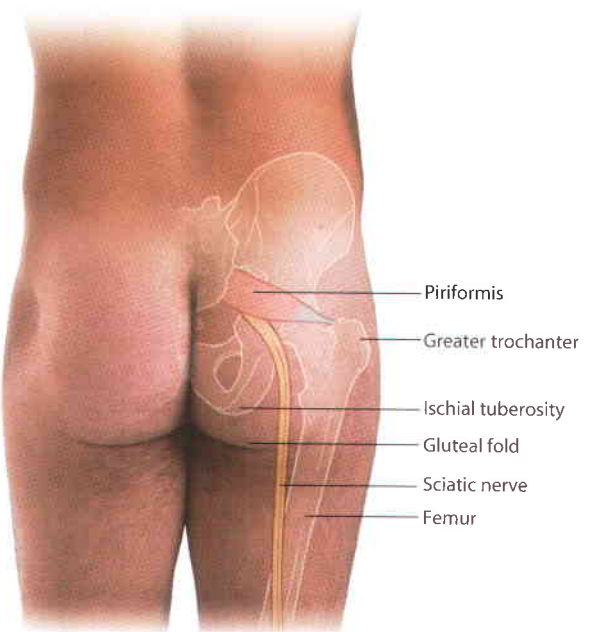
Deep muscles of the gluteal region (posterior view)



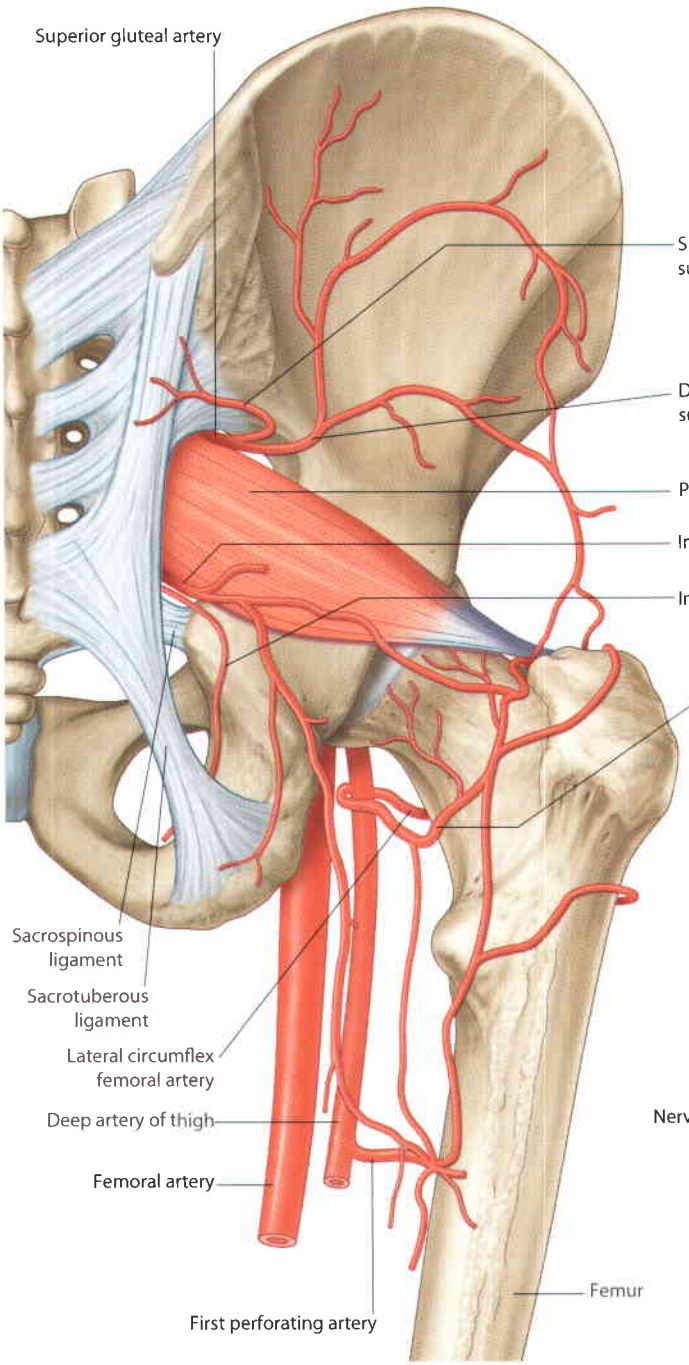
Positioning of gluteus medius and minimus muscles in relation to the hip joint.
CT image in coronal plane



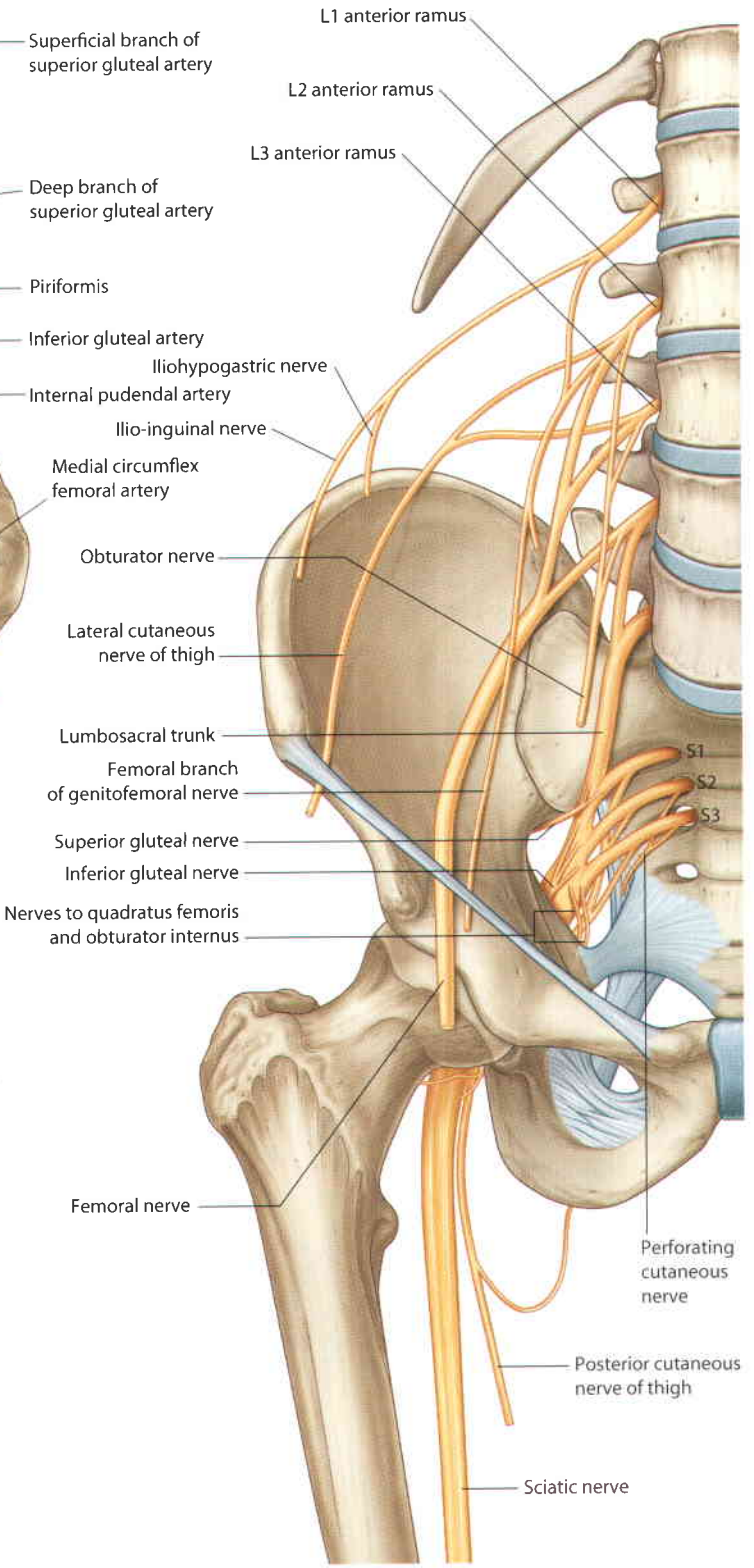
Arteries and nerves of the gluteal region



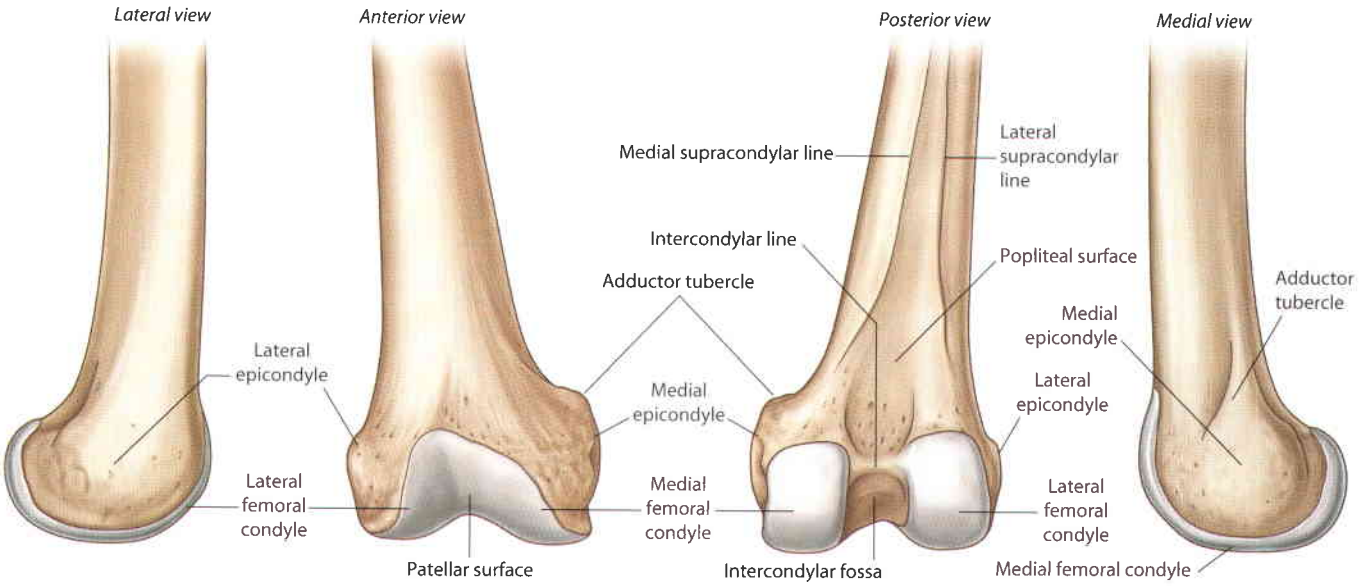
Sciatic nerve in the gluteal region as it relates to the surface (posterior view)



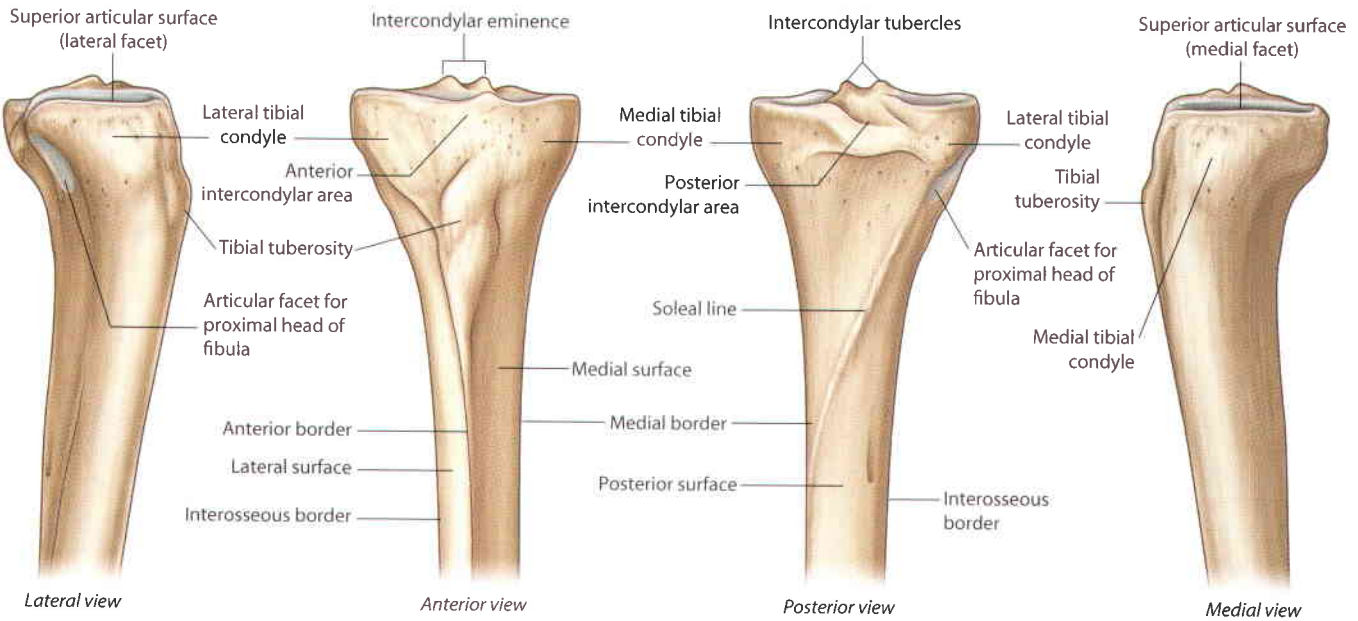
Arteries of the gluteal region



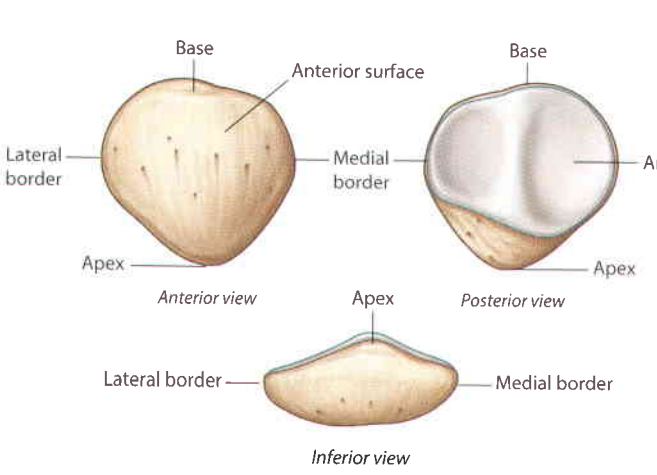
Branches of the lumbosacral plexus related to lower limb



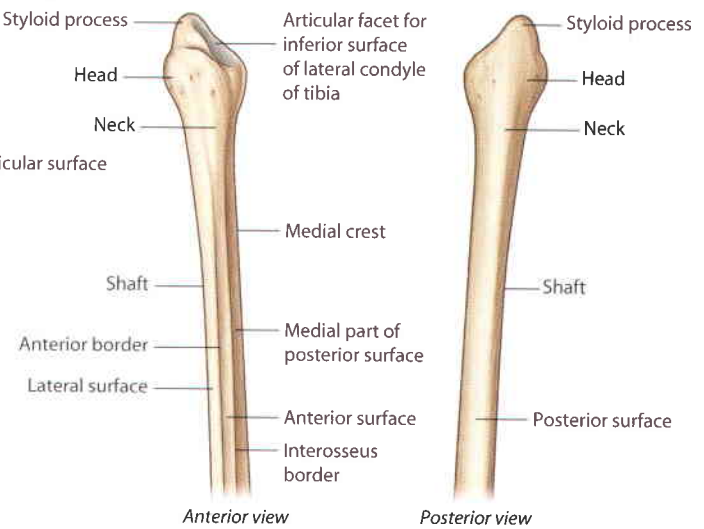
Distal end of (right) femur



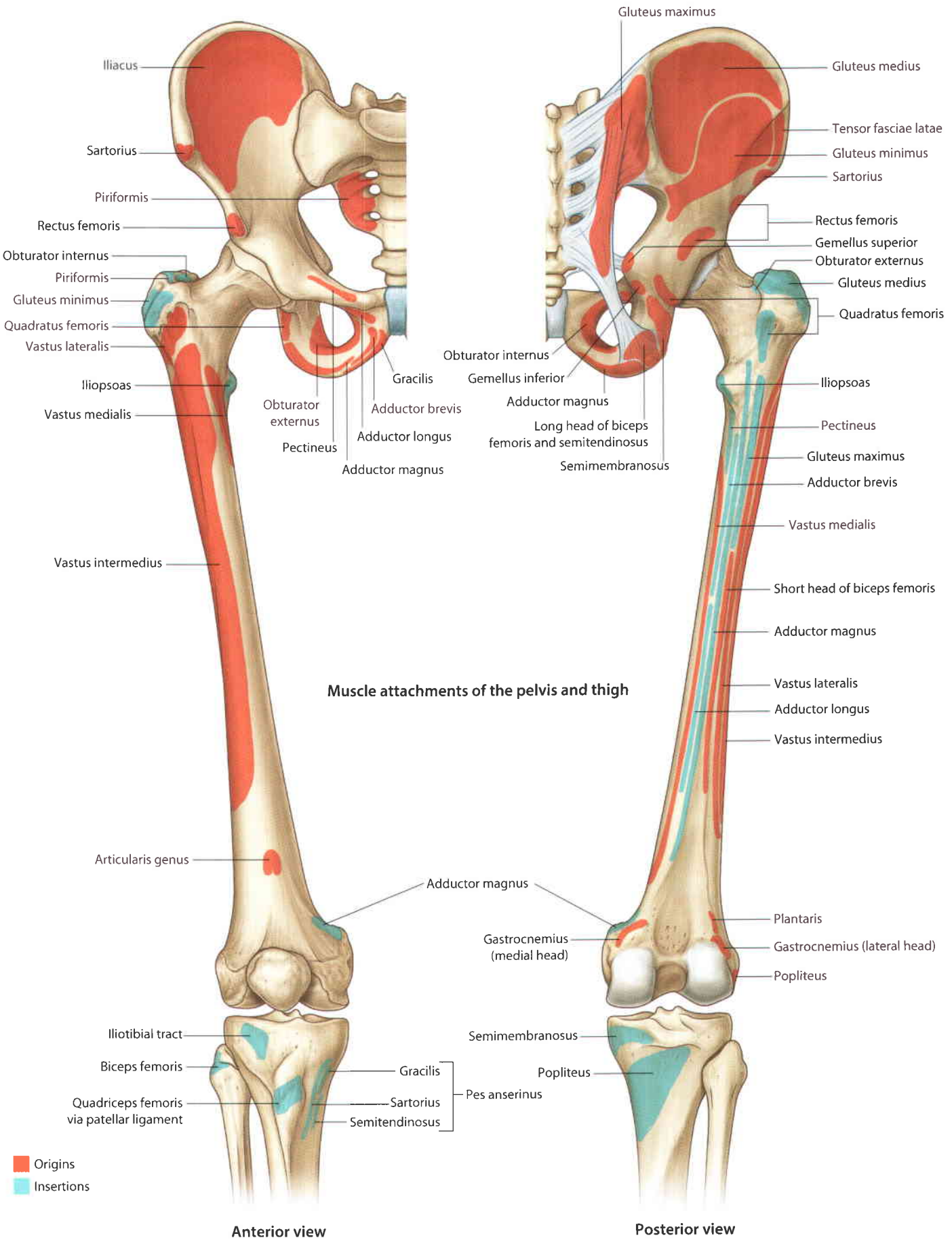
Proximal end of (right) tibia



Patella (right)

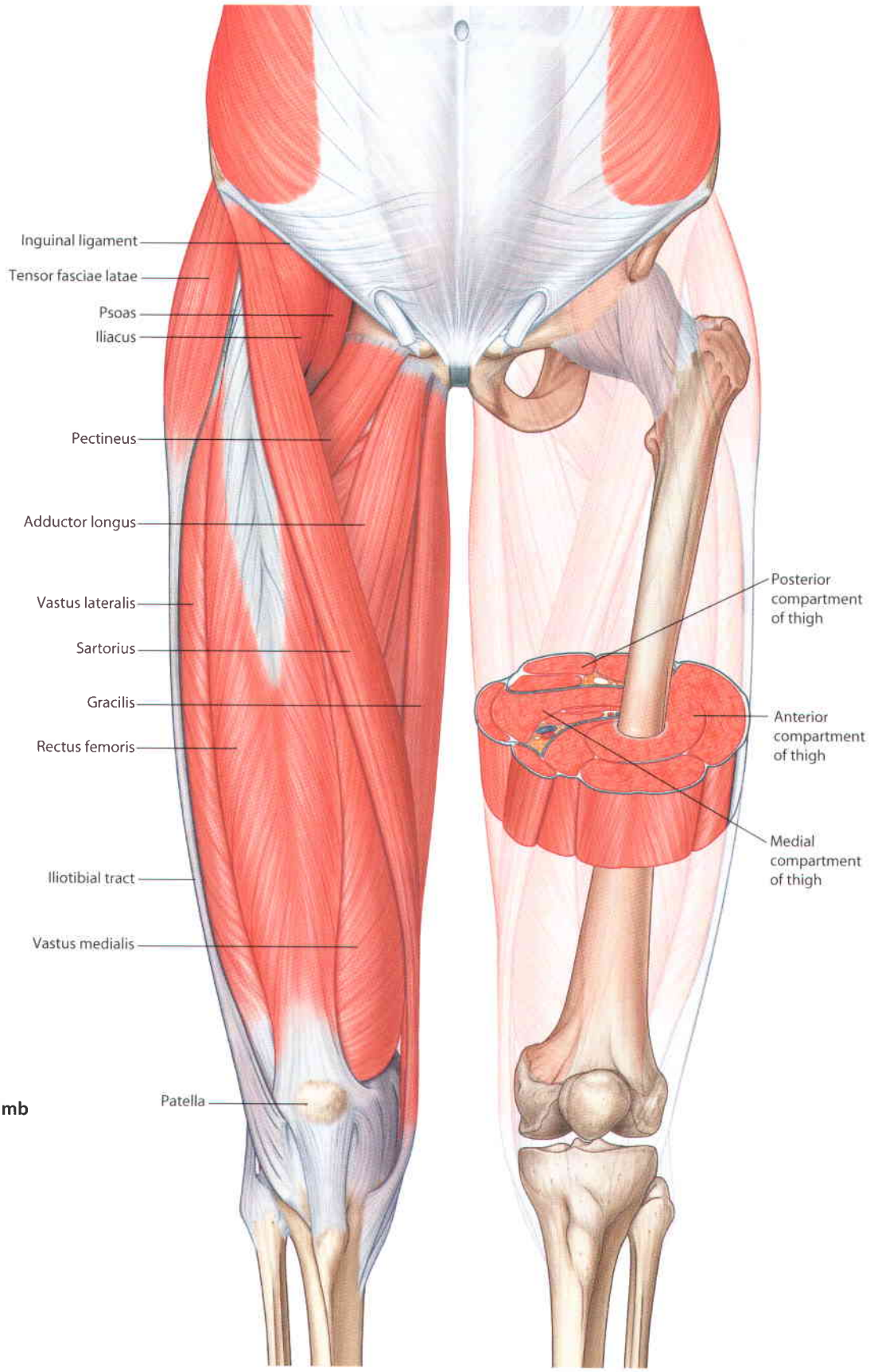


Proximal end of (right) fibula

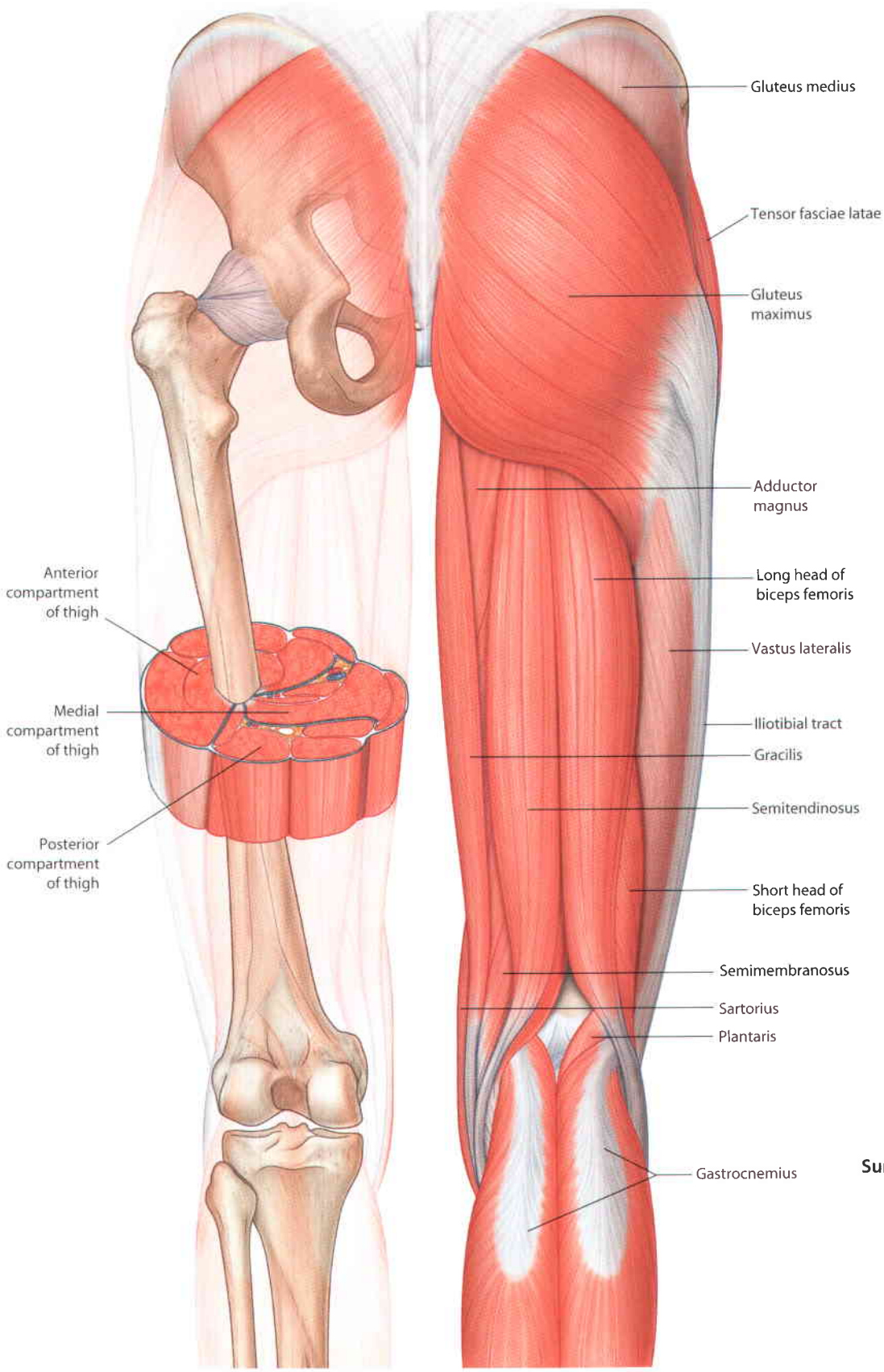


Muscle attachments of the pelvis and thigh

Surface anatomy of lower limb with overlay of muscles (anterior view)

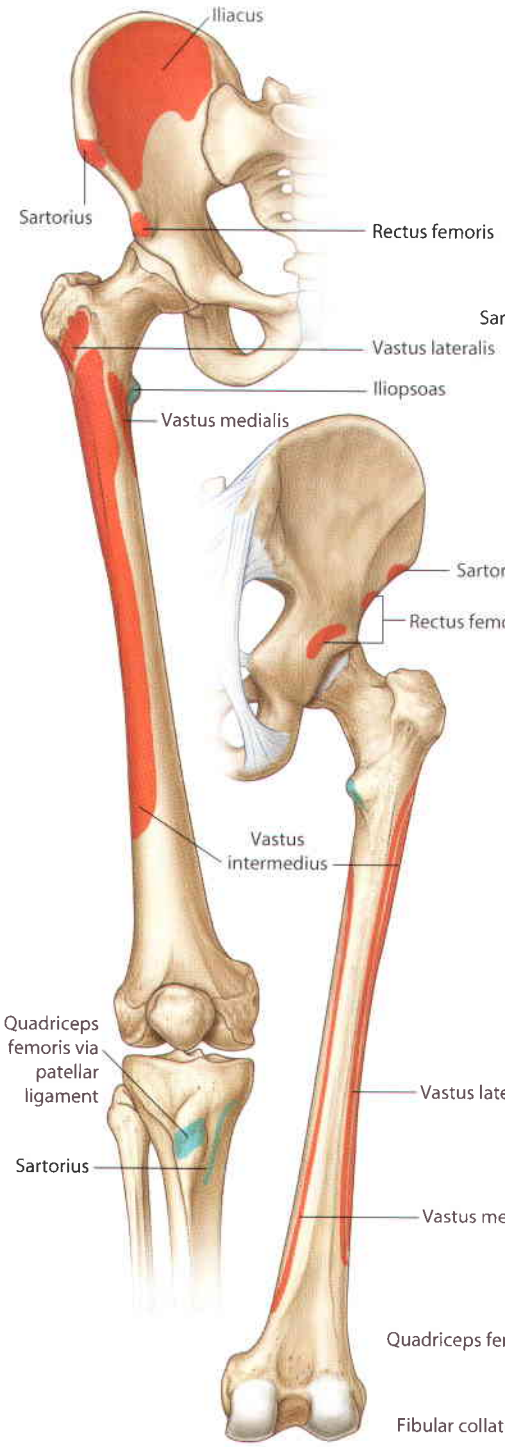


Superficial muscles of the thigh (anterior view)

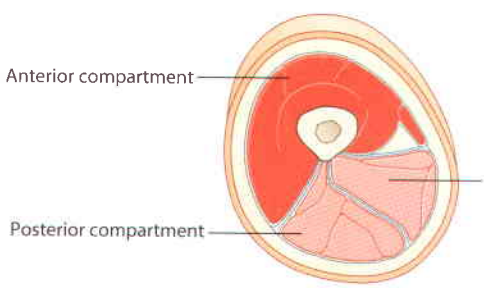


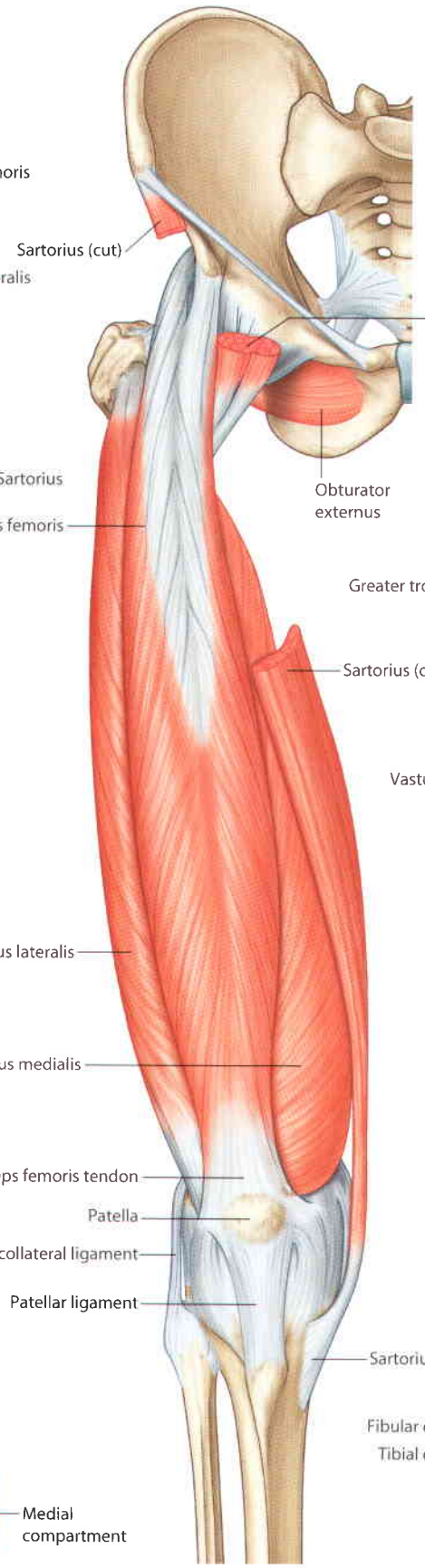
Superficial muscles of the thigh (posterior view)

Surface anatomy of lower limb with overlay of muscles (posterior view)

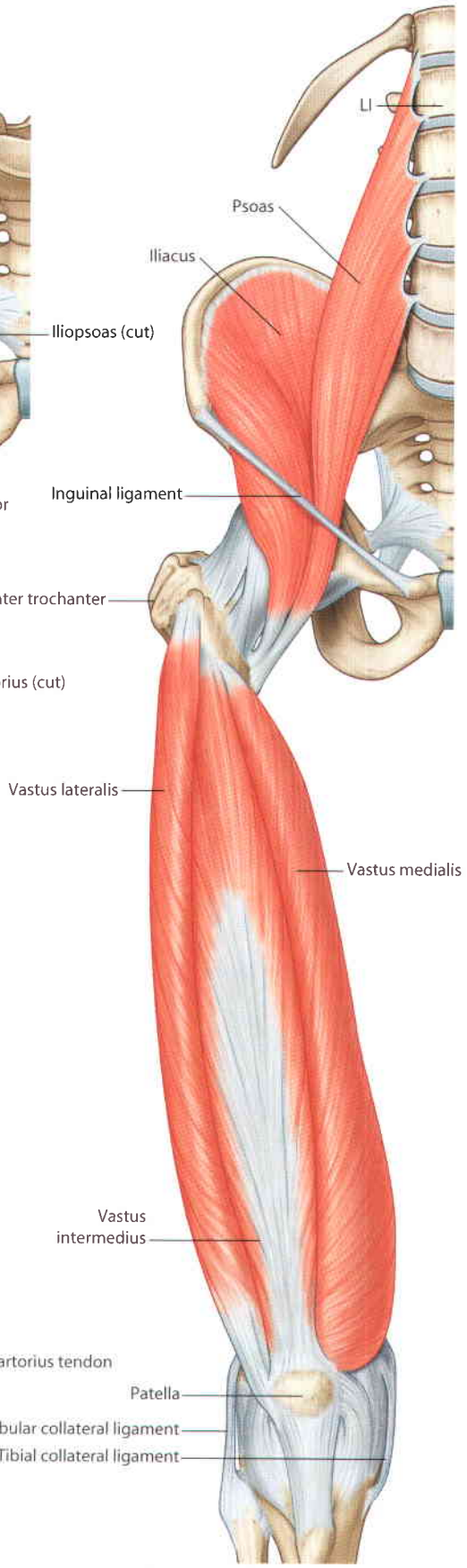


Muscle attachments of the anterior compartment of the thigh

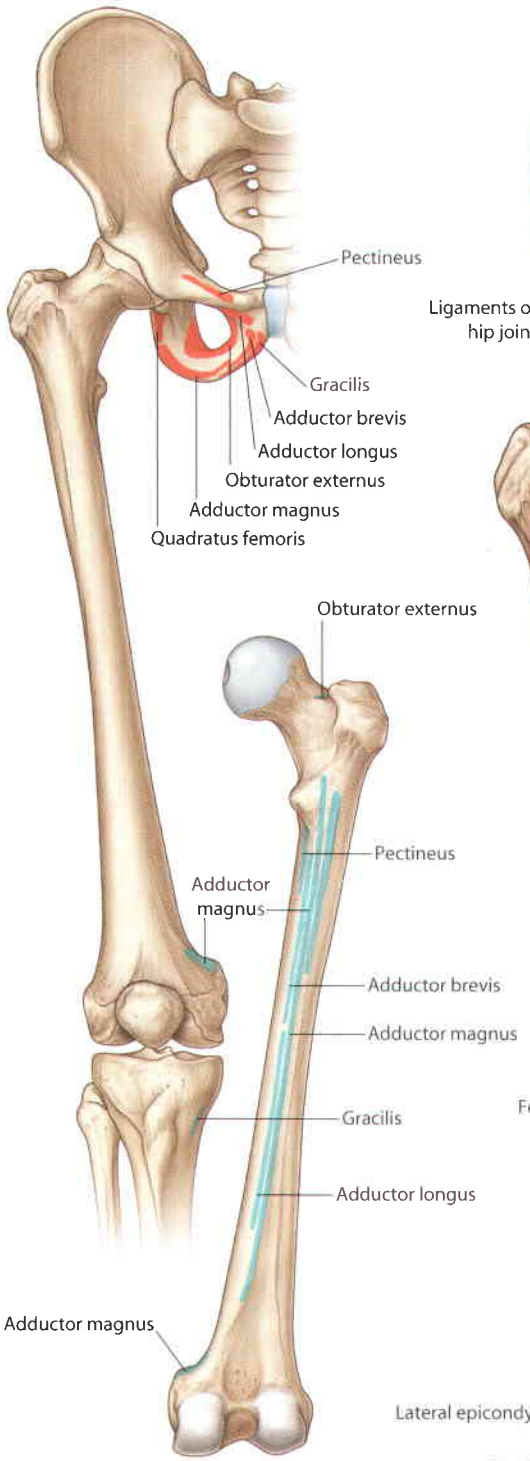




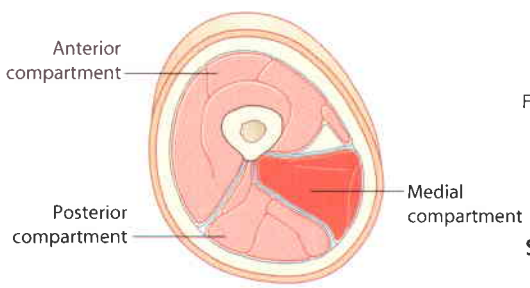
Superficial muscles of the anterior compartment of the thigh

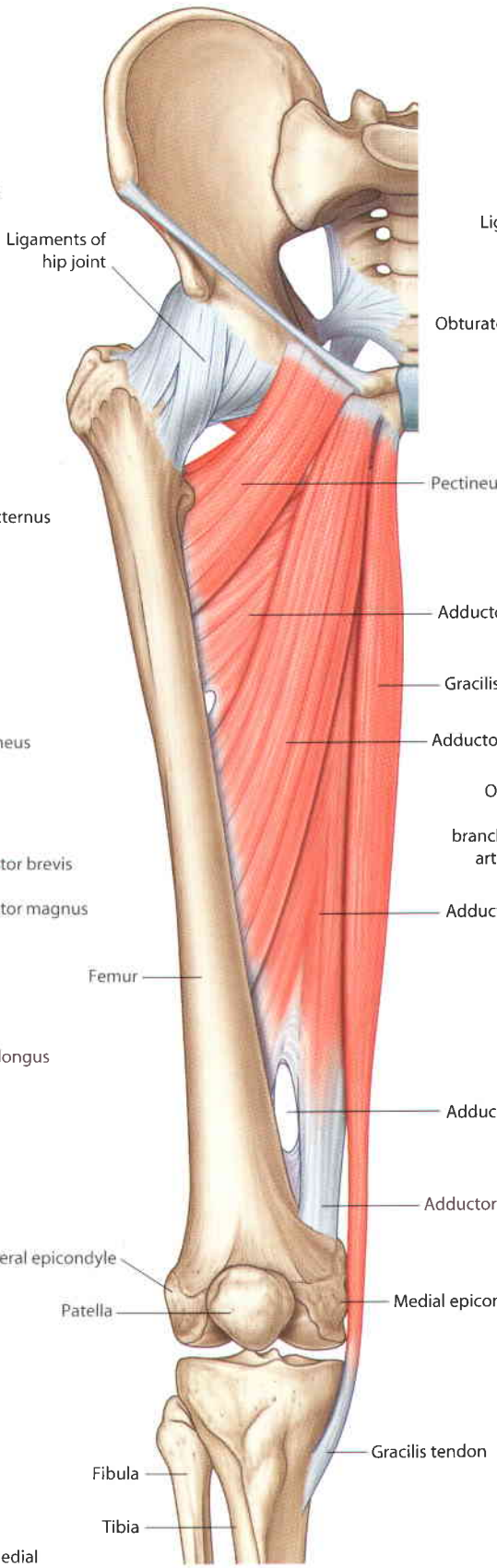


Deep muscles of the anterior compartment of the thigh

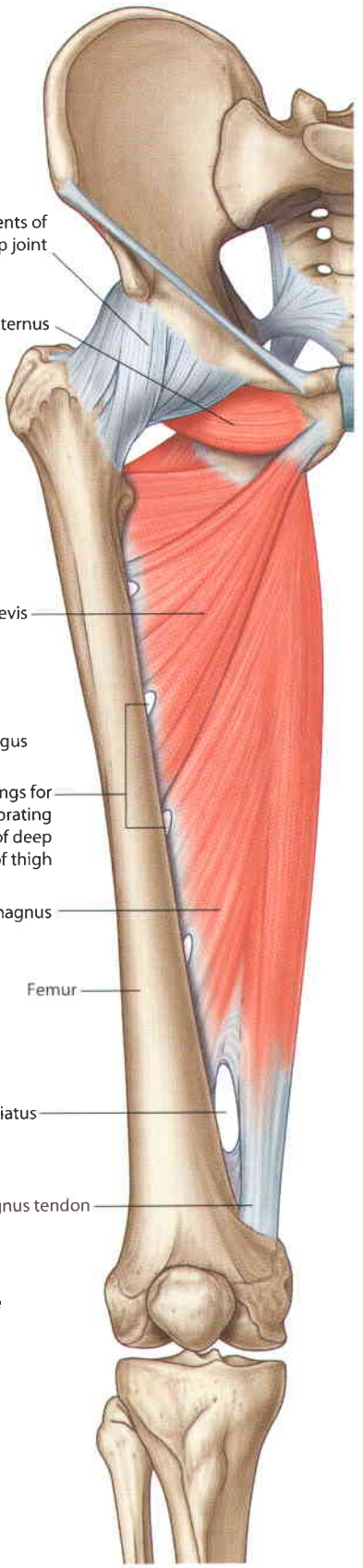


Muscle attachments of the medial compartment of the thigh

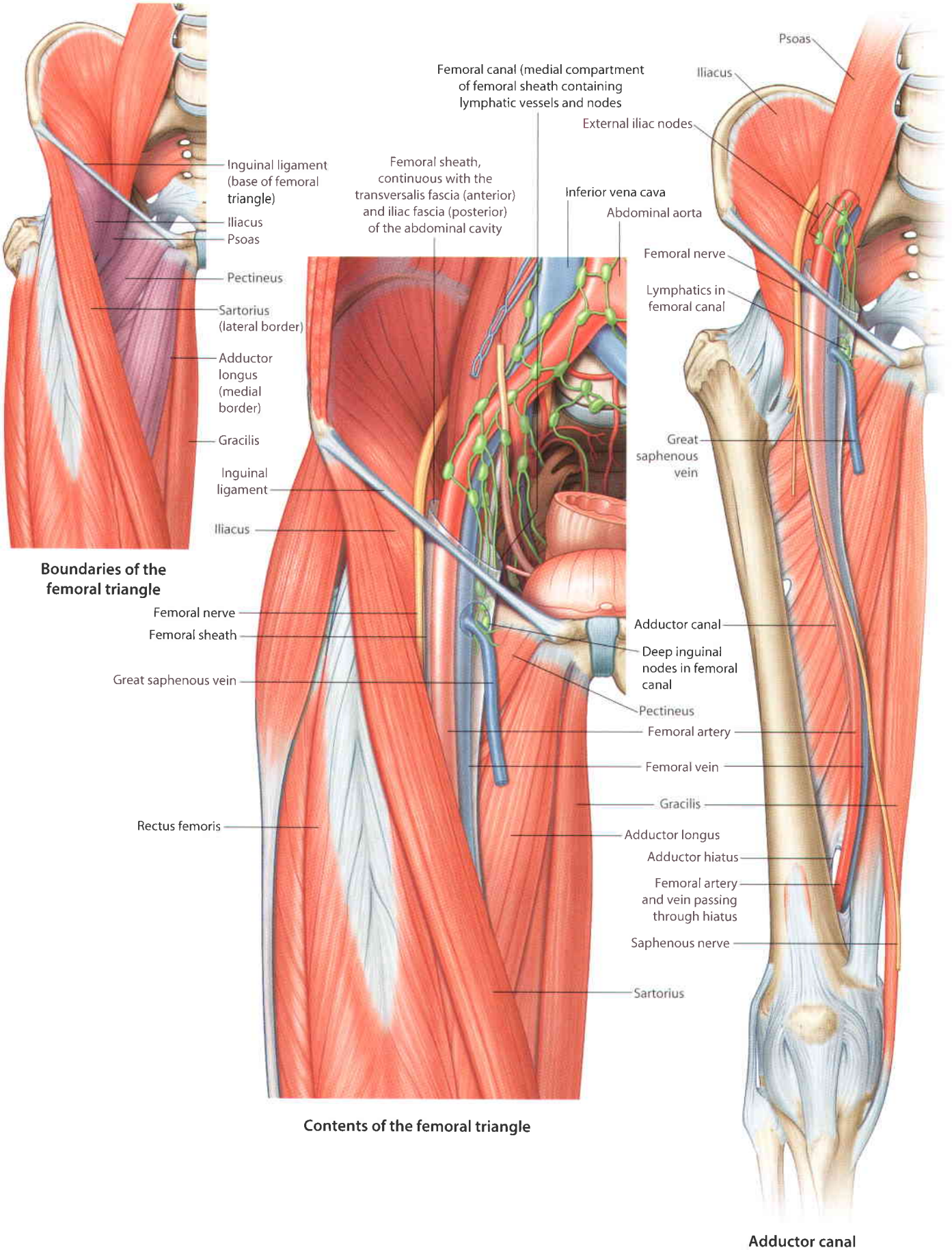


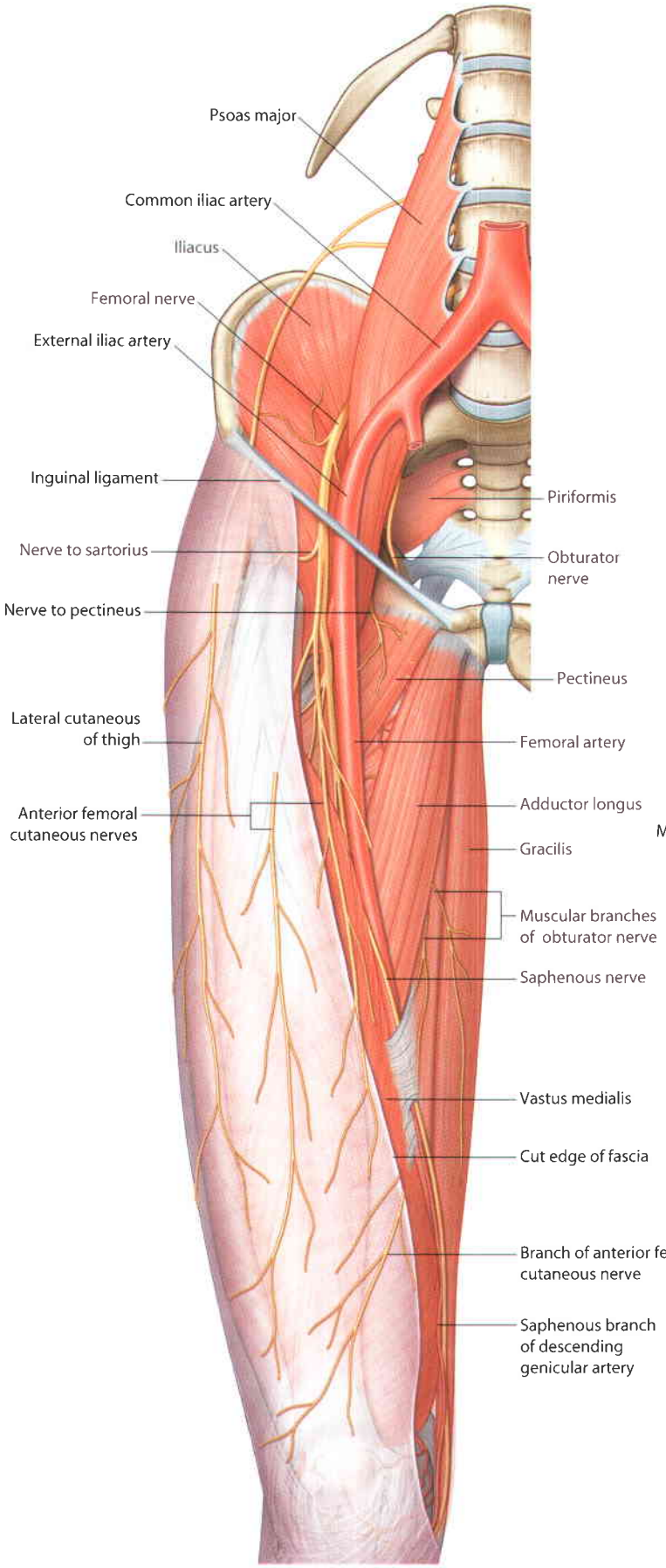


Superficial muscles of the medial compartment of the thigh

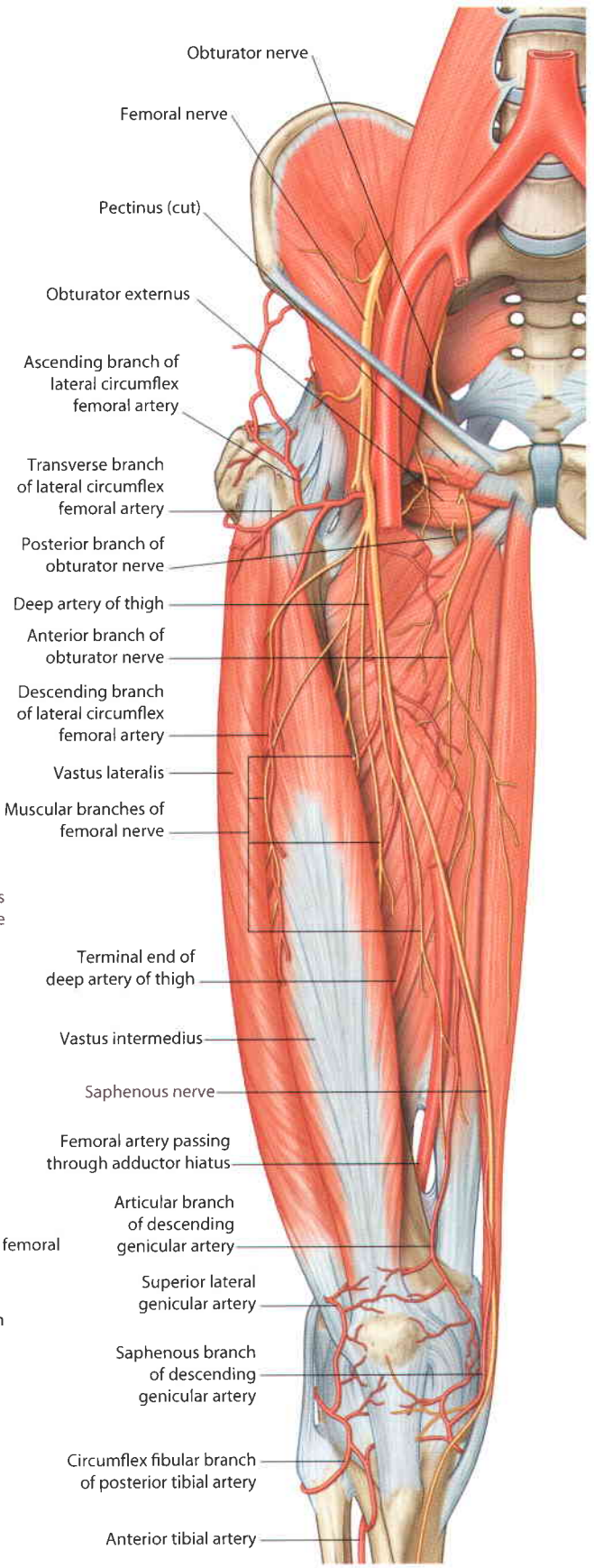


Deep muscles of the medial compartment of the thigh

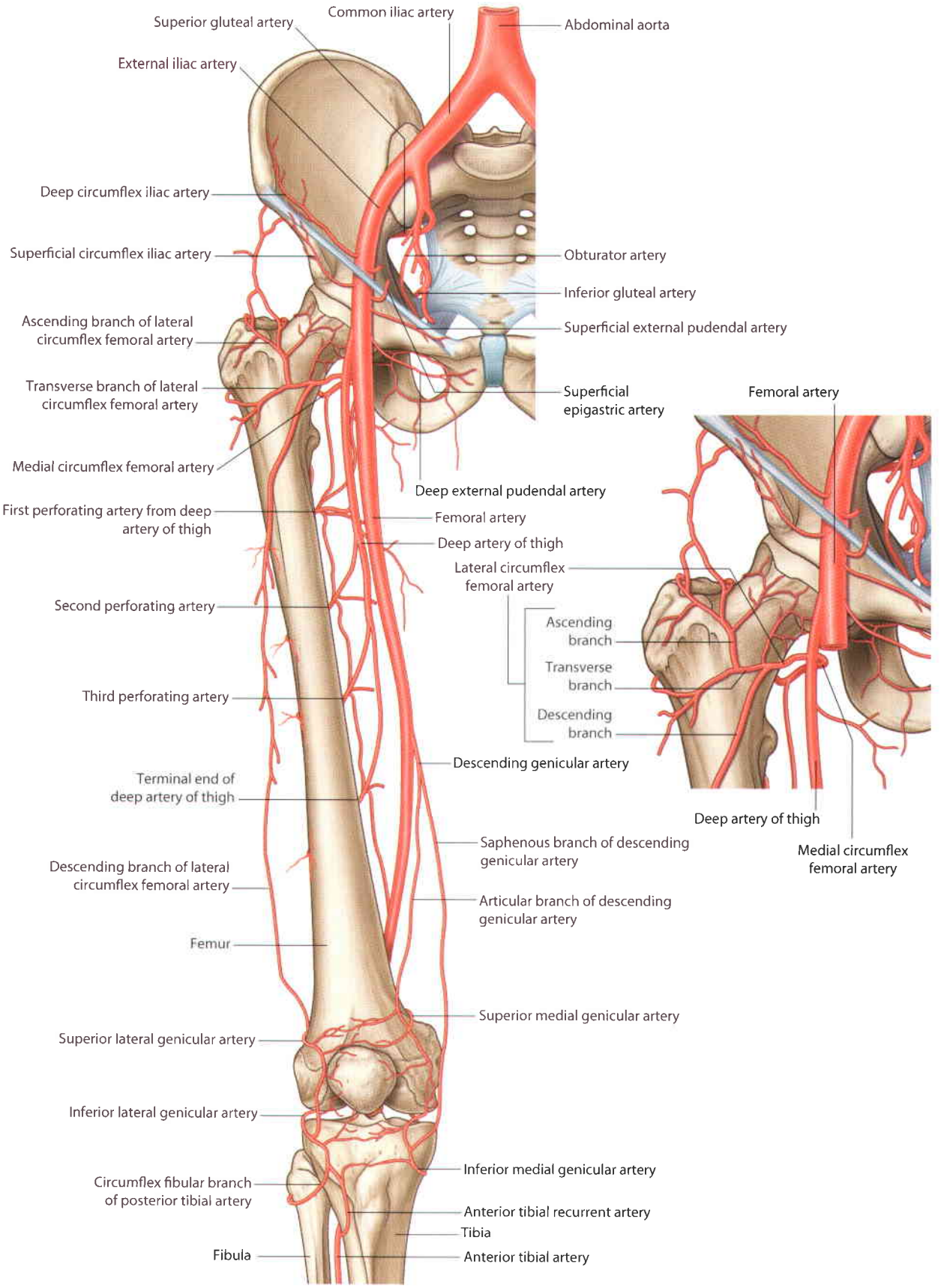

Inguinal ligament (base of femoral triangle)
Iliacus
Psoas
Pectineus
Sartorius (lateral border)
Adductor longus (medial border)
Gracilis
Boundaries of the femoral triangle
Femoral canal (medial compartment of femoral sheath containing lymphatic vessels and nodes
Femoral sheath, continuous with the transversalis fascia (anterior) and iliac fascia (posterior) of the abdominal cavity
Inferior vena cava
Abdominal aorta
Inguinal ligament
Iliacus
Femoral nerve
Femoral sheath
Great saphenous vein
Rectus femoris
Contents of the femoral triangle
Psoas
Iliacus
External iliac nodes
Femoral nerve
Lymphatics in femoral canal
Great saphenous vein
Adductor canal
Deep inguinal nodes in femoral canal
Pectineus
Femoral artery
Femoral vein
Gracilis
Adductor longus
Adductor hiatus
Femoral artery and vein passing through hiatus
Saphenous nerve
Sartorius
Adductor canal



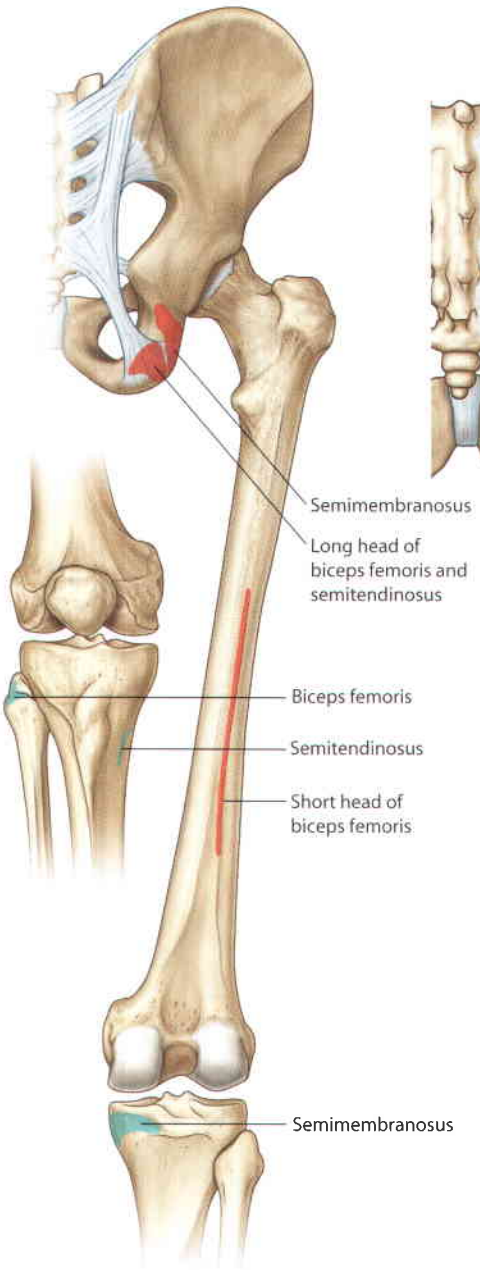
Superficial arteries and nerves of the thigh (anterior view)



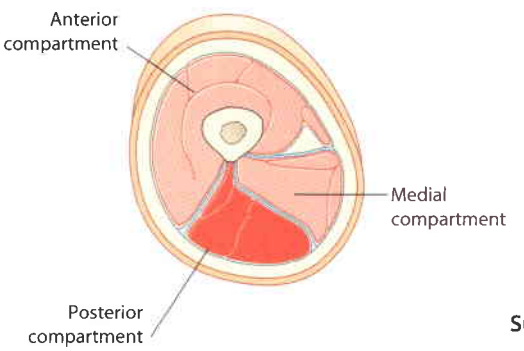
Deep arteries and nerves of the thigh (anterior view)

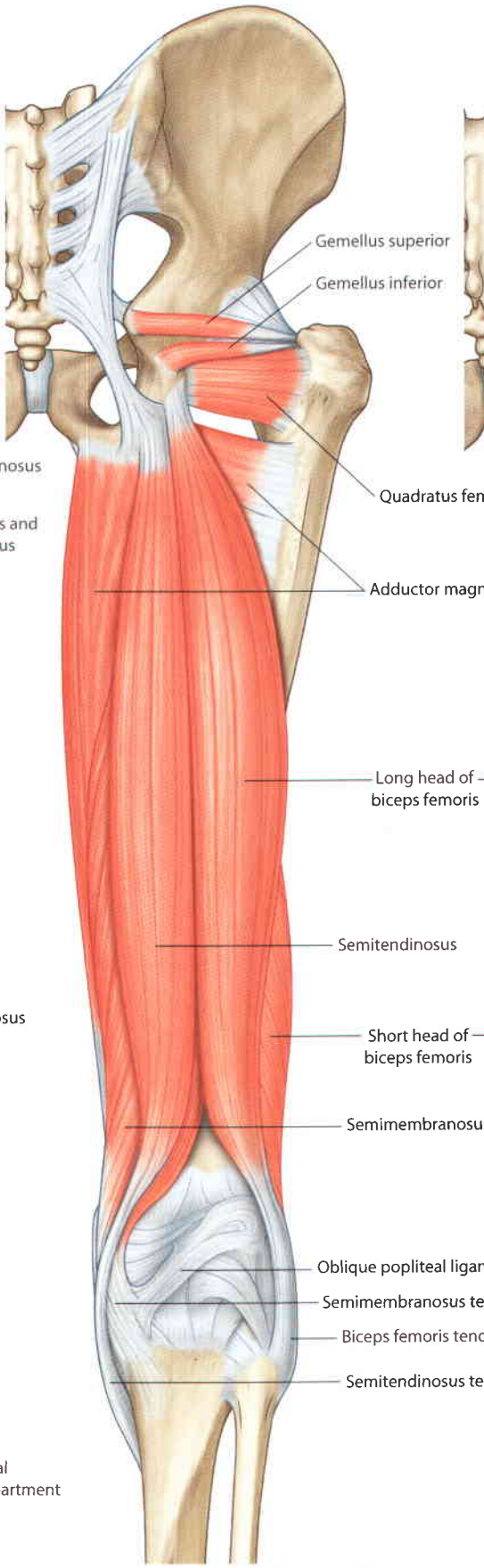


Arteries of the thigh (anterior view)

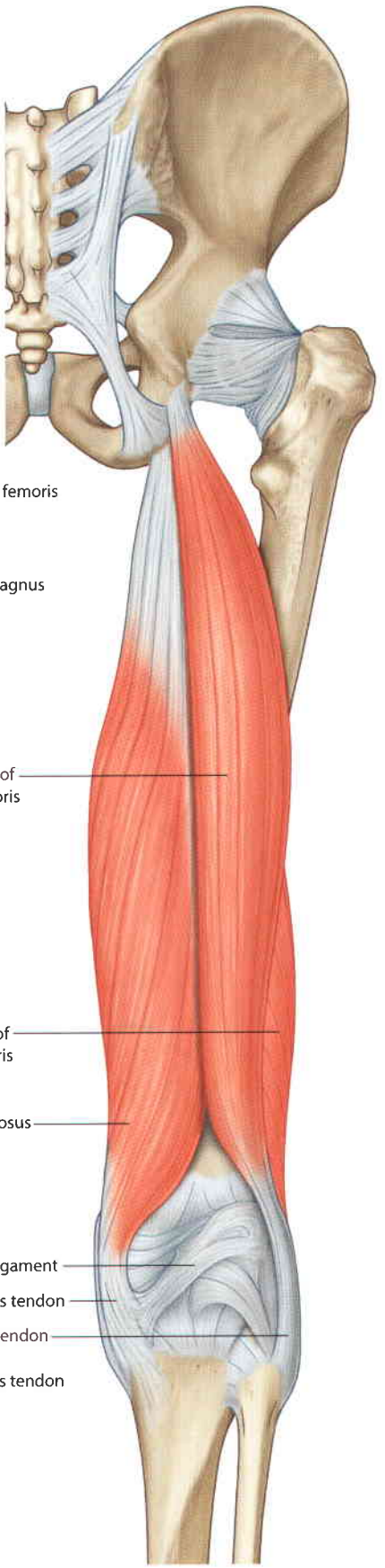


Muscle attachments of the posterior compartment of the thigh

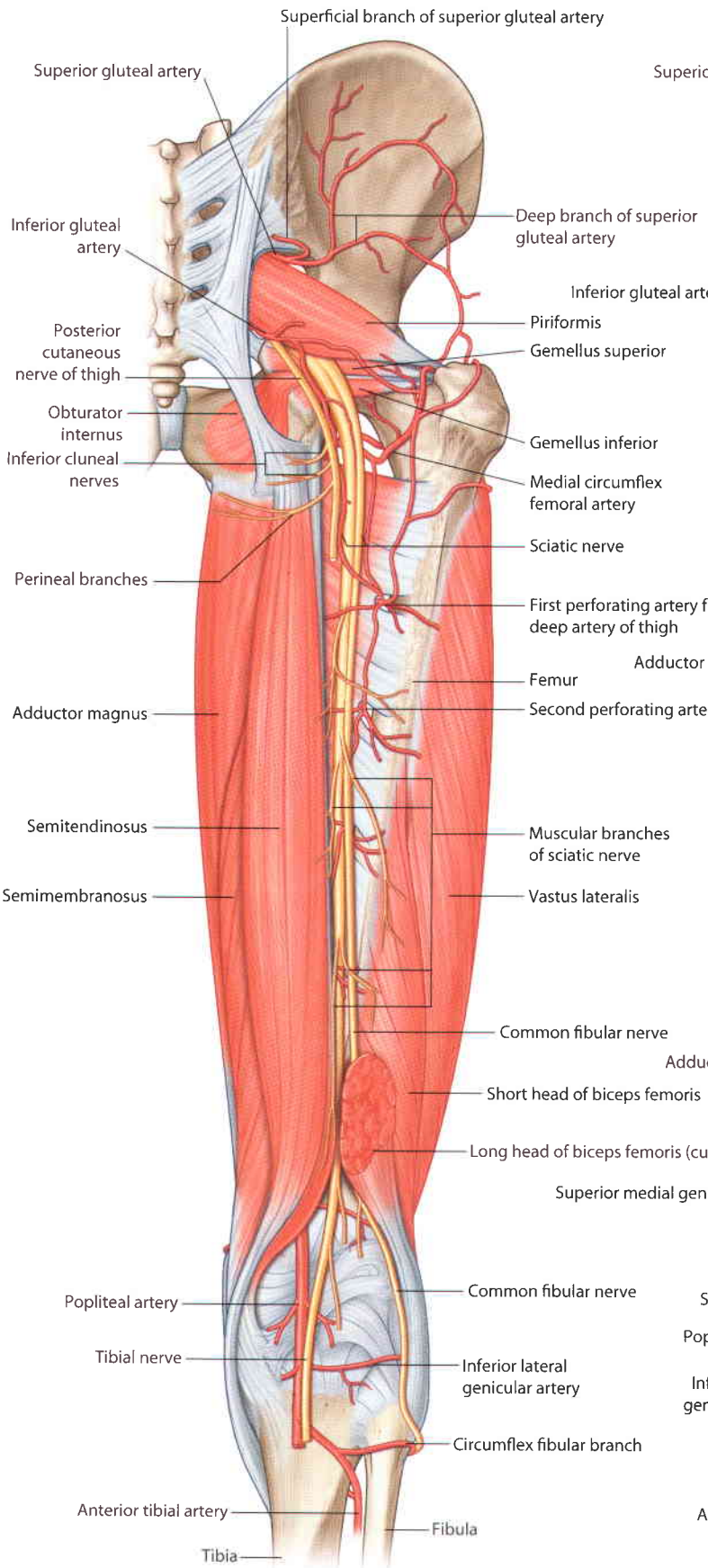




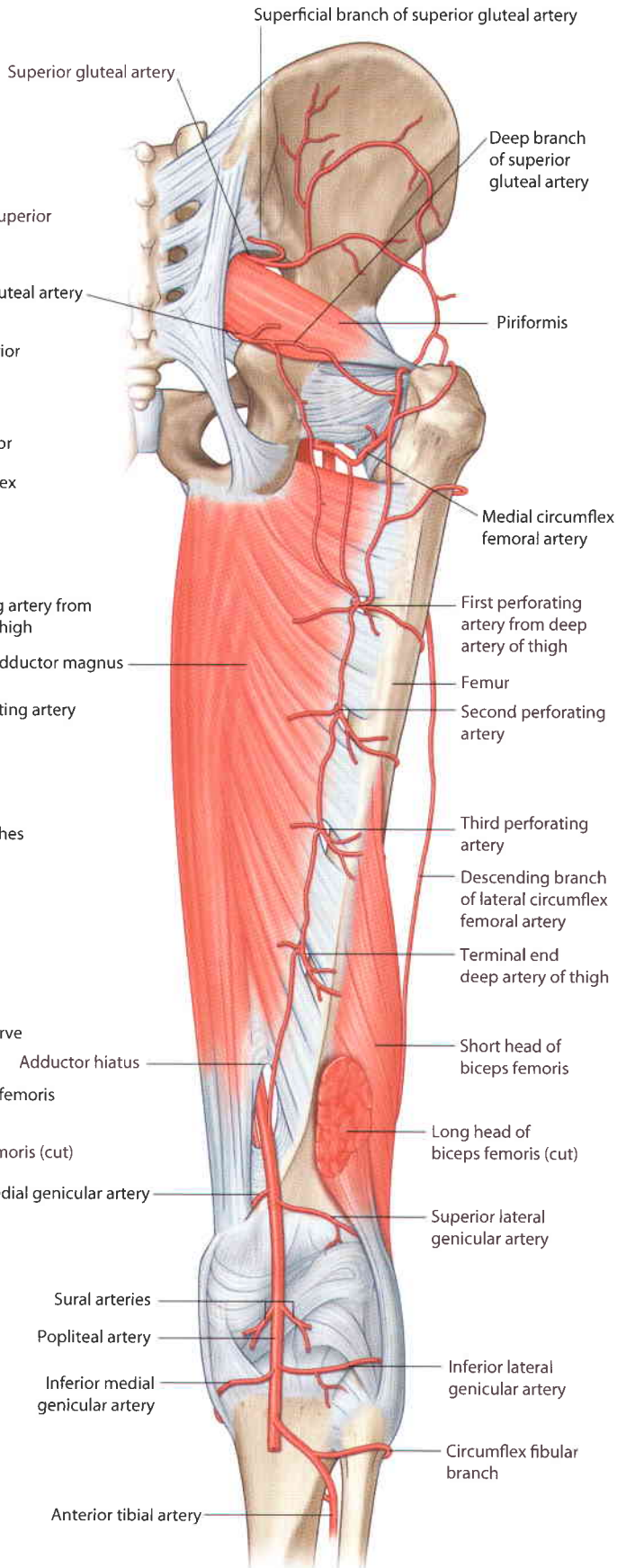
Superficial muscles of the posterior compartment of the thigh



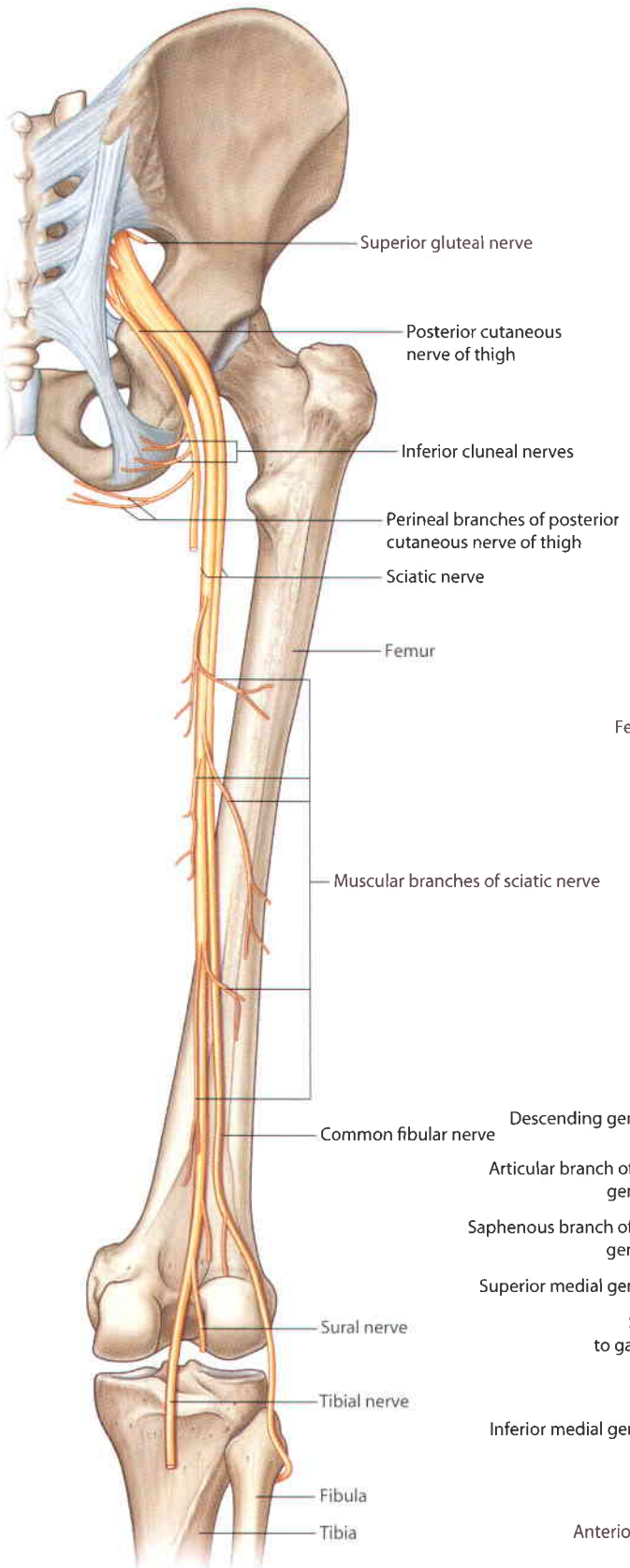
Deep muscles of the posterior compartment of the thigh



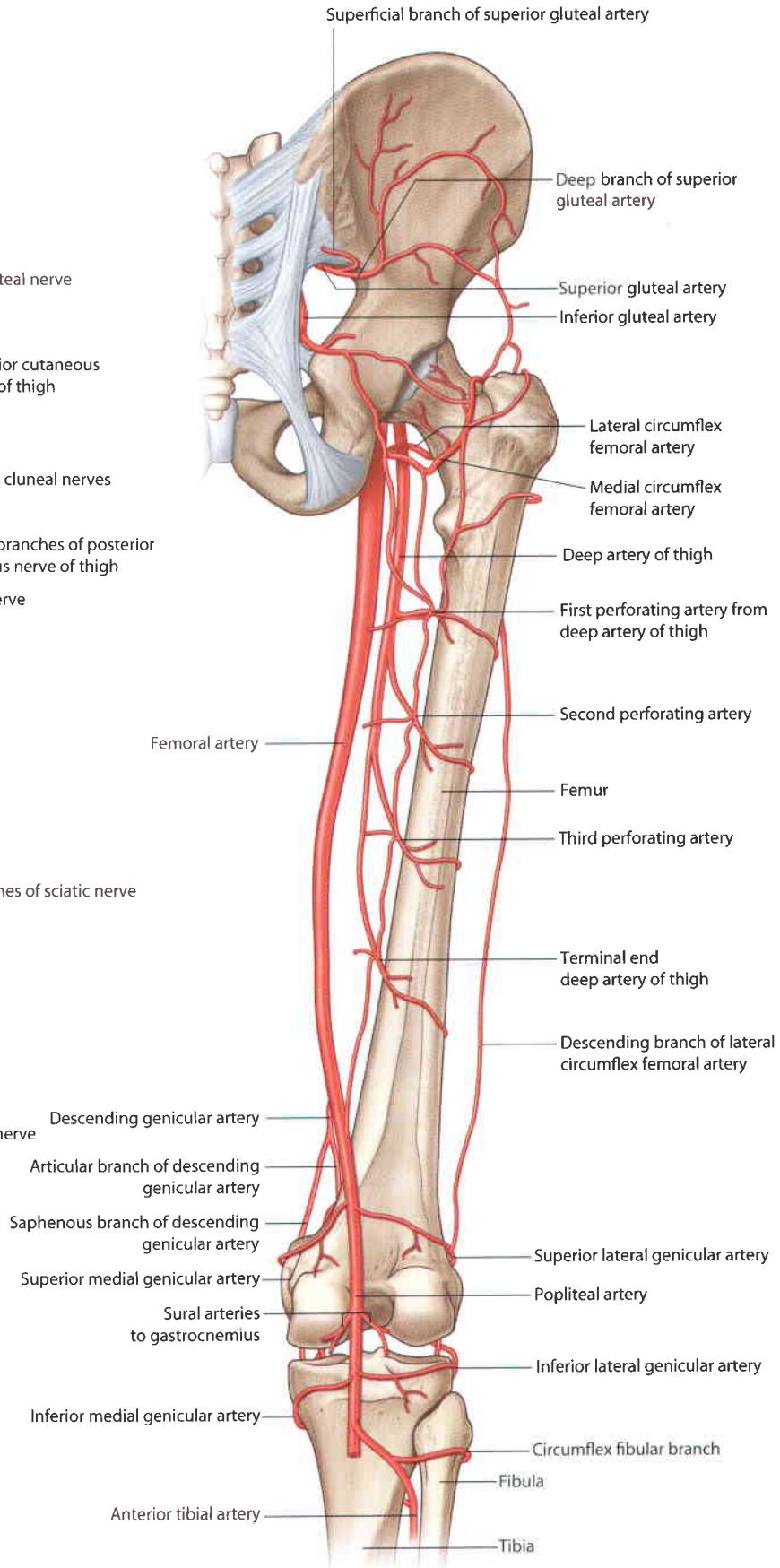
Arteries and nerves of the thigh (posterior view)



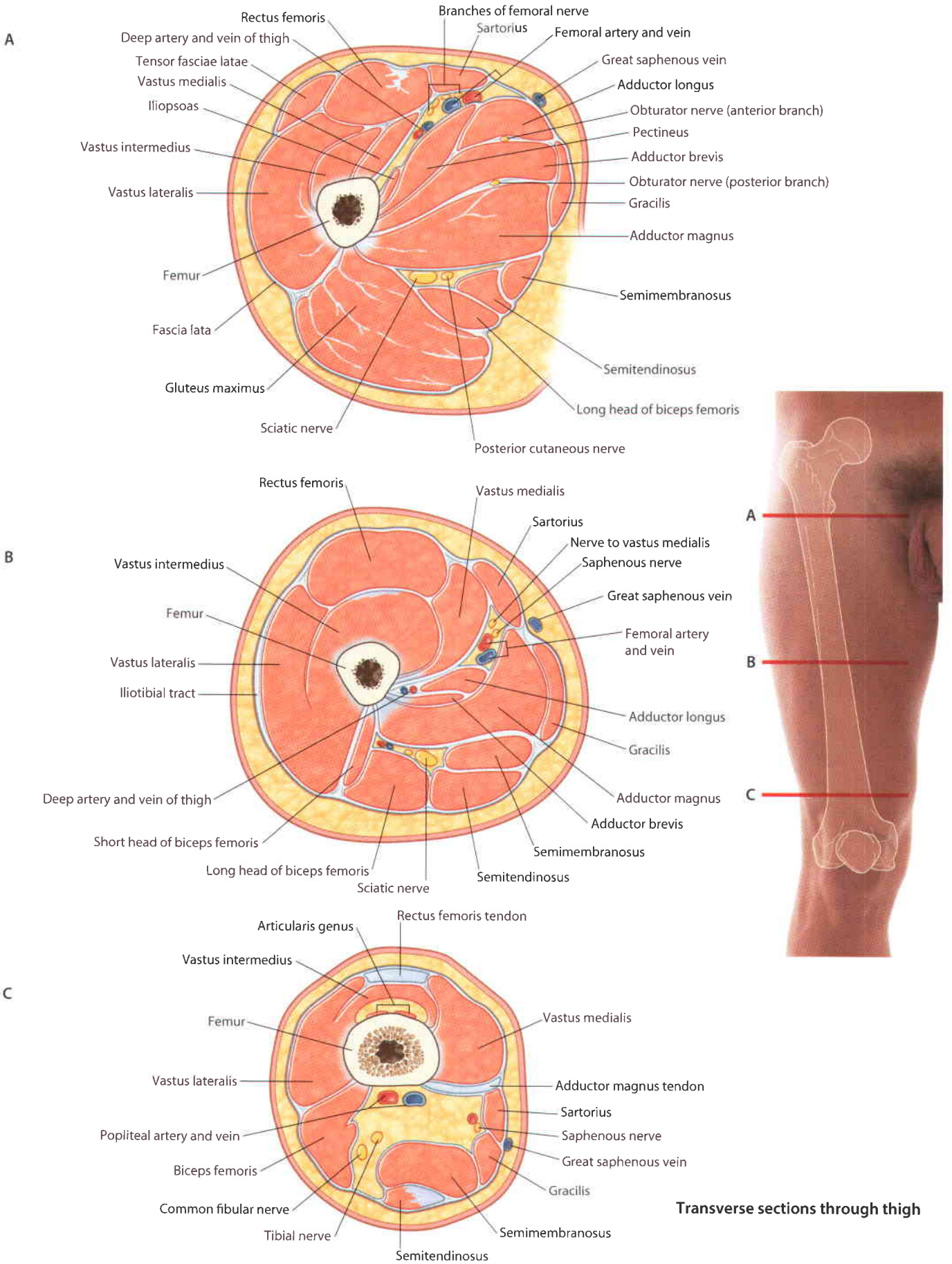
Deep arteries of the thigh (posterior view)



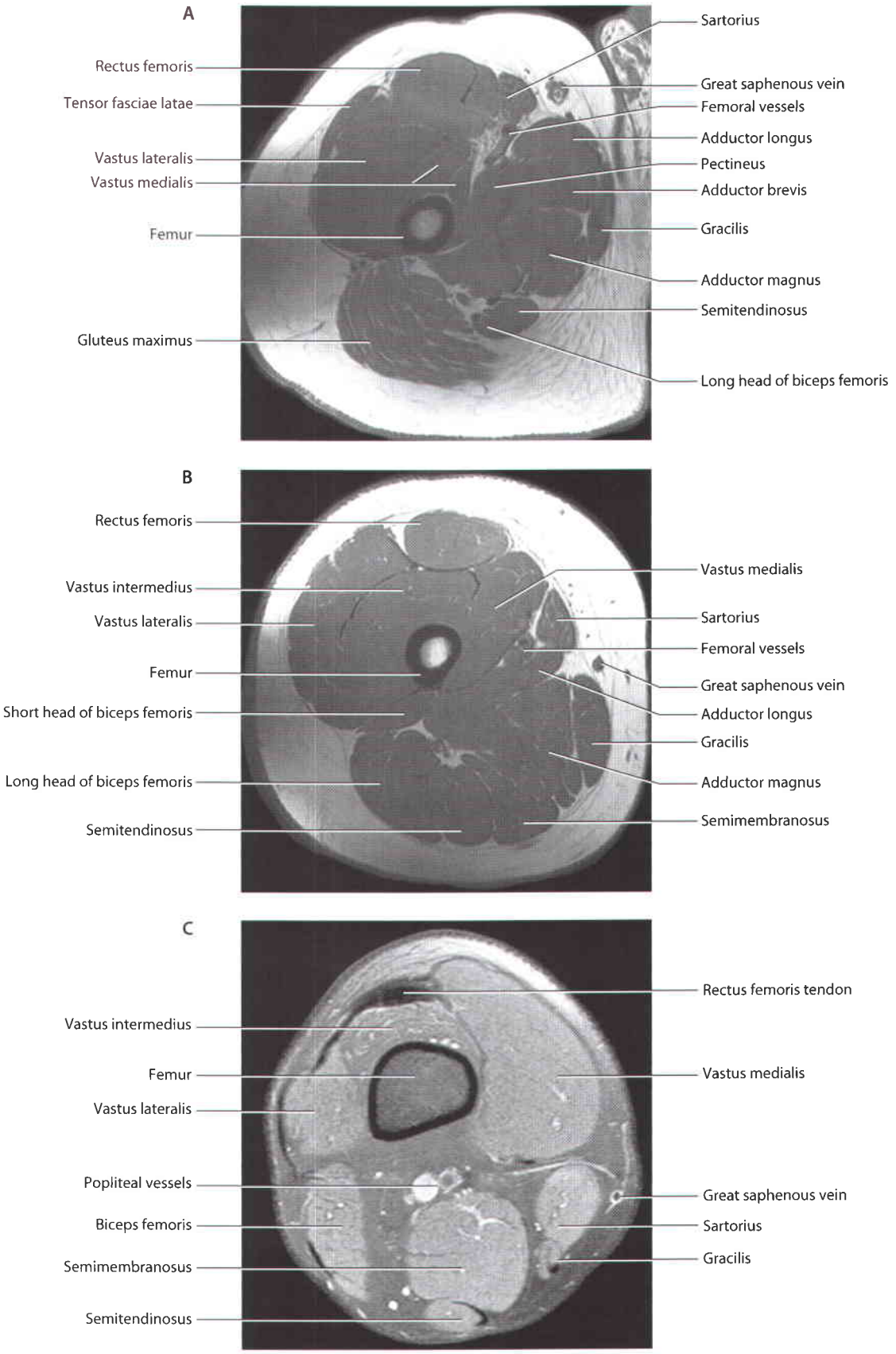
Nerves of the thigh (posterior view)



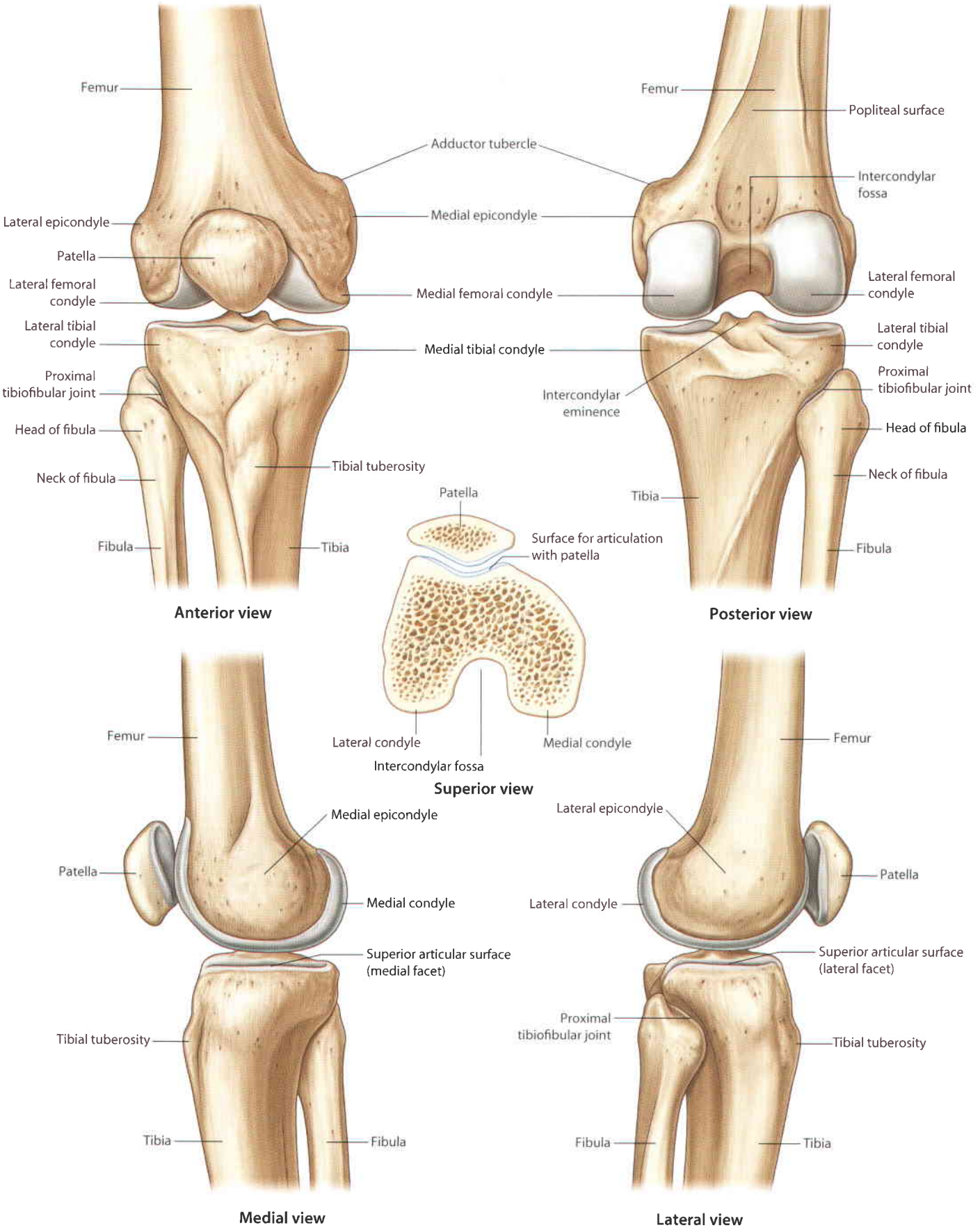
Arteries of the thigh (posterior view)

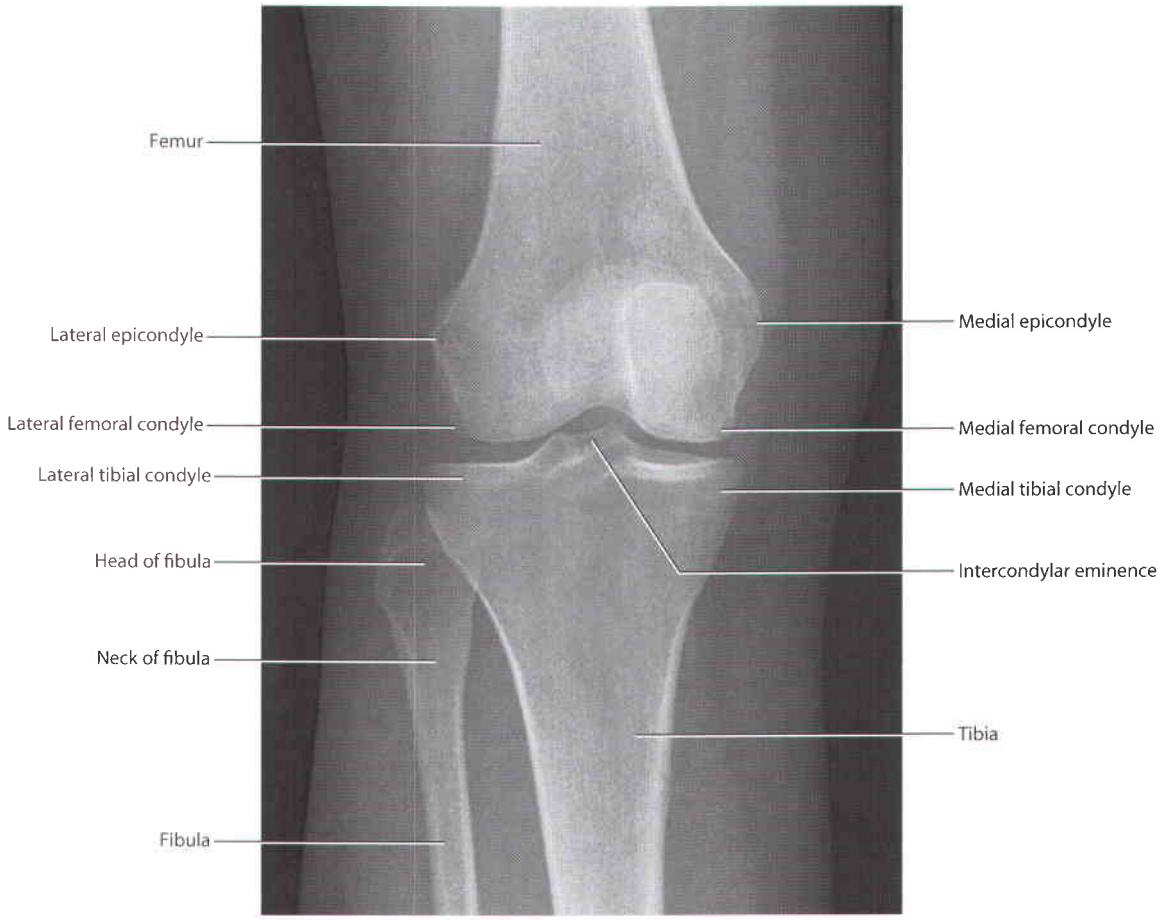


Transverse sections through thigh



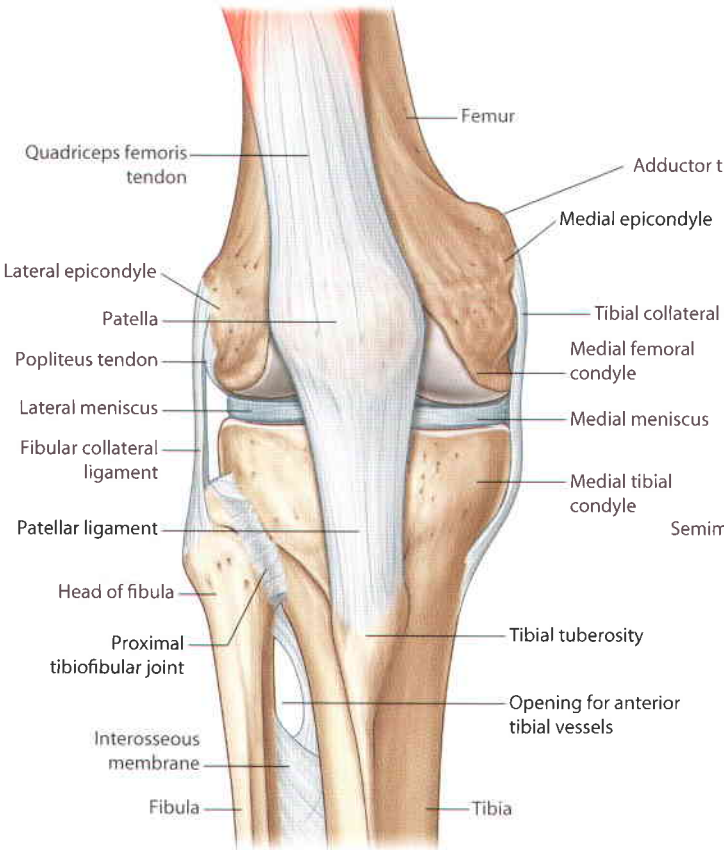
Transverse/axial sections through the thigh.
A. Proximal/upper thigh. T1-weighted MR image in axial plane
B. Middle thigh. T1-weighted MR image in axial plane
C. Distal/lower thigh. T2-weighted MR image in axial plane


Femur
Adductor tubercle
Lateral epicondyle
Medial epicondyle
Patella
Lateral femoral condyle
Medial femoral condyle
Lateral tibial condyle
Medial tibial condyle
Proximal tibiofibular joint
Head of fibula
Tibial tuberosity
Neck of fibula
Fibula
Tibia
Anterior view
Femur
Popliteal surface
Intercondylar fossa
Lateral femoral condyle
Lateral tibial condyle
Intercondylar eminence
Proximal tibiofibular joint
Head of fibula
Neck of fibula
Tibia
Fibula
Posterior view
Patella
Surface for articulation with patella
Lateral condyle
Intercondylar fossa
Medial condyle
Superior view
Femur
Medial epicondyle
Patella
Medial condyle
Superior articular surface (medial facet)
Tibial tuberosity
Tibia
Fibula
Medial view
Femur
Lateral epicondyle
Patella
Lateral condyle
Superior articular surface (lateral facet)
Proximal tibiofibular joint
Tibial tuberosity
Fibula
Tibia
Lateral view

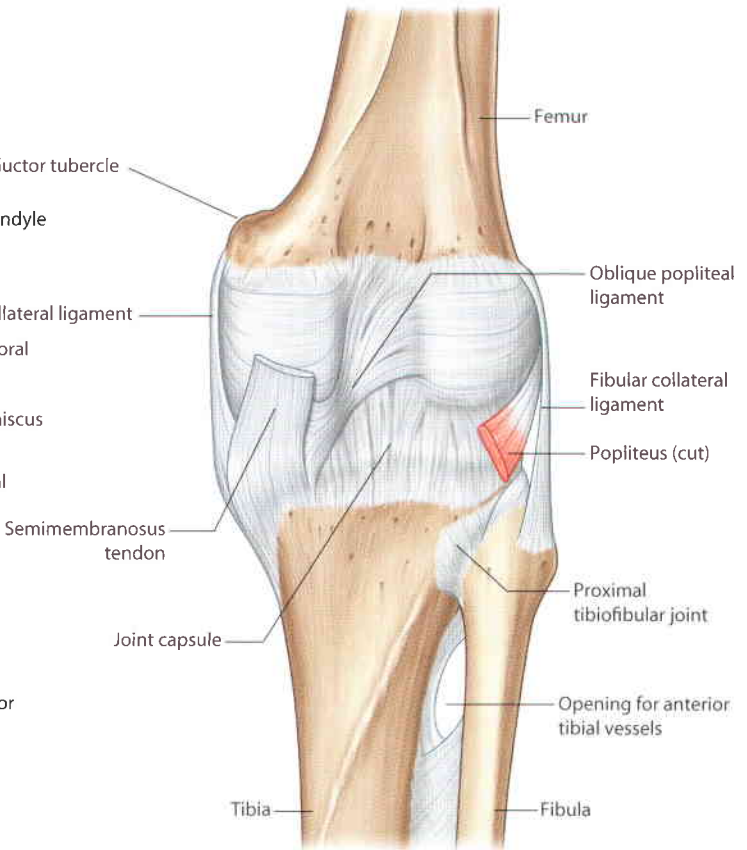


Normal knee joint.
Radiograph, AP view

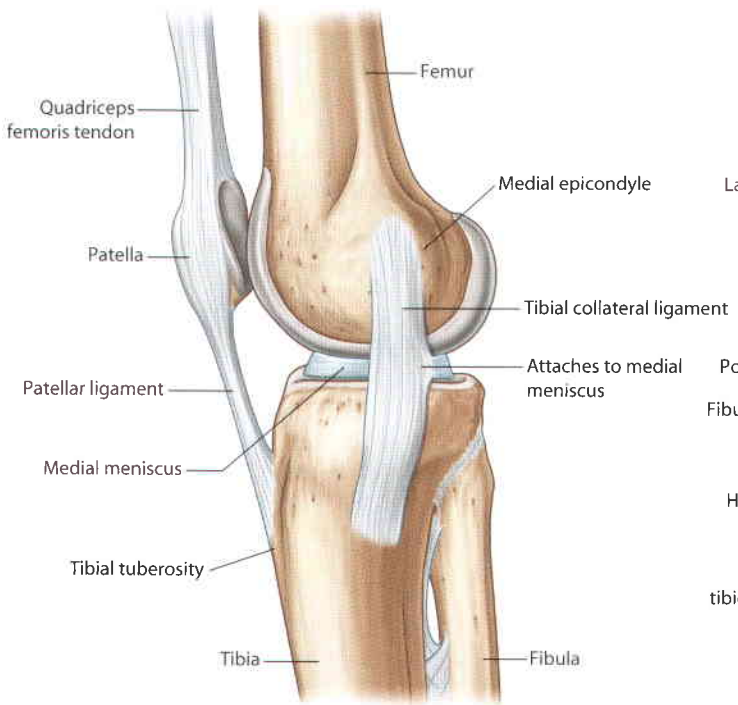
Normal knee joint.
Radiograph, lateral view



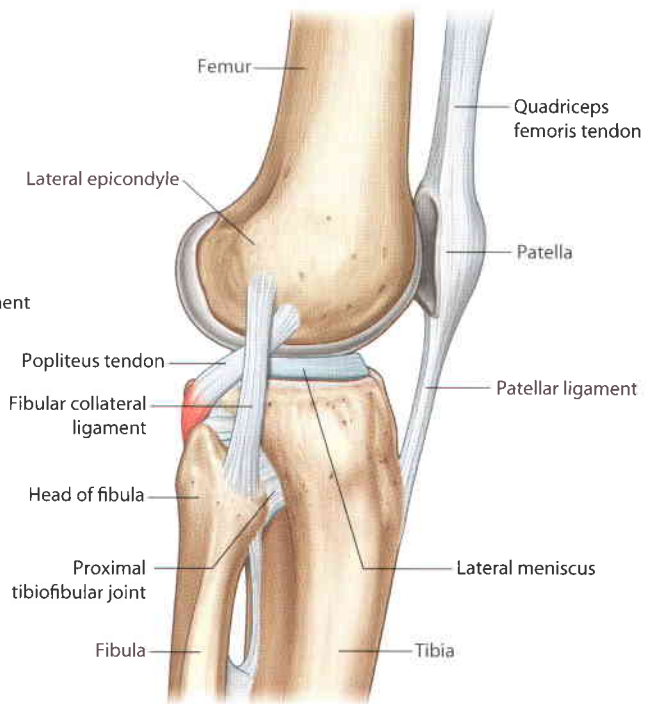
Anterior view



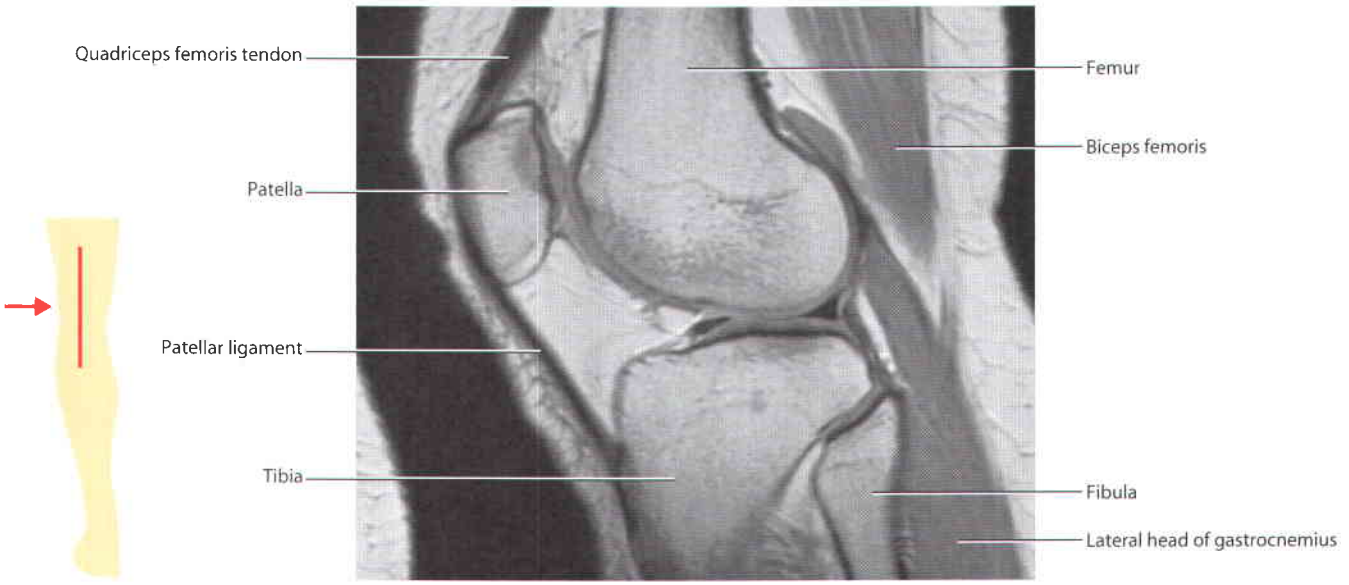
Posterior view



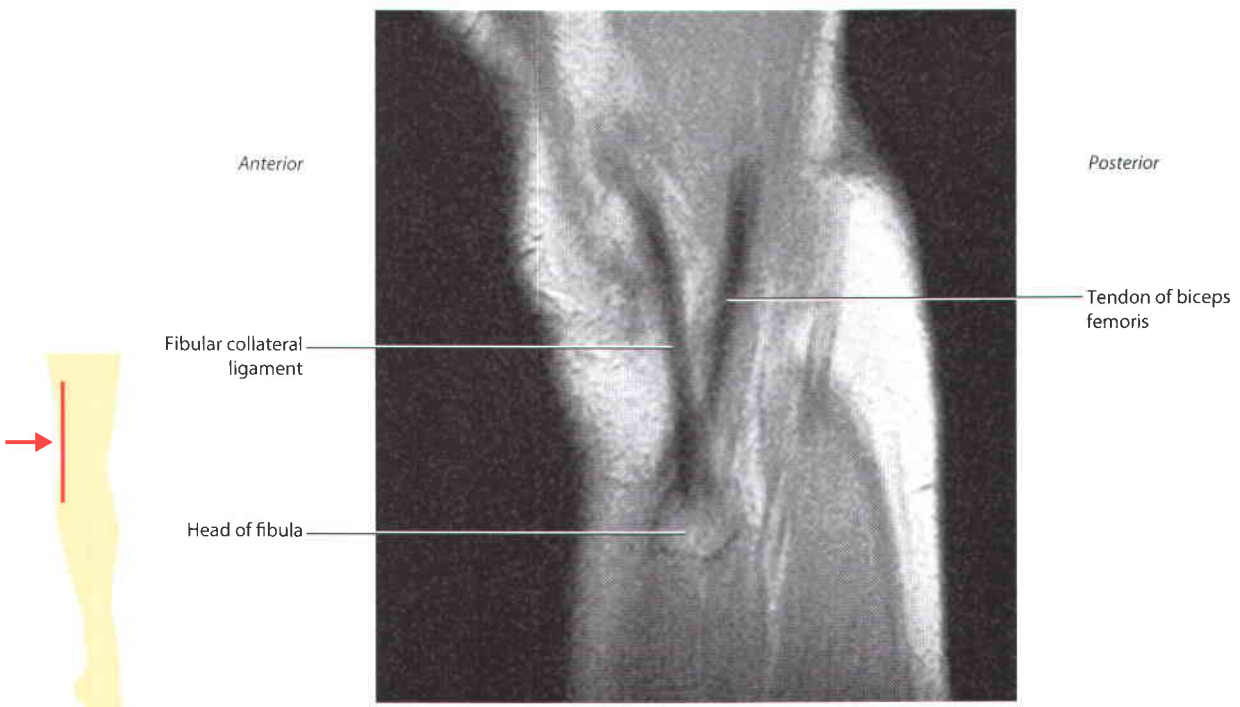
Medial view



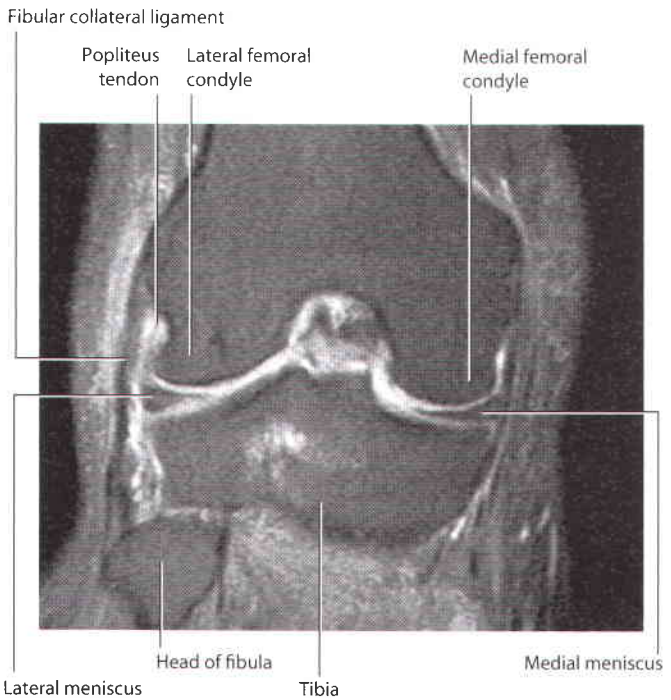
Lateral view



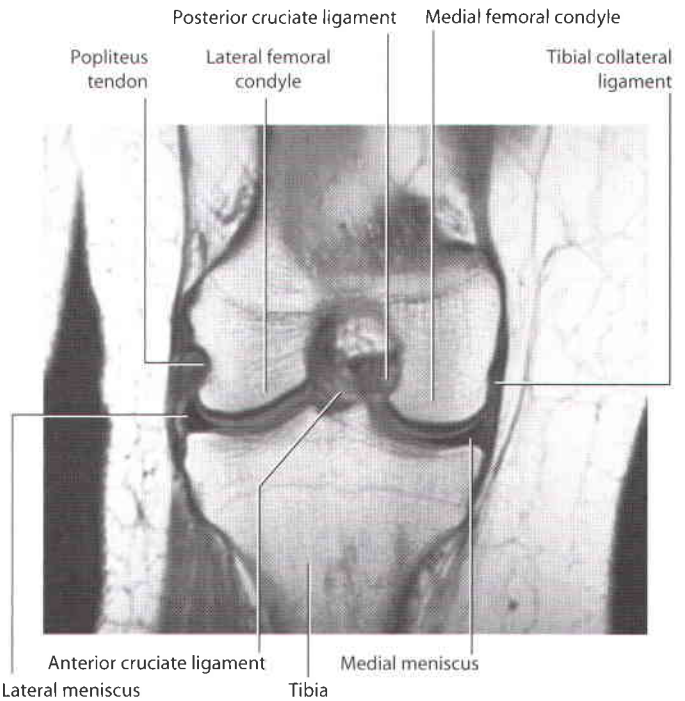
Normal knee joint.
T2-weighted MR image in sagittal plane



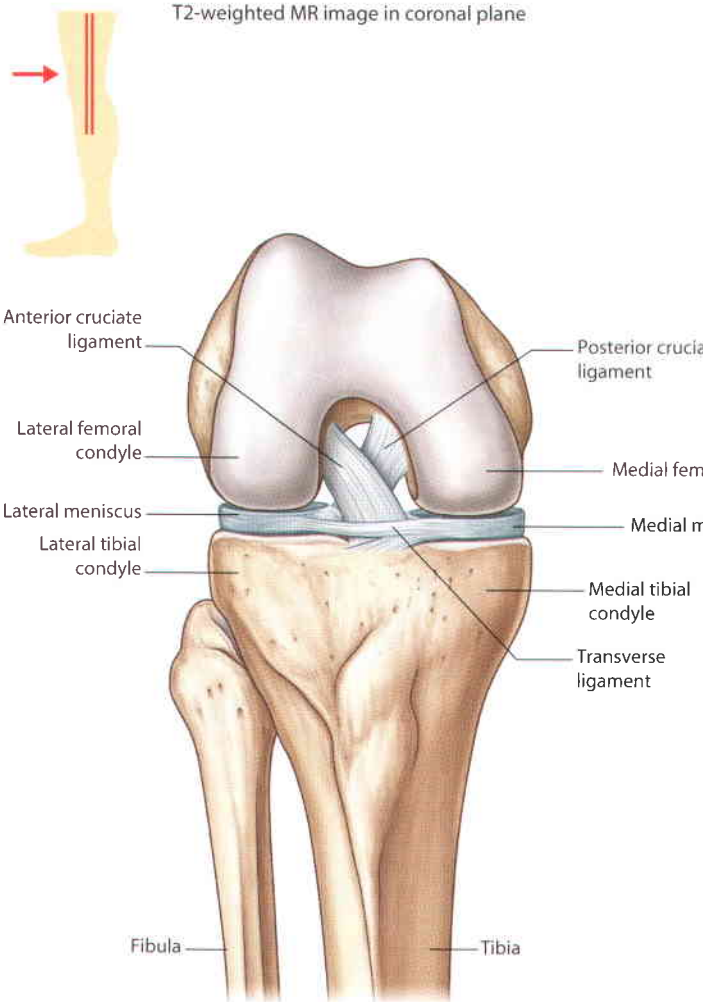
Unique view showing the fibular collateral ligament and the tendon of the biceps femoris muscle attaching to the head of the fibula.
T2-weighted MR image in sagittal plane



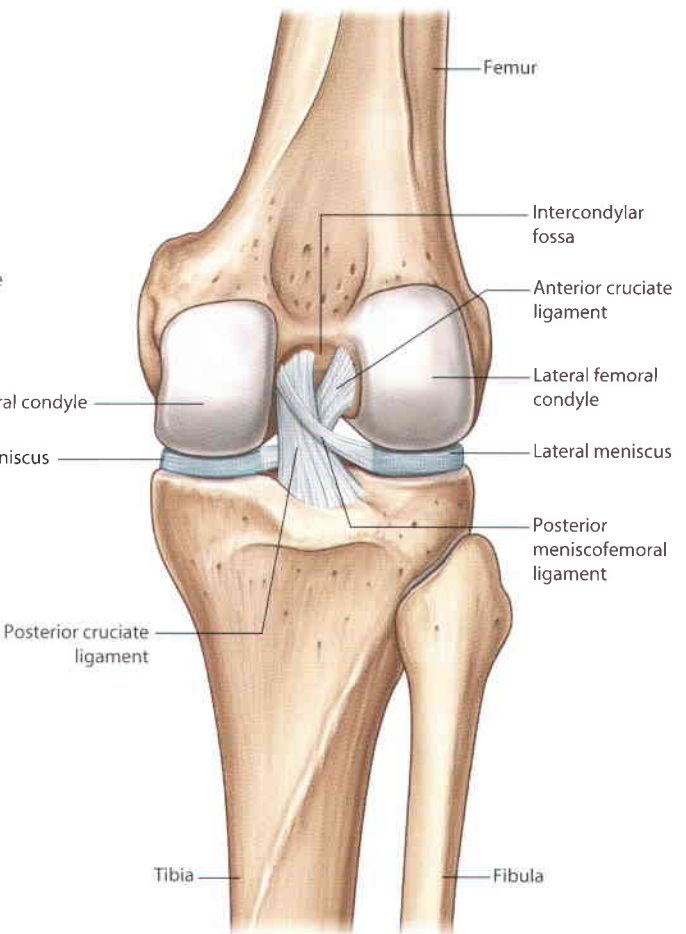
Coronal view of knee joint showing the fibular collateral ligament and its relationship to surrounding structures.
T2-weighted MR image in coronal plane



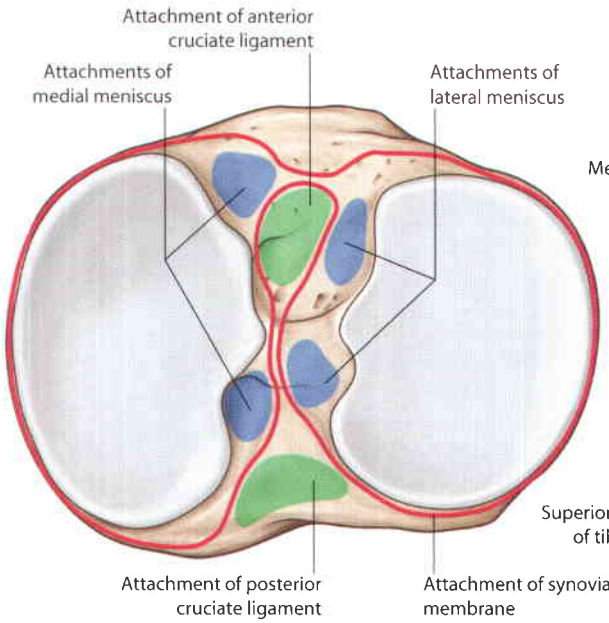
Anterior view of knee joint showing the relationship between the tibial collateral ligament and the medial meniscus.
T1-weighted MR image in coronal plane



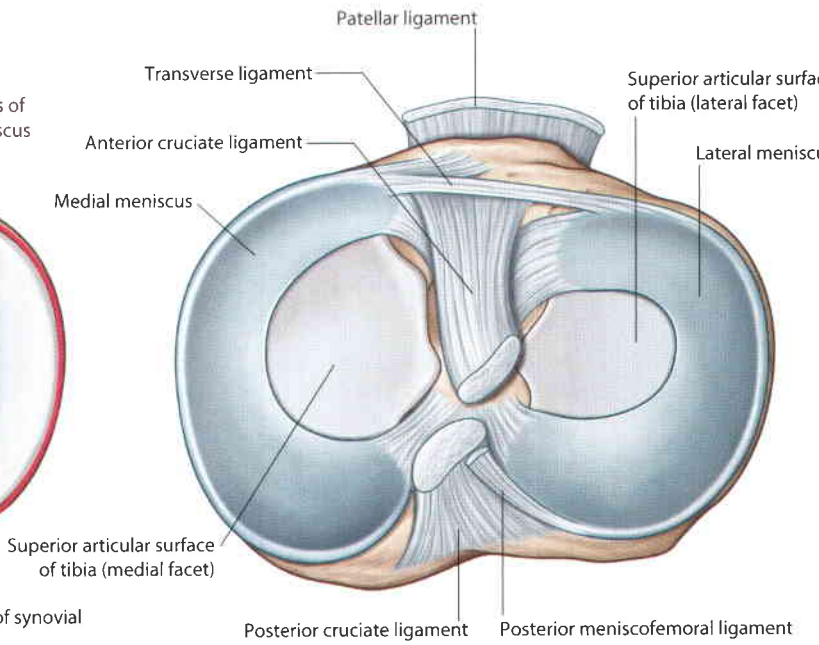
Anterior view (flexed)



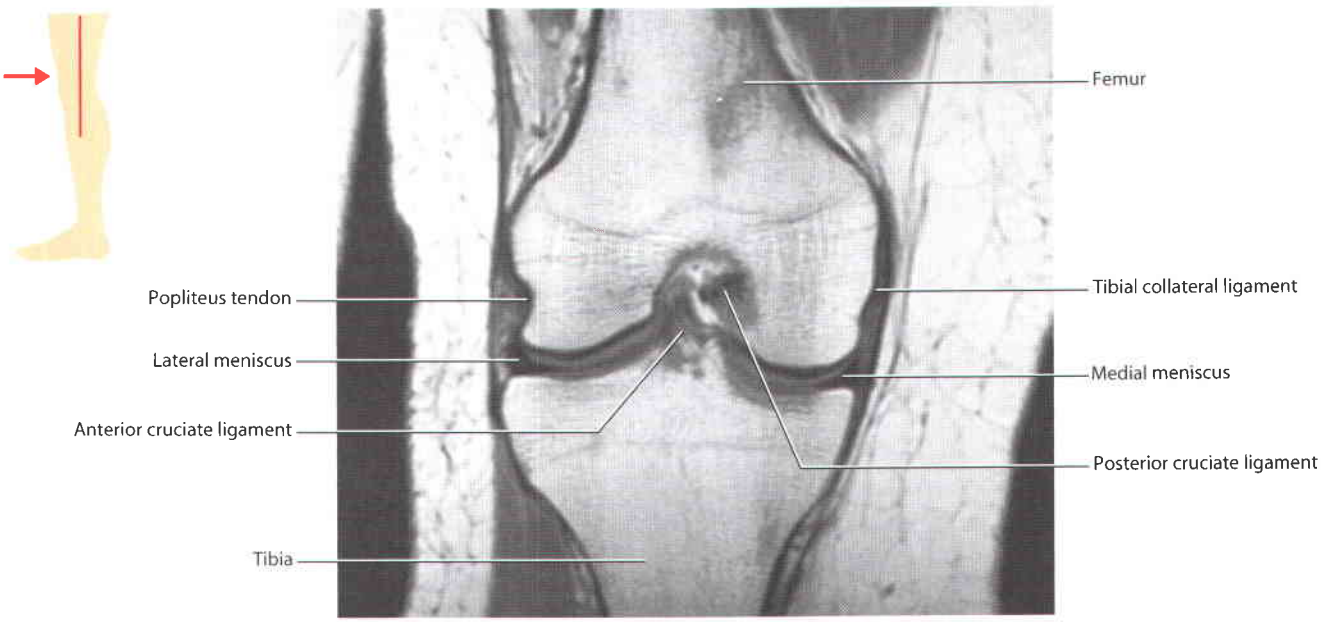
Posterior view



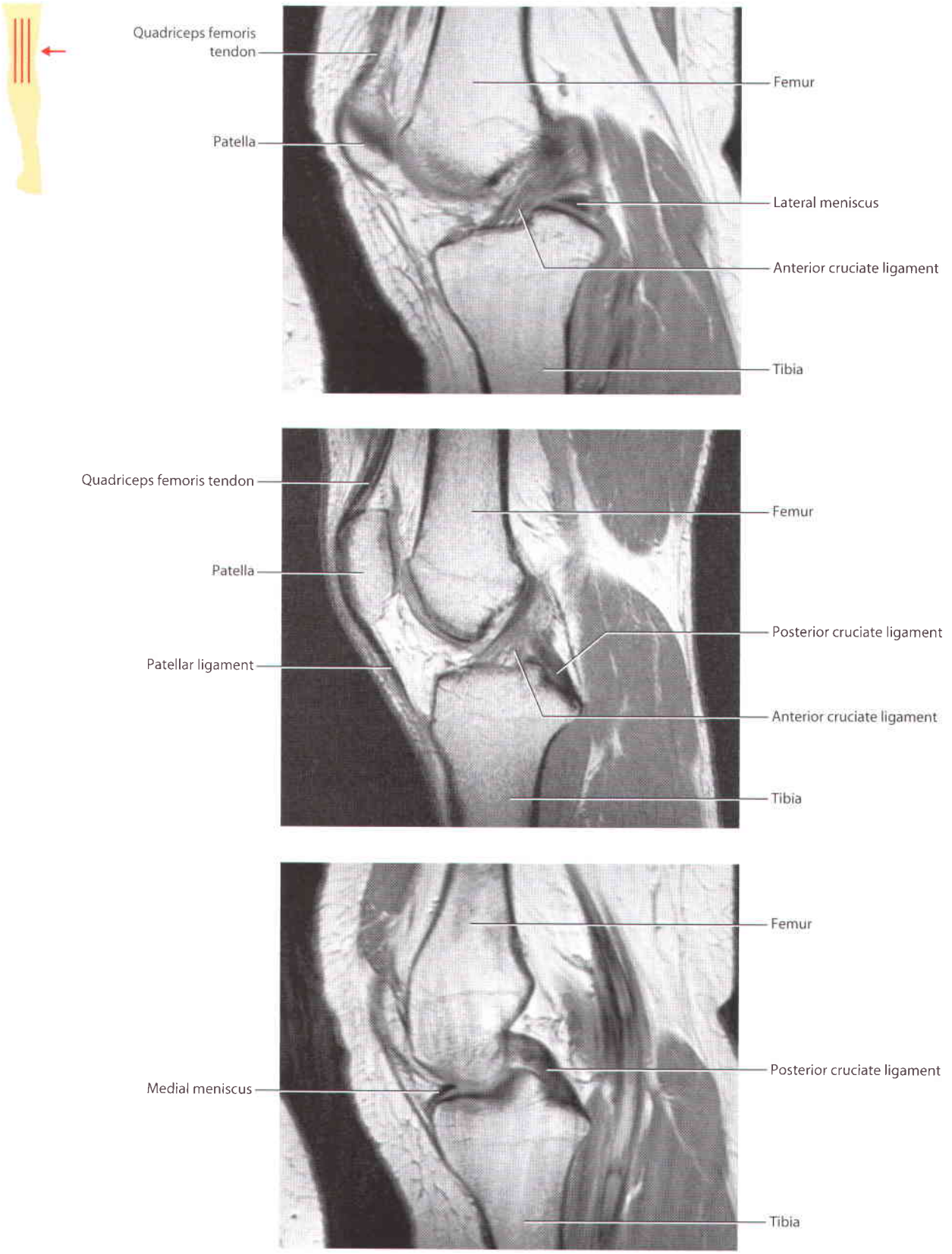
Attachments of menisci, cruciate ligaments, and synovial membrane of the right tibia. (superior view)



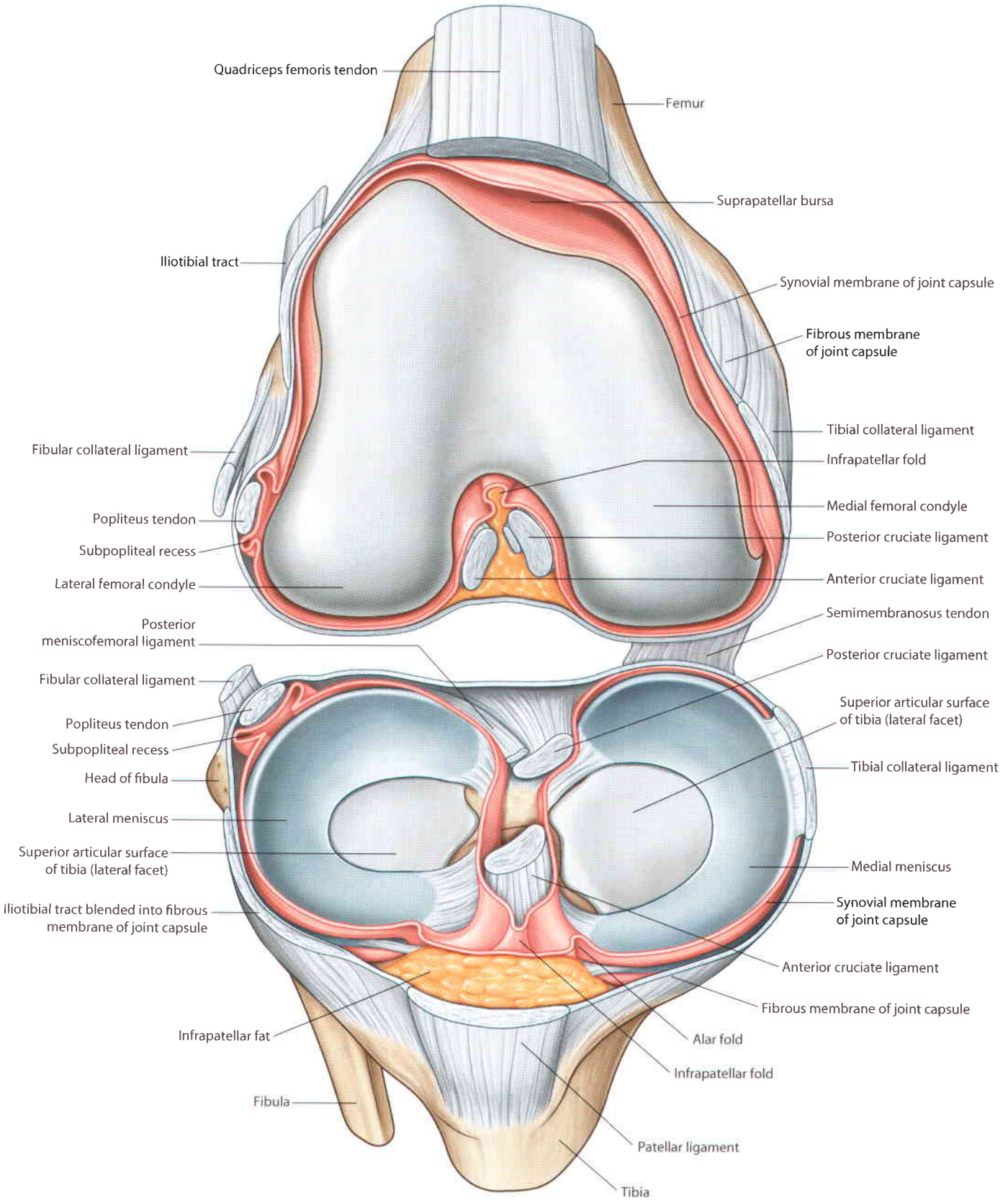
Menisci of the right knee joint. (superior view)



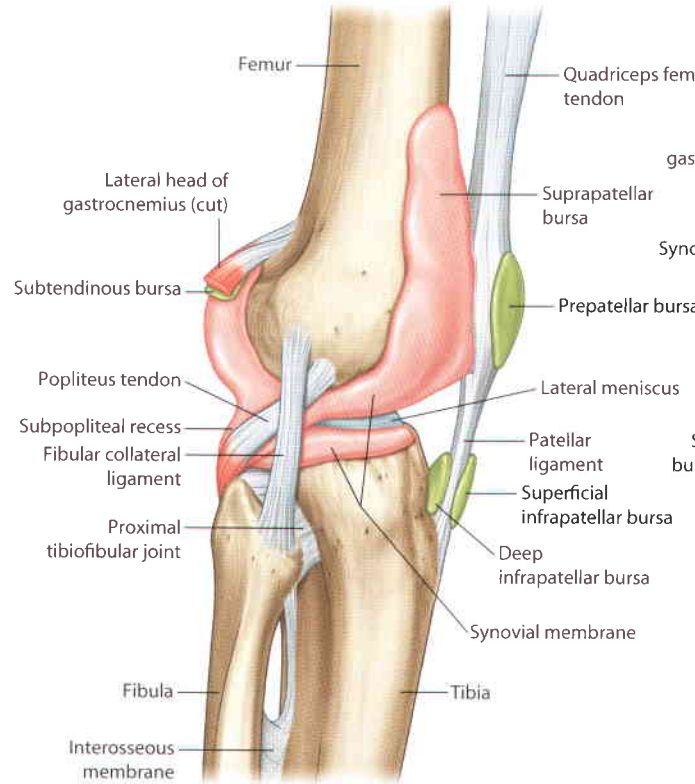
Anterior view of knee joint showing the anterior and posterior cruciate ligaments.
T2-weighted MR image in coronal plane



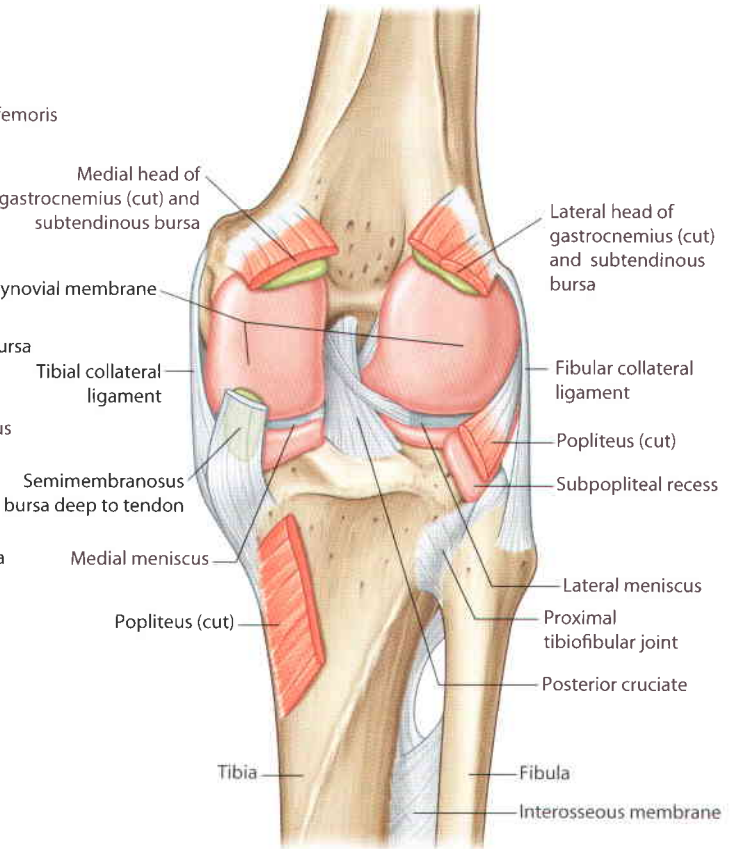
A series of images moving from lateral to medial showing the relationship between anterior and posterior cruciate ligaments.
T2-weighted MR images in sagittal plane



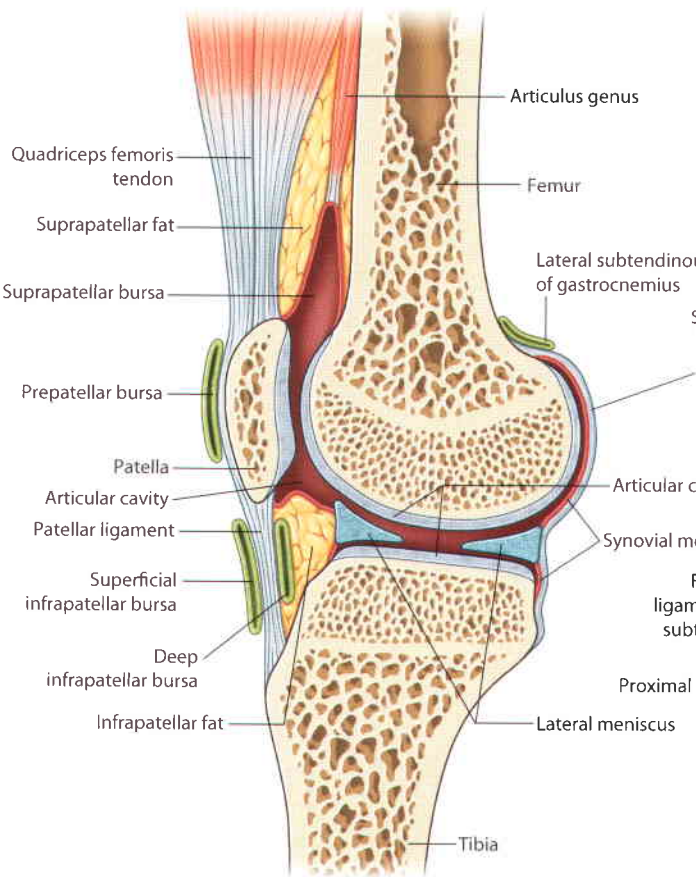
Knee joint (anterosuperior view)



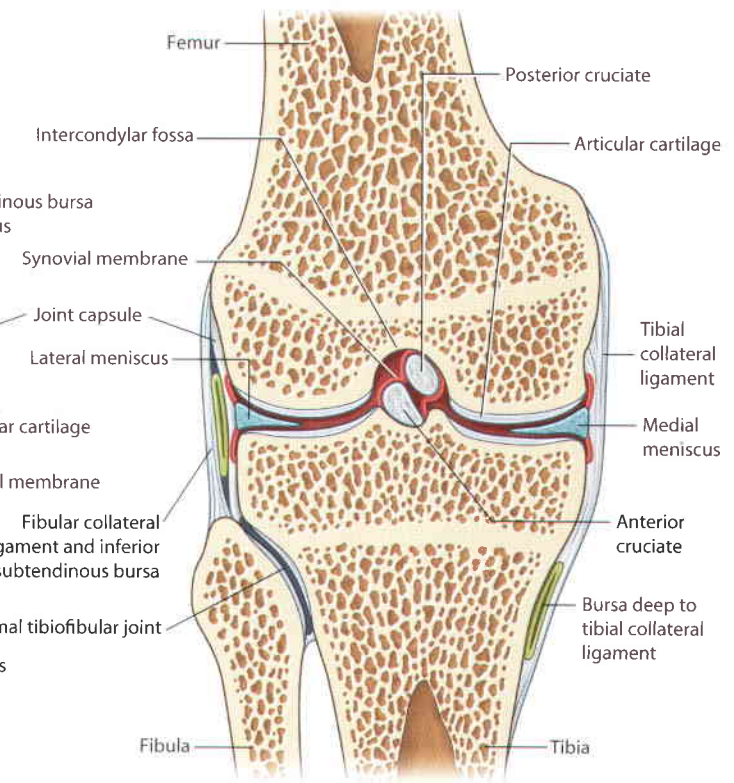
Lateral view



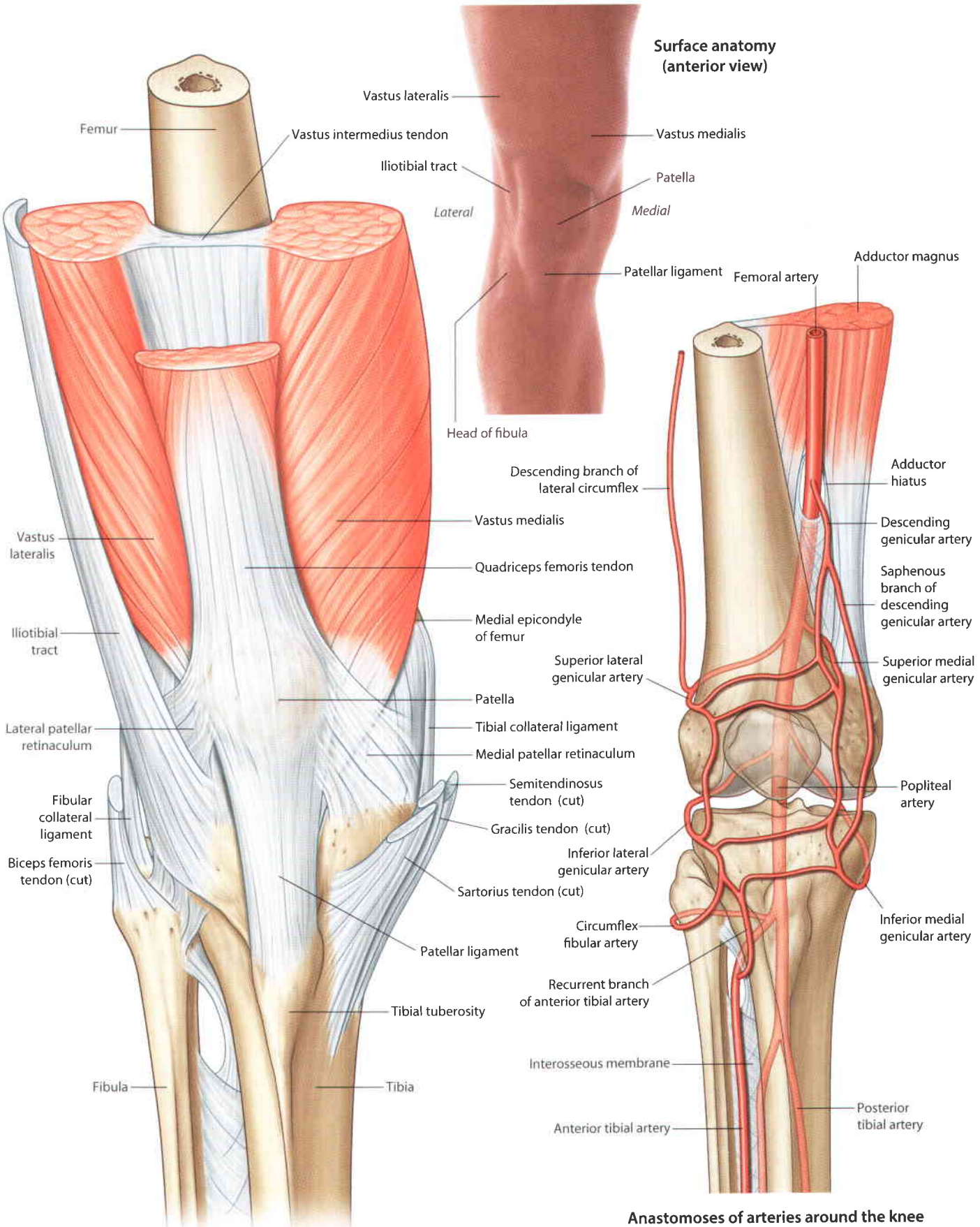
Posterior view



Paramedian section through knee joint

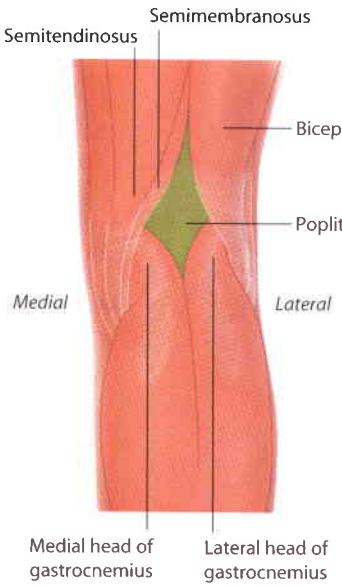


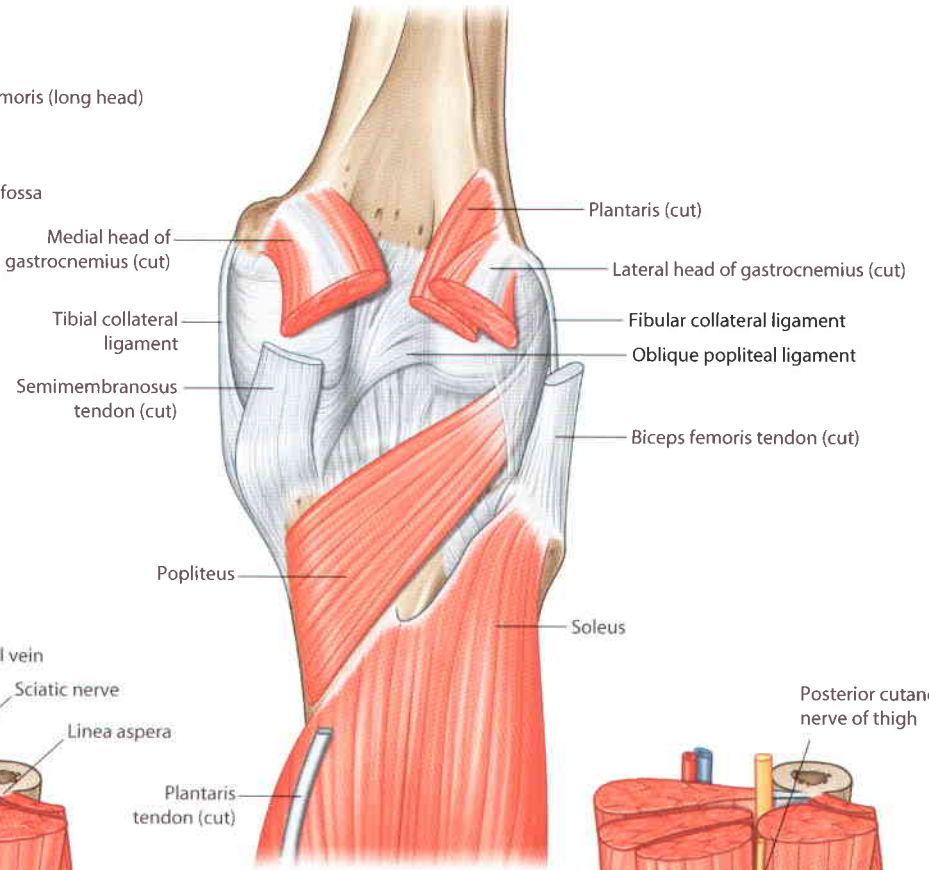
Coronal section through knee joint (anterior view)



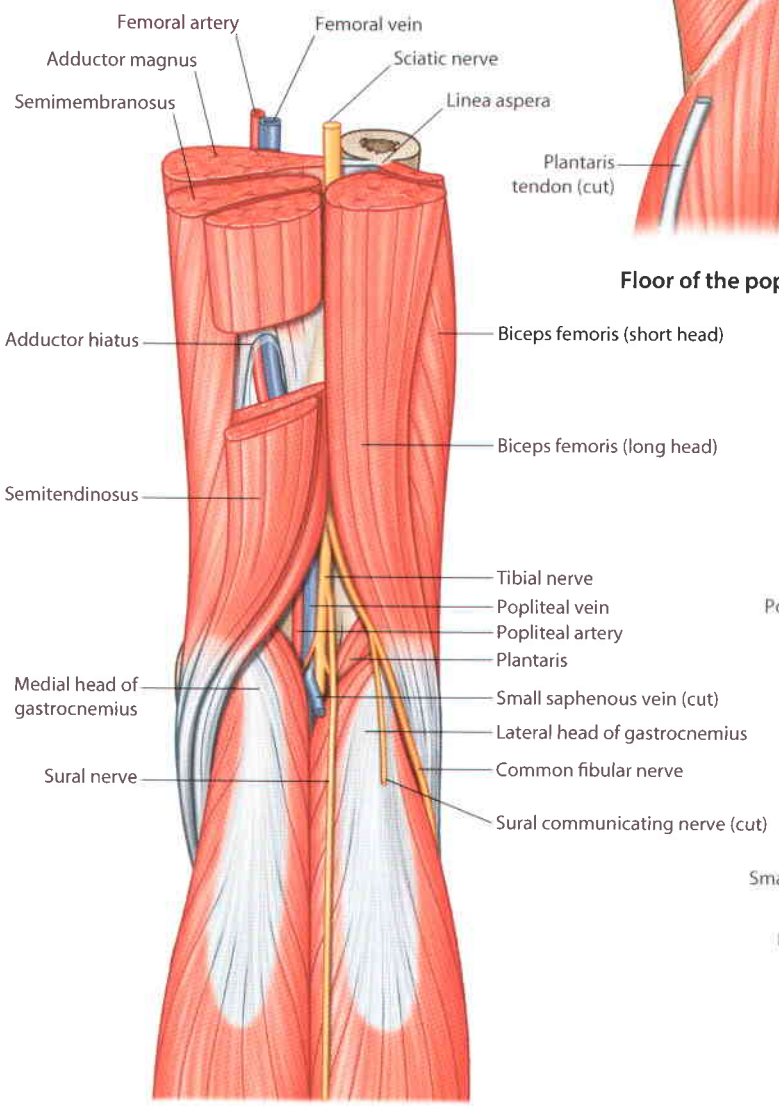
Knee joint capsule and related structures (anterior view)

Anastomoses of arteries around the knee (anterior view)

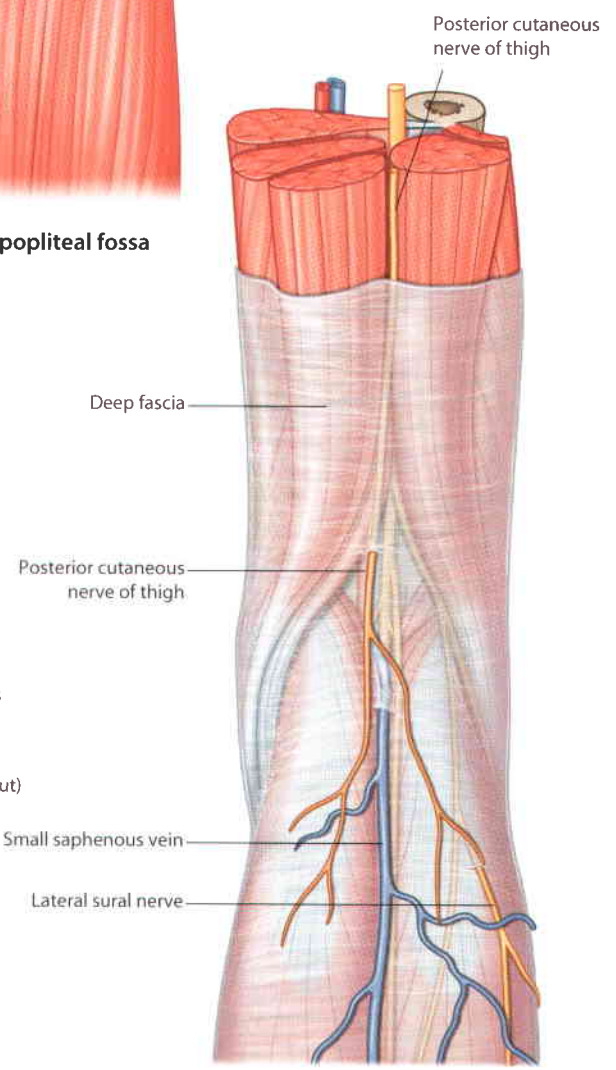




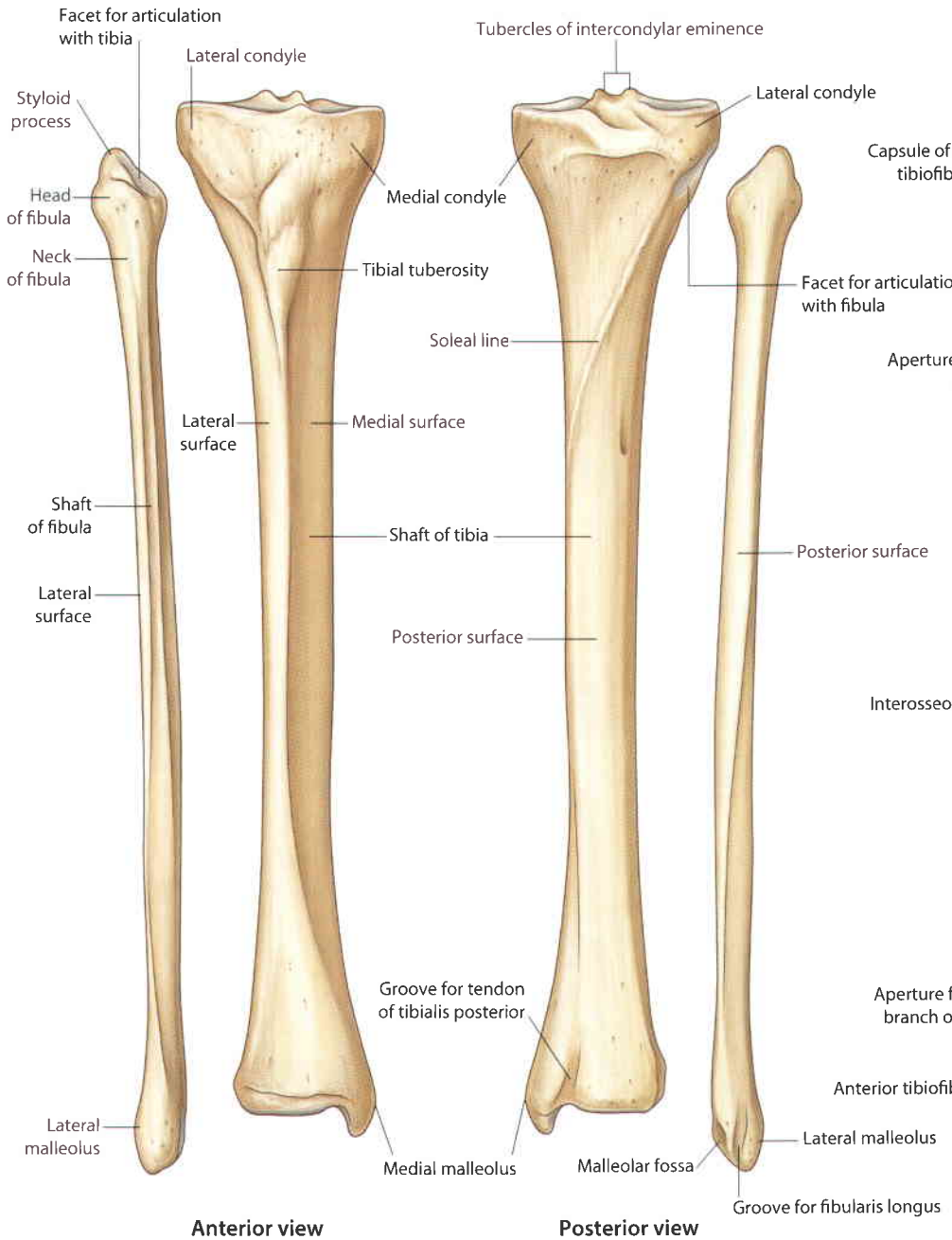
Floor of the popliteal fossa

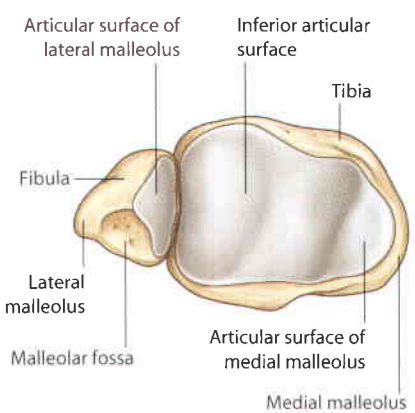


Structures in the popliteal fossa

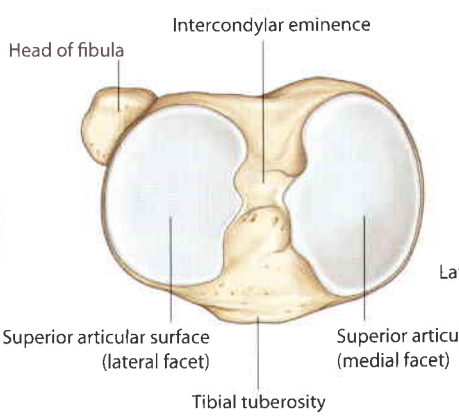


Superficial structures

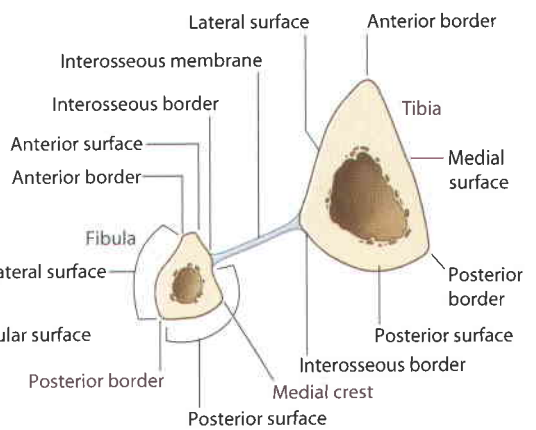




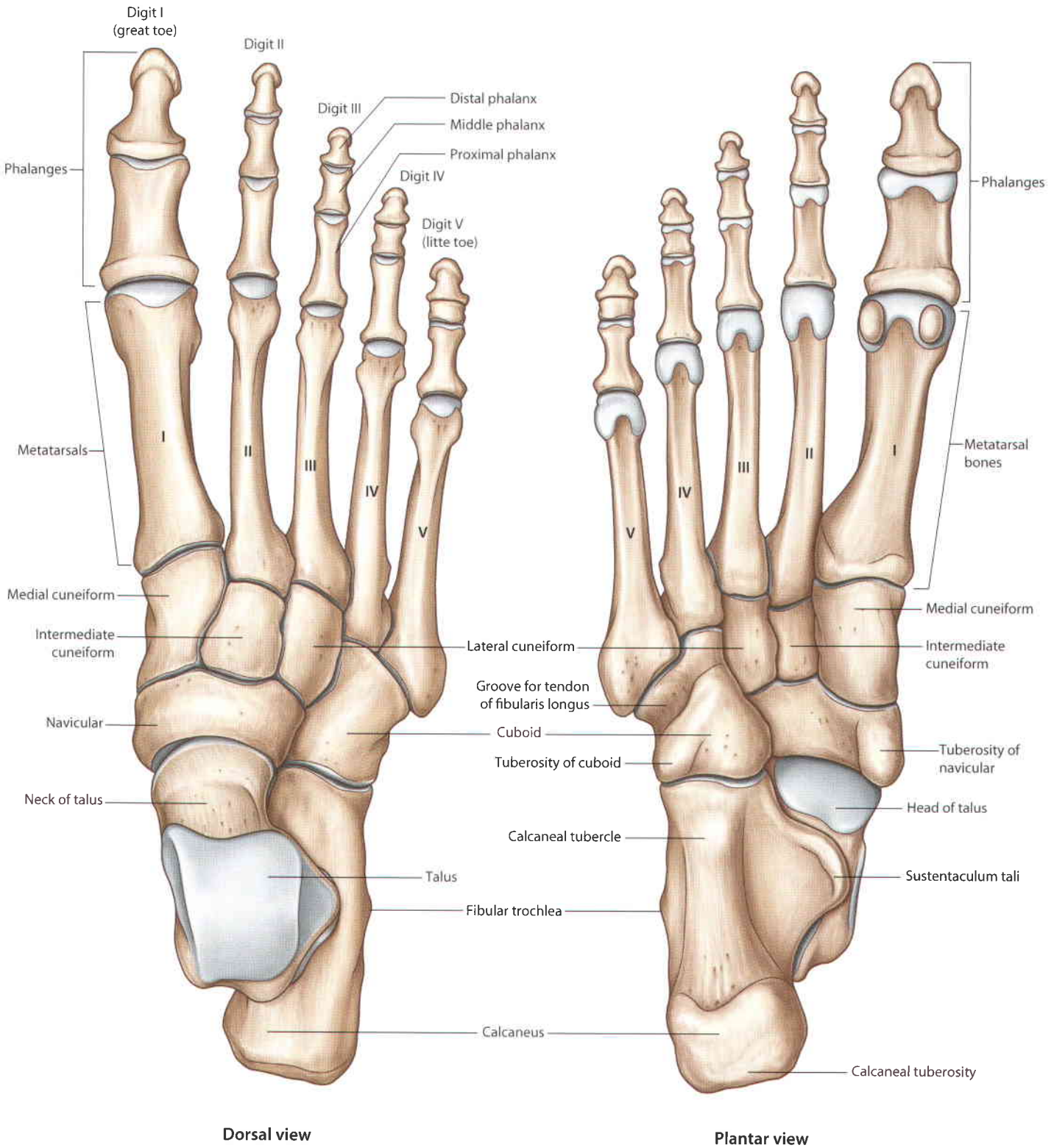
Distal tibia and fibula (inferior view)



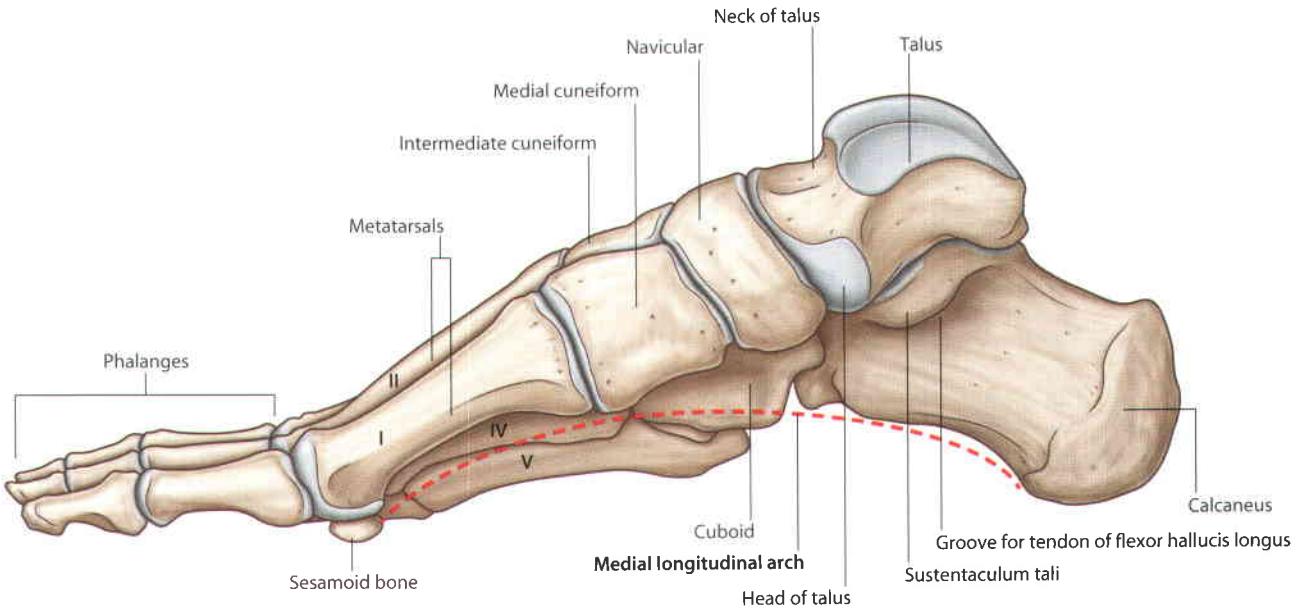
Proximal tibia and fibula (superior view)



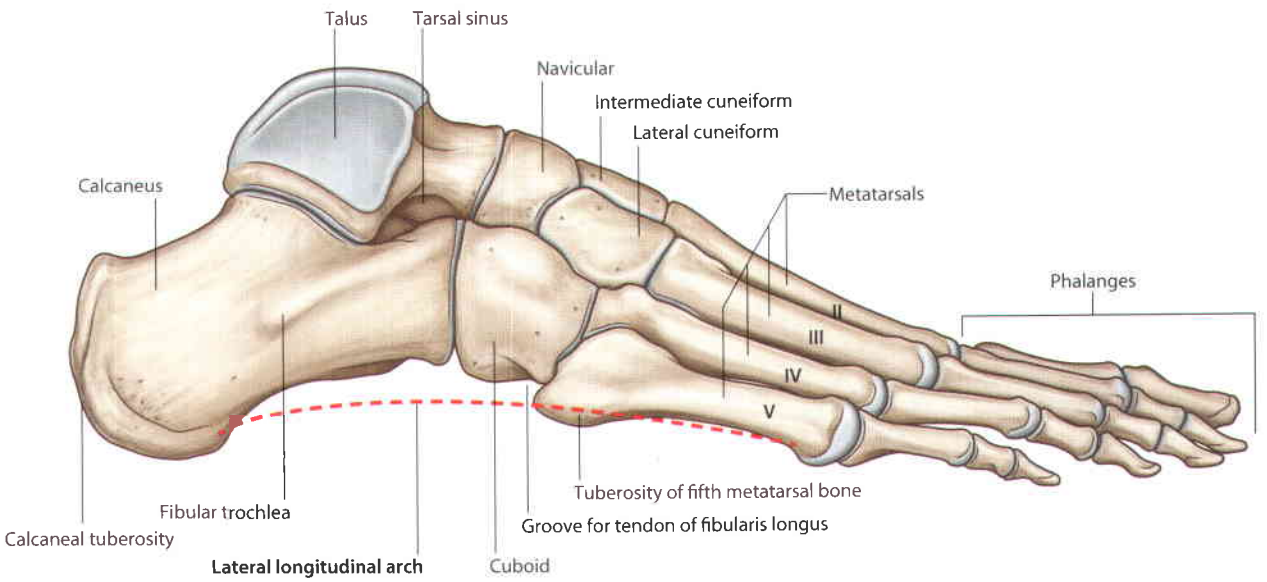
Cross section through shafts



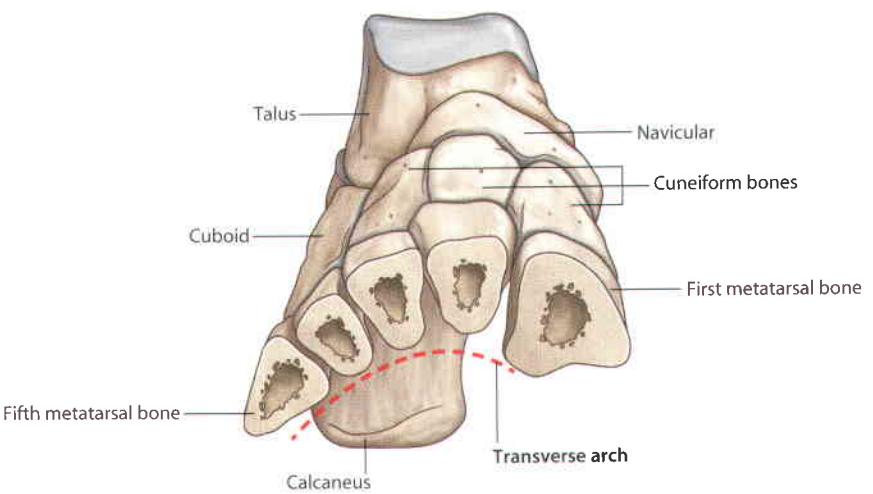
Dorsal view **Plantar view**



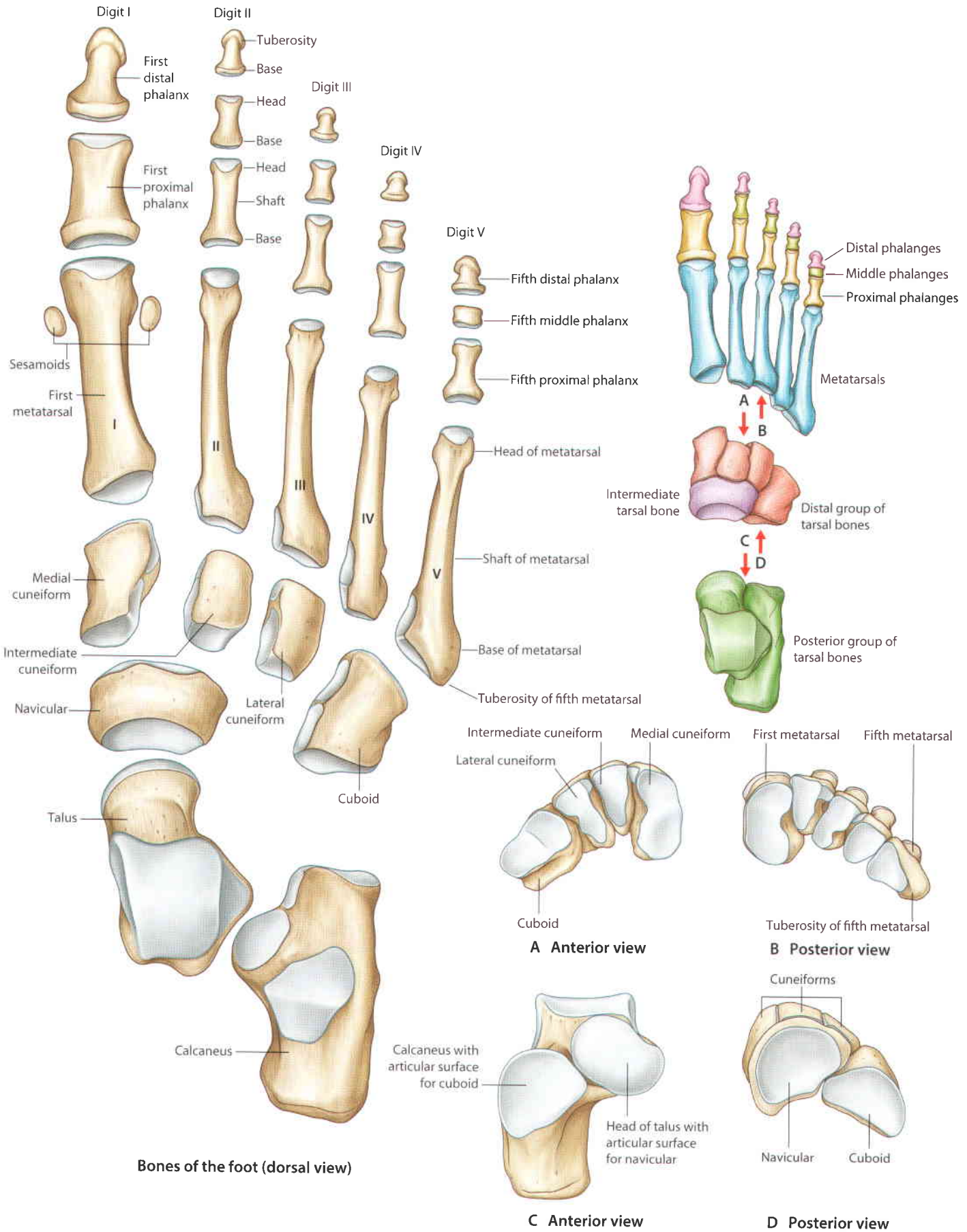
Medial view



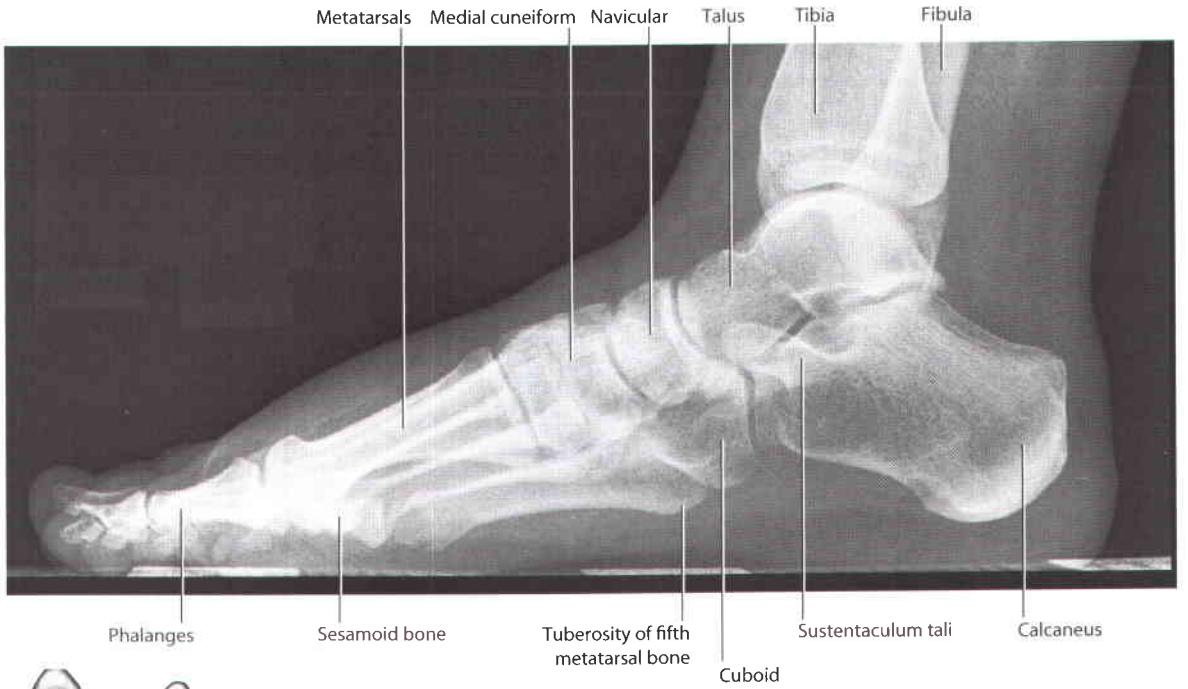
Lateral view



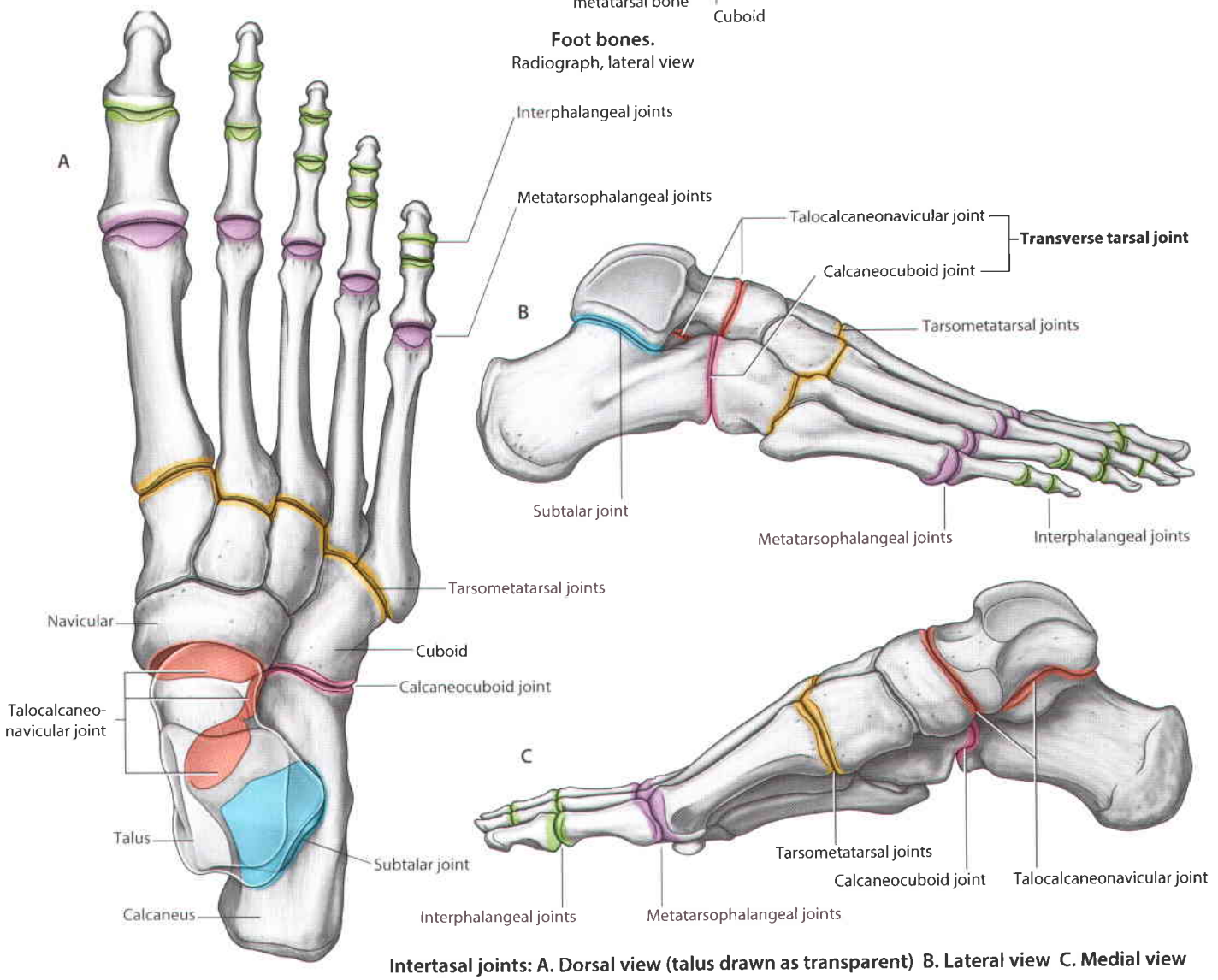
Cross section through the foot bones



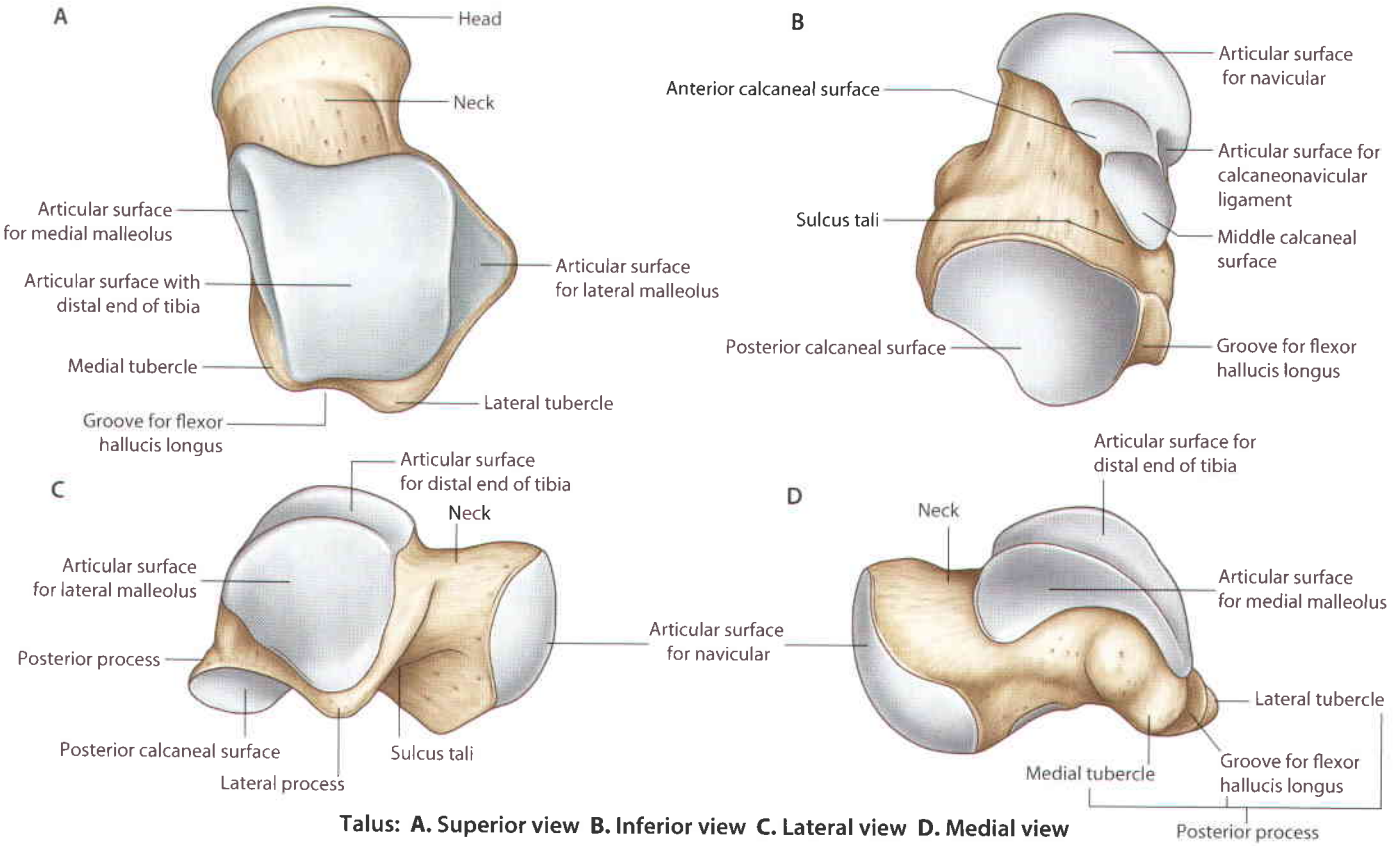
Bones of the foot (dorsal view)



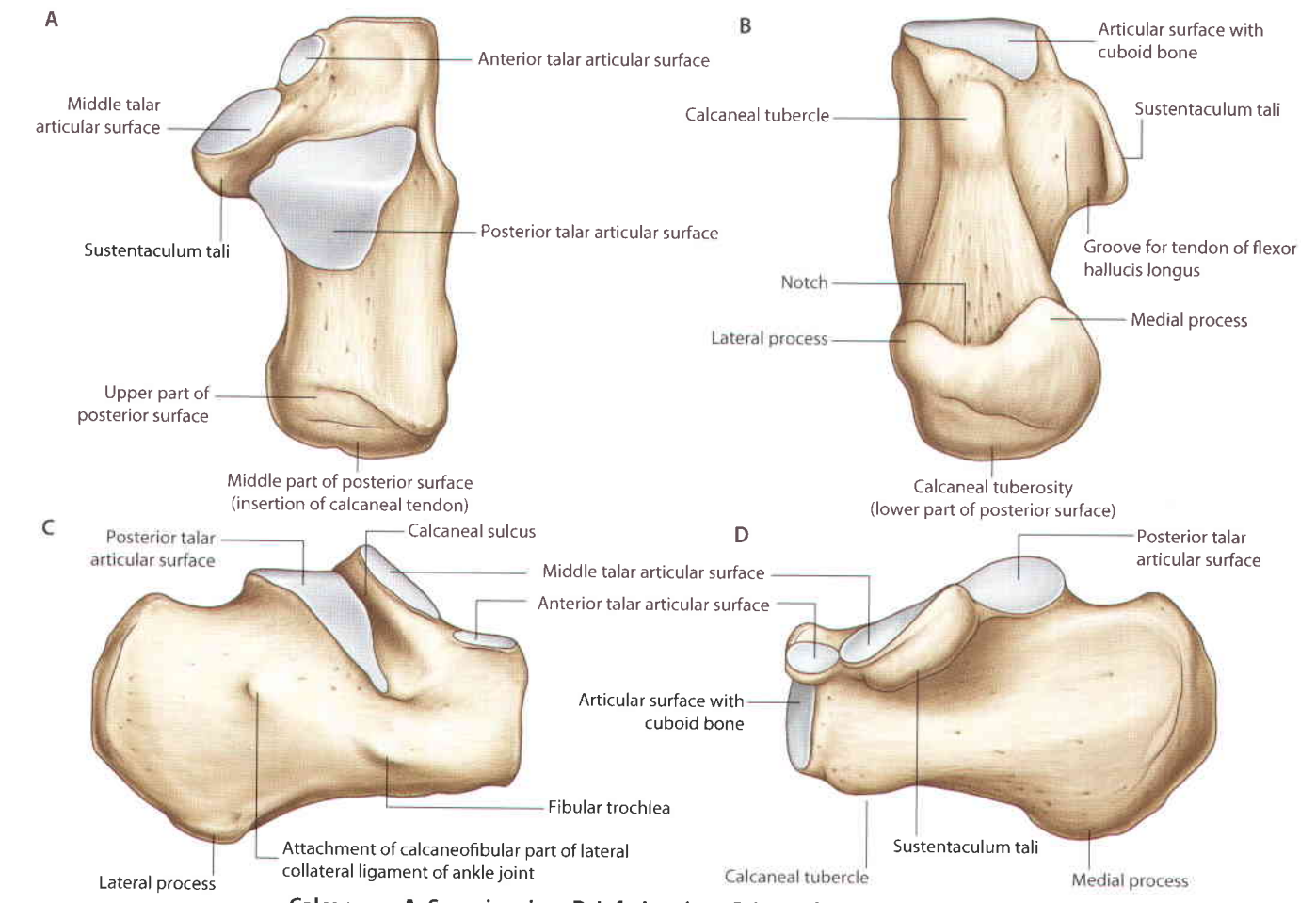
Foot bones.
Radiograph, lateral view



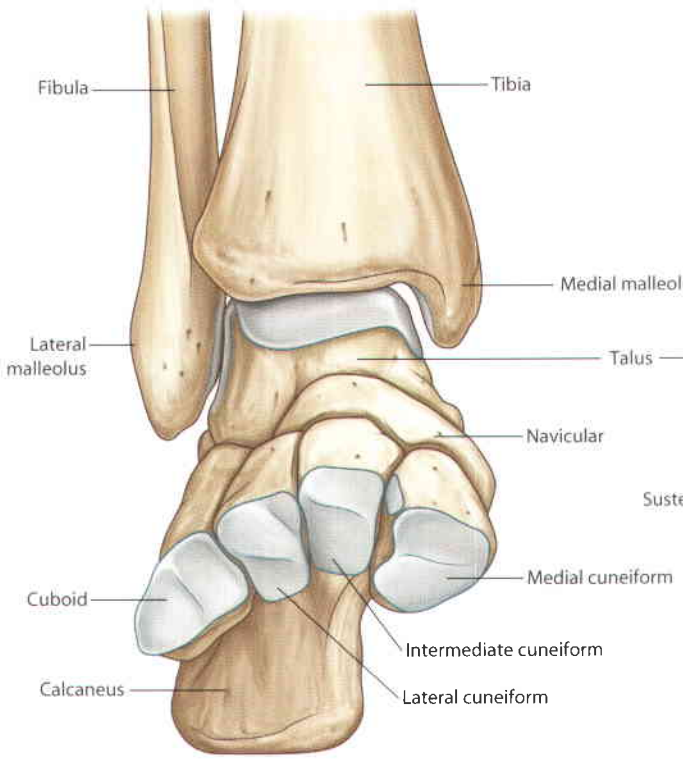
Intertasal joints: A. Dorsal view (talus drawn as transparent) B. Lateral view C. Medial view



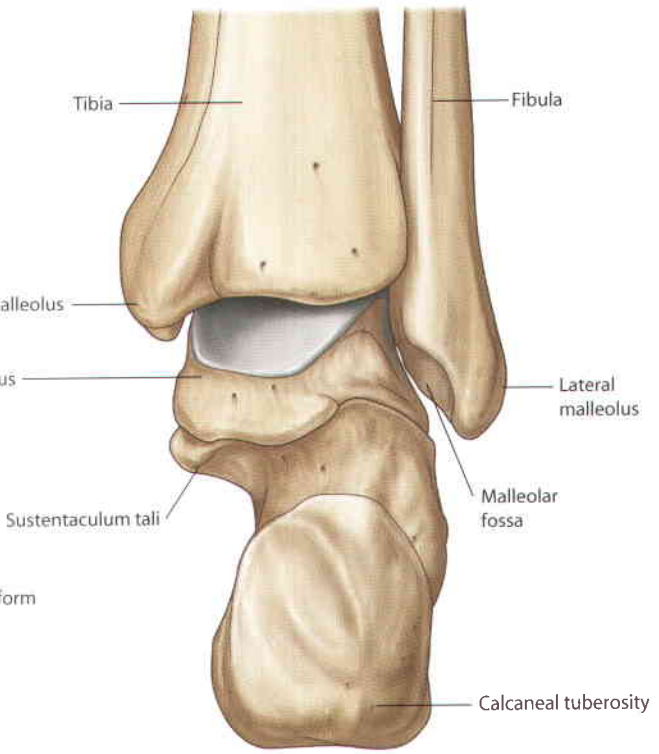
Talus: A. Superior view B. Inferior view C. Lateral view D. Medial view



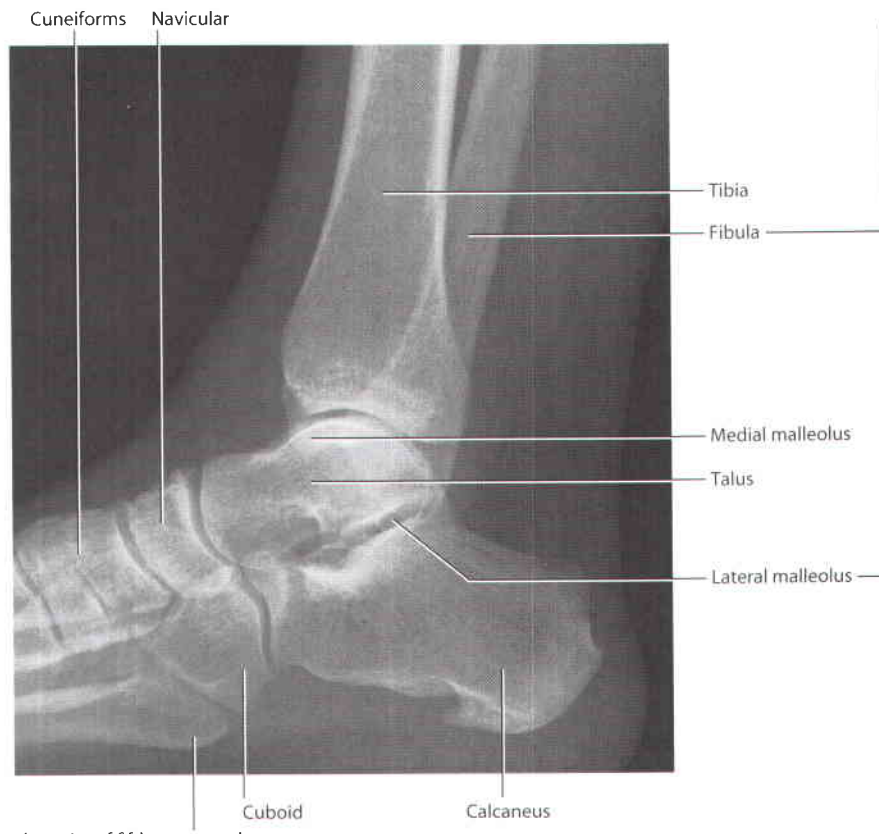
Calcaneus: A. Superior view B. Inferior view C. Lateral view D. Medial view



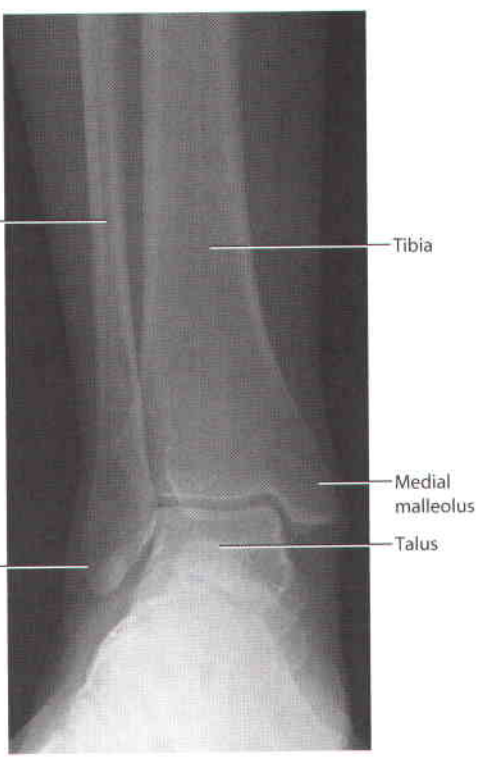
Anterior view
(metatarsals and phalanges removed)



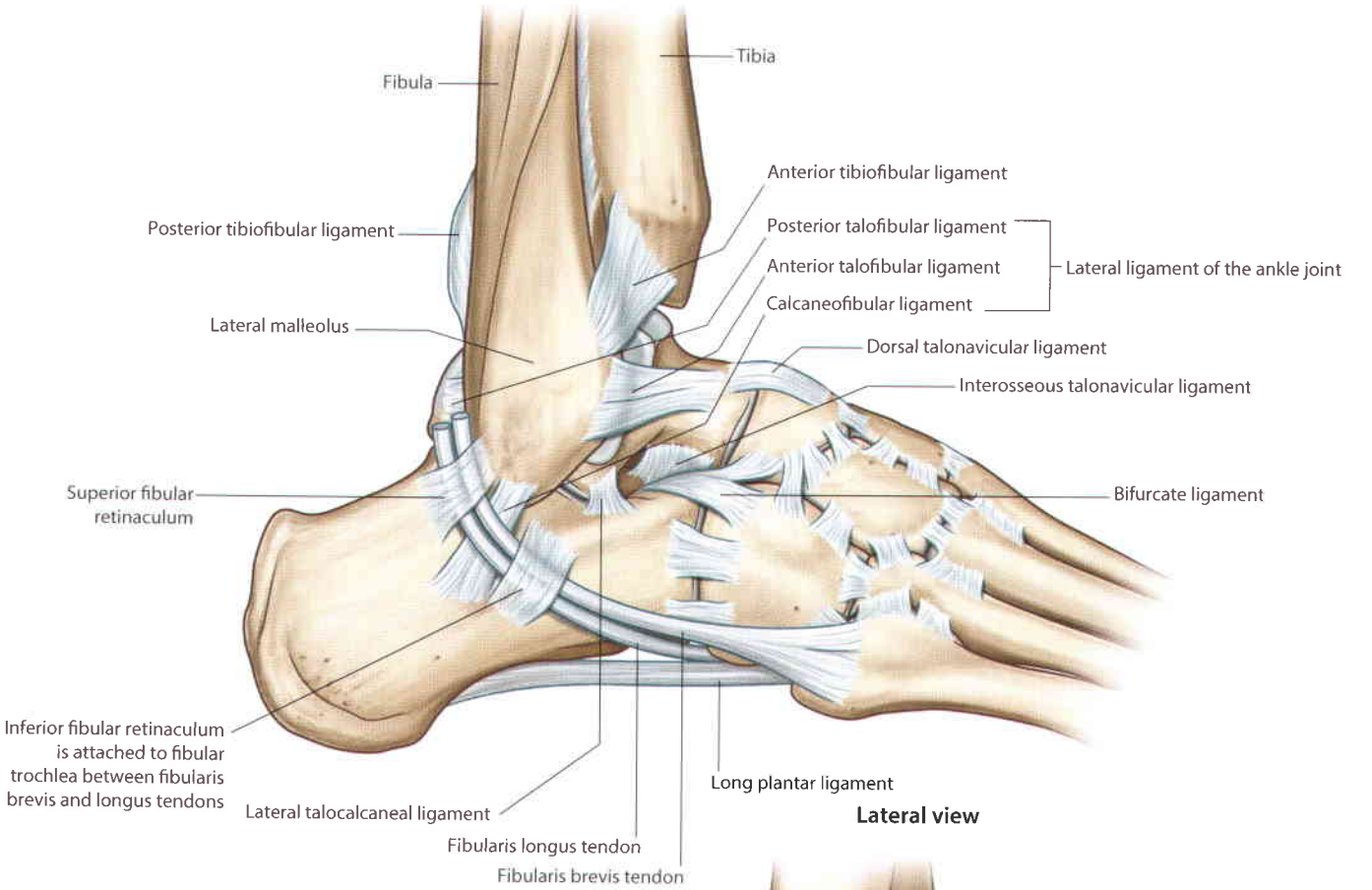
Posterior view



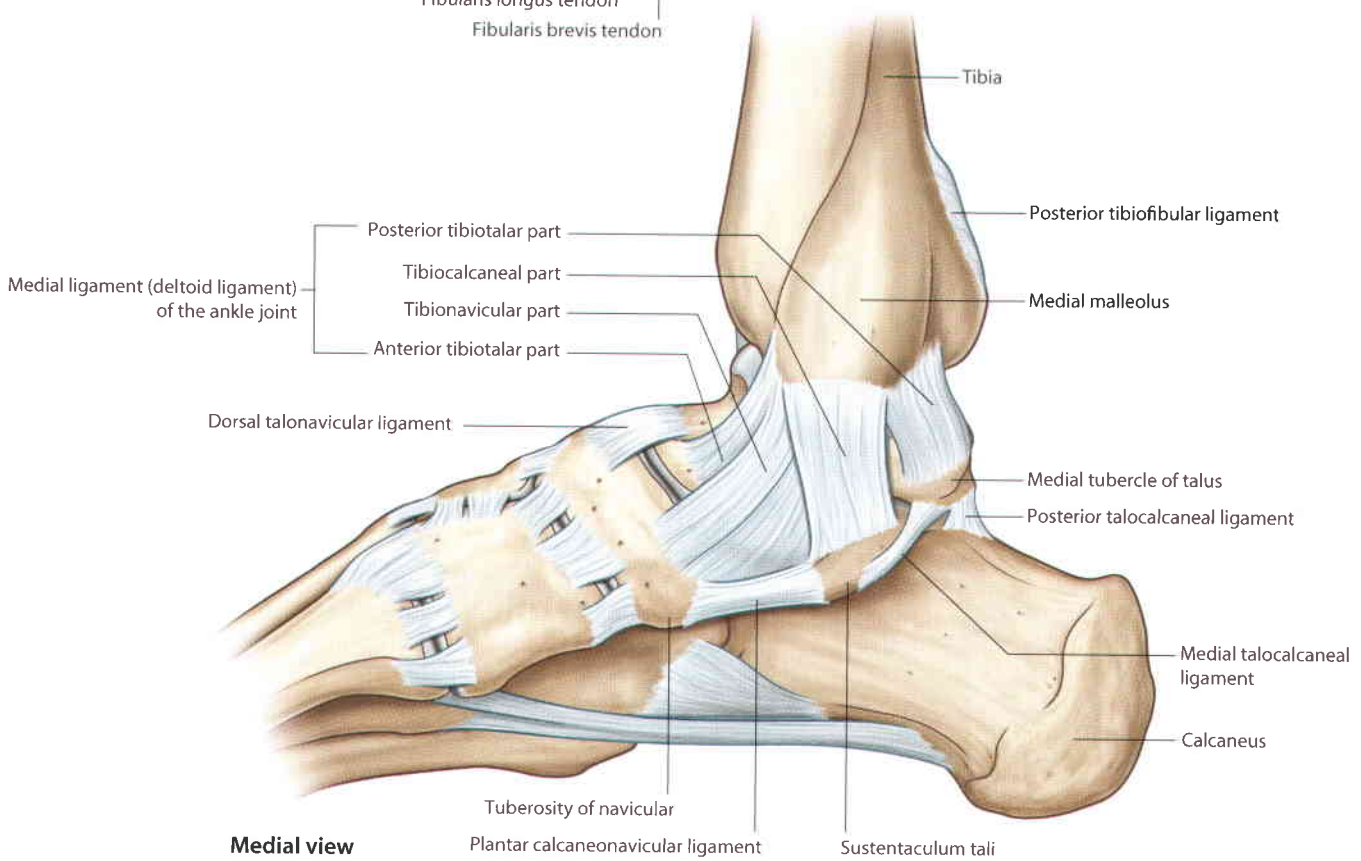
Normal ankle joint.
Radiograph, lateral view



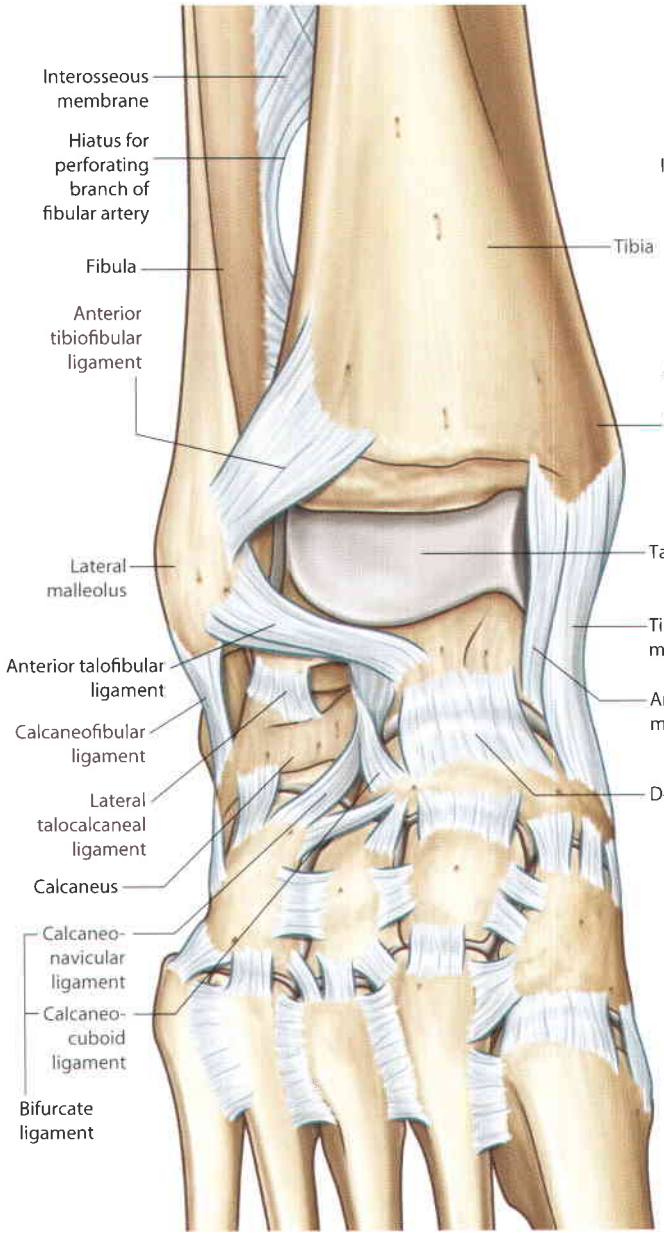
Normal ankle joint.
Radiograph, AP view



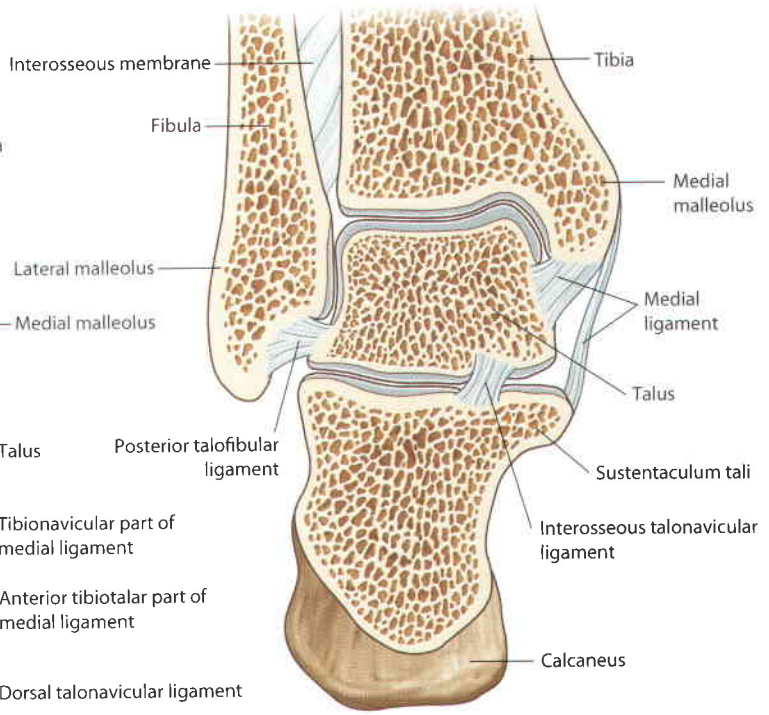
Lateral view



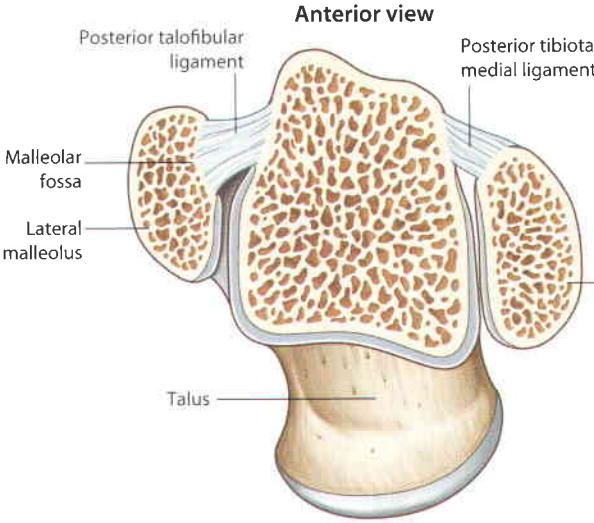
Medial view



Anterior view

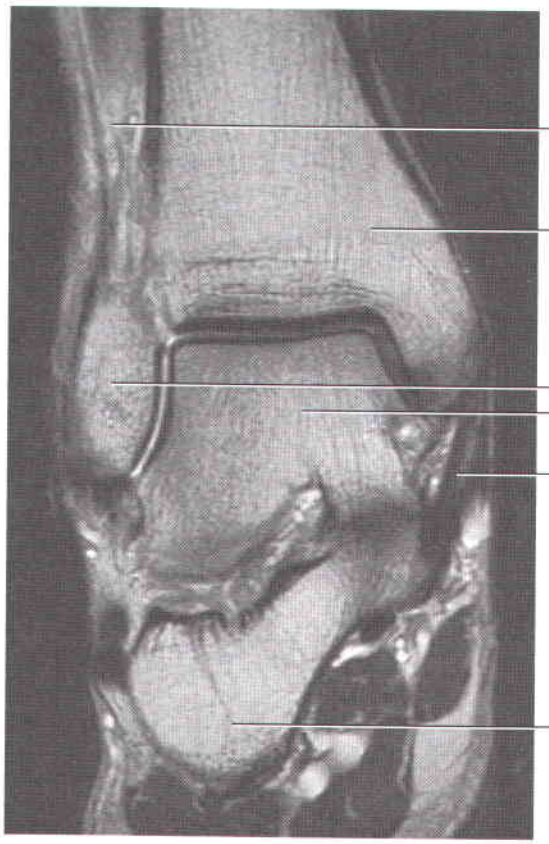


Coronal section through ankle joint (anterior view)

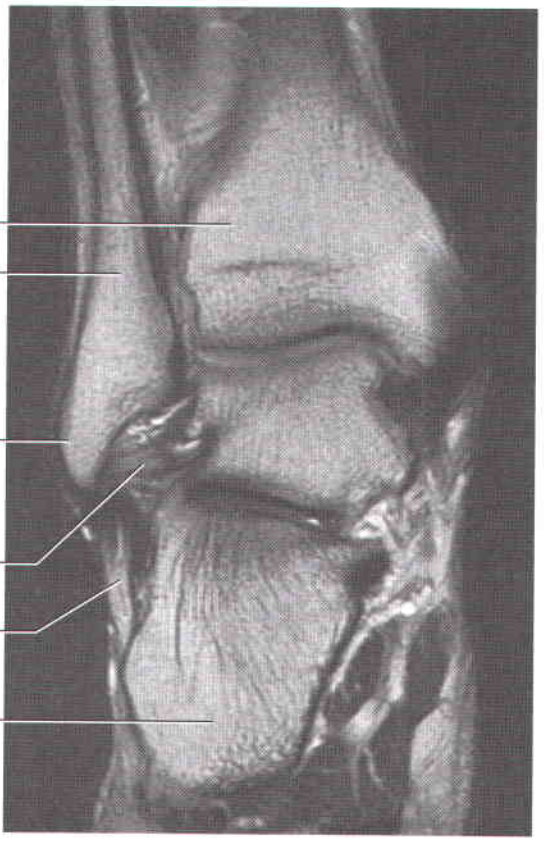


Transverse section through ankle joint (superior view)

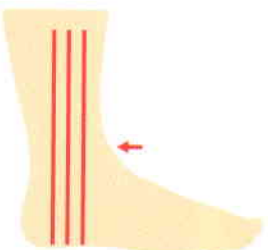
Posterior view

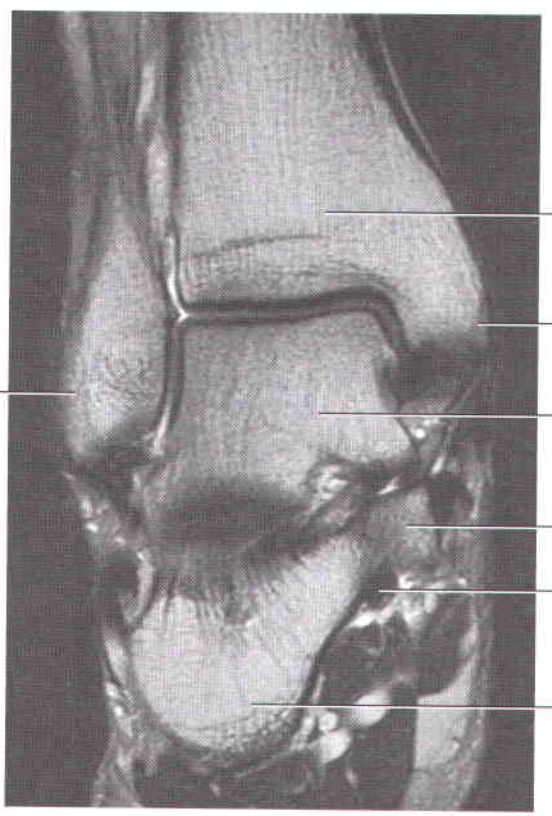


Coronal view of the ankle joint showing the medial ligament of the ankle joint (deltoid ligament).
T2-weighted MR image in coronal plane

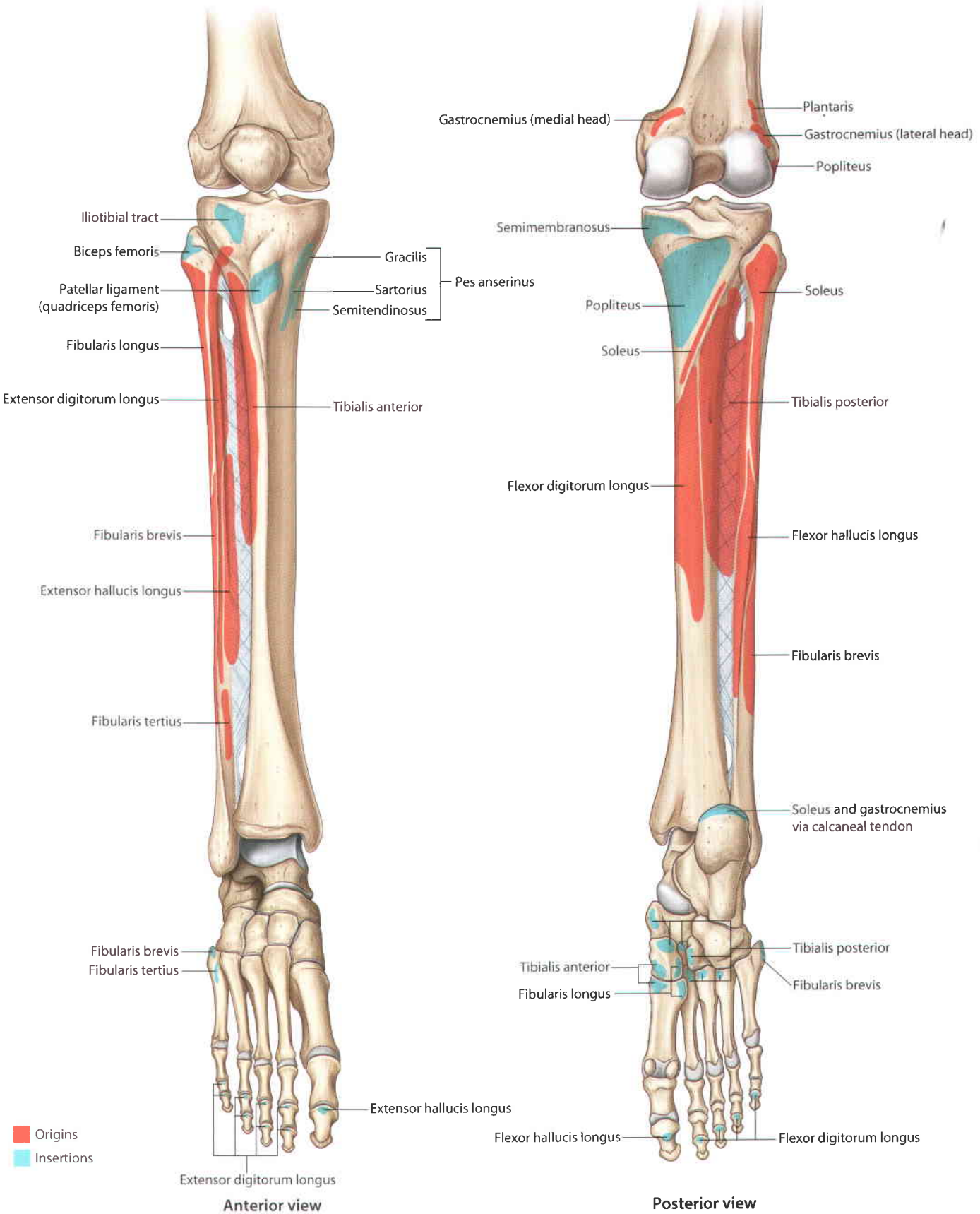


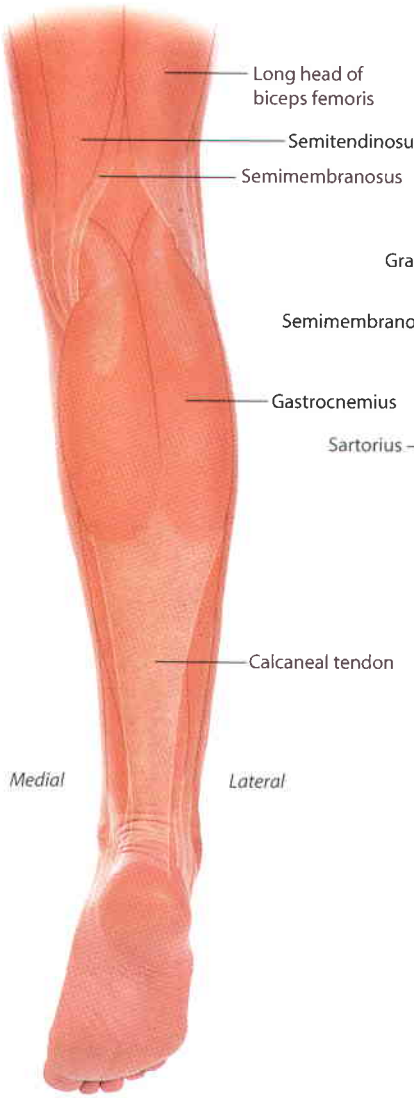
Coronal view of the ankle joint showing the posterior talofibular and calcaneofibular ligaments.
T2-weighted MR image in coronal plane



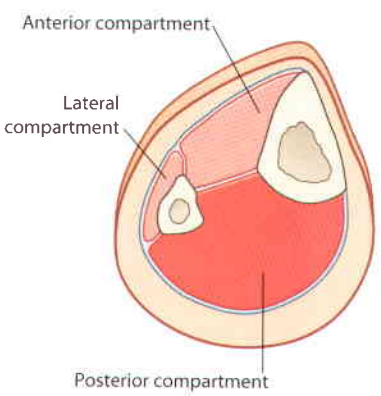


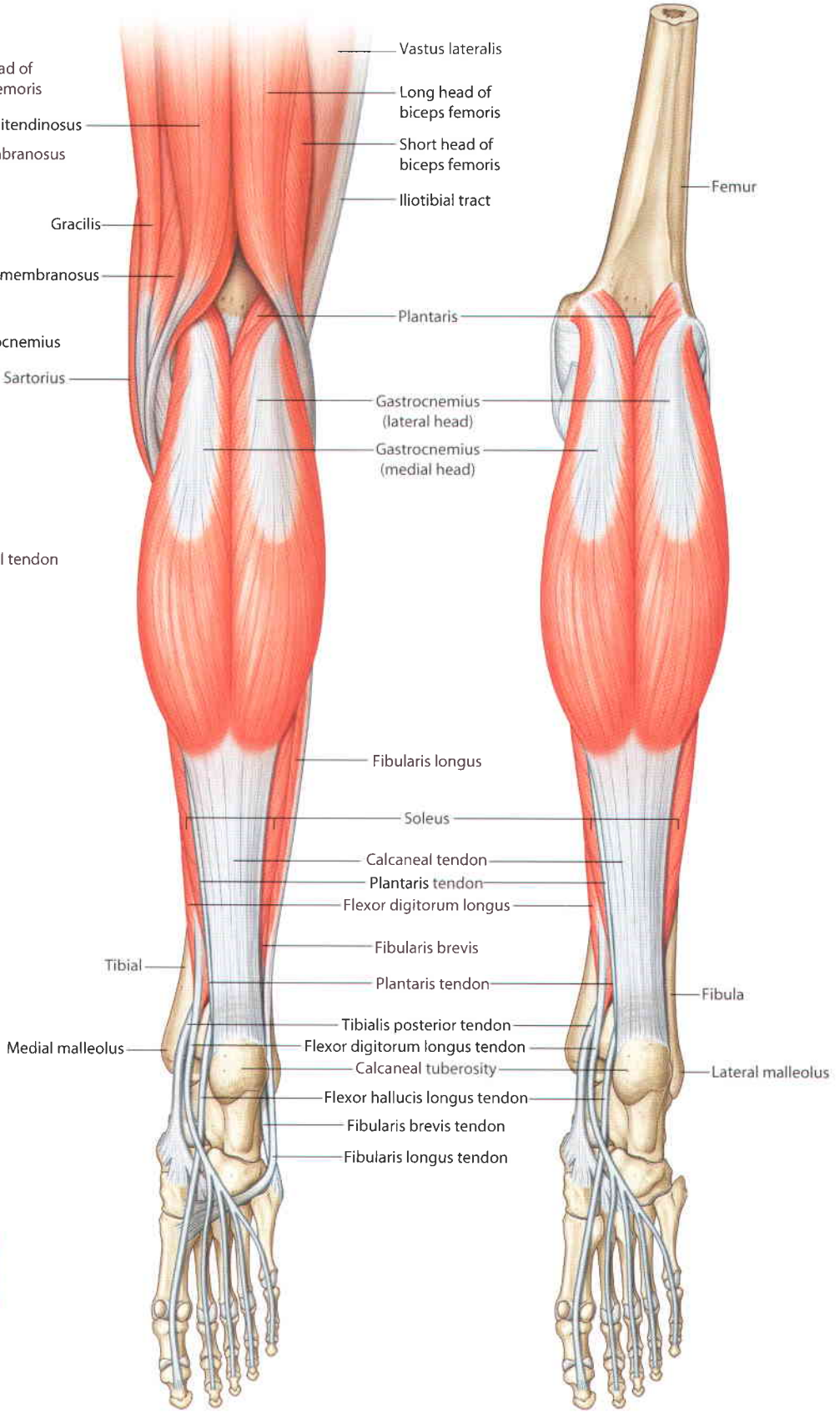
Coronal view of the ankle joint showing the flexor hallucis longus passing inferior to the sustentaculum tali.
T2-weighted MR image in coronal plane


Iliotibial tract
Biceps femoris
Patellar ligament (quadriceps femoris)
Fibularis longus
Extensor digitorum longus
Fibularis brevis
Extensor hallucis longus
Fibularis tertius
Fibularis brevis
Fibularis tertius
Extensor digitorum longus
Gracilis
Sartorius
Semitendinosus
Pes anserinus
Tibialis anterior
Extensor hallucis longus
Origins
Insertions
Anterior view
Gastrocnemius (medial head)
Plantaris
Gastrocnemius (lateral head)
Popliteus
Semimembranosus
Popliteus
Soleus
Soleus
Tibialis posterior
Flexor digitorum longus
Flexor hallucis longus
Fibularis brevis
Soleus and gastrocnemius via calcaneal tendon
Tibialis posterior
Tibialis anterior
Fibularis longus
Fibularis brevis
Flexor hallucis longus
Flexor digitorum longus
Posterior view



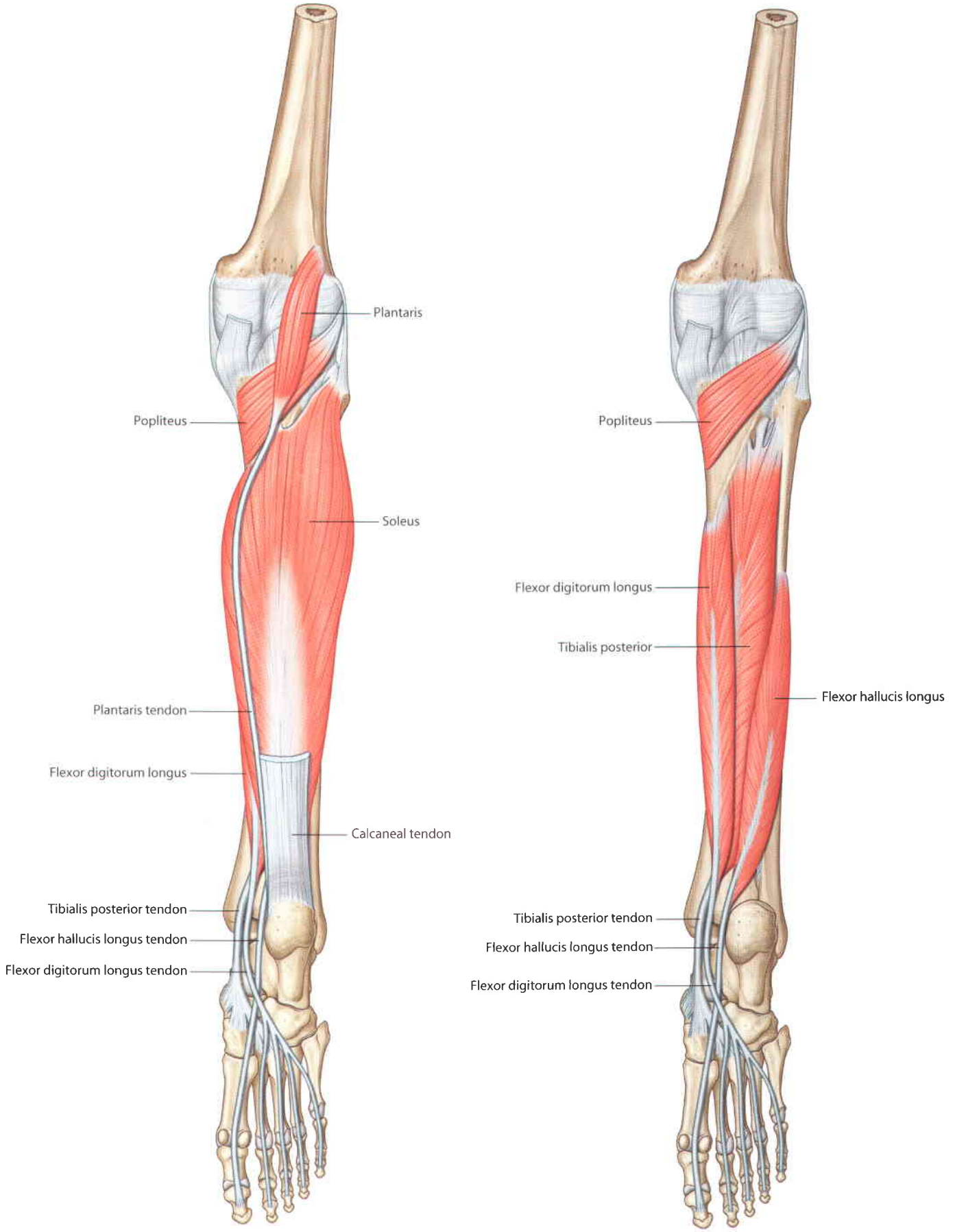
Surface anatomy of leg with overlay of muscles (posterior view)



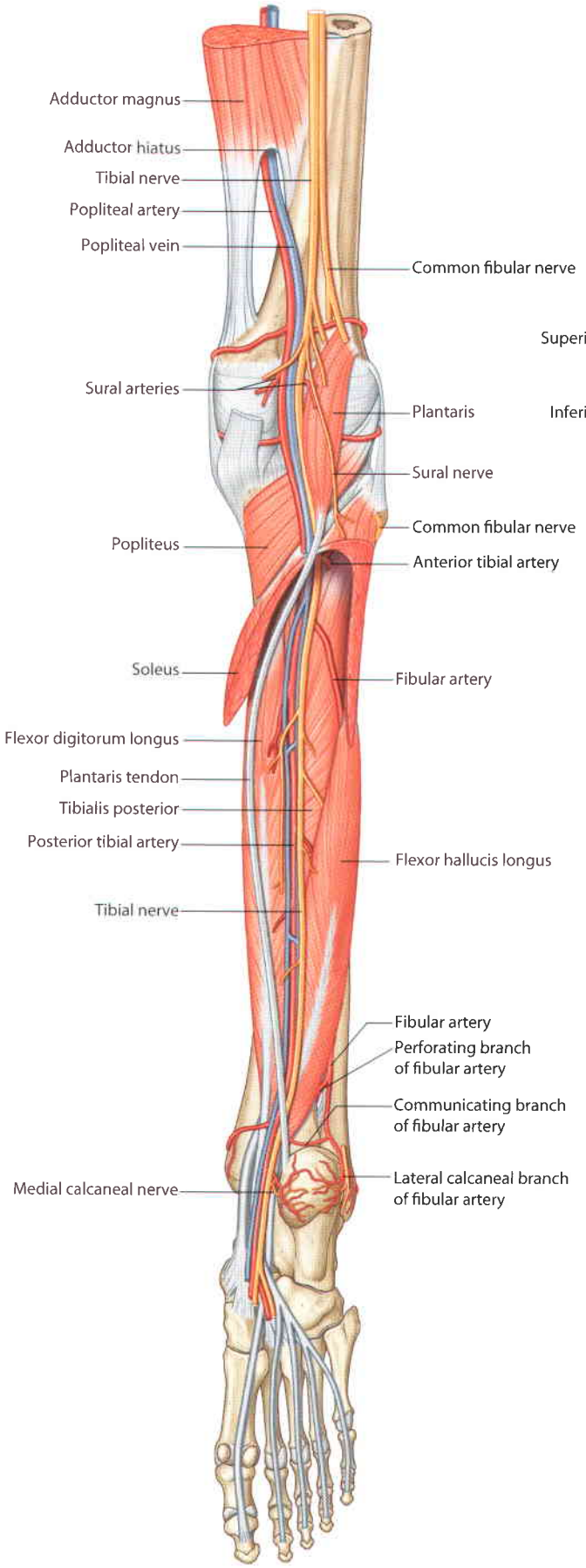


Superficial muscles of leg (posterior view)

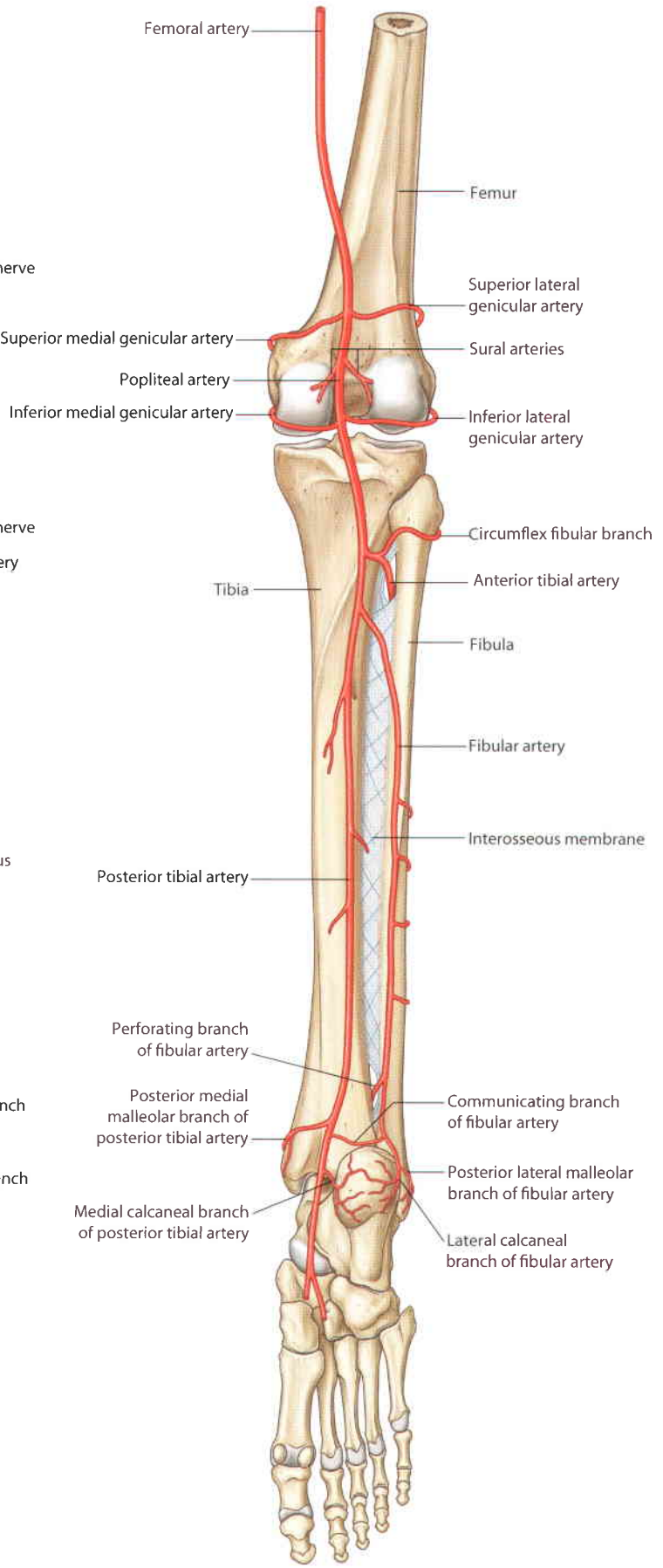
Superficial muscles of the posterior compartment of leg



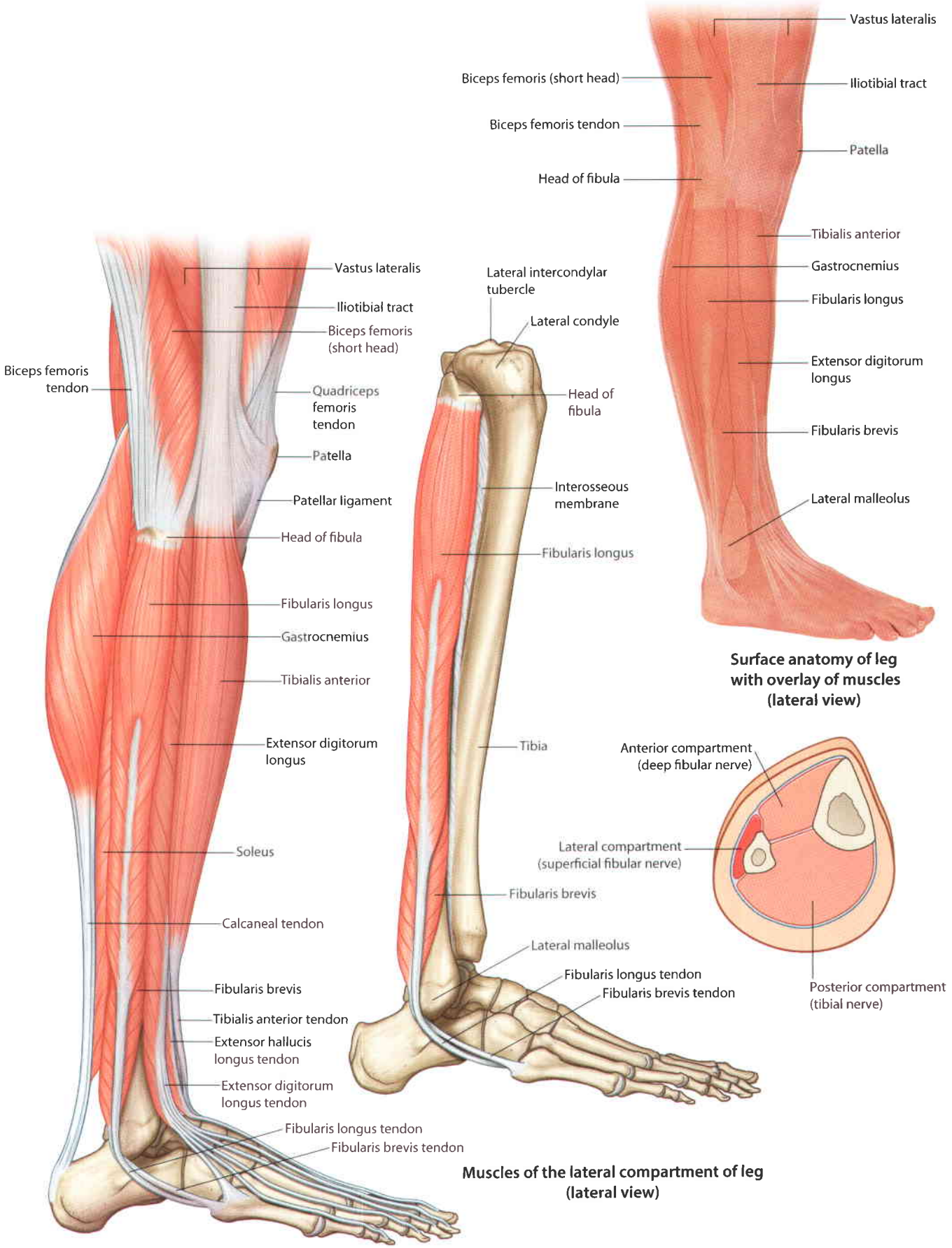
Deep muscles of the posterior compartment of leg



Arteries and nerves of leg (posterior view)

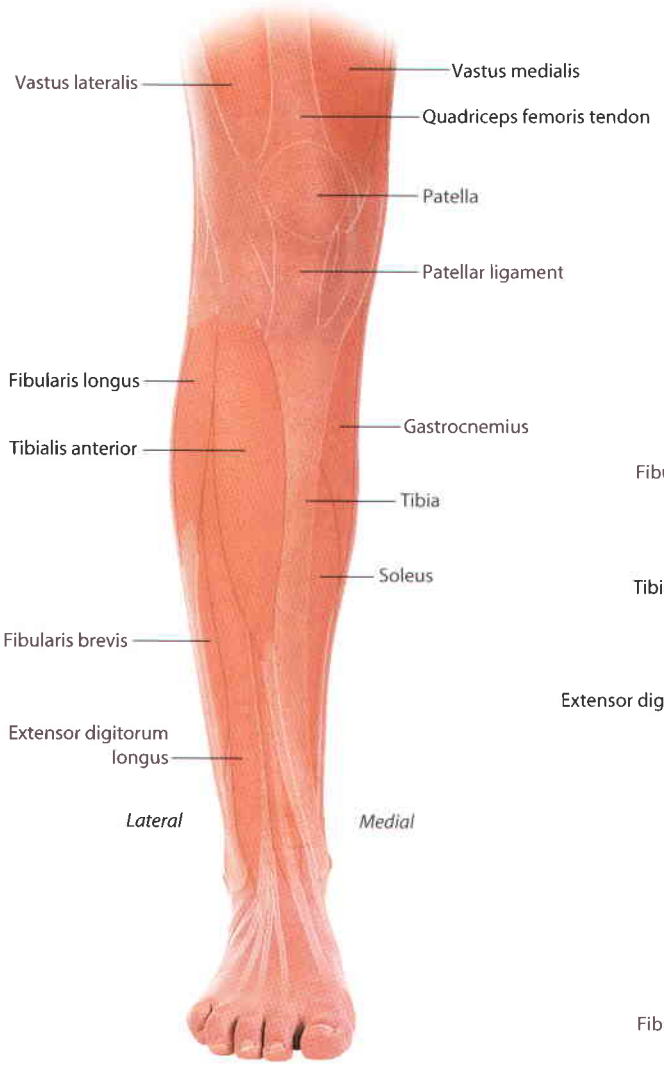


Arteries of leg (posterior view)

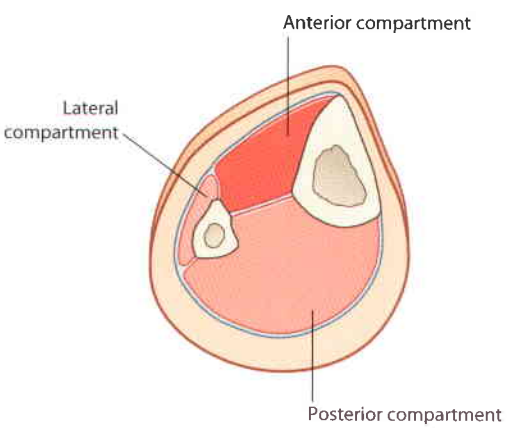


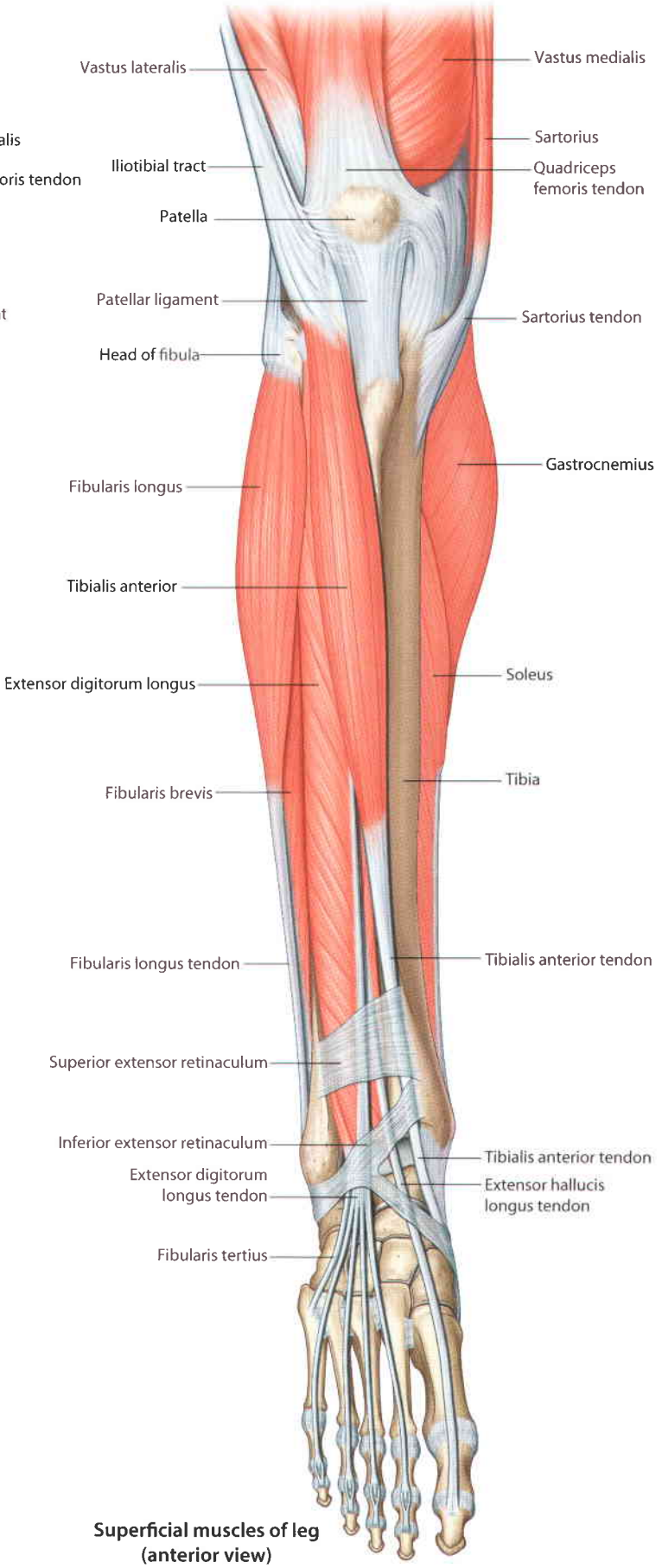
Surface anatomy of leg with overlay of muscles (lateral view)

Muscles of the lateral compartment of leg (lateral view)

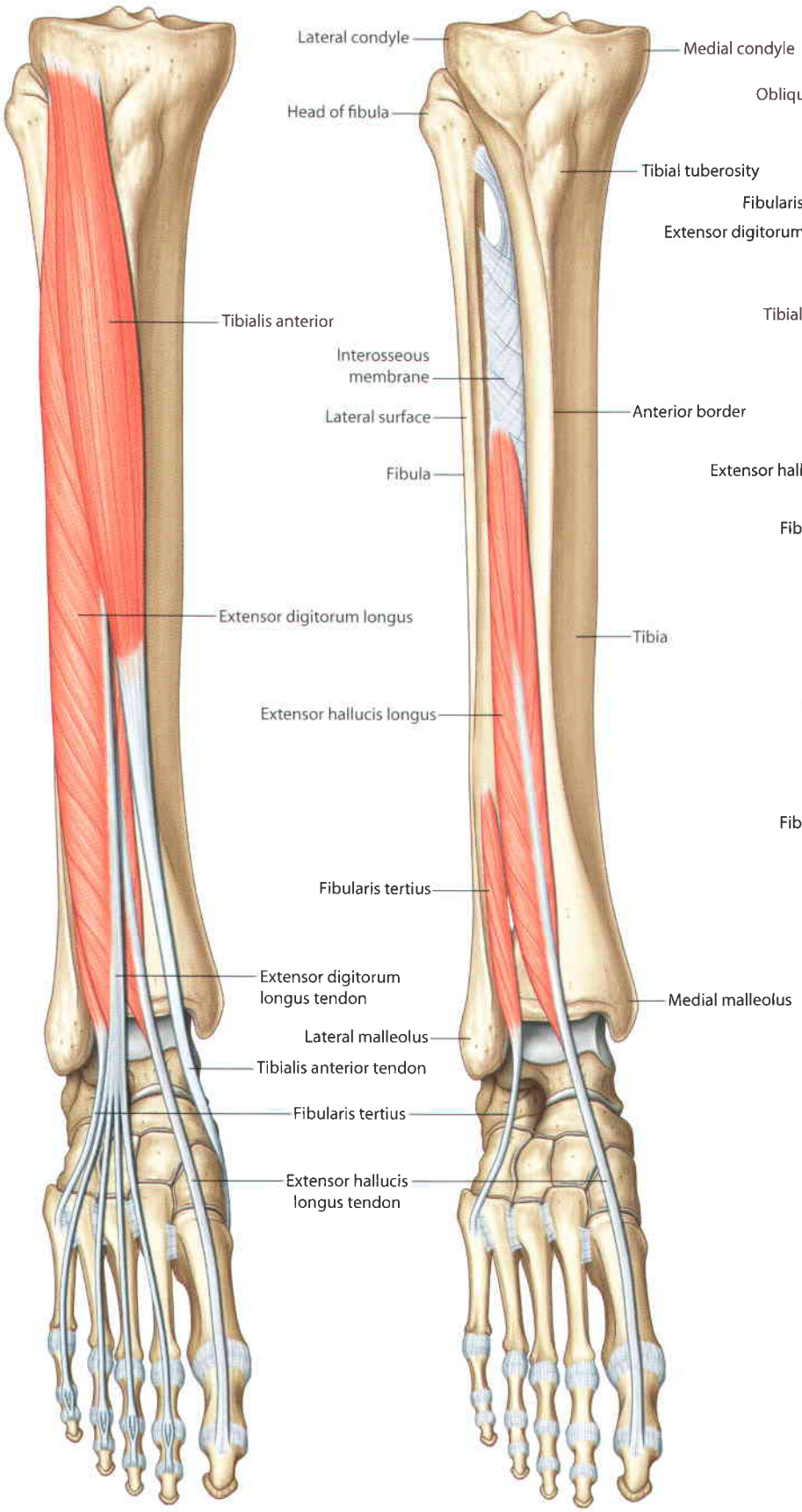


Surface anatomy of leg with overlay of muscles (anterior view)



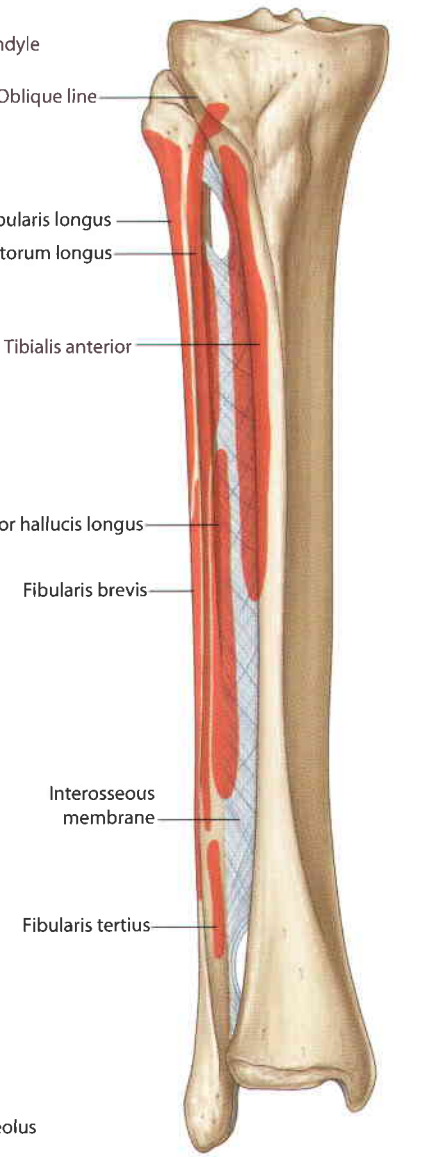


Superficial muscles of leg (anterior view)

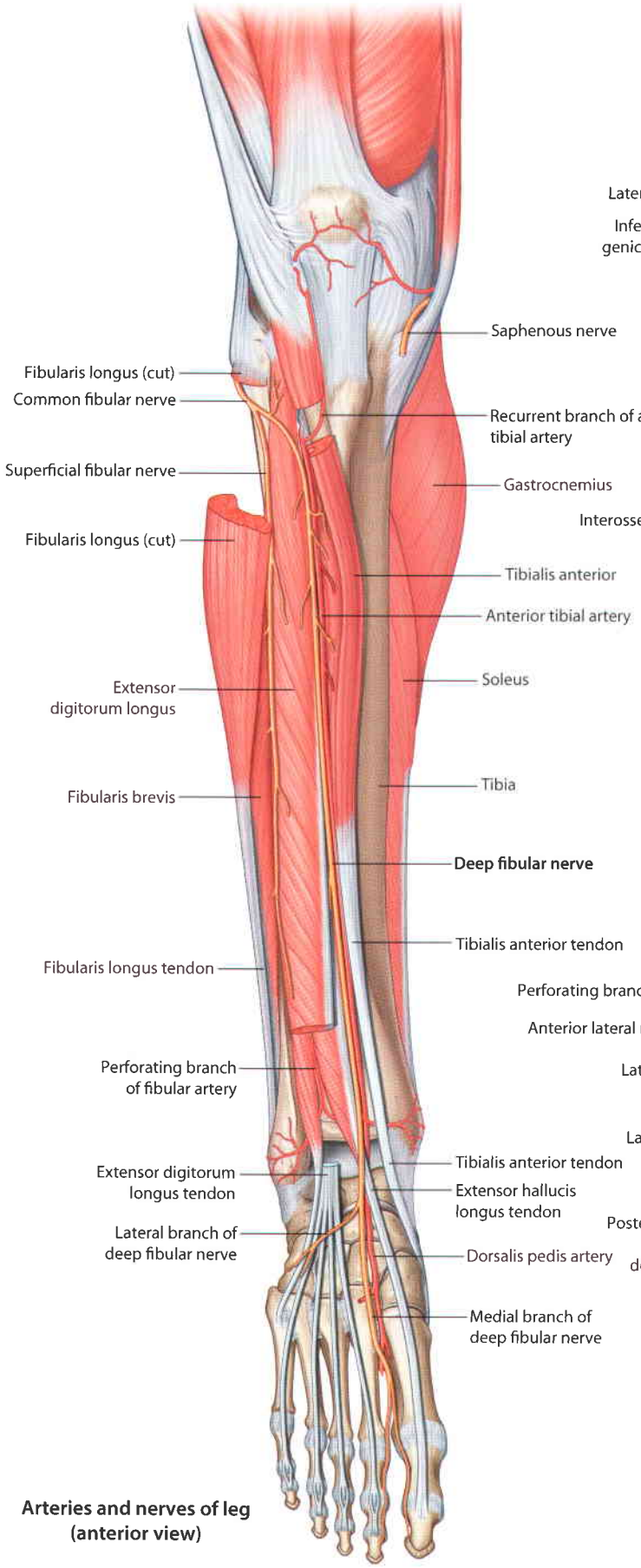


Superficial muscles of the anterior compartment of leg

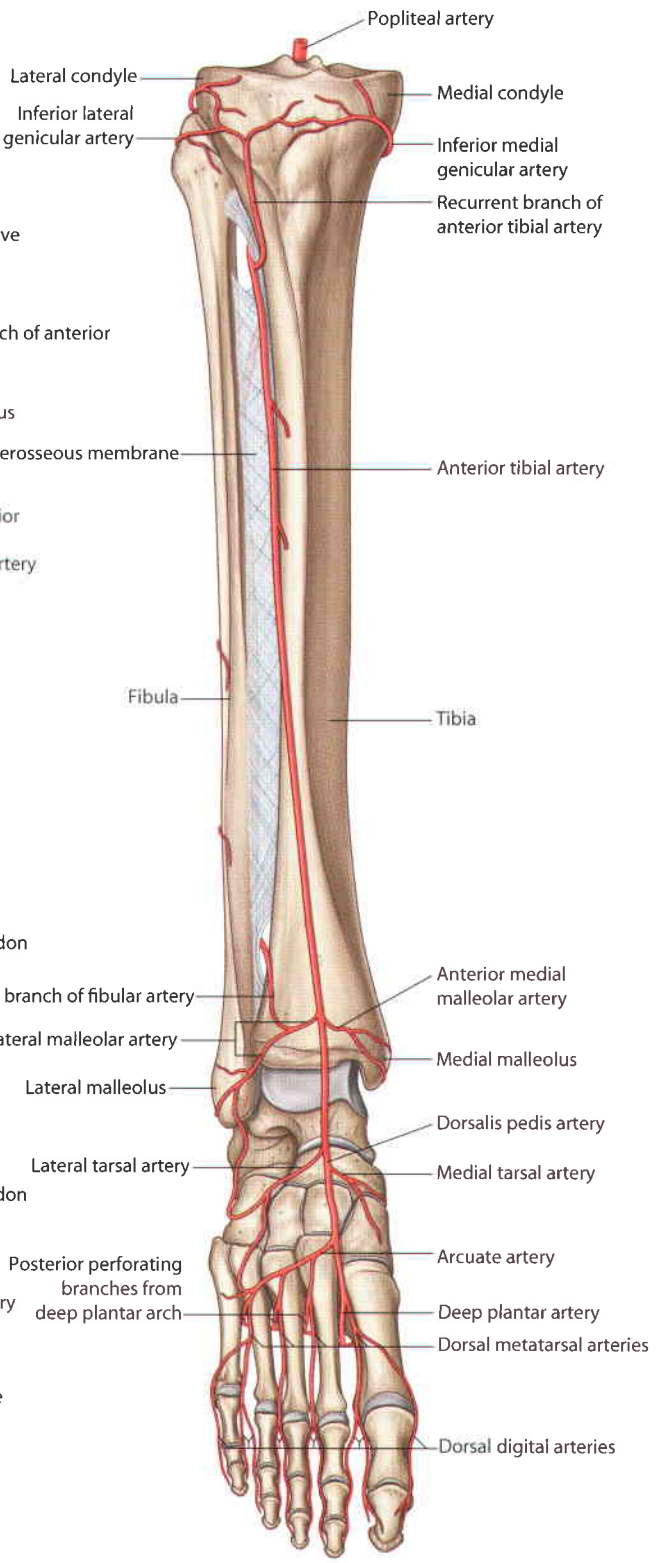
Deep muscles of the anterior compartment of leg



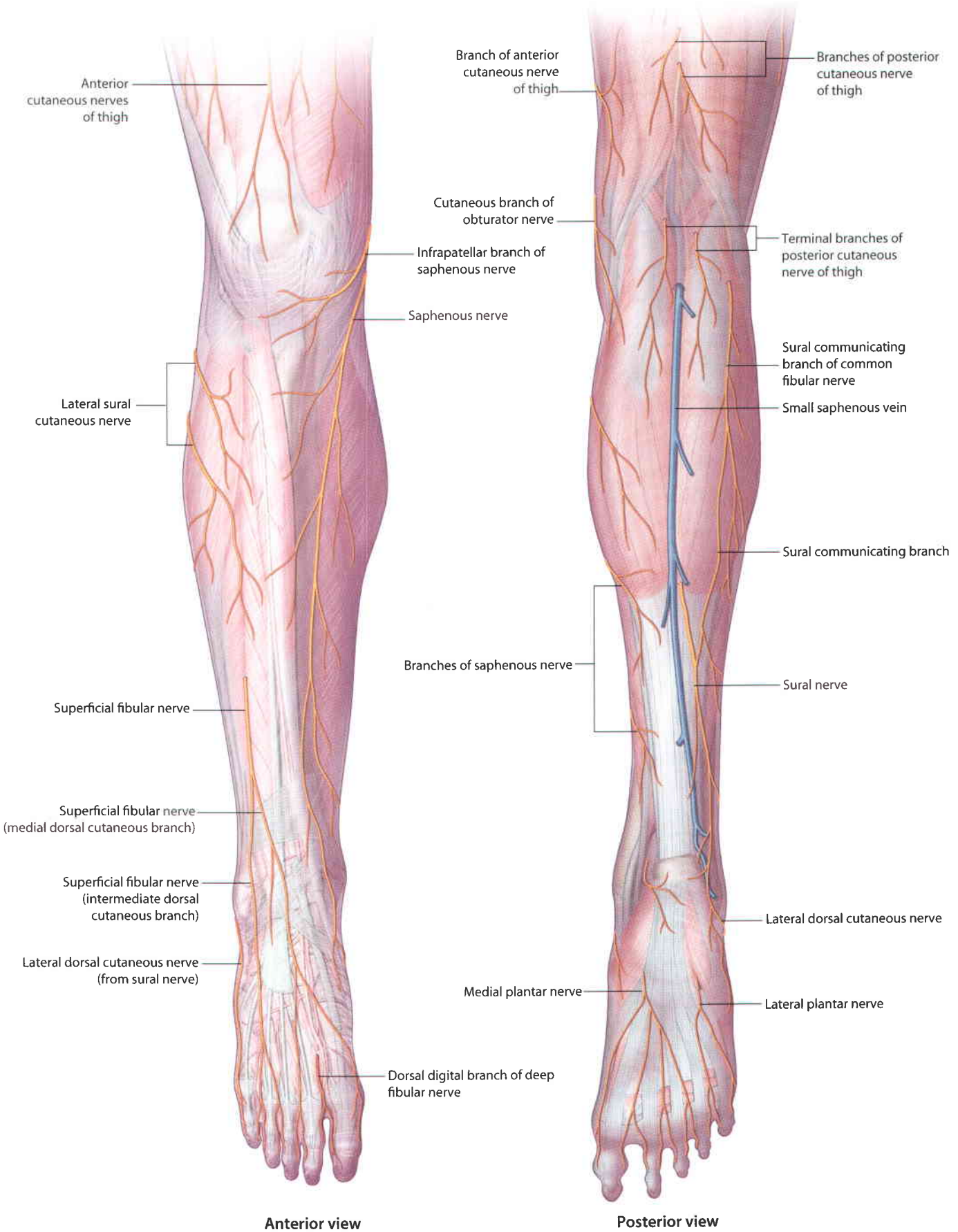
Muscle attachments of the anterior compartment of leg



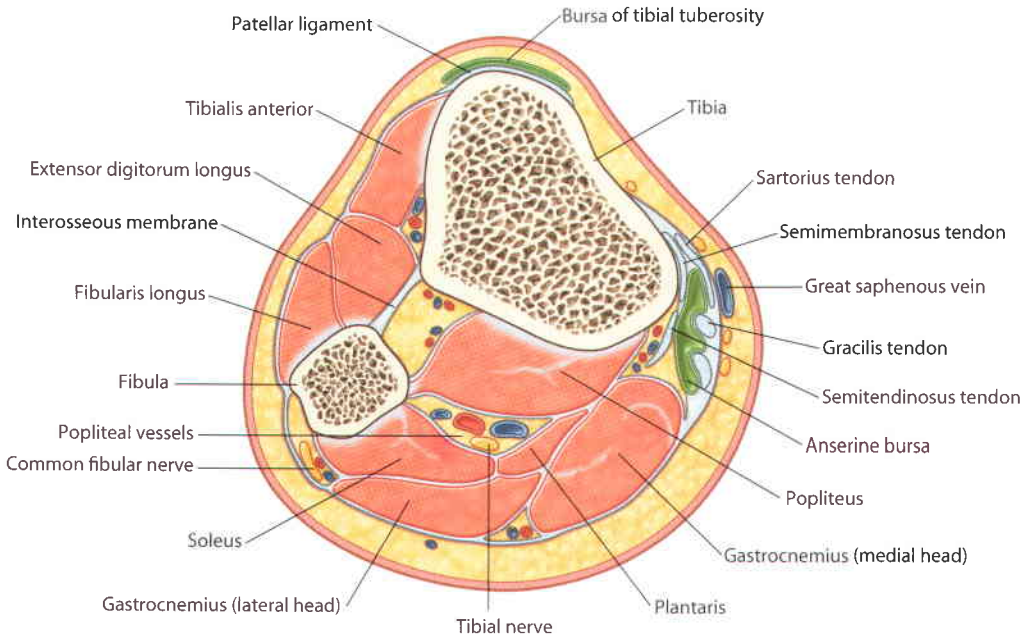
Arteries and nerves of leg (anterior view)



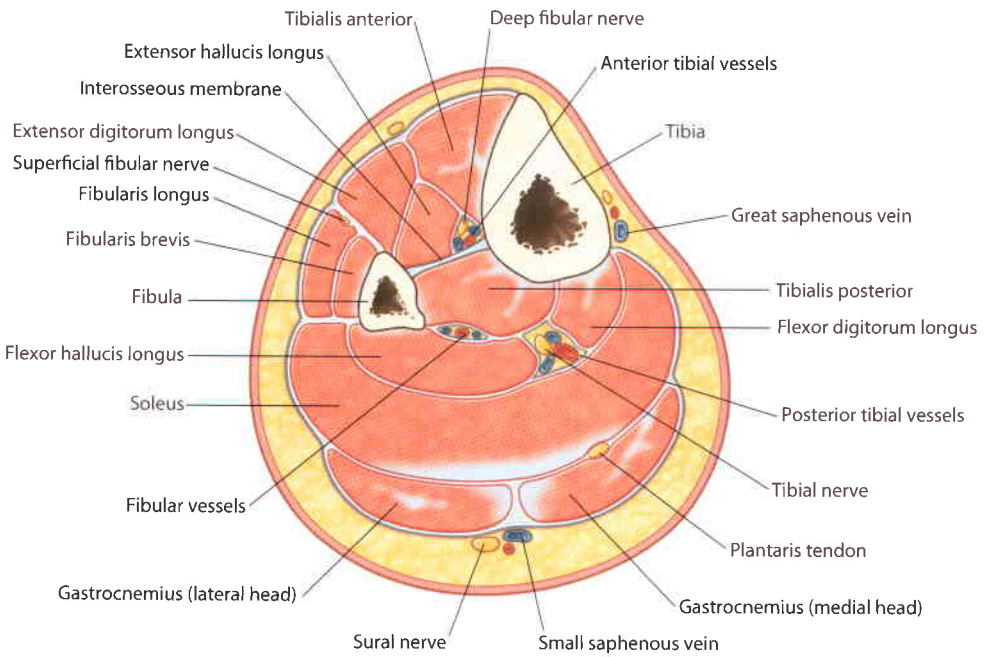
Arteries of leg (anterior view)


Anterior cutaneous nerves of thigh
Infrapatellar branch of saphenous nerve
Saphenous nerve
Lateral sural cutaneous nerve
Superficial fibular nerve
Superficial fibular nerve (medial dorsal cutaneous branch)
Superficial fibular nerve (intermediate dorsal cutaneous branch)
Lateral dorsal cutaneous nerve (from sural nerve)
Dorsal digital branch of deep fibular nerve
Anterior view
Branch of anterior cutaneous nerve of thigh
Branches of posterior cutaneous nerve of thigh
Cutaneous branch of obturator nerve
Terminal branches of posterior cutaneous nerve of thigh
Sural communicating branch of common fibular nerve
Small saphenous vein
Sural communicating branch
Branches of saphenous nerve
Sural nerve
Lateral dorsal cutaneous nerve
Medial plantar nerve
Lateral plantar nerve
Posterior view

A



B



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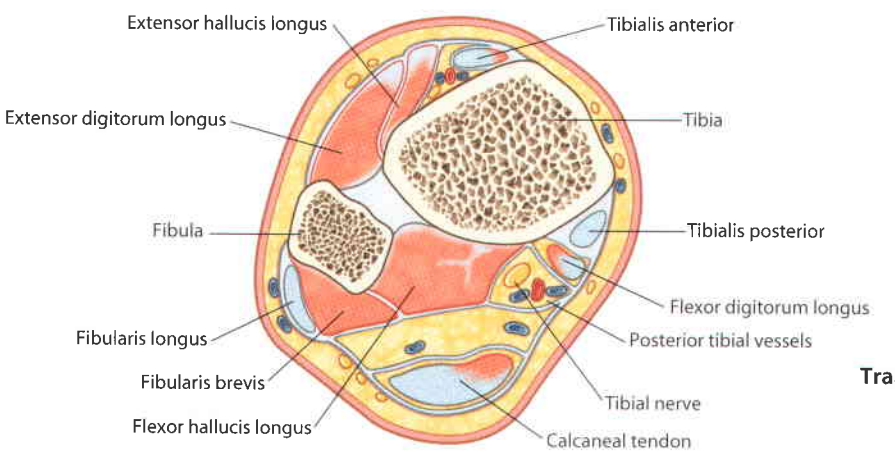
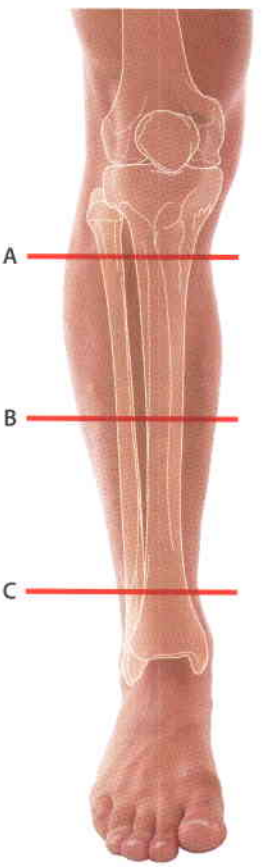
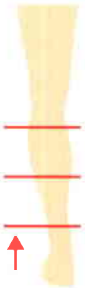
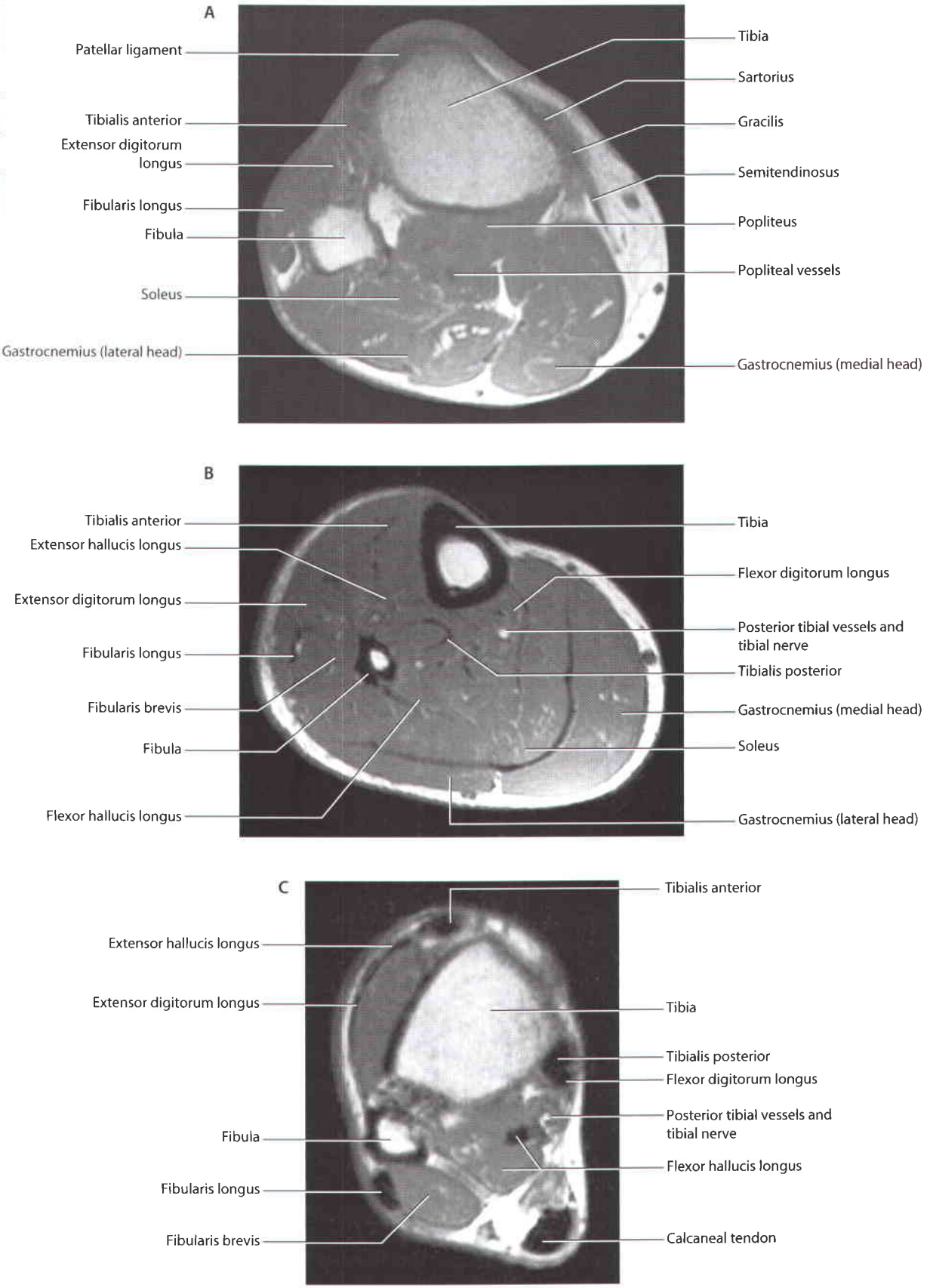




Transverse sections through leg

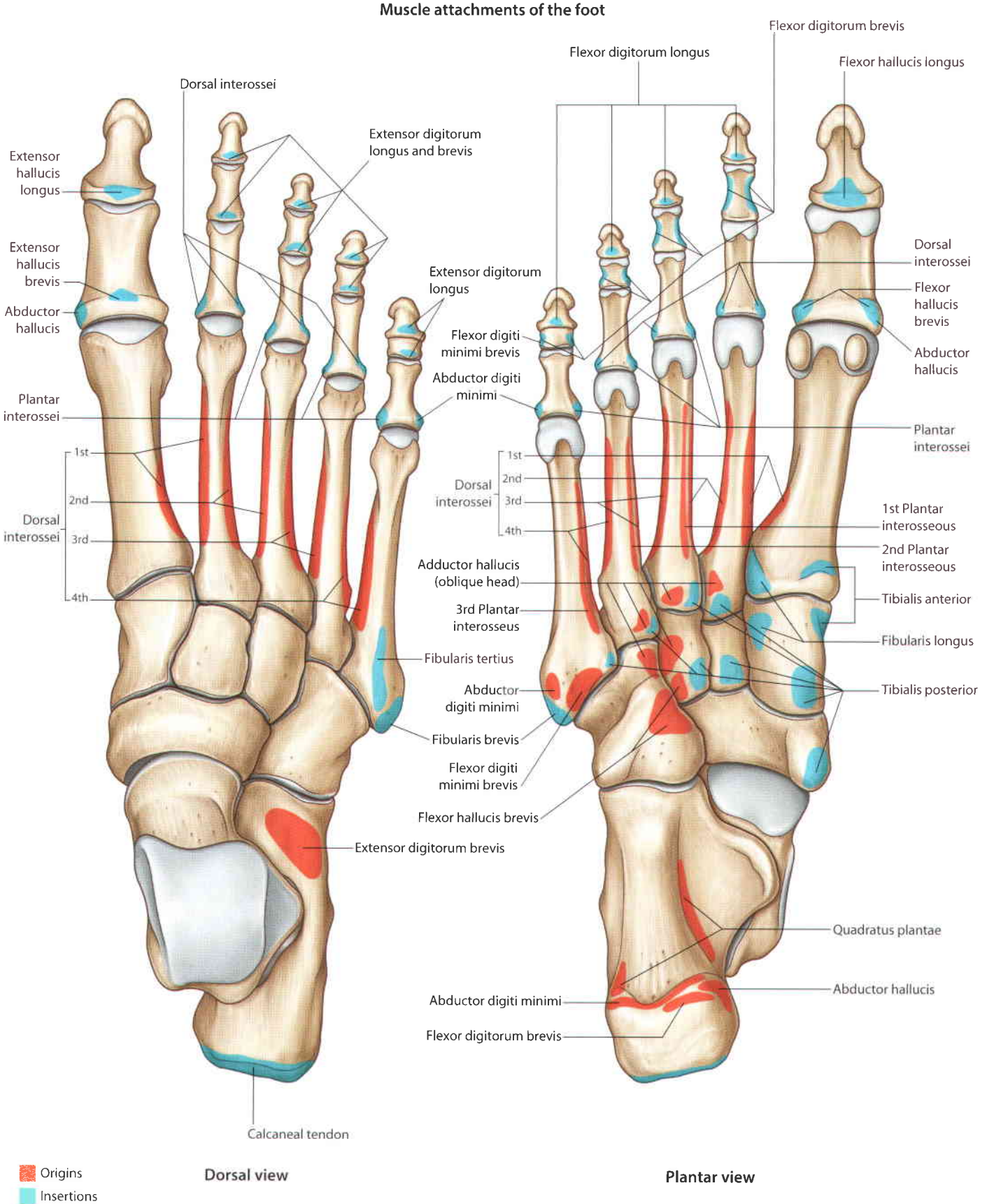


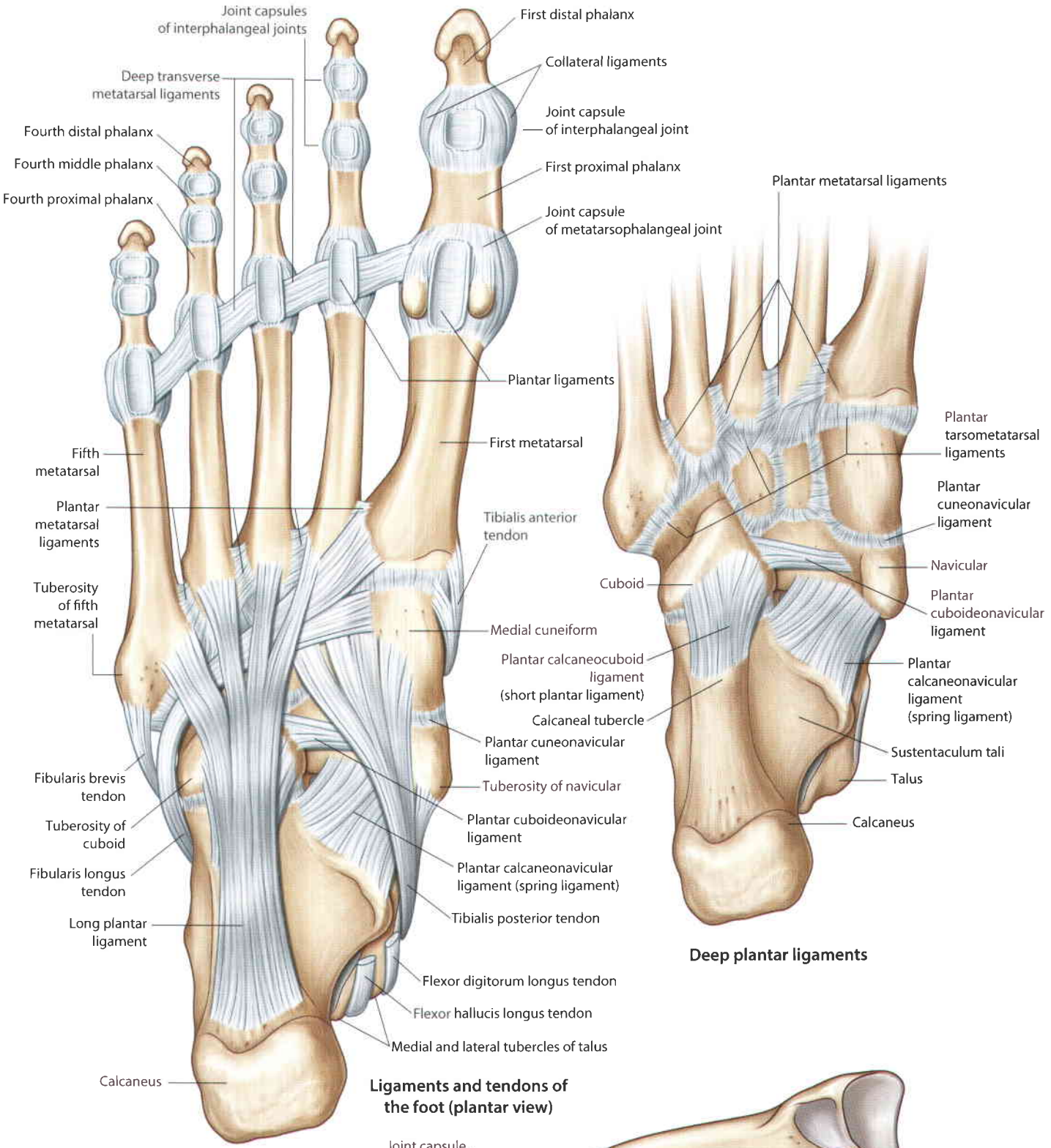


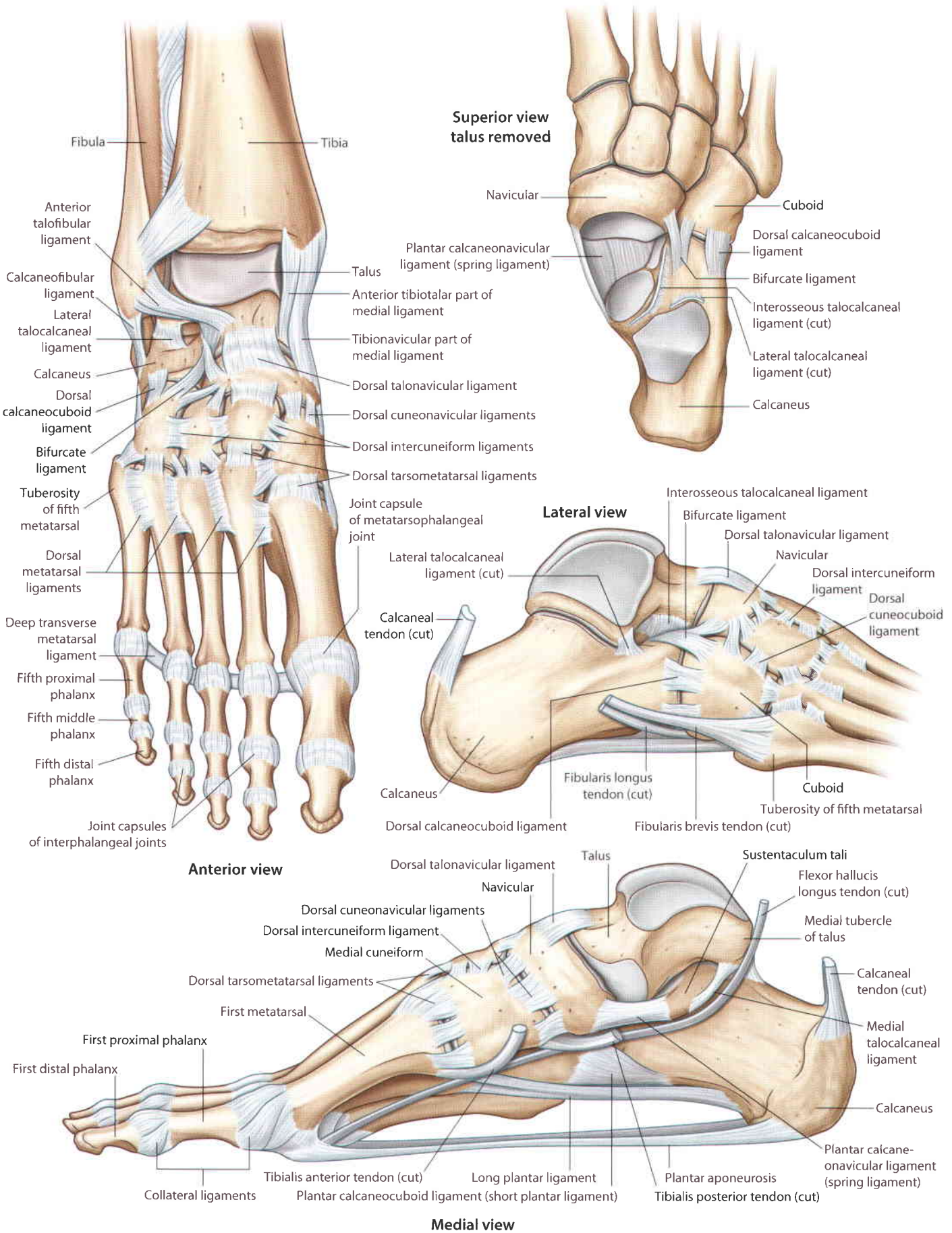
Transverse/axial sections through the leg.

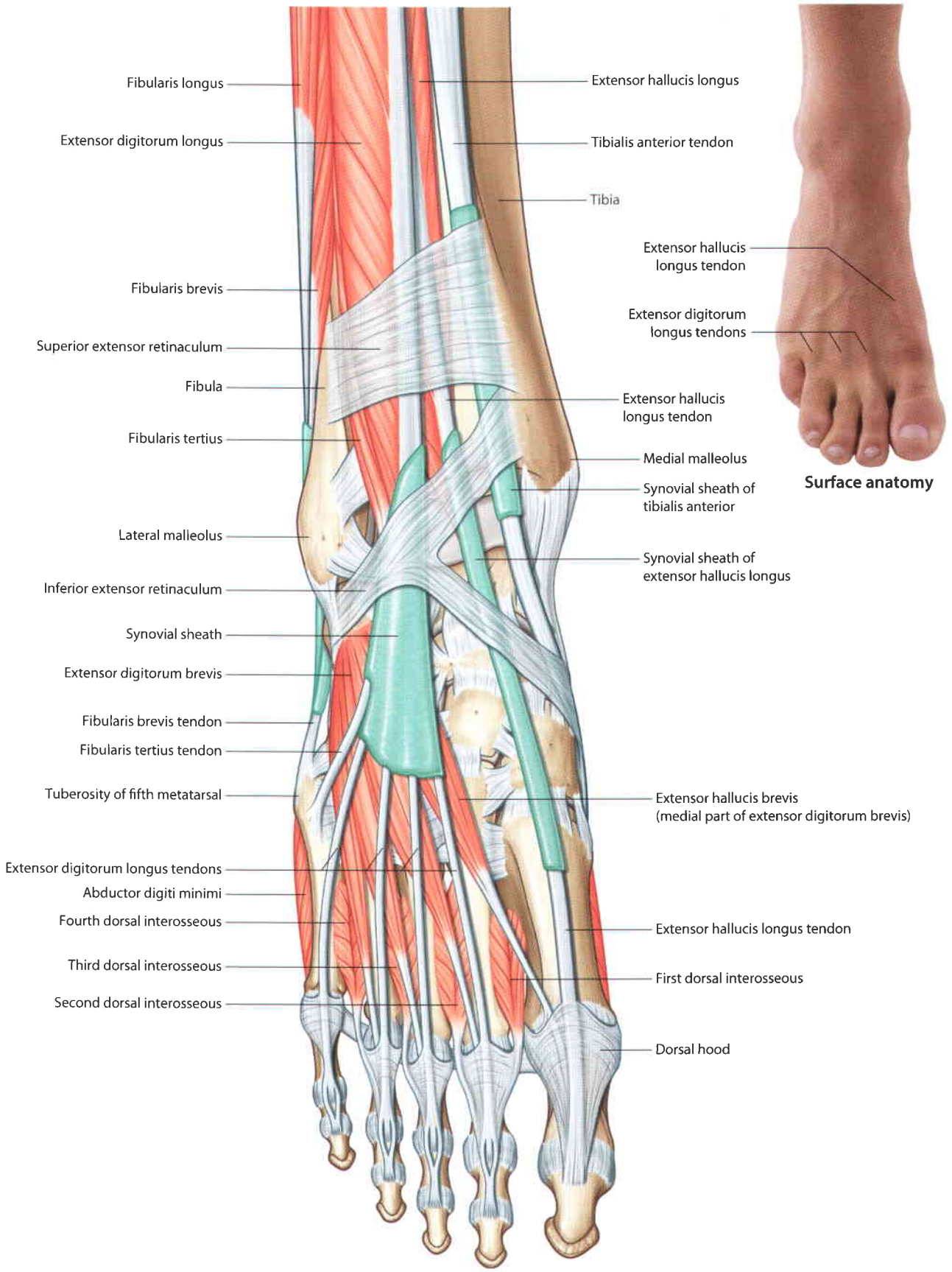
A. Proximal/upper leg. T1-weighted MR image in axial plane
B. Middle leg. T1-weighted MR image in axial plane
C. Distal/lower leg. T1-weighted MR image in axial plane

Muscle attachments of the foot

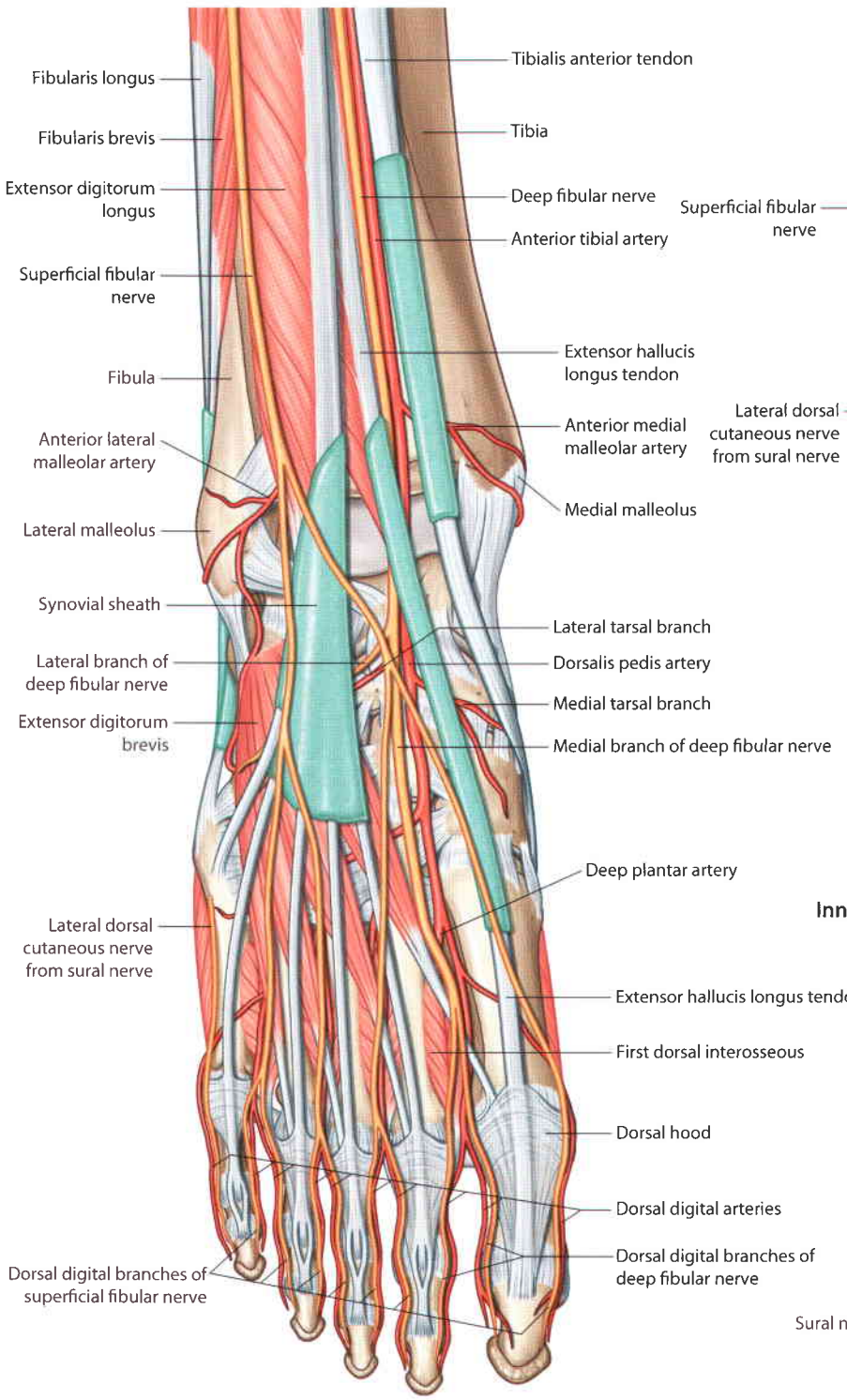



Joint capsules of interphalangeal joints
Deep transverse metatarsal ligaments
Fourth distal phalanx
Fourth middle phalanx
Fourth proximal phalanx
First distal phalanx
Collateral ligaments
Joint capsule of interphalangeal joint
First proximal phalanx
Joint capsule of metatarsophalangeal joint
Plantar ligaments
First metatarsal
Fifth metatarsal
Plantar metatarsal ligaments
Tibialis anterior tendon
Tuberosity of fifth metatarsal
Medial cuneiform
Plantar calcaneocuboid ligament (short plantar ligament)
Calcaneal tubercle
Plantar cuneonavicular ligament
Fibularis brevis tendon
Tuberosity of navicular
Tuberosity of cuboid
Plantar cuboideonavicular ligament
Fibularis longus tendon
Plantar calcaneonavicular ligament (spring ligament)
Long plantar ligament
Tibialis posterior tendon
Flexor digitorum longus tendon
Flexor hallucis longus tendon
Medial and lateral tubercles of talus
Calcaneus
Ligaments and tendons of the foot (plantar view)
Plantar metatarsal ligaments
Plantar tarsometatarsal ligaments
Plantar cuneonavicular ligament
Navicular
Cuboid
Plantar cuboideonavicular ligament
Plantar calcaneonavicular ligament (spring ligament)
Sustentaculum tali
Talus
Calcaneus
Deep plantar ligaments
Joint capsule
Collateral ligaments
Metatarsal bone
Plantar ligaments
Capsule and ligaments of the metatarsophalangeal and interphalangeal joint

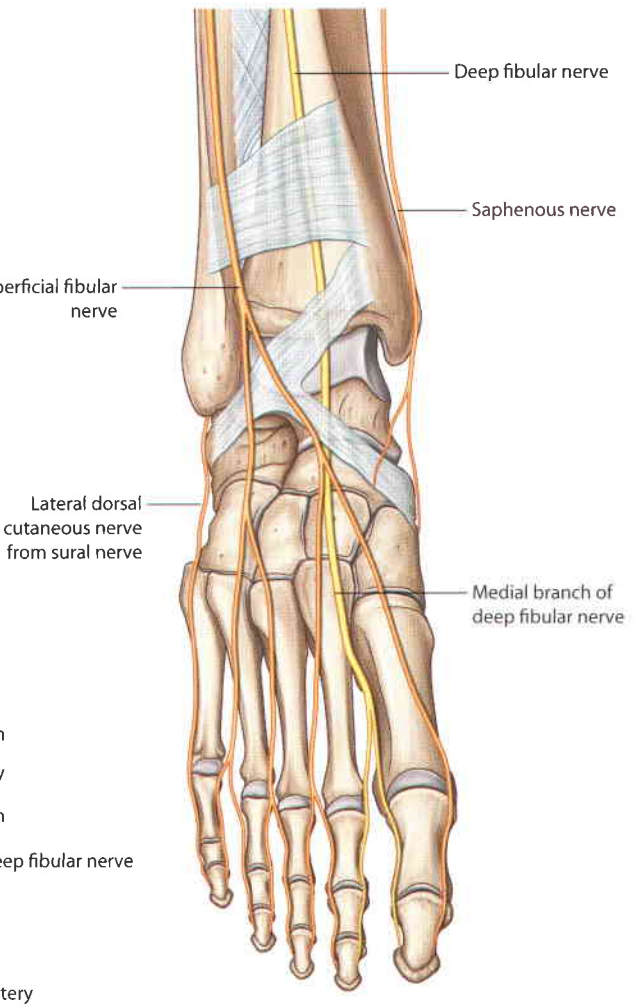

Fibula
Tibia
Anterior talofibular ligament
Talus
Calcaneofibular ligament
Anterior tibiotalar part of medial ligament
Lateral talocalcaneal ligament
Tibionavicular part of medial ligament
Calcaneus
Dorsal talonavicular ligament
Dorsal calcaneocuboid ligament
Dorsal cuneonavicular ligaments
Bifurcate ligament
Dorsal intercuneiform ligaments
Dorsal tarsometatarsal ligaments
Tuberosity of fifth metatarsal
Joint capsule of metatarsophalangeal joint
Dorsal metatarsal ligaments
Deep transverse metatarsal ligament
Fifth proximal phalanx
Fifth middle phalanx
Fifth distal phalanx
Joint capsules of interphalangeal joints
Anterior view
Superior view talus removed
Navicular
Cuboid
Plantar calcaneonavicular ligament (spring ligament)
Dorsal calcaneocuboid ligament
Bifurcate ligament
Interosseous talocalcaneal ligament (cut)
Lateral talocalcaneal ligament (cut)
Calcaneus
Lateral view
Interosseous talocalcaneal ligament
Bifurcate ligament
Dorsal talonavicular ligament
Navicular
Lateral talocalcaneal ligament (cut)
Dorsal intercuneiform ligament
Dorsal cuneocuboid ligament
Calcaneal tendon (cut)
Fibularis longus tendon (cut)
Cuboid
Calcaneus
Tuberosity of fifth metatarsal
Dorsal calcaneocuboid ligament
Fibularis brevis tendon (cut)
Dorsal talonavicular ligament
Talus
Sustentaculum tali
Navicular
Flexor hallucis longus tendon (cut)
Dorsal cuneonavicular ligaments
Medial tubercle of talus
Dorsal intercuneiform ligament
Medial cuneiform
Calcaneal tendon (cut)
Dorsal tarsometatarsal ligaments
First metatarsal
Medial talocalcaneal ligament
First proximal phalanx
First distal phalanx
Calcaneus
Plantar calcaneonavicular ligament (spring ligament)
Tibialis anterior tendon (cut)
Long plantar ligament
Plantar aponeurosis
Collateral ligaments
Plantar calcaneocuboid ligament (short plantar ligament)
Tibialis posterior tendon (cut)
Medial view



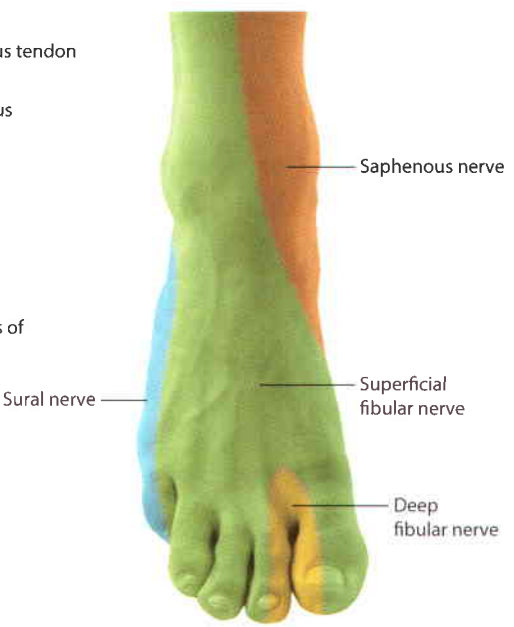
Superficial structures of the foot (dorsal view)



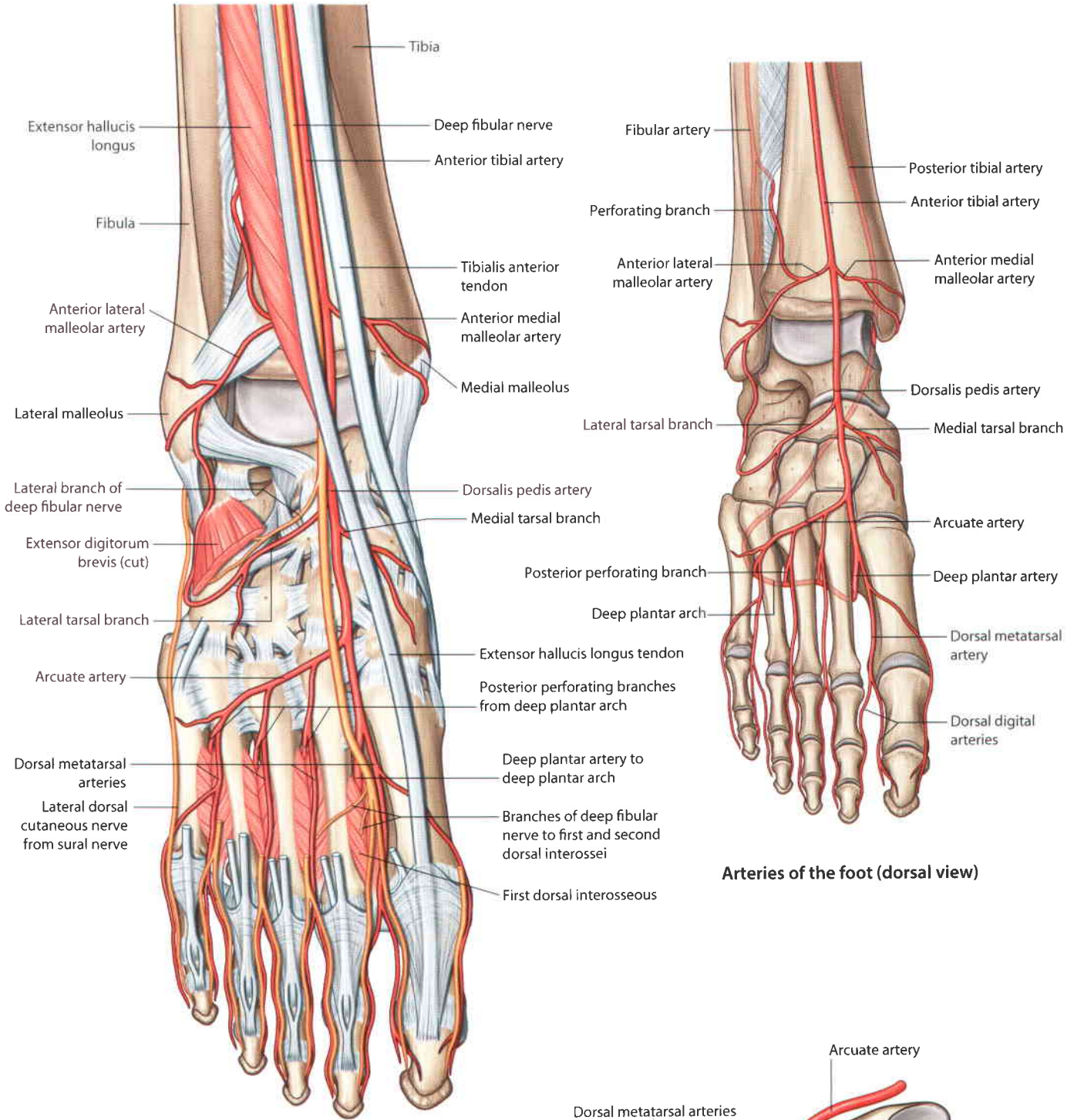
Arteries and nerves of the foot (dorsal view)



Innervation of the foot (dorsal view)

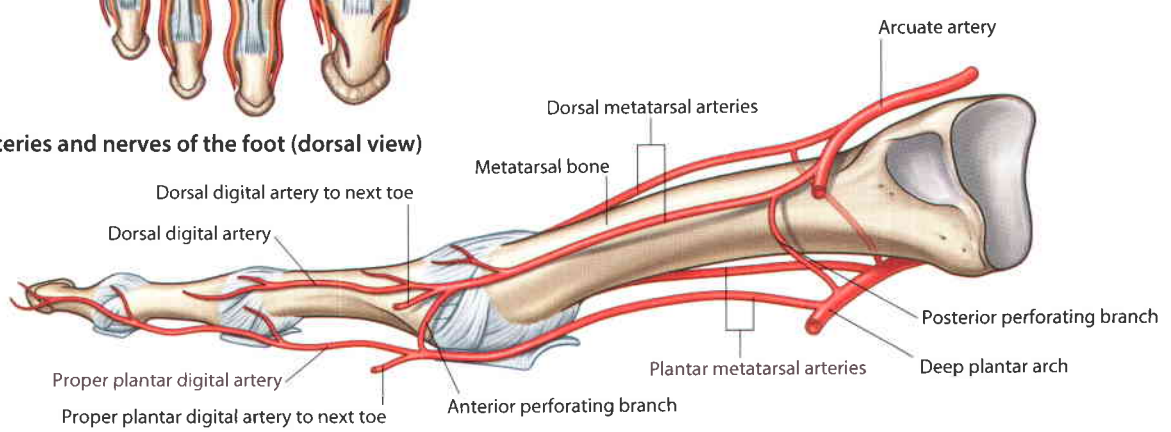


Cutaneous distribution



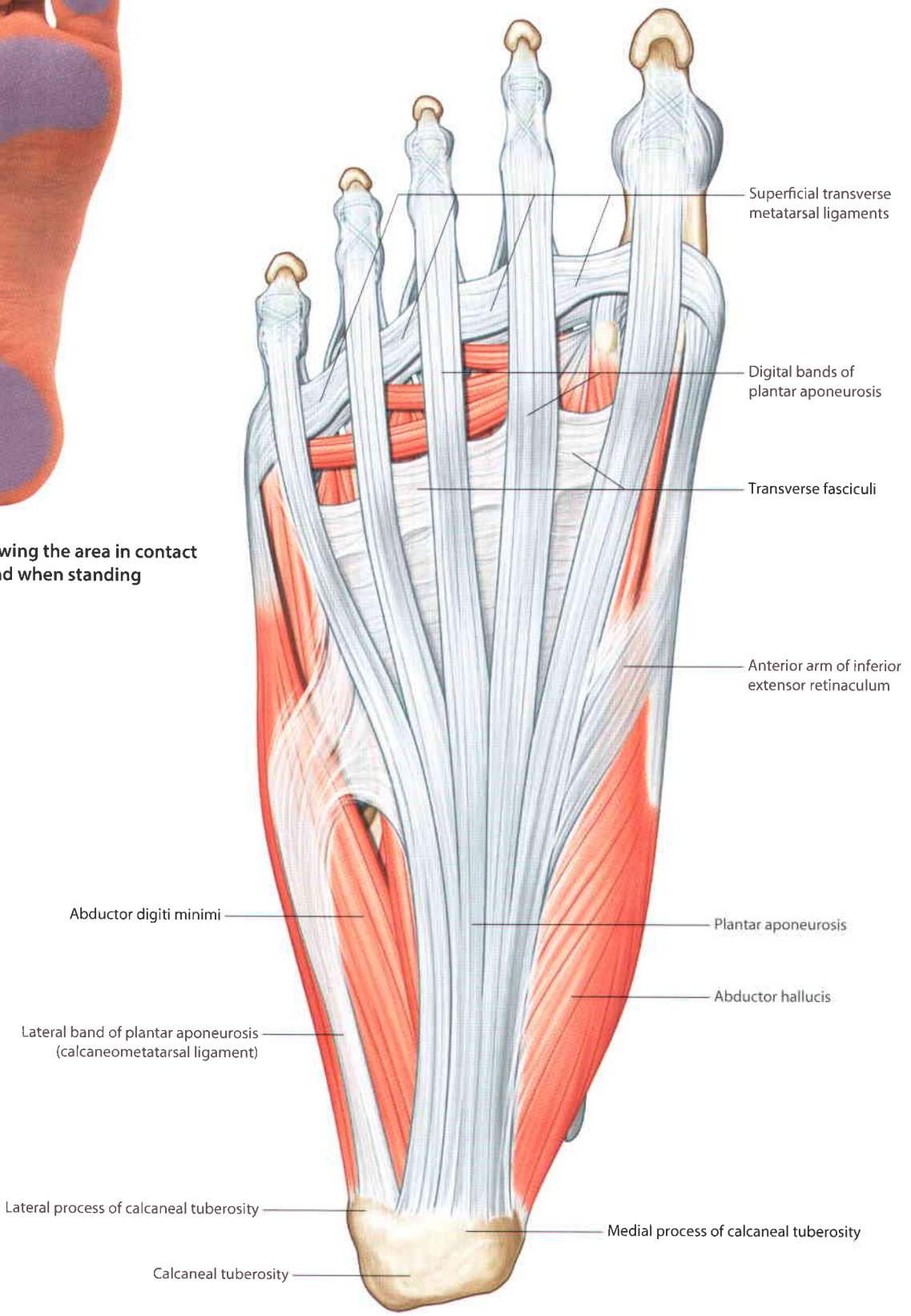
Deep arteries and nerves of the foot (dorsal view)

Arteries of the foot (dorsal view)

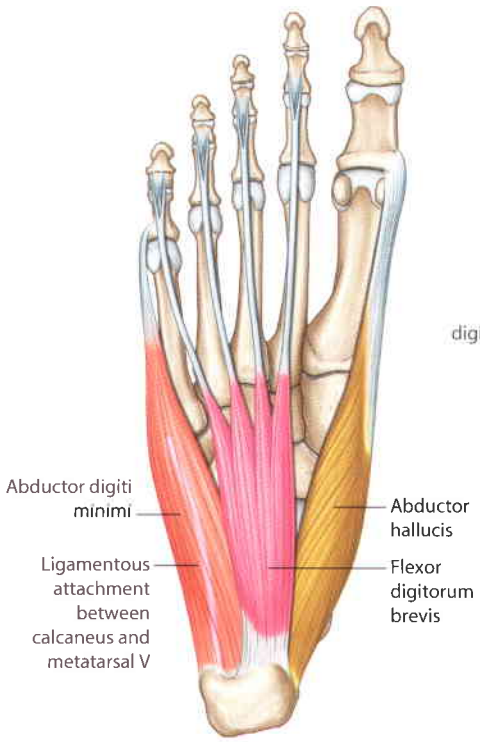


Arteries of digit III (middle toe)

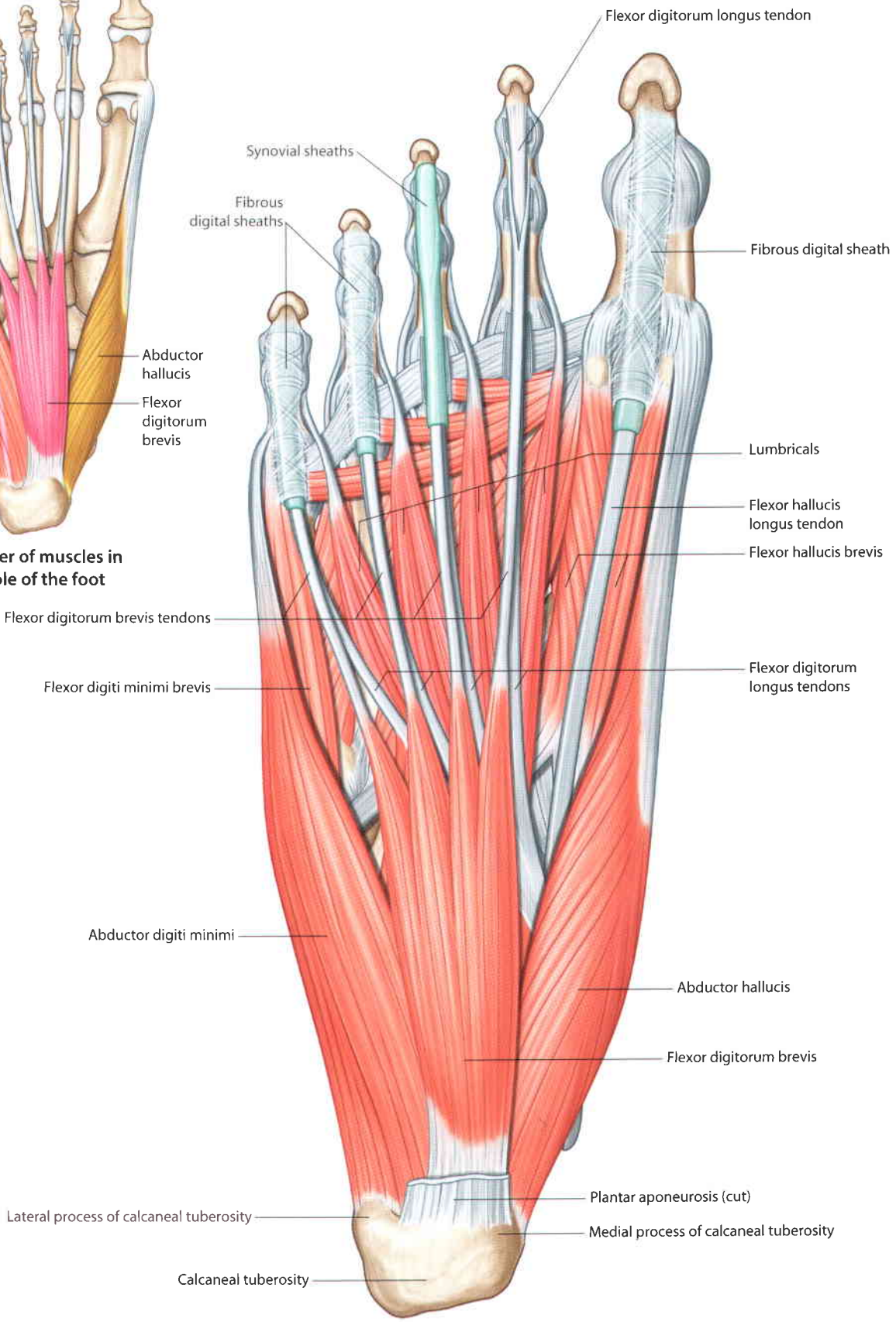
Surface anatomy showing the area in contact with the ground when standing



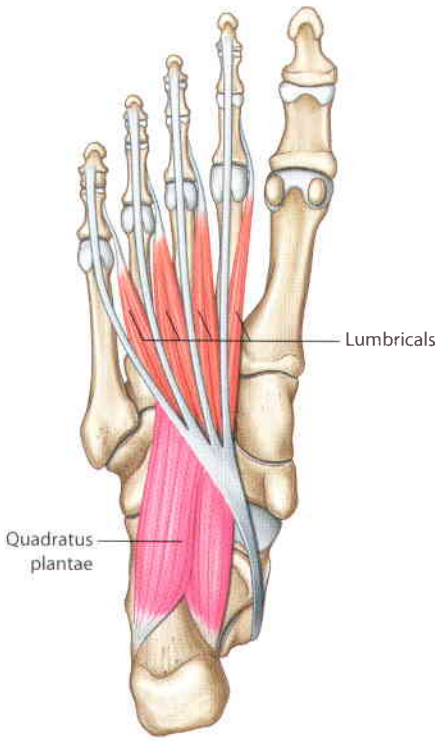
Superficial structures of the foot (plantar view)



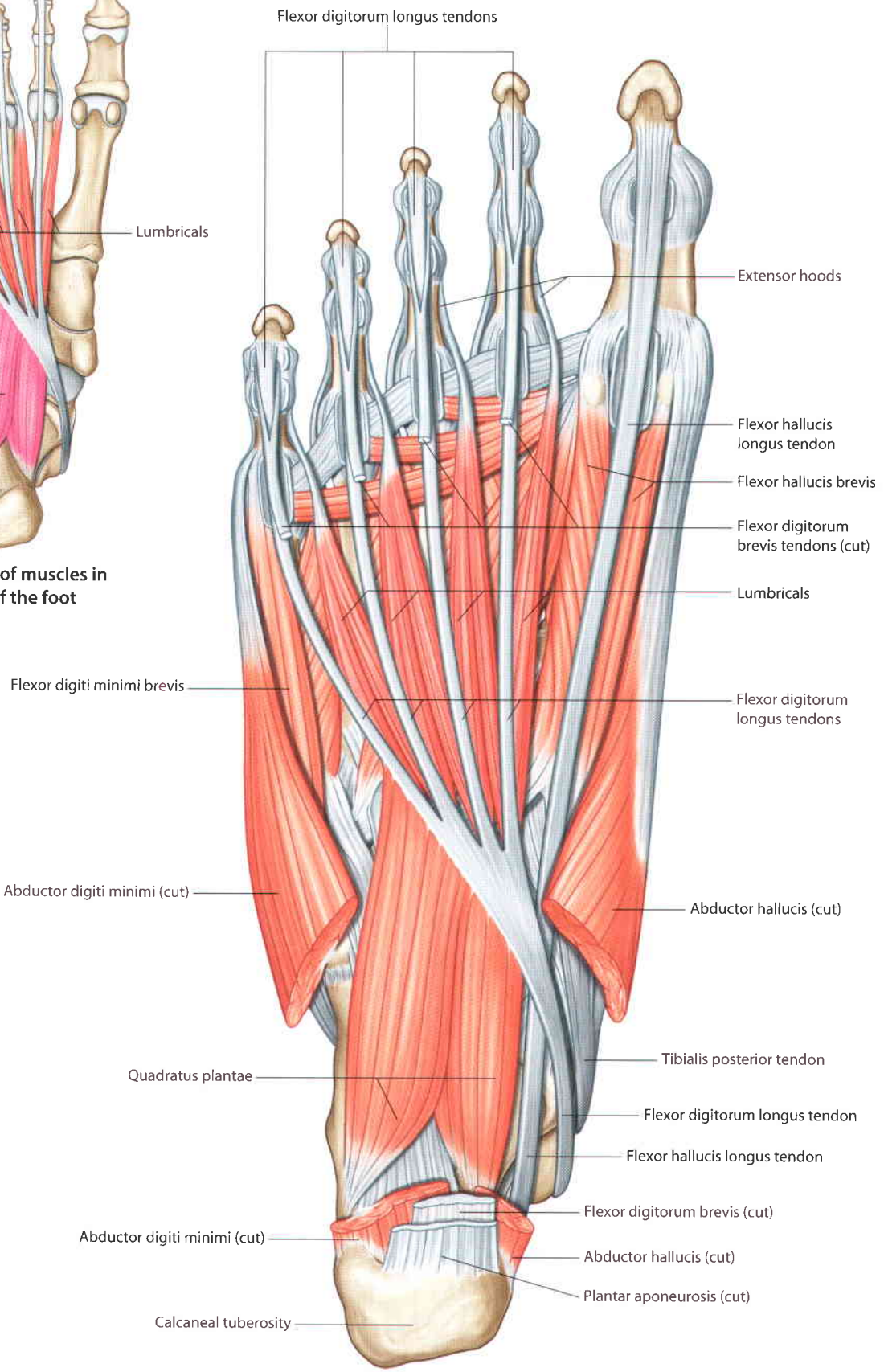
First layer of muscles in the sole of the foot



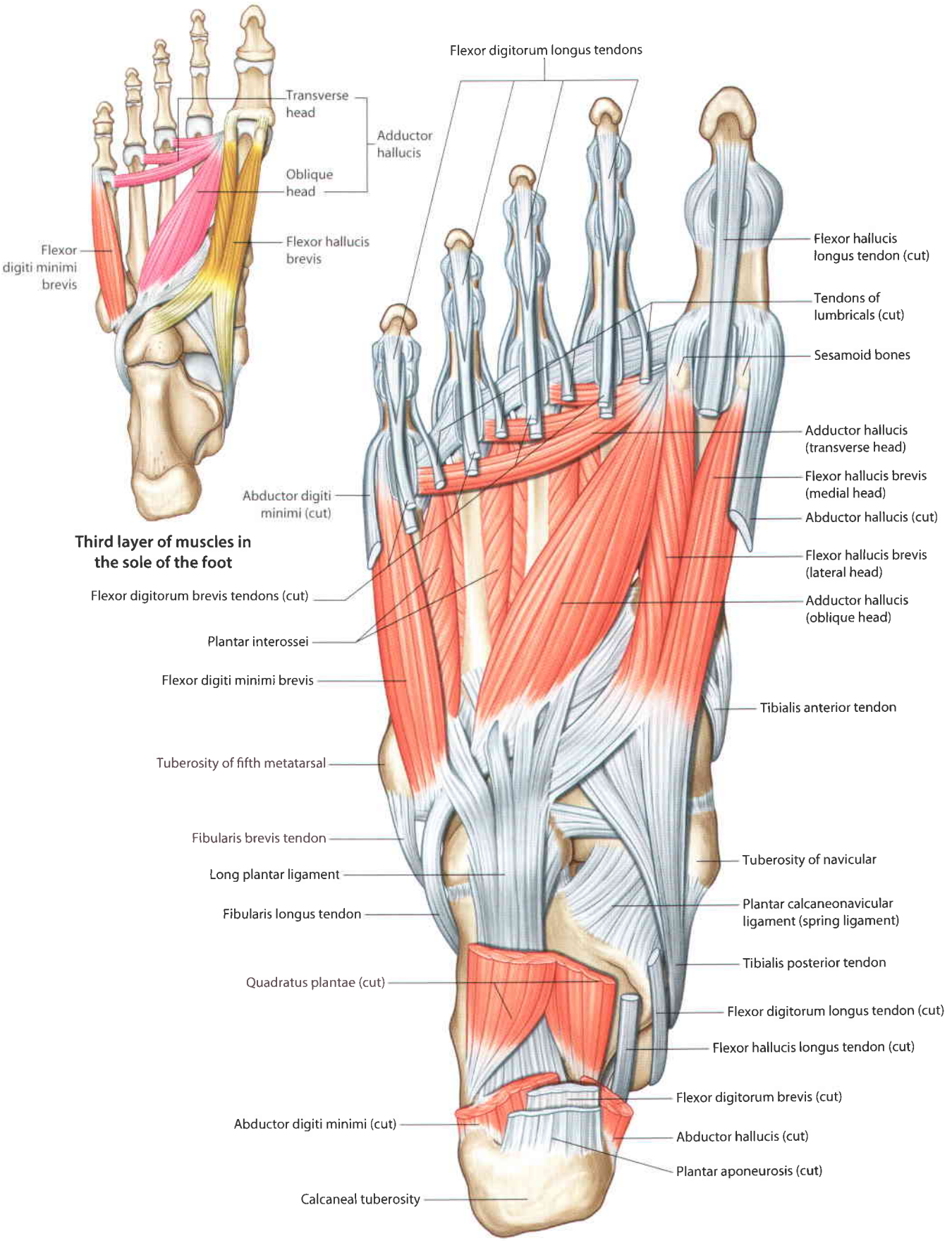
Muscles of sole of foot (first layer)



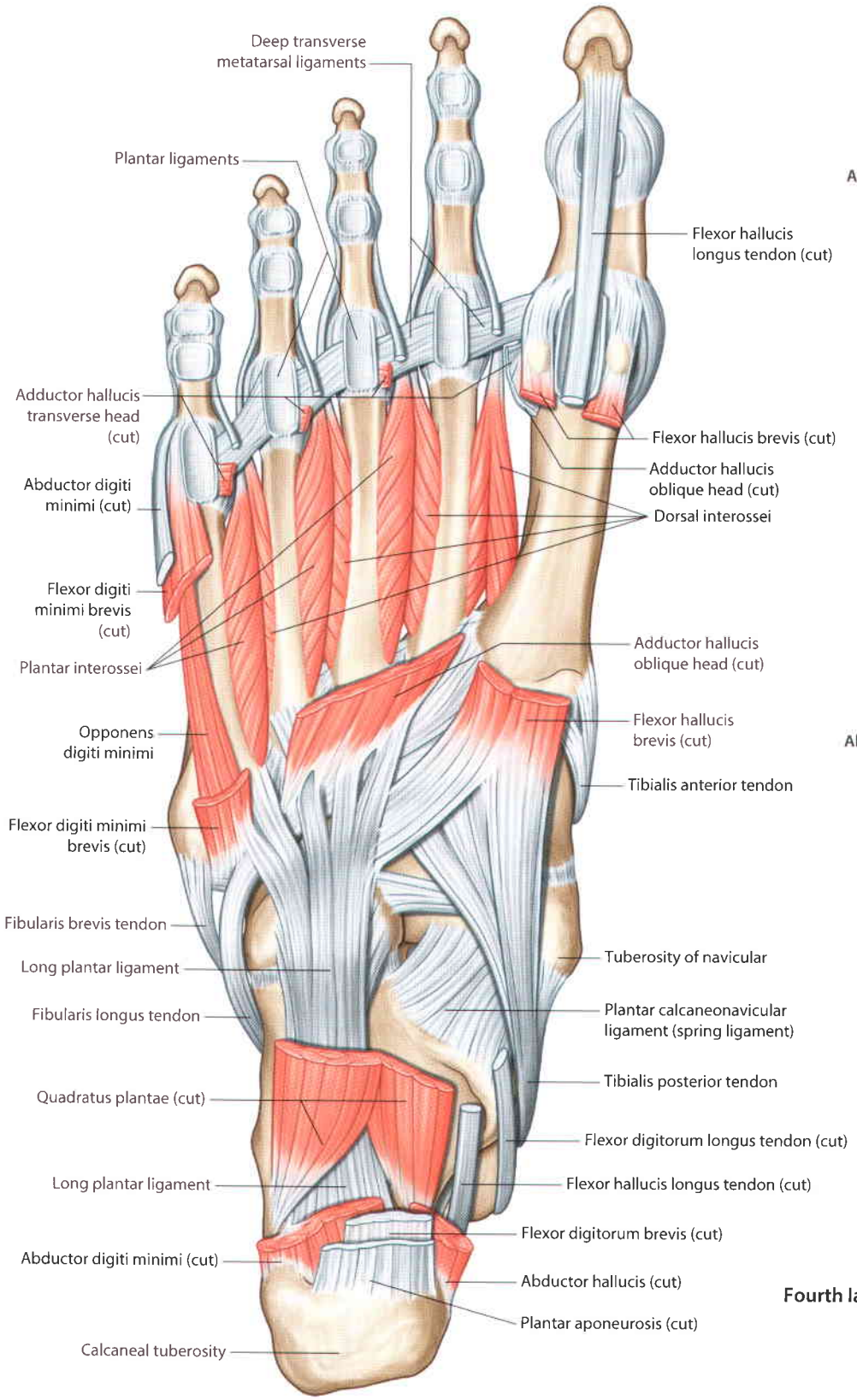
Second layer of muscles in the sole of the foot



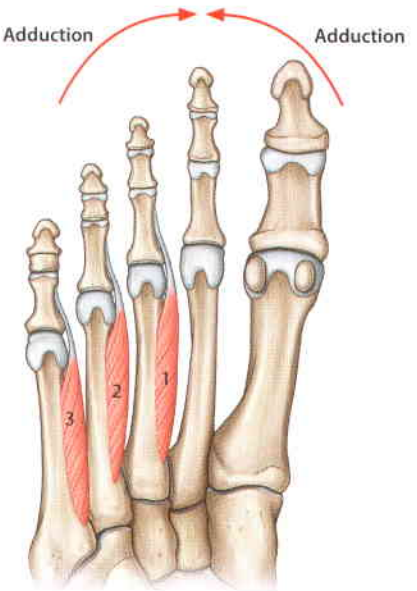
Muscles of sole of foot (second layer)



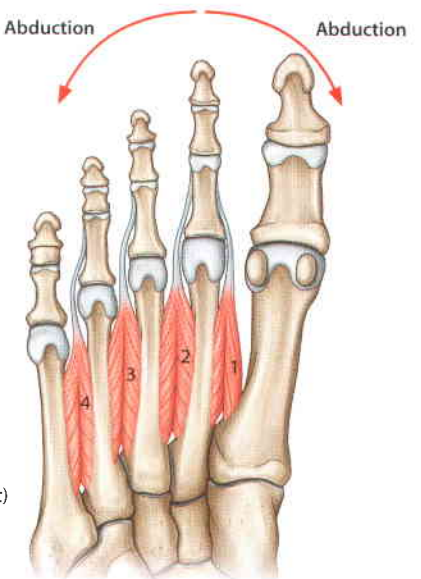
Muscles of sole of foot (third layer)



Muscles of sole of foot (fourth layer)

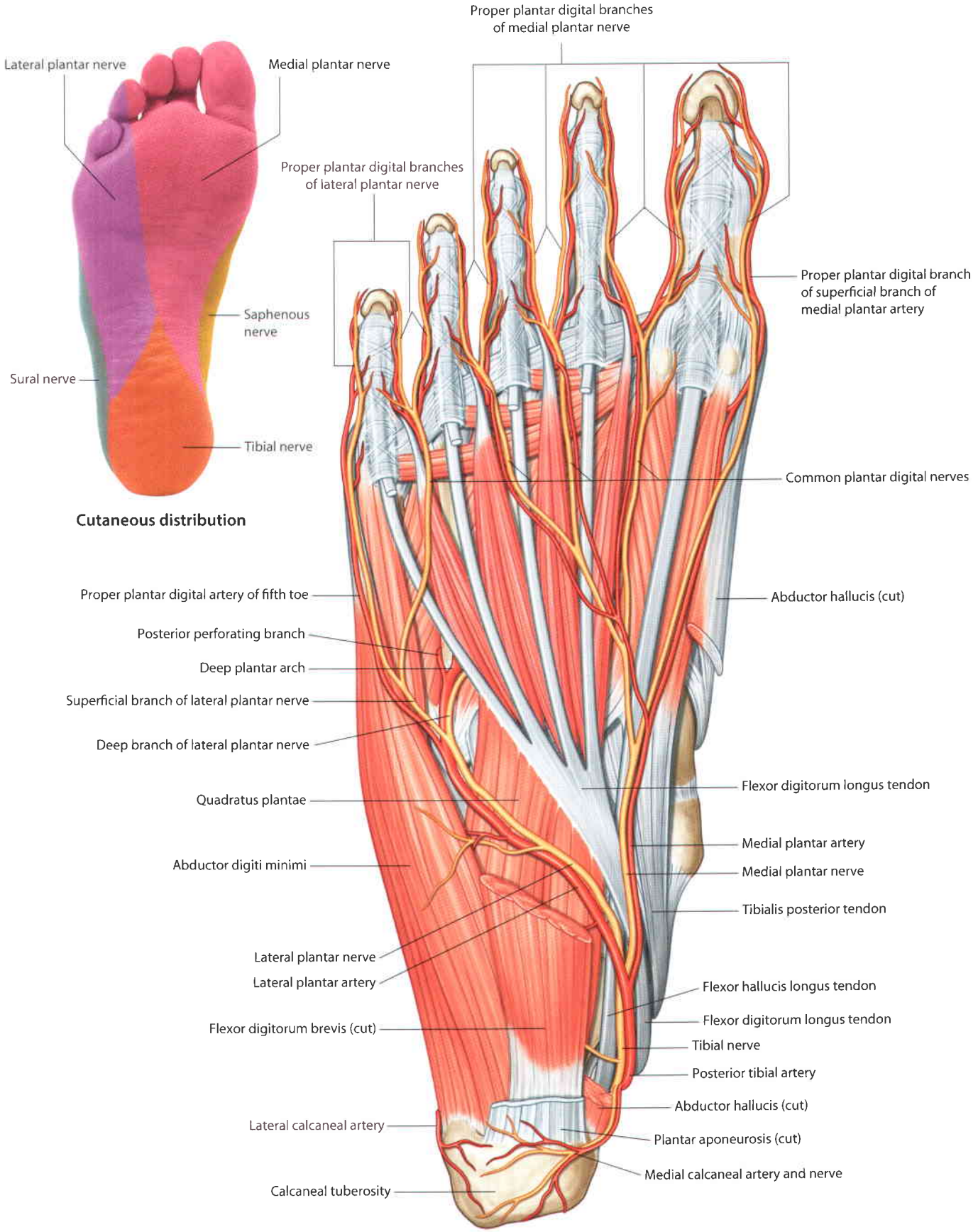


Plantar interossei (unipennate)

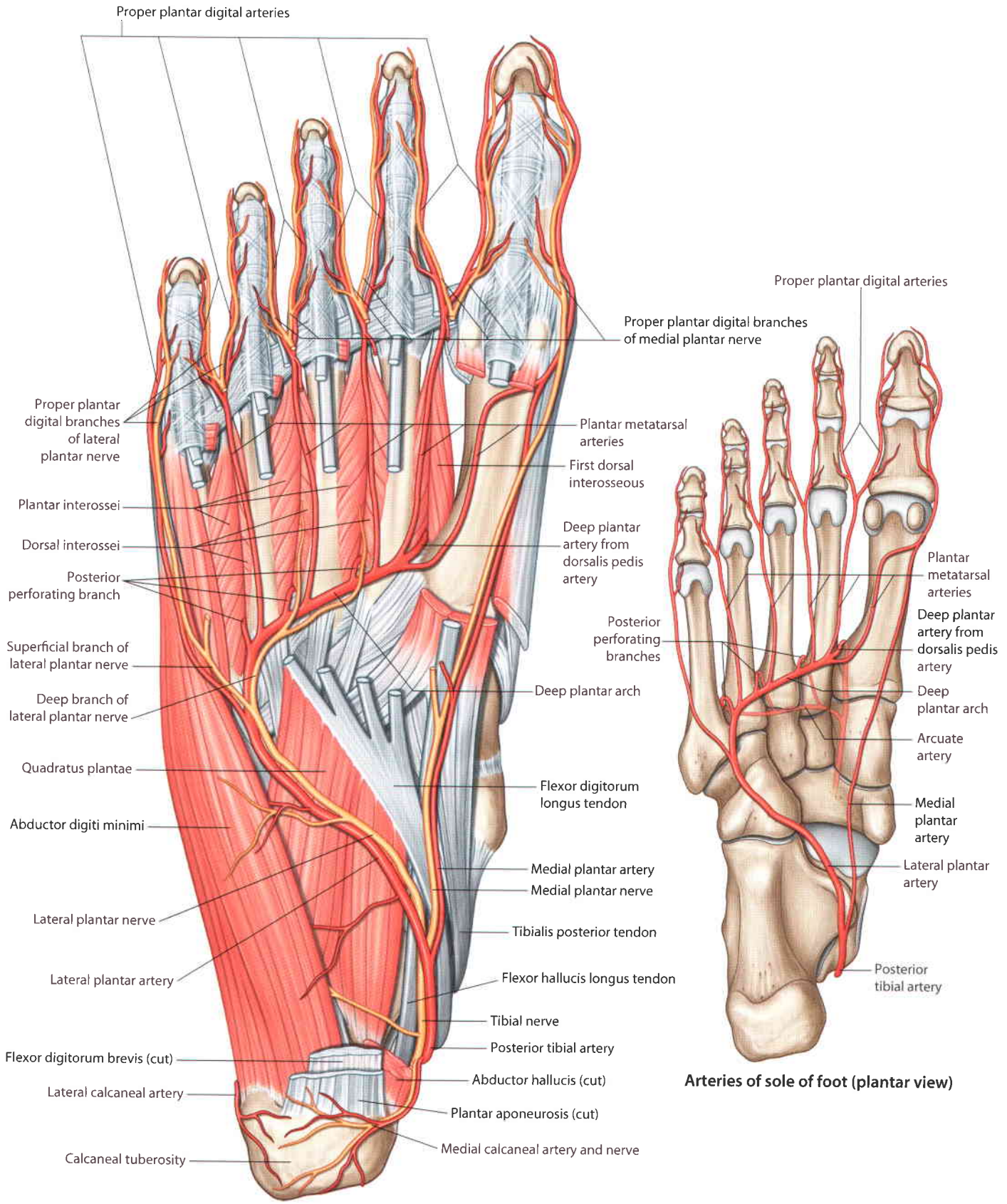


Dorsal interossei (bipennate)

Fourth layer of muscles in the sole of the foot

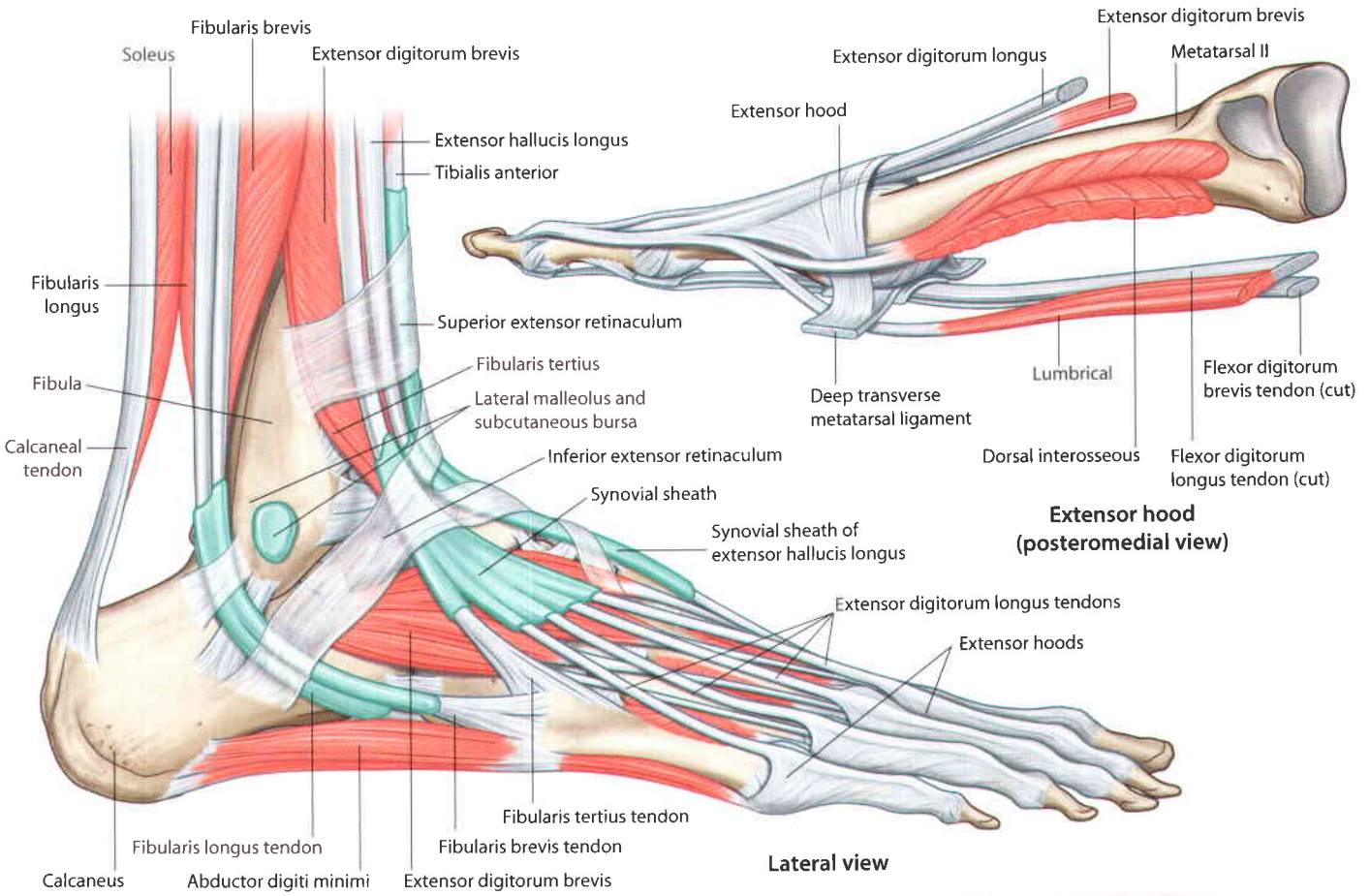


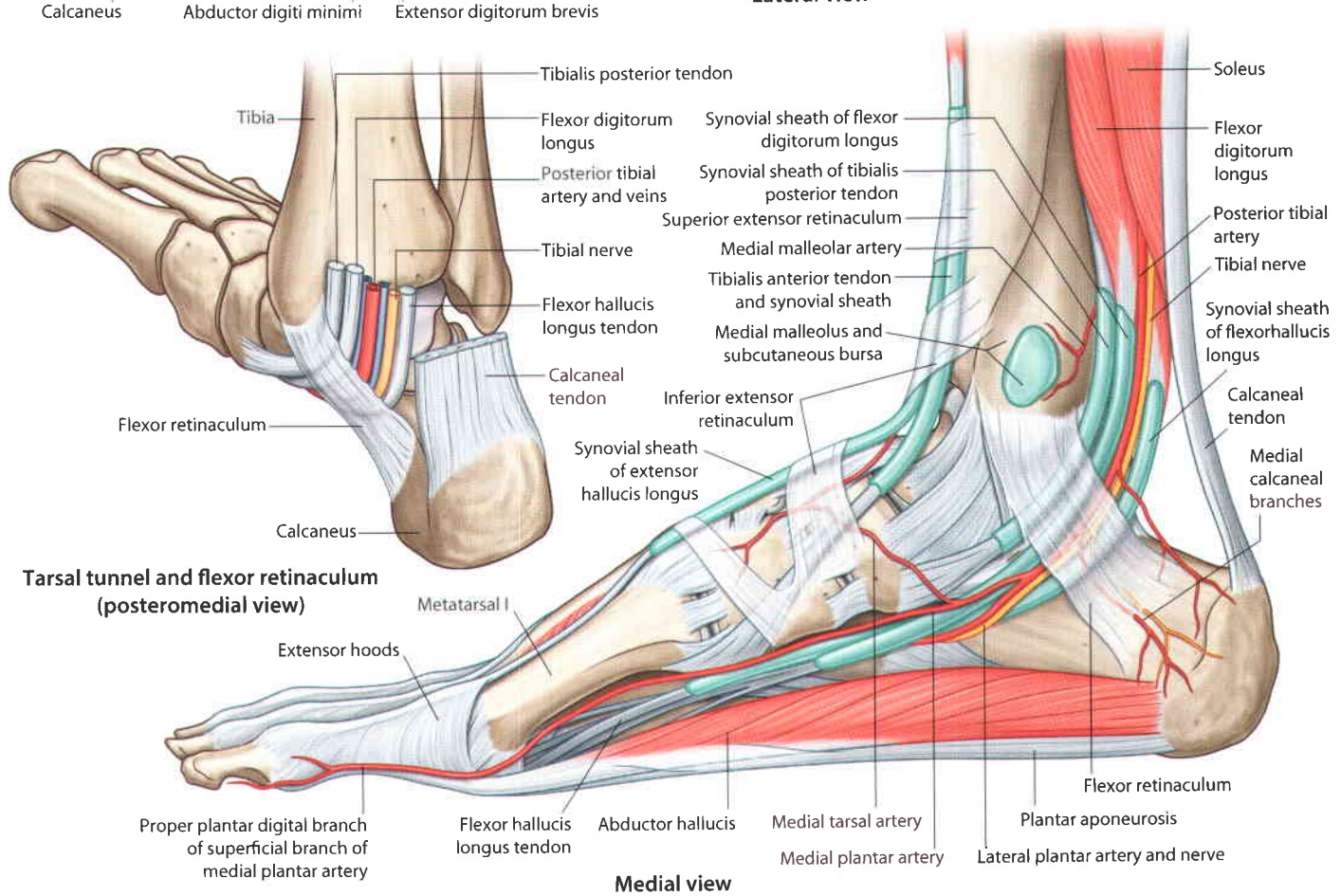
Arteries and nerves of sole of foot (plantar view)

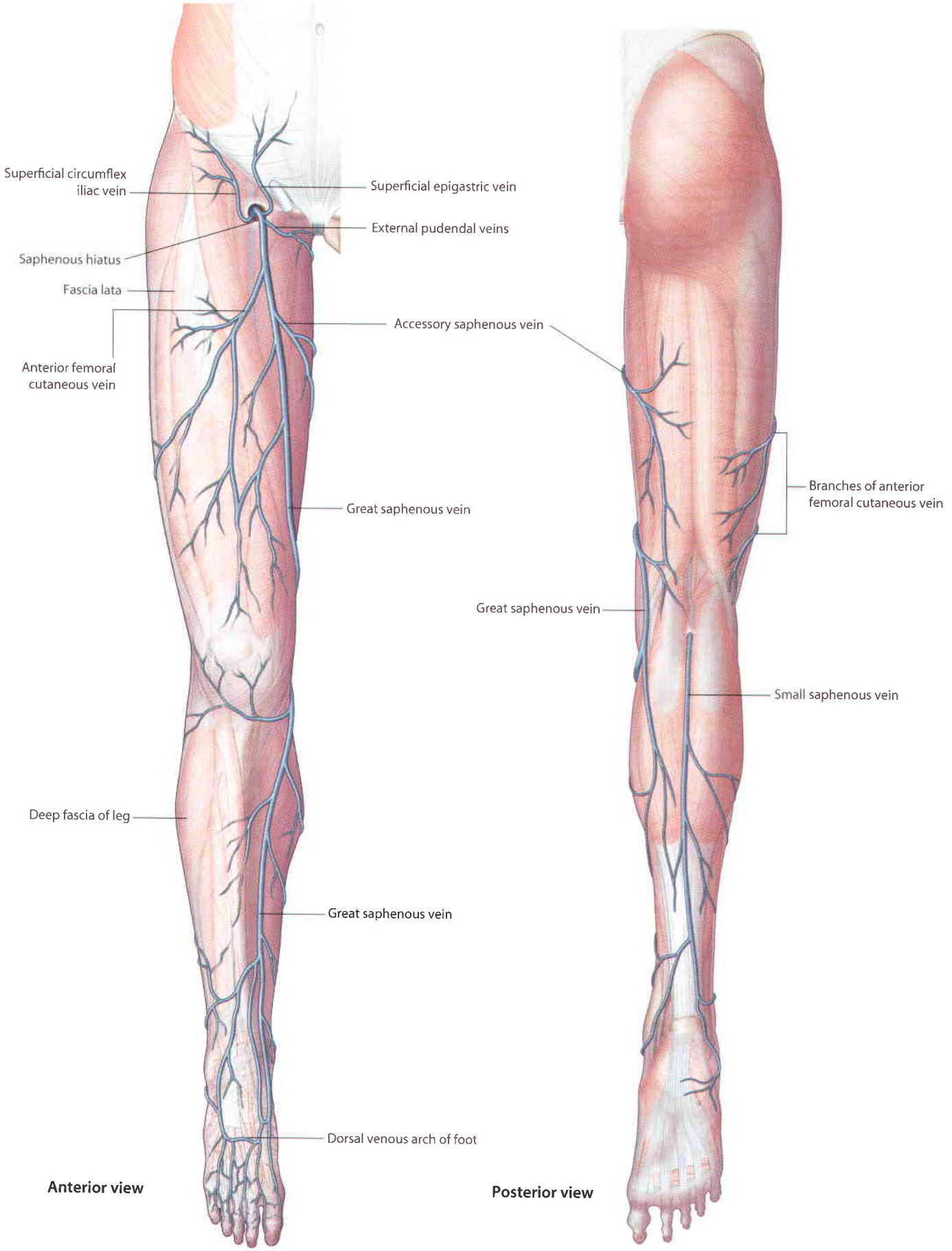


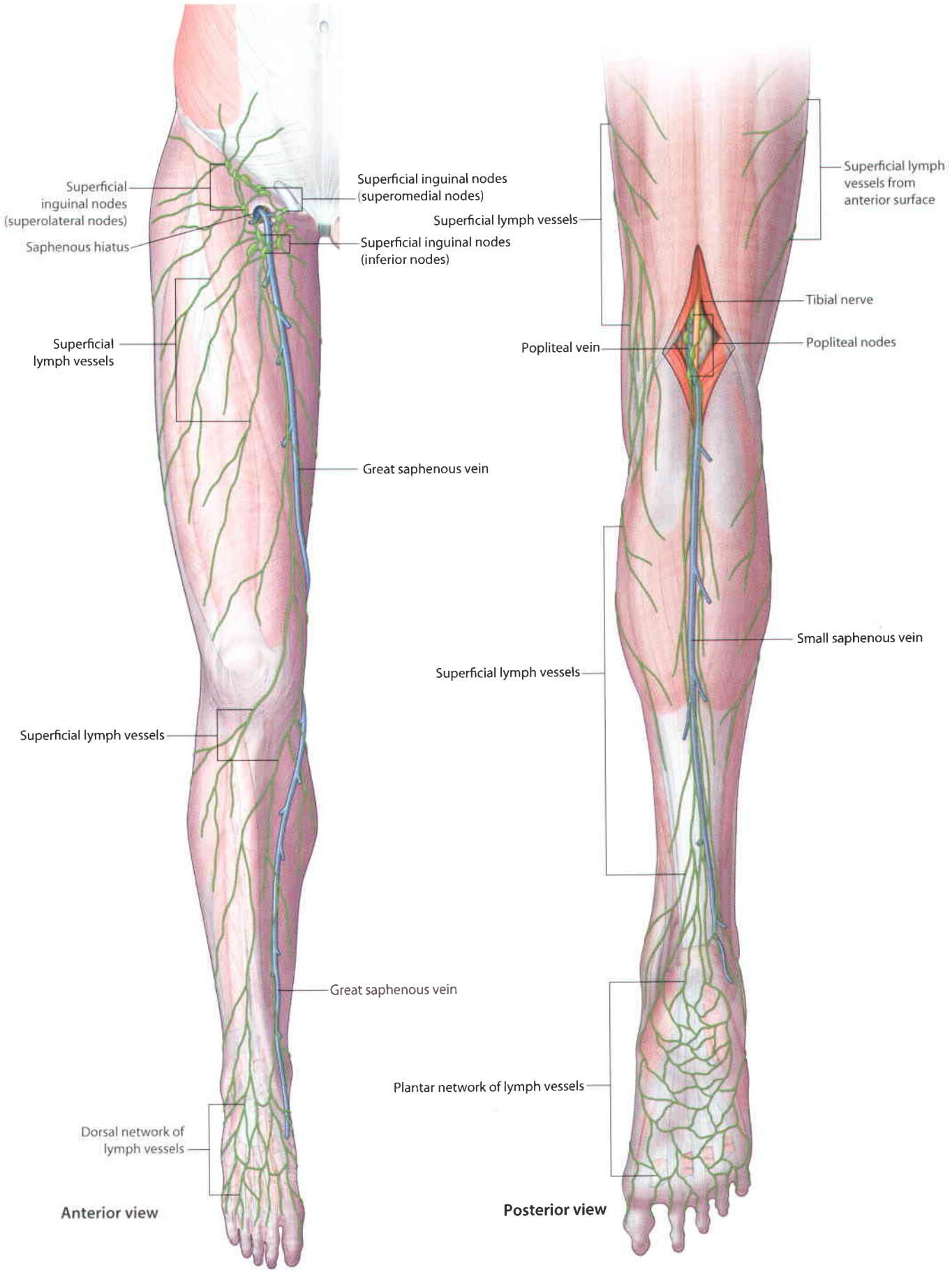
Arteries and nerves of sole of foot (plantar view)

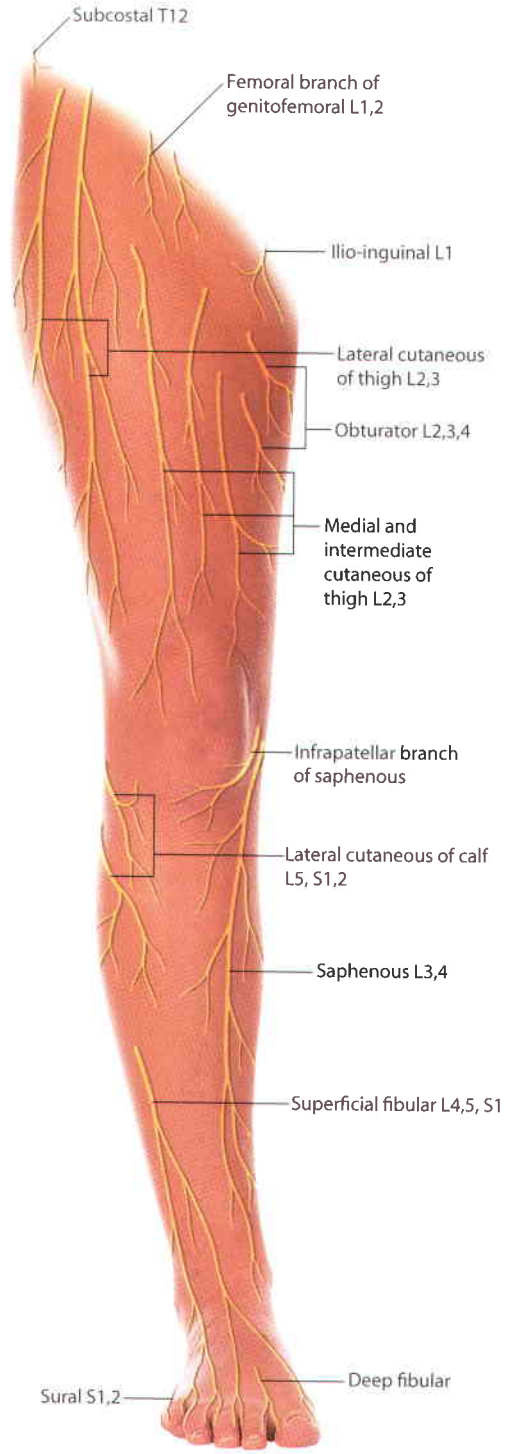
Arteries of sole of foot (plantar view)


Fibularis brevis
Soleus
Extensor digitorum brevis
Extensor hallucis longus
Tibialis anterior
Fibularis longus
Superior extensor retinaculum
Fibula
Fibularis tertius
Lateral malleolus and subcutaneous bursa
Calcaneal tendon
Inferior extensor retinaculum
Synovial sheath
Synovial sheath of extensor hallucis longus
Extensor digitorum longus tendons
Extensor hoods
Fibularis tertius tendon
Fibularis longus tendon
Fibularis brevis tendon
Calcaneus
Abductor digiti minimi
Extensor digitorum brevis
Lateral view
Extensor digitorum brevis
Extensor digitorum longus
Metatarsal II
Extensor hood
Lumbrical
Flexor digitorum brevis tendon (cut)
Deep transverse metatarsal ligament
Dorsal interosseous
Flexor digitorum longus tendon (cut)
Extensor hood (posteromedial view)

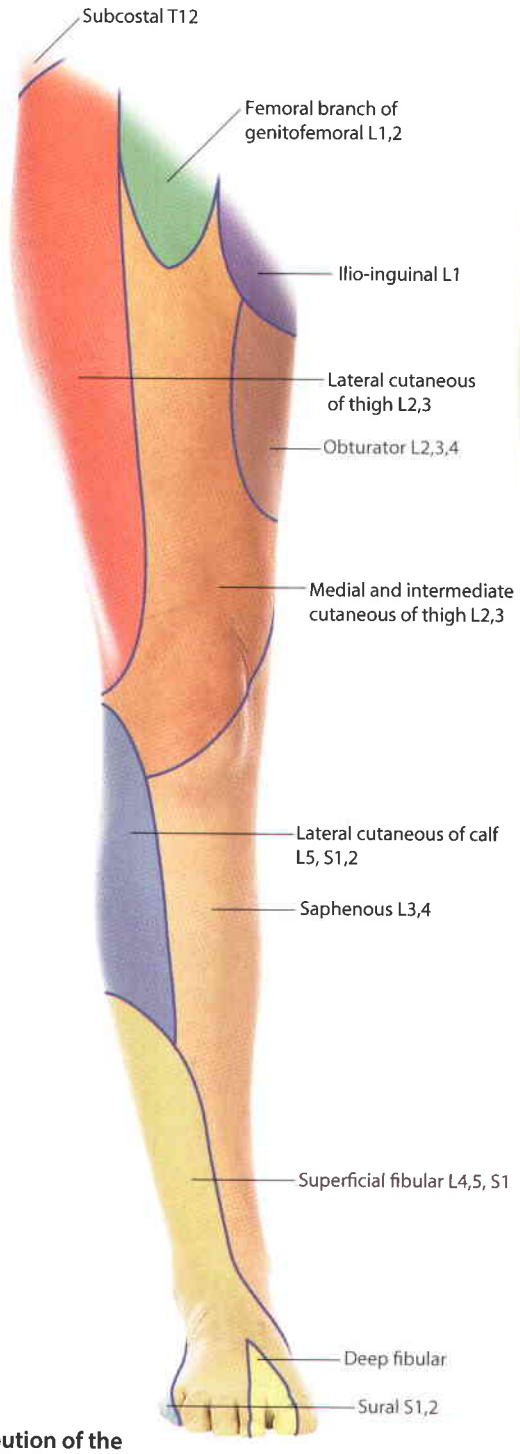

Tibialis posterior tendon
Tibia
Flexor digitorum longus
Posterior tibial artery and veins
Tibial nerve
Flexor hallucis longus tendon
Calcaneal tendon
Flexor retinaculum
Calcaneus
Tarsal tunnel and flexor retinaculum (posteromedial view)
Soleus
Synovial sheath of flexor digitorum longus
Flexor digitorum longus
Synovial sheath of tibialis posterior tendon
Posterior tibial artery
Superior extensor retinaculum
Medial malleolar artery
Tibial nerve
Tibialis anterior tendon and synovial sheath
Synovial sheath of flexorhallucis longus
Medial malleolus and subcutaneous bursa
Calcaneal tendon
Inferior extensor retinaculum
Synovial sheath of extensor hallucis longus
Medial calcaneal branches
Metatarsal I
Extensor hoods
Flexor retinaculum
Proper plantar digital branch of superficial branch of medial plantar artery
Flexor hallucis longus tendon
Abductor hallucis
Medial tarsal artery
Medial plantar artery
Plantar aponeurosis
Lateral plantar artery and nerve
Medial view


Superficial circumflex iliac vein
Superficial epigastric vein
External pudendal veins
Saphenous hiatus
Fascia lata
Accessory saphenous vein
Anterior femoral cutaneous vein
Great saphenous vein
Deep fascia of leg
Great saphenous vein
Dorsal venous arch of foot
Anterior view
Branches of anterior femoral cutaneous vein
Great saphenous vein
Small saphenous vein
Posterior view


Superficial inguinal nodes (superolateral nodes)
Saphenous hiatus
Superficial inguinal nodes (superomedial nodes)
Superficial lymph vessels
Superficial inguinal nodes (inferior nodes)
Superficial lymph vessels
Great saphenous vein
Superficial lymph vessels
Great saphenous vein
Dorsal network of lymph vessels
Anterior view
Superficial lymph vessels from anterior surface
Tibial nerve
Popliteal vein
Popliteal nodes
Small saphenous vein
Superficial lymph vessels
Plantar network of lymph vessels
Posterior view

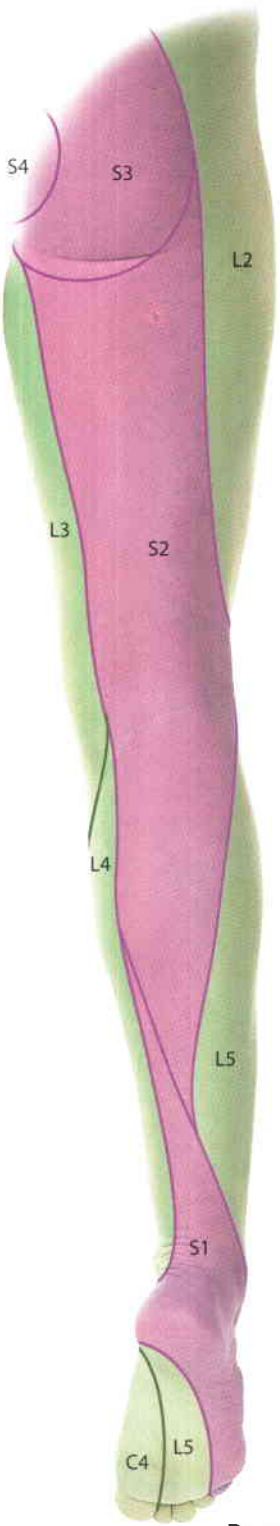


Cutaneous nerves of the lower limb

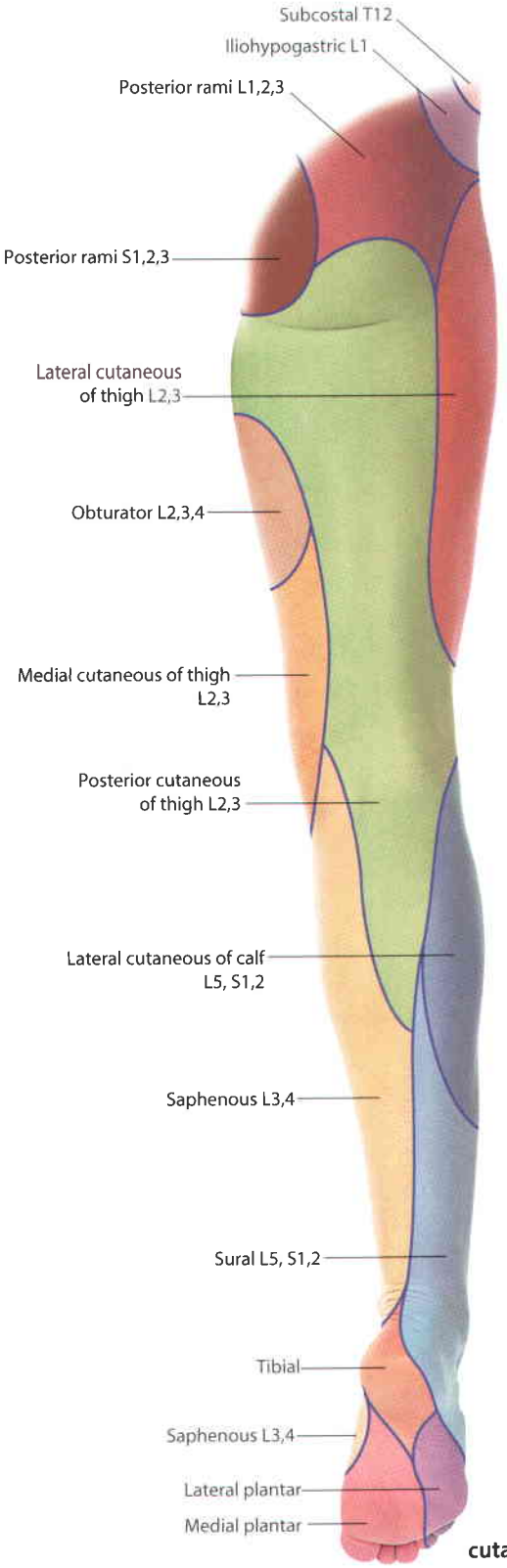


Areas of distribution of the cutaneous nerves of the lower limb

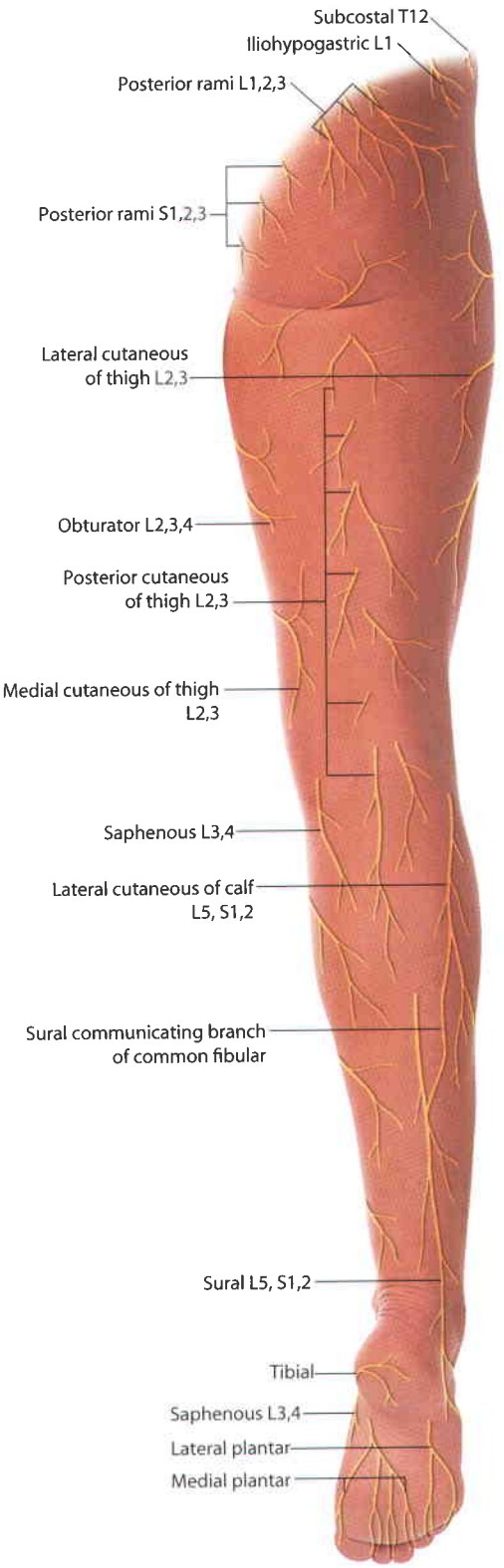
Dermatomes of the lower limb



Dermatomes of the lower limb



Areas of distribution of the cutaneous nerves of the lower limb



Cutaneous nerves of the lower limb

7 UPPER LIMB

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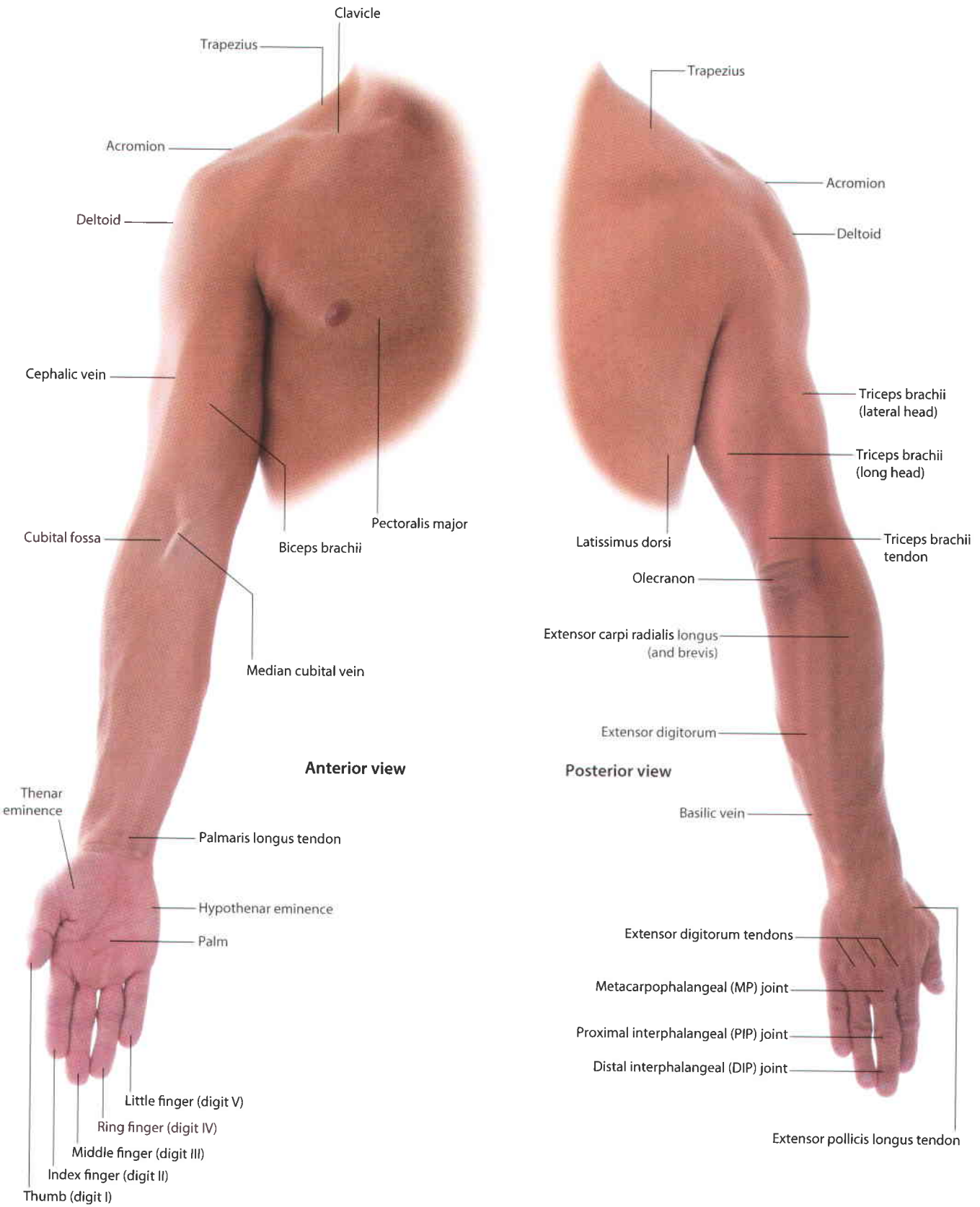
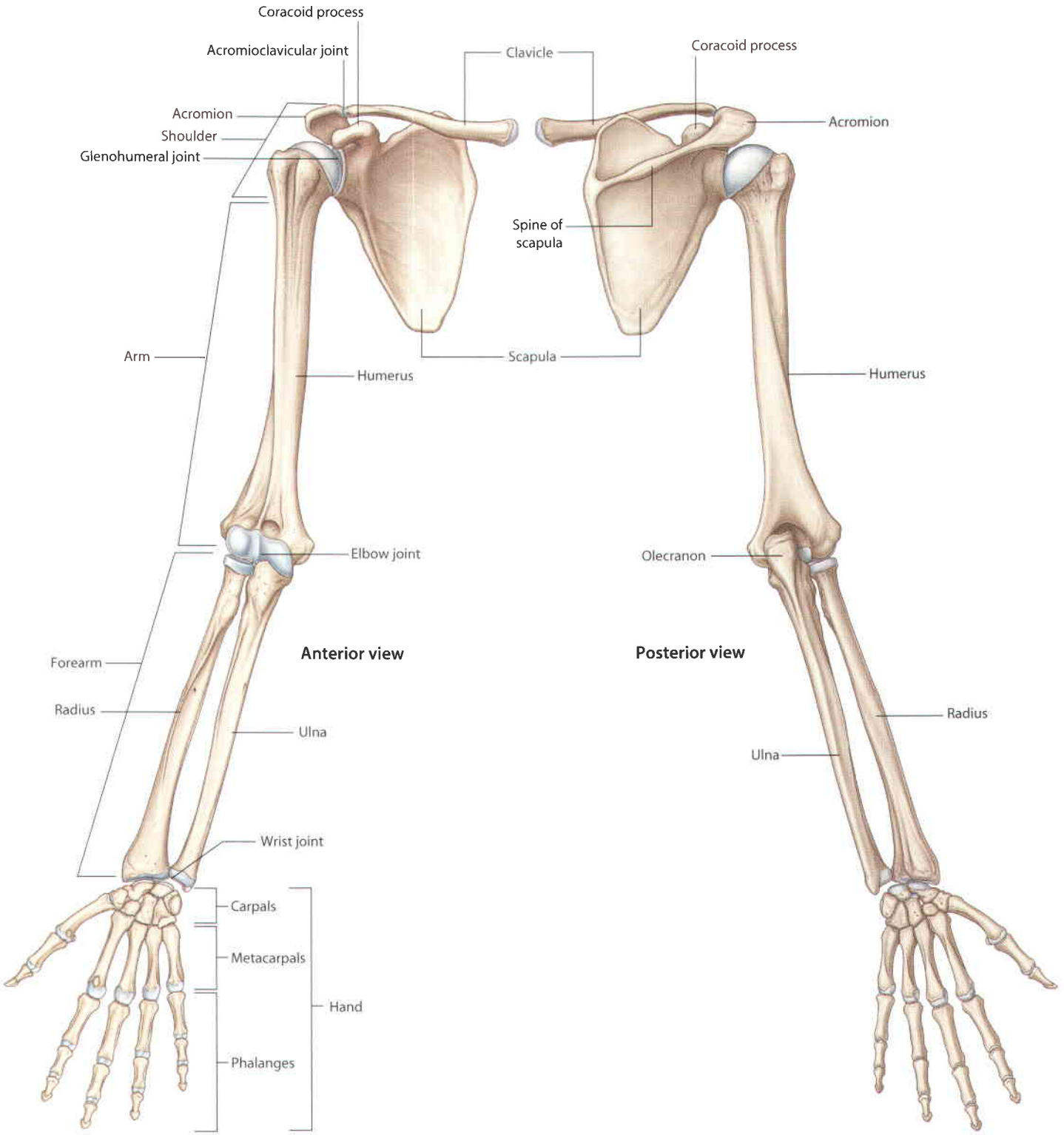
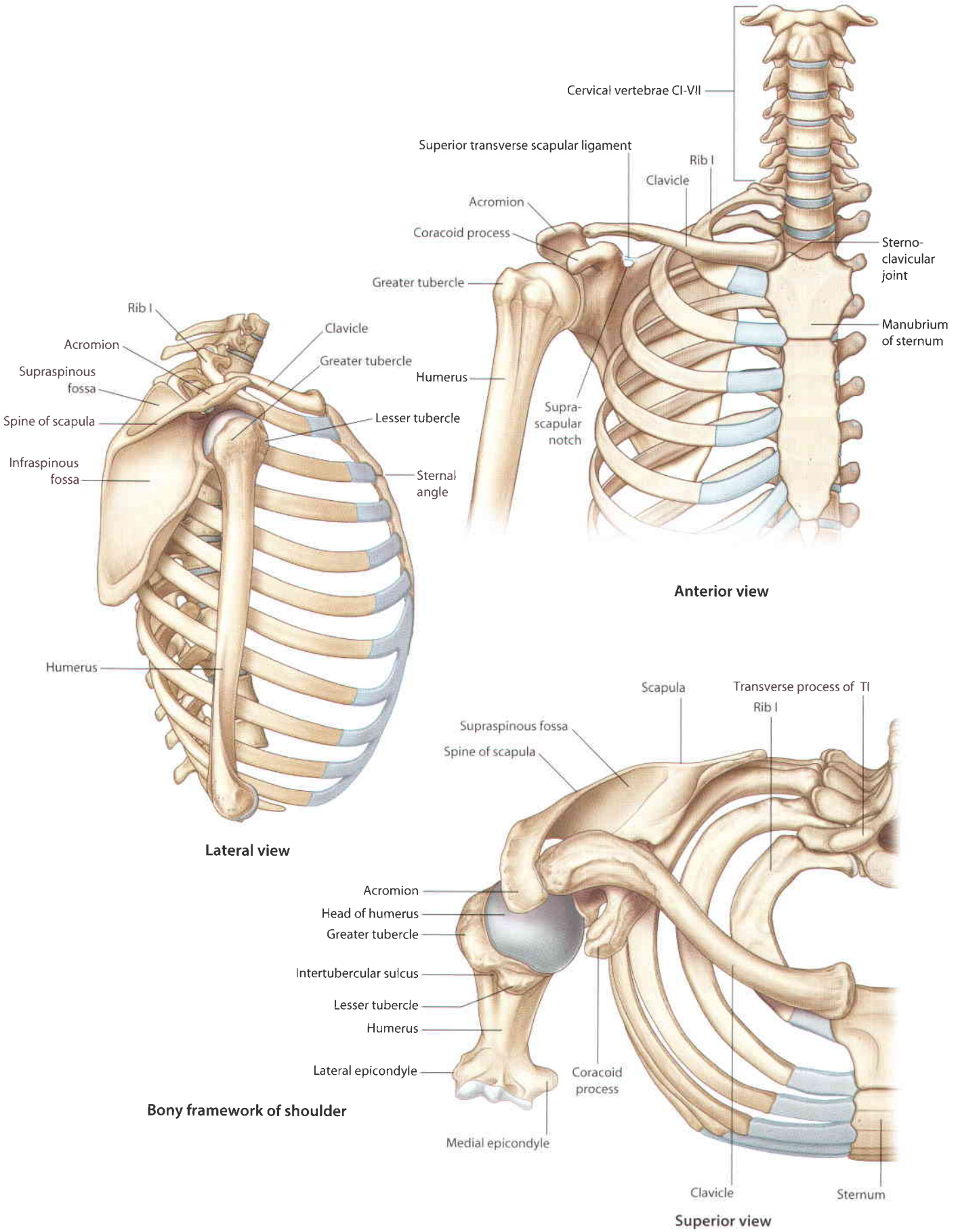
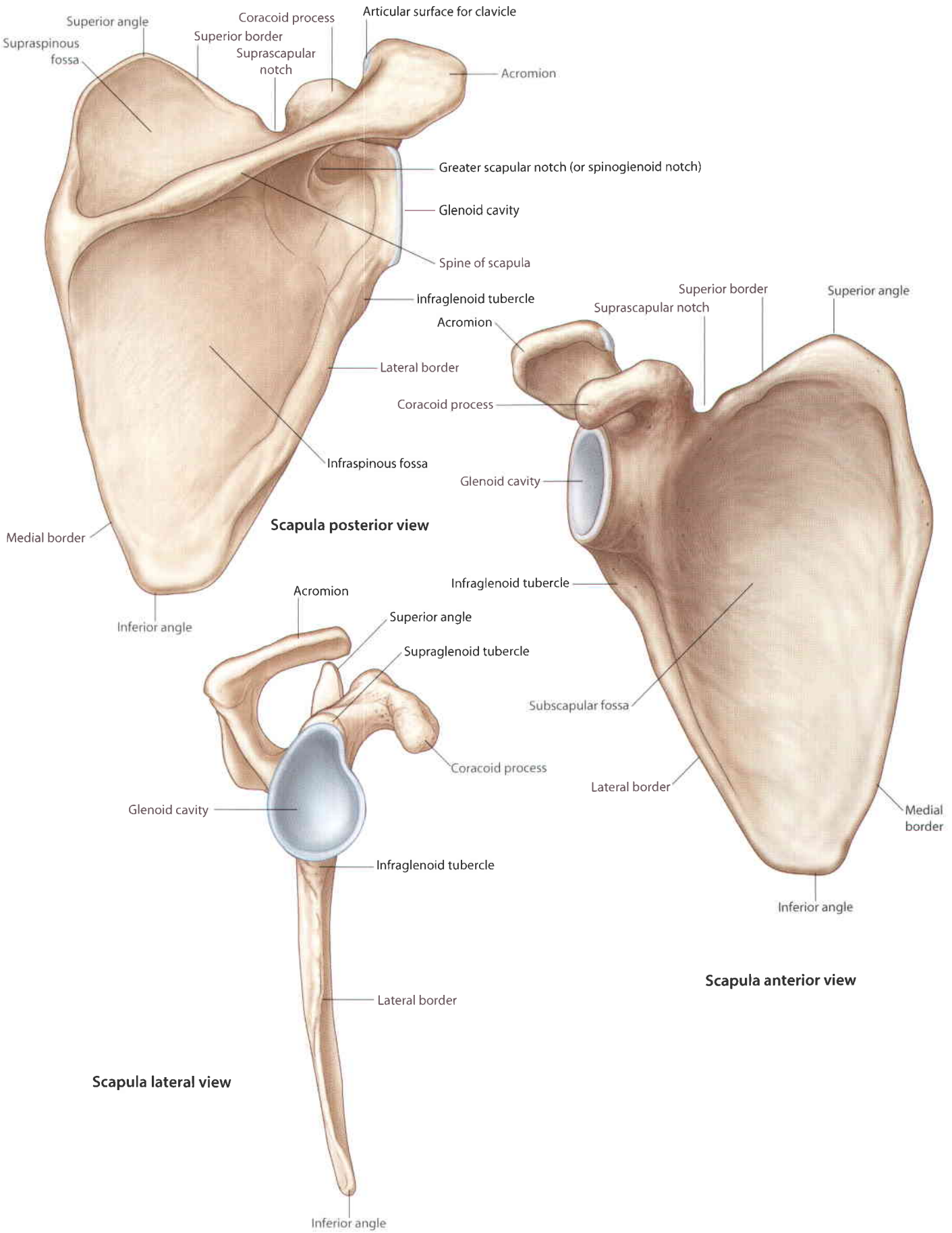
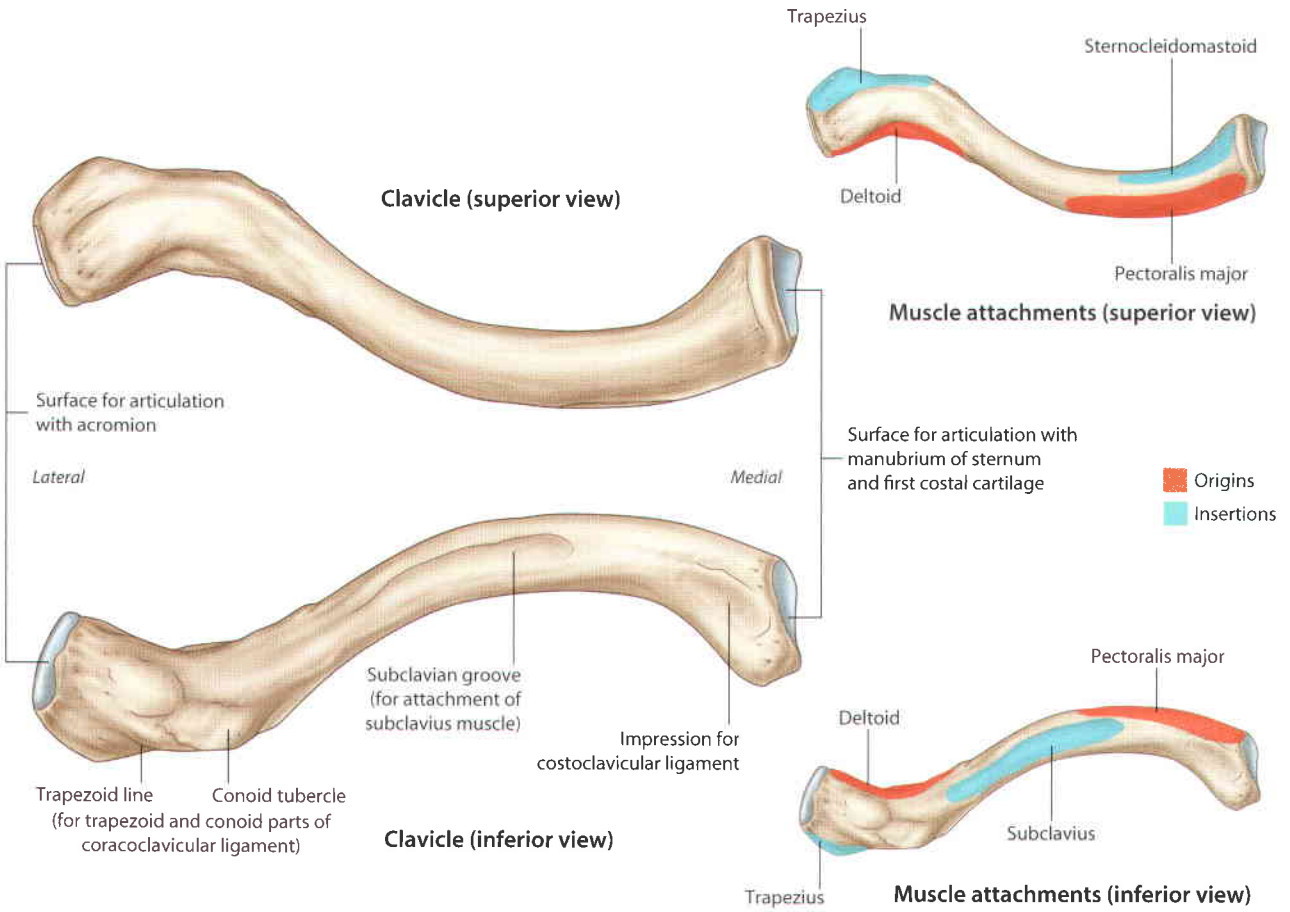

Clavicle
Trapezius
Acromion
Deltoid
Cephalic vein
Pectoralis major
Biceps brachii
Cubital fossa
Median cubital vein
Anterior view
Thenar eminence
Palmaris longus tendon
Hypothenar eminence
Palm
Little finger (digit V)
Ring finger (digit IV)
Middle finger (digit III)
Index finger (digit II)
Thumb (digit I)
Trapezius
Acromion
Deltoid
Triceps brachii (lateral head)
Triceps brachii (long head)
Latissimus dorsi
Triceps brachii tendon
Olecranon
Extensor carpi radialis longus (and brevis)
Extensor digitorum
Posterior view
Basilic vein
Extensor digitorum tendons
Metacarpophalangeal (MP) joint
Proximal interphalangeal (PIP) joint
Distal interphalangeal (DIP) joint
Extensor pollicis longus tendon

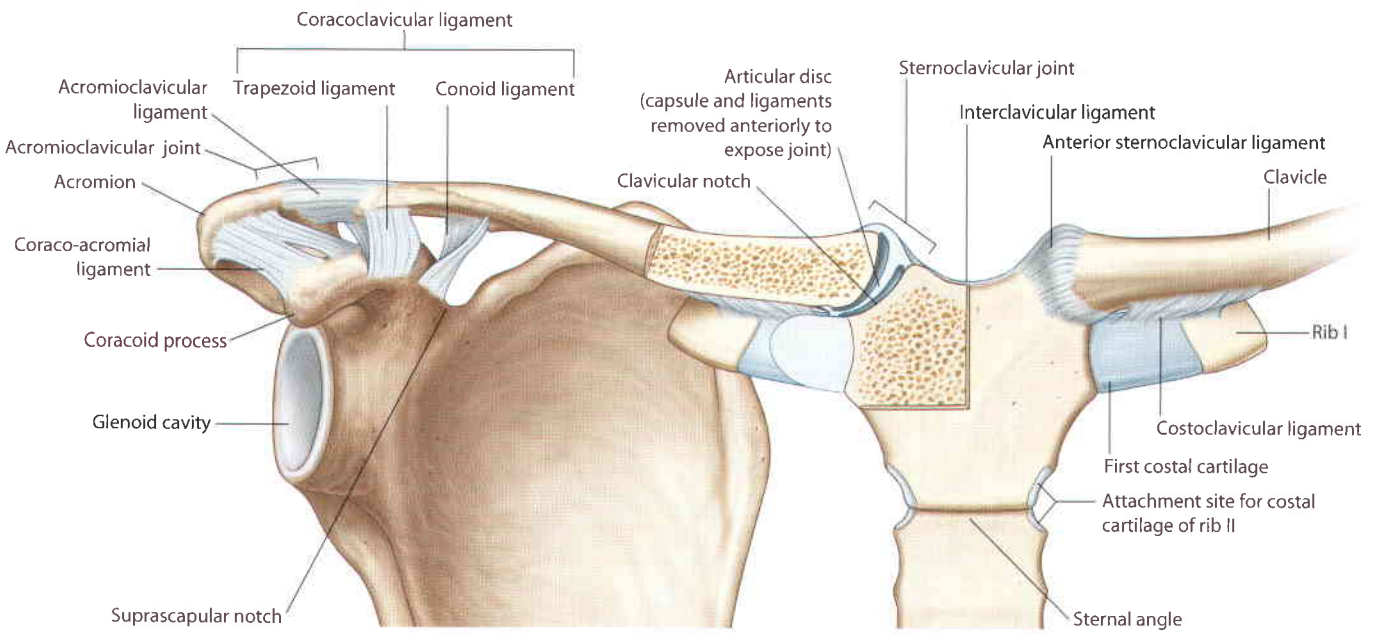

Coracoid process
Acromioclavicular joint
Clavicle
Acromion
Shoulder
Glenohumeral joint
Arm
Humerus
Elbow joint
Forearm
Radius
Ulna
Wrist joint
Carpals
Metacarpals
Hand
Phalanges
Anterior view
Coracoid process
Acromion
Spine of scapula
Scapula
Humerus
Olecranon
Radius
Ulna
Posterior view



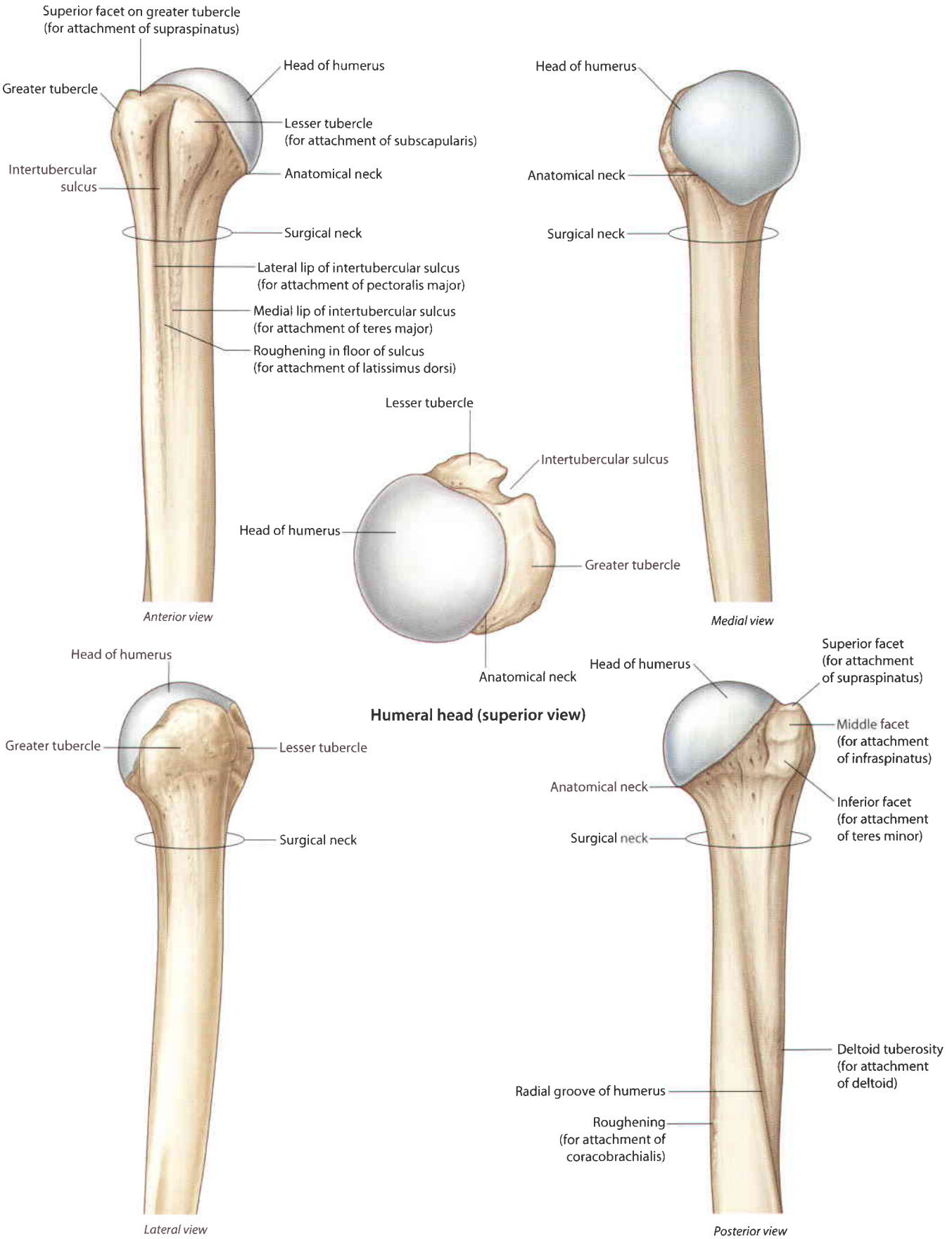
Bony framework of shoulder


Superior angle
Supraspinous fossa
Coracoid process
Superior border
Suprascapular notch
Articular surface for clavicle
Acromion
Greater scapular notch (or spinoglenoid notch)
Glenoid cavity
Spine of scapula
Infraglenoid tubercle
Lateral border
Infraspinous fossa
Medial border
Inferior angle
Scapula posterior view
Superior border
Superior angle
Suprascapular notch
Acromion
Coracoid process
Glenoid cavity
Infraglenoid tubercle
Subscapular fossa
Lateral border
Medial border
Inferior angle
Scapula anterior view
Acromion
Superior angle
Supraglenoid tubercle
Coracoid process
Glenoid cavity
Infraglenoid tubercle
Lateral border
Inferior angle
Scapula lateral view

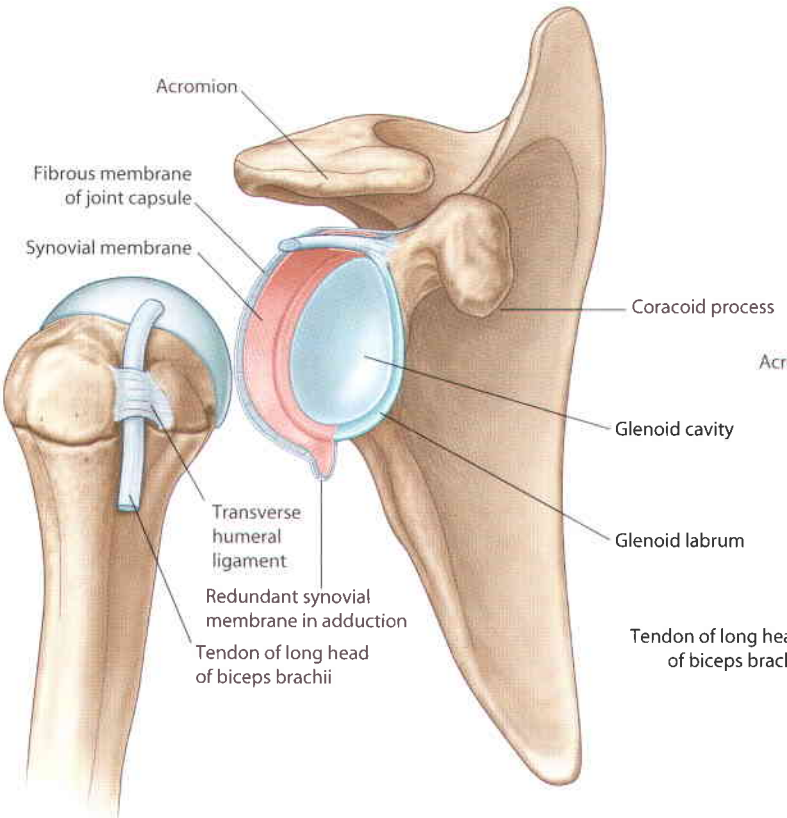




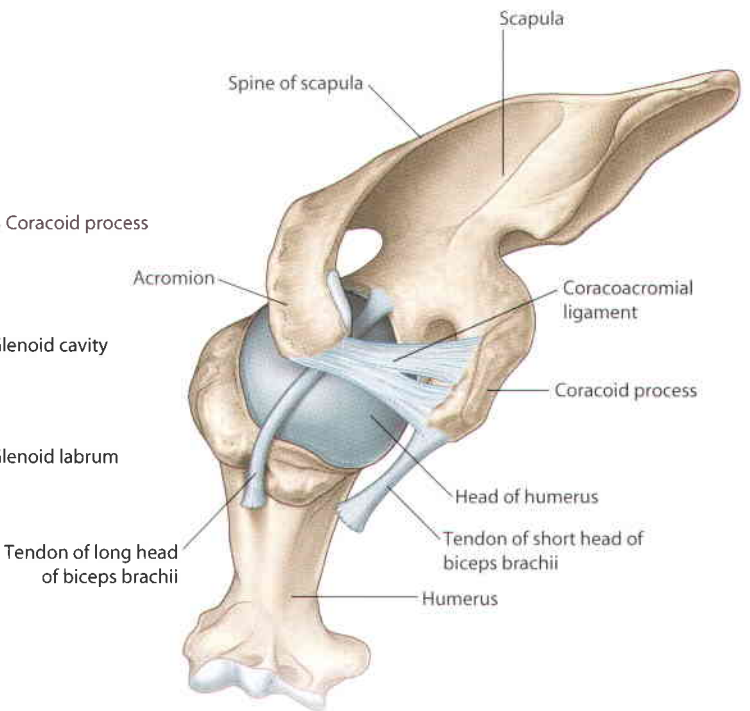
Joints and ligaments of the clavicle (anterior view)



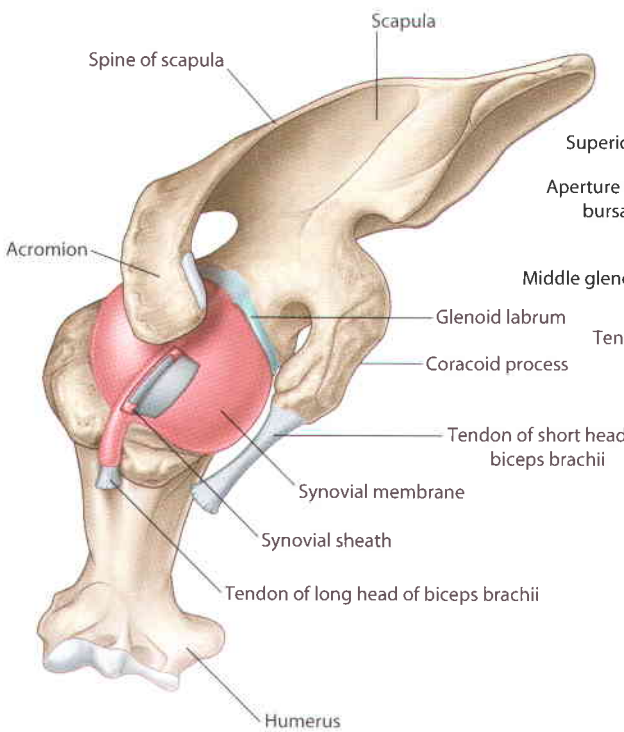
Proximal end of humerus



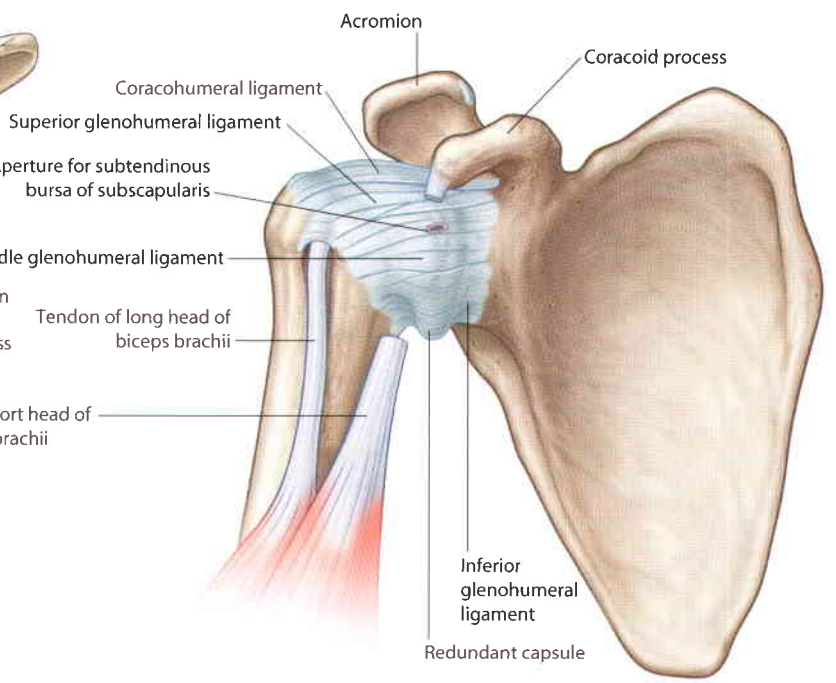
Articular surfaces of glenohumeral joint (anterolateral oblique view)



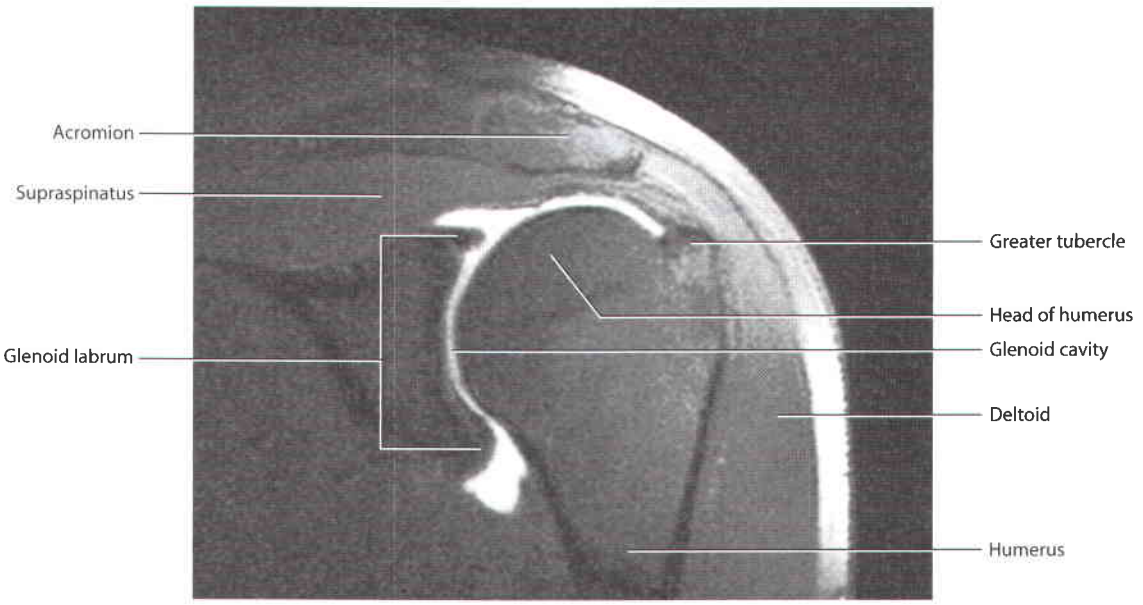
Origins of biceps brachii tendons (superior view)



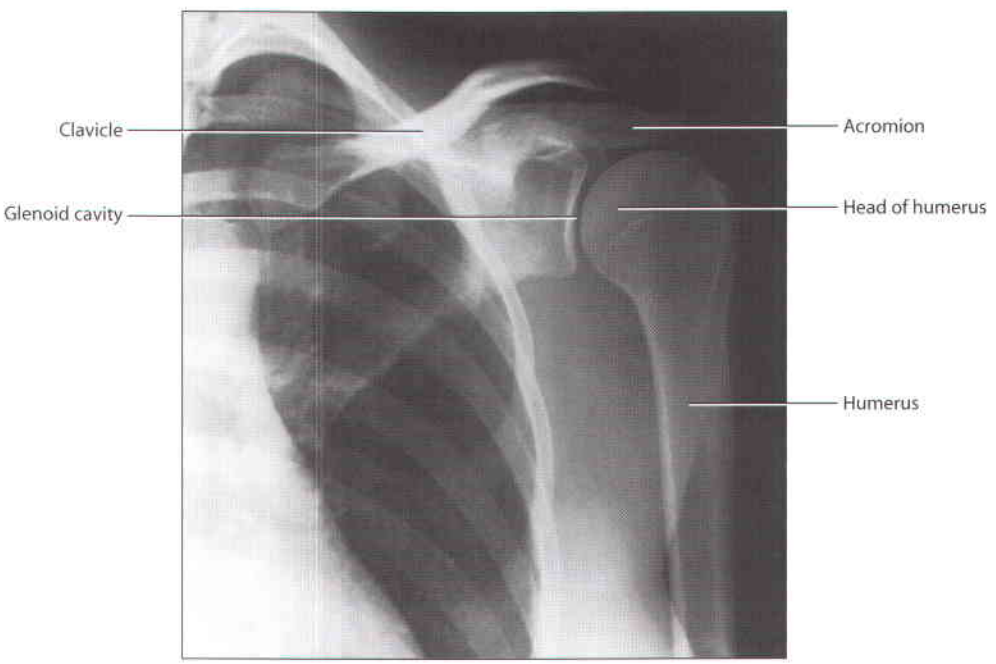
Synovial membrane (superior view)



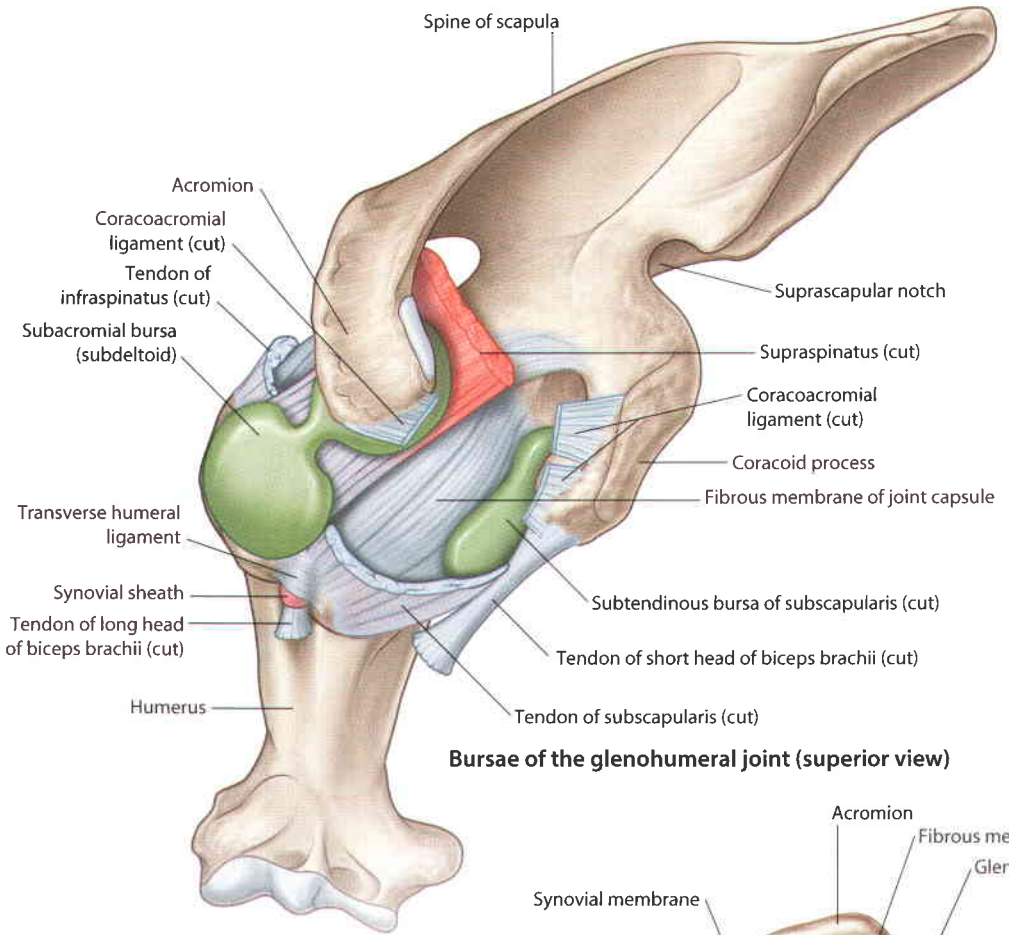
Fibrous membrane of joint capsule (anterior view)



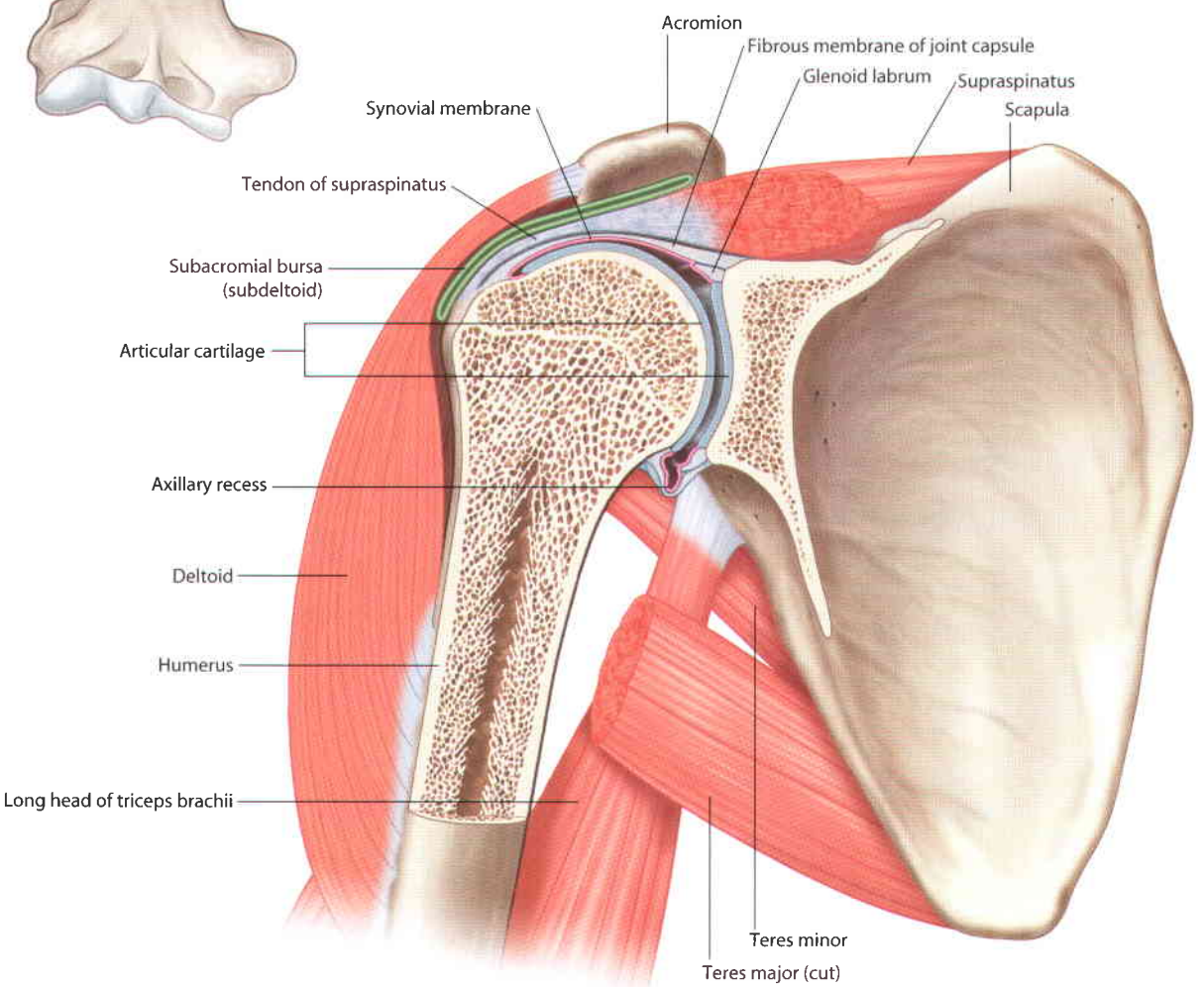
Anterior view of the glenohumeral joint.
T1-weighted MR image in coronal plane



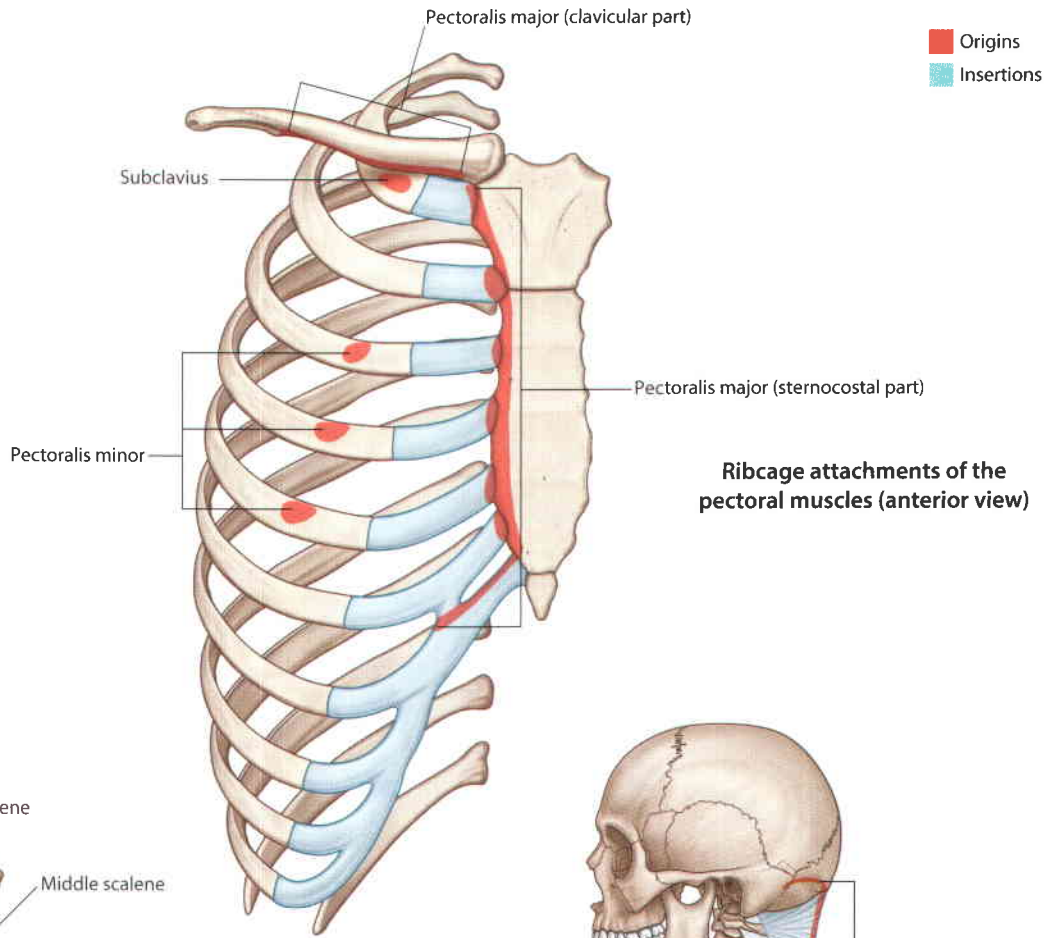
Normal glenohumeral joint.
Radiograph, AP view



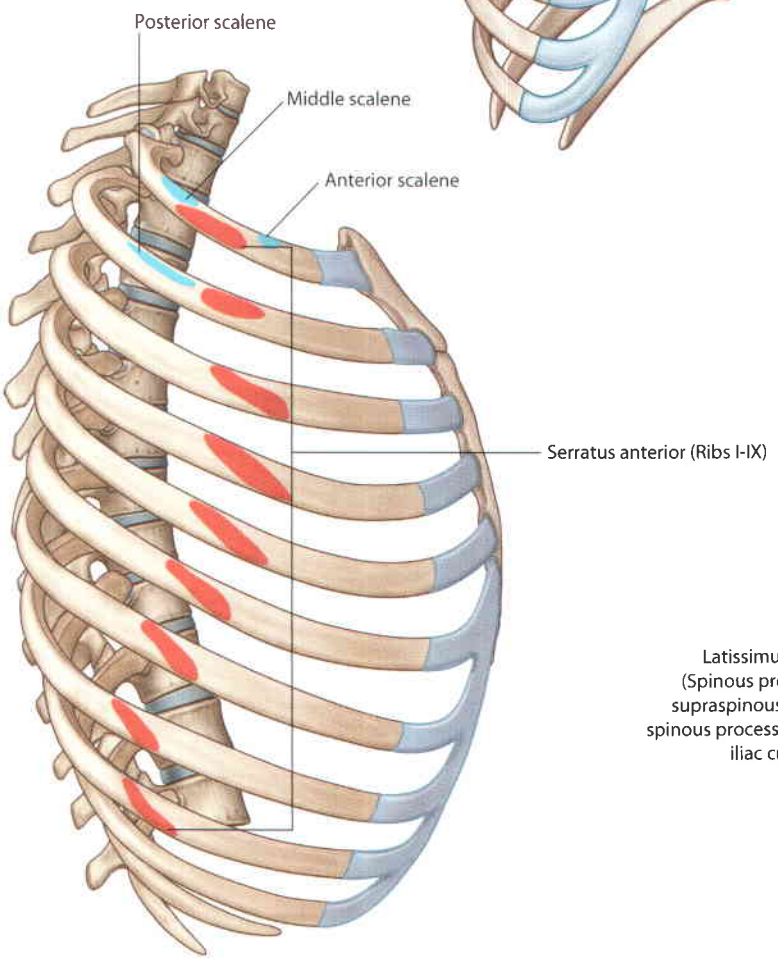
Bursae of the glenohumeral joint (superior view)



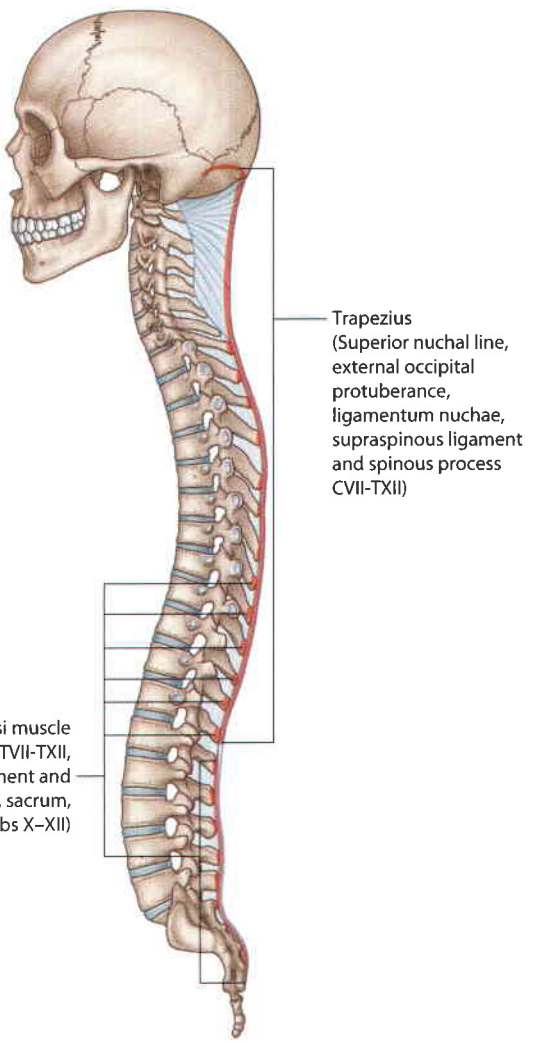
Glenohumeral joint (anterior view)



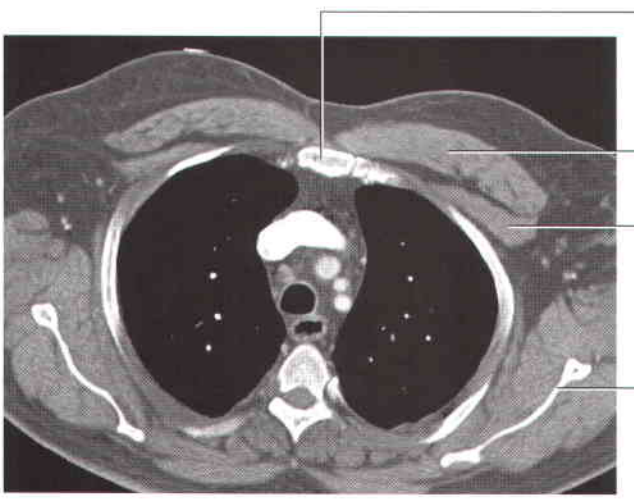
Ribcage attachments of the pectoral muscles (anterior view)



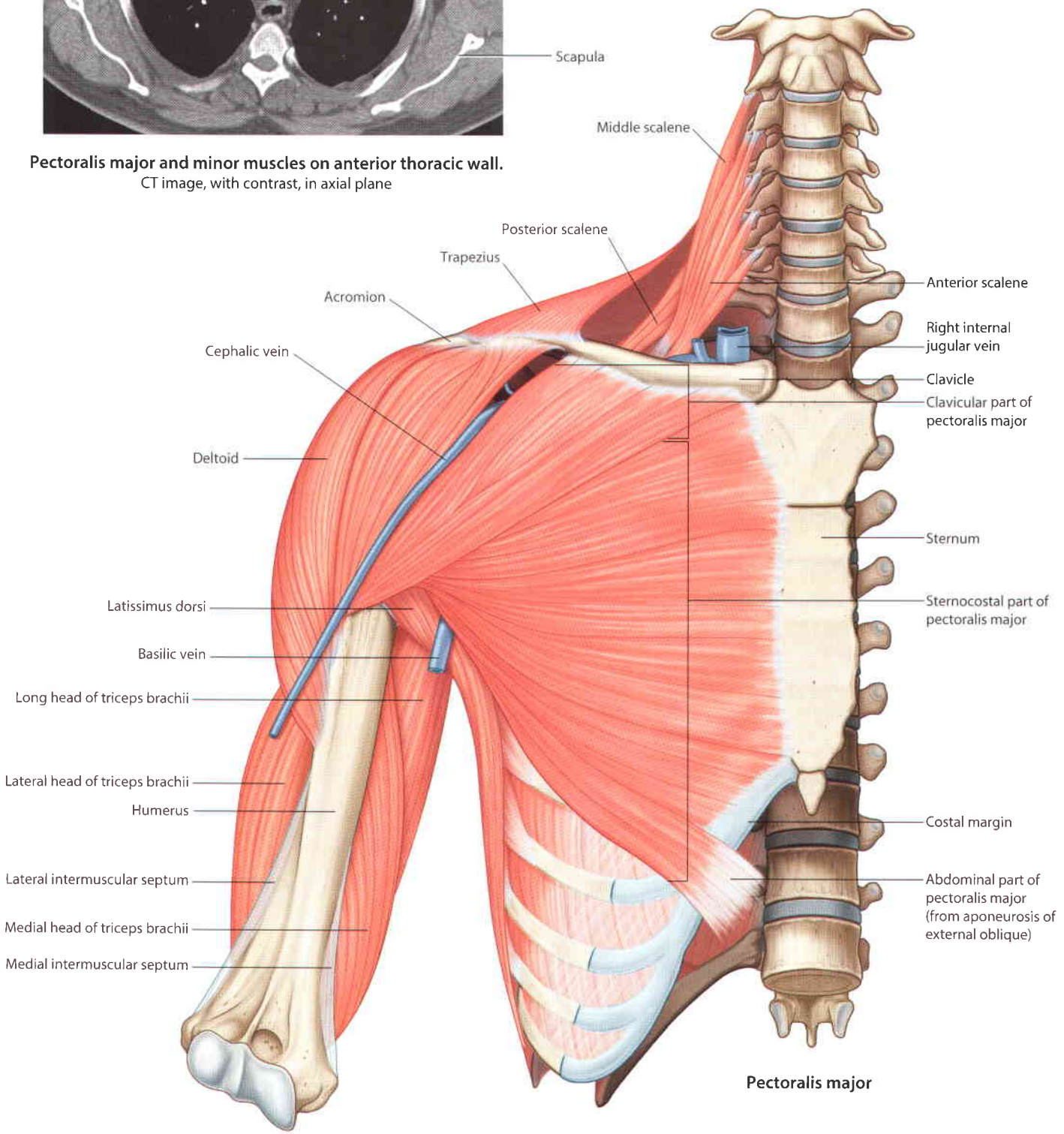
Ribcage attachments of serratus anterior and scalene muscles (lateral view)



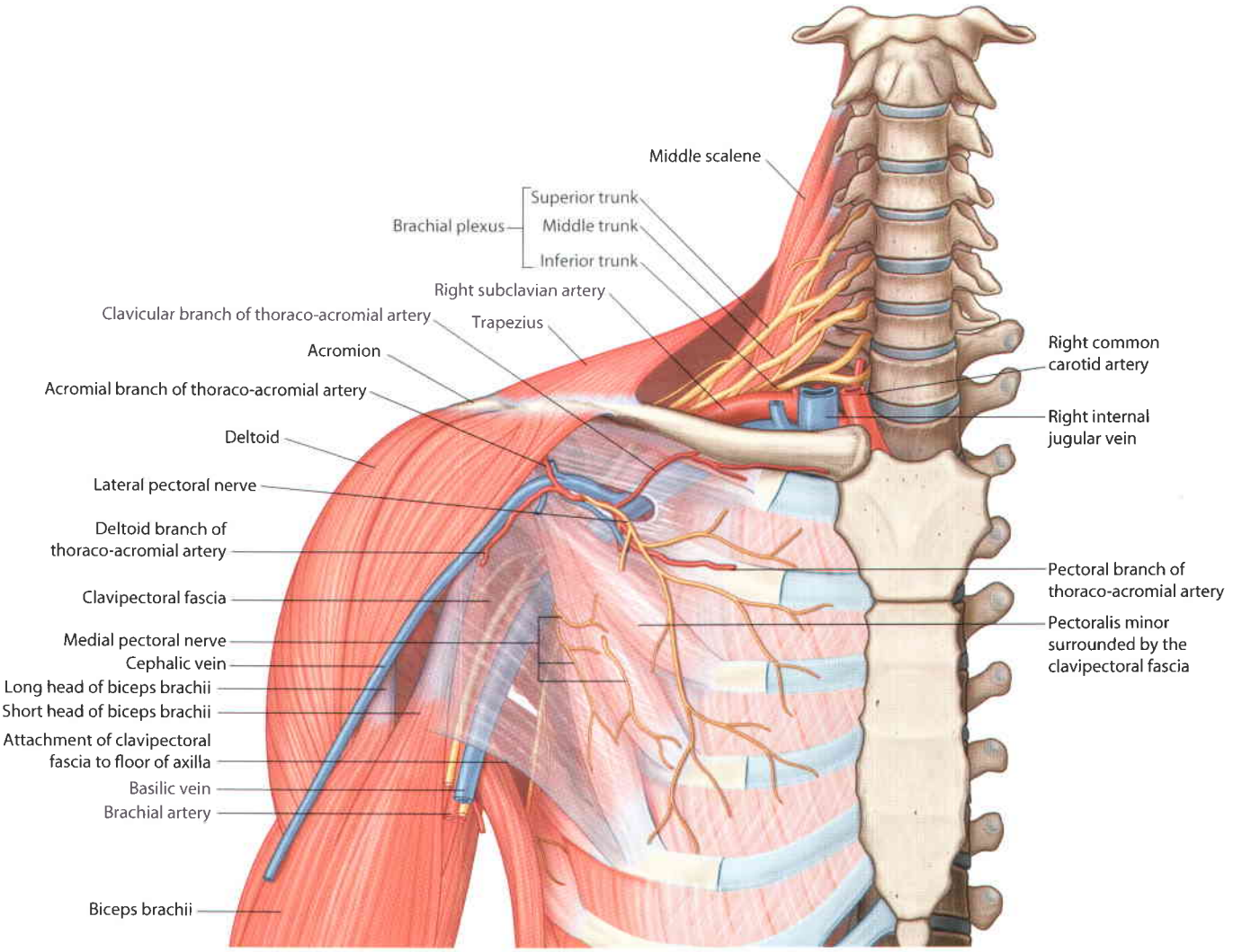
Attachments of trapezius and latissimus dorsi muscles (lateral view)



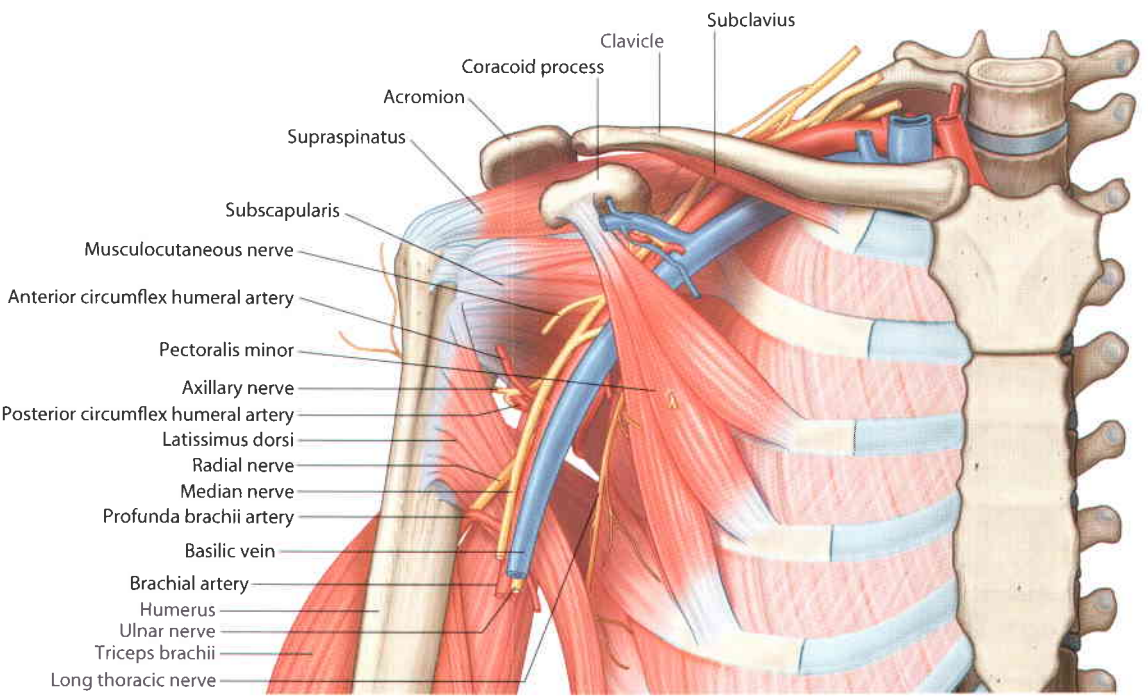
Pectoralis major and minor muscles on anterior thoracic wall.
CT image, with contrast, in axial plane



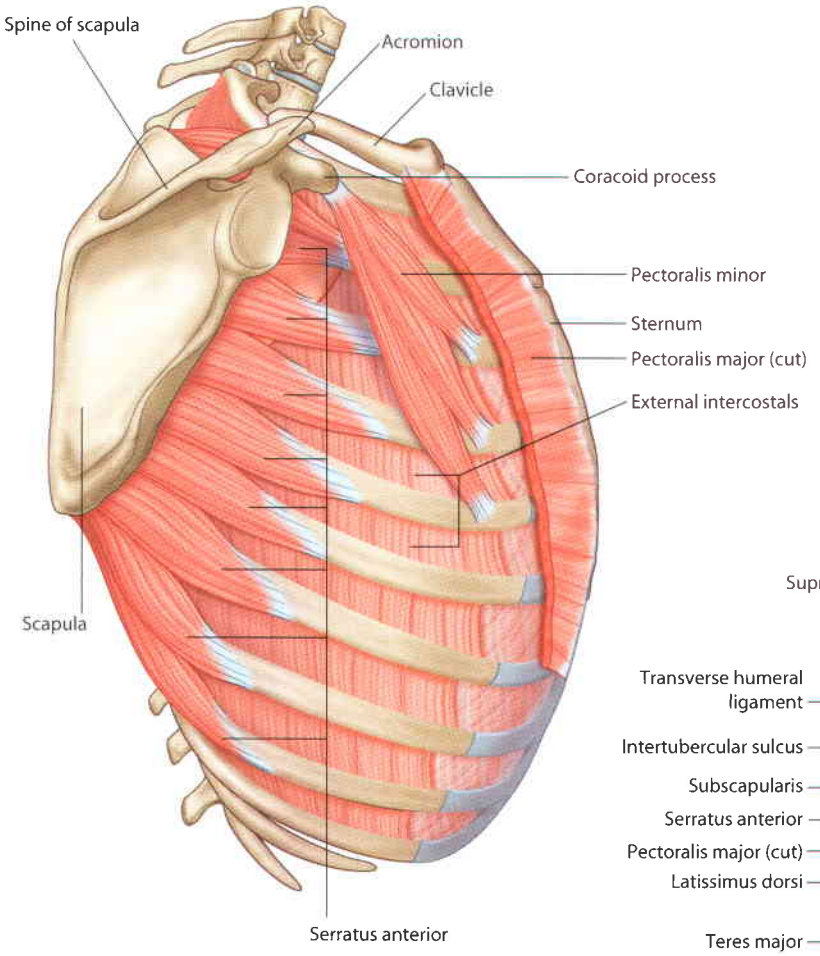
Pectoralis major



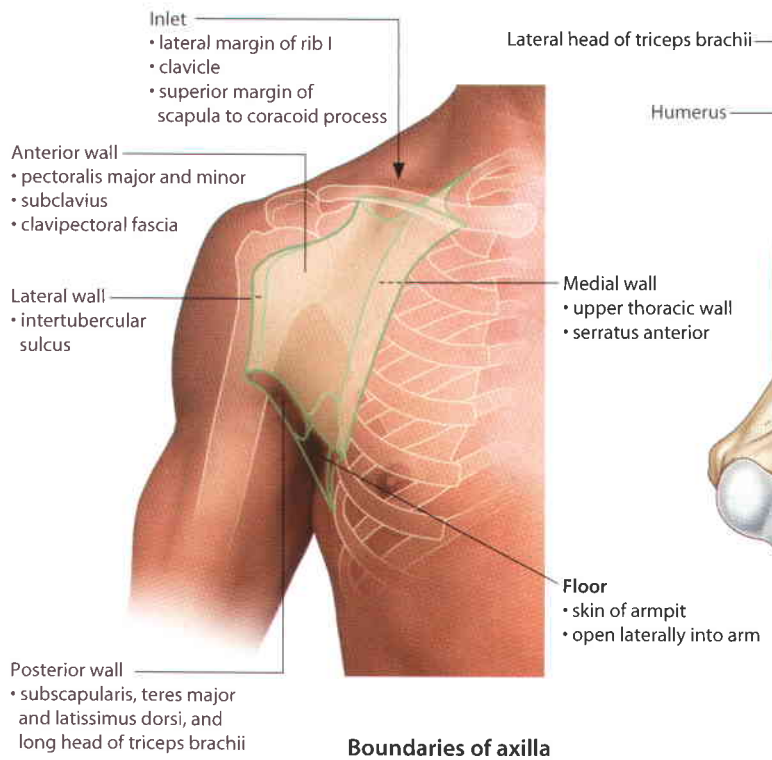
Clavipectoral fascia and related structures



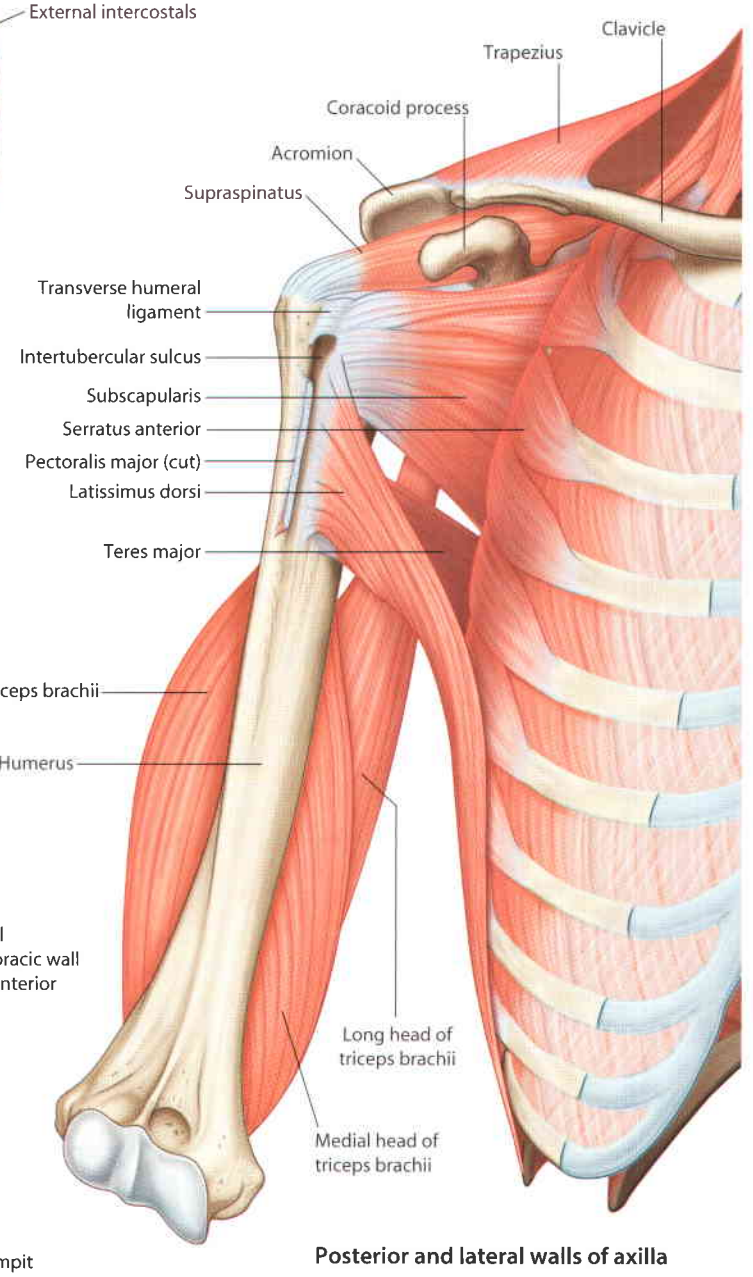
Pectoralis minor



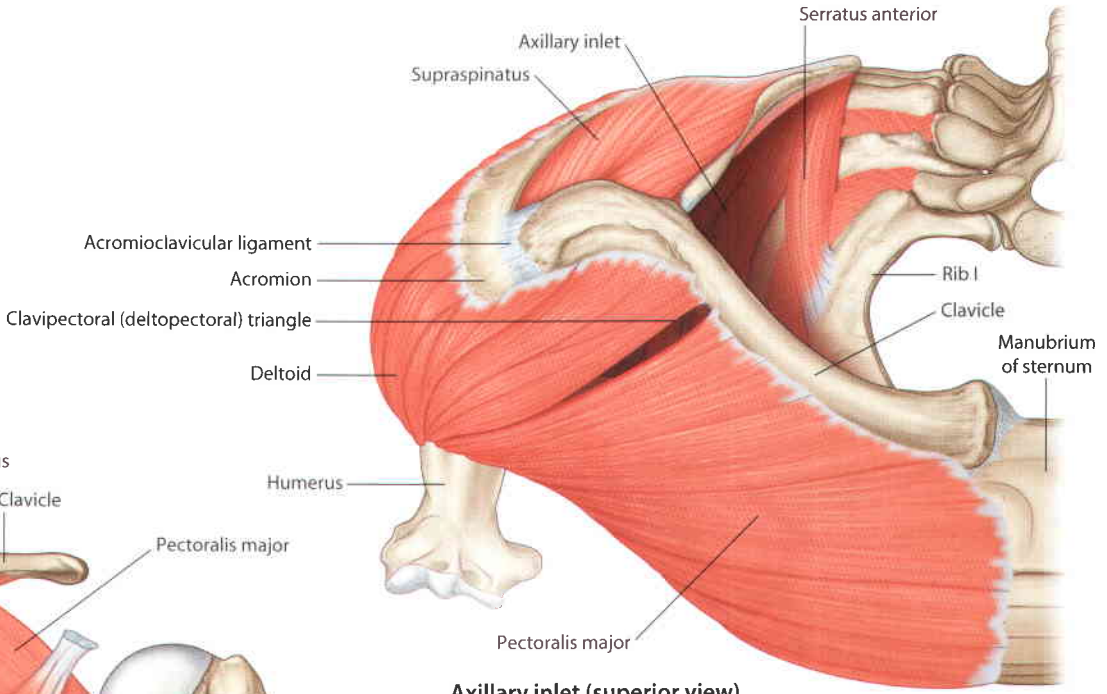
Medial and anterior walls of axilla



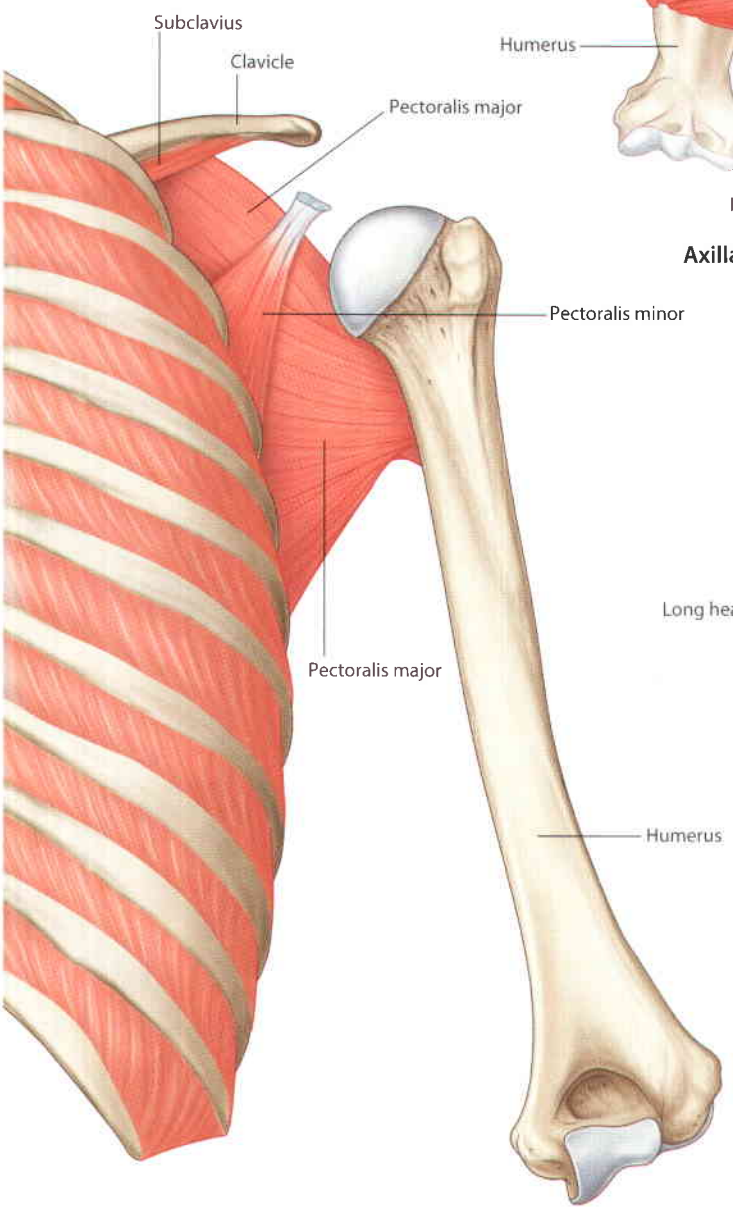
Boundaries of axilla



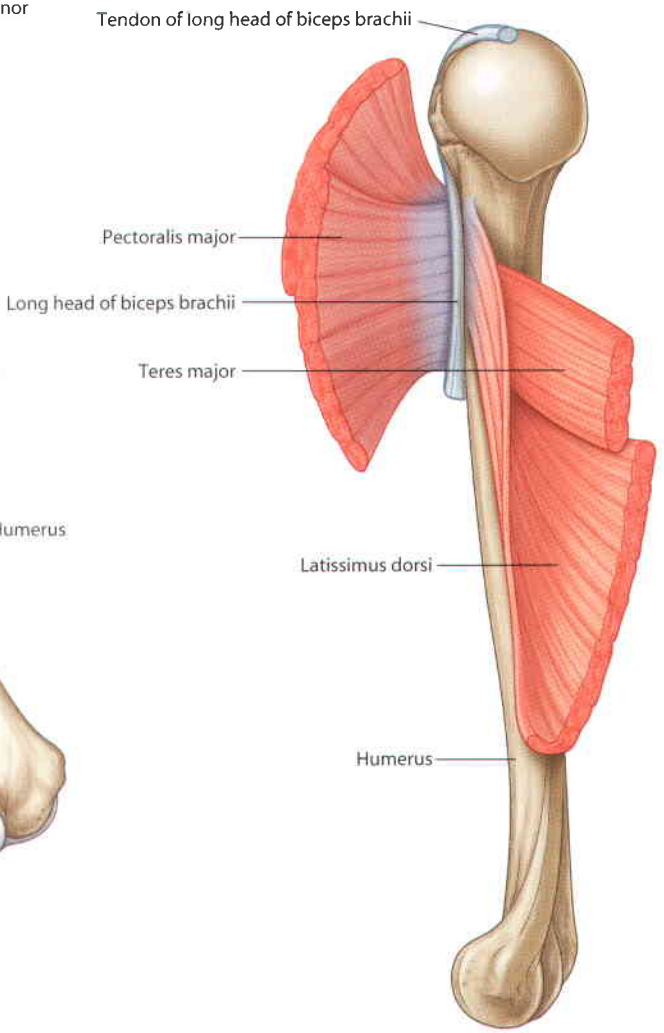
Posterior and lateral walls of axilla



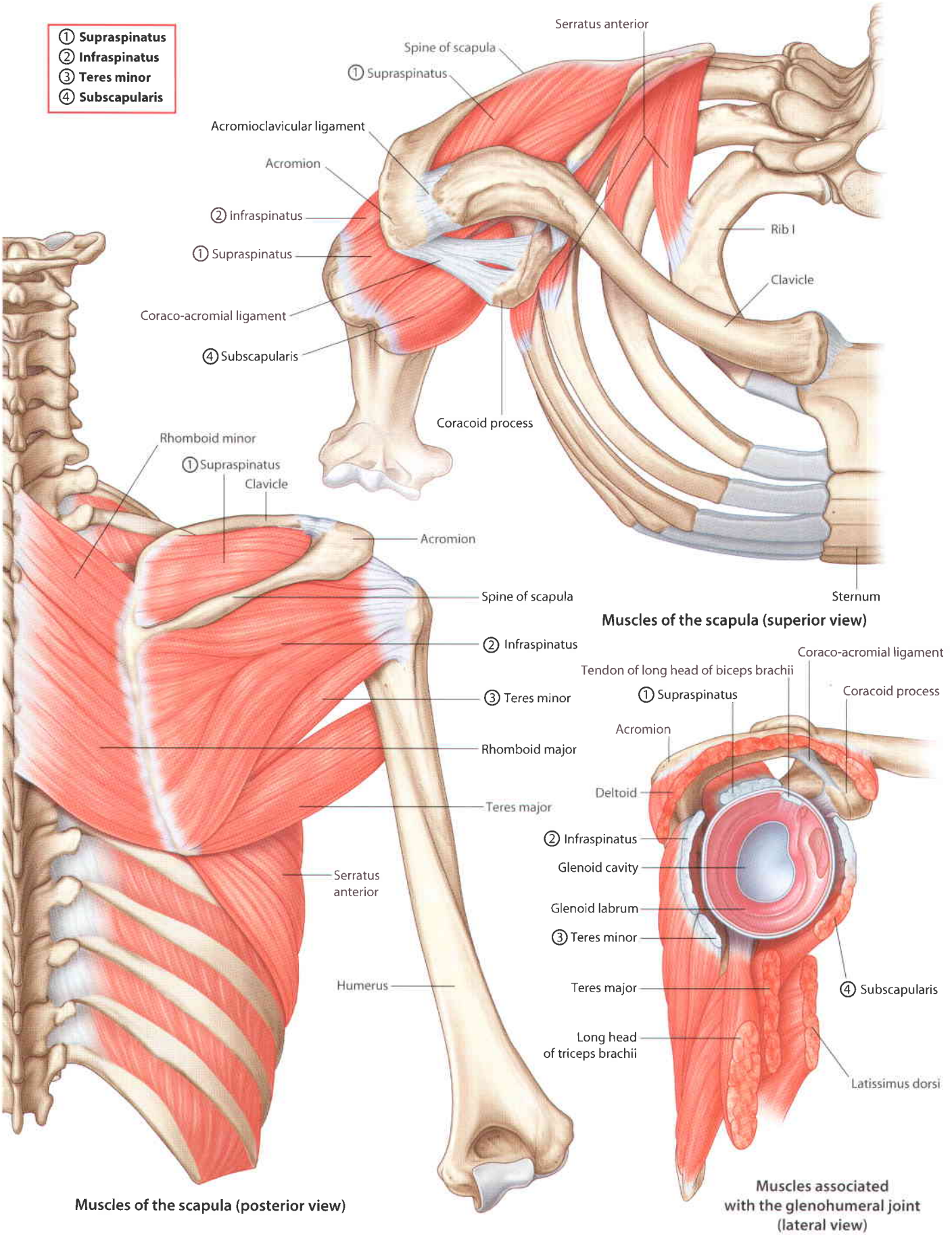
Axillary inlet (superior view)

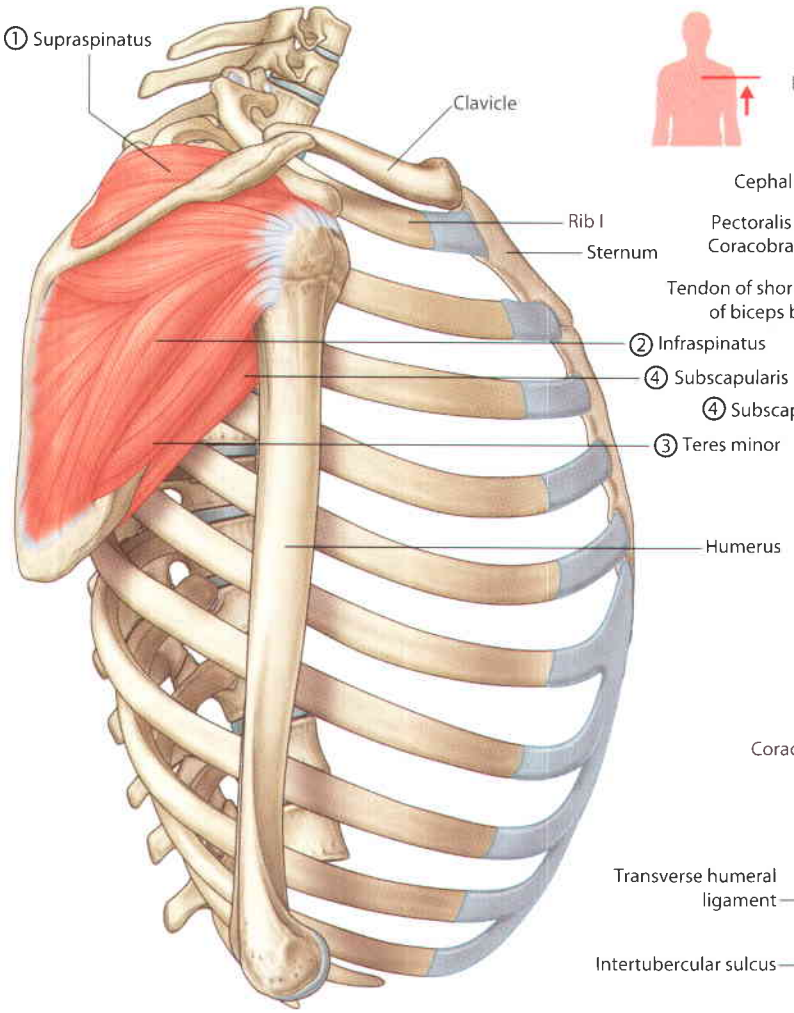


Anterior wall of axilla (posterior view)

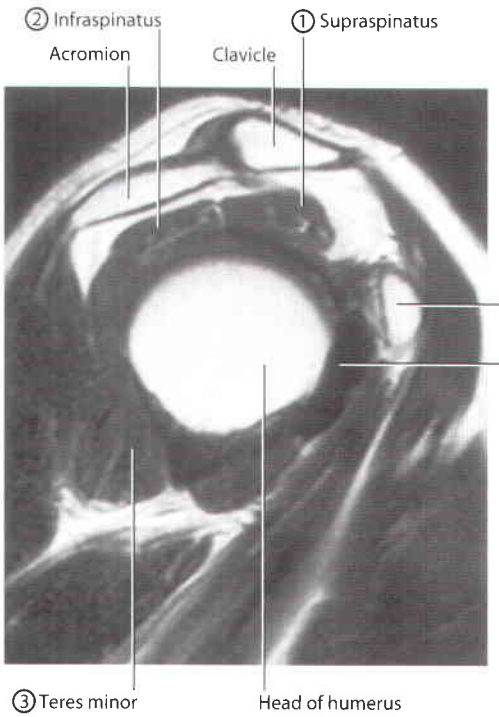


Lateral wall of axilla (medial view)

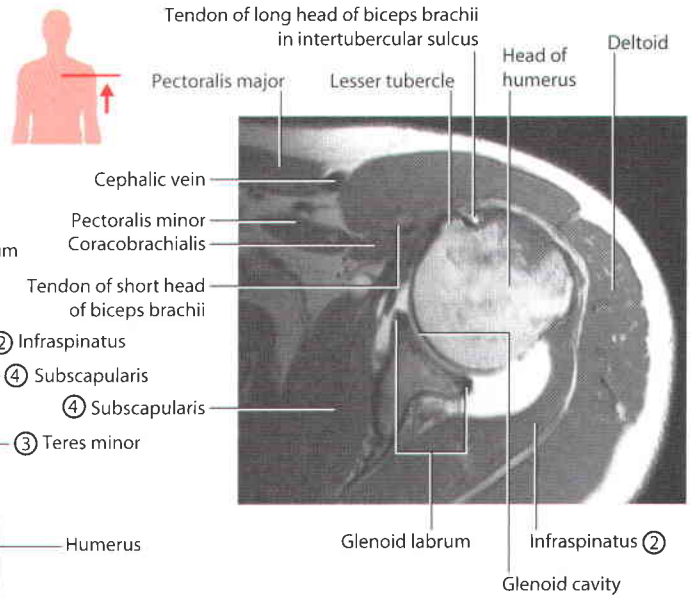

① Supraspinatus
② Infraspinatus
③ Teres minor
④ Subscapularis
Serratus anterior
Spine of scapula
① Supraspinatus
Acromioclavicular ligament
Acromion
② Infraspinatus
① Supraspinatus
Coraco-acromial ligament
④ Subscapularis
Coracoid process
Rib I
Clavicle
Sternum
Muscles of the scapula (superior view)
Rhomboid minor
① Supraspinatus
Clavicle
Acromion
Spine of scapula
② Infraspinatus
③ Teres minor
Rhomboid major
Teres major
Serratus anterior
Humerus
Muscles of the scapula (posterior view)
Coraco-acromial ligament
Tendon of long head of biceps brachii
① Supraspinatus
Coracoid process
Acromion
Deltoid
② Infraspinatus
Glenoid cavity
Glenoid labrum
③ Teres minor
Teres major
④ Subscapularis
Long head of triceps brachii
Latissimus dorsi
Muscles associated with the glenohumeral joint (lateral view)



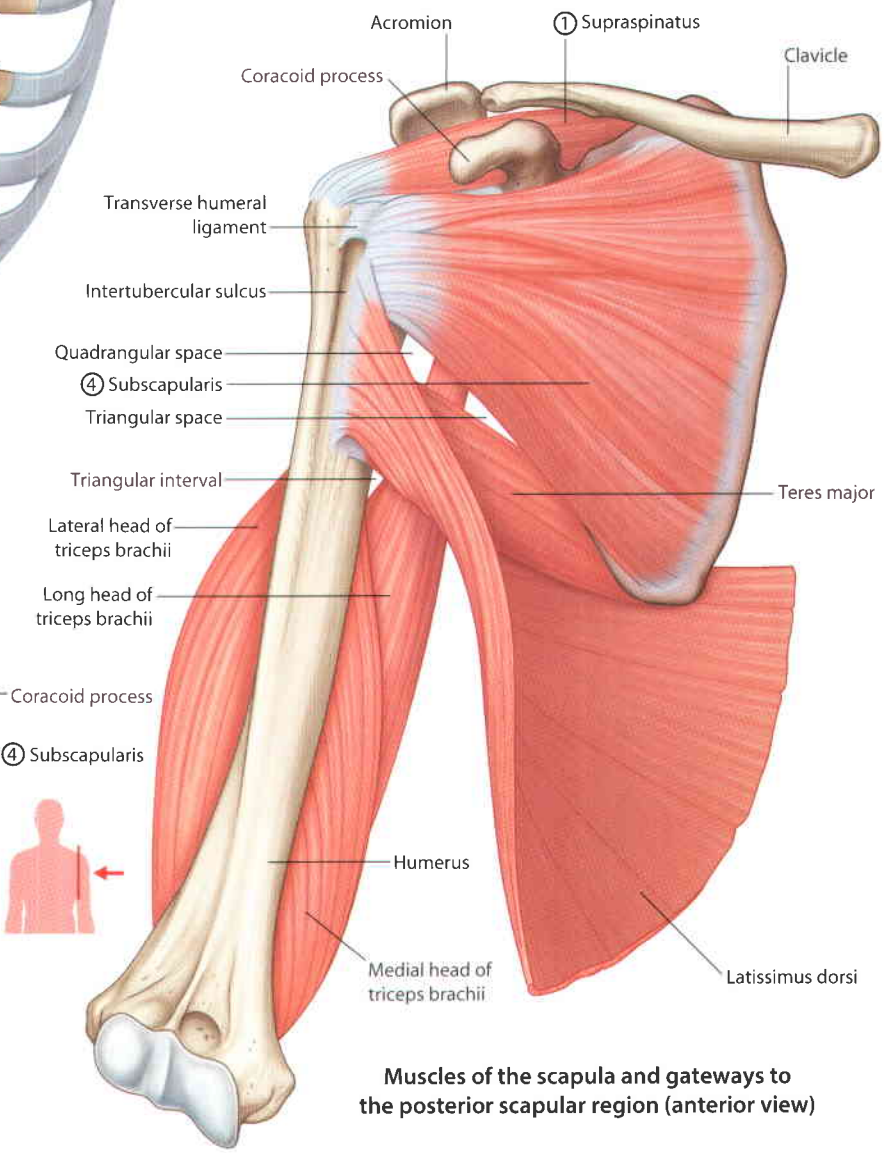
Muscles of the scapula (lateral view)



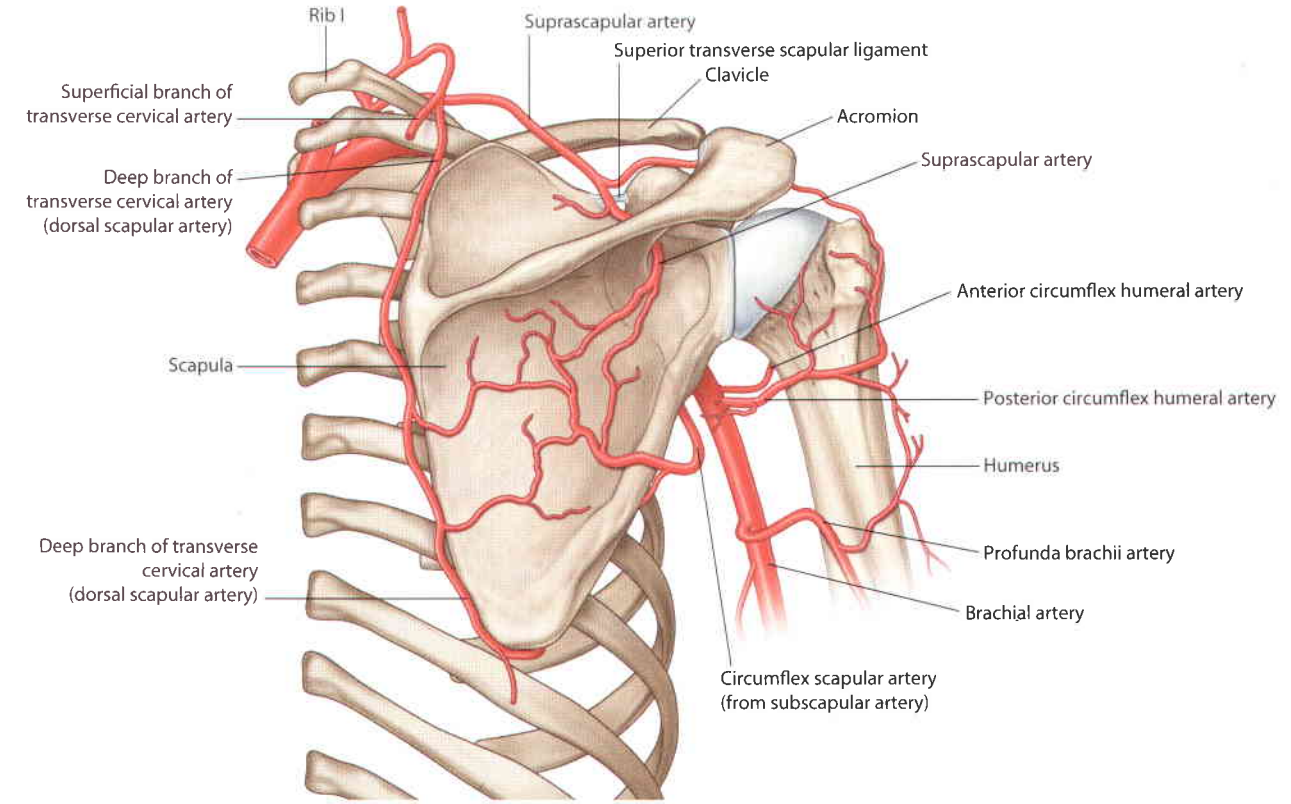
Muscles associated with the glenohumeral joint.
T1-weighted MR image in sagittal plane



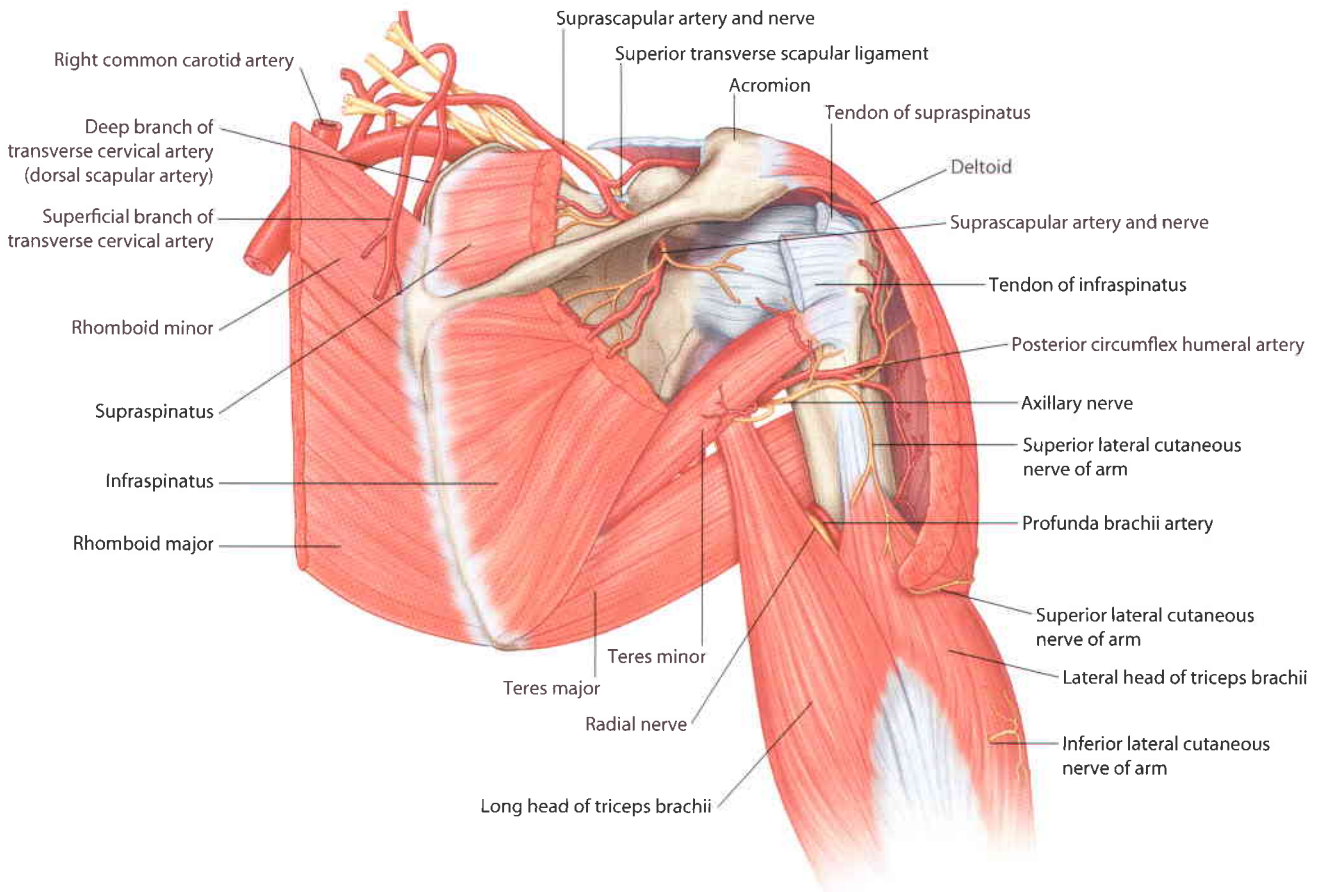
Muscles associated with the glenohumeral joint.
T1-weighted MR image in axial plane



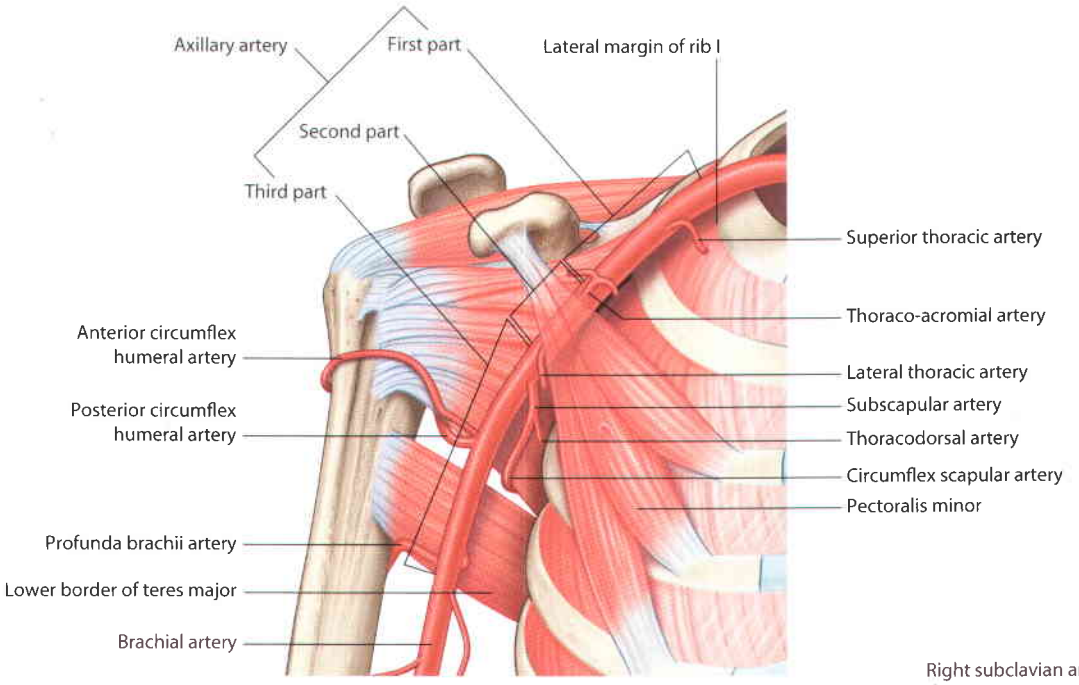
Muscles of the scapula and gateways to the posterior scapular region (anterior view)



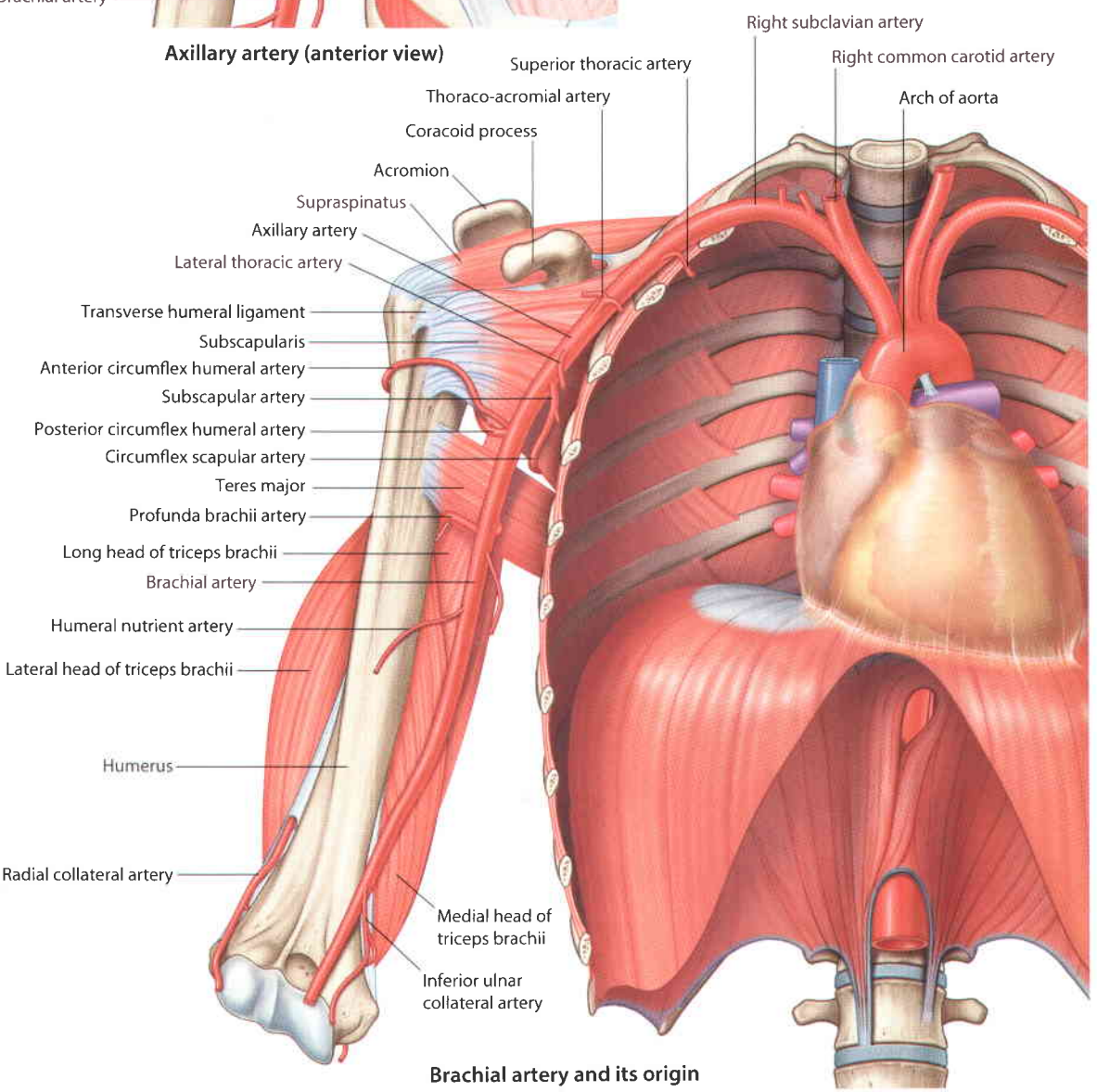
Arteries of the shoulder (posterior view)



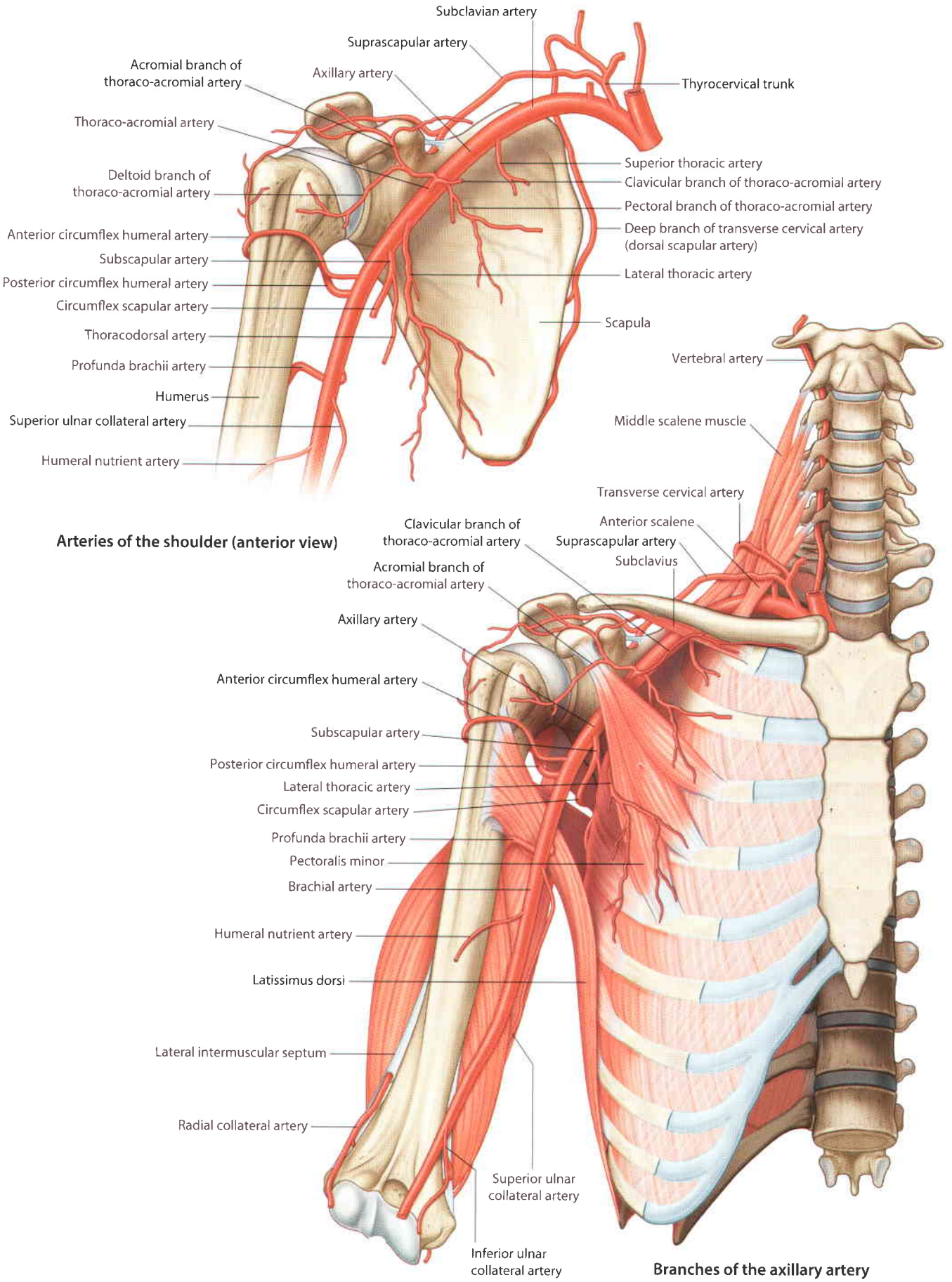
Deep arteries and nerves of the shoulder (posterior view)

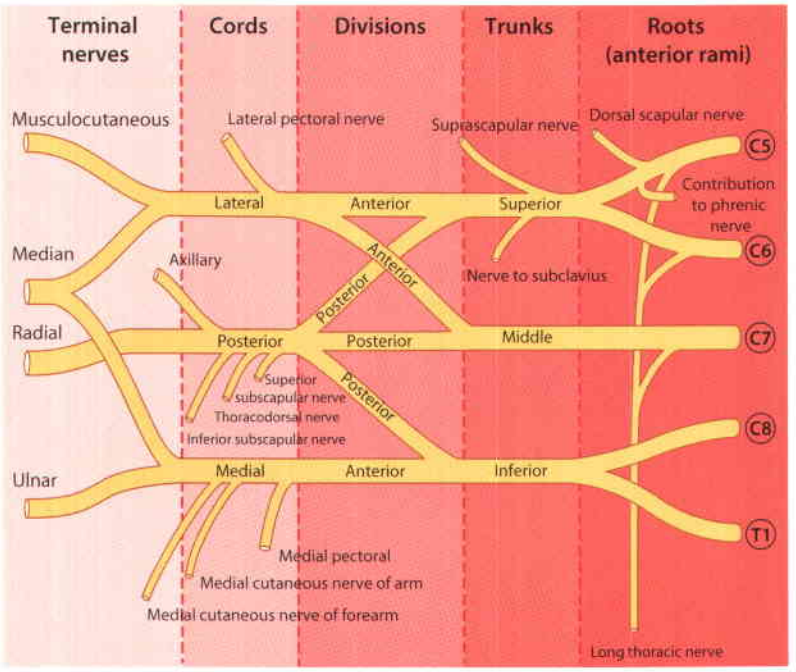


Axillary artery (anterior view)

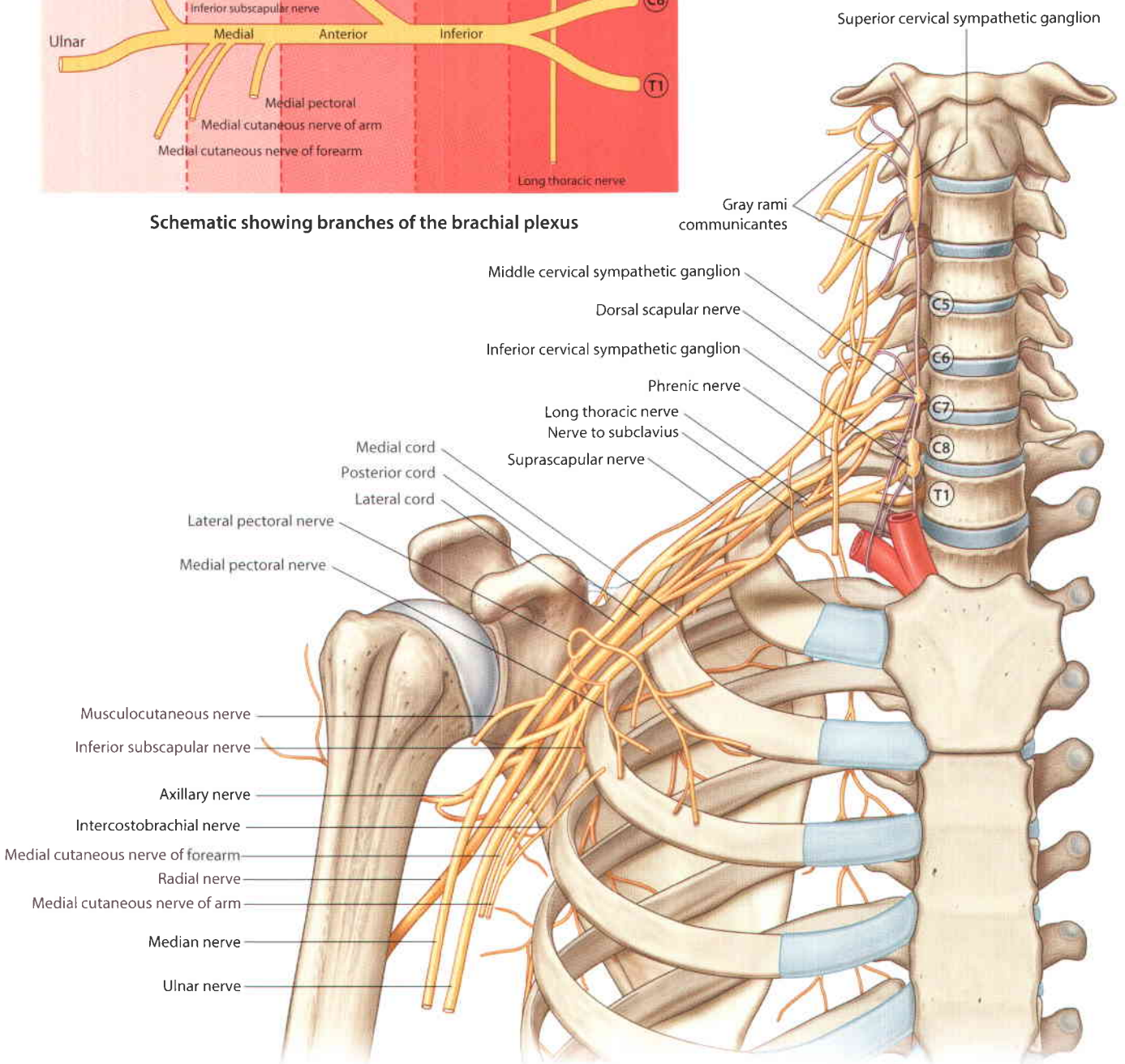


Brachial artery and its origin

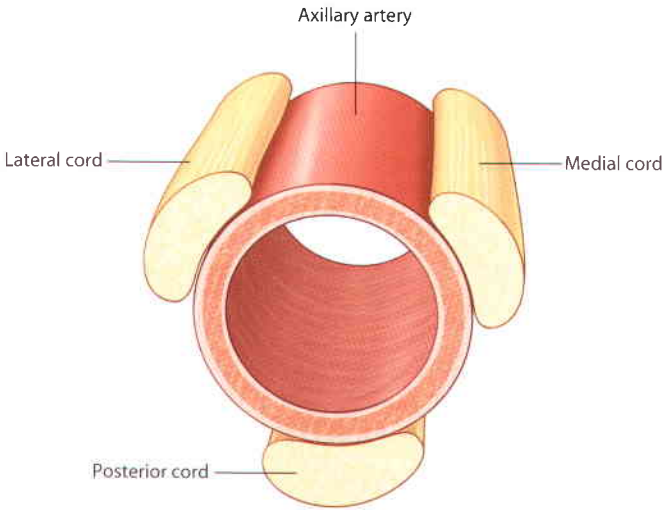

Subclavian artery
Suprascapular artery
Acromial branch of thoraco-acromial artery
Axillary artery
Thyrocervical trunk
Thoraco-acromial artery
Superior thoracic artery
Deltoid branch of thoraco-acromial artery
Clavicular branch of thoraco-acromial artery
Pectoral branch of thoraco-acromial artery
Anterior circumflex humeral artery
Deep branch of transverse cervical artery (dorsal scapular artery)
Subscapular artery
Lateral thoracic artery
Posterior circumflex humeral artery
Circumflex scapular artery
Scapula
Thoracodorsal artery
Profunda brachii artery
Humerus
Superior ulnar collateral artery
Humeral nutrient artery
Arteries of the shoulder (anterior view)
Vertebral artery
Middle scalene muscle
Transverse cervical artery
Anterior scalene
Clavicular branch of thoraco-acromial artery
Suprascapular artery
Subclavius
Acromial branch of thoraco-acromial artery
Axillary artery
Anterior circumflex humeral artery
Subscapular artery
Posterior circumflex humeral artery
Lateral thoracic artery
Circumflex scapular artery
Profunda brachii artery
Pectoralis minor
Brachial artery
Humeral nutrient artery
Latissimus dorsi
Lateral intermuscular septum
Radial collateral artery
Superior ulnar collateral artery
Inferior ulnar collateral artery
Branches of the axillary artery



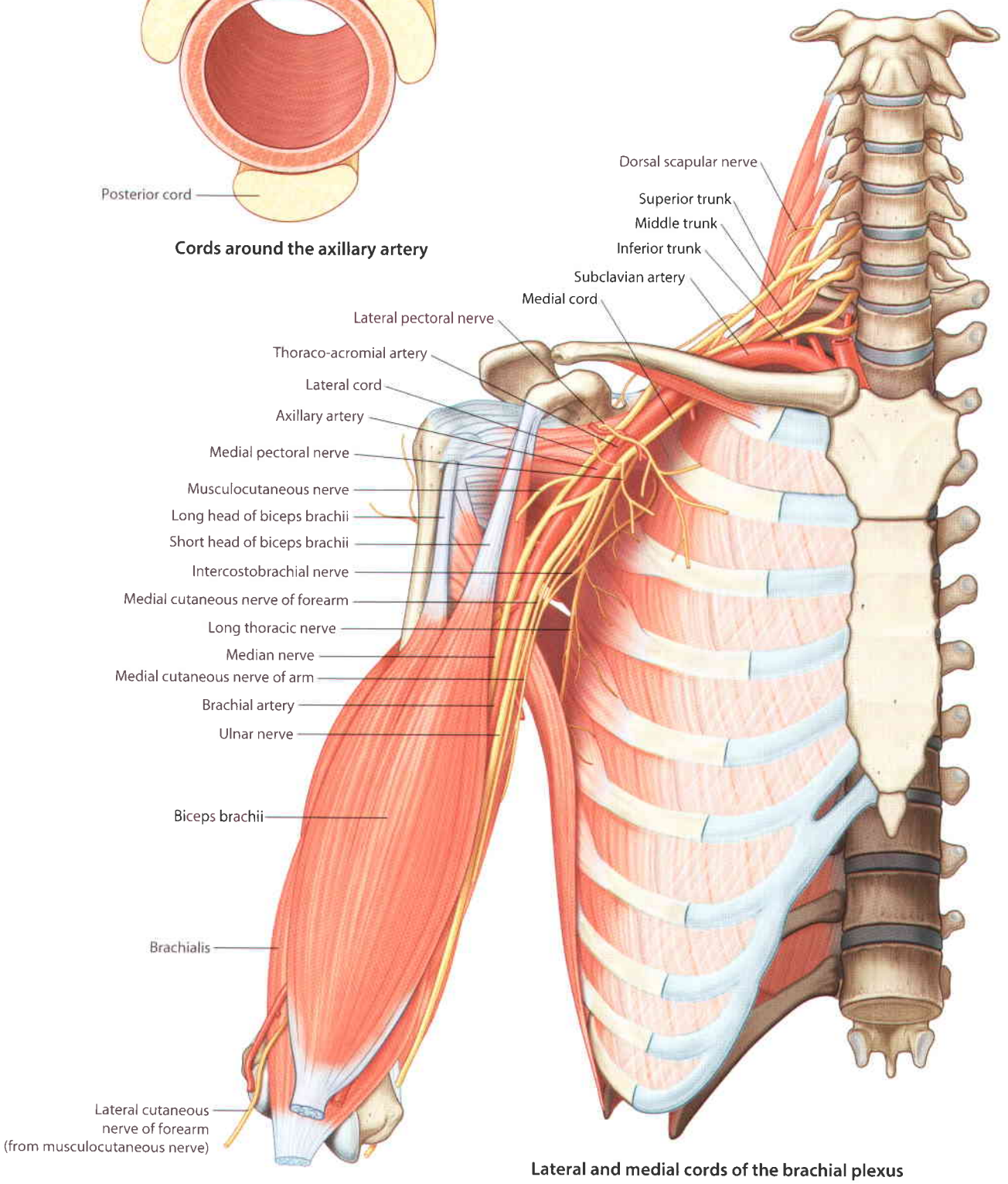
Schematic showing branches of the brachial plexus



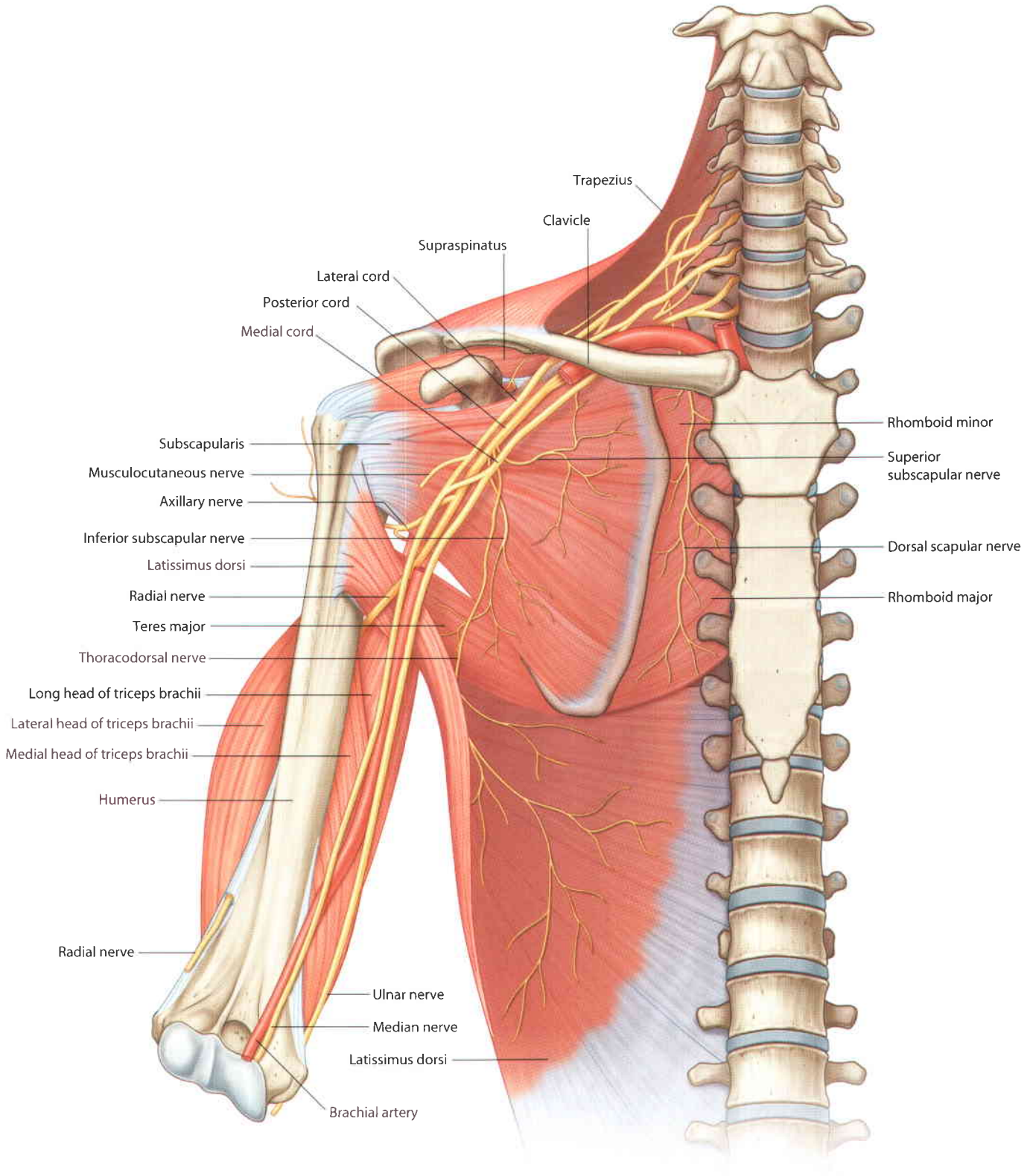
Brachial plexus



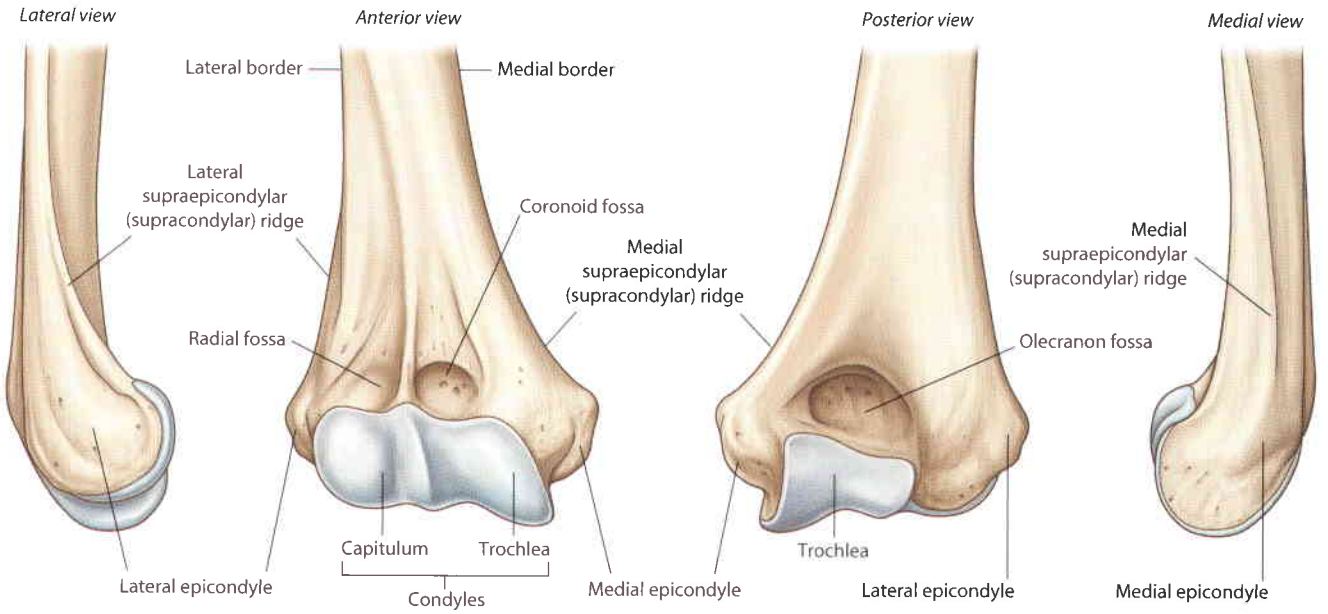
Cords around the axillary artery



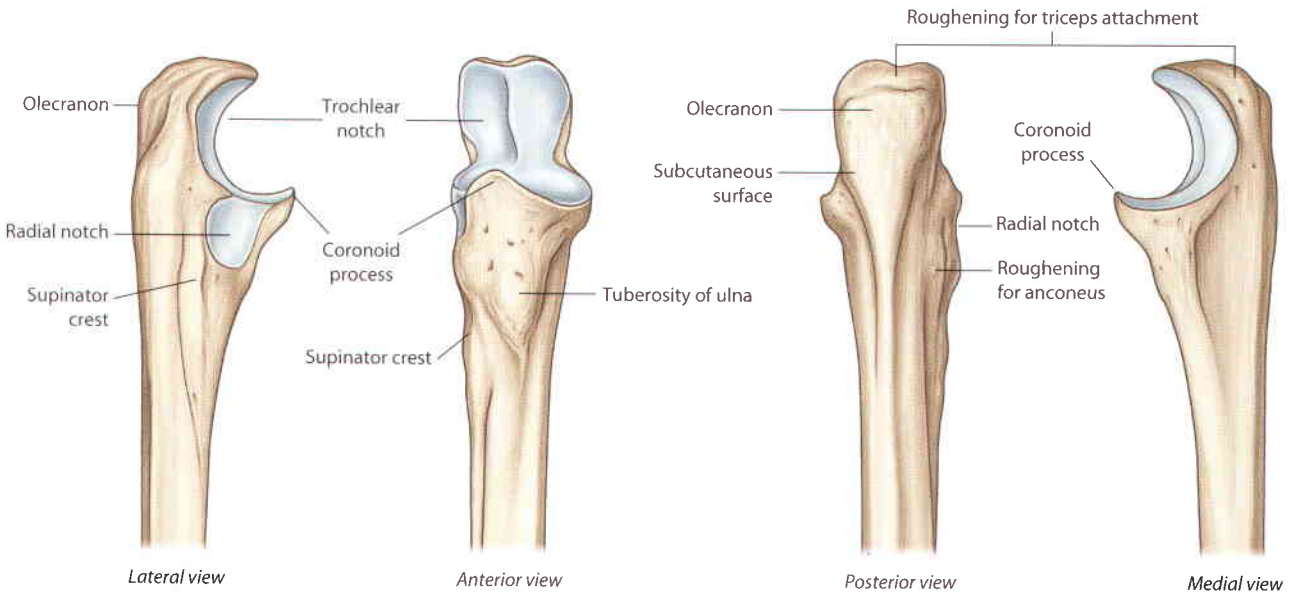
Lateral and medial cords of the brachial plexus



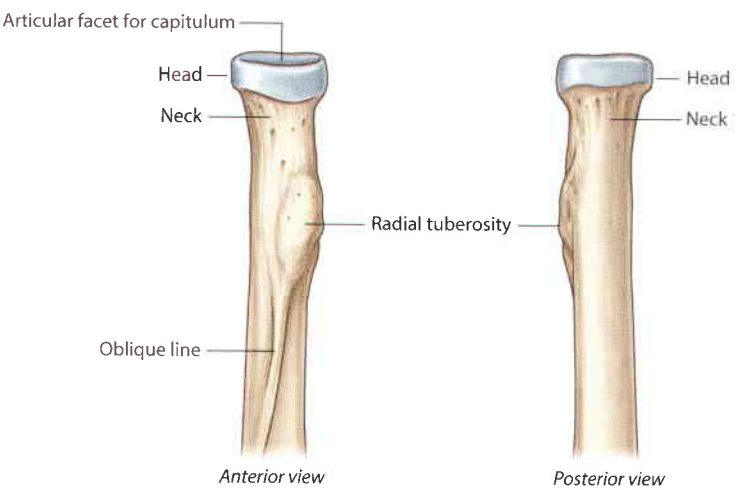
Posterior cord of the brachial plexus (ribs and associated muscles removed)



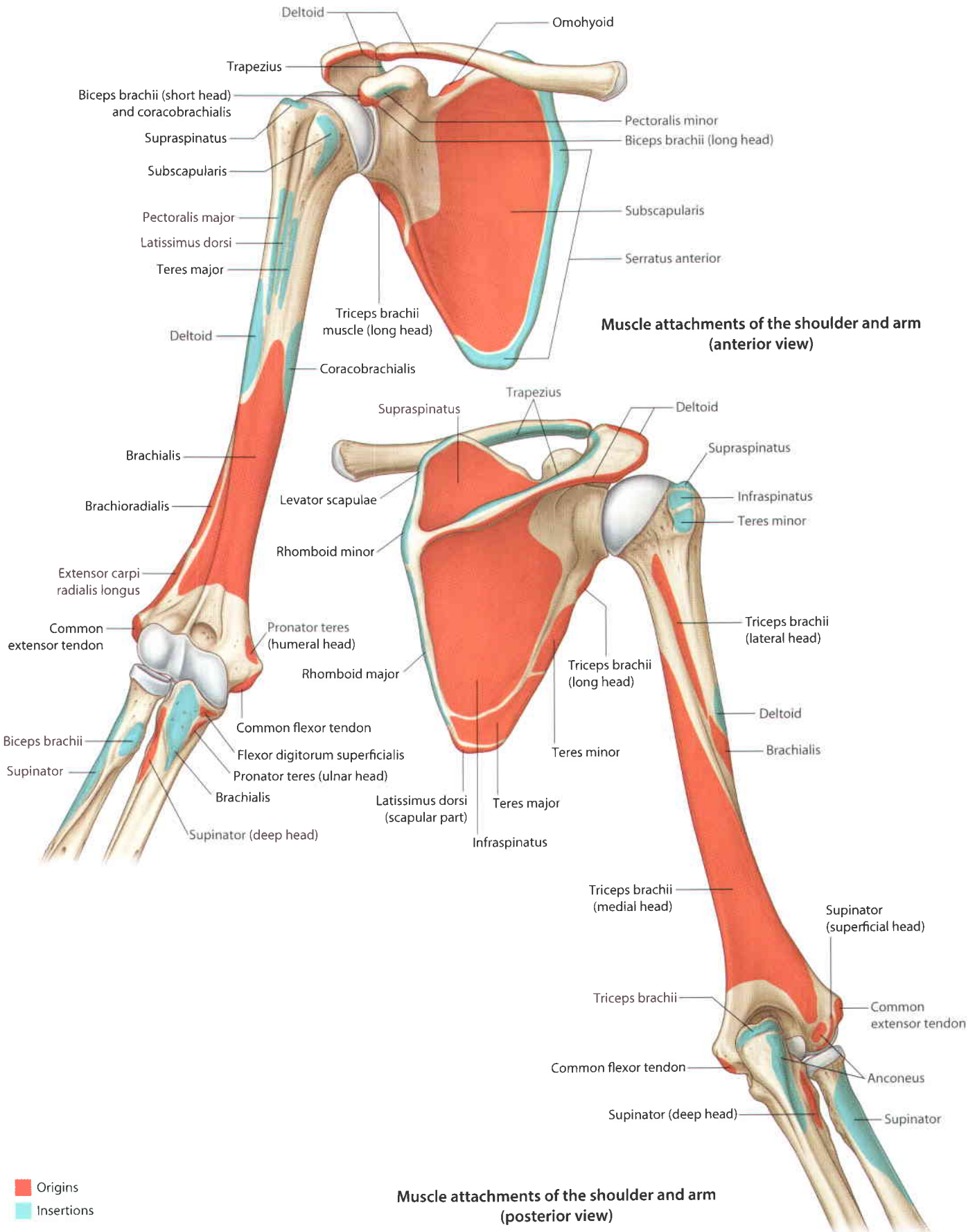
Distal end of humerus



Proximal end of ulna

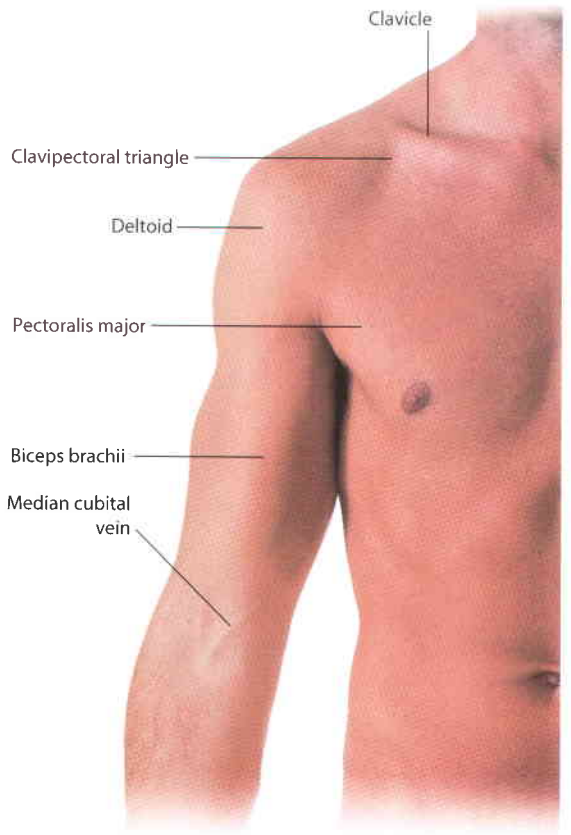


Proximal end of radius

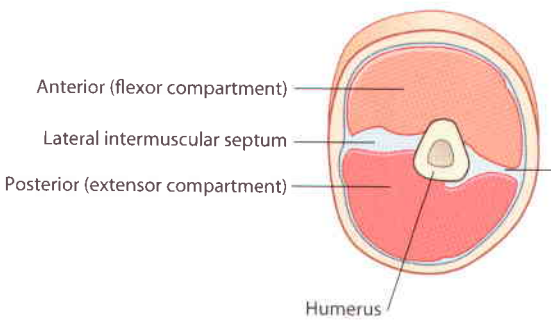


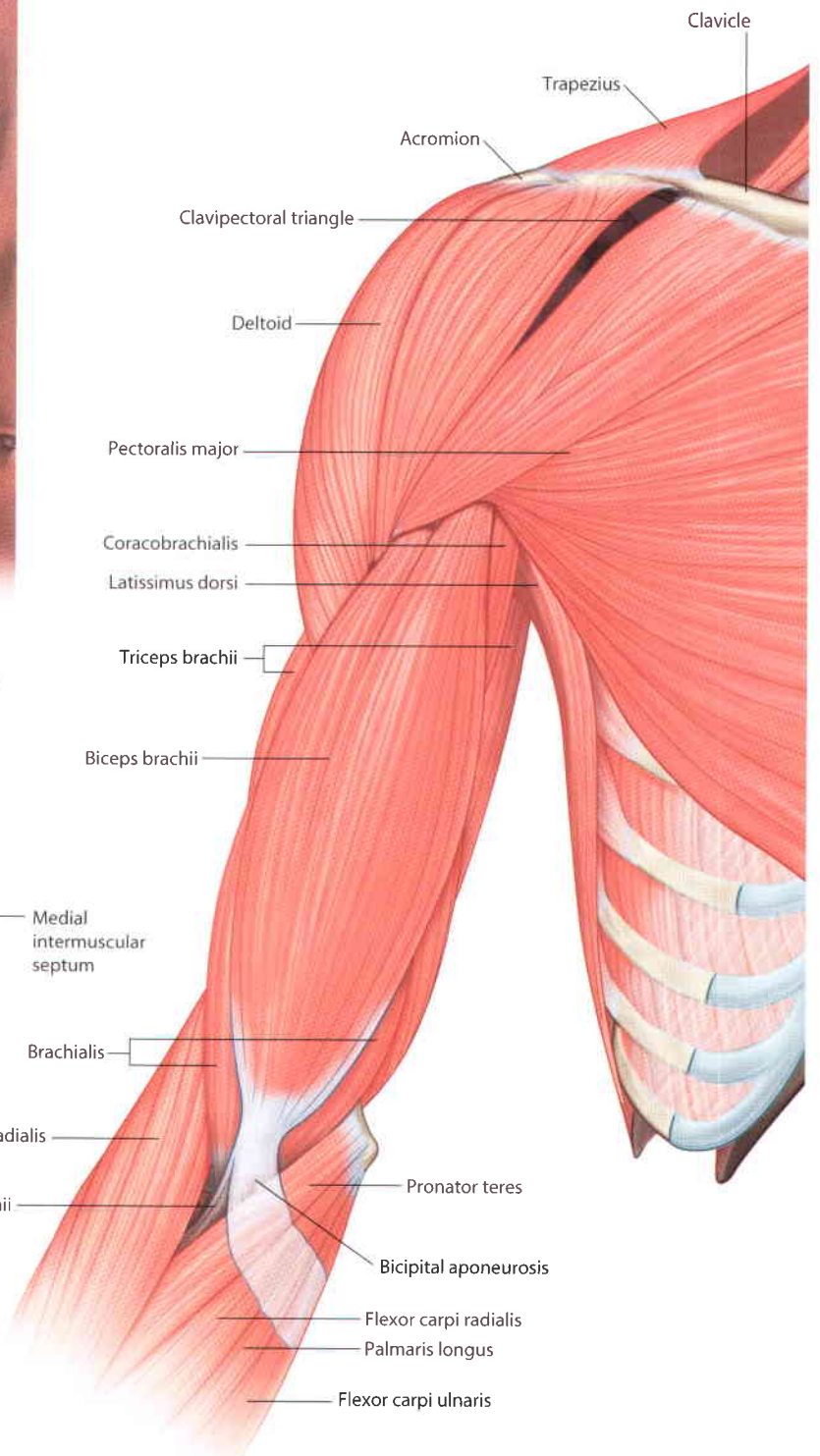
Muscle attachments of the shoulder and arm (anterior view)

Muscle attachments of the shoulder and arm (posterior view)

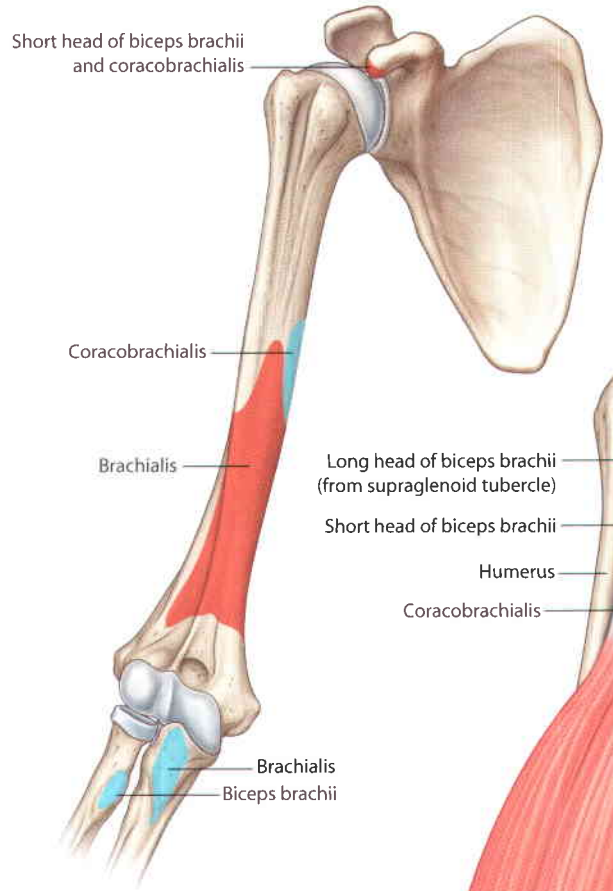


Surface anatomy of anterior compartment

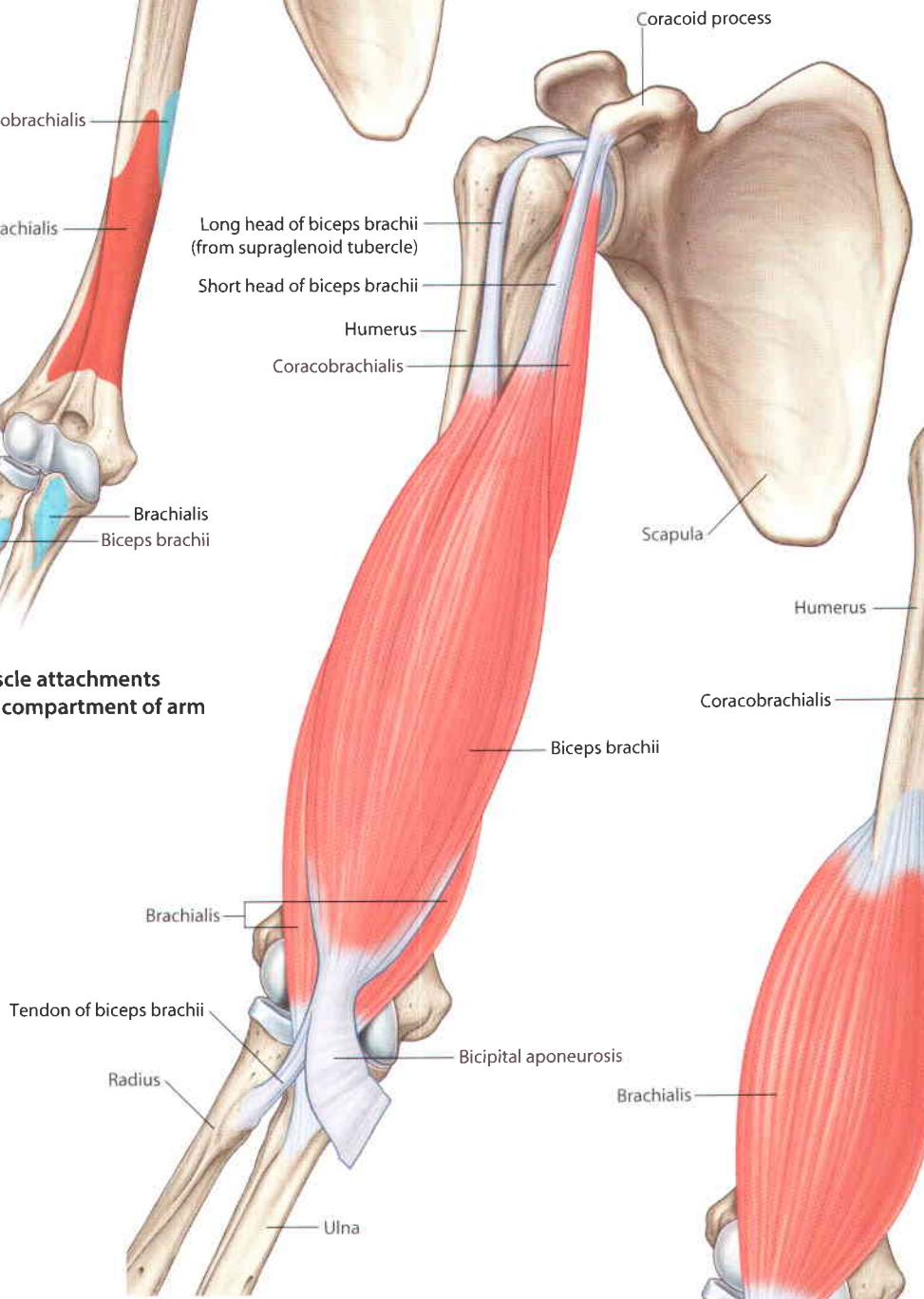




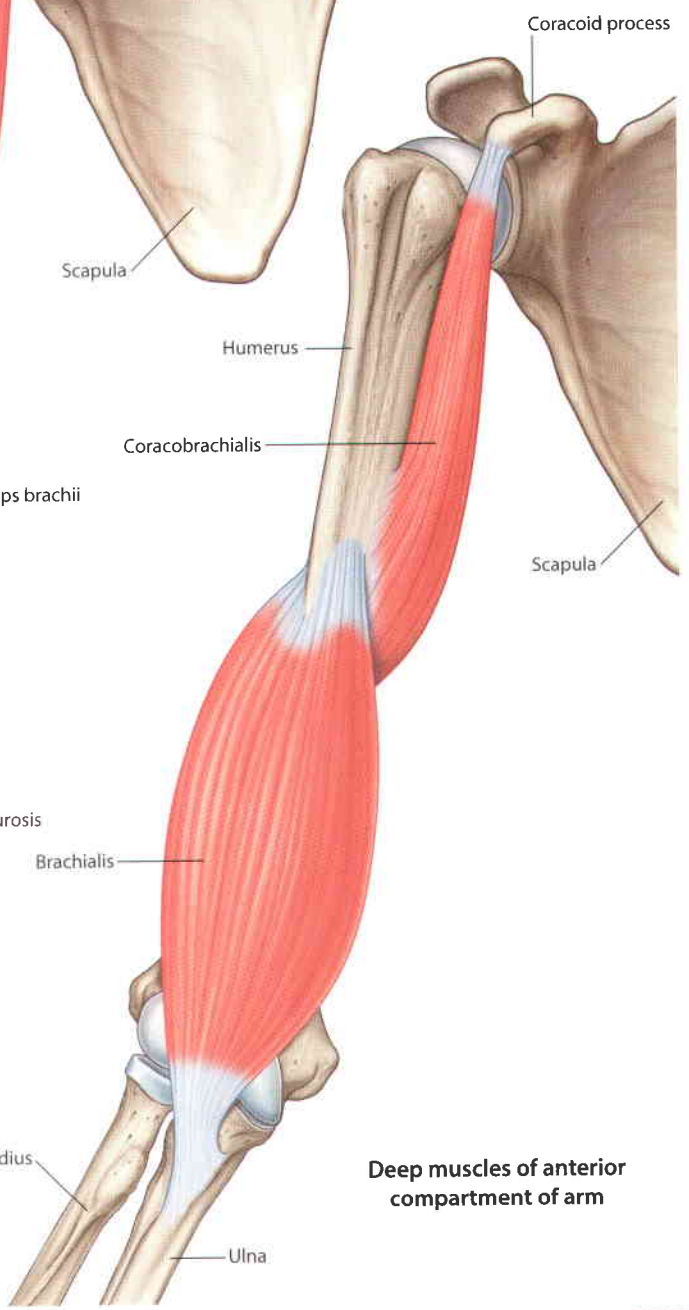
Muscles of anterior compartment of arm



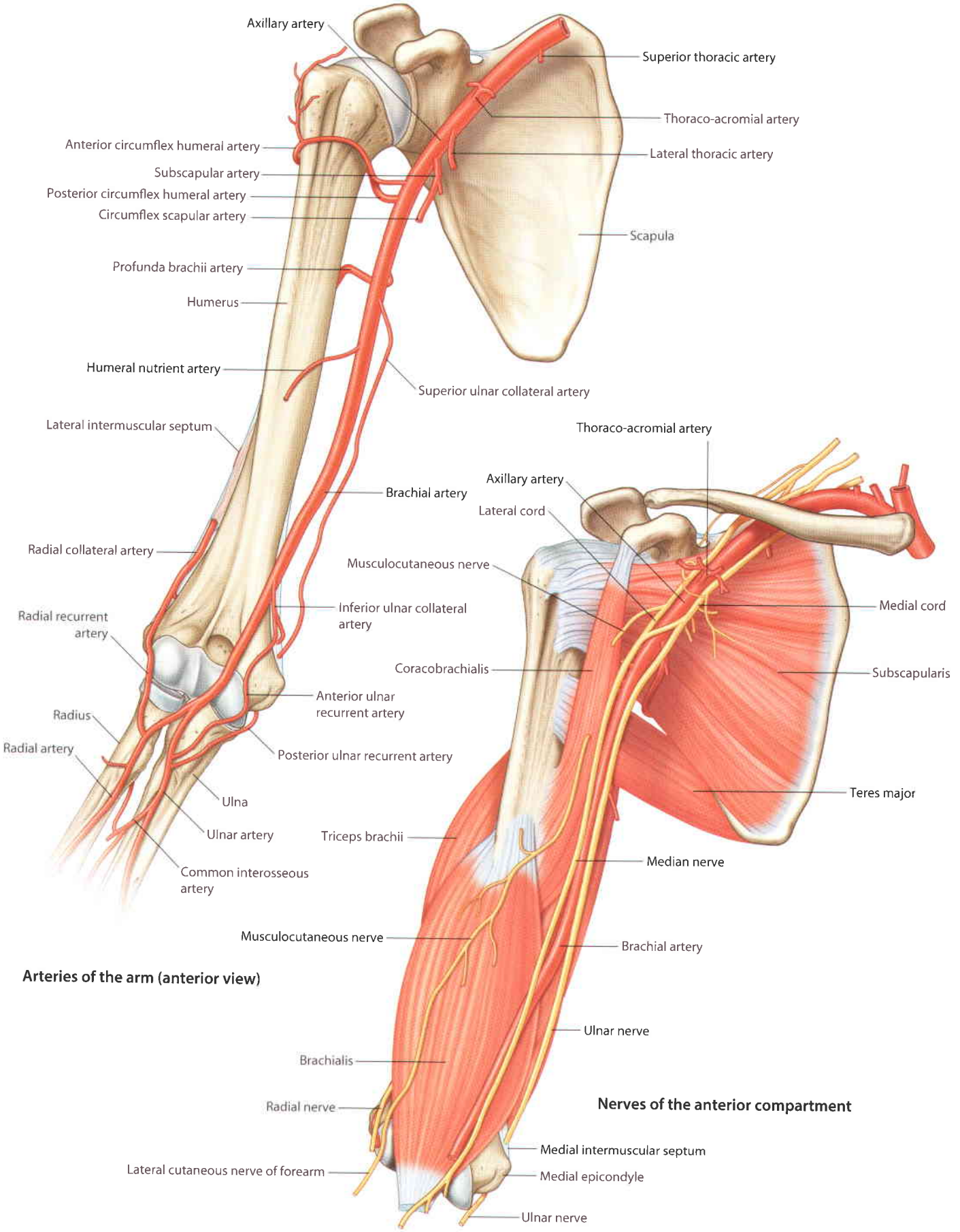
Muscle attachments anterior compartment of arm

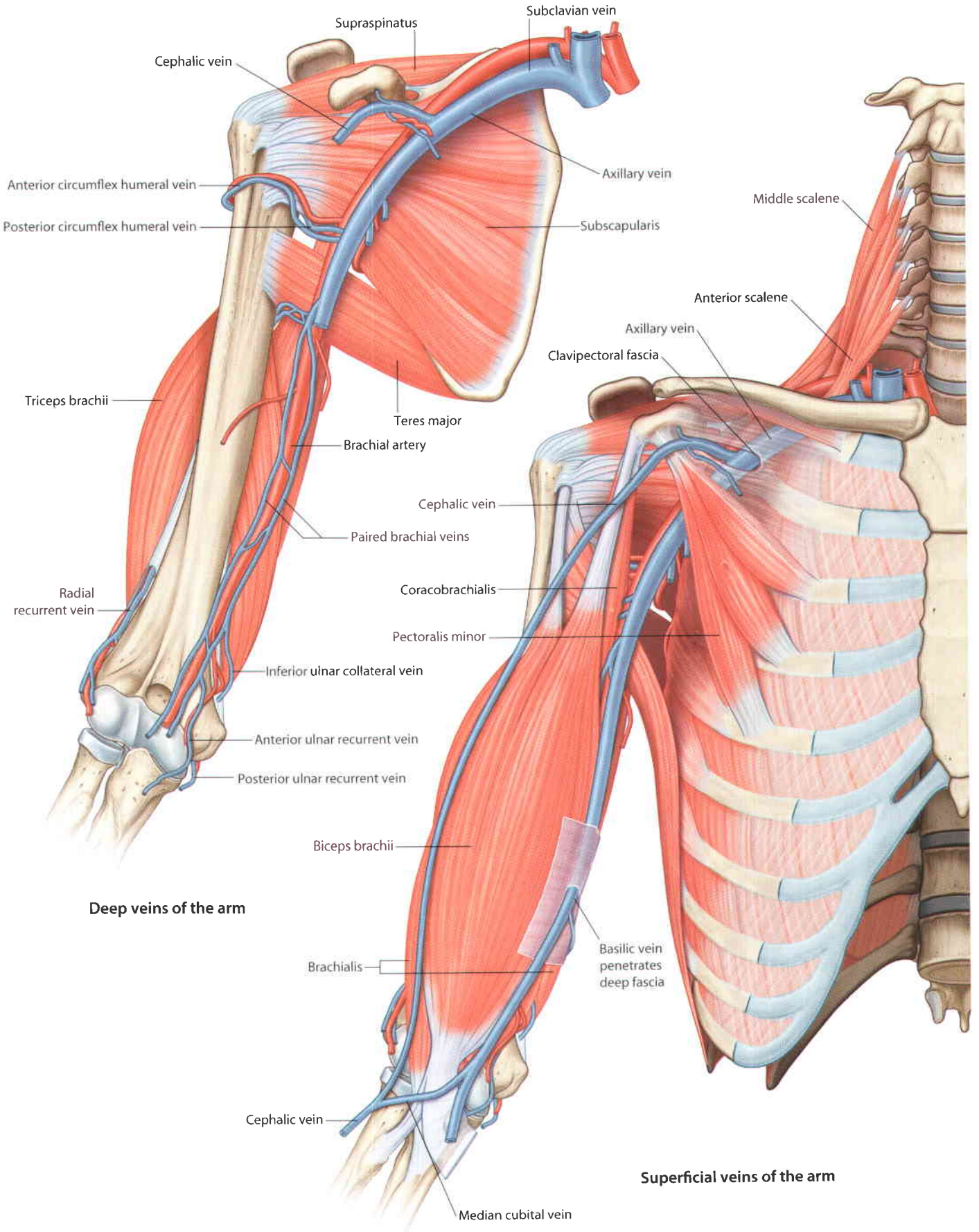


Biceps brachii muscle



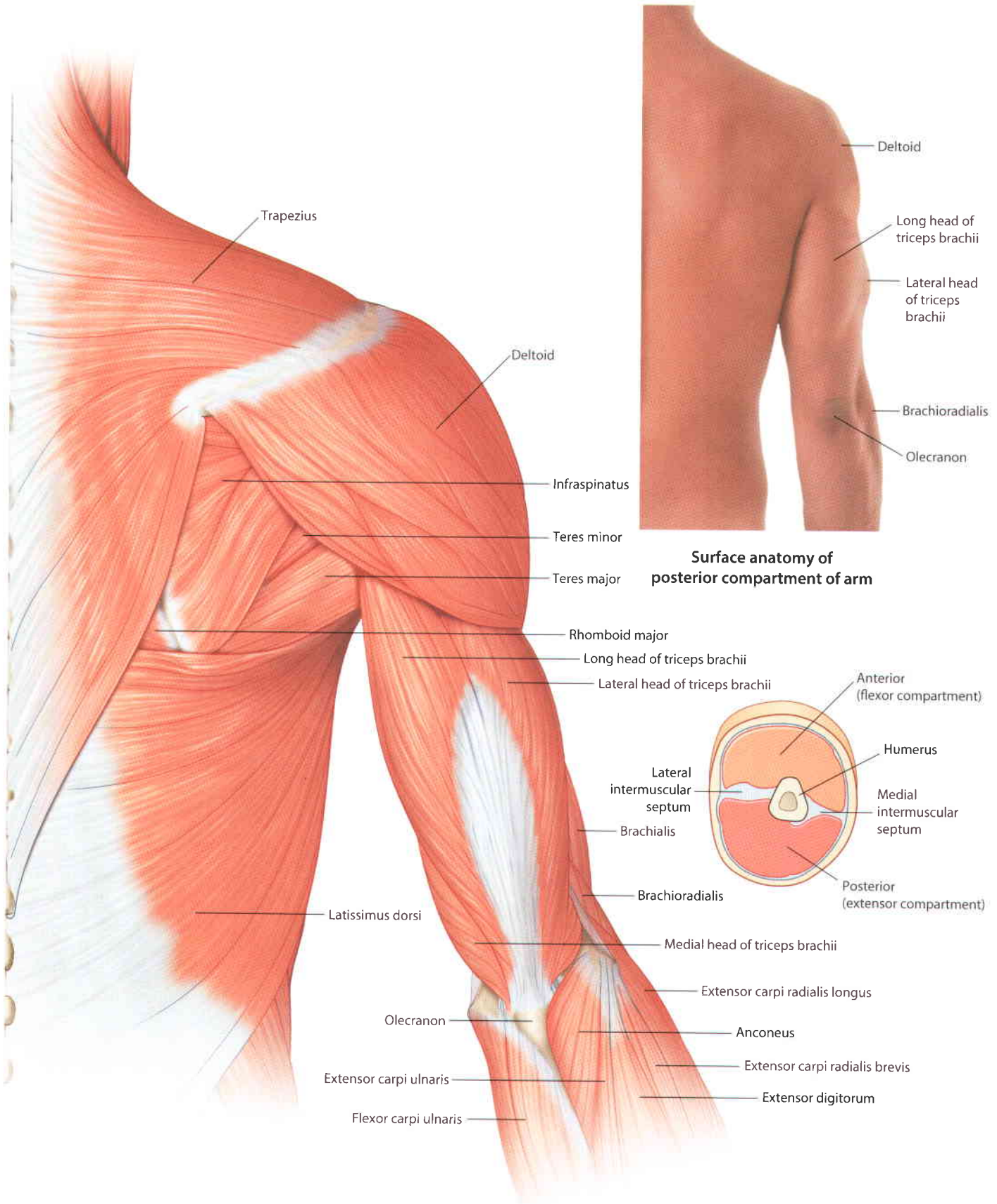
Deep muscles of anterior compartment of arm


Axillary artery
Superior thoracic artery
Thoraco-acromial artery
Anterior circumflex humeral artery
Lateral thoracic artery
Subscapular artery
Posterior circumflex humeral artery
Circumflex scapular artery
Scapula
Profunda brachii artery
Humerus
Humeral nutrient artery
Superior ulnar collateral artery
Lateral intermuscular septum
Brachial artery
Radial collateral artery
Inferior ulnar collateral artery
Radial recurrent artery
Anterior ulnar recurrent artery
Radius
Radial artery
Posterior ulnar recurrent artery
Ulna
Ulnar artery
Common interosseous artery
Arteries of the arm (anterior view)
Thoraco-acromial artery
Axillary artery
Lateral cord
Musculocutaneous nerve
Medial cord
Coracobrachialis
Subscapularis
Teres major
Triceps brachii
Median nerve
Musculocutaneous nerve
Brachial artery
Ulnar nerve
Brachialis
Radial nerve
Nerves of the anterior compartment
Medial intermuscular septum
Lateral cutaneous nerve of forearm
Medial epicondyle
Ulnar nerve



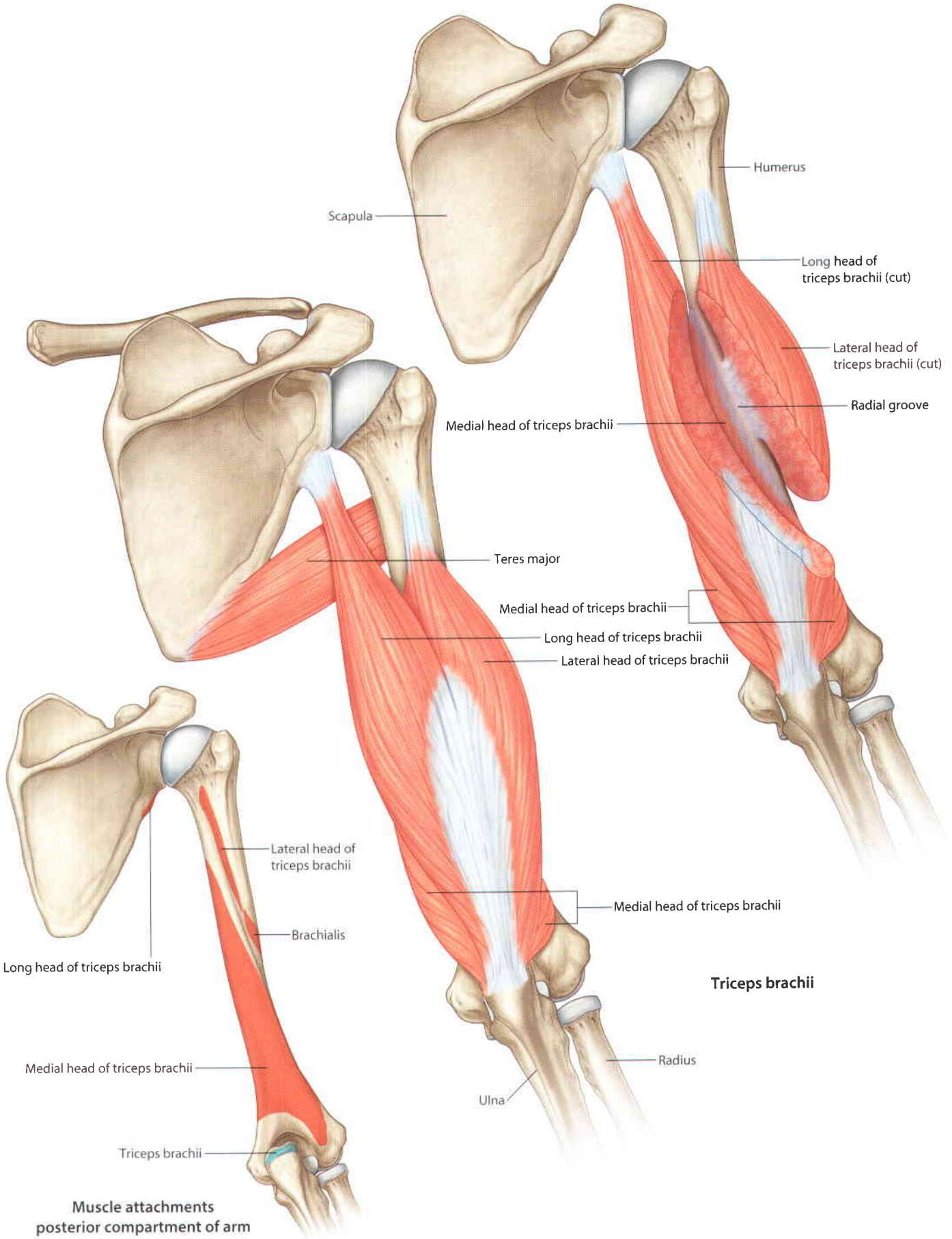
Deep veins of the arm

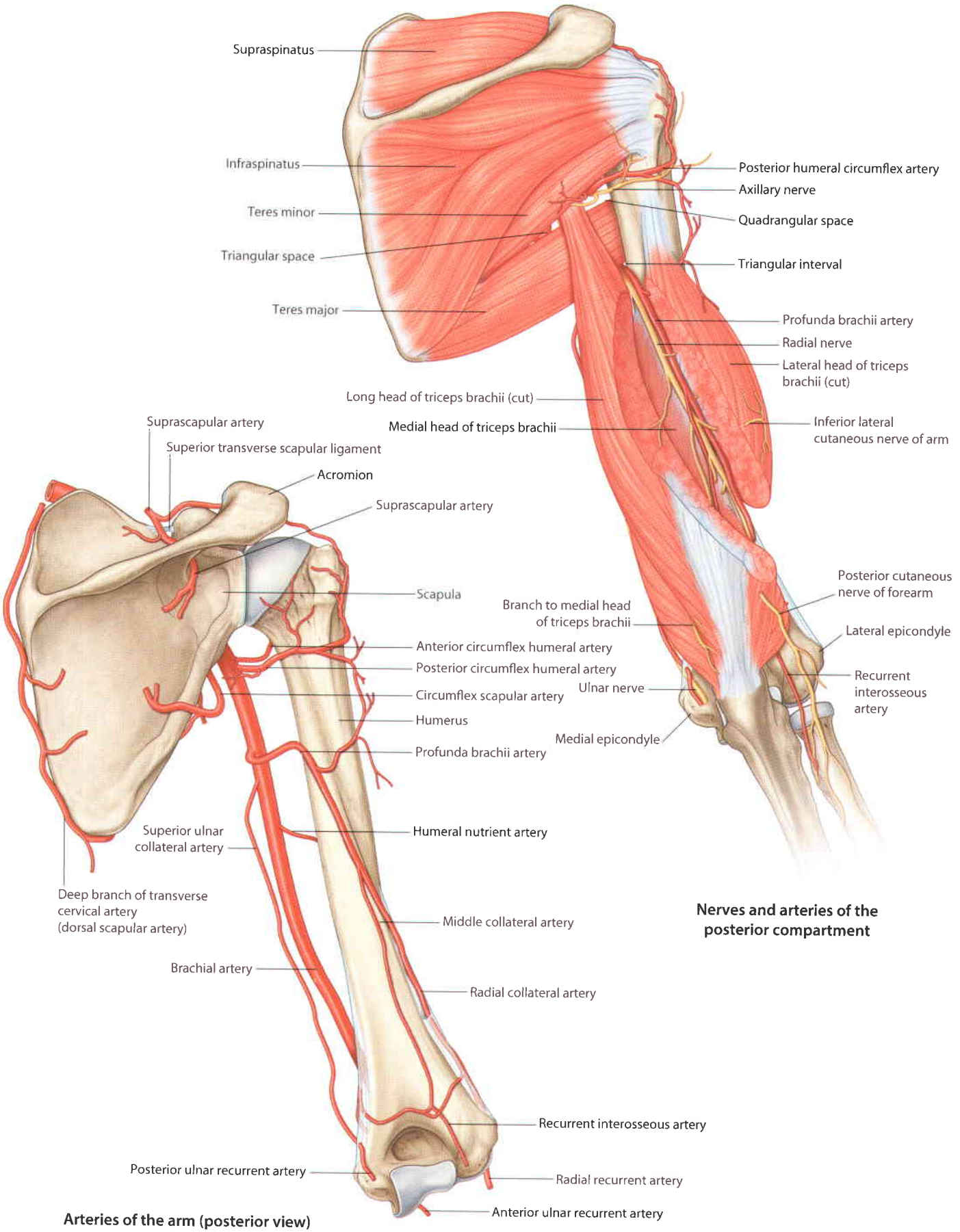
Superficial veins of the arm



Surface anatomy of posterior compartment of arm

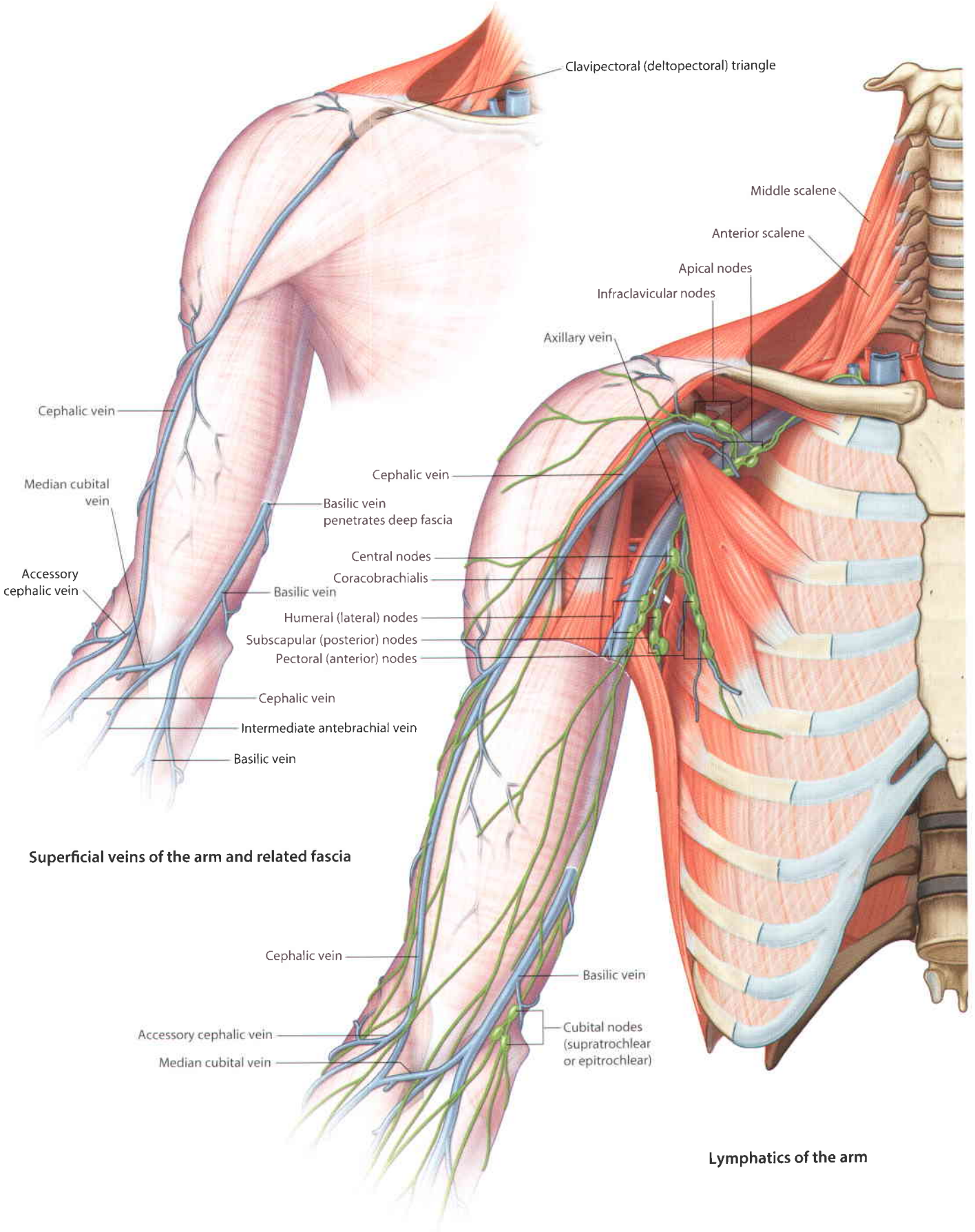
Muscles of posterior compartment of arm


Humerus
Scapula
Long head of triceps brachii (cut)
Lateral head of triceps brachii (cut)
Radial groove
Medial head of triceps brachii
Teres major
Medial head of triceps brachii
Long head of triceps brachii
Lateral head of triceps brachii
Medial head of triceps brachii
Triceps brachii
Radius
Ulna
Lateral head of triceps brachii
Brachialis
Long head of triceps brachii
Medial head of triceps brachii
Triceps brachii
Muscle attachments posterior compartment of arm



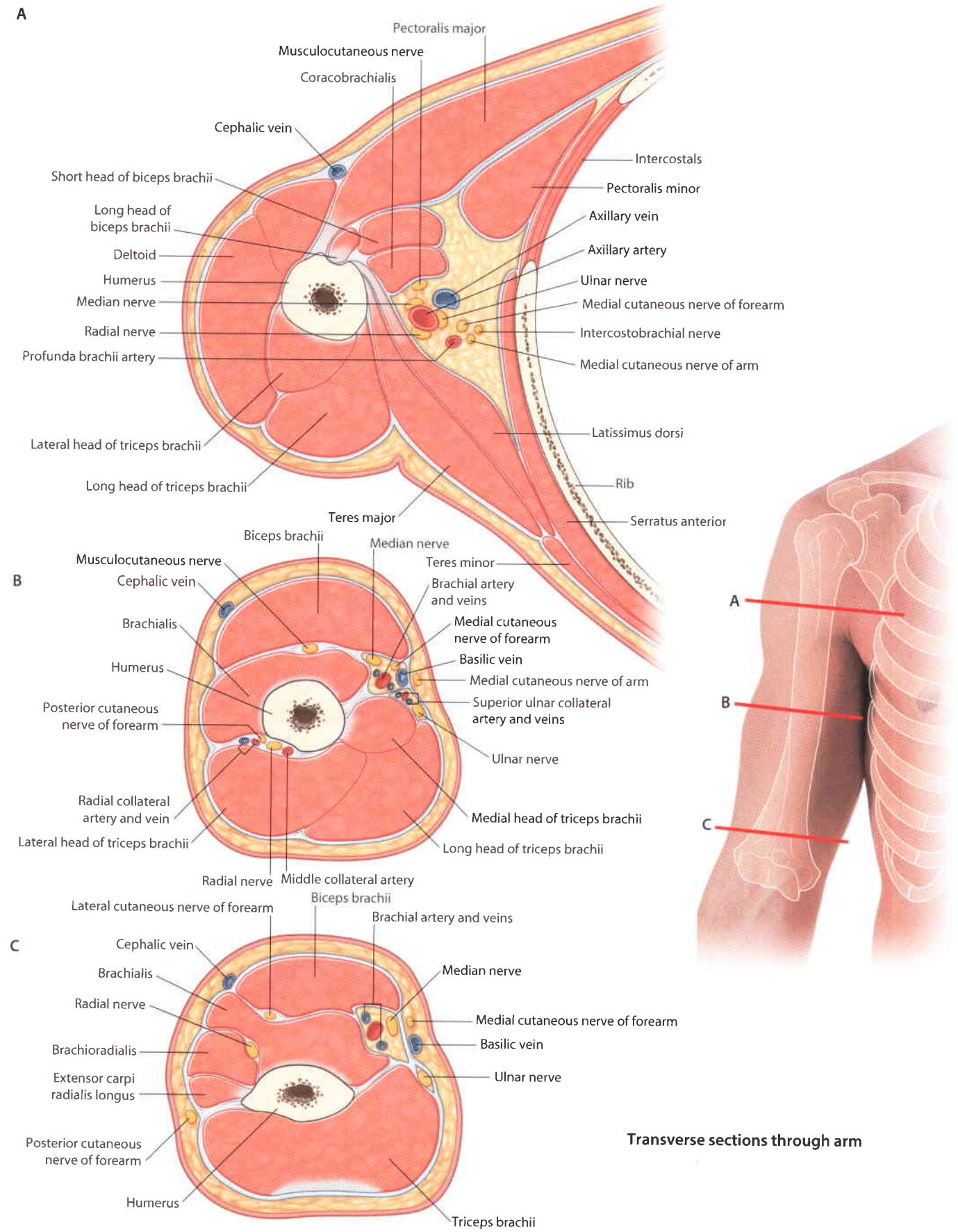
Arteries of the arm (posterior view)

Nerves and arteries of the posterior compartment

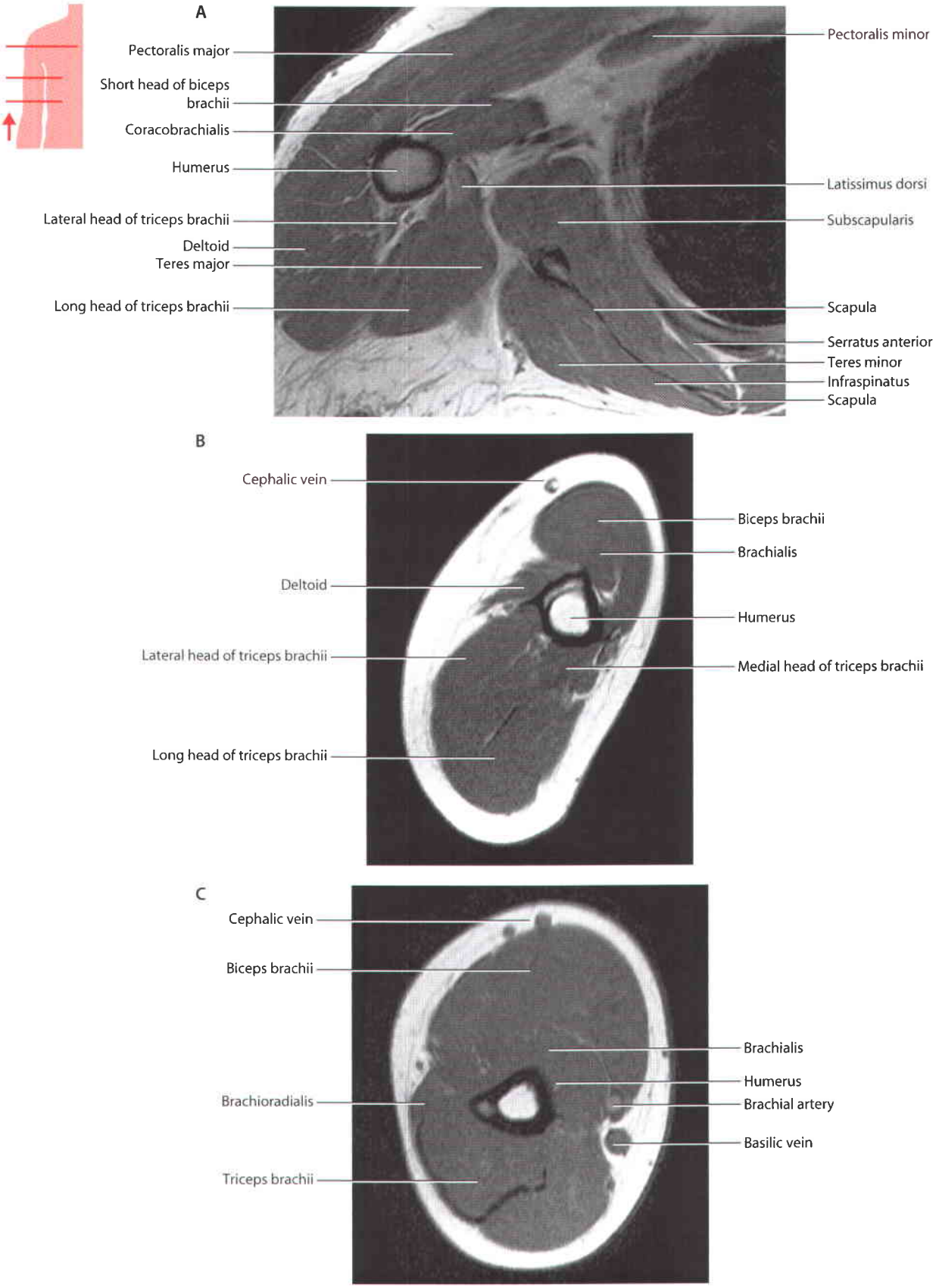


Superficial veins of the arm and related fascia

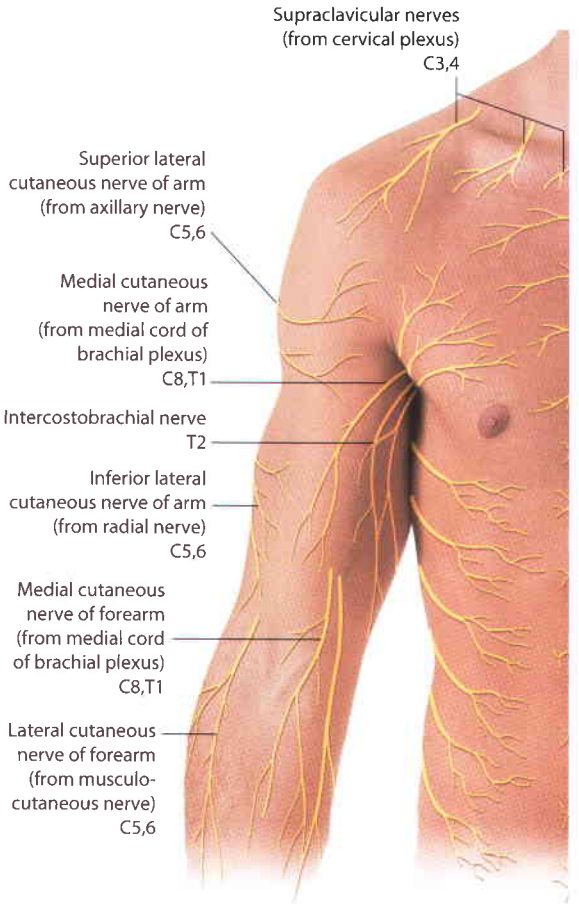
Lymphatics of the arm



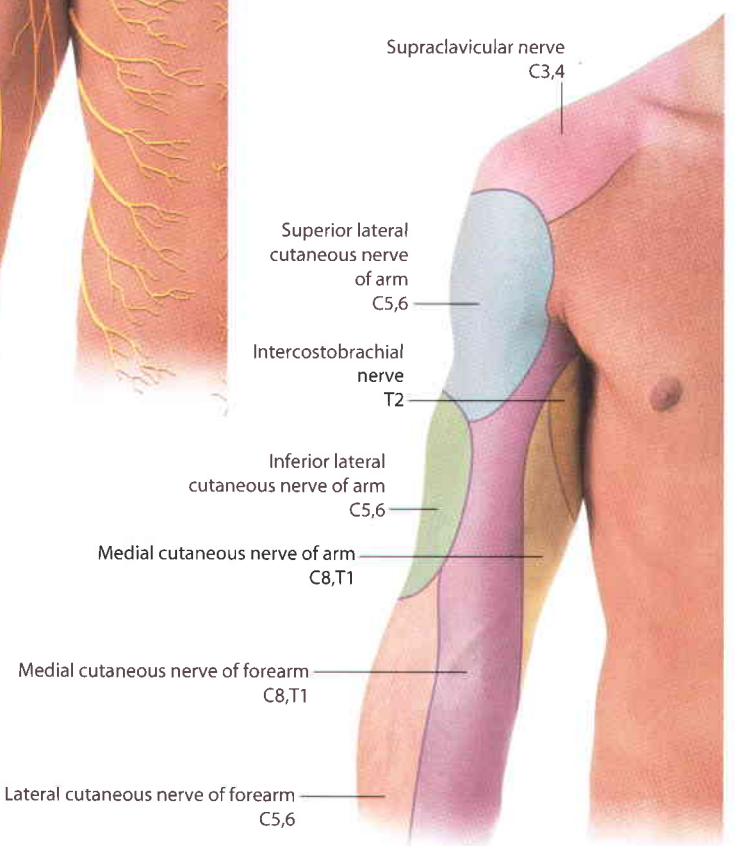
Transverse sections through arm



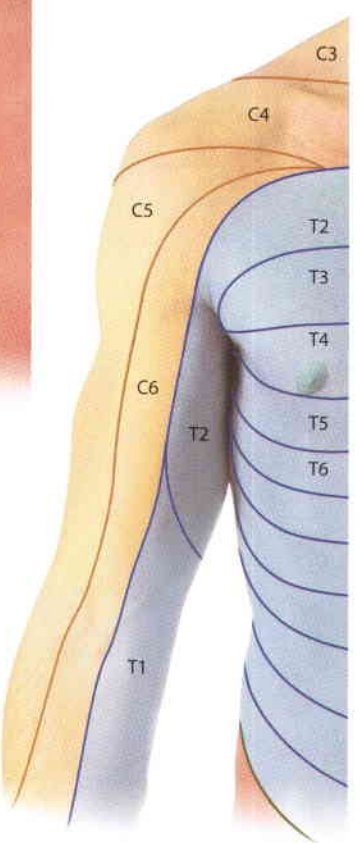
Transverse/axial sections through the arm.
A. Proximal/upper arm. B. Middle arm. C. Distal/lower arm.
T1-weighted MR image in axial plane



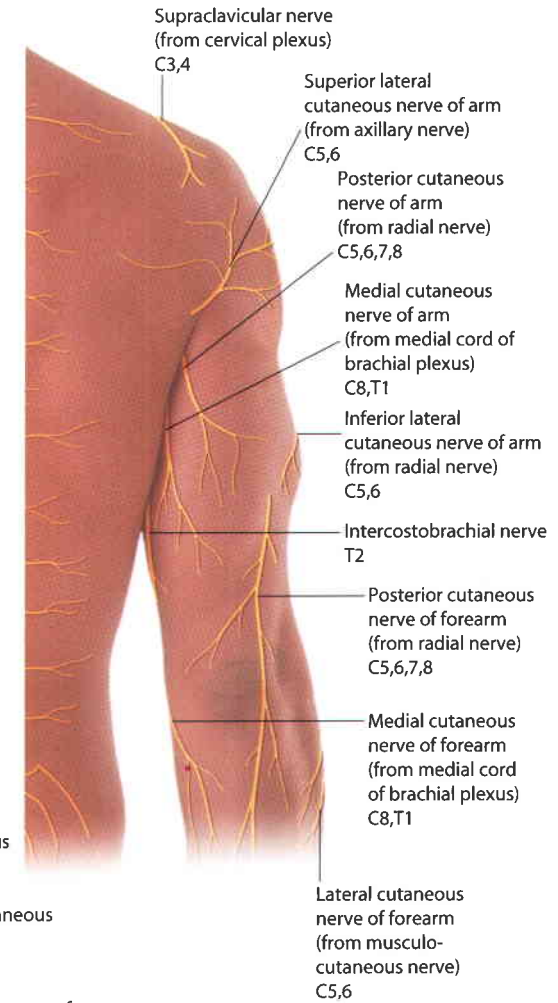
Cutaneous nerves of the arm



Areas of distribution of the cutaneous nerves of the arm

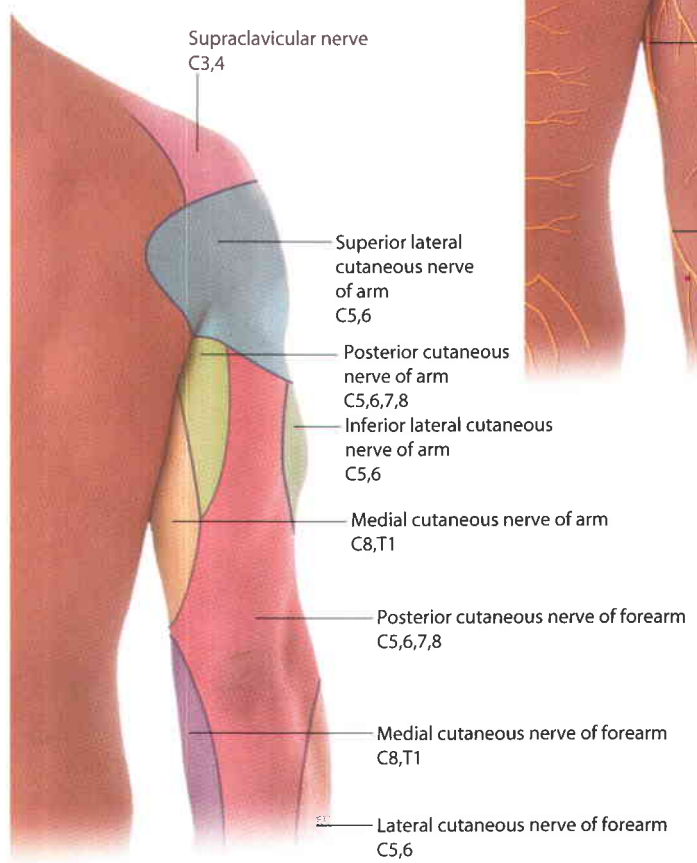


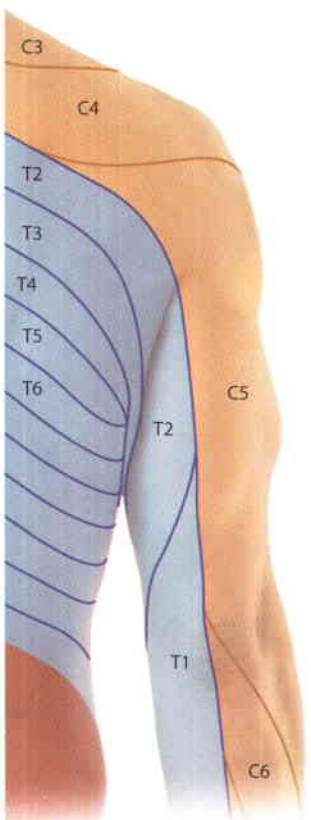
Dermatomes of the arm



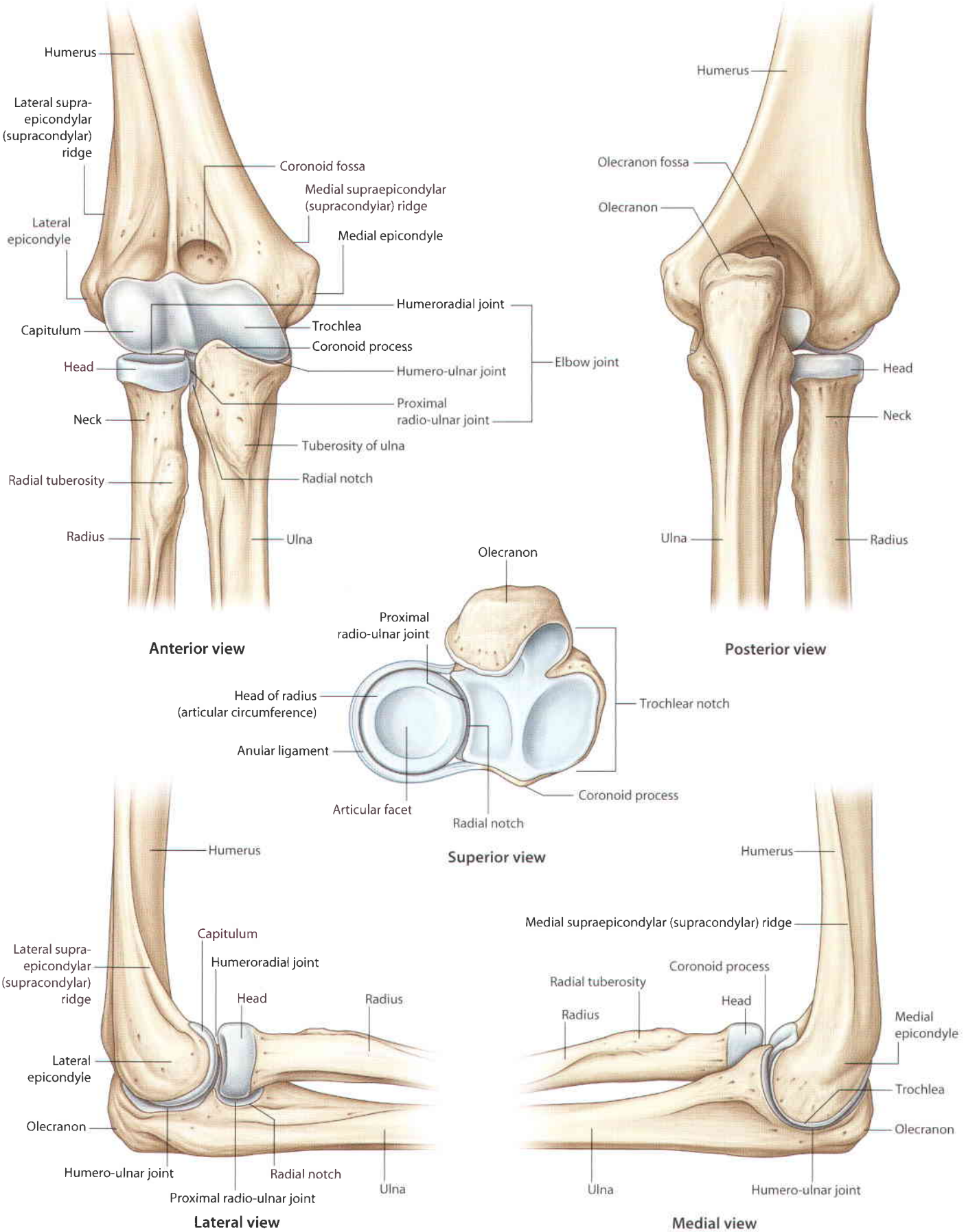
Cutaneous nerves of the arm

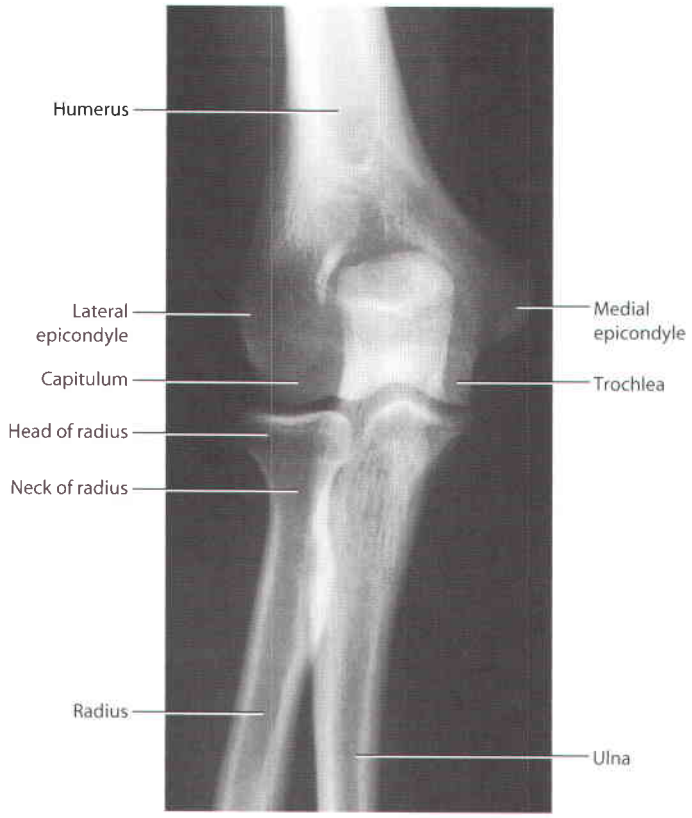
Areas of distribution of the cutaneous nerves of the arm



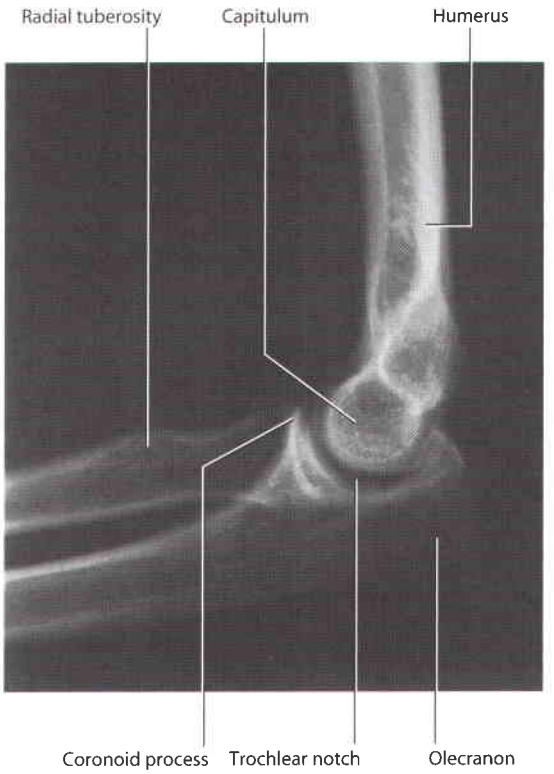


Dermatomes of the arm

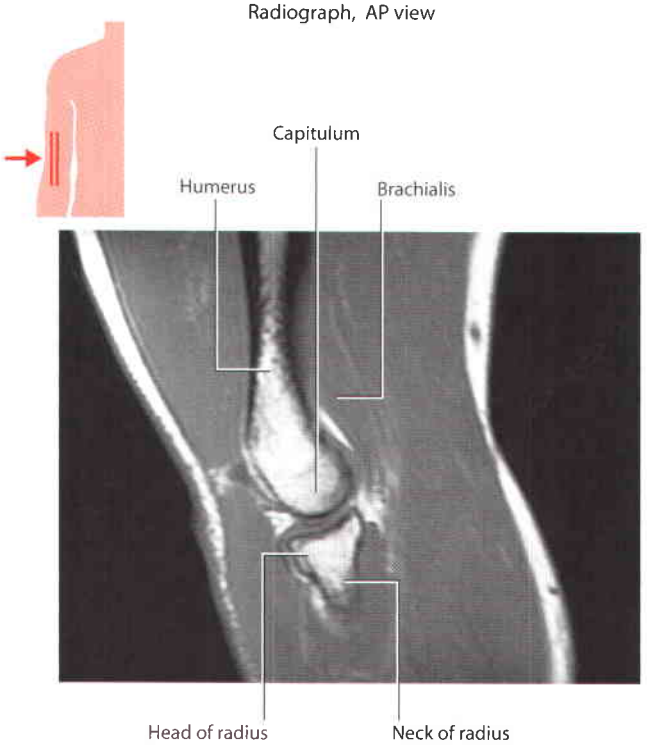

Humerus
Lateral supra-epicondylar (supracondylar) ridge
Coronoid fossa
Medial supraepicondylar (supracondylar) ridge
Lateral epicondyle
Medial epicondyle
Humeroradial joint
Capitulum
Trochlea
Coronoid process
Head
Humero-ulnar joint
Elbow joint
Proximal radio-ulnar joint
Neck
Tuberosity of ulna
Radial tuberosity
Radial notch
Radius
Ulna
Anterior view
Humerus
Olecranon fossa
Olecranon
Head
Neck
Ulna
Radius
Posterior view
Olecranon
Proximal radio-ulnar joint
Head of radius (articular circumference)
Trochlear notch
Anular ligament
Coronoid process
Articular facet
Radial notch
Superior view
Humerus
Capitulum
Lateral supra-epicondylar (supracondylar) ridge
Humeroradial joint
Head
Radius
Lateral epicondyle
Olecranon
Humero-ulnar joint
Radial notch
Ulna
Proximal radio-ulnar joint
Lateral view
Humerus
Medial supraepicondylar (supracondylar) ridge
Coronoid process
Radial tuberosity
Head
Radius
Medial epicondyle
Trochlea
Olecranon
Ulna
Humero-ulnar joint
Medial view



Normal elbow joint.
Radiograph, AP view

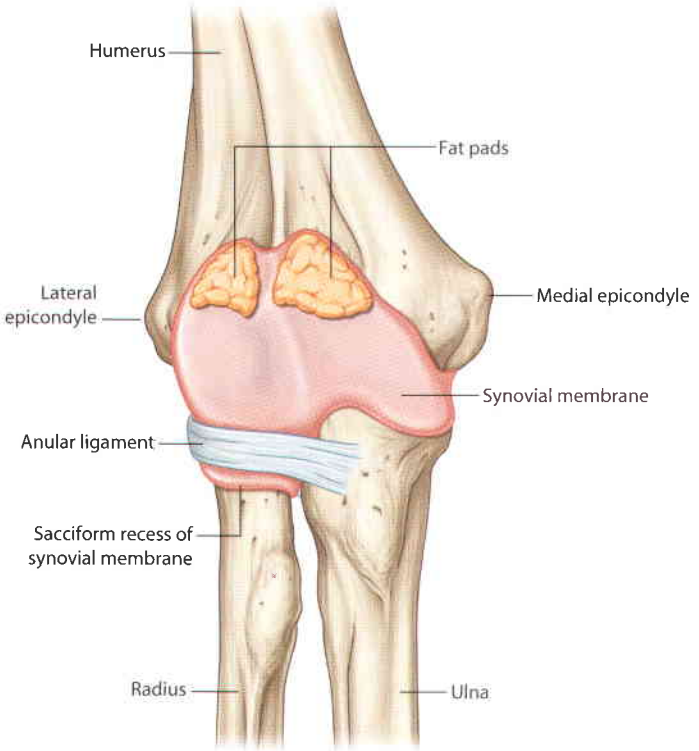


Normal elbow joint.
Radiograph, lateral view

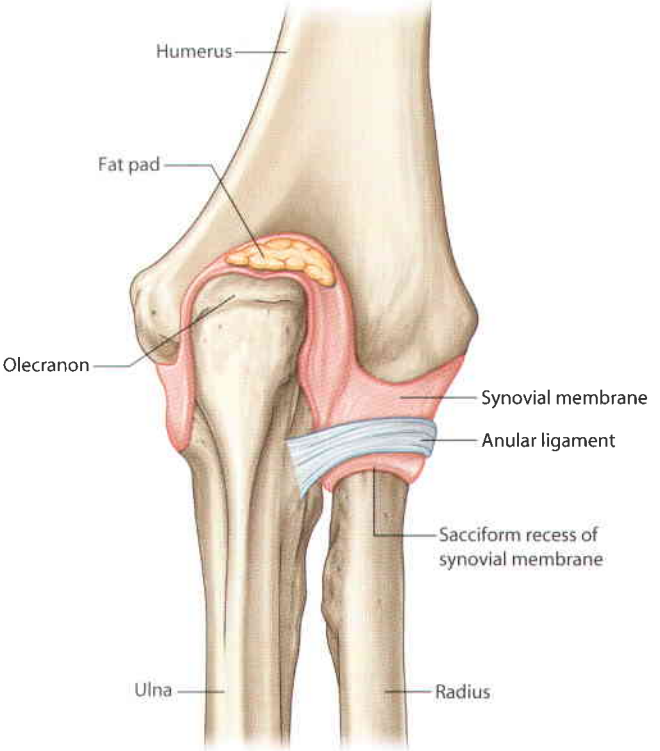


Articulation of the capitulum of the humerus and the head of the radius at the elbow joint.
T2-weighted MR image in sagittal plane

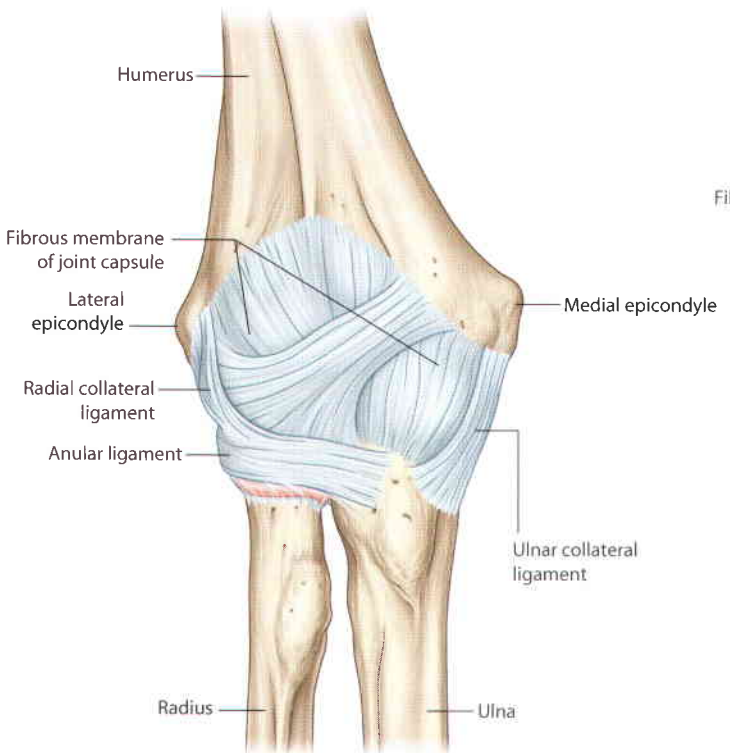
Articulation of the trochlea of the humerus and the trochlear notch of the ulna.
T2-weighted MR image in sagittal plane



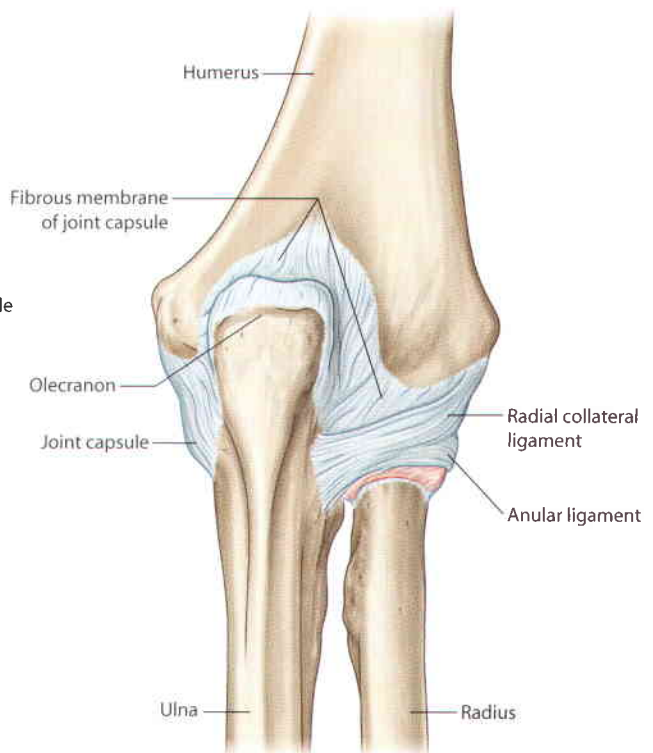
Synovial membrane of the elbow joint (anterior view)



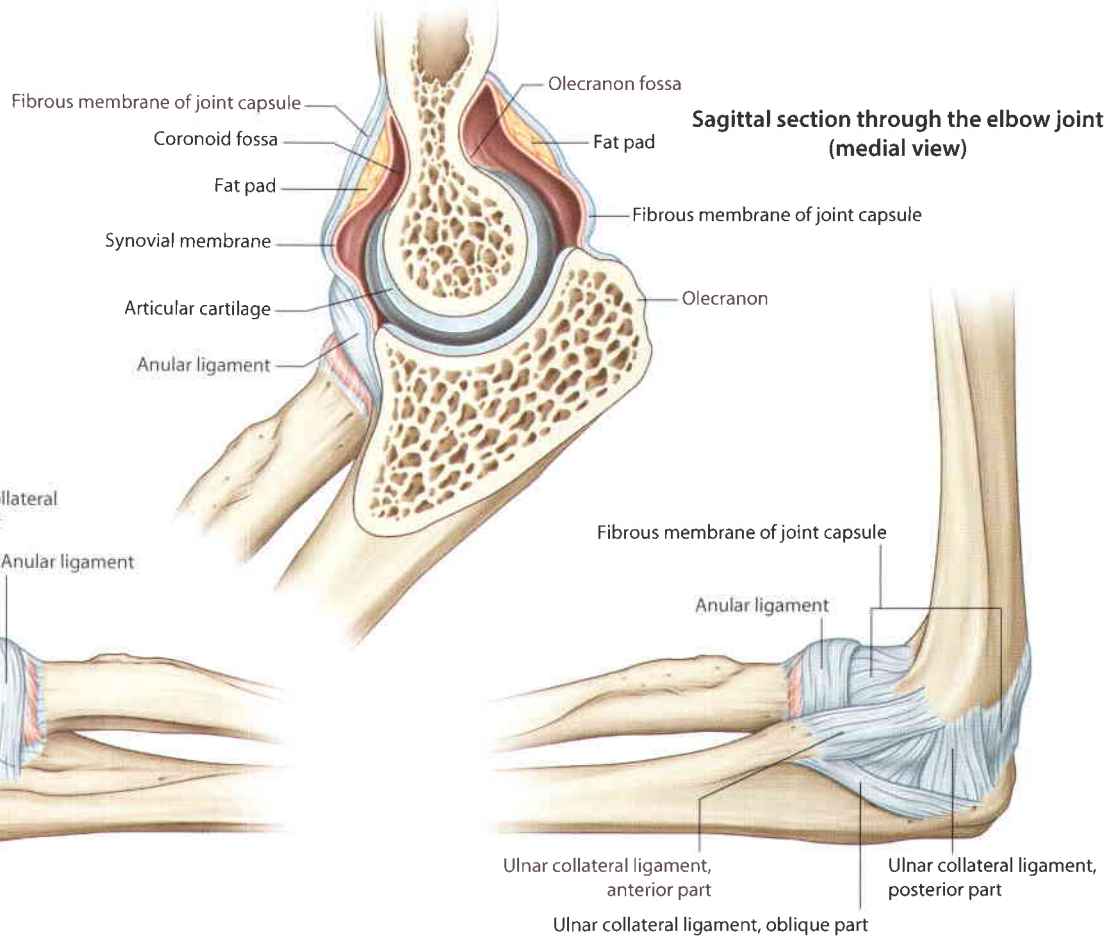
Synovial membrane of the elbow joint (posterior view)



Fibrous membrane of joint capsule and ligaments of the elbow joint (anterior view)

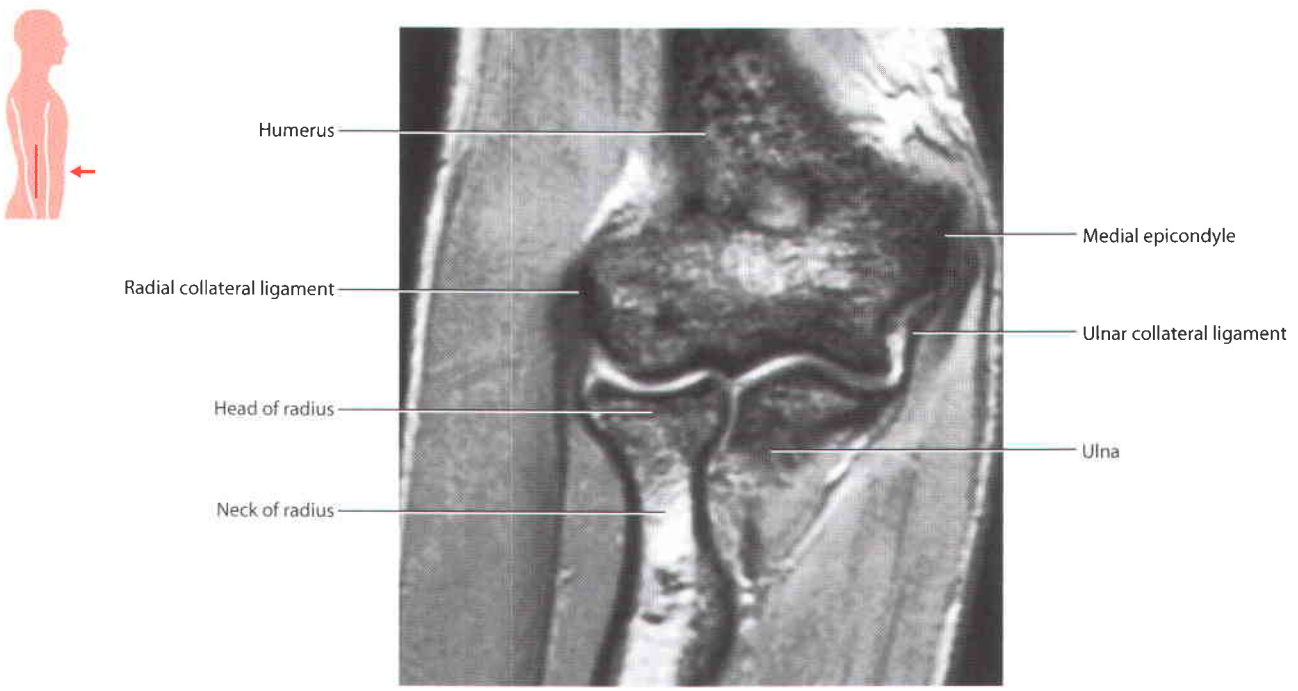


Fibrous membrane of joint capsule and ligaments of the elbow joint (posterior view)

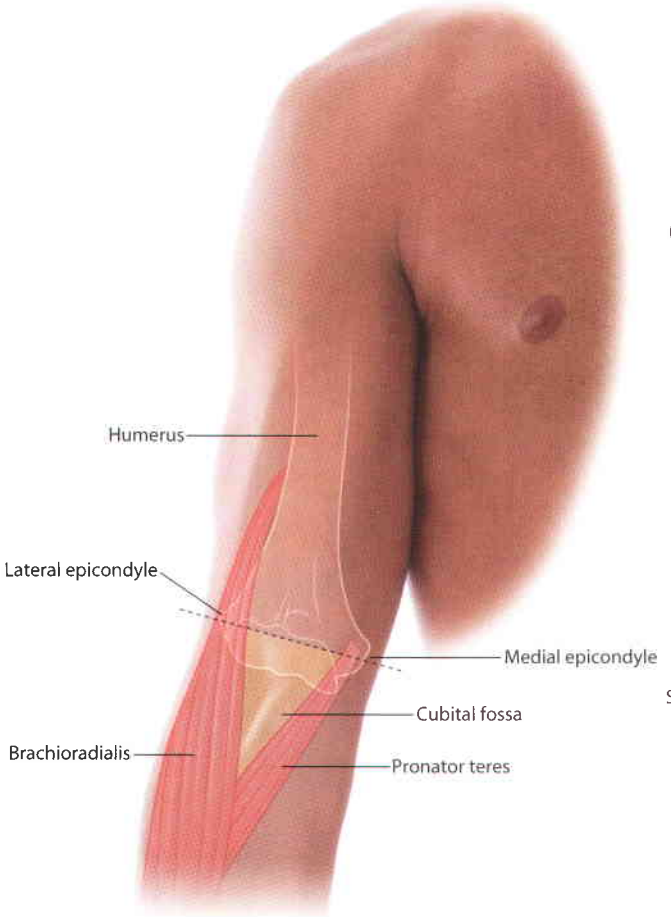


Fibrous membrane of joint capsule and ligaments of the elbow joint (lateral view)

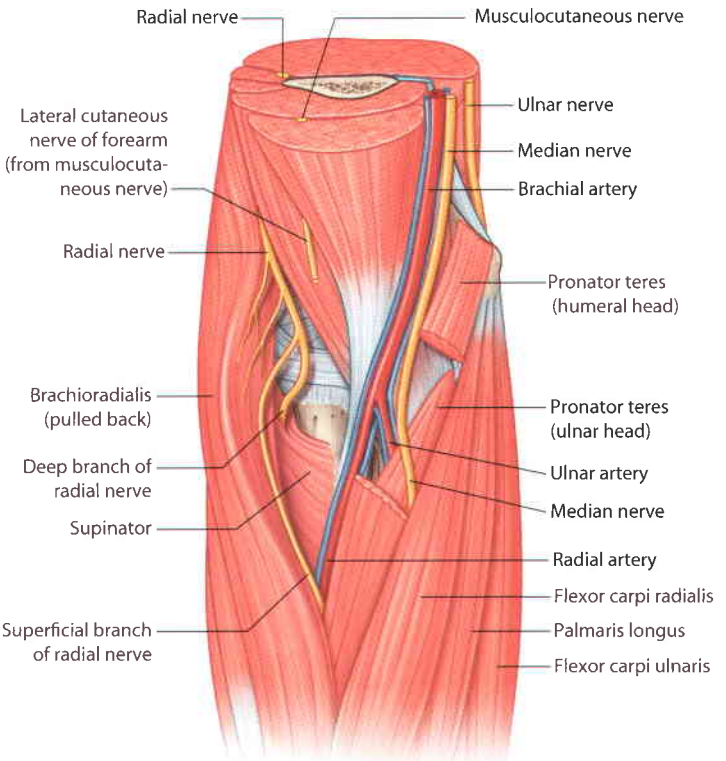
Fibrous membrane of joint capsule and ligaments of the elbow joint (medial view)



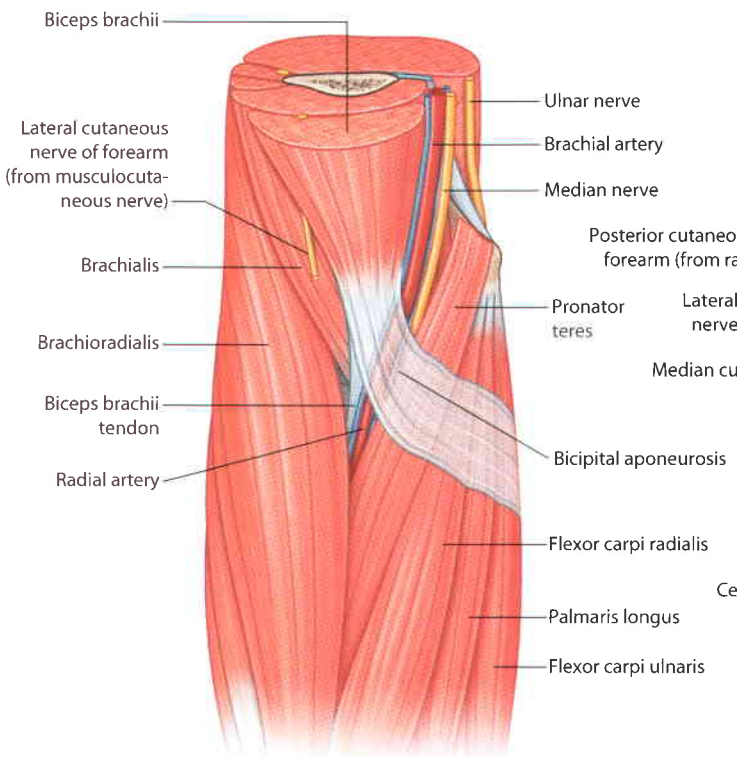
Normal elbow joint.
T2-weighted MR image in coronal plane



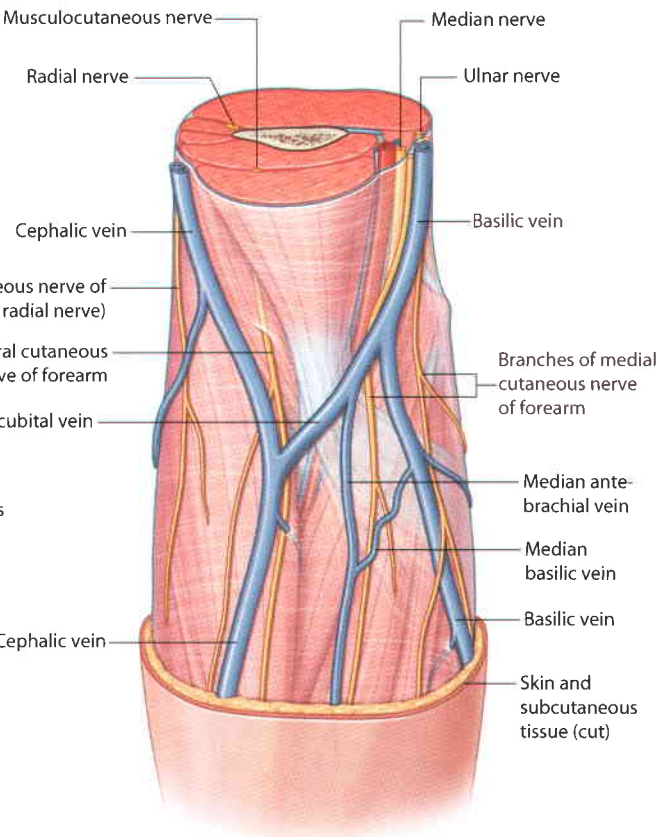
Margins of the cubital fossa



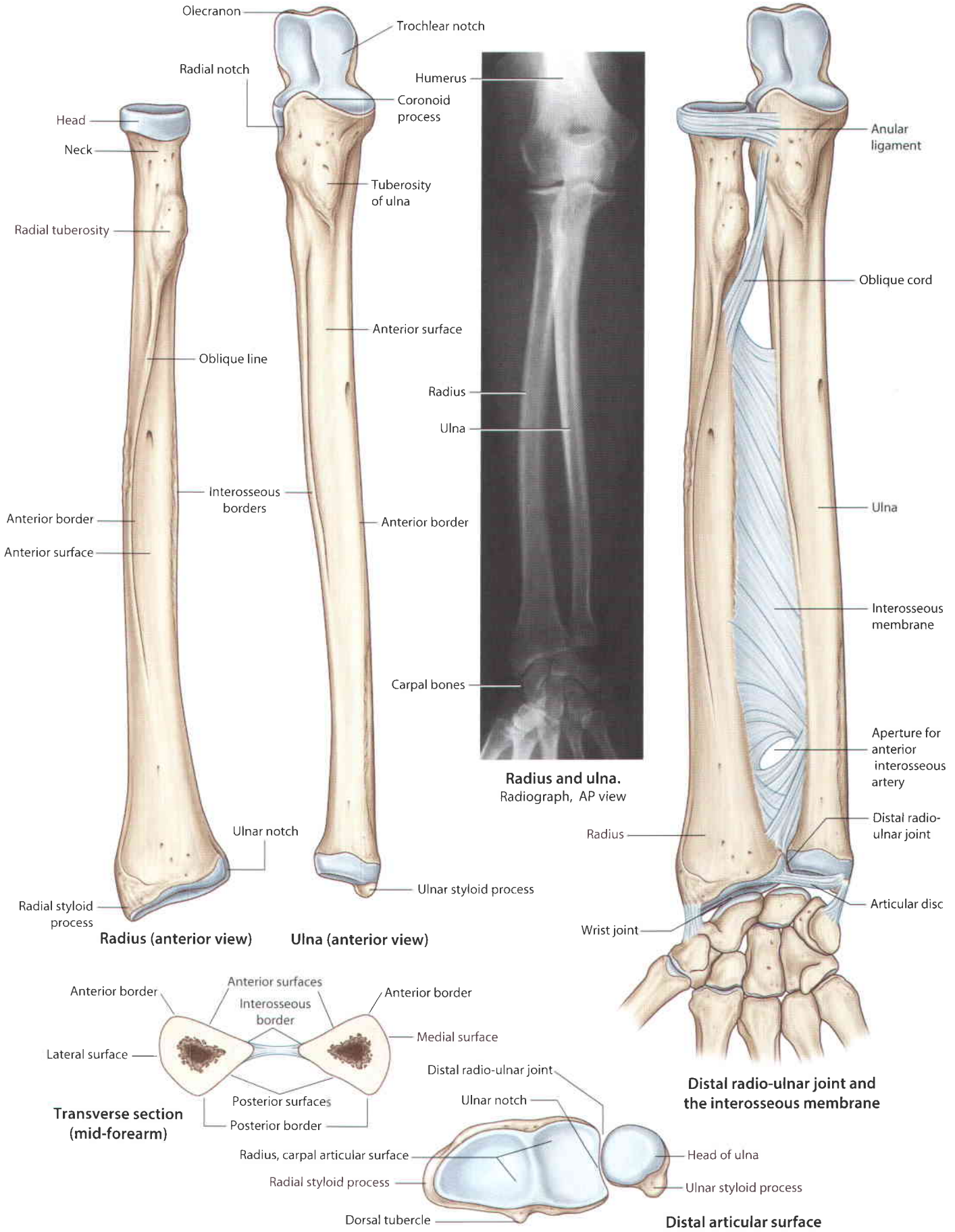
Position of the radial nerve

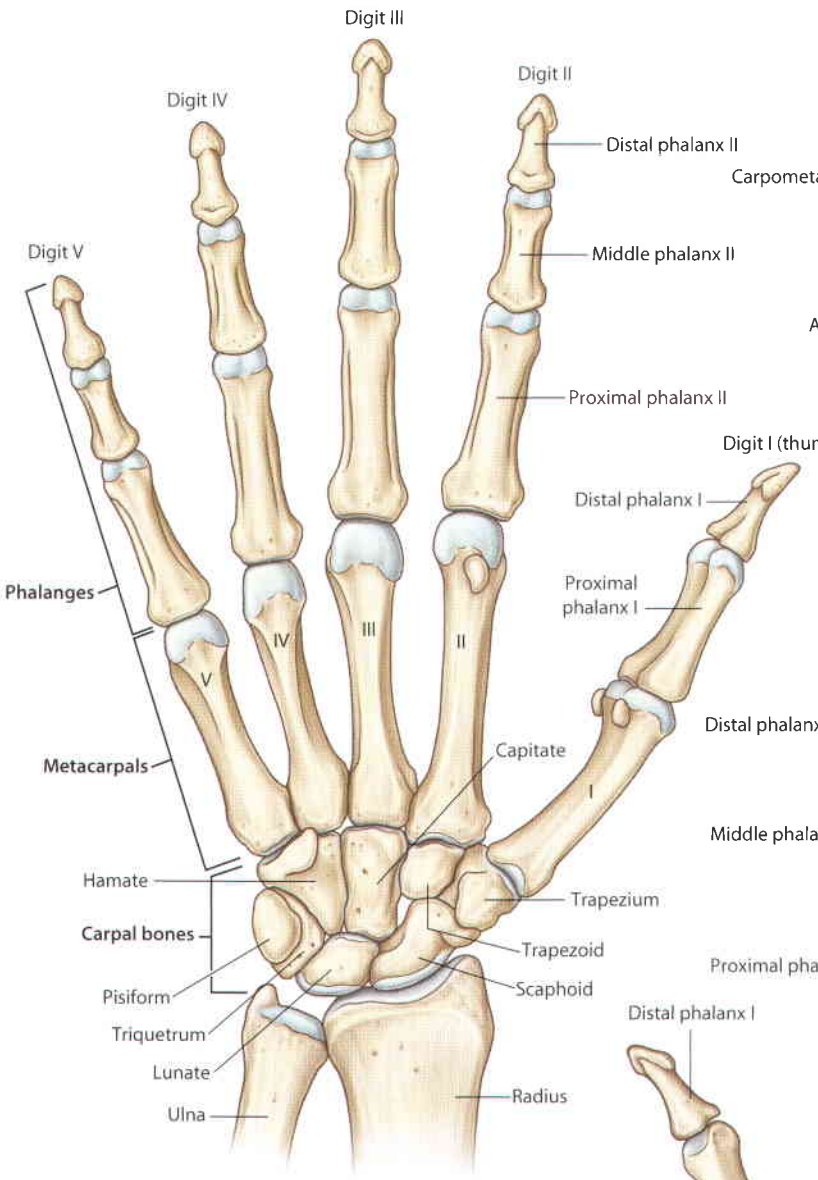


Contents of the cubital fossa

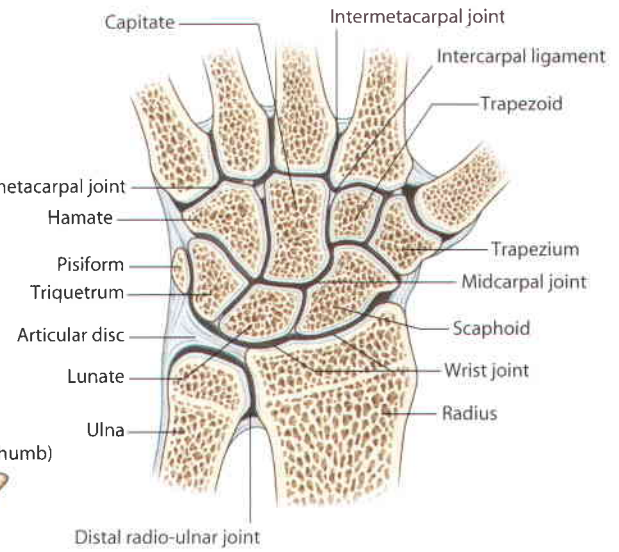


Superficial structures

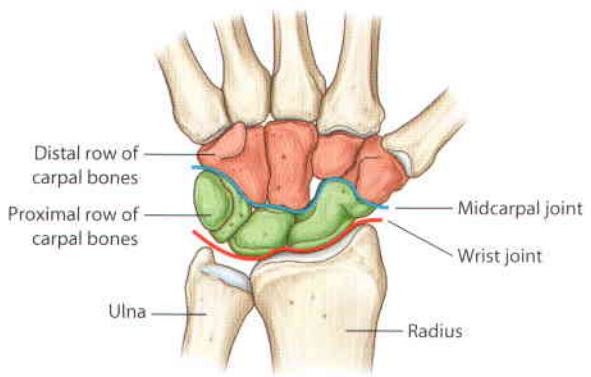

Olecranon
Trochlear notch
Radial notch
Head
Neck
Radial tuberosity
Oblique line
Interosseous borders
Anterior border
Anterior surface
Radial styloid process
Ulnar notch
Radius (anterior view)
Coronoid process
Tuberosity of ulna
Anterior surface
Anterior border
Ulnar styloid process
Ulna (anterior view)
Humerus
Radius
Ulna
Carpal bones
Radius and ulna.
Radiograph, AP view
Anular ligament
Oblique cord
Ulna
Interosseous membrane
Aperture for anterior interosseous artery
Distal radio-ulnar joint
Radius
Articular disc
Wrist joint
Distal radio-ulnar joint and the interosseous membrane
Anterior surfaces
Anterior border
Interosseous border
Anterior border
Medial surface
Lateral surface
Posterior surfaces
Posterior border
Transverse section (mid-forearm)
Distal radio-ulnar joint
Ulnar notch
Radius, carpal articular surface
Head of ulna
Radial styloid process
Ulnar styloid process
Dorsal tubercle
Distal articular surface



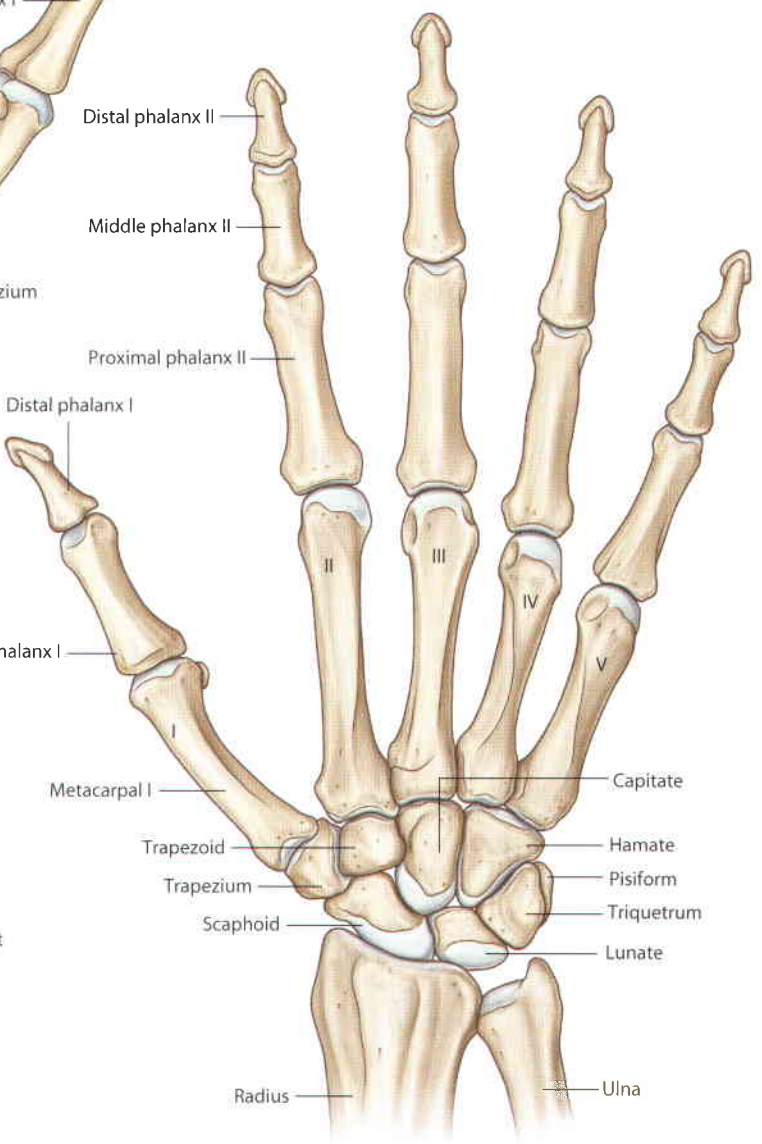
Bones of the hand (palmar view)



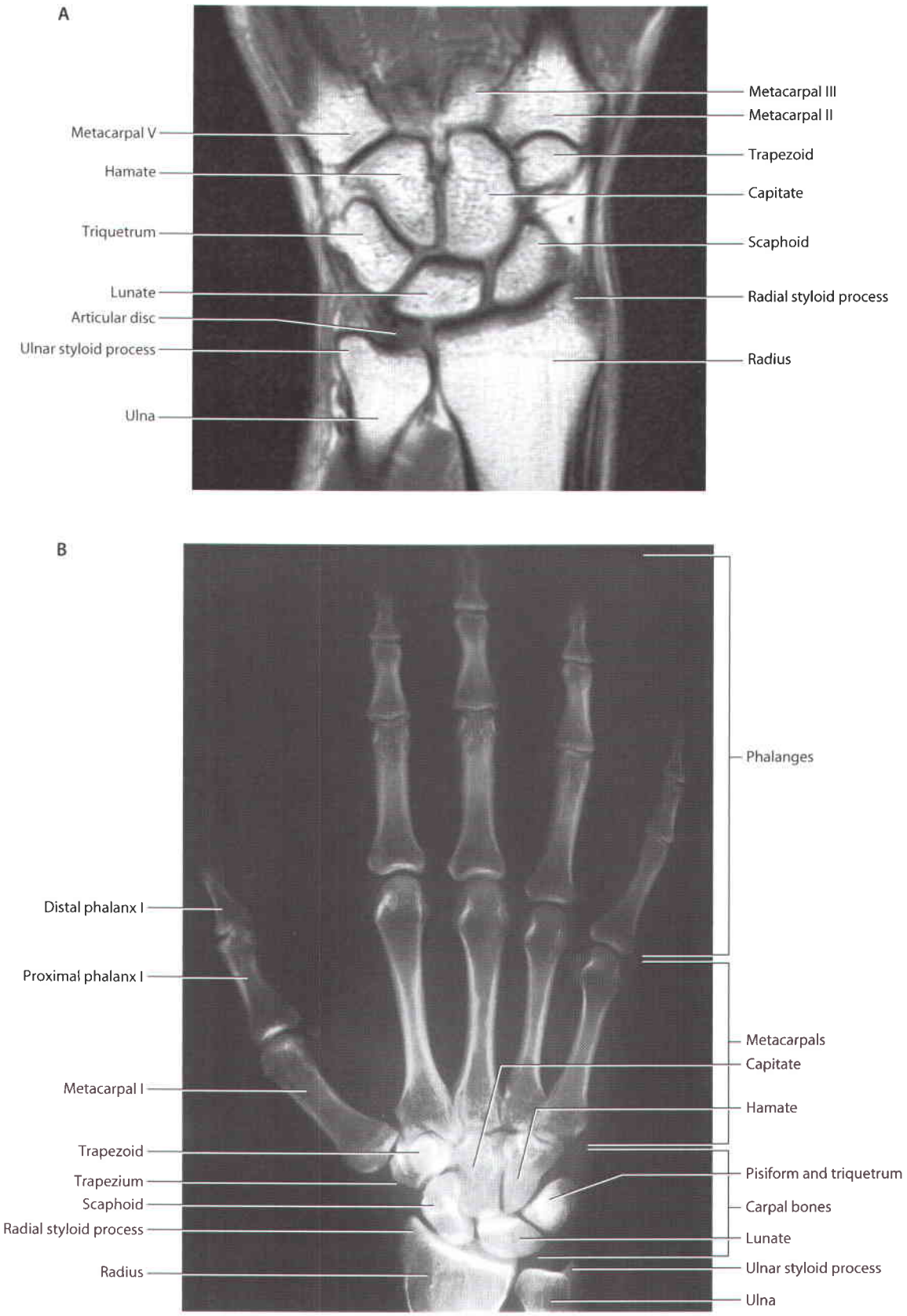
Coronal section



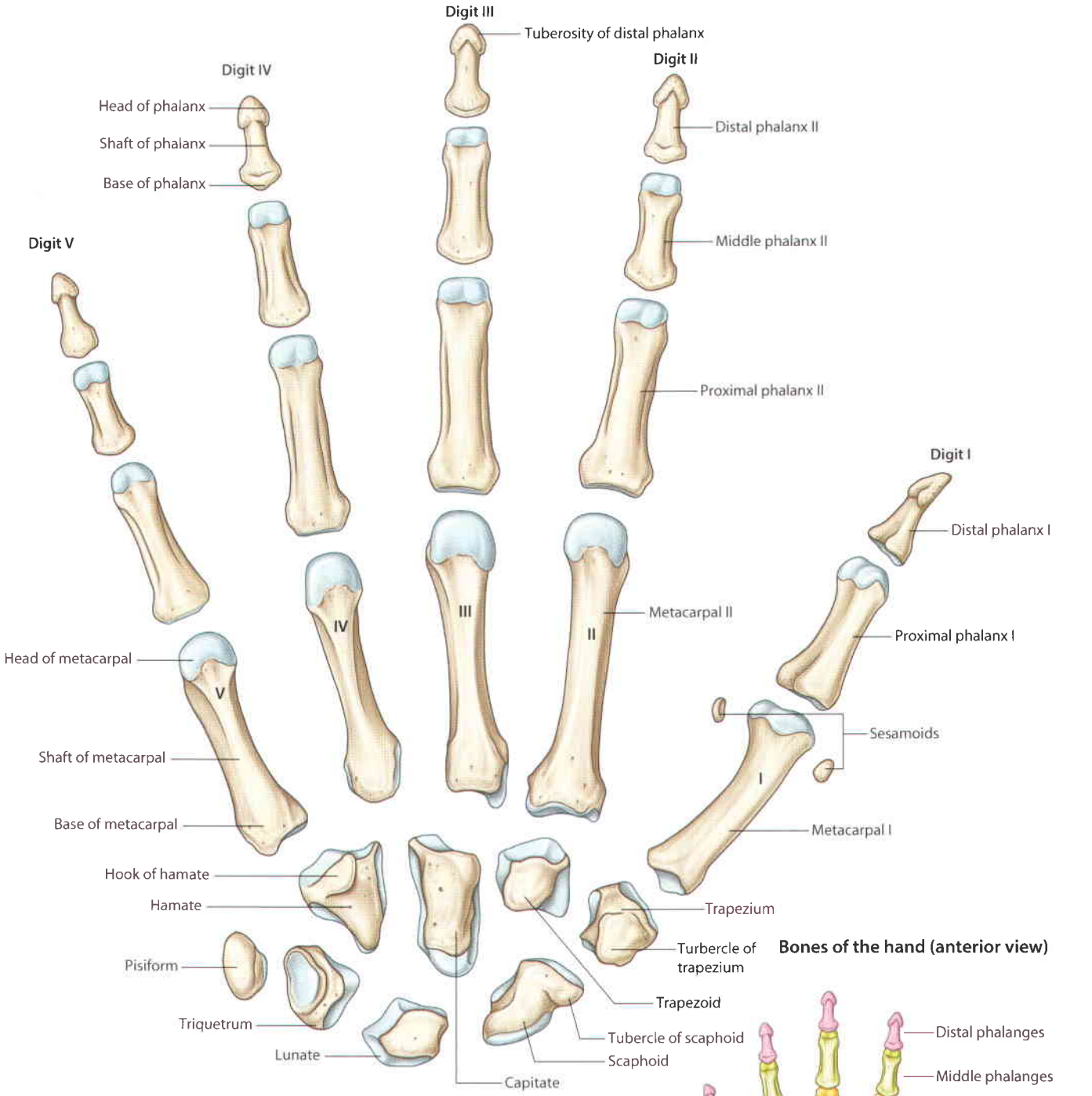
Palmar view



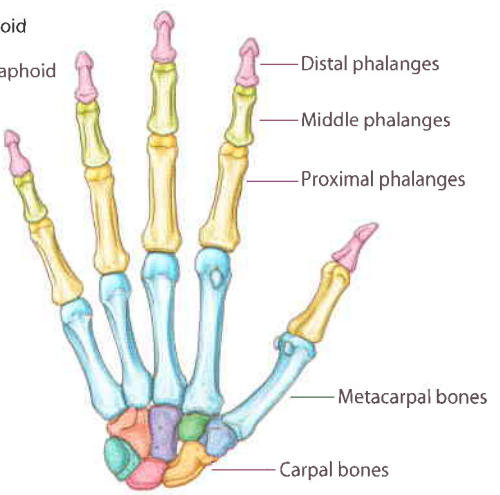
Bones of the hand (dorsal view)

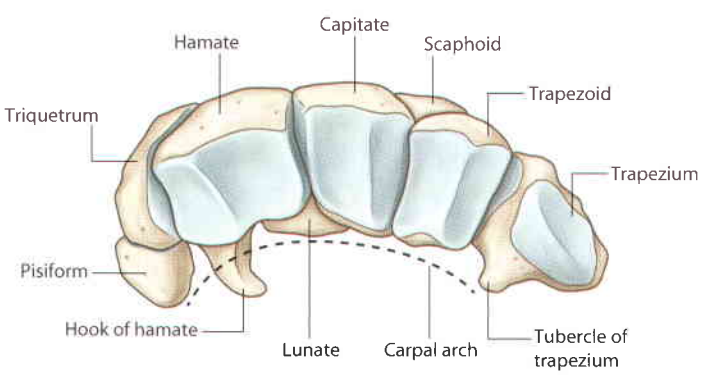


Imaging of the wrist joint, the carpal bones, and the hand.
A. T1-weighted MR image in coronal plane
B. Radiograph, AP view

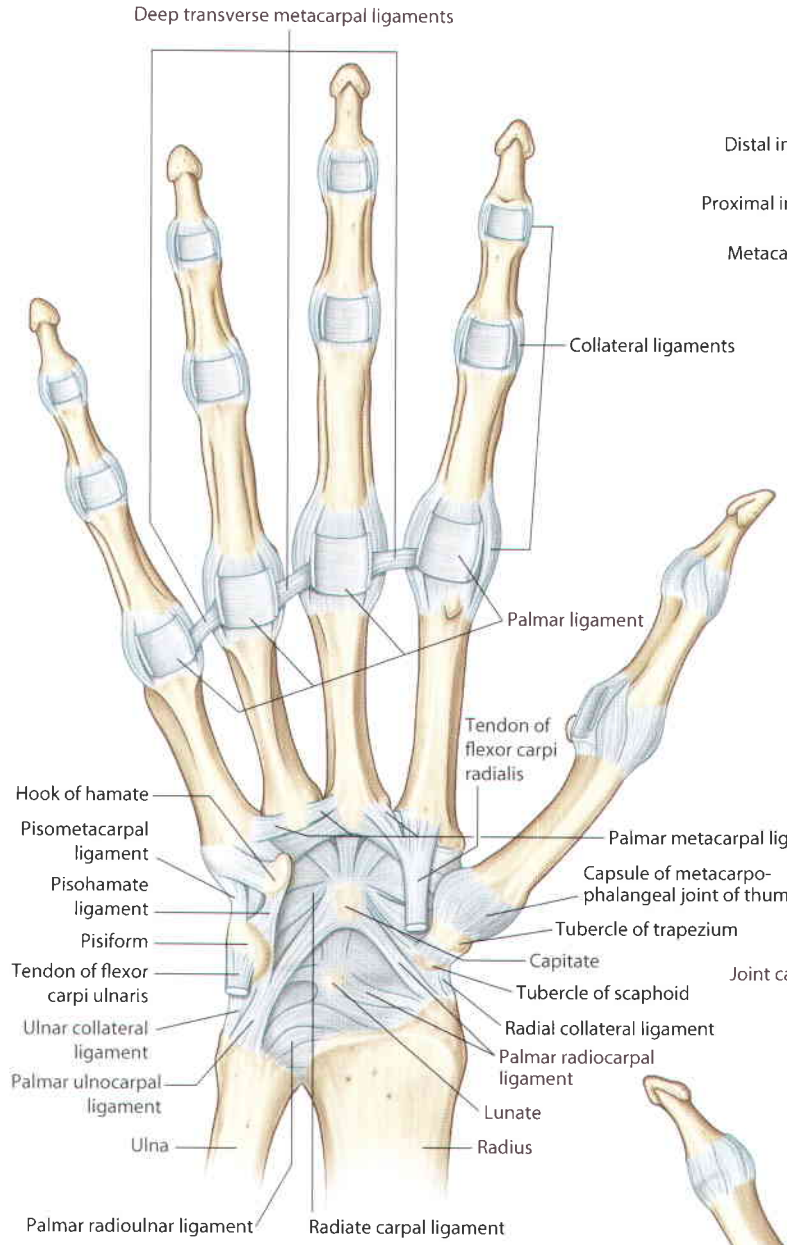


Bones of the hand (anterior view)

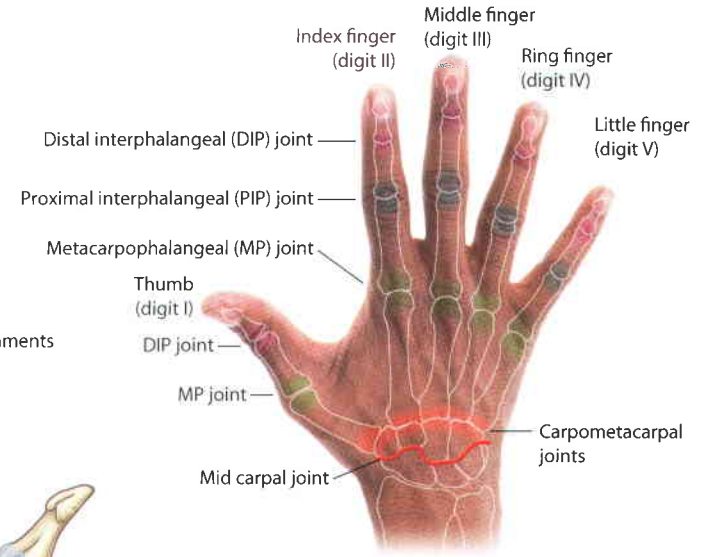


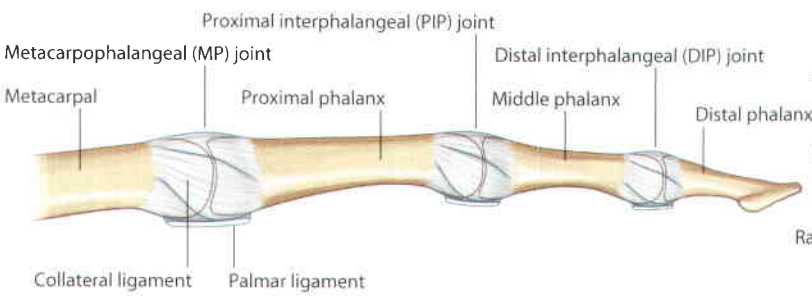


Carpal bones (distal view)

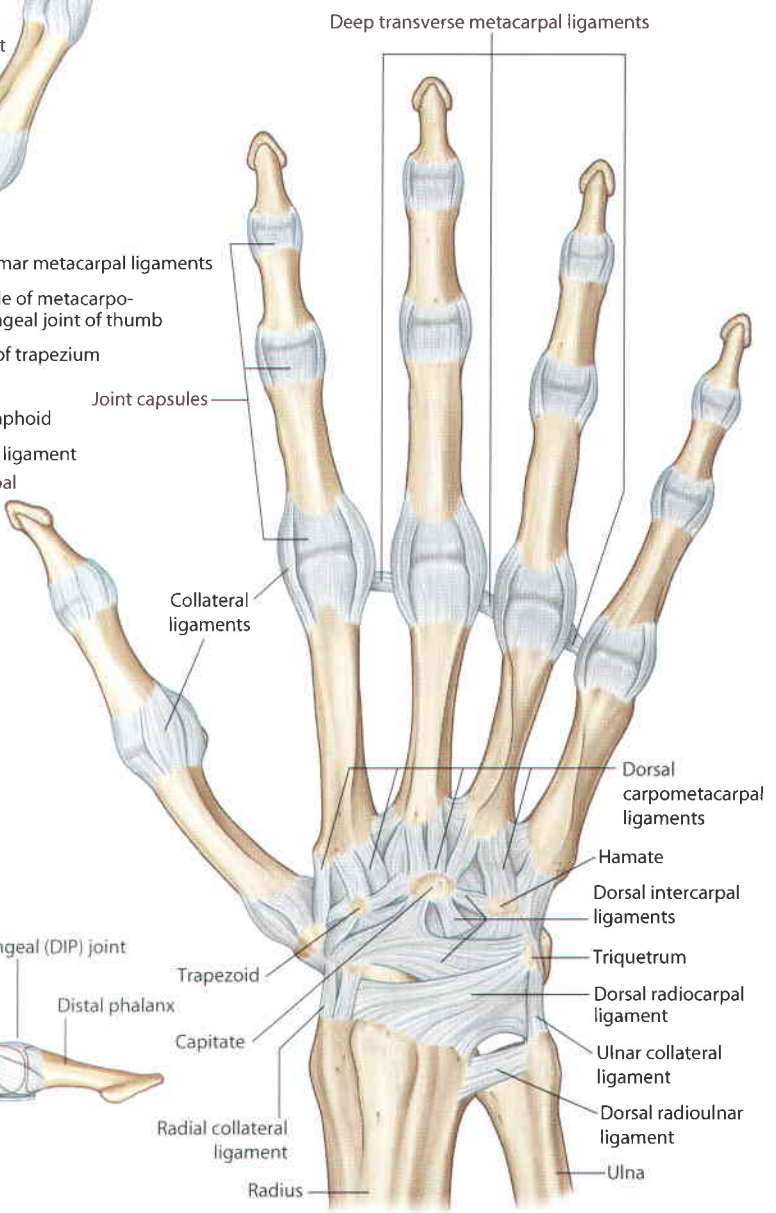


Ligaments of the hand (palmar view)

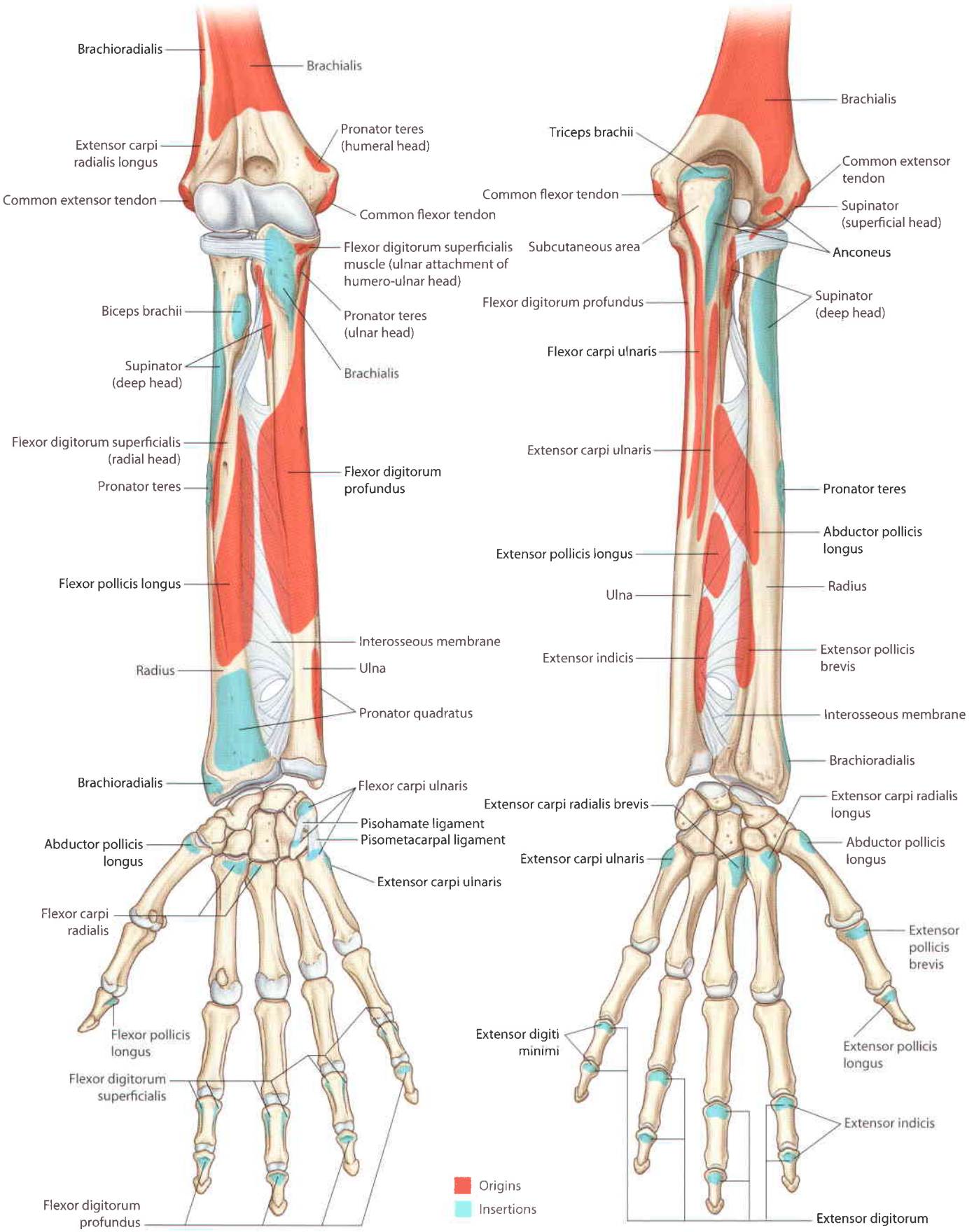




Interphalangeal joints (medial view)

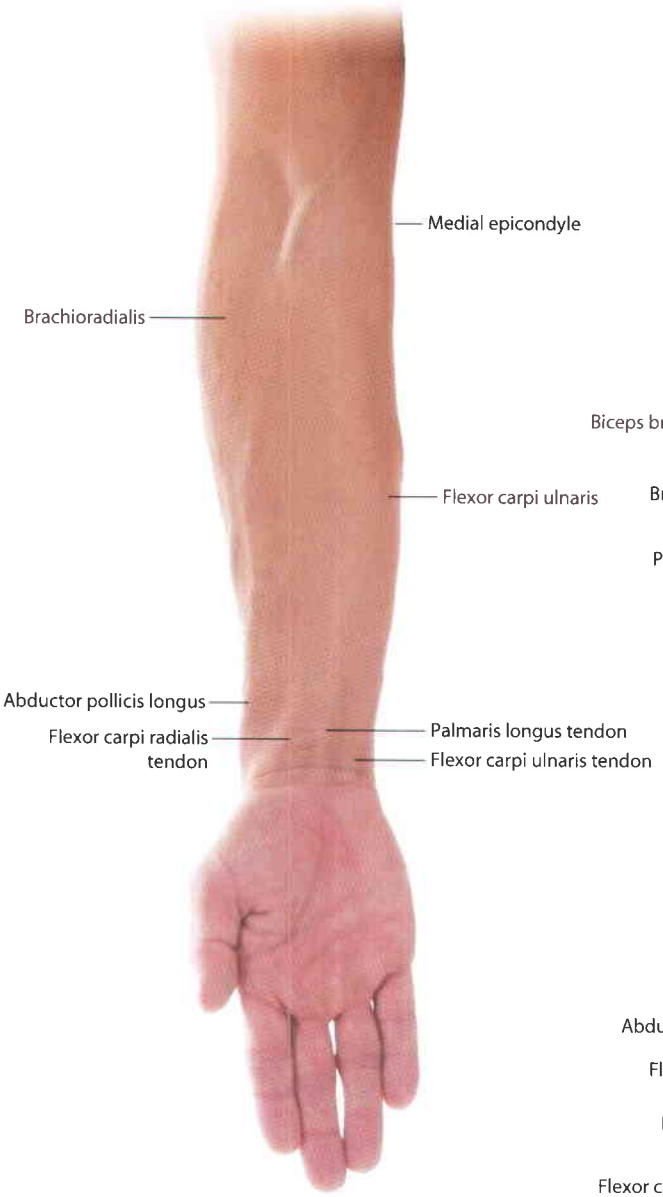


Ligaments of the hand (dorsal view)

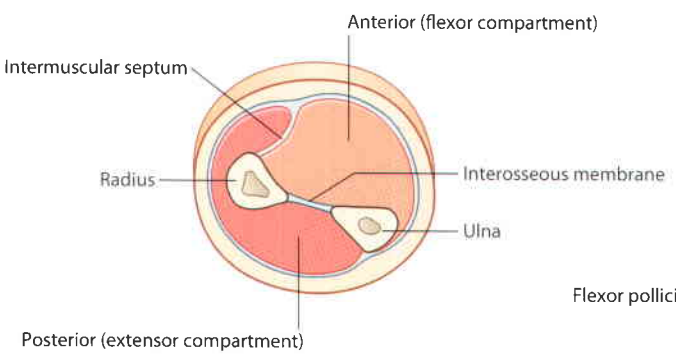


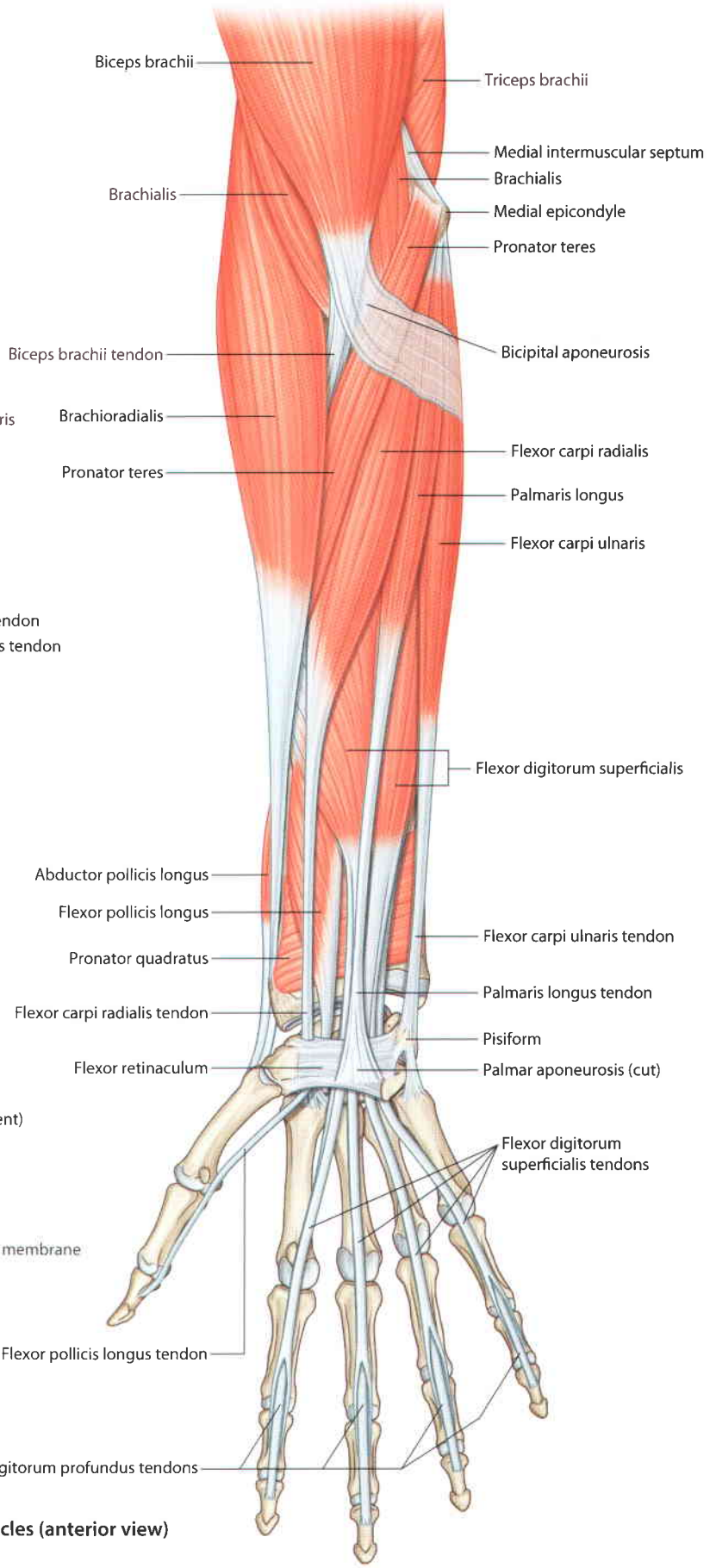
Muscle attachments of forearm (anterior view)

Muscle attachments of forearm (posterior view)

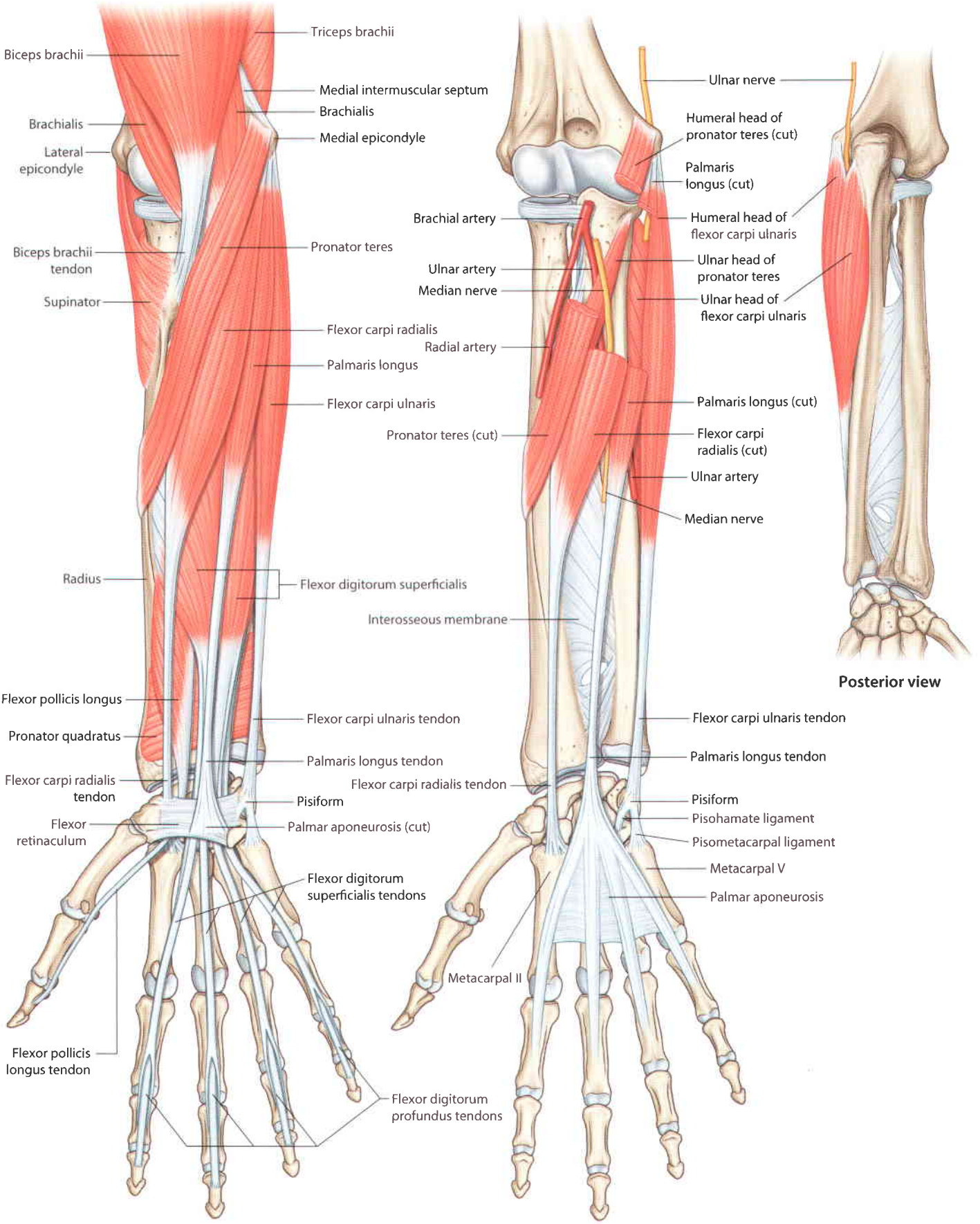


Surface anatomy (anterior view)

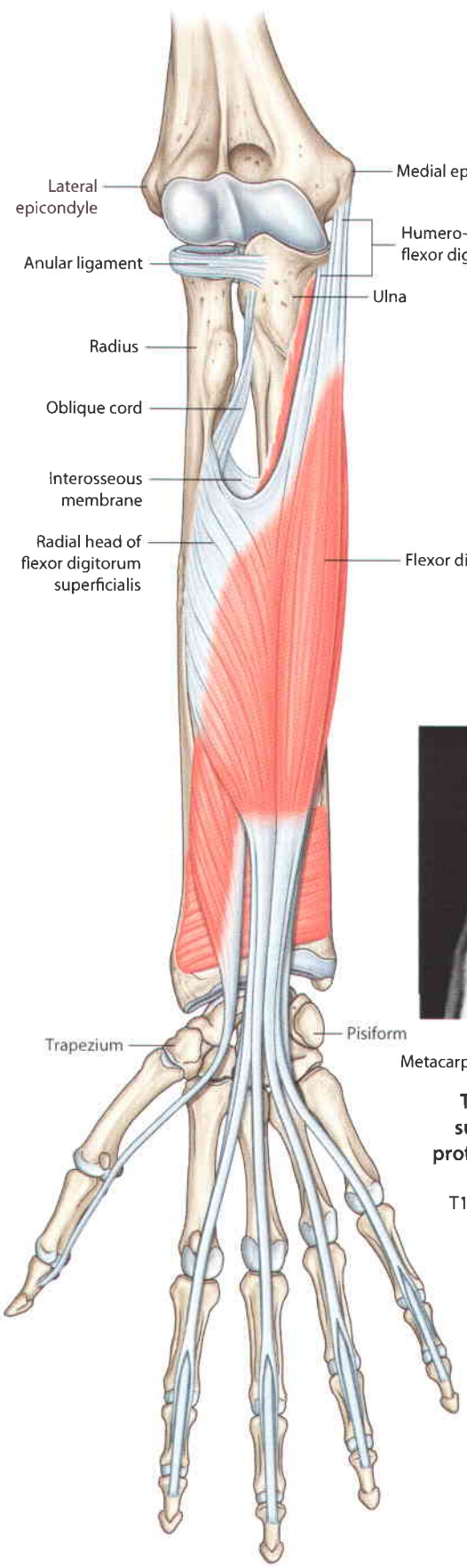




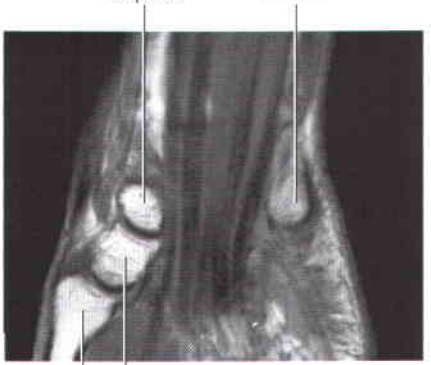
Superficial layer of forearm muscles (anterior view)



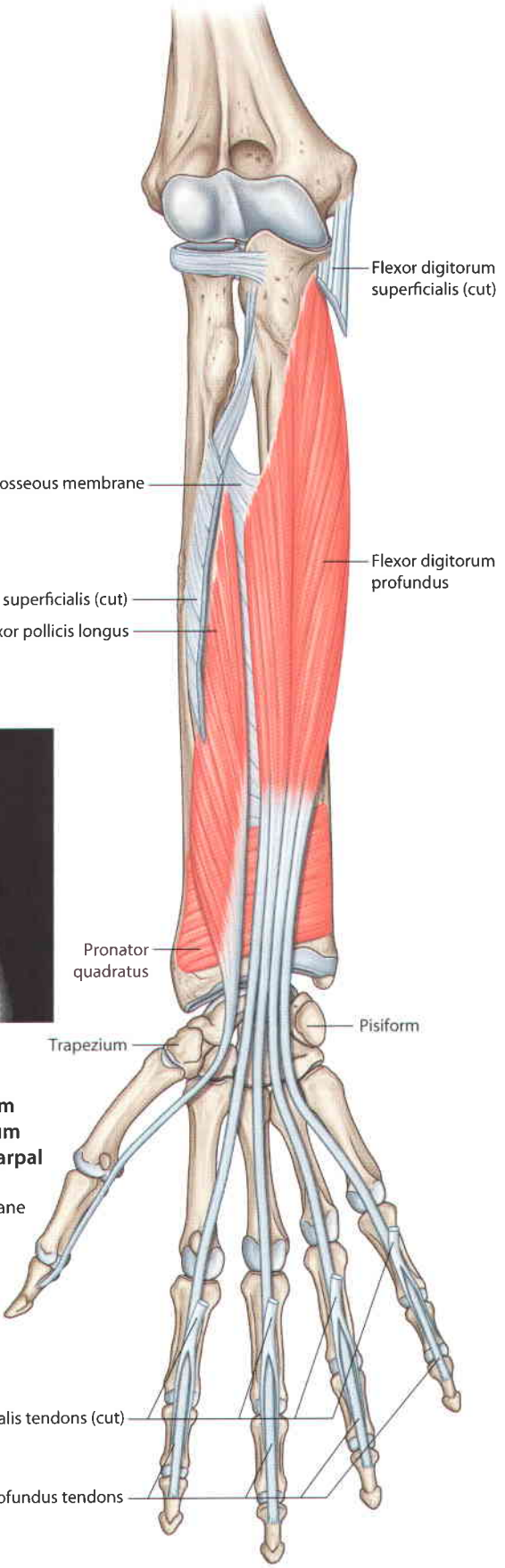
Superficial layer of forearm muscles (anterior view)



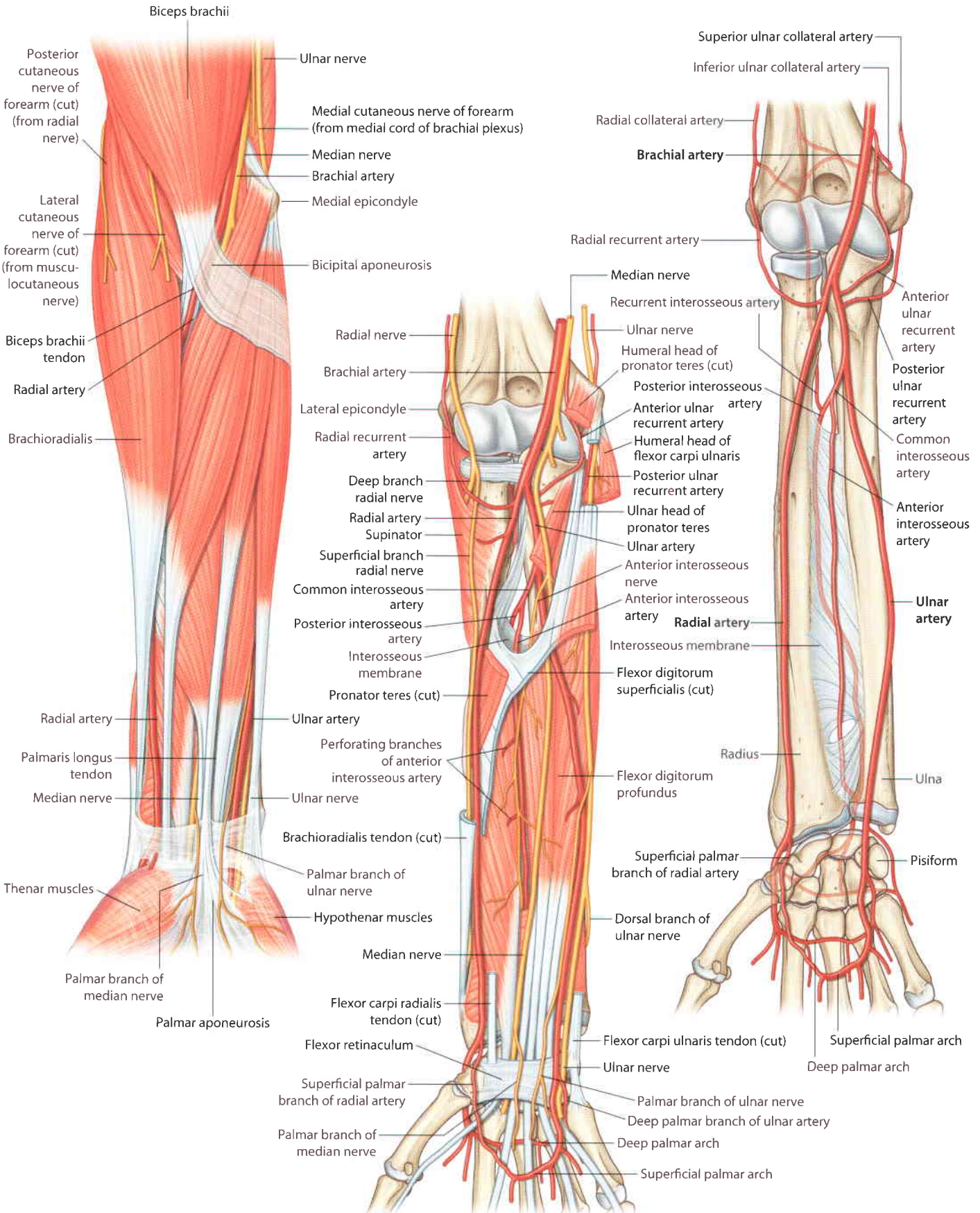
Intermediate layer of forearm muscles (anterior view)



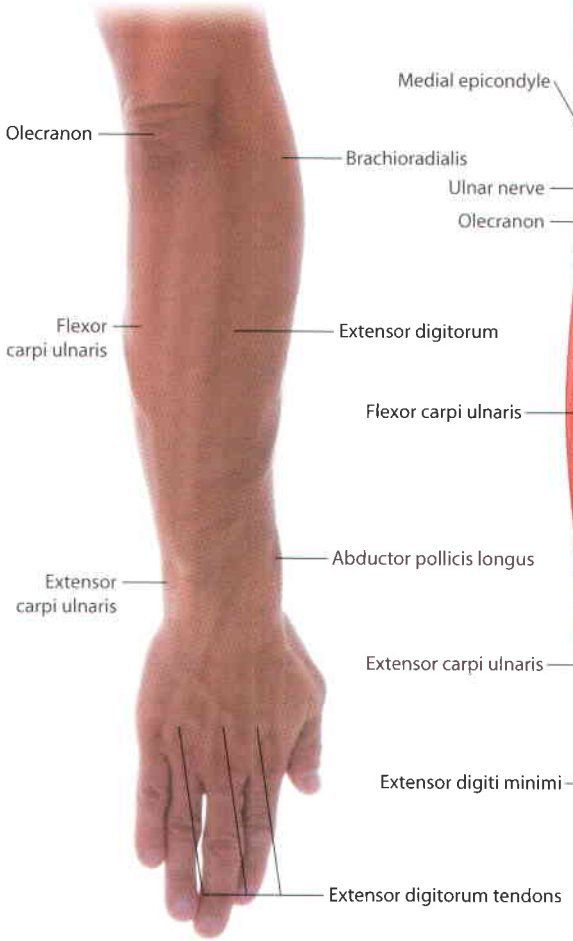
Tendons of the flexor digitorum superficialis and flexor digitorum profundus passing through the carpal tunnel into the hand.
T1-weighted MR image in coronal plane



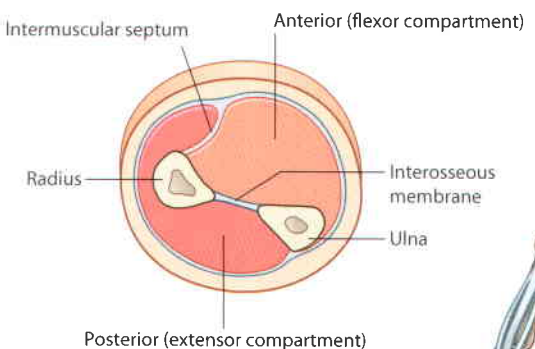
Deep layer of forearm muscles (anterior view)

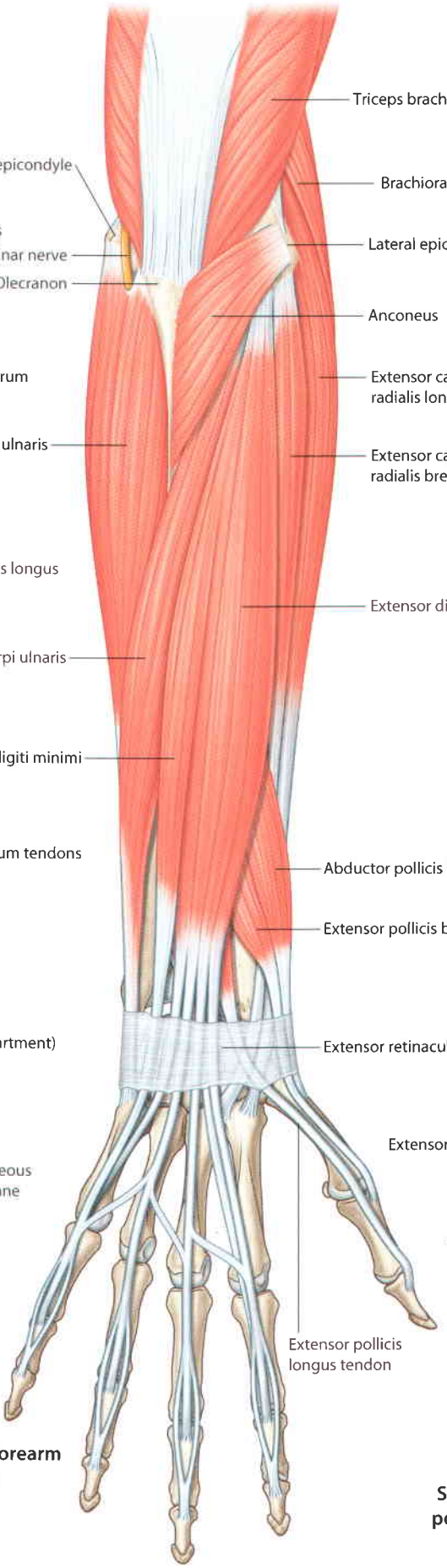


Arteries and nerves of forearm (anterior view)



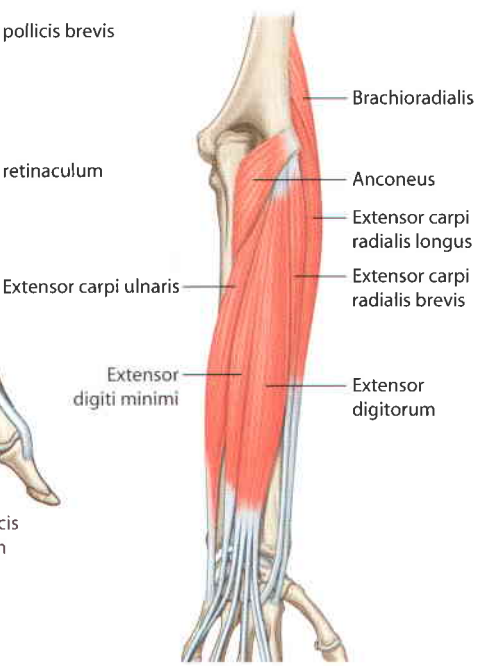
Surface anatomy (posterior view)



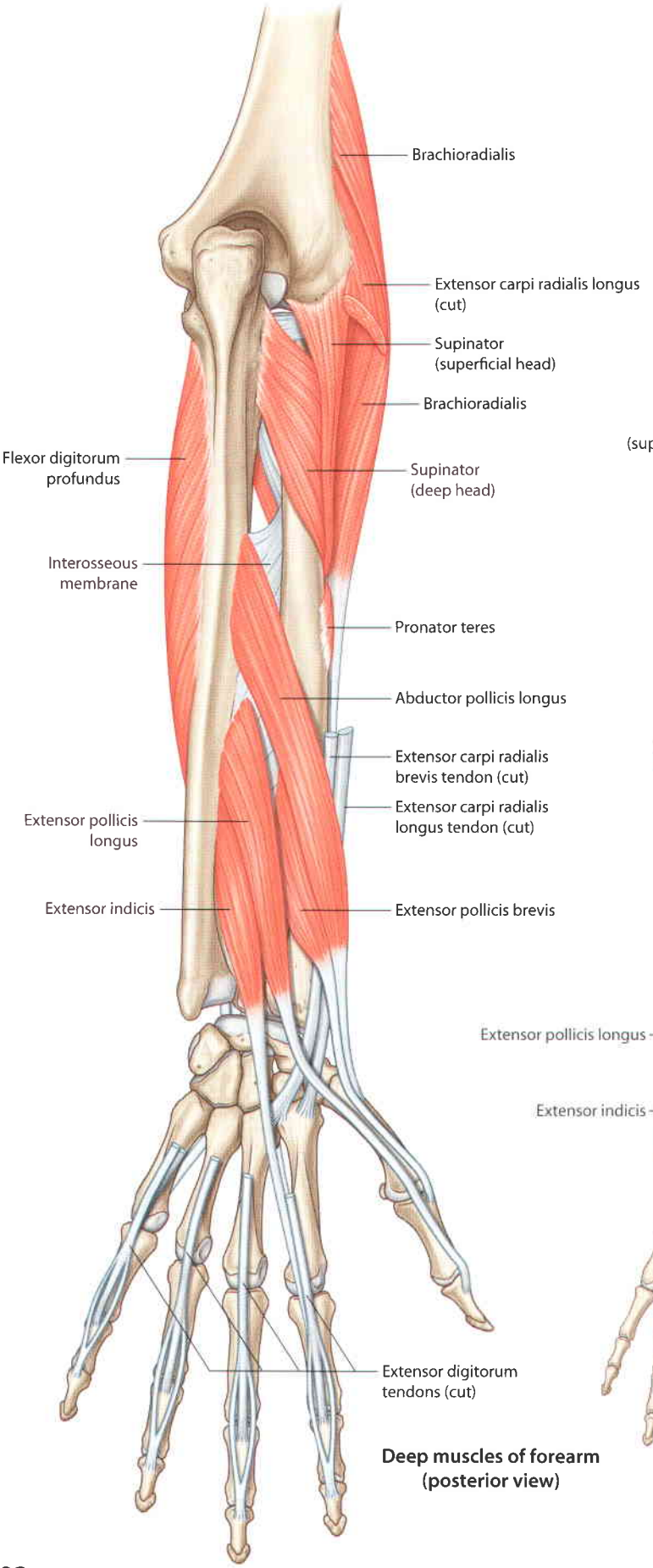


Superficial muscles of forearm (posterior view)

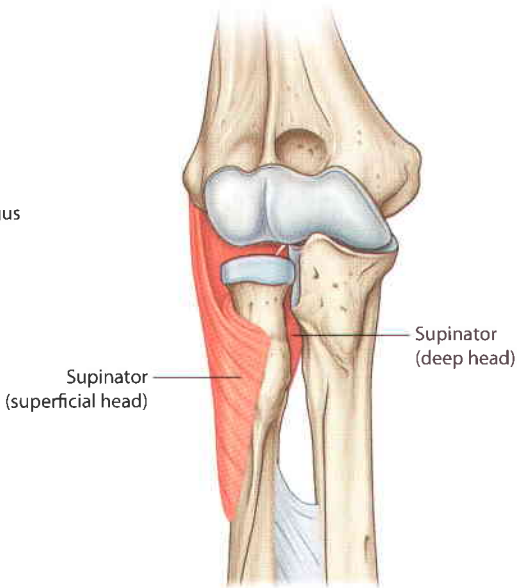
Anterior view



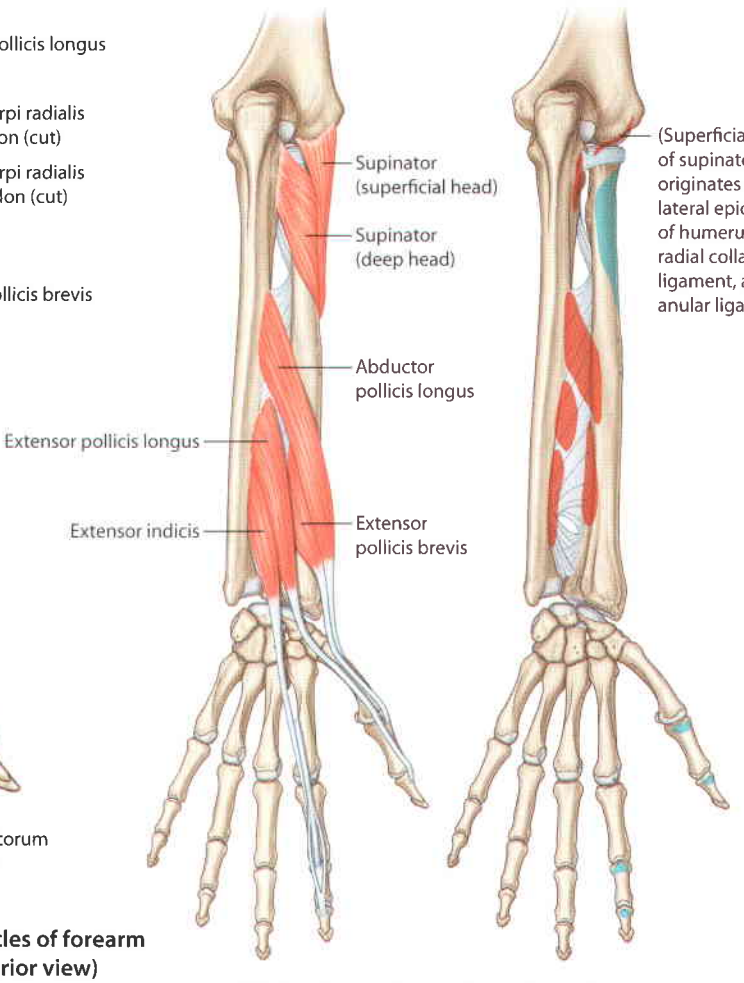
Superficial layer of muscles in the posterior compartment of forearm



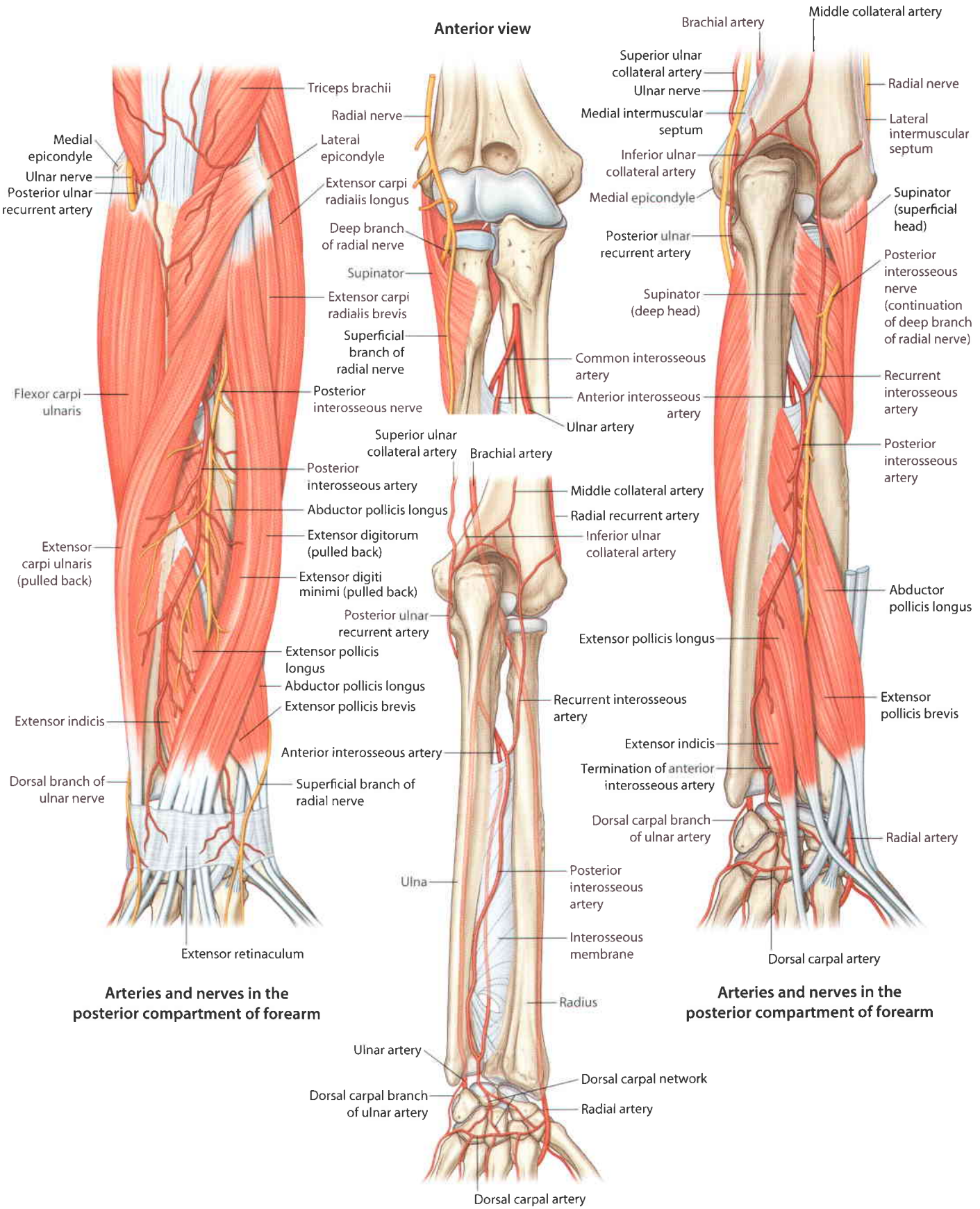
Deep muscles of forearm (posterior view)

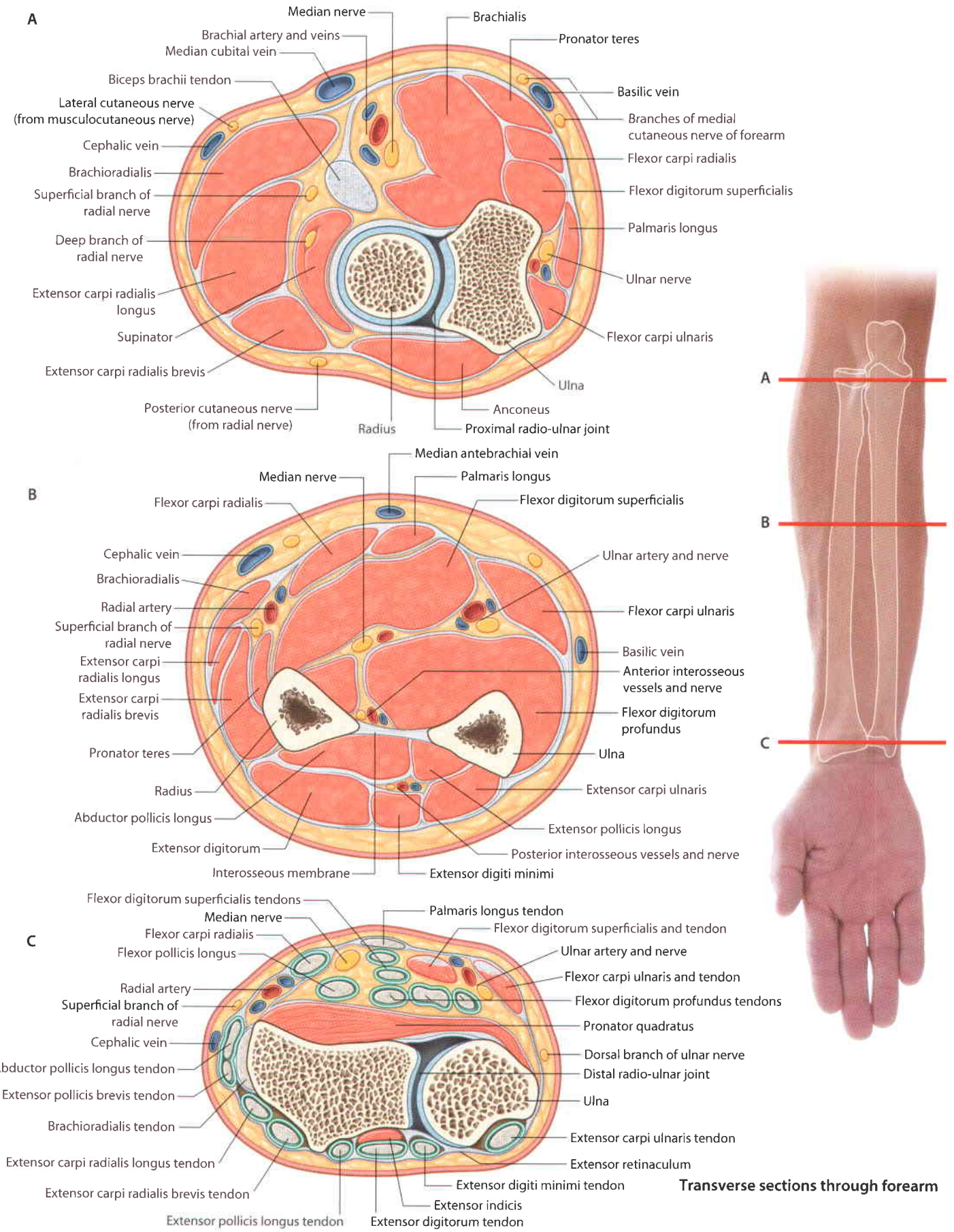


Anterior view

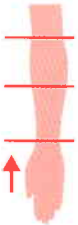


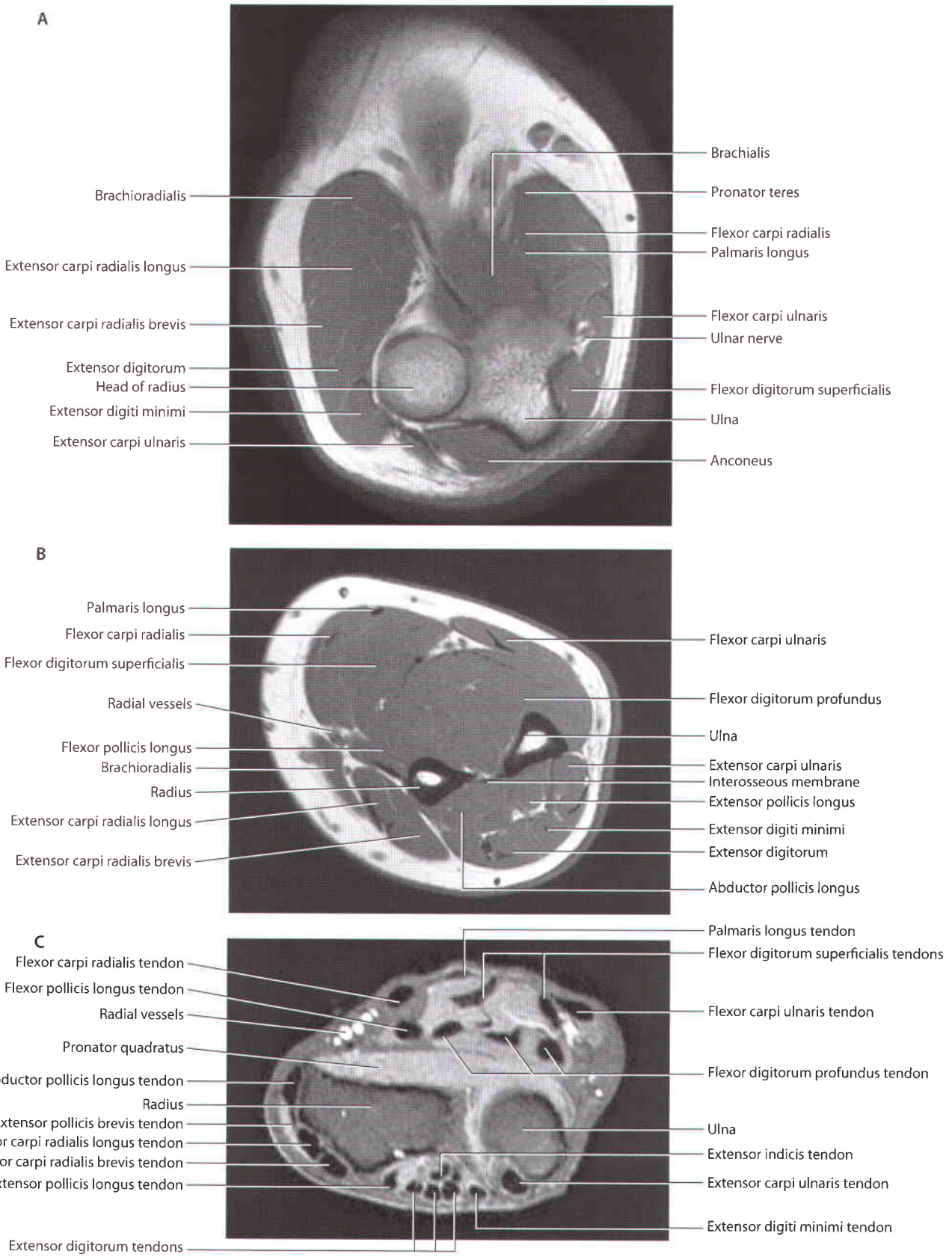
Origin of deep layer of muscles in the posterior compartment of forearm


Anterior view
Triceps brachii
Radial nerve
Medial epicondyle
Lateral epicondyle
Ulnar nerve
Extensor carpi radialis longus
Posterior ulnar recurrent artery
Deep branch of radial nerve
Supinator
Extensor carpi radialis brevis
Superficial branch of radial nerve
Flexor carpi ulnaris
Posterior interosseous nerve
Common interosseous artery
Anterior interosseous artery
Ulnar artery
Posterior interosseous artery
Abductor pollicis longus
Extensor digitorum (pulled back)
Extensor carpi ulnaris (pulled back)
Extensor digiti minimi (pulled back)
Extensor pollicis longus
Abductor pollicis longus
Extensor pollicis brevis
Extensor indicis
Anterior interosseous artery
Dorsal branch of ulnar nerve
Superficial branch of radial nerve
Extensor retinaculum
Arteries and nerves in the posterior compartment of forearm
Superior ulnar collateral artery
Brachial artery
Middle collateral artery
Radial recurrent artery
Inferior ulnar collateral artery
Posterior ulnar recurrent artery
Recurrent interosseous artery
Ulna
Posterior interosseous artery
Interosseous membrane
Radius
Ulnar artery
Dorsal carpal network
Dorsal carpal branch of ulnar artery
Radial artery
Dorsal carpal artery
Arteries of the forearm (posterior view)
Brachial artery
Middle collateral artery
Superior ulnar collateral artery
Ulnar nerve
Medial intermuscular septum
Radial nerve
Lateral intermuscular septum
Inferior ulnar collateral artery
Medial epicondyle
Supinator (superficial head)
Posterior ulnar recurrent artery
Supinator (deep head)
Posterior interosseous nerve (continuation of deep branch of radial nerve)
Recurrent interosseous artery
Posterior interosseous artery
Abductor pollicis longus
Extensor pollicis longus
Extensor pollicis brevis
Extensor indicis
Termination of anterior interosseous artery
Dorsal carpal branch of ulnar artery
Radial artery
Dorsal carpal artery
Arteries and nerves in the posterior compartment of forearm

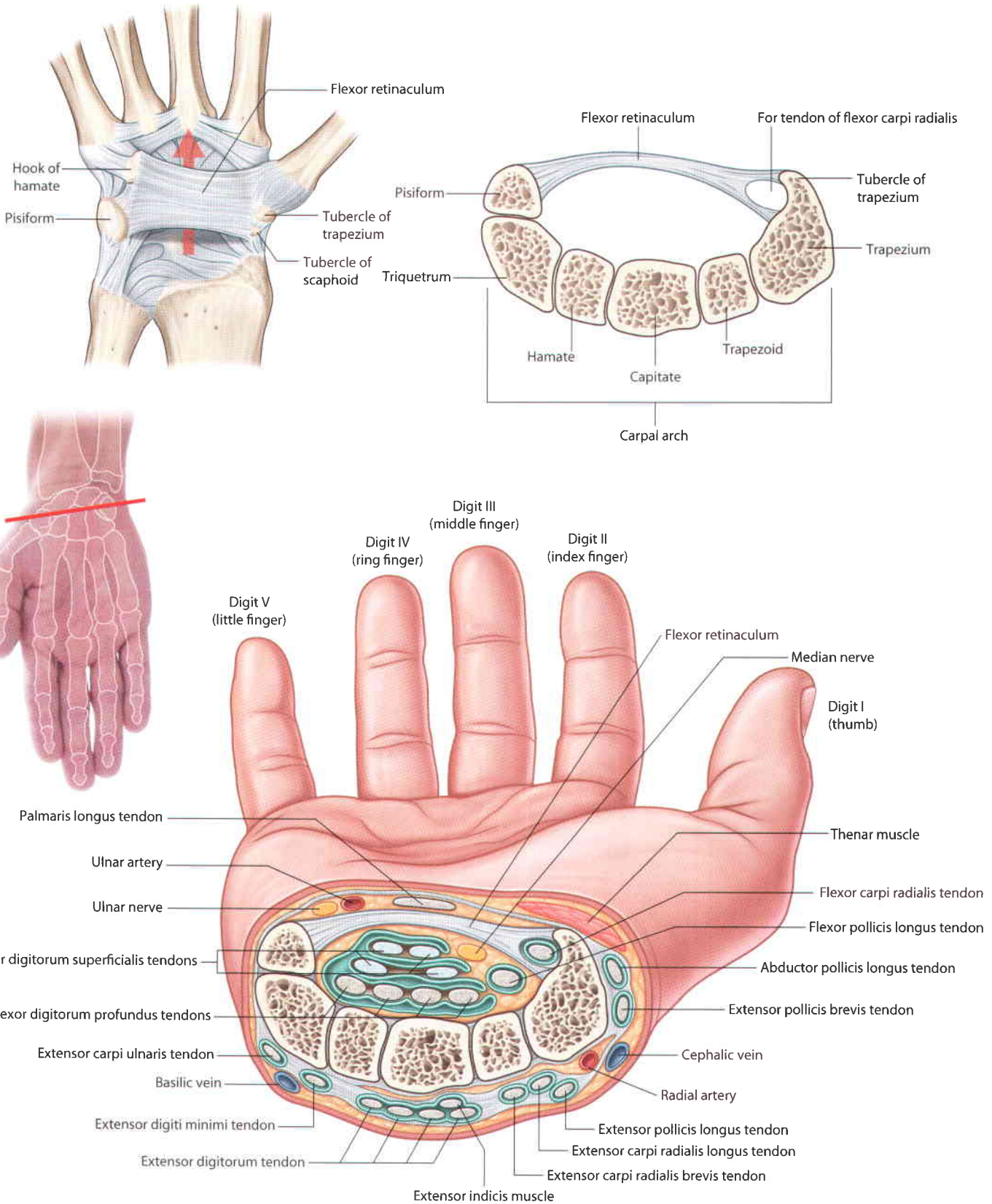


Transverse sections through forearm

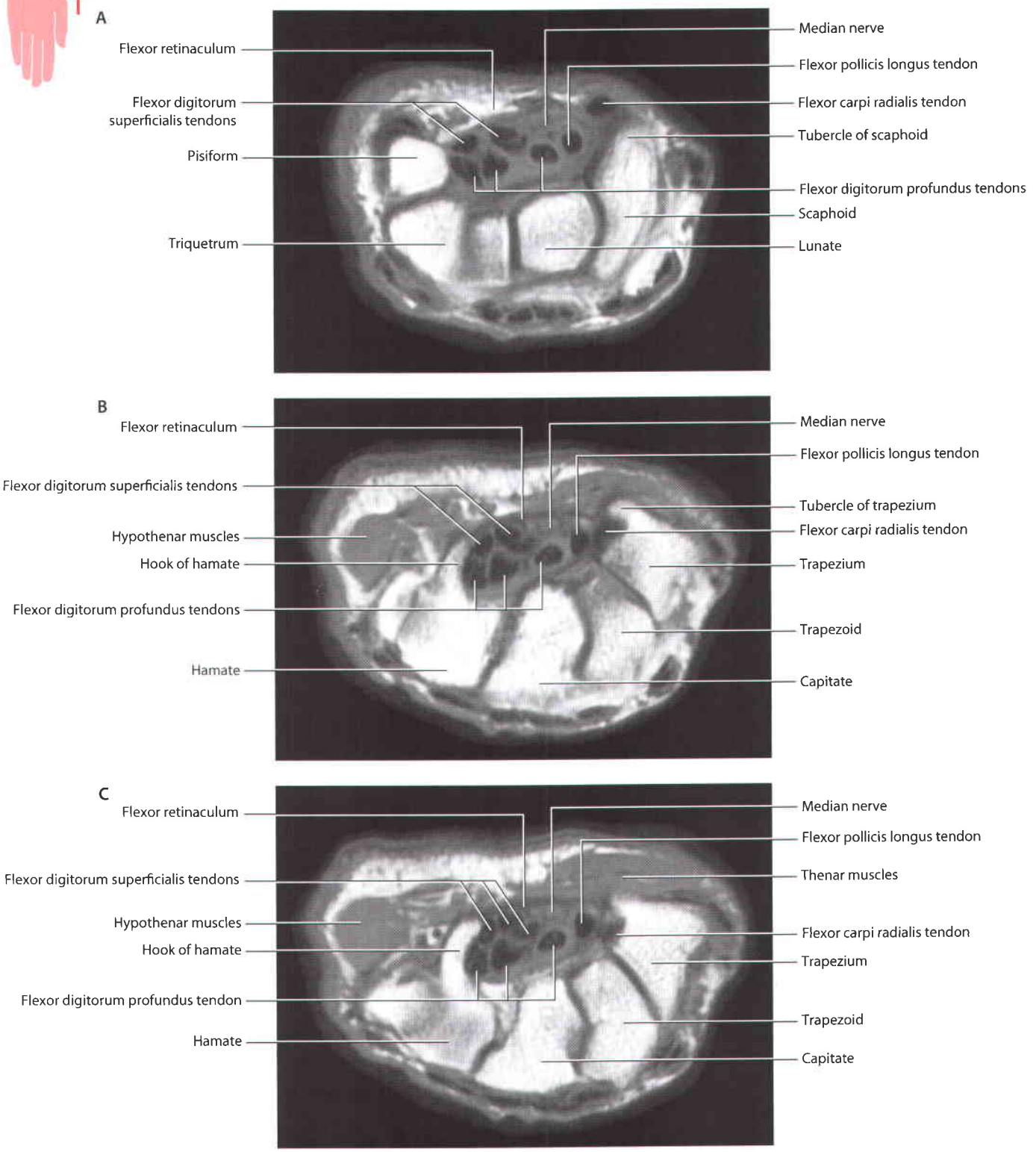




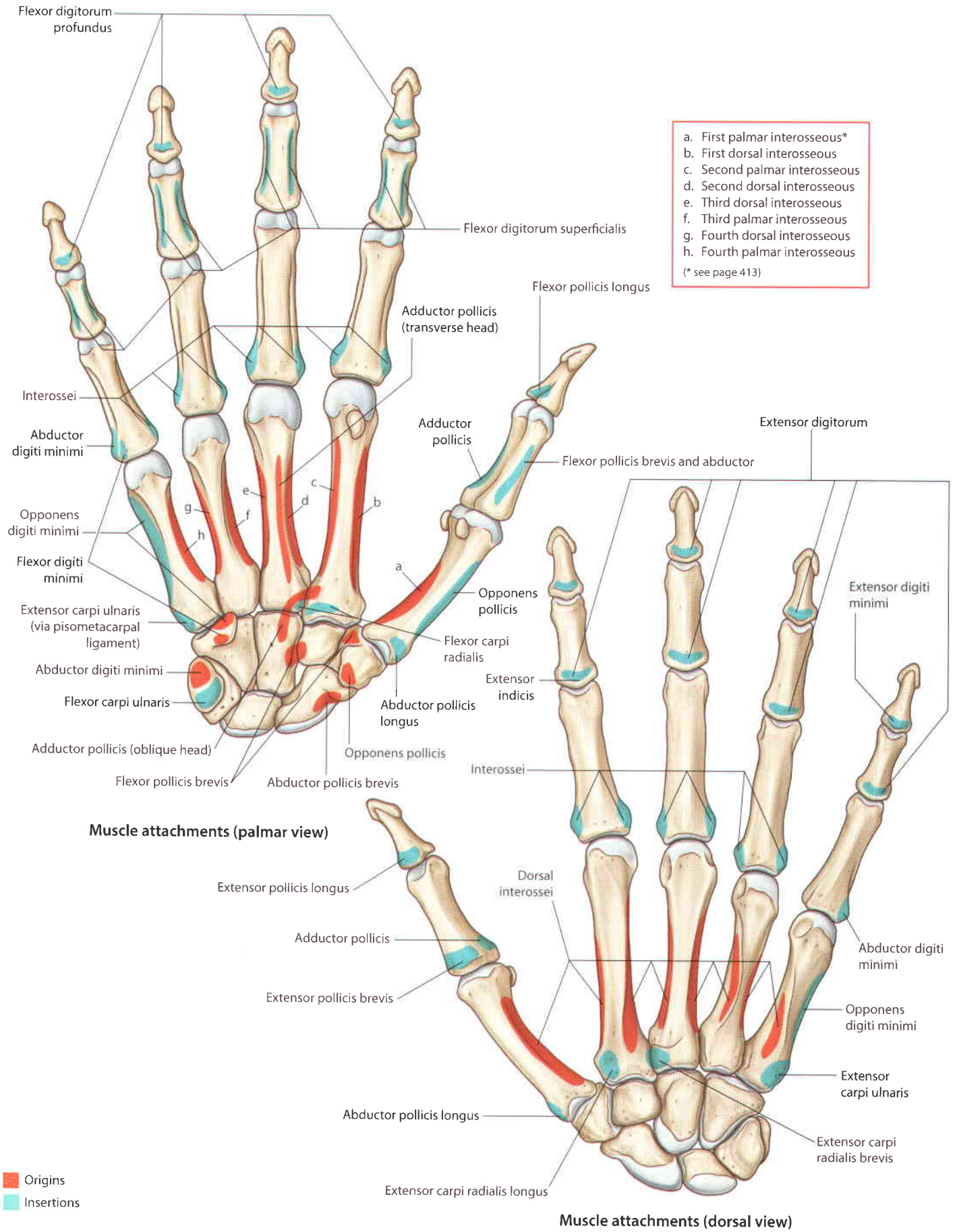
Transverse/axial sections through the forearm.
A. Proximal/upper forearm.
B. Middle forearm.
C. Distal/lower forearm.
T1-weighted MR image in axial plane



Carpal tunnel, structures and relations

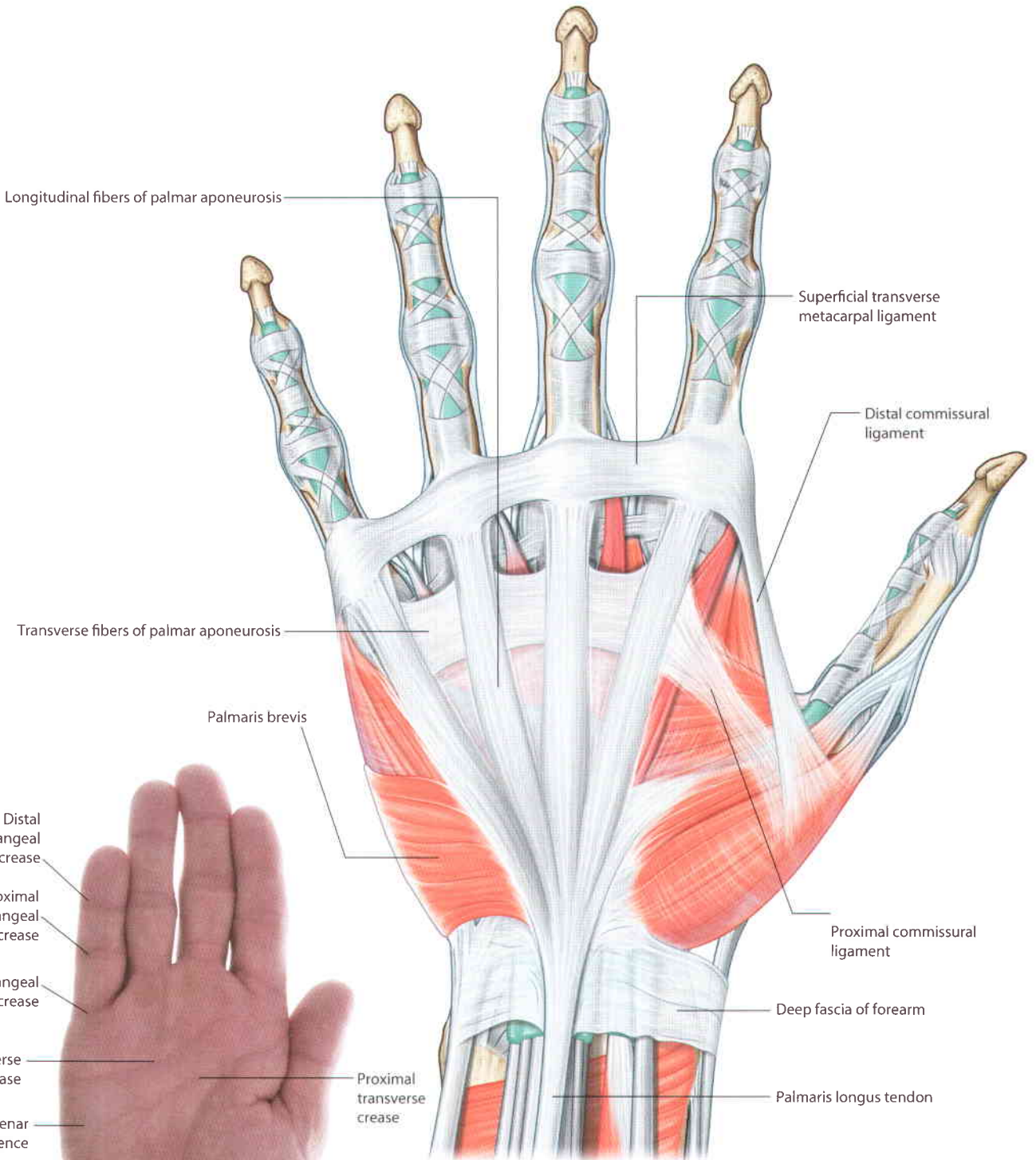


Transverse/axial sections through the carpal tunnel.
A. Proximal end of carpal tunnel.
B. Middle portion of carpal tunnel.
C. Distal portion of carpal tunnel.
T1-weighted MR images in axial plane



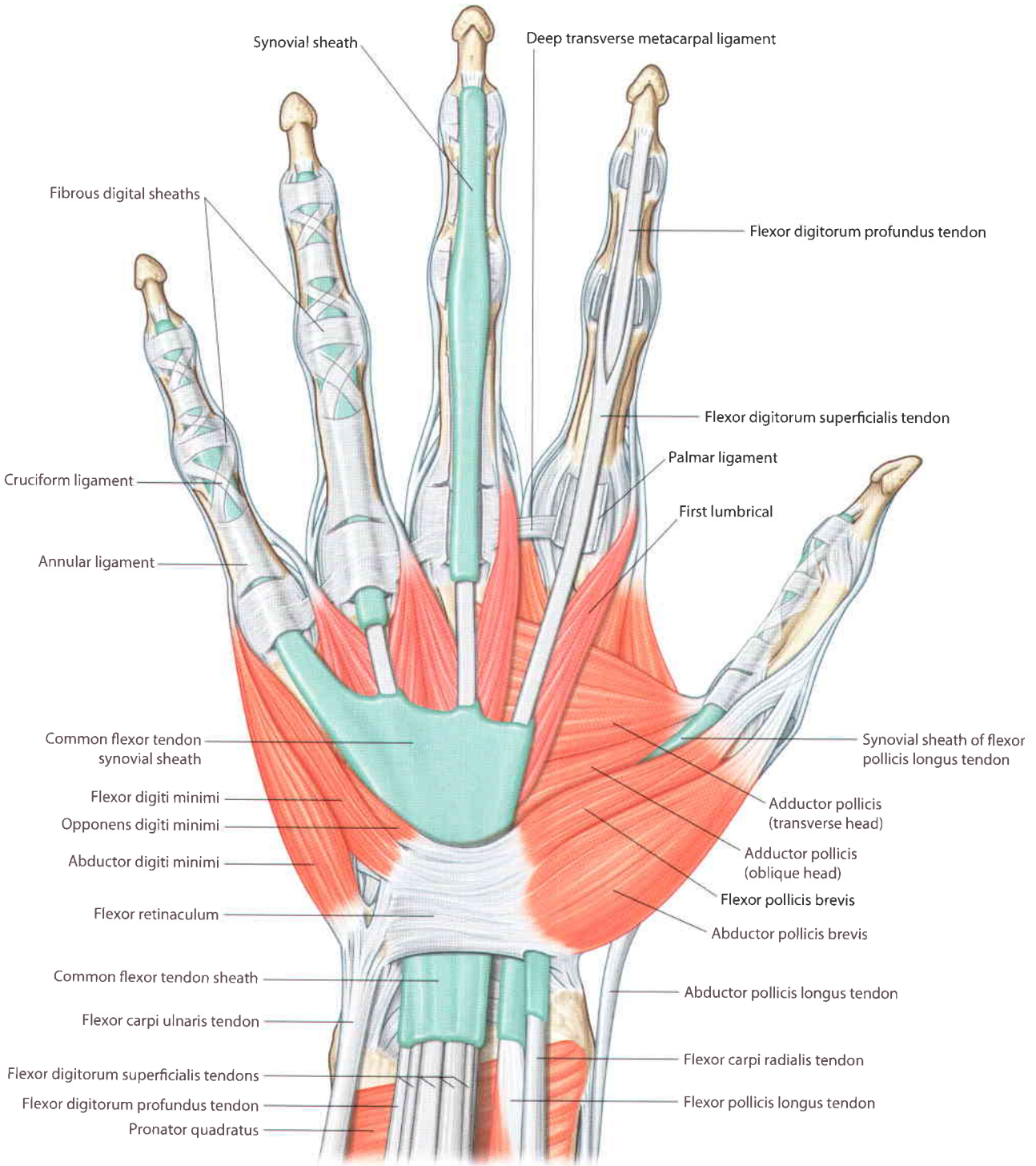
Muscle attachments (palmar view)

Muscle attachments (dorsal view)

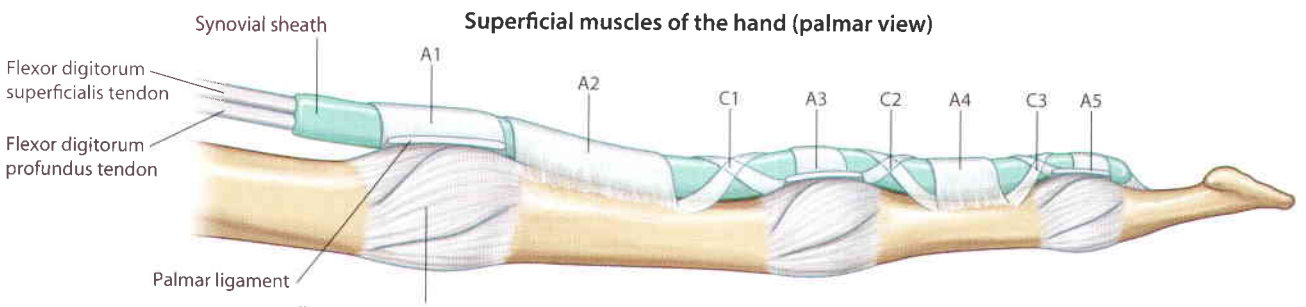


Palmar aponeurosis (palmar view)

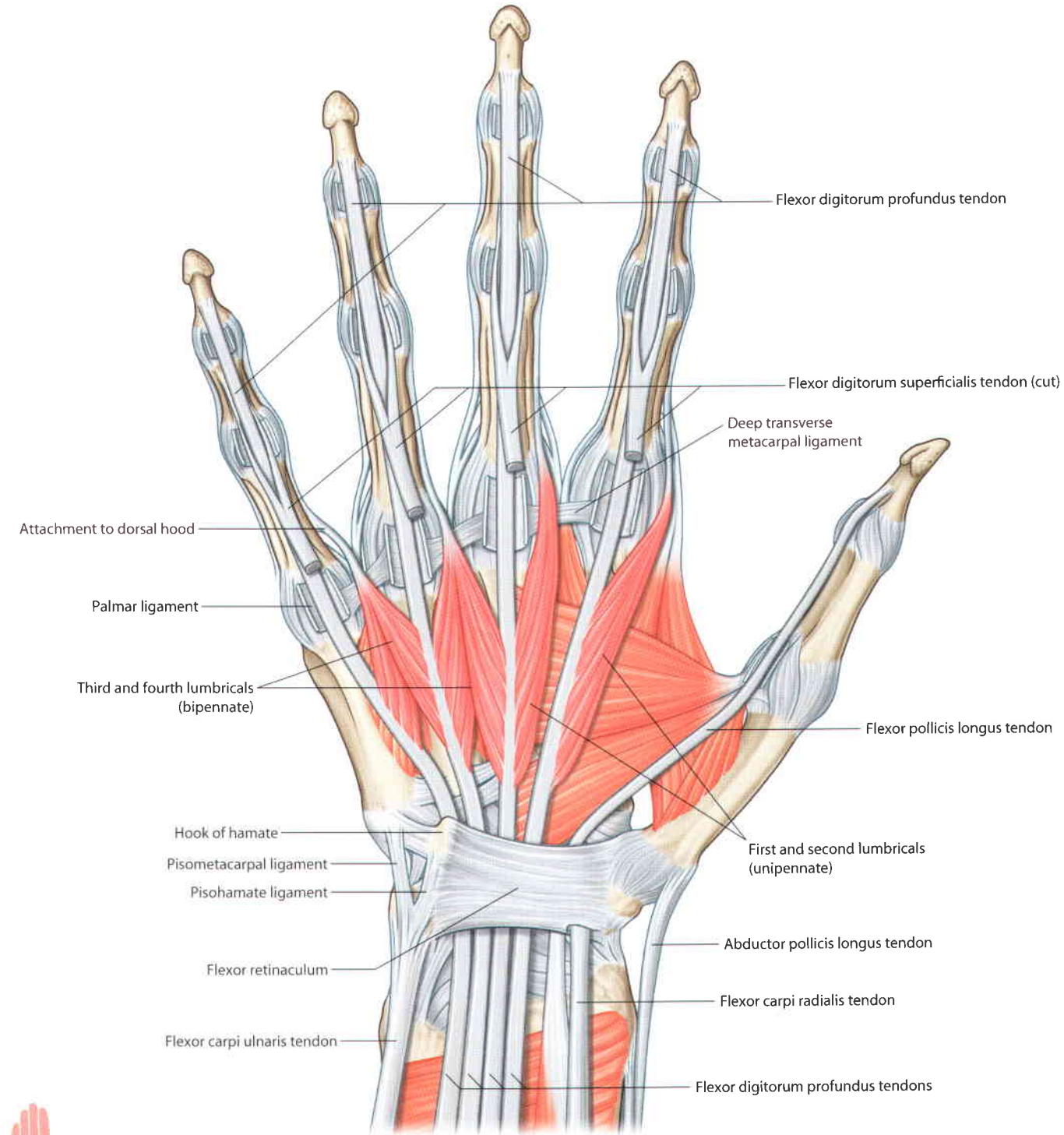
Surface anatomy (palmar view)



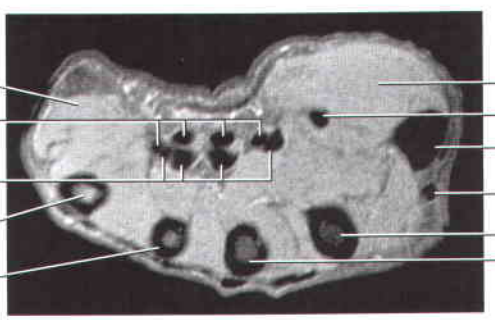
Superficial muscles of the hand (palmar view)



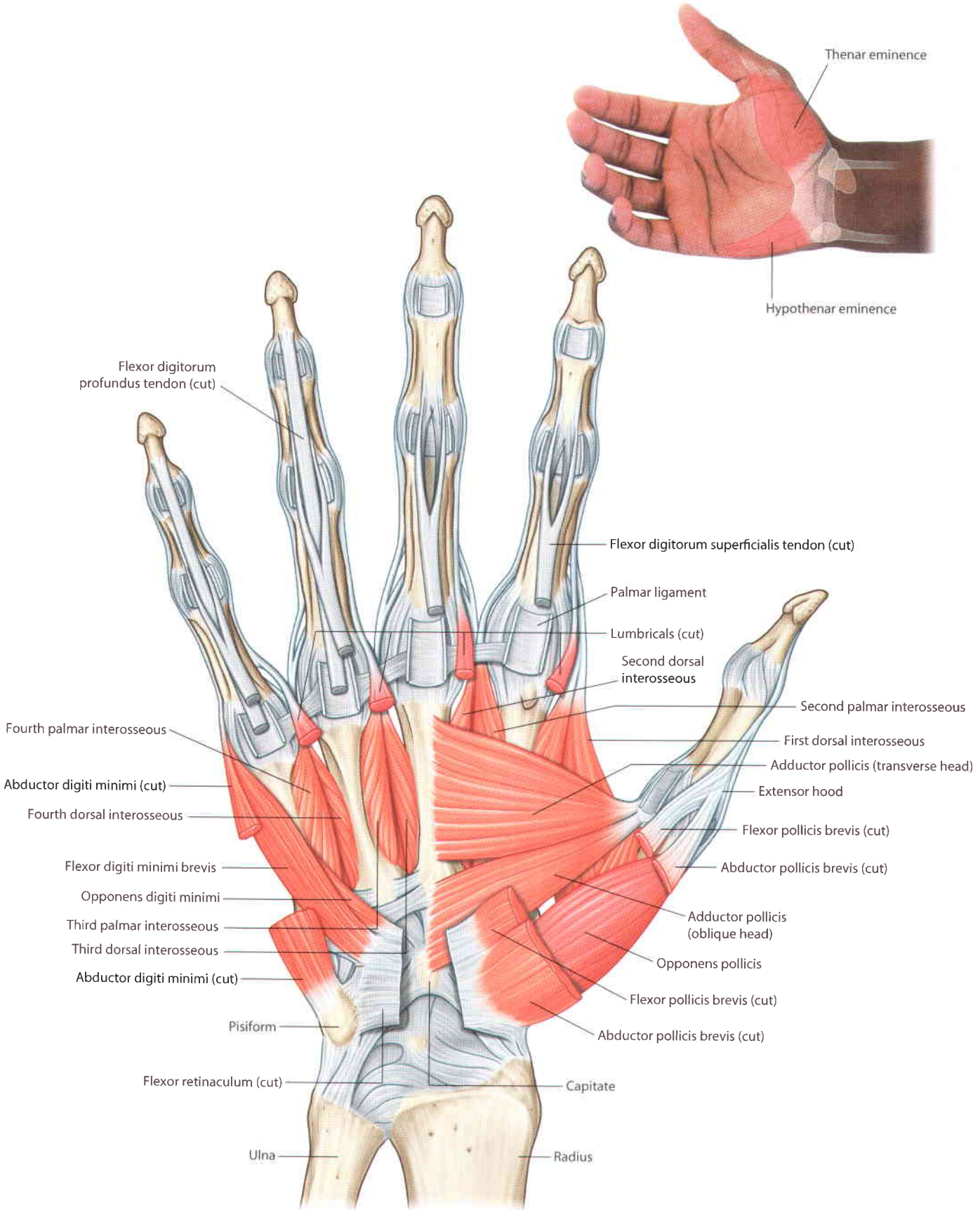
Fibrous digital sheath and synovial sheath
Annular ligaments (A), cruciform ligaments (C)



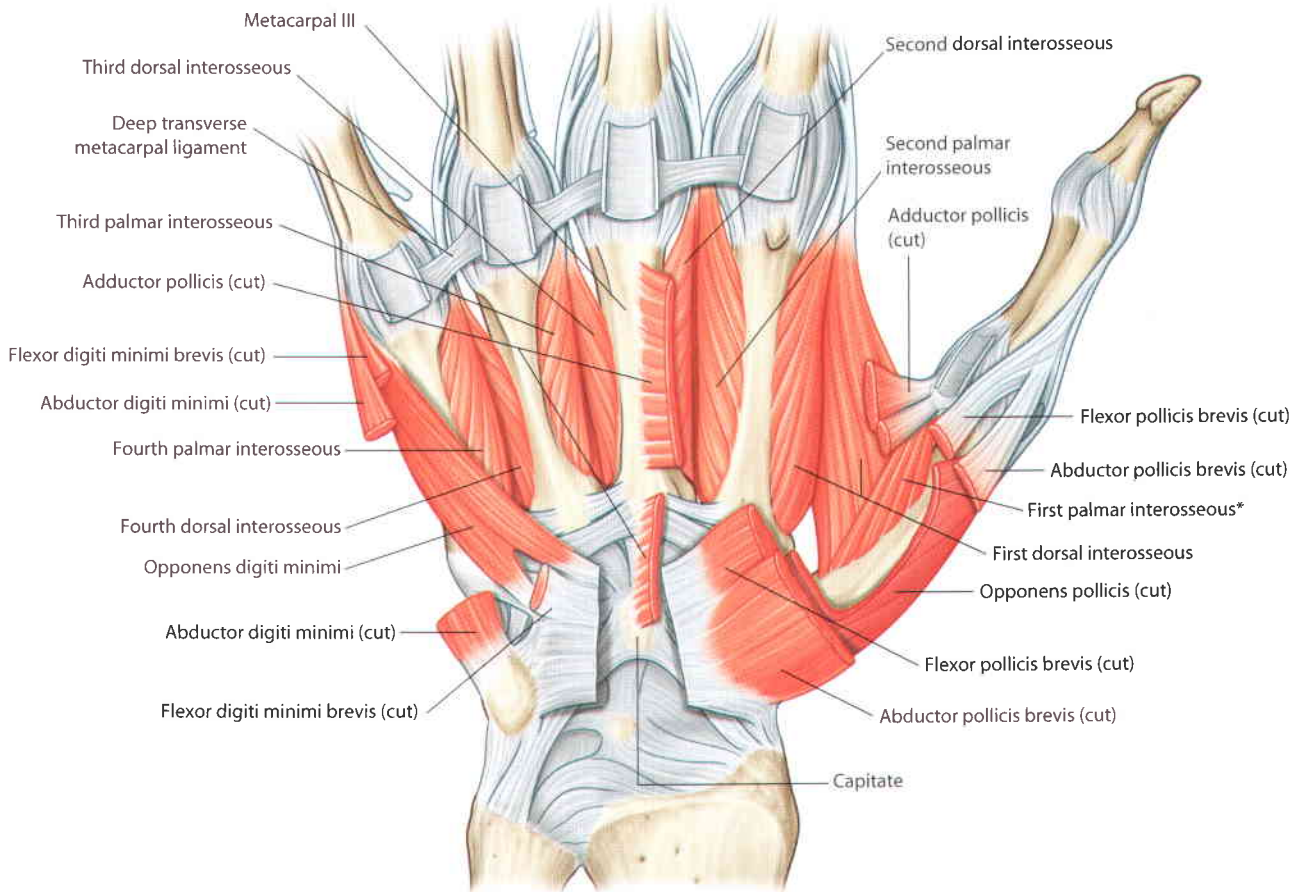
Lumbrical muscles (palmar view)



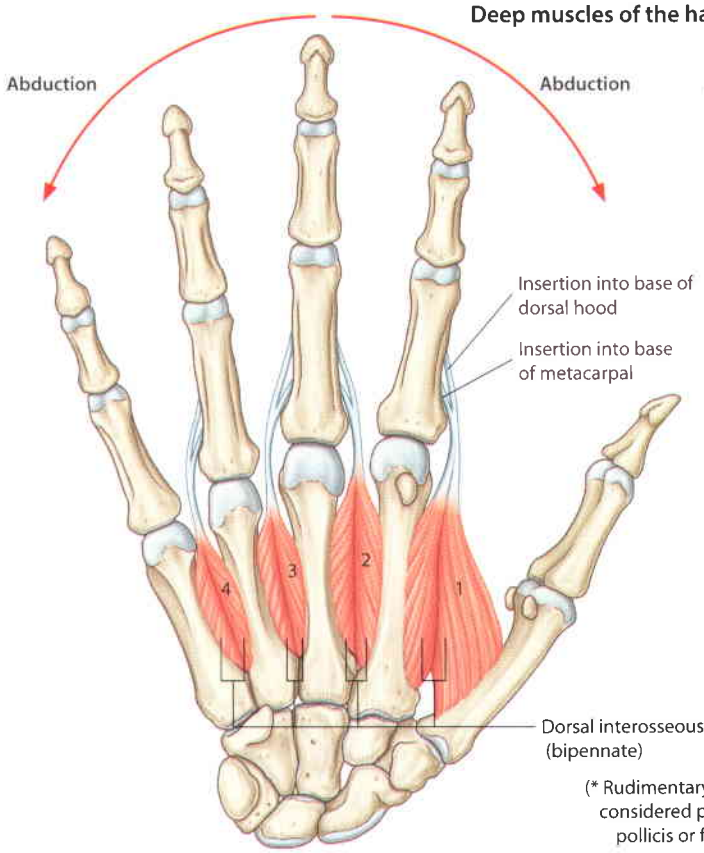
Imaging of the proximal portion of the hand.
T1-weighted MR image in axial plane



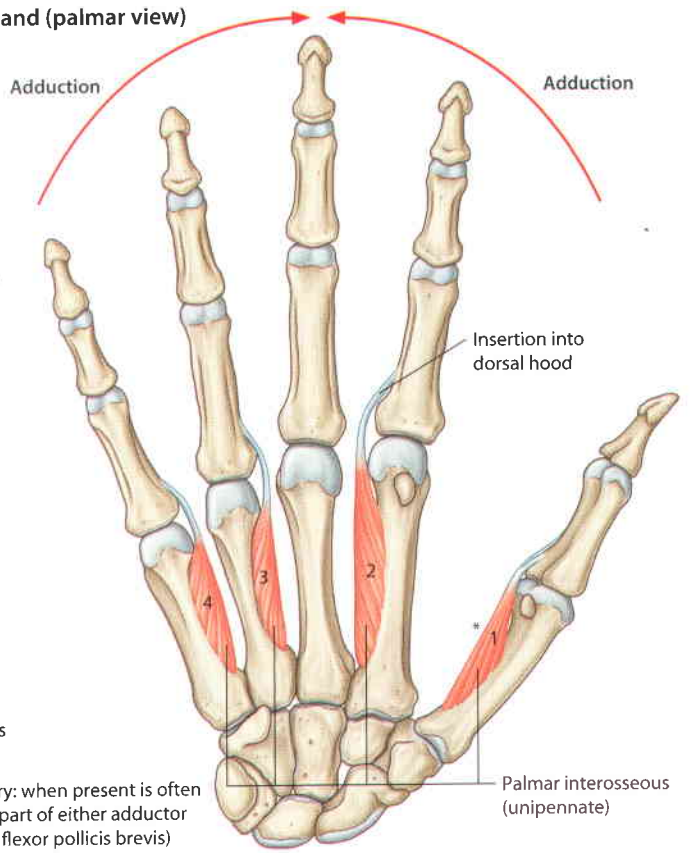
Deep muscles of the hand (palmar view)



Deep muscles of the hand (palmar view)

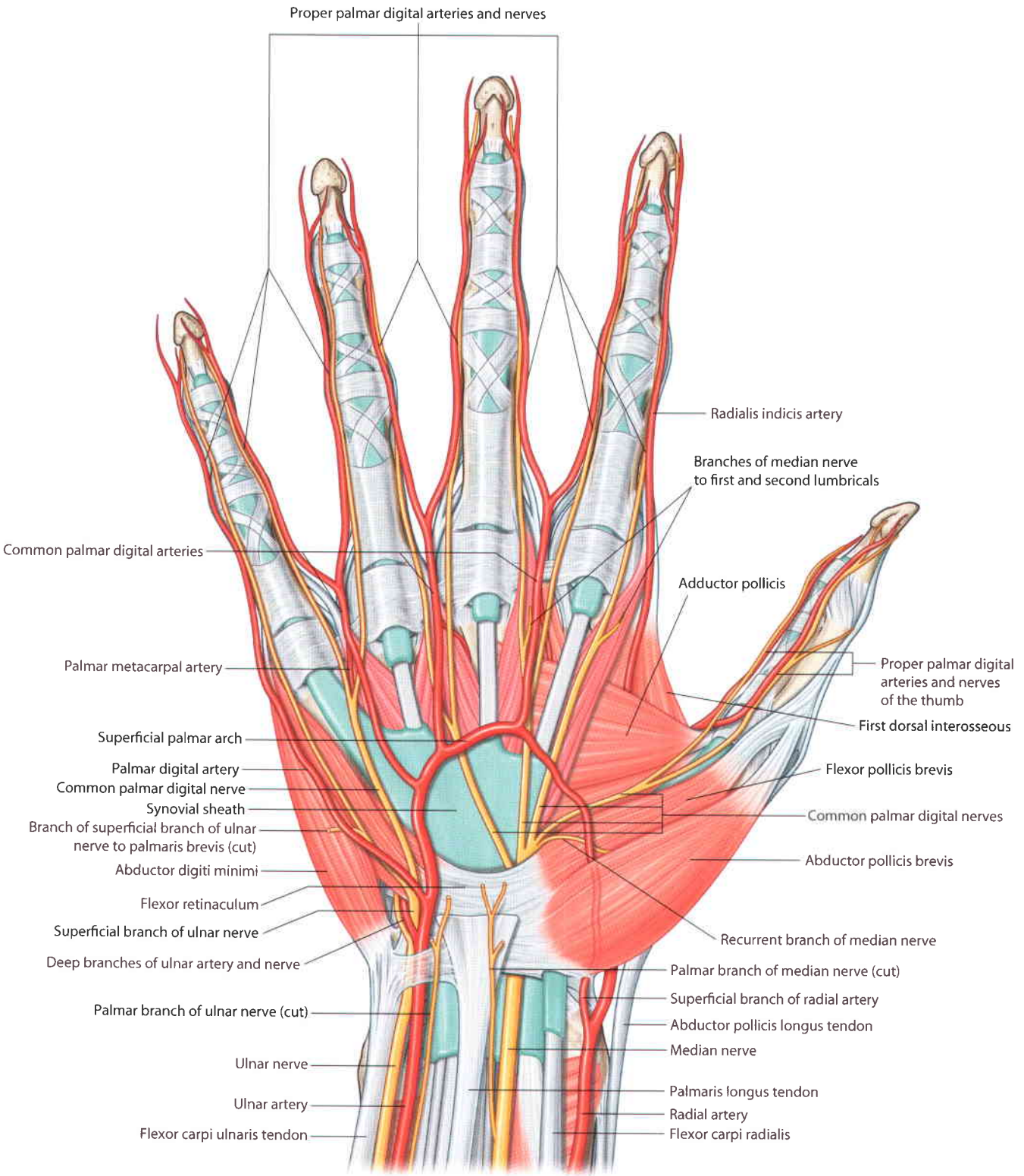


Dorsal interossei (palmar view)

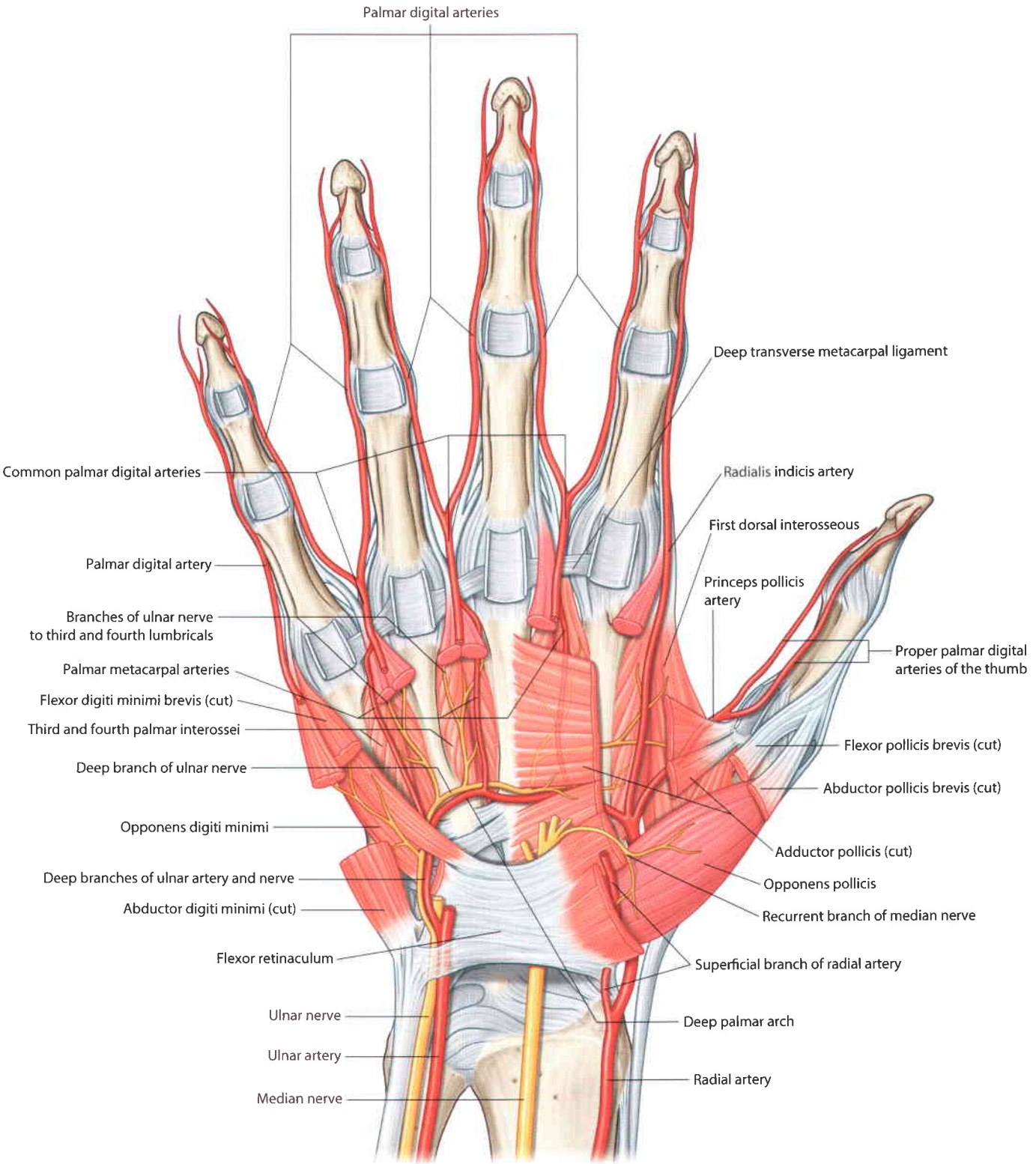


(* Rudimentary: when present is often considered part of either adductor pollicis or flexor pollicis brevis)

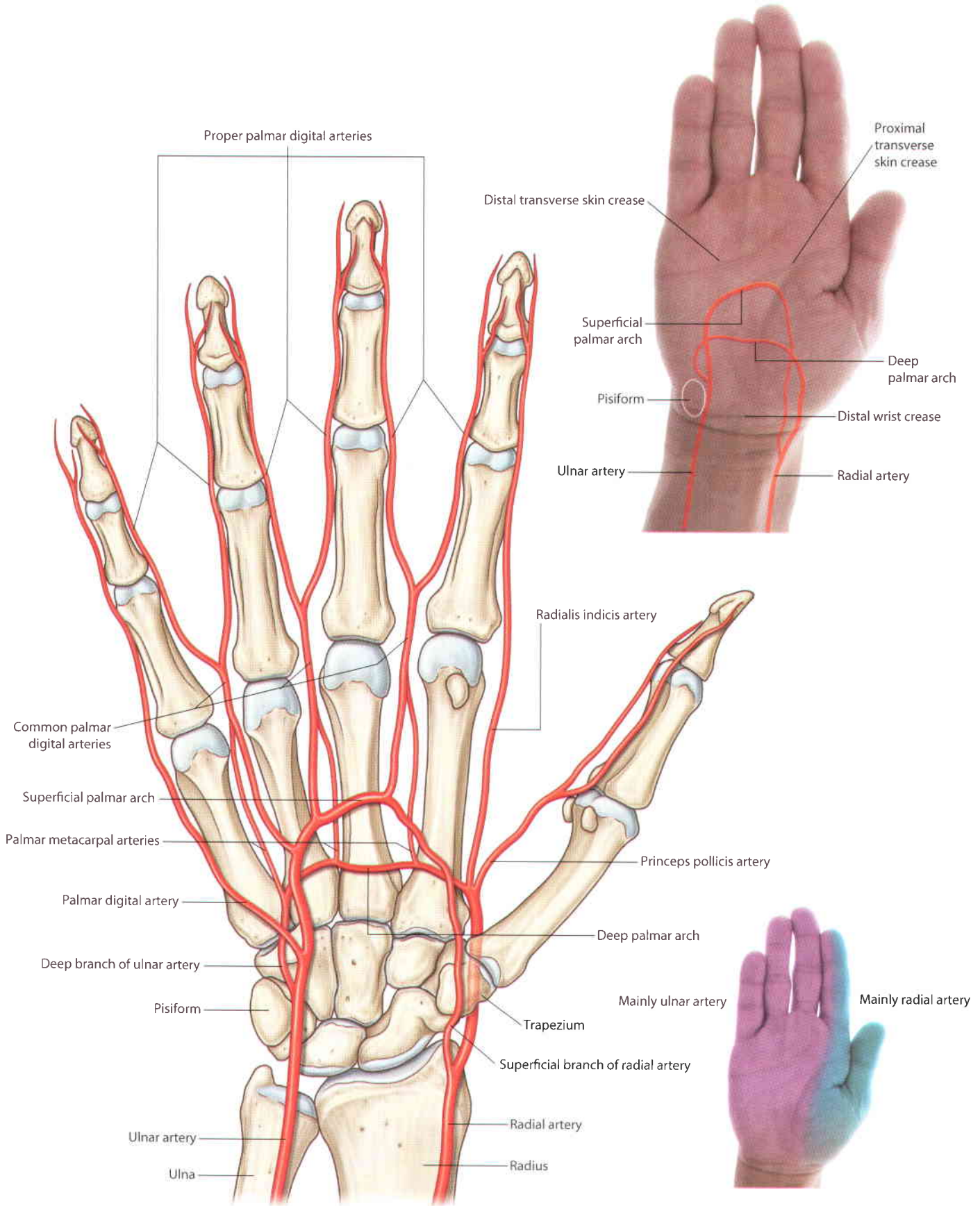
Palmar interossei (palmar view)



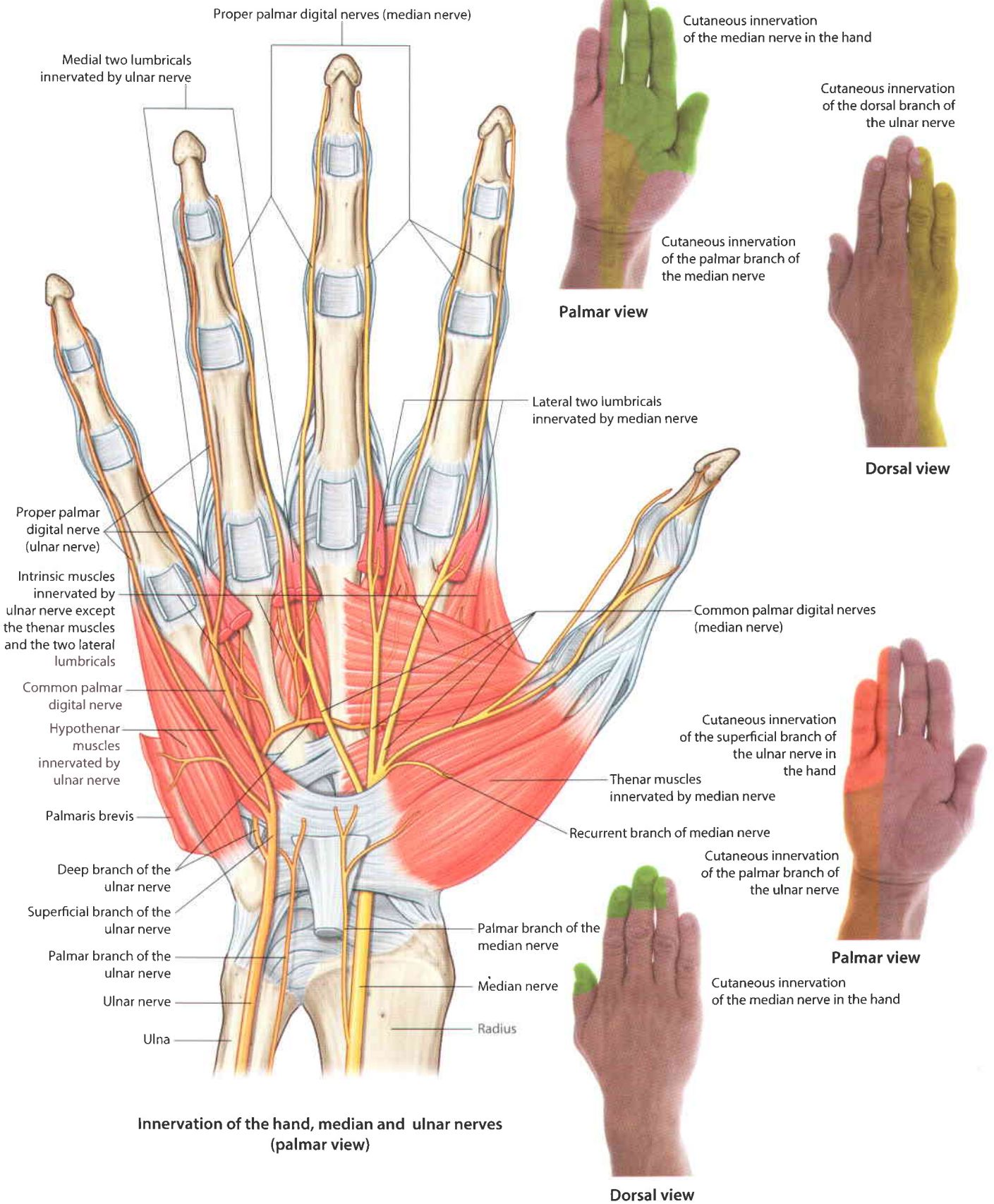
Superficial arteries and nerves of the hand (palmar view)



Deep arteries and nerves of the hand (palmar view)

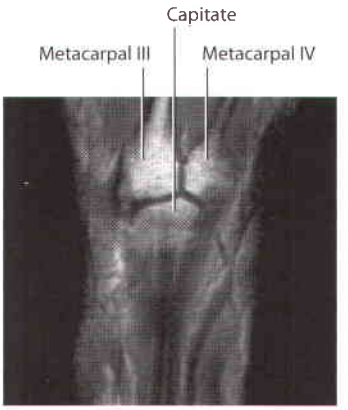


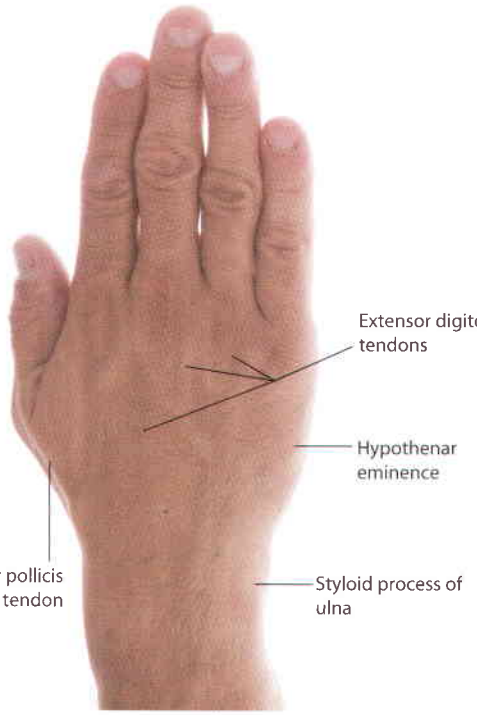
Arteries of the hand (palmar view)



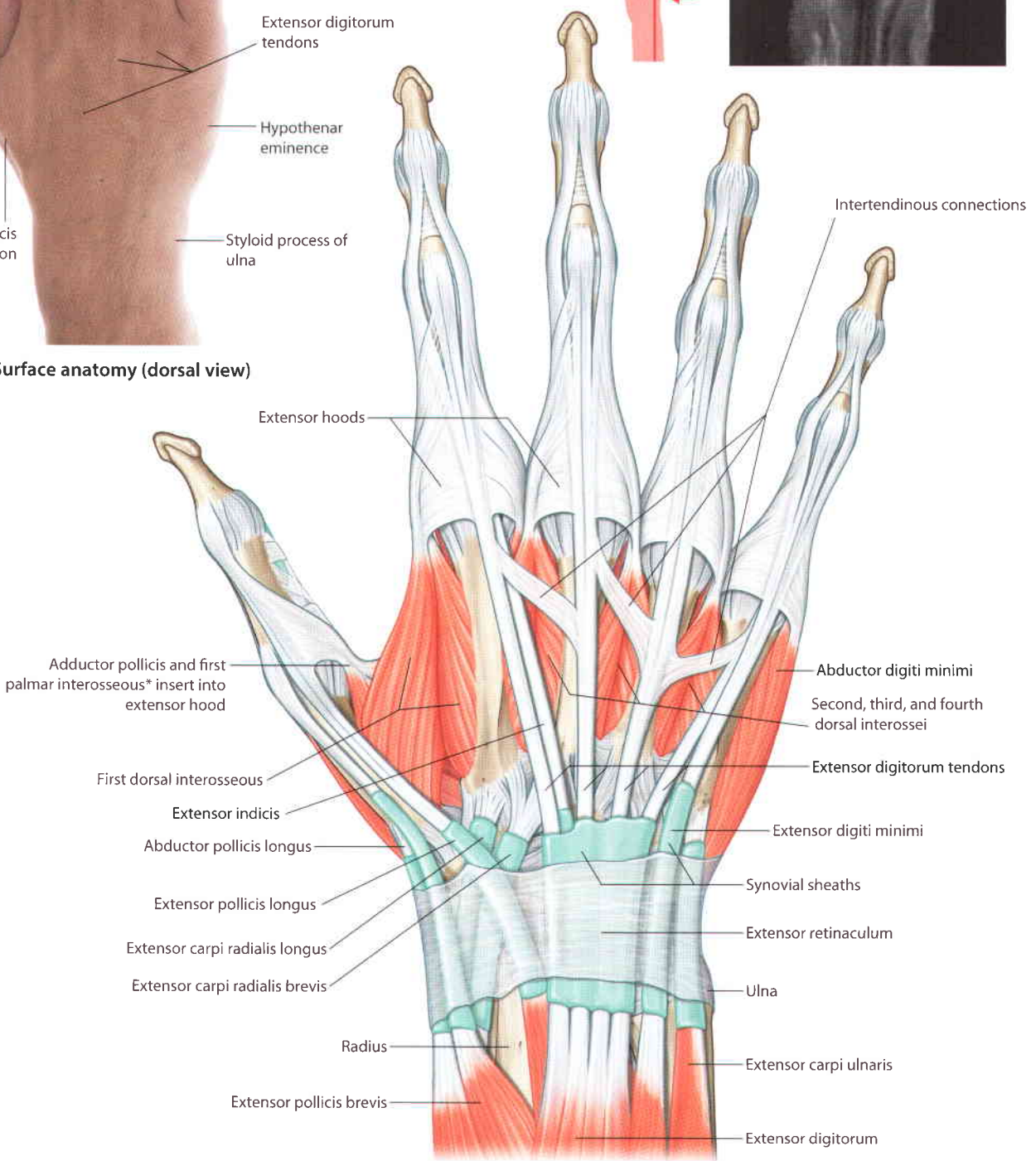
Innervation of the hand, median and ulnar nerves (palmar view)

Tendons of the extensor muscles of the forearm crossing the wrist joint and passing onto the dorsal surface of the hand.
T1-weighted MR image in coronal plane

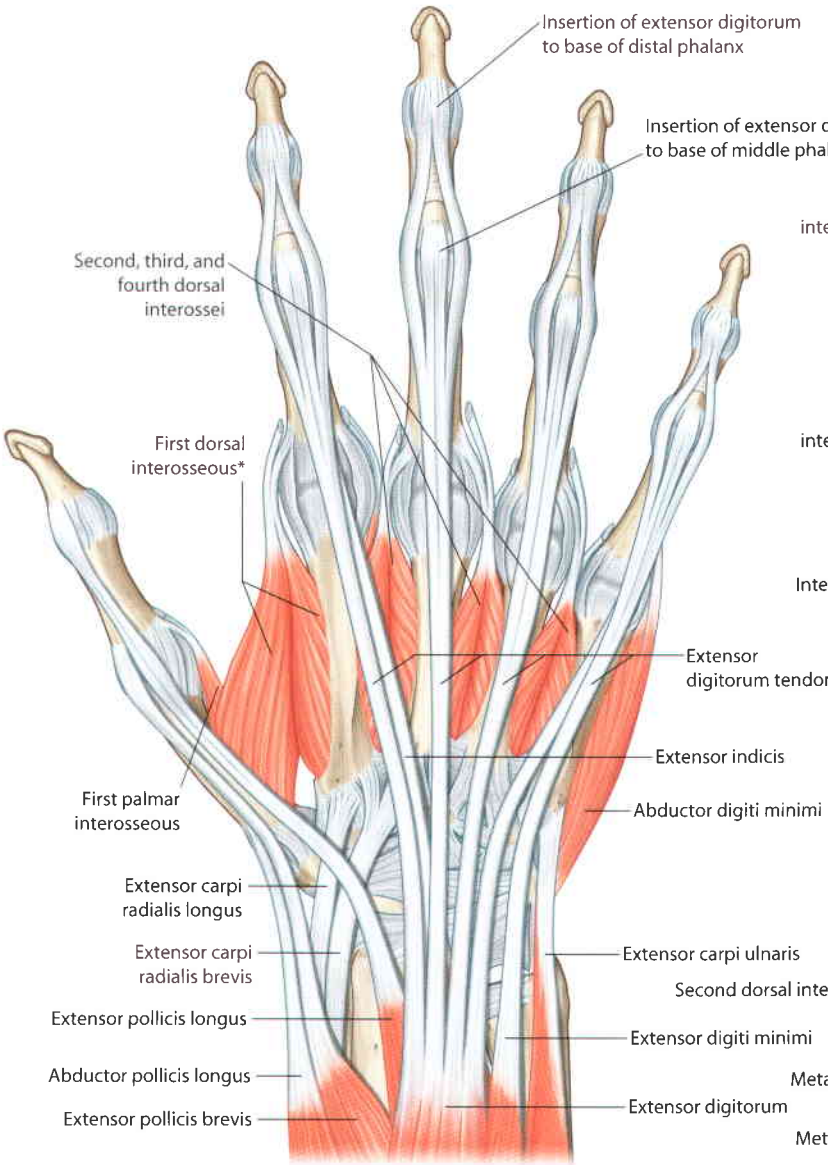




Surface anatomy (dorsal view)

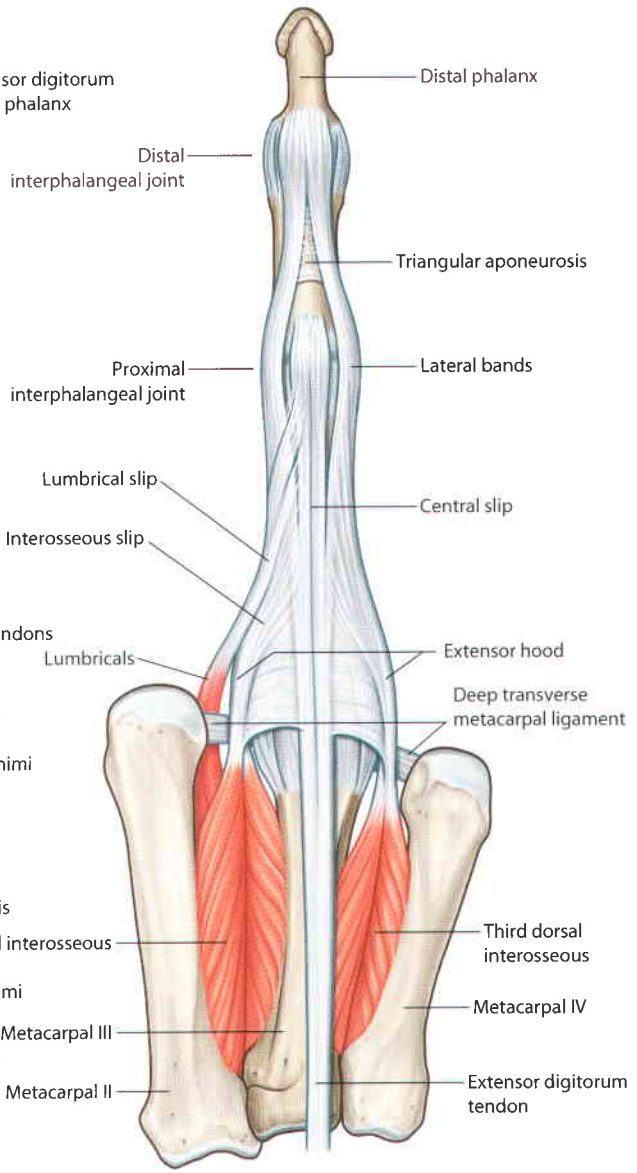


Superficial structures of the hand (dorsal view)
(* see page 413)

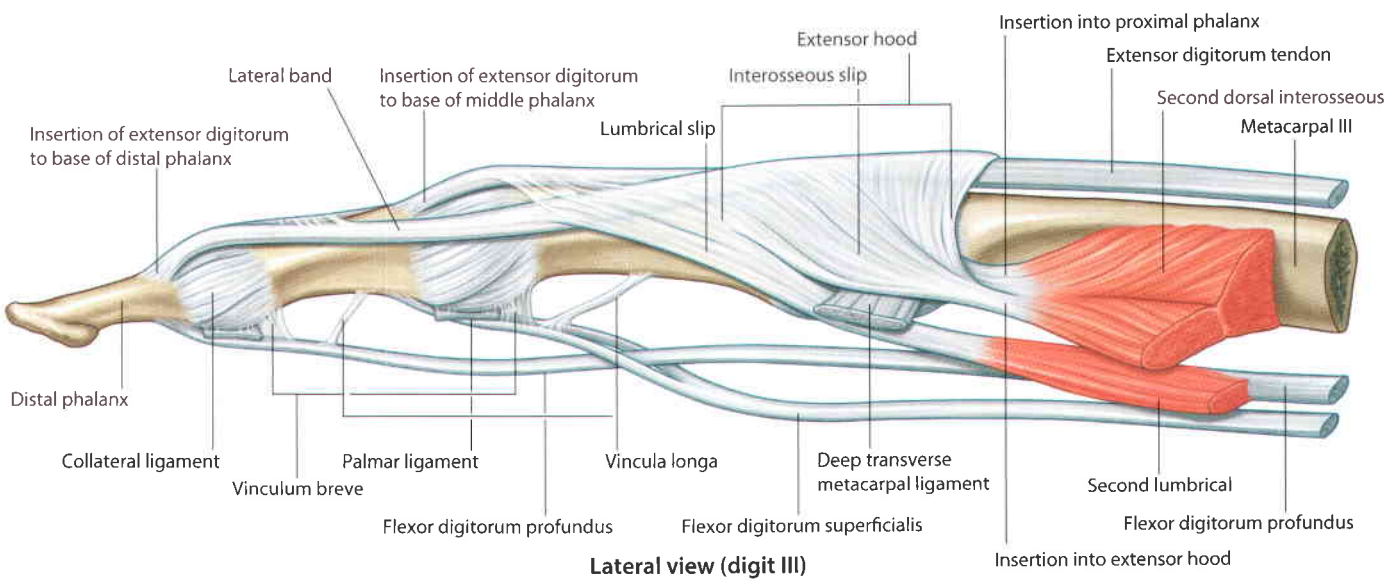


Extensor tendons (dorsal view)

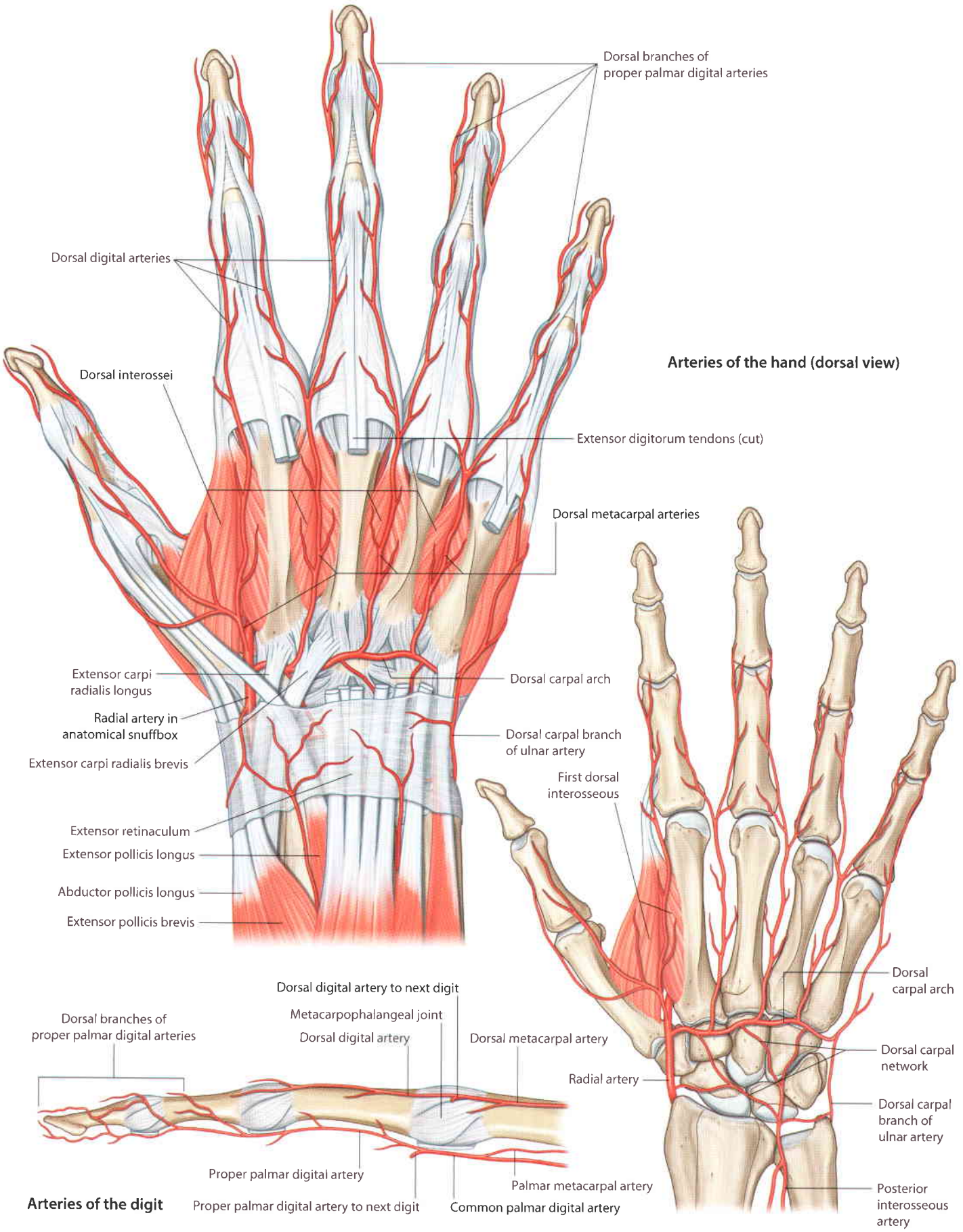
(* see page 413)



Dorsal view (digit III)

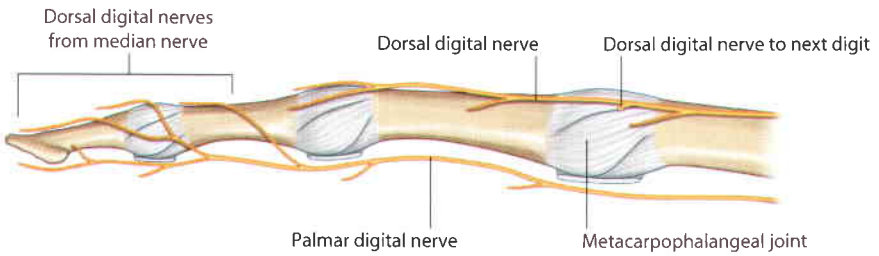


Lateral view (digit III)



Arteries of the hand (dorsal view)

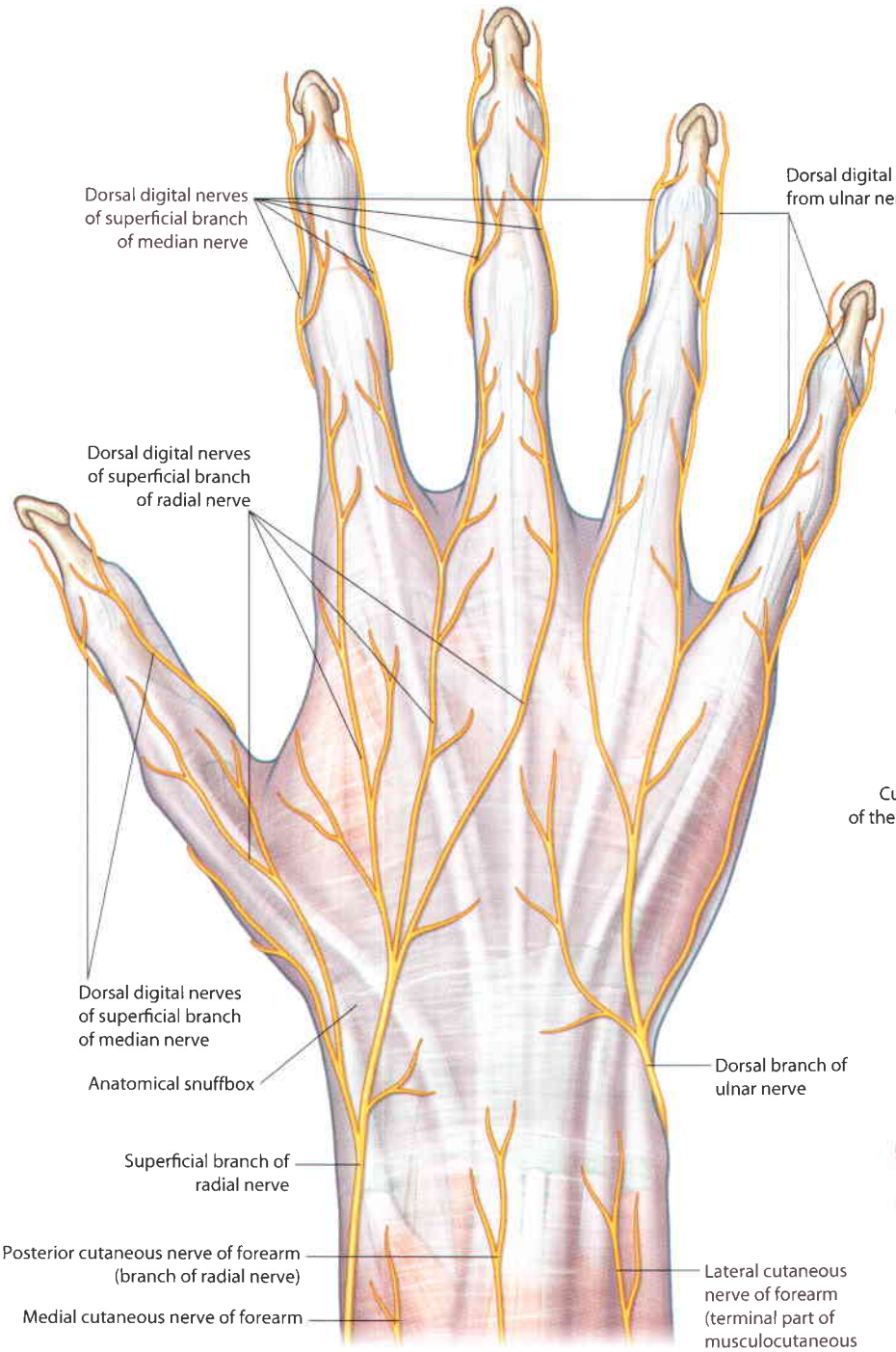
Arteries of the digit



Nerves of the digit

Cutaneous innervation of the superficial branch of the radial nerve

Dorsal view



Nerves of the hand (dorsal view)

Cutaneous innervation of the superficial branch of the radial nerve

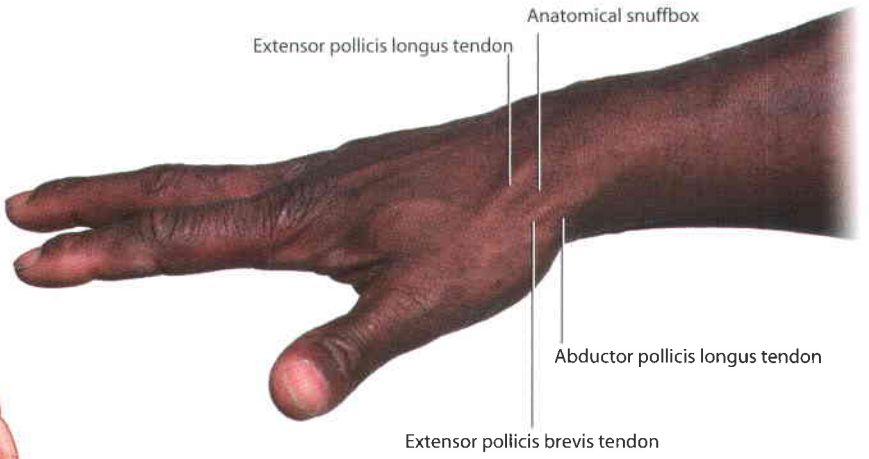
Palmar view

Cutaneous innervation of the superficial branch of the median nerve

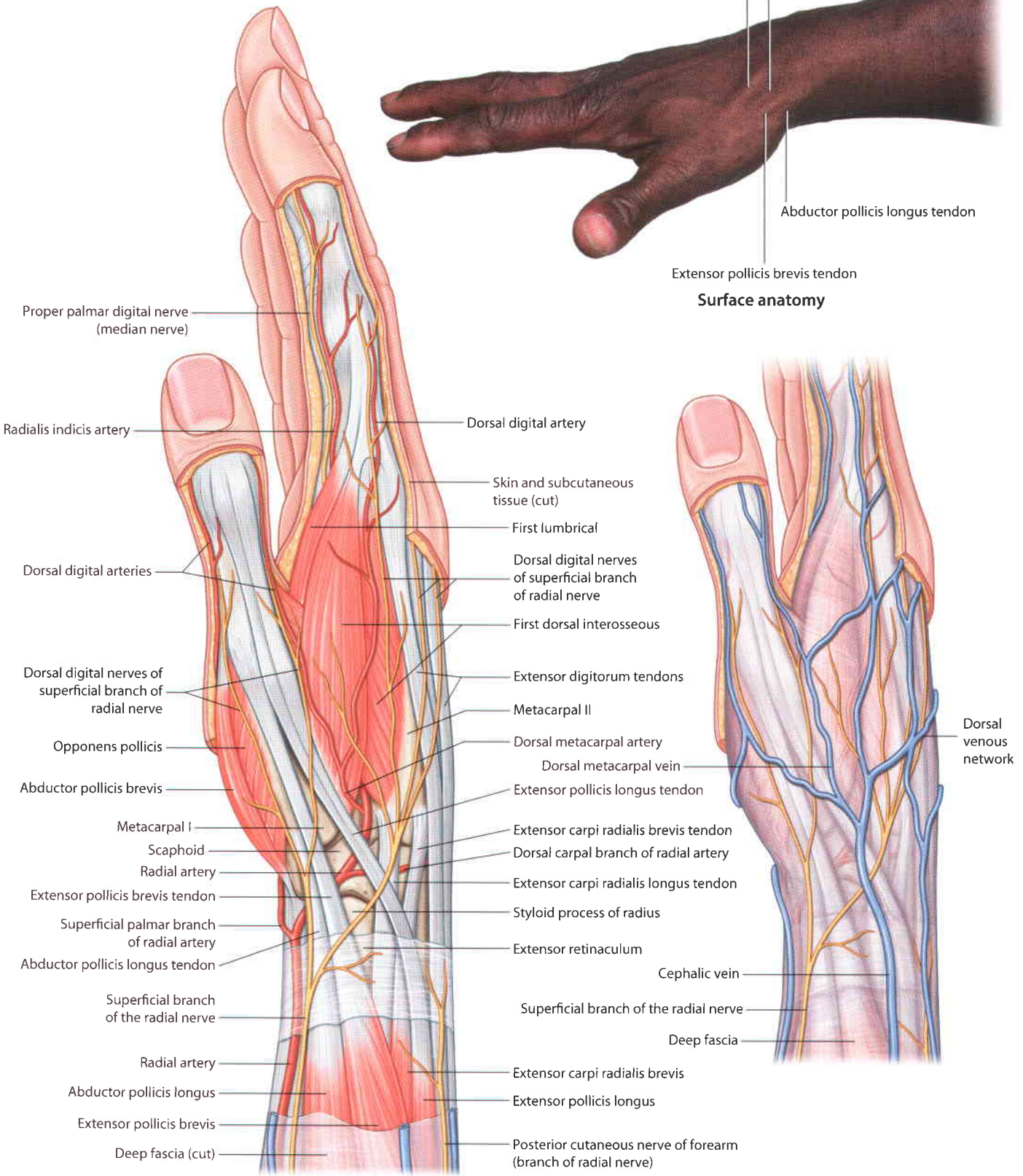
Dorsal view

Cutaneous innervation of the dorsal branch of the ulnar nerve

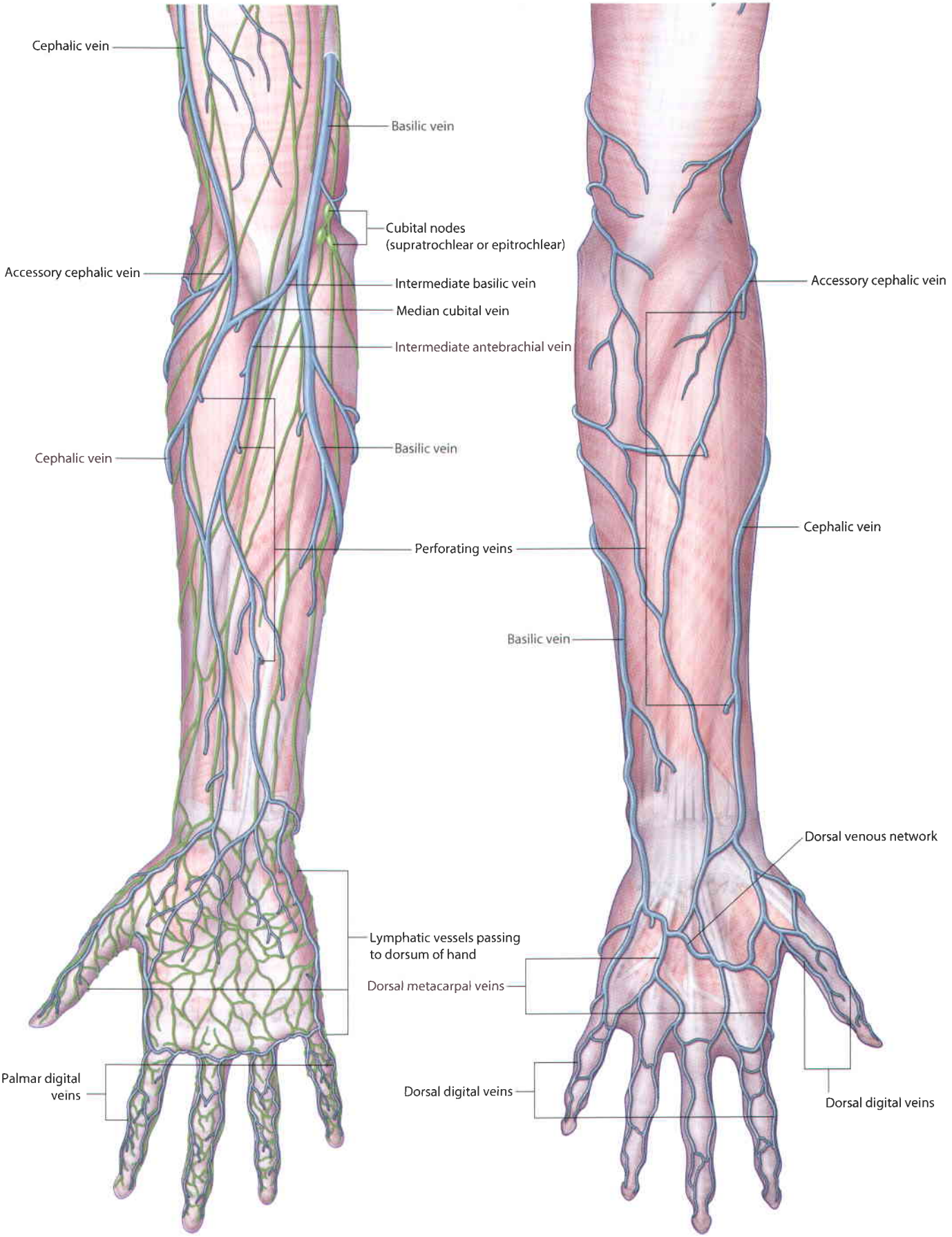
Dorsal view



Surface anatomy

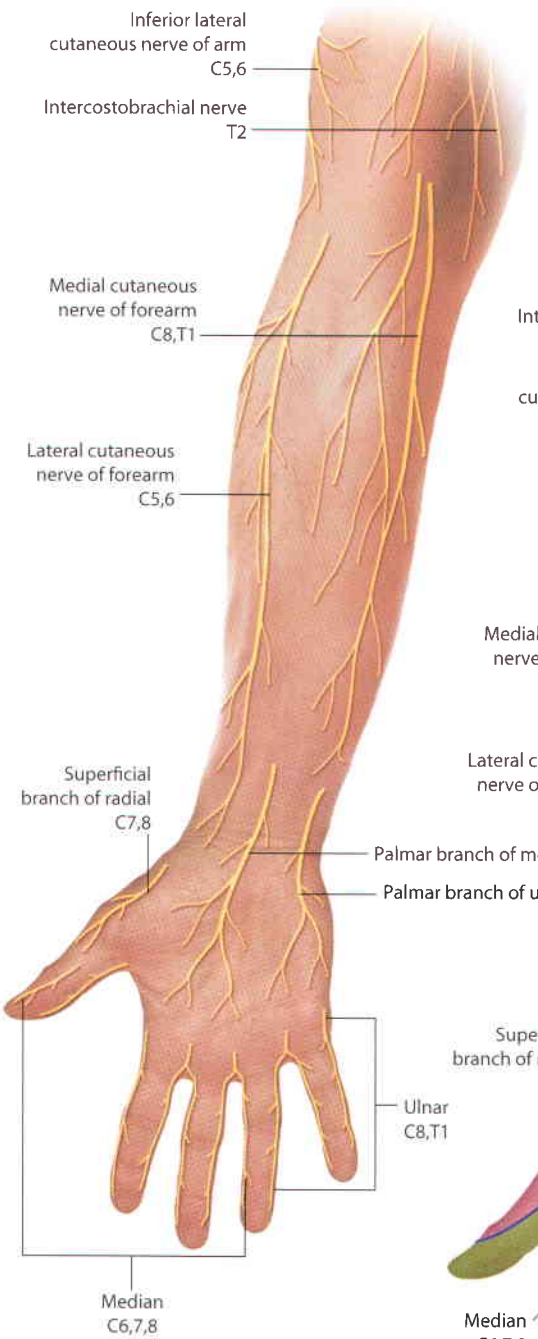


Anatomical snuffbox (lateral view)

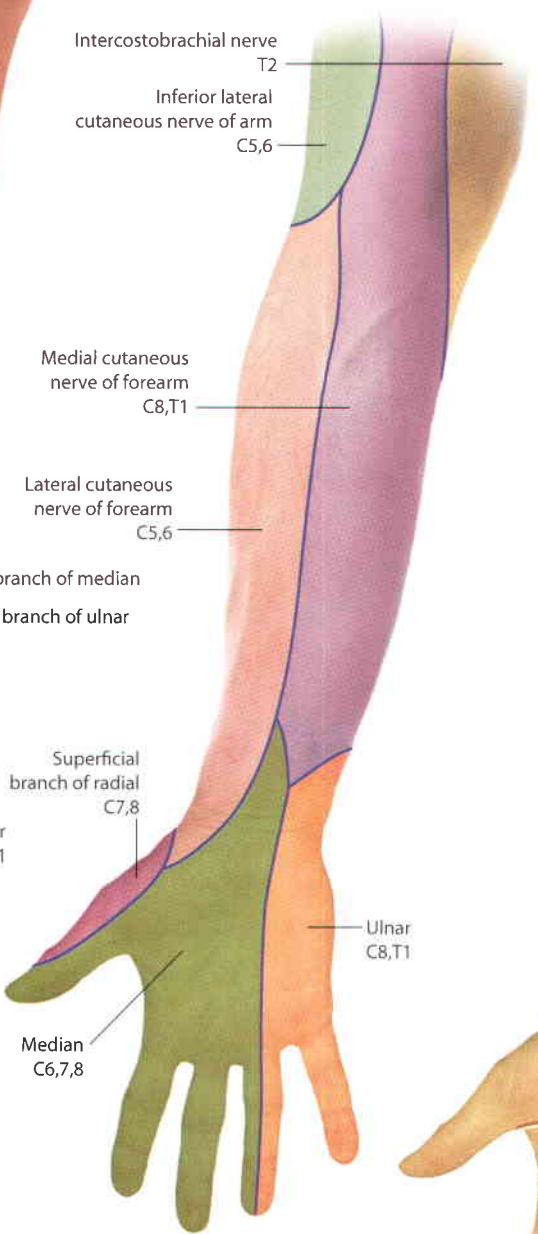


Superficial veins and lymphatics of the forearm (palmar view)

Superficial veins of the forearm (dorsal view)



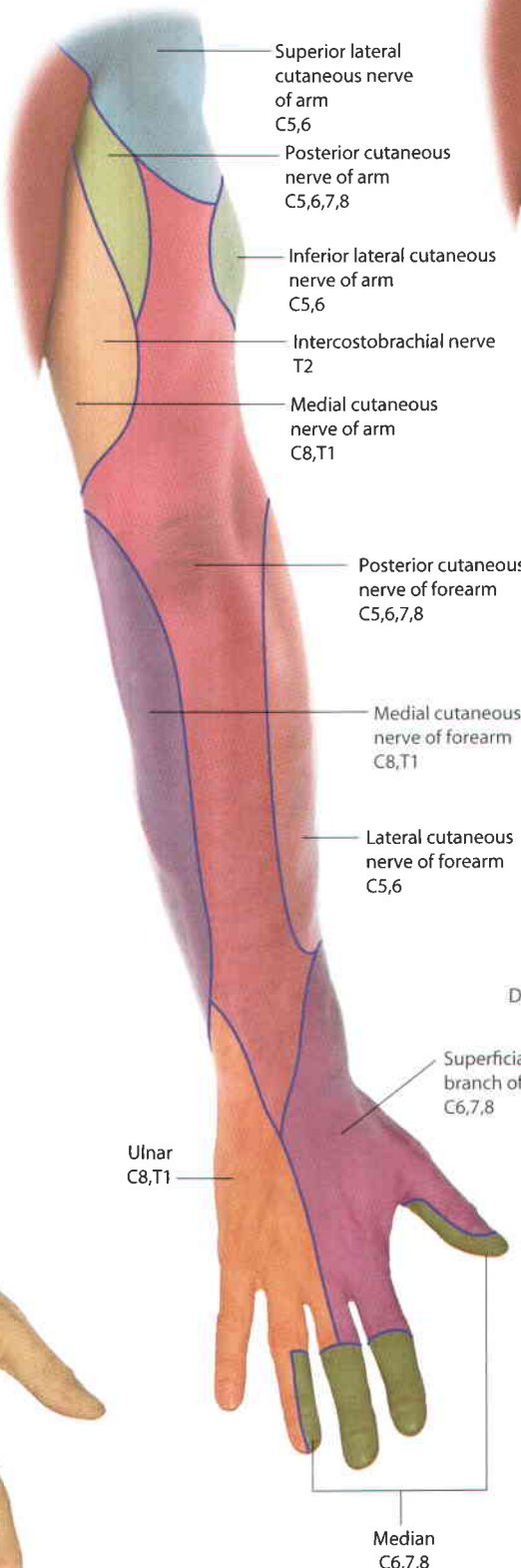
Cutaneous nerves of the forearm



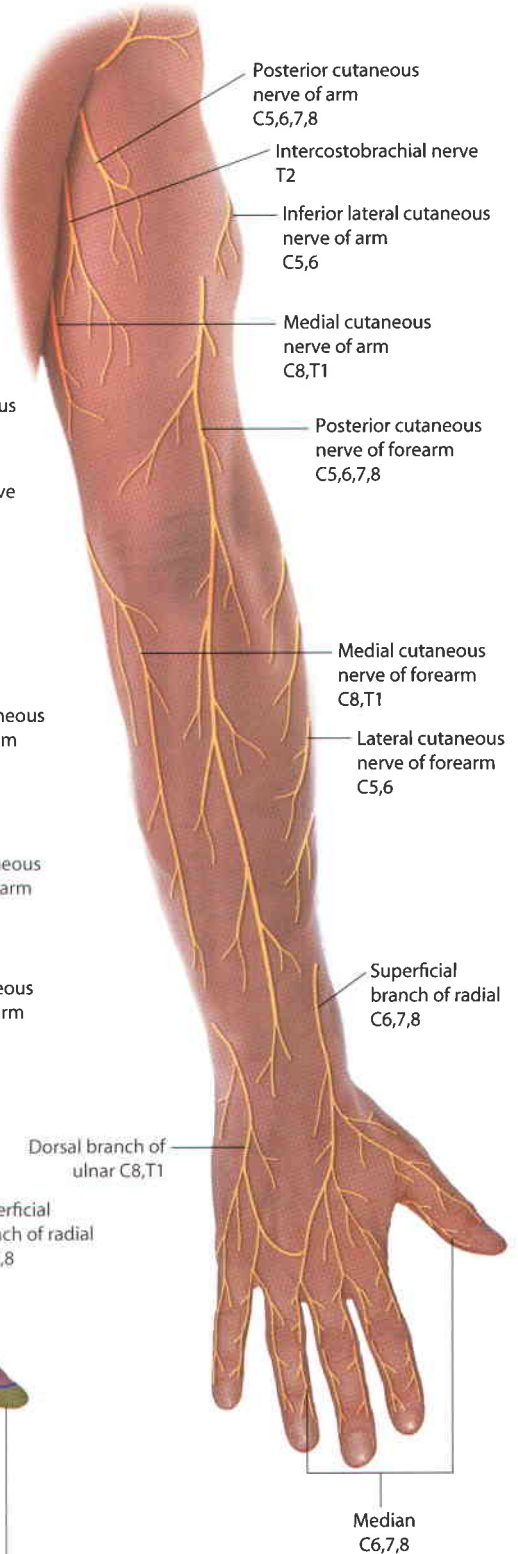
Areas of distribution of the cutaneous nerves of the forearm

Dermatomes of the forearm

Dermatomes of the upper limb



Areas of distribution of the cutaneous nerves of the upper limb



Cutaneous nerves of the upper limb

8

HEAD AND NECK

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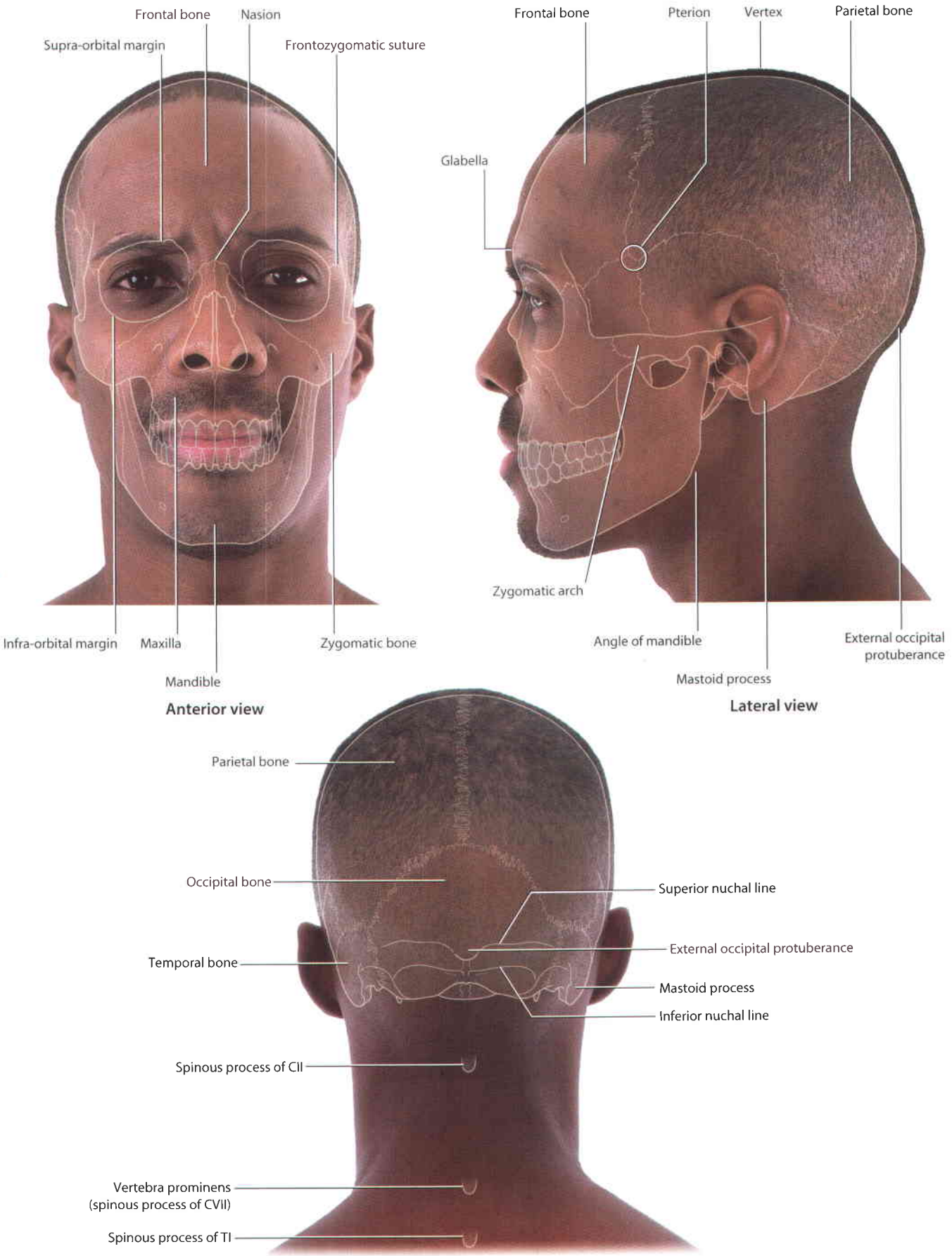
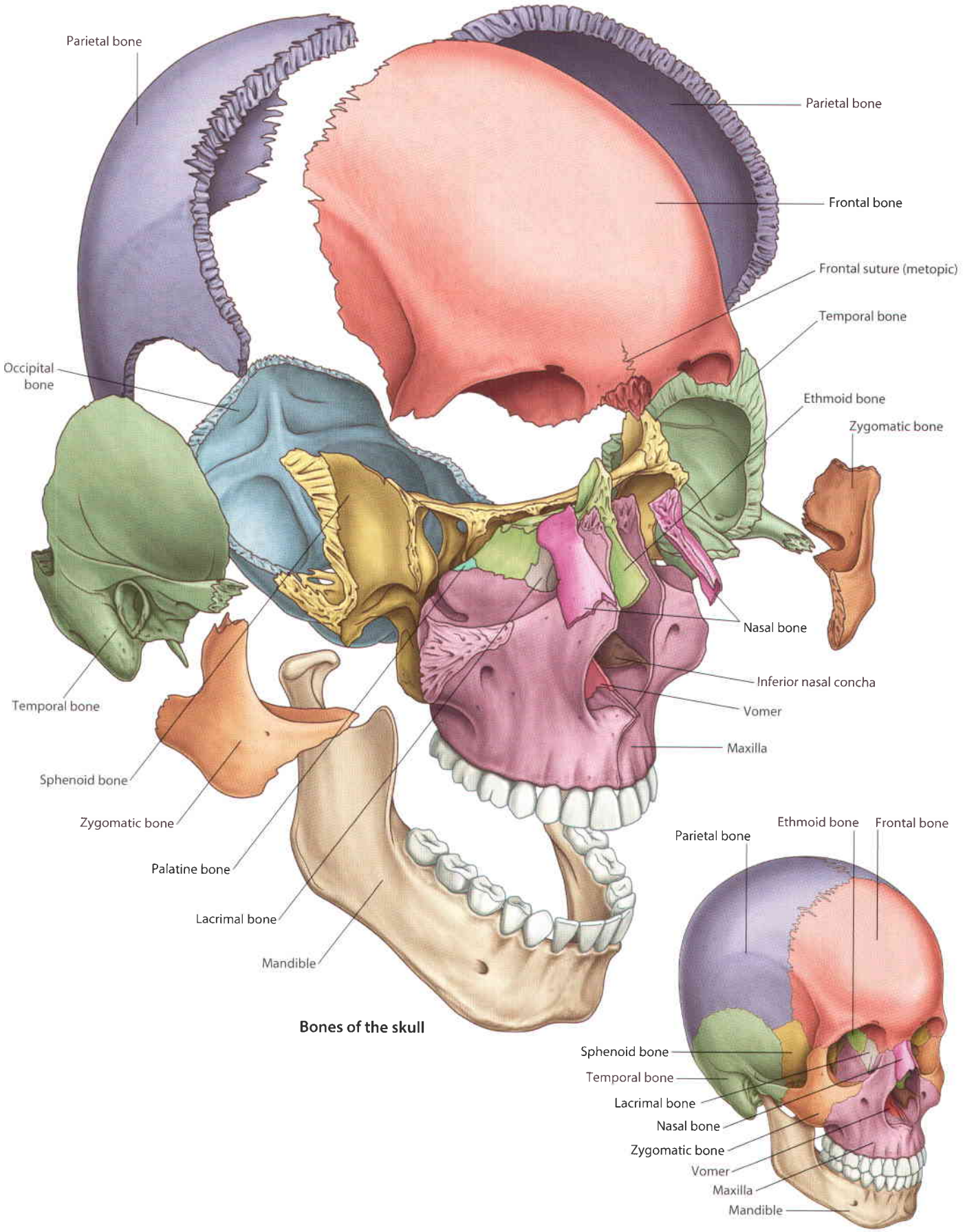
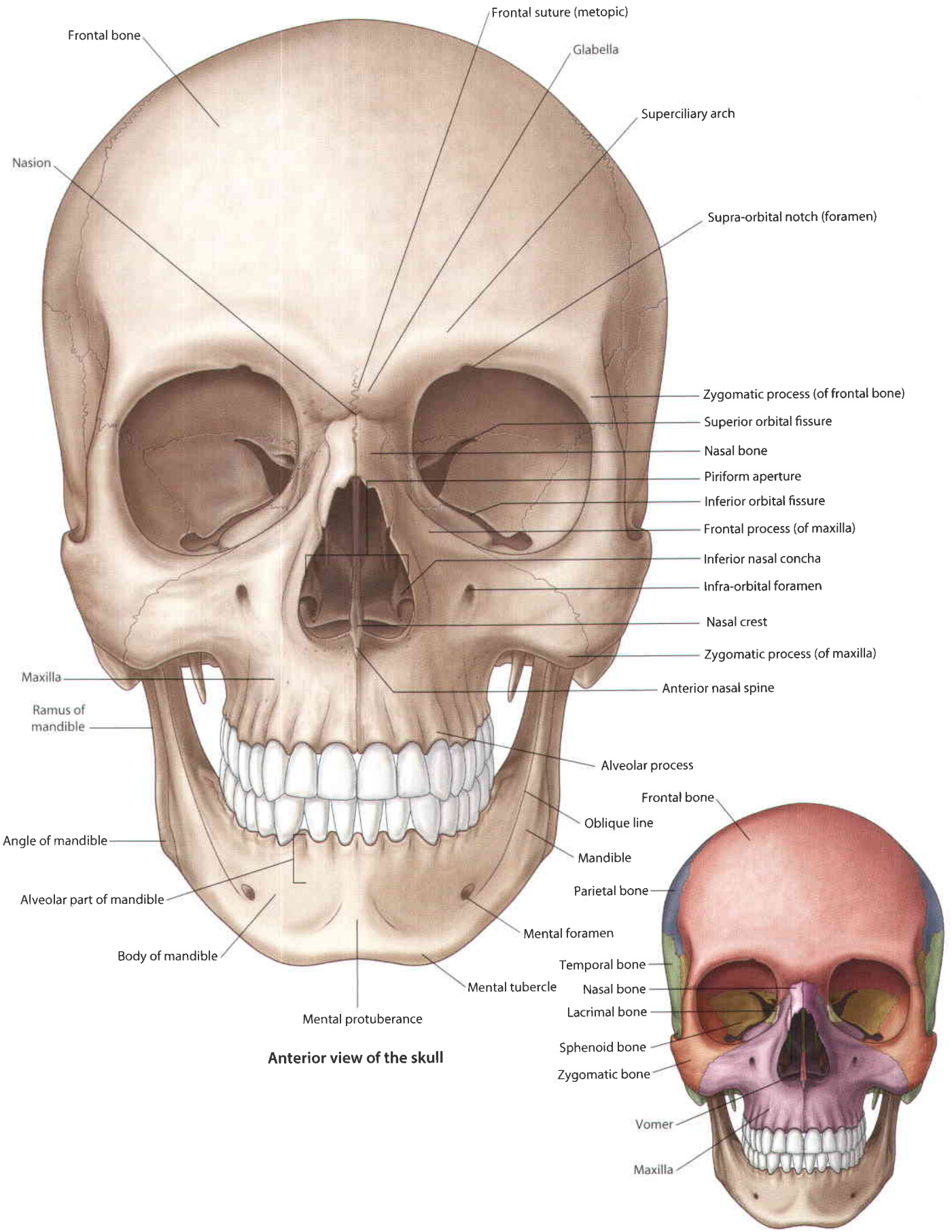

Frontal bone
Nasion
Supra-orbital margin
Frontozygomatic suture
Infra-orbital margin
Maxilla
Zygomatic bone
Mandible
Anterior view
Frontal bone
Pterion
Vertex
Parietal bone
Glabella
Zygomatic arch
Angle of mandible
External occipital protuberance
Mastoid process
Lateral view
Parietal bone
Occipital bone
Superior nuchal line
External occipital protuberance
Temporal bone
Mastoid process
Inferior nuchal line
Spinous process of CII
Vertebra prominens (spinous process of CVII)
Spinous process of TI
Posterior view

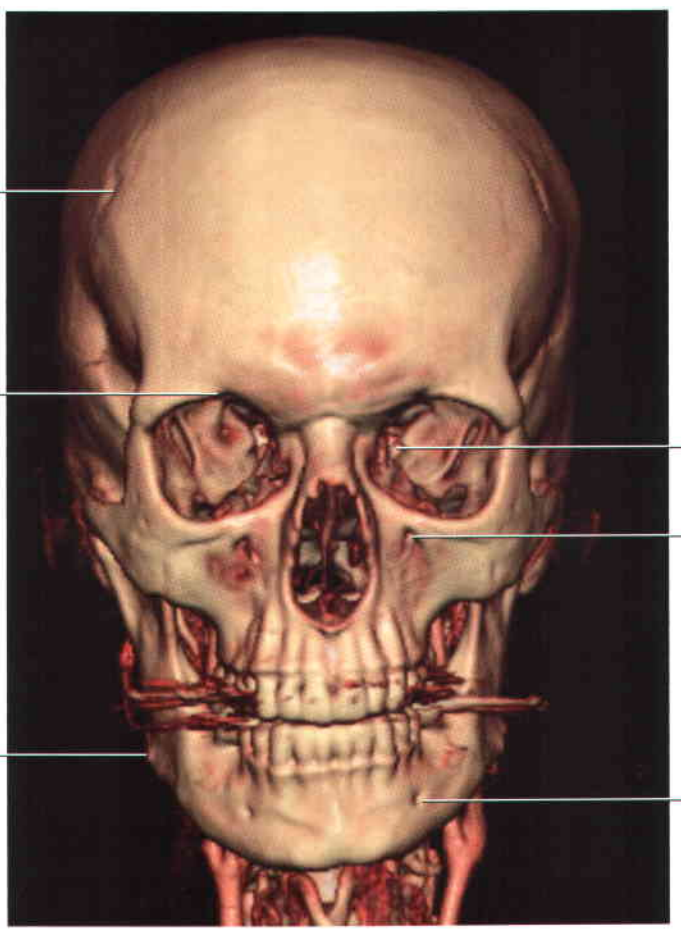


Bones of the skull

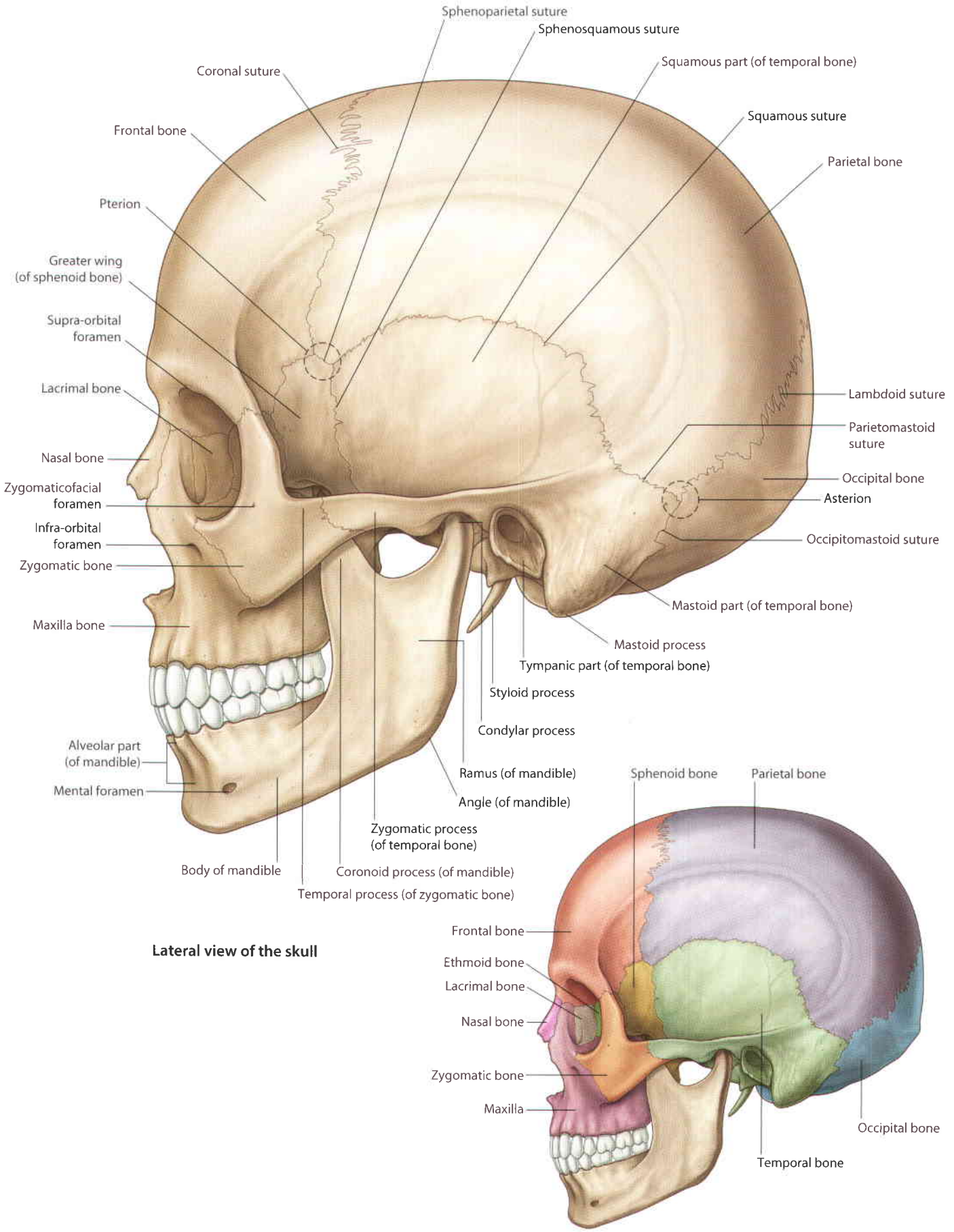


Anterior view of the skull

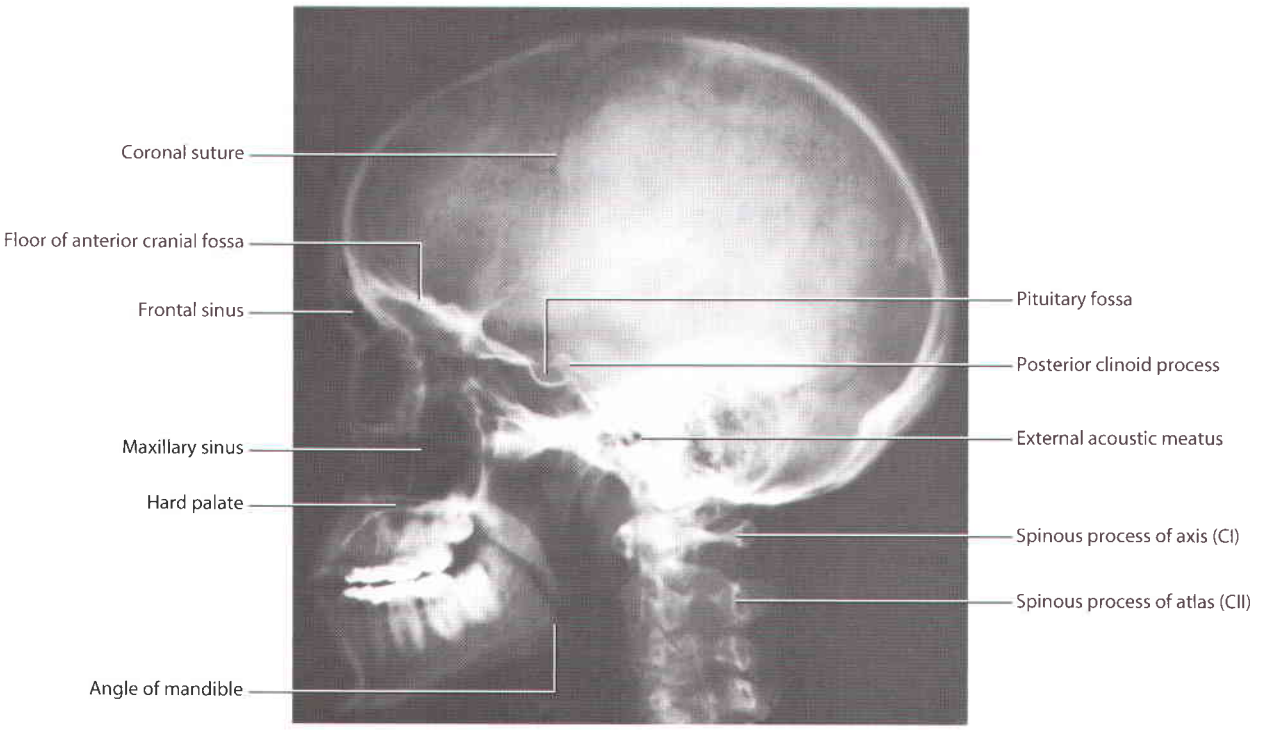
Anterior view of the skull.
Radiograph, AP view



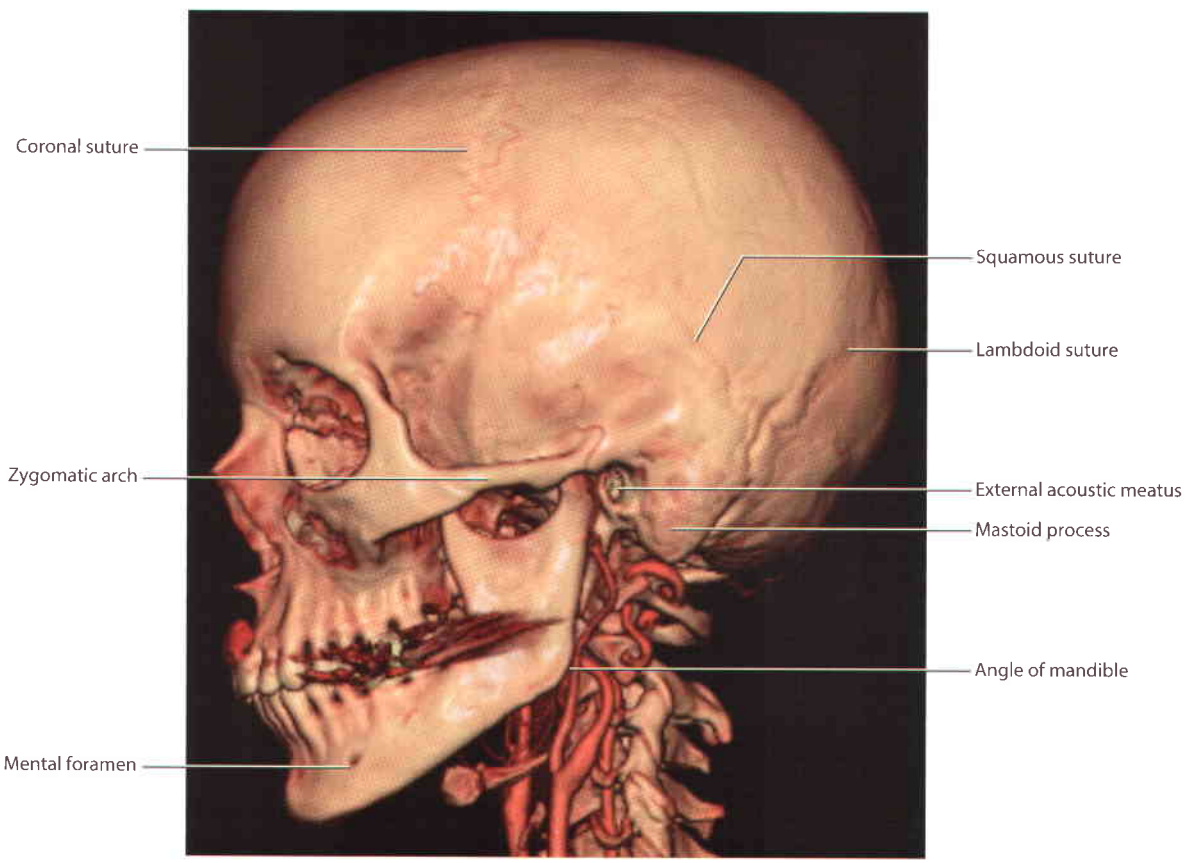
Anterior view of the skull.
Volume-rendered anterior view using multidetector computed tomography



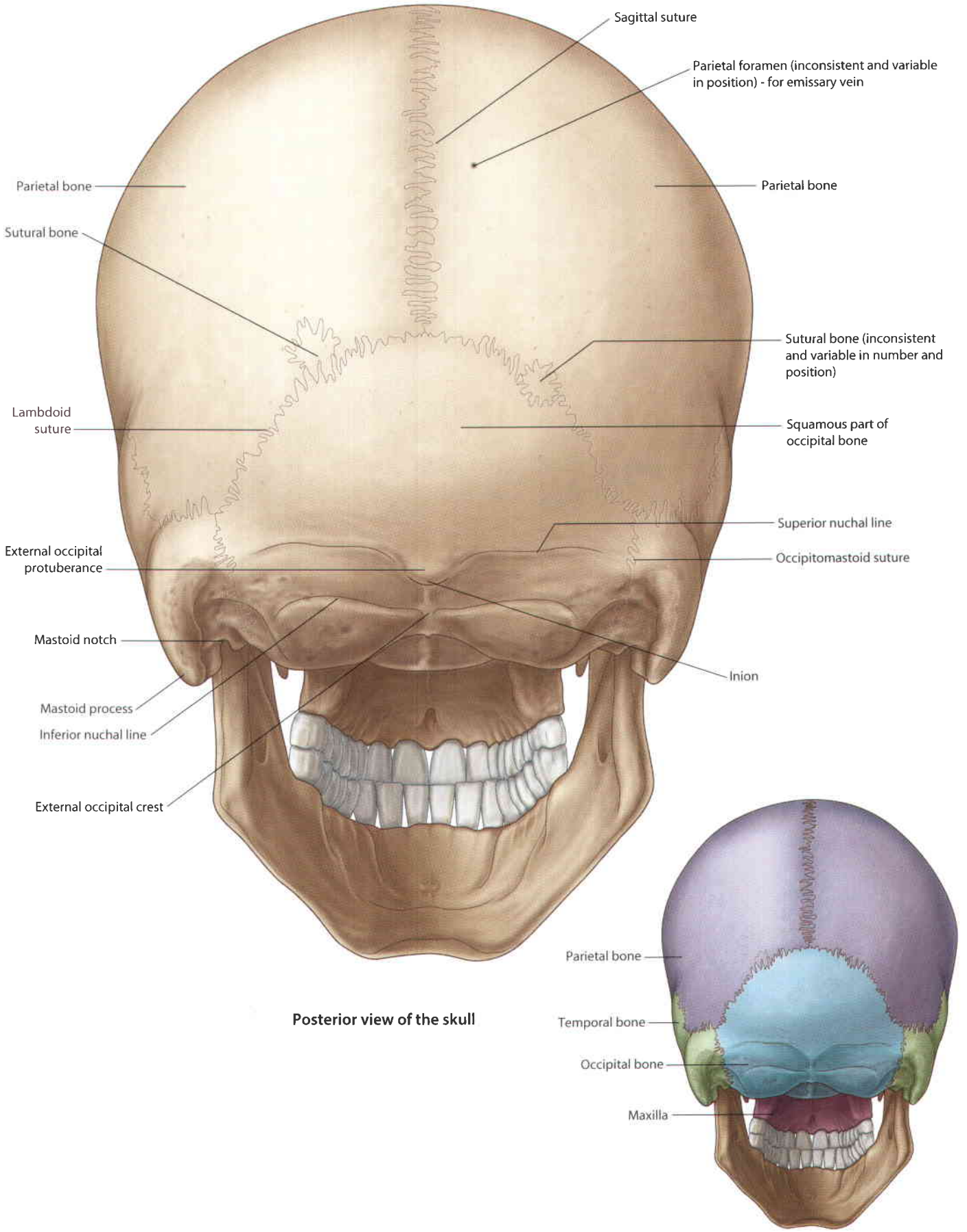
Lateral view of the skull



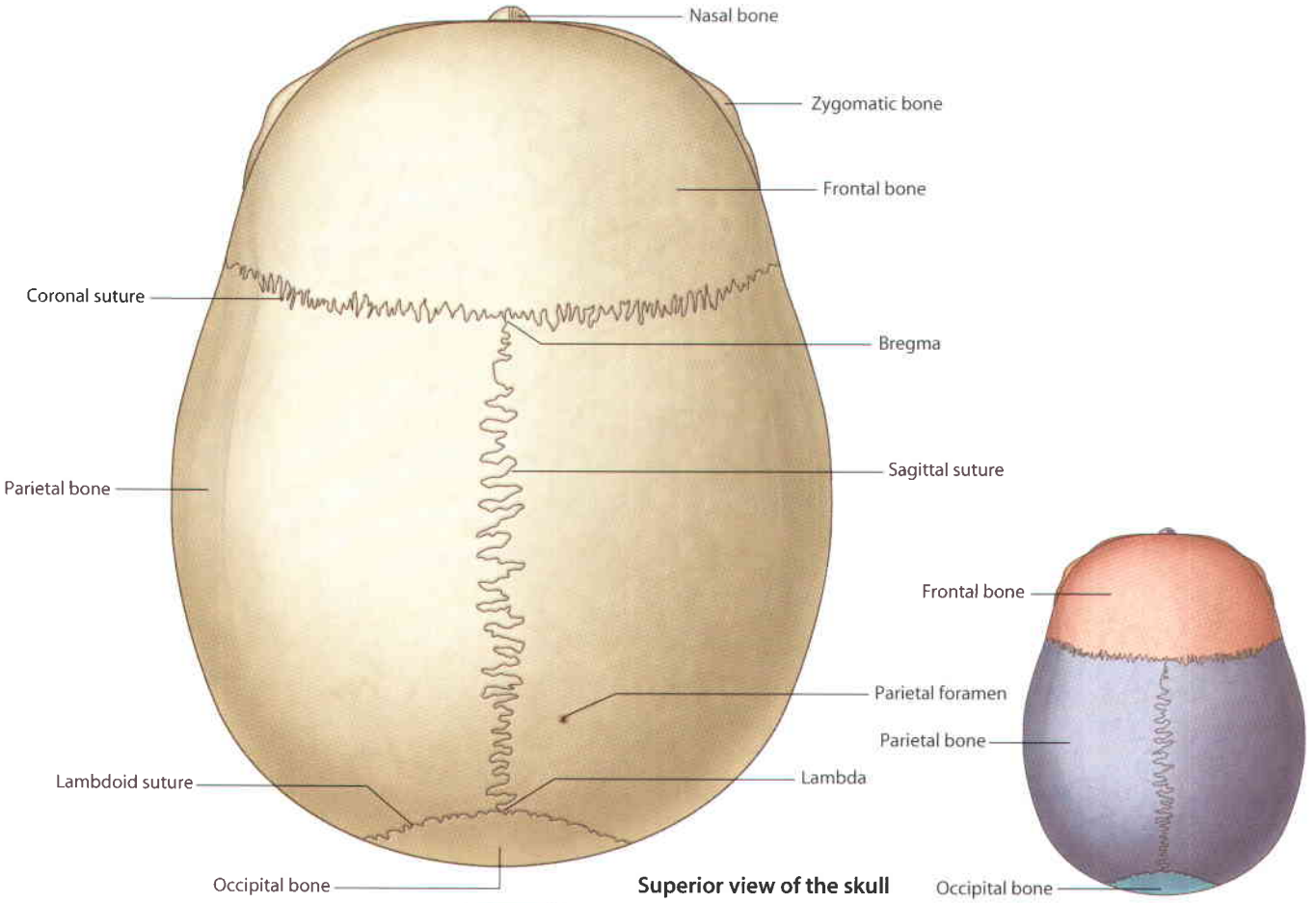
Lateral view of the skull.
Radiograph, lateral view



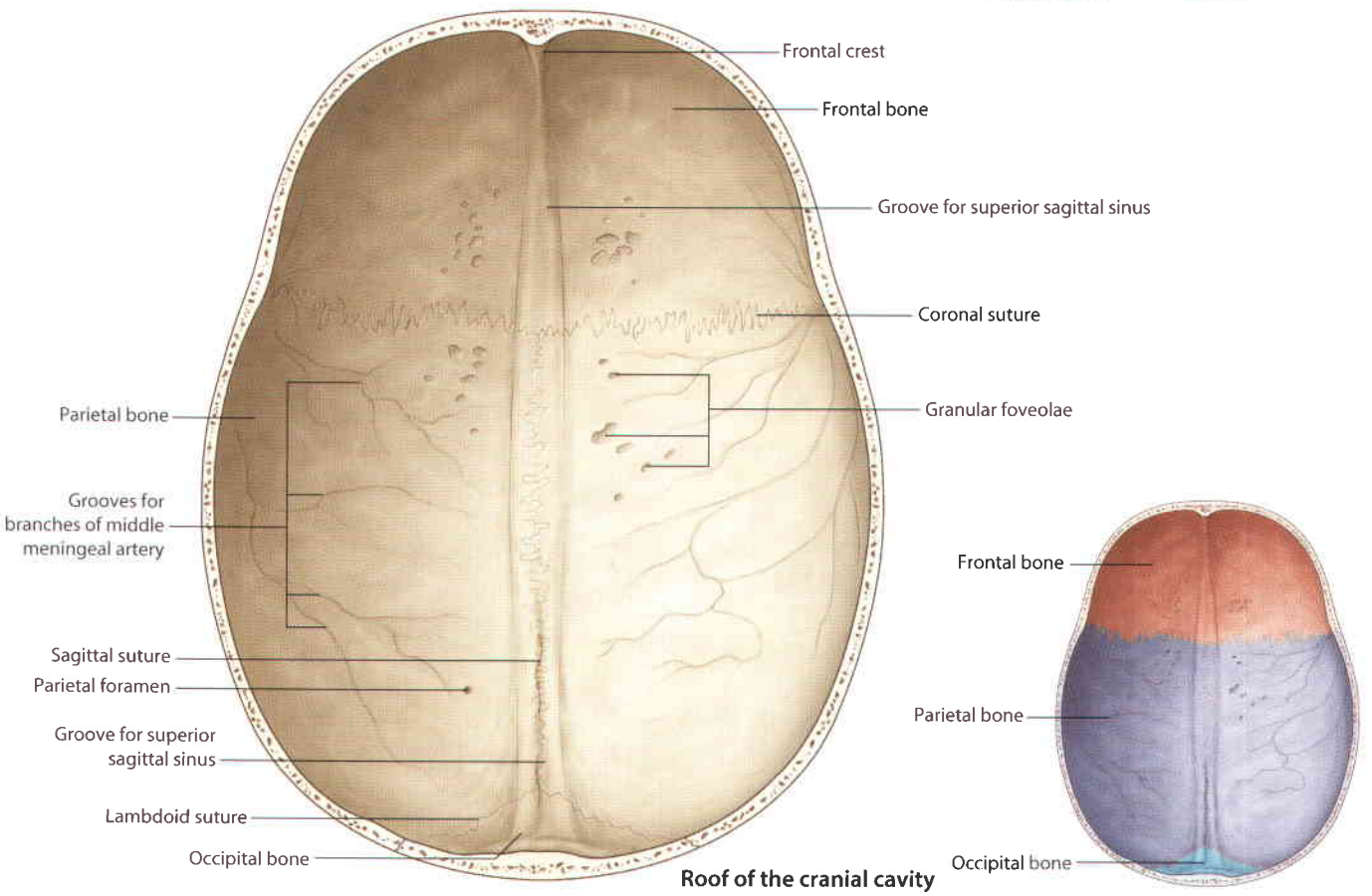
Lateral view of the skull.
Volume-rendered lateral view using multidetector computed tomography



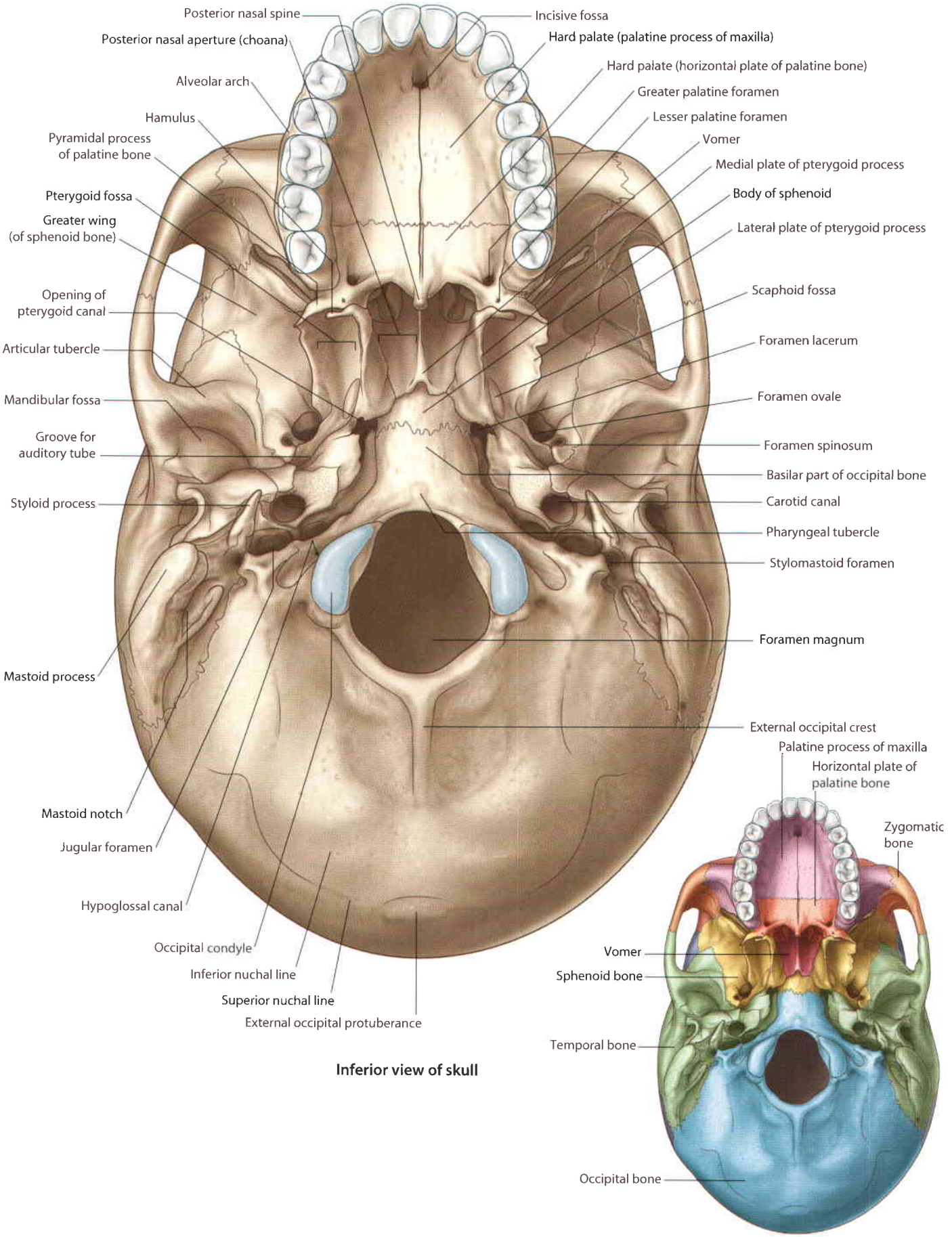
Posterior view of the skull



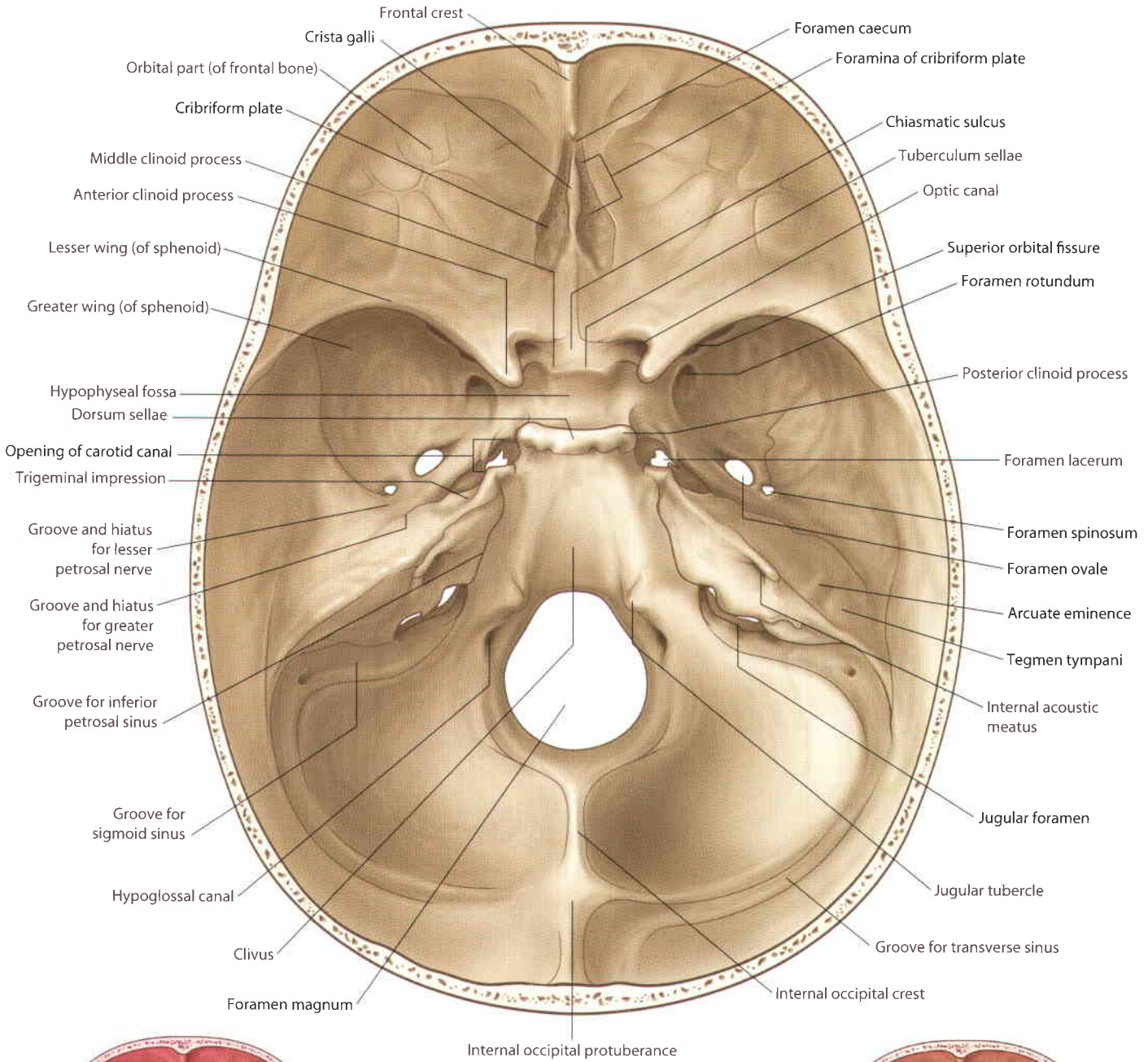
Superior view of the skull

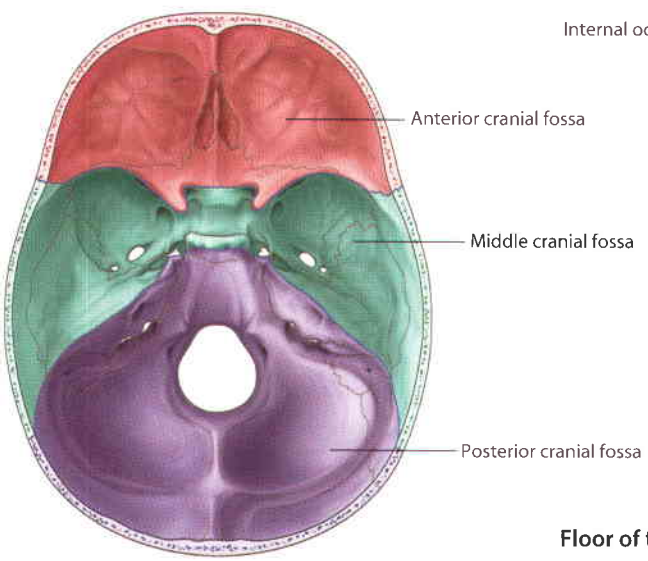


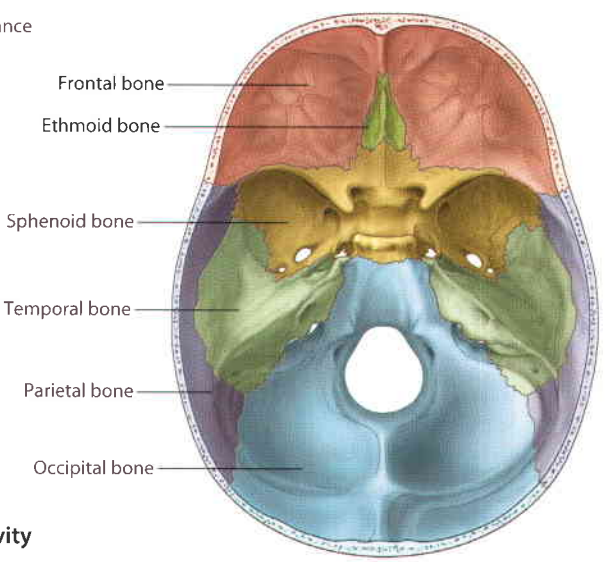
Roof of the cranial cavity



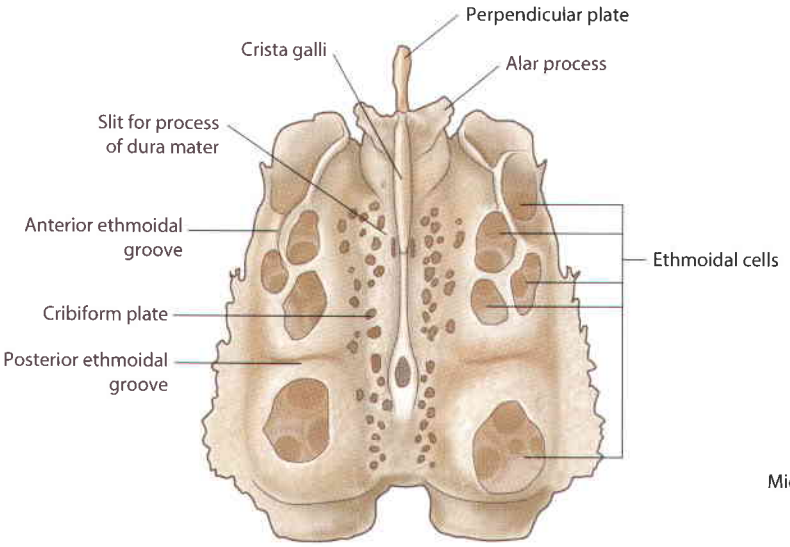
Inferior view of skull



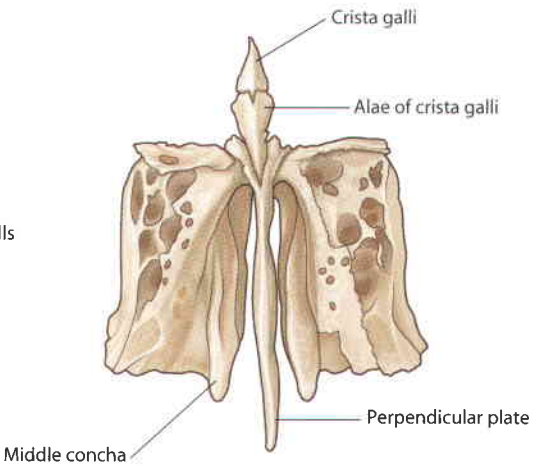




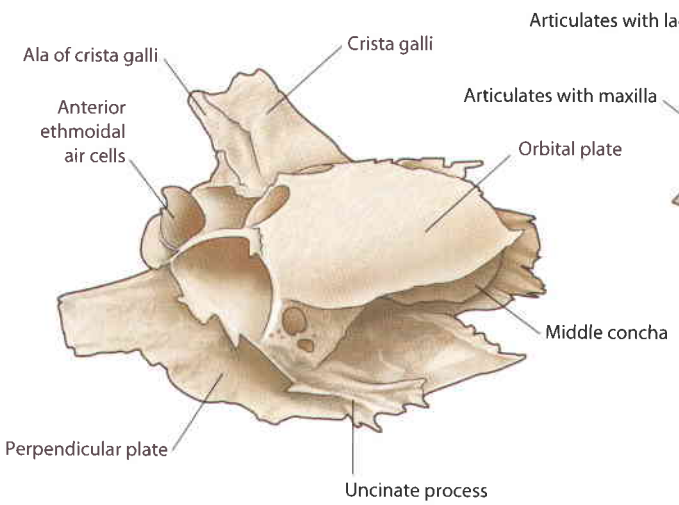
Floor of the cranial cavity



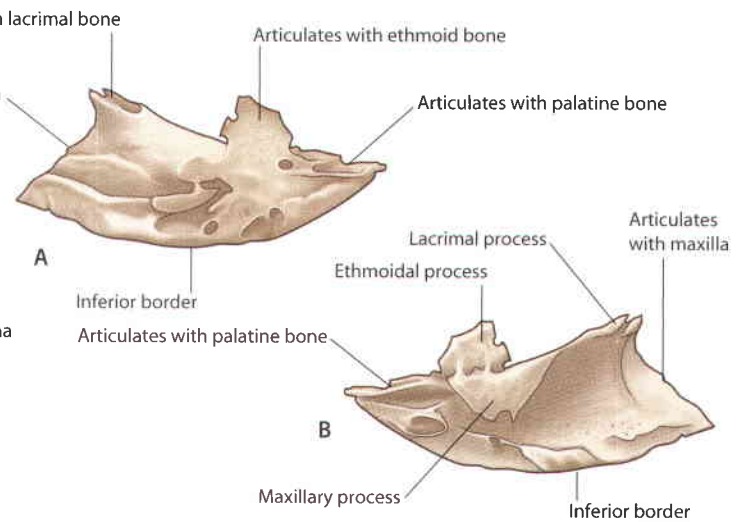
Ethmoid bone (superior view)



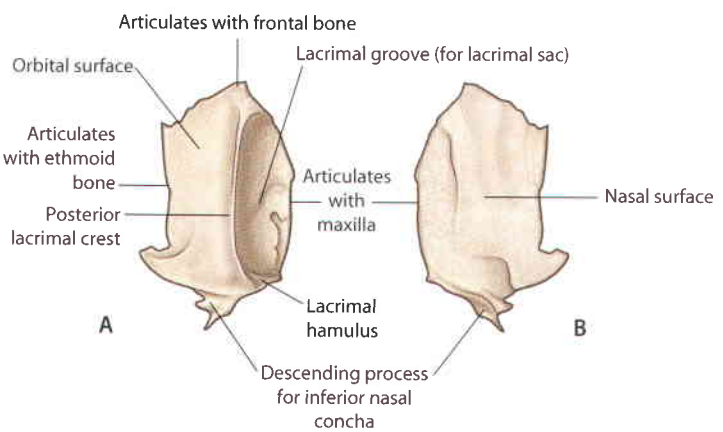
Ethmoid bone (posterior view)



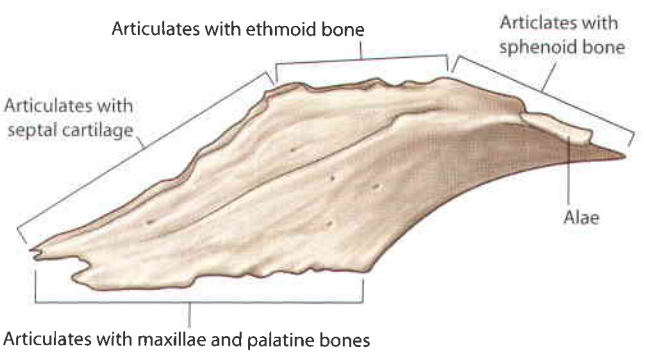
Ethmoid bone (lateral view)



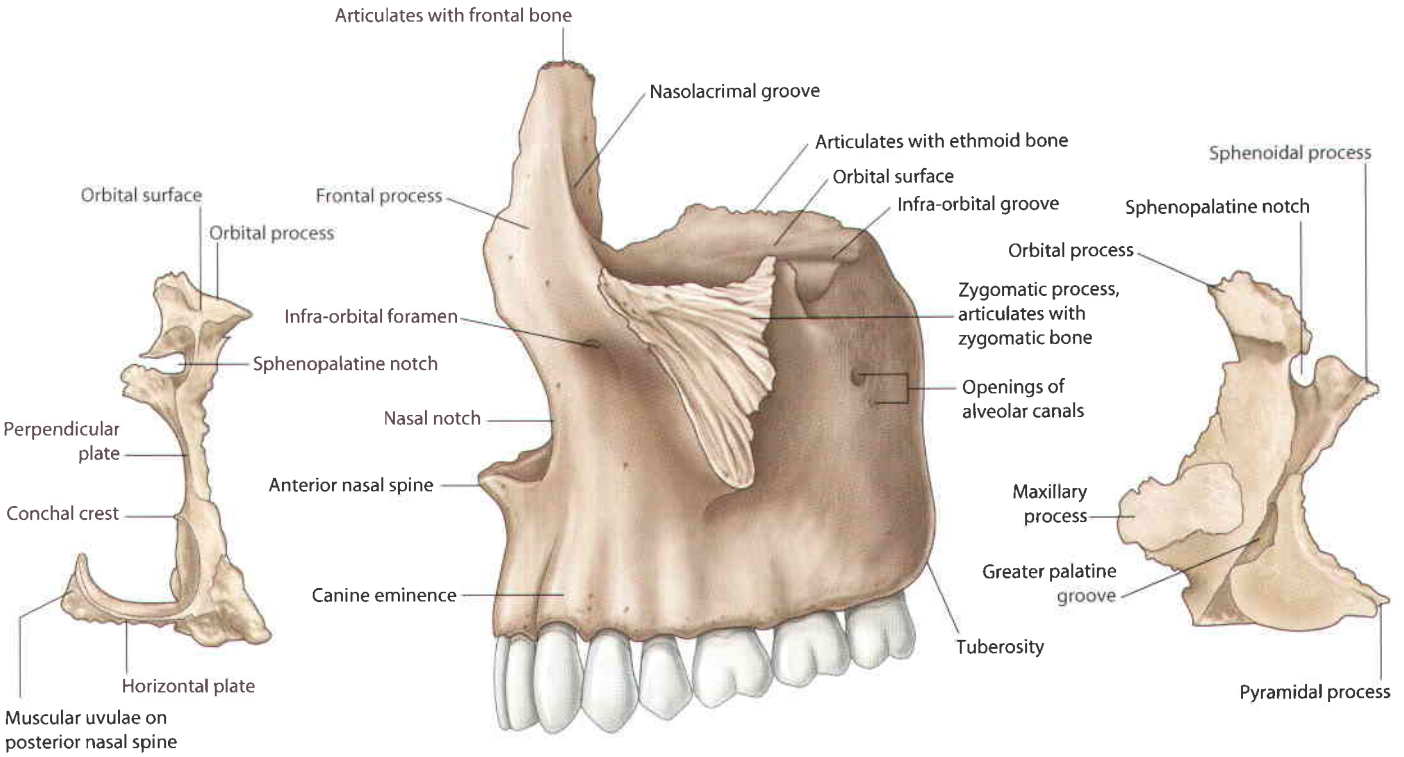
Right inferior concha
A. Medial view B. Lateral view



Right lacrimal bone
A. Lateral view B. Medial view



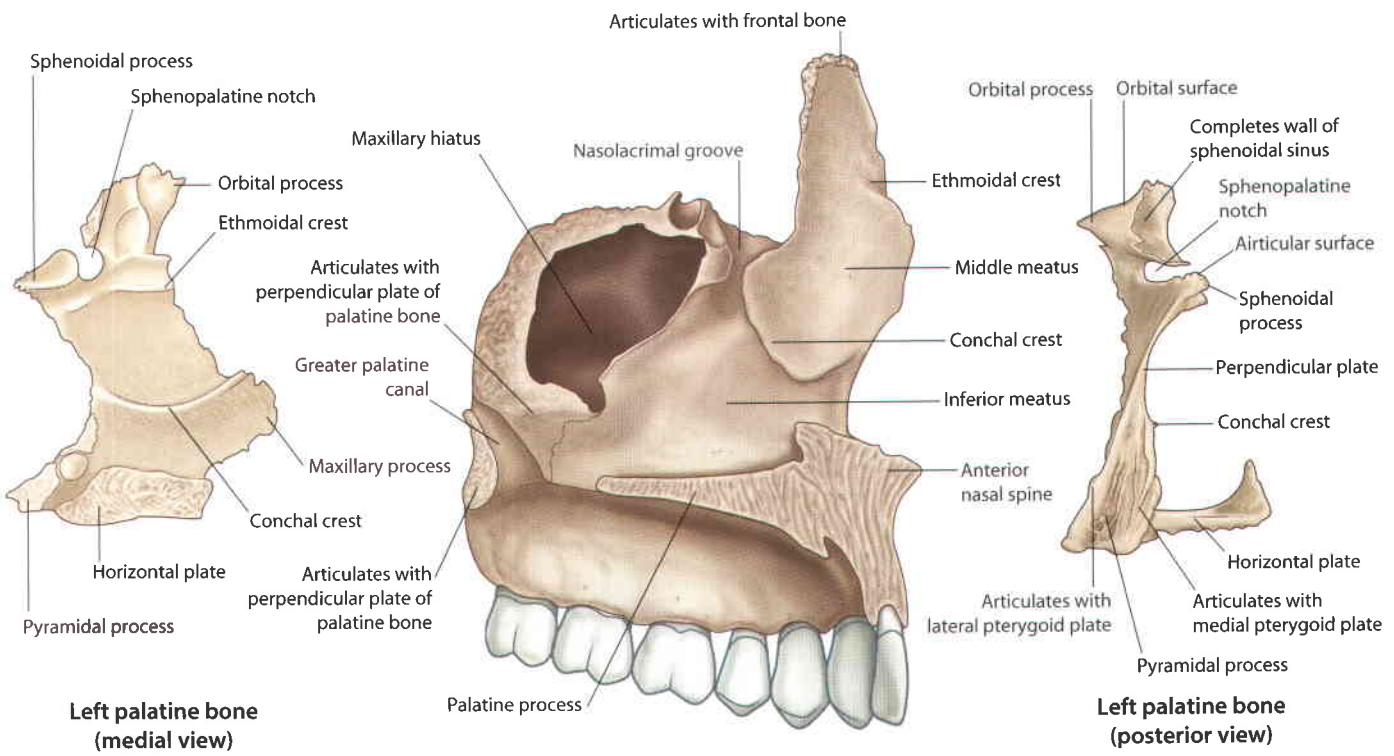
Vomer (lateral view)



Left palatine bone (anterior view)

Left maxilla bone (lateral view)

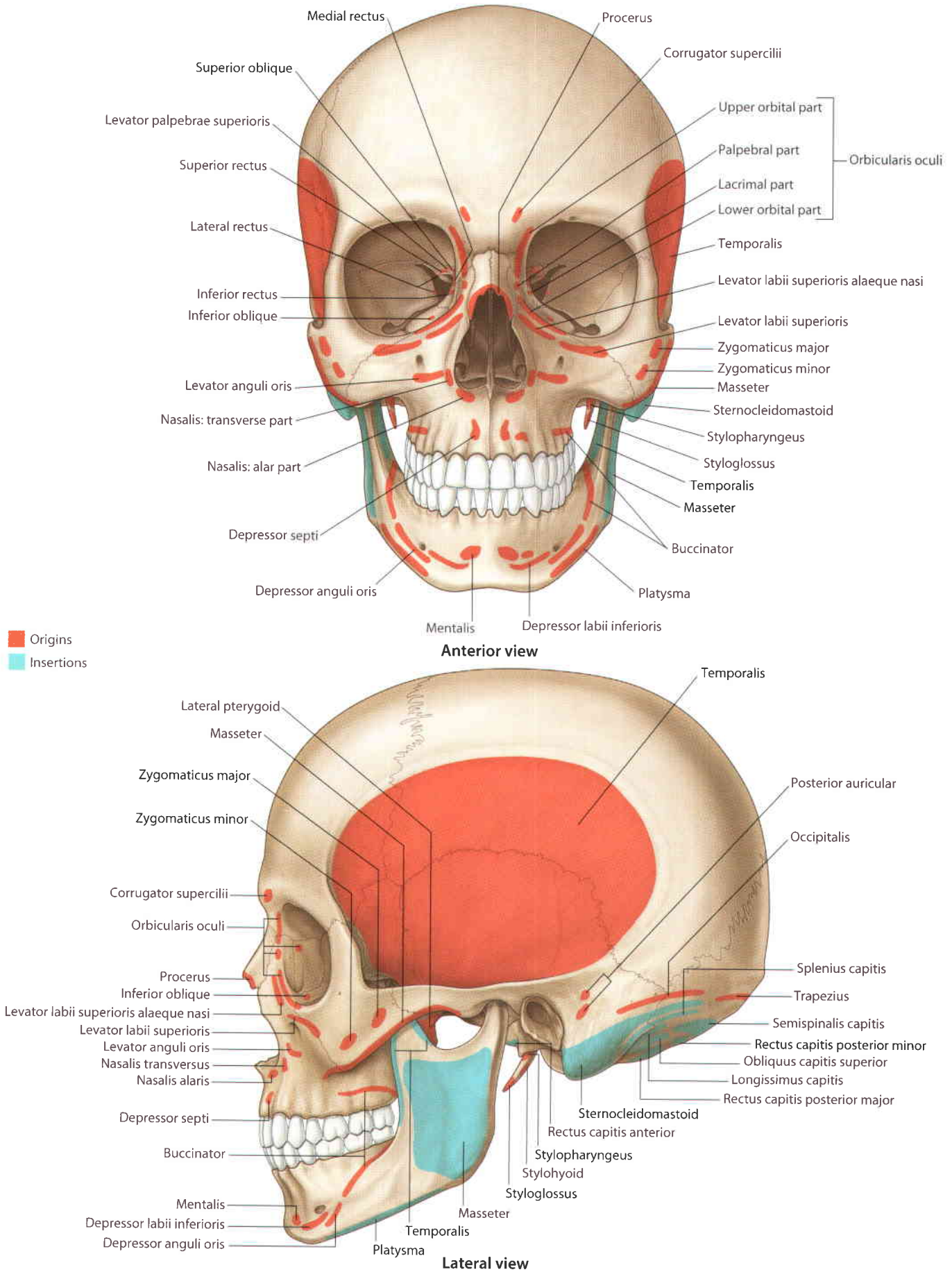
Left palatine bone (lateral view)

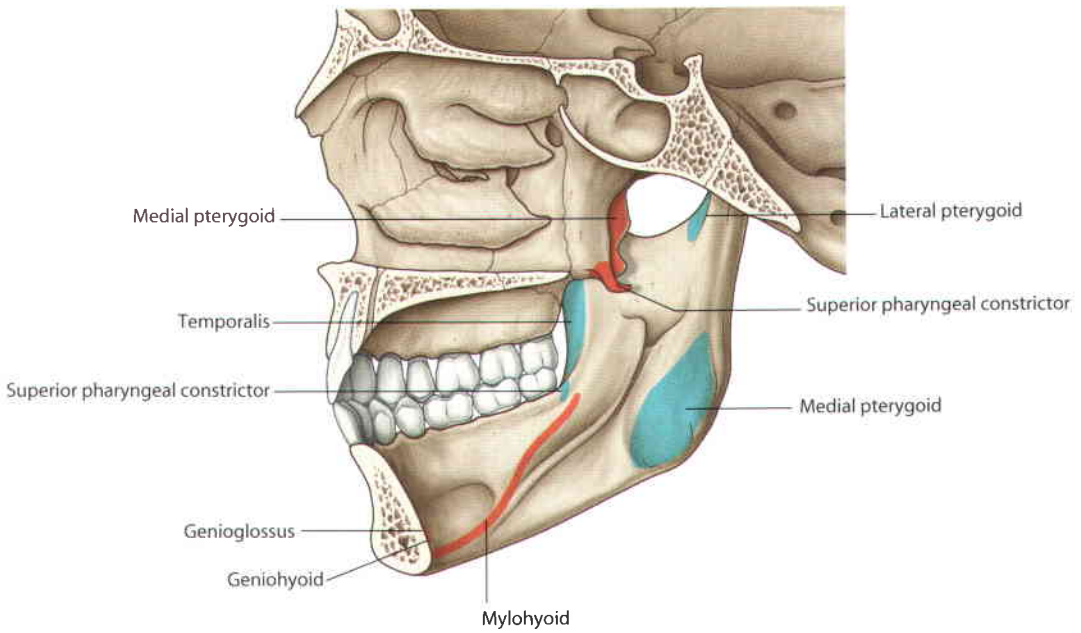


Left palatine bone (medial view)

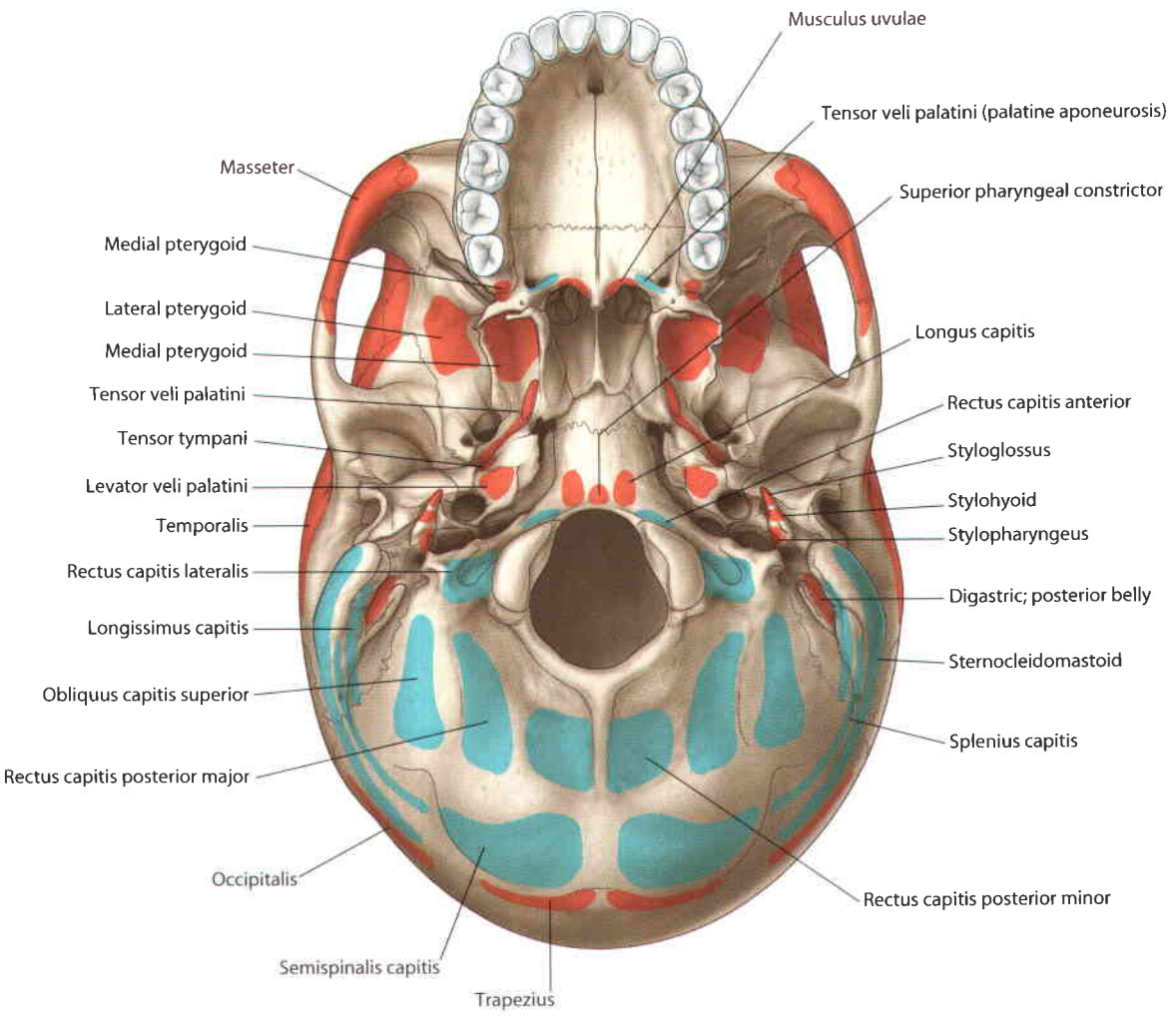
Left maxilla bone (medial view)

Left palatine bone (posterior view)

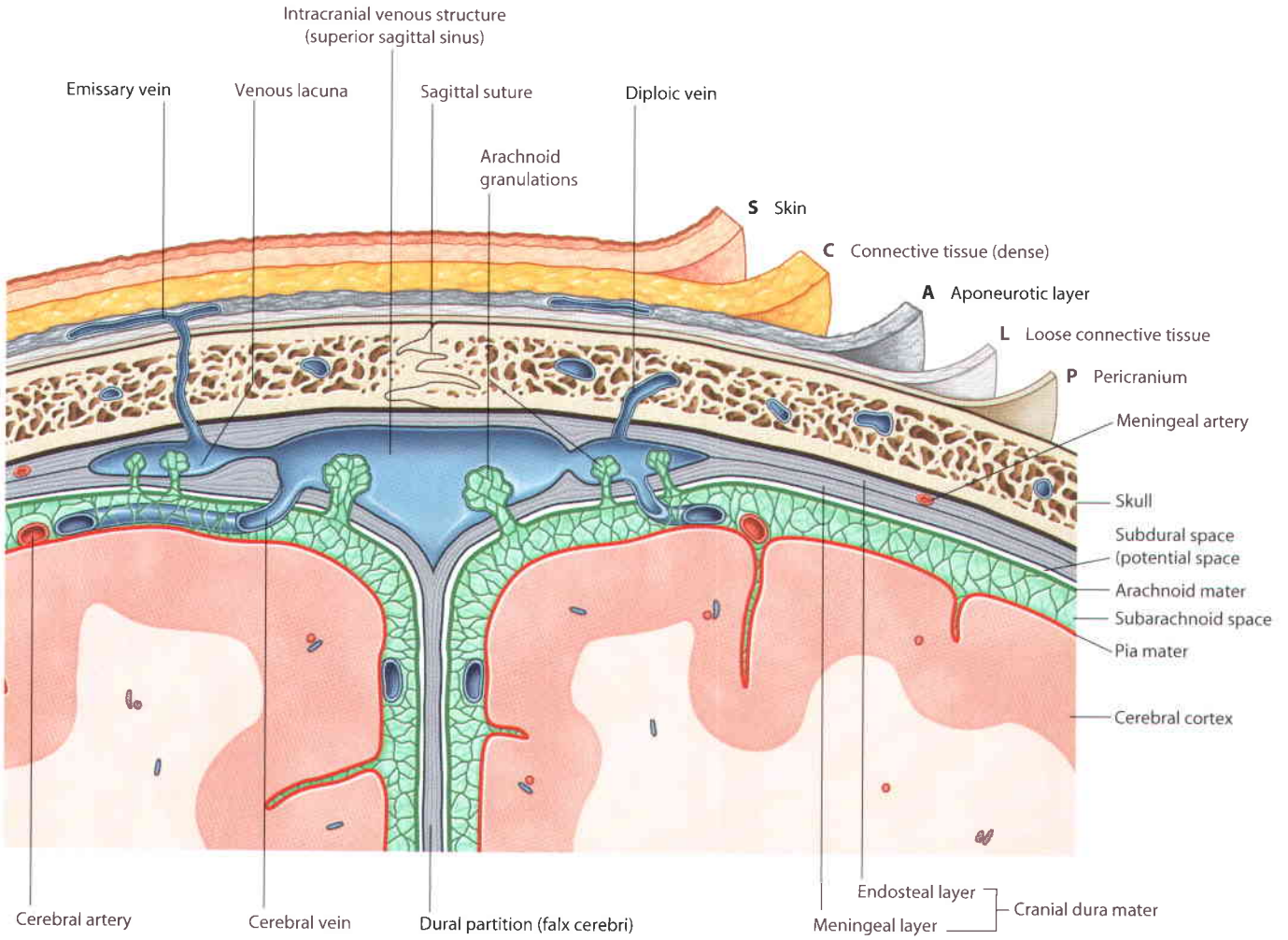

Medial rectus
Procerus
Corrugator supercilii
Superior oblique
Upper orbital part
Levator palpebrae superioris
Palpebral part
Orbicularis oculi
Superior rectus
Lacrimal part
Lower orbital part
Lateral rectus
Temporalis
Levator labii superioris alaeque nasi
Inferior rectus
Inferior oblique
Levator labii superioris
Zygomaticus major
Zygomaticus minor
Levator anguli oris
Masseter
Nasalis: transverse part
Sternocleidomastoid
Stylopharyngeus
Nasalis: alar part
Styloglossus
Temporalis
Masseter
Depressor septi
Buccinator
Depressor anguli oris
Platysma
Mentalis
Depressor labii inferioris
Origins
Insertions
Anterior view
Temporalis
Lateral pterygoid
Masseter
Posterior auricular
Zygomaticus major
Occipitalis
Zygomaticus minor
Corrugator supercilii
Orbicularis oculi
Splenius capitis
Procerus
Trapezius
Inferior oblique
Levator labii superioris alaeque nasi
Semispinalis capitis
Levator labii superioris
Rectus capitis posterior minor
Levator anguli oris
Obliquus capitis superior
Nasalis transversus
Longissimus capitis
Nasalis alaris
Rectus capitis posterior major
Sternocleidomastoid
Depressor septi
Rectus capitis anterior
Buccinator
Stylopharyngeus
Stylohyoid
Styloglossus
Mentalis
Masseter
Depressor labii inferioris
Temporalis
Depressor anguli oris
Platysma
Lateral view



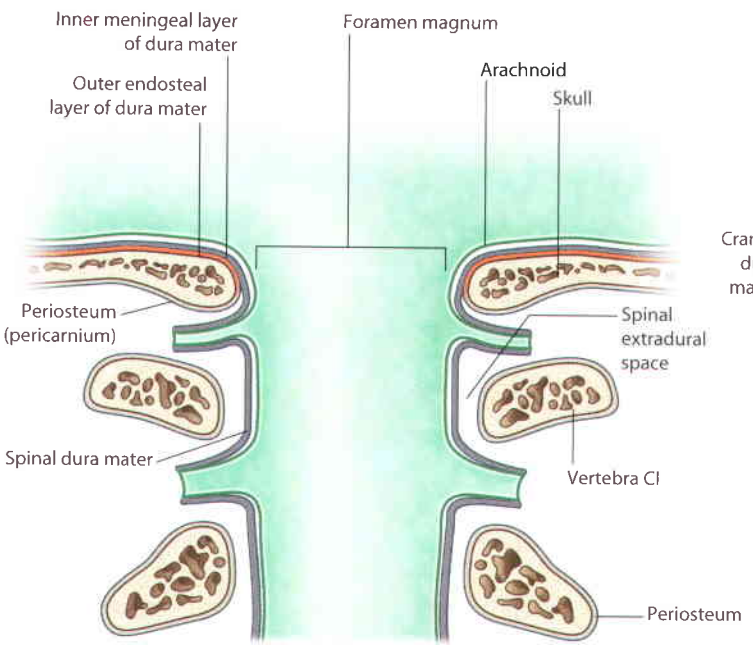
Medial view



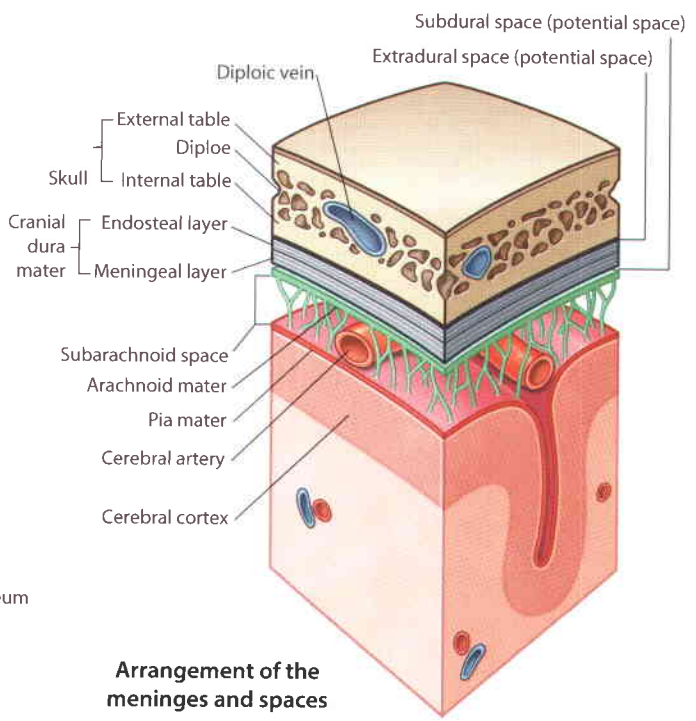
Inferior view



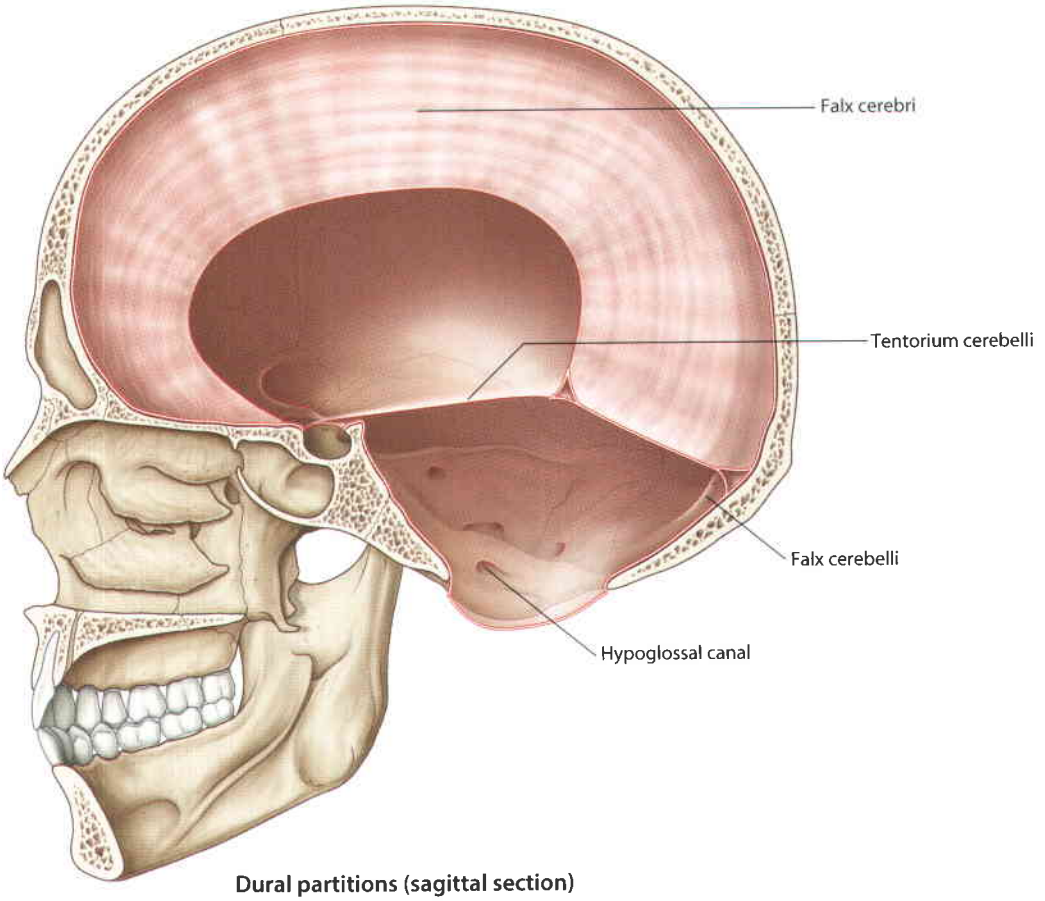
Scalp and cranial meninges



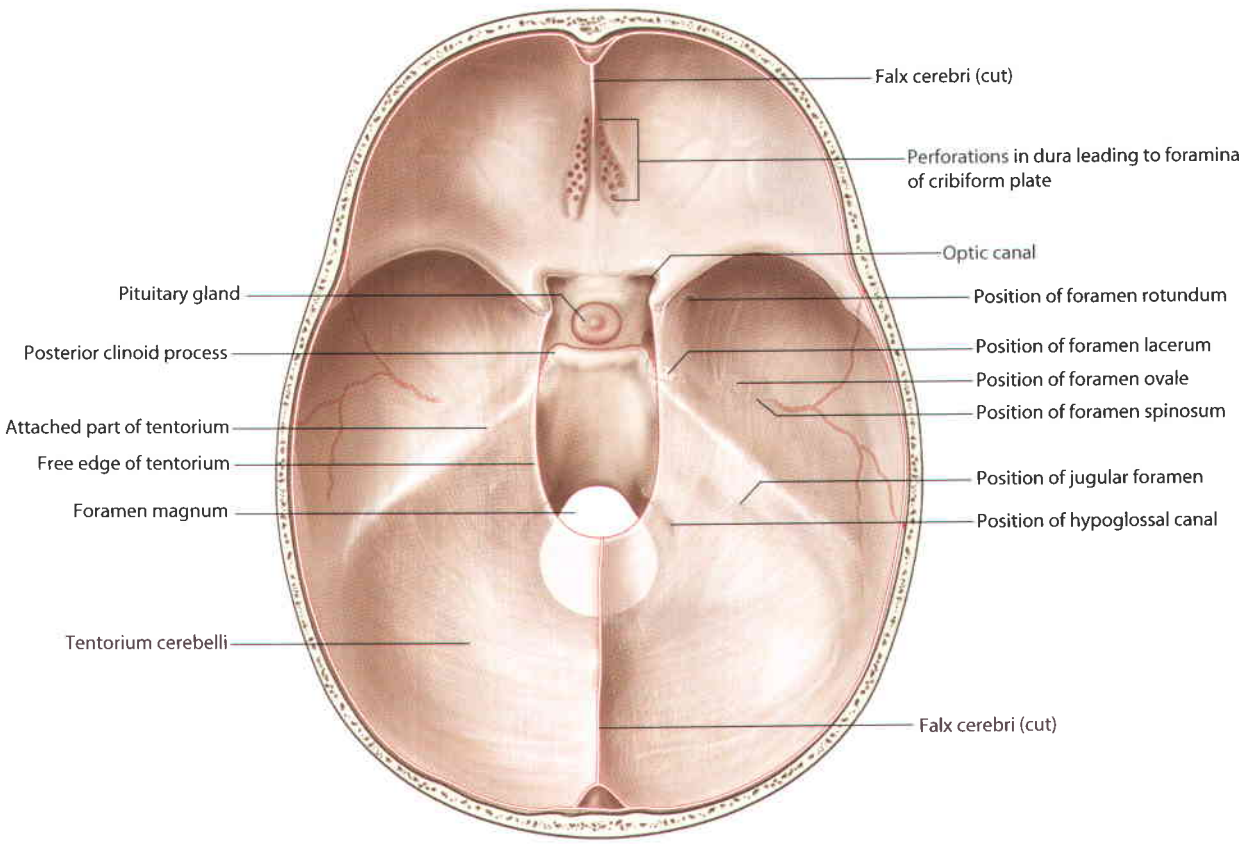
Continuity of cranial meninges with spinal meninges



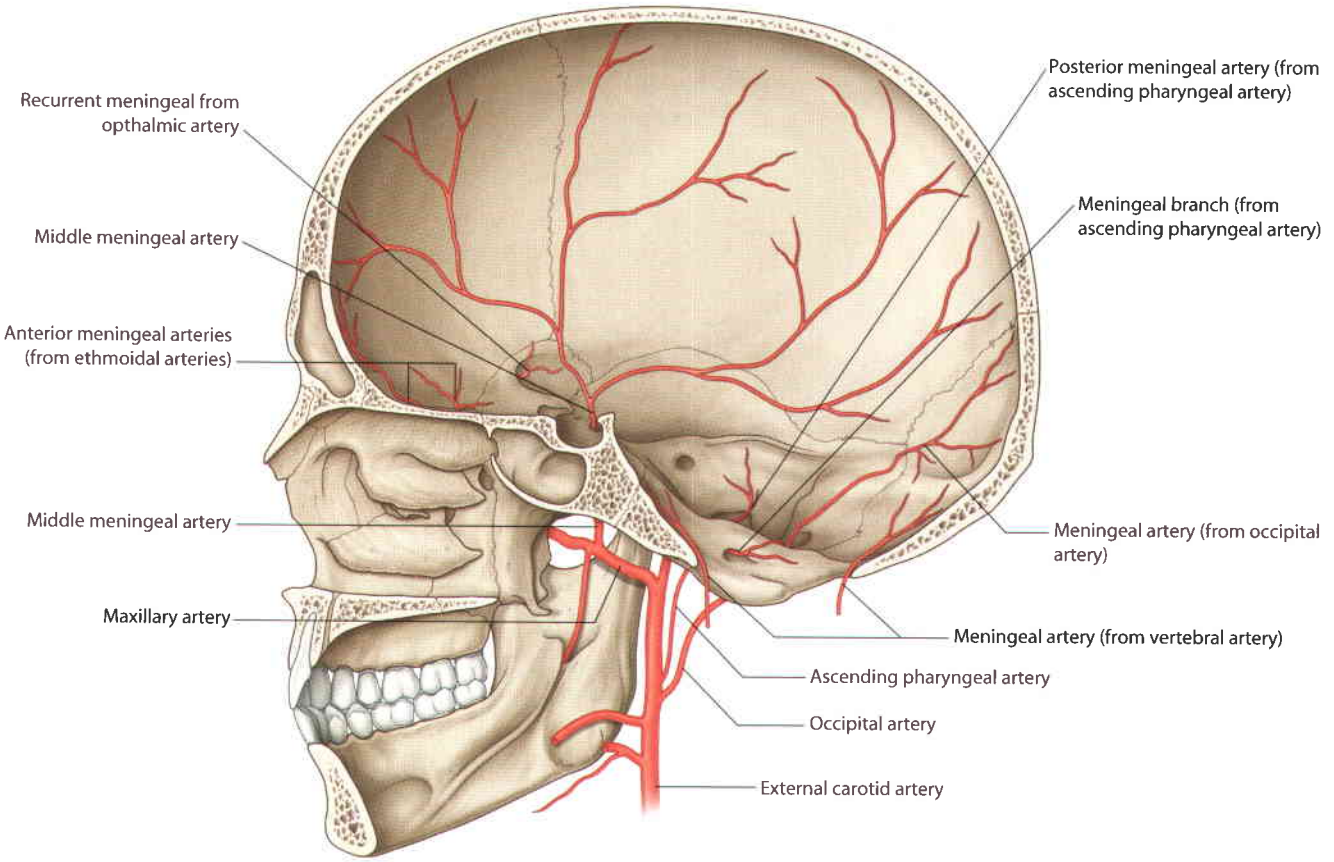
Arrangement of the meninges and spaces



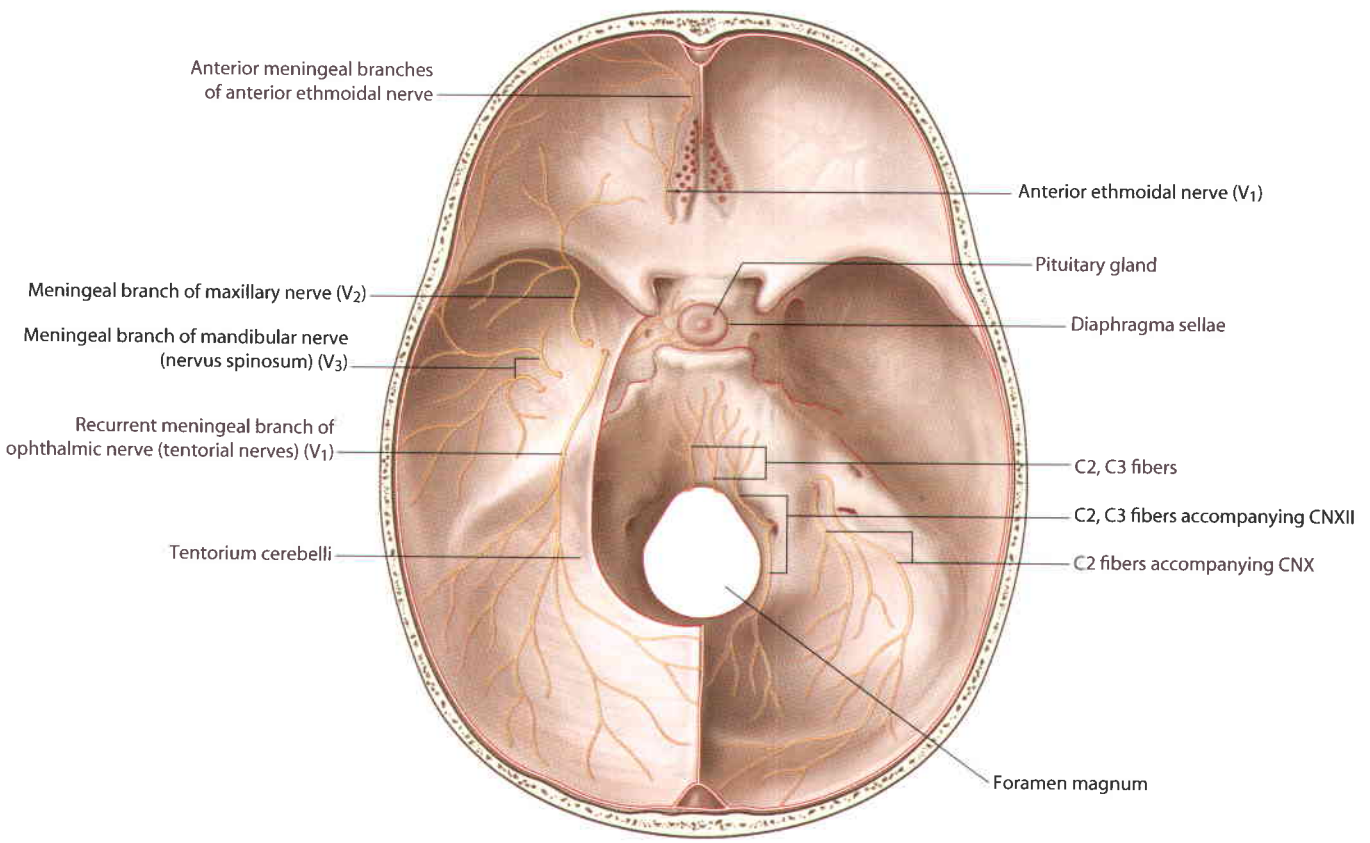
Dural partitions (sagittal section)



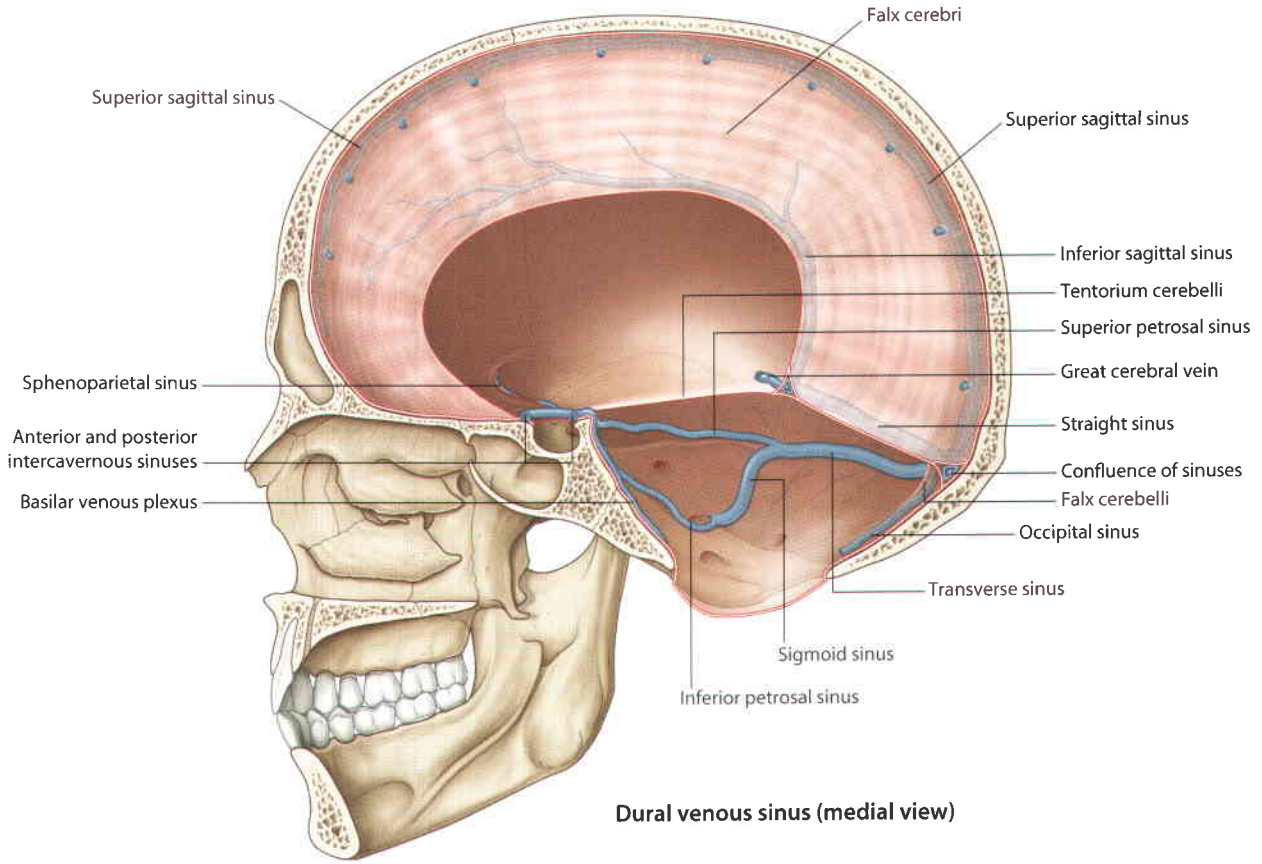
Cranial cavity (superior view)



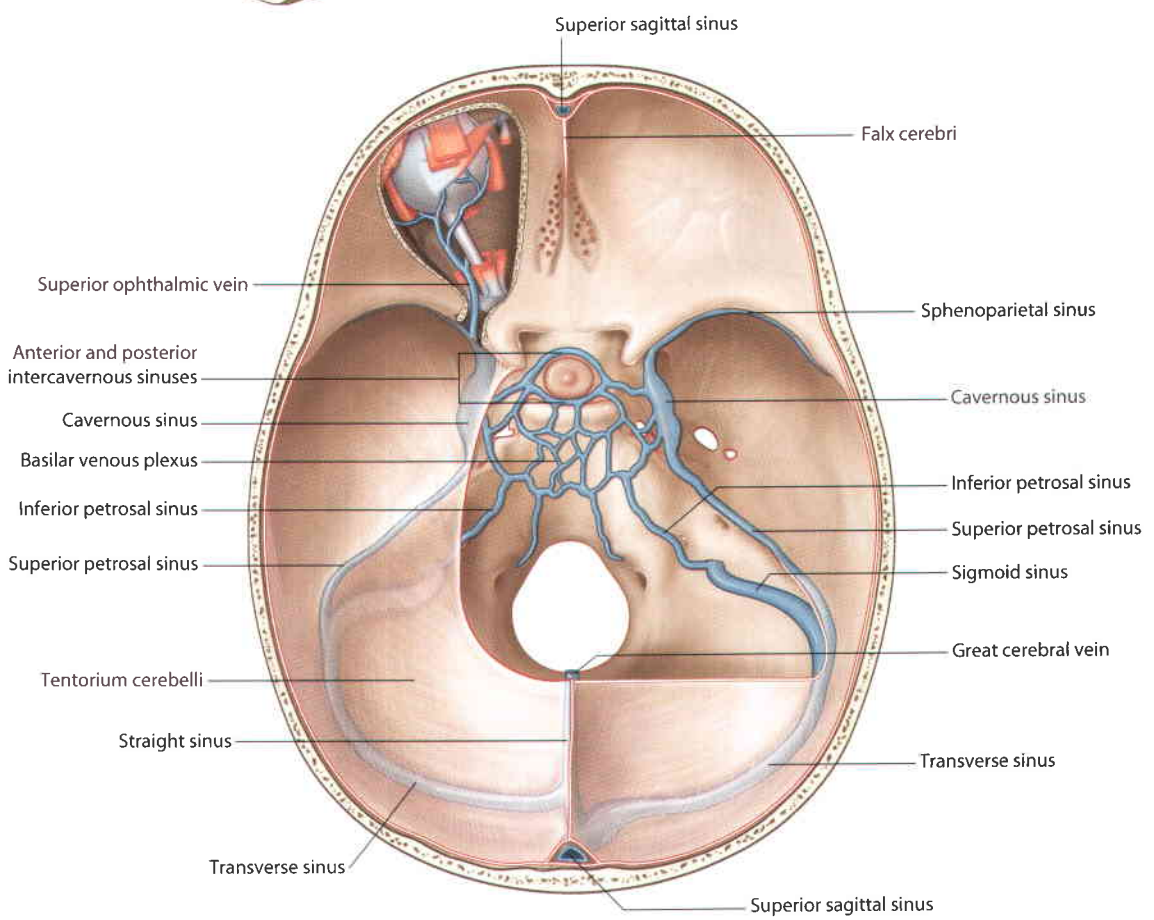
Dural arterial supply (medial view)



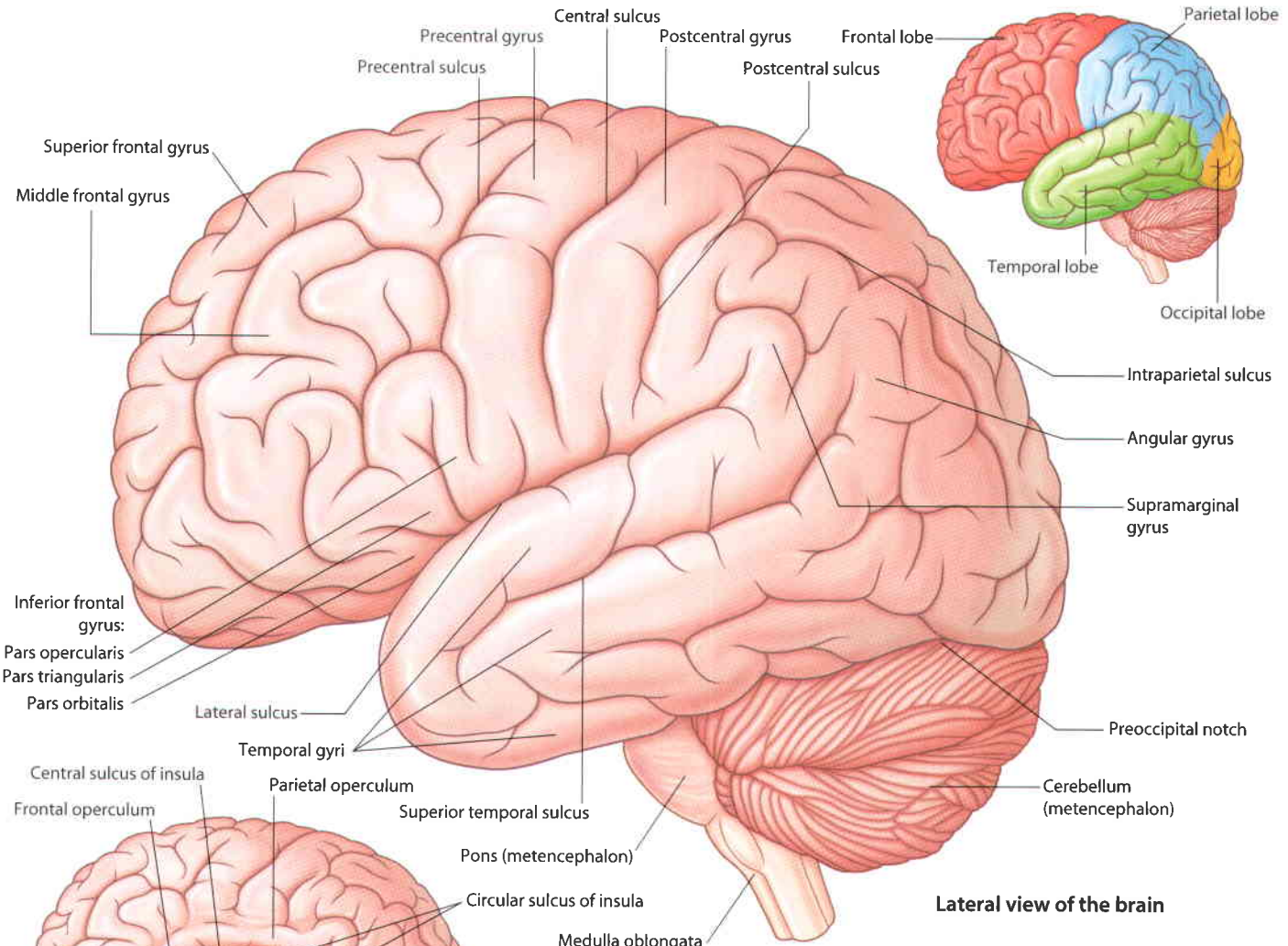
Dural innervation (superior view)



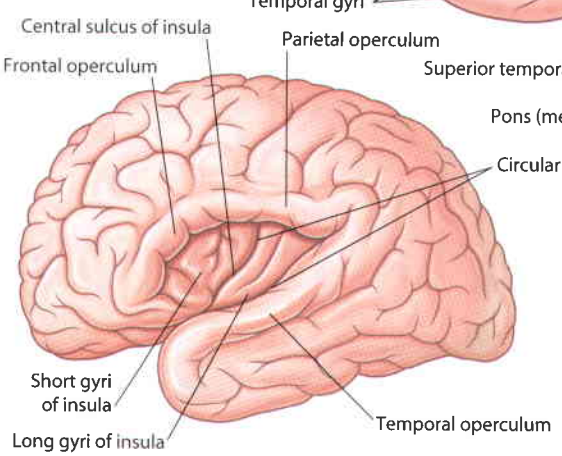
Dural venous sinus (medial view)



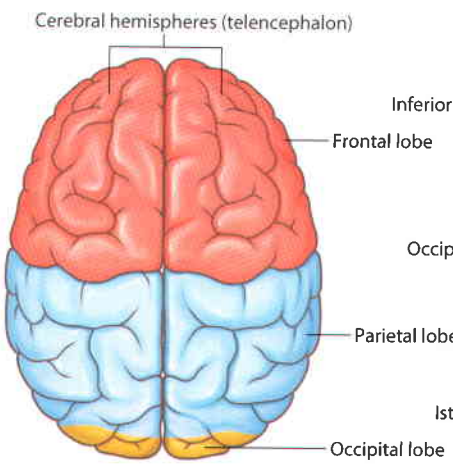
Superior view



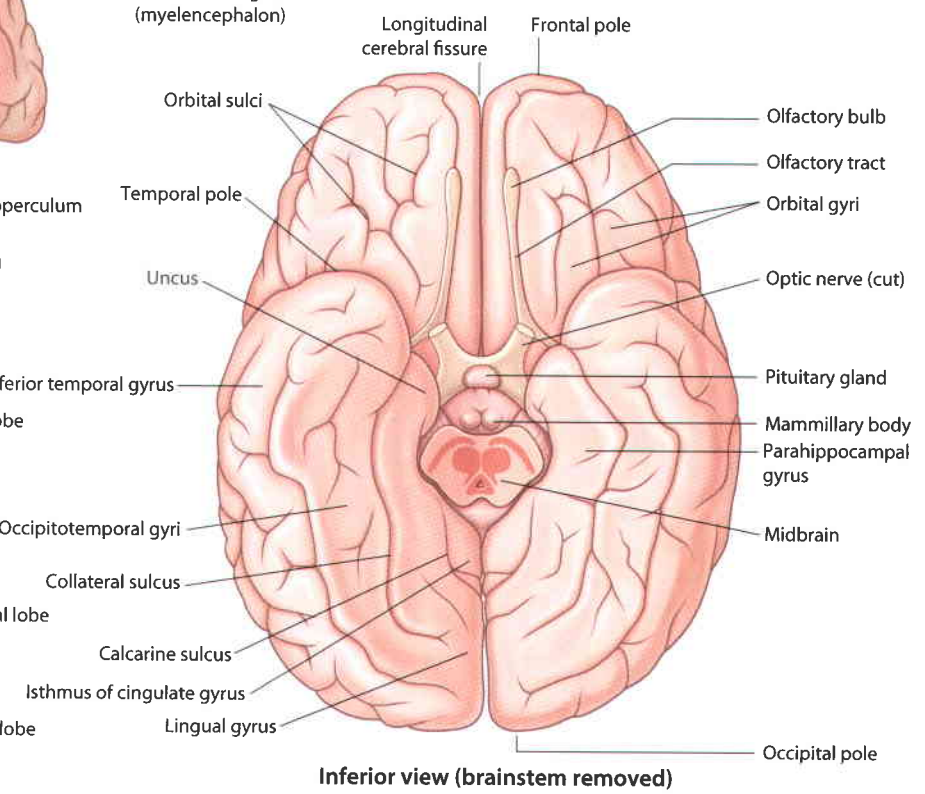
Lateral view of the brain



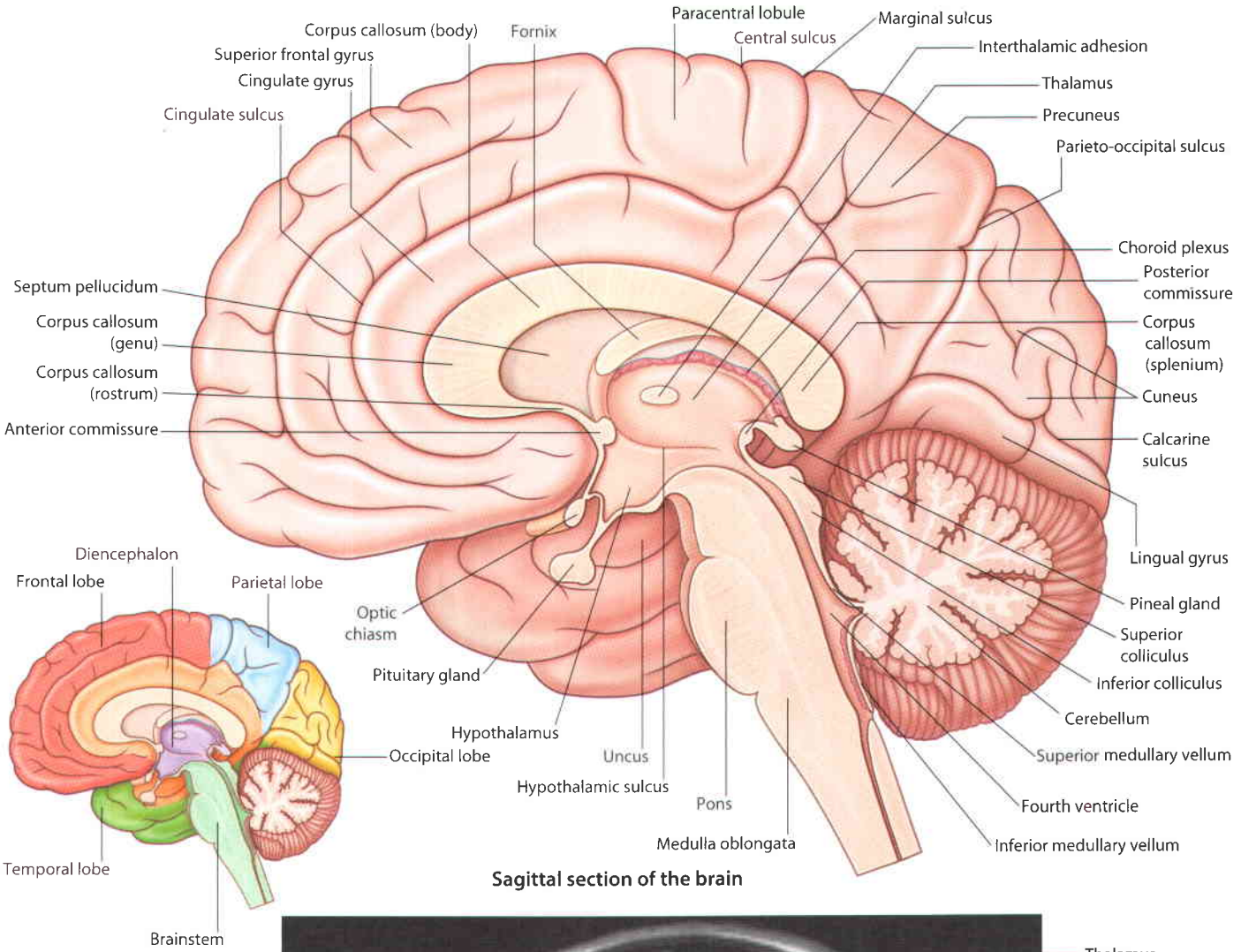
Insula exposed by retracting opercula



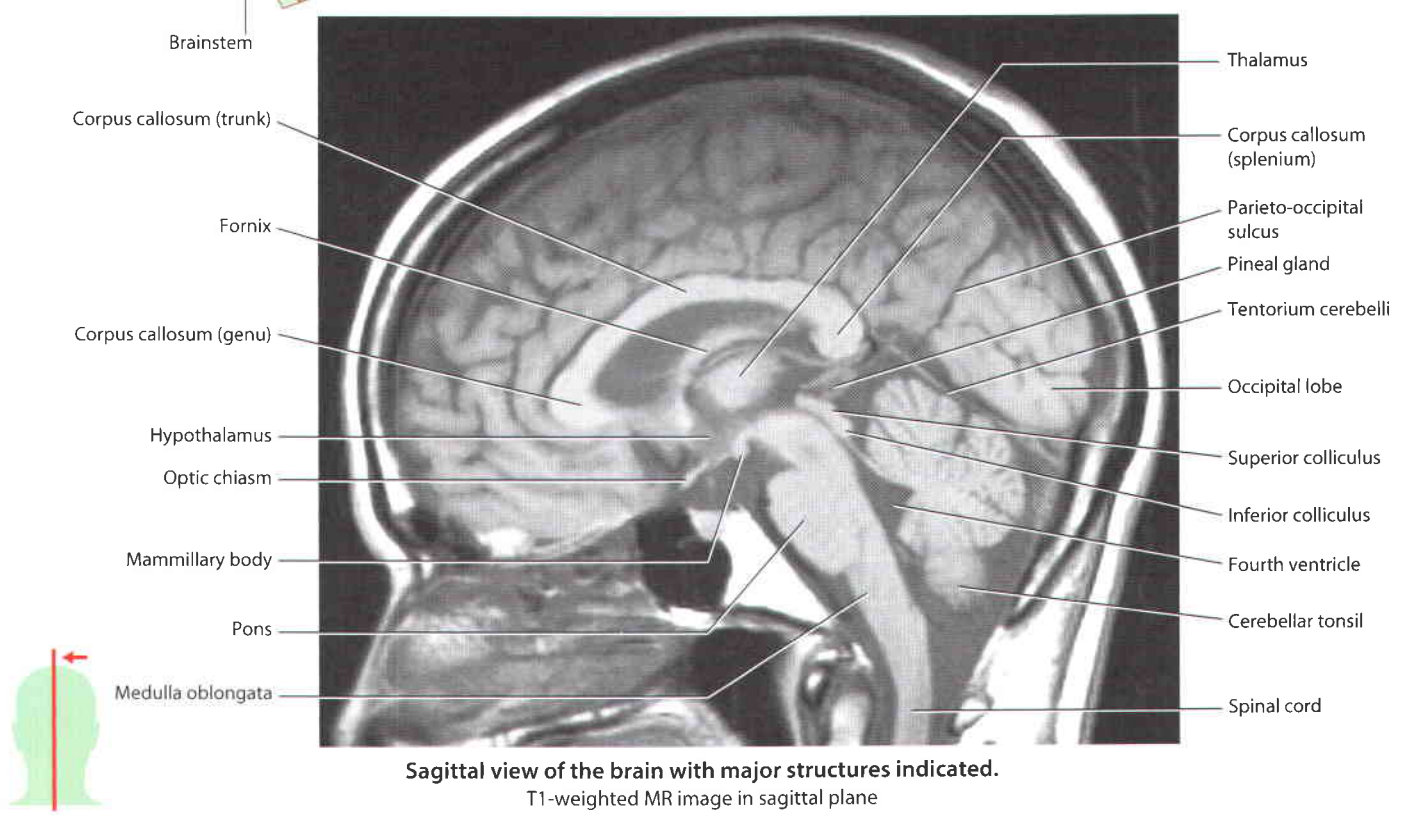
Superior view



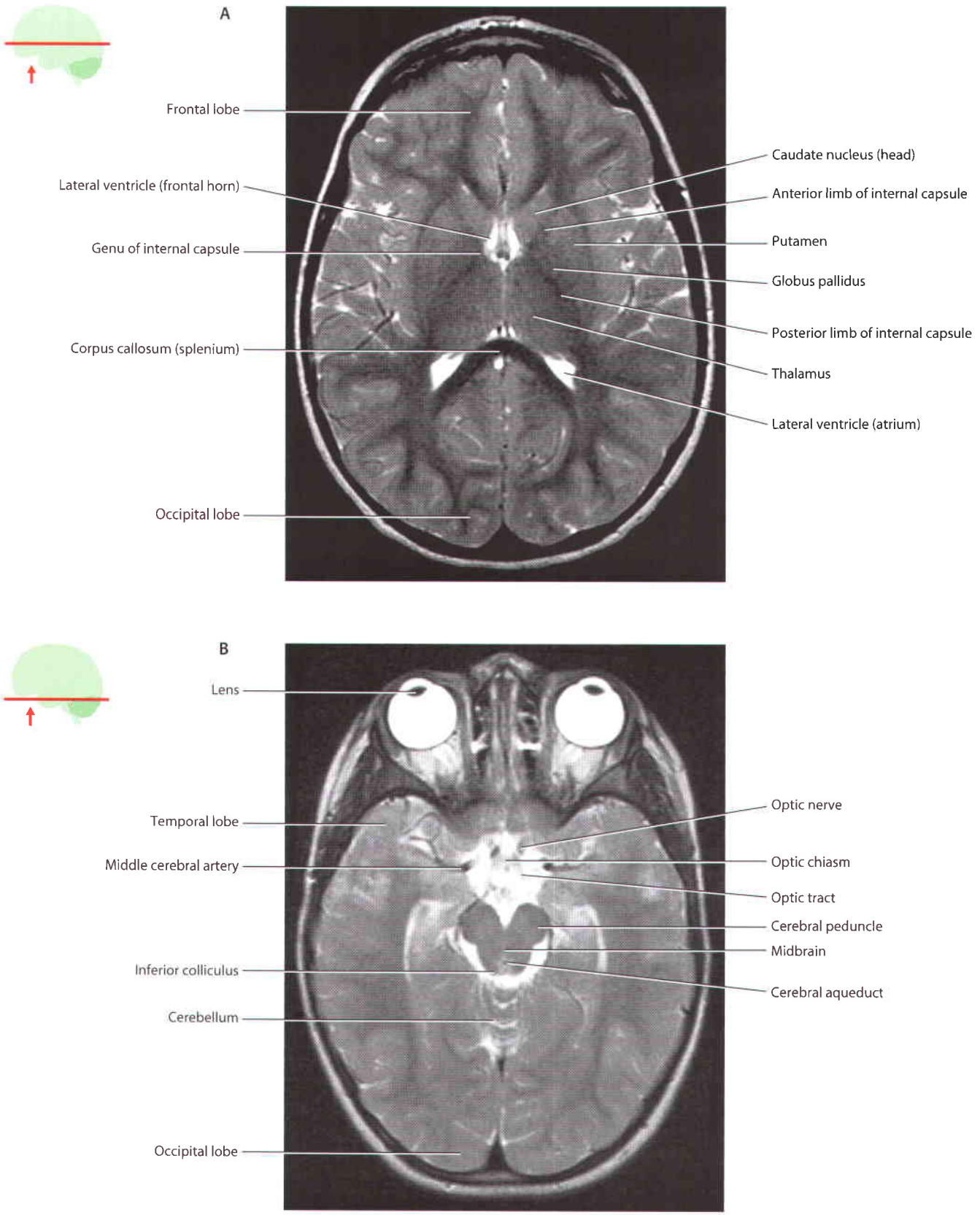
Inferior view (brainstem removed)



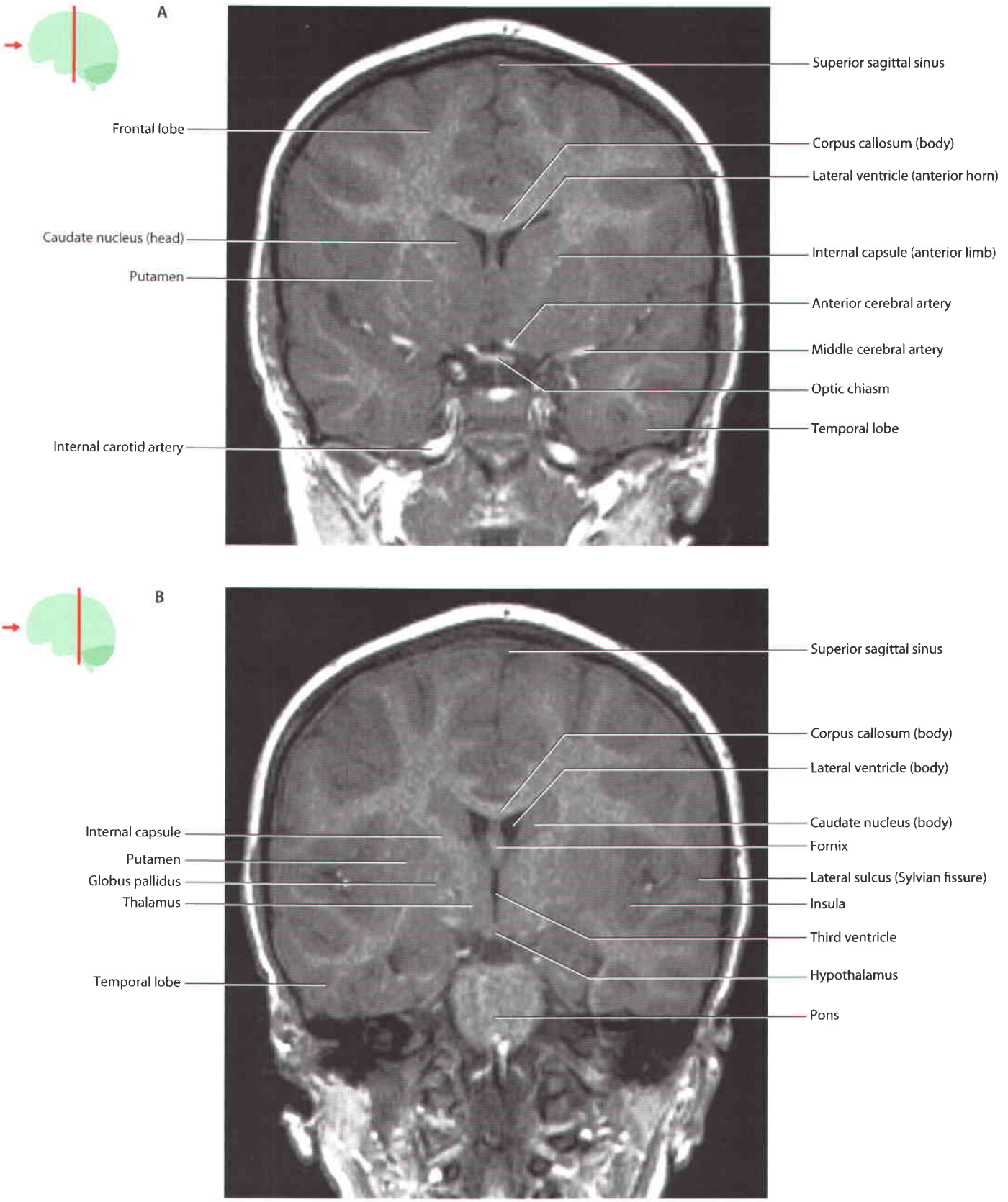
Sagittal section of the brain



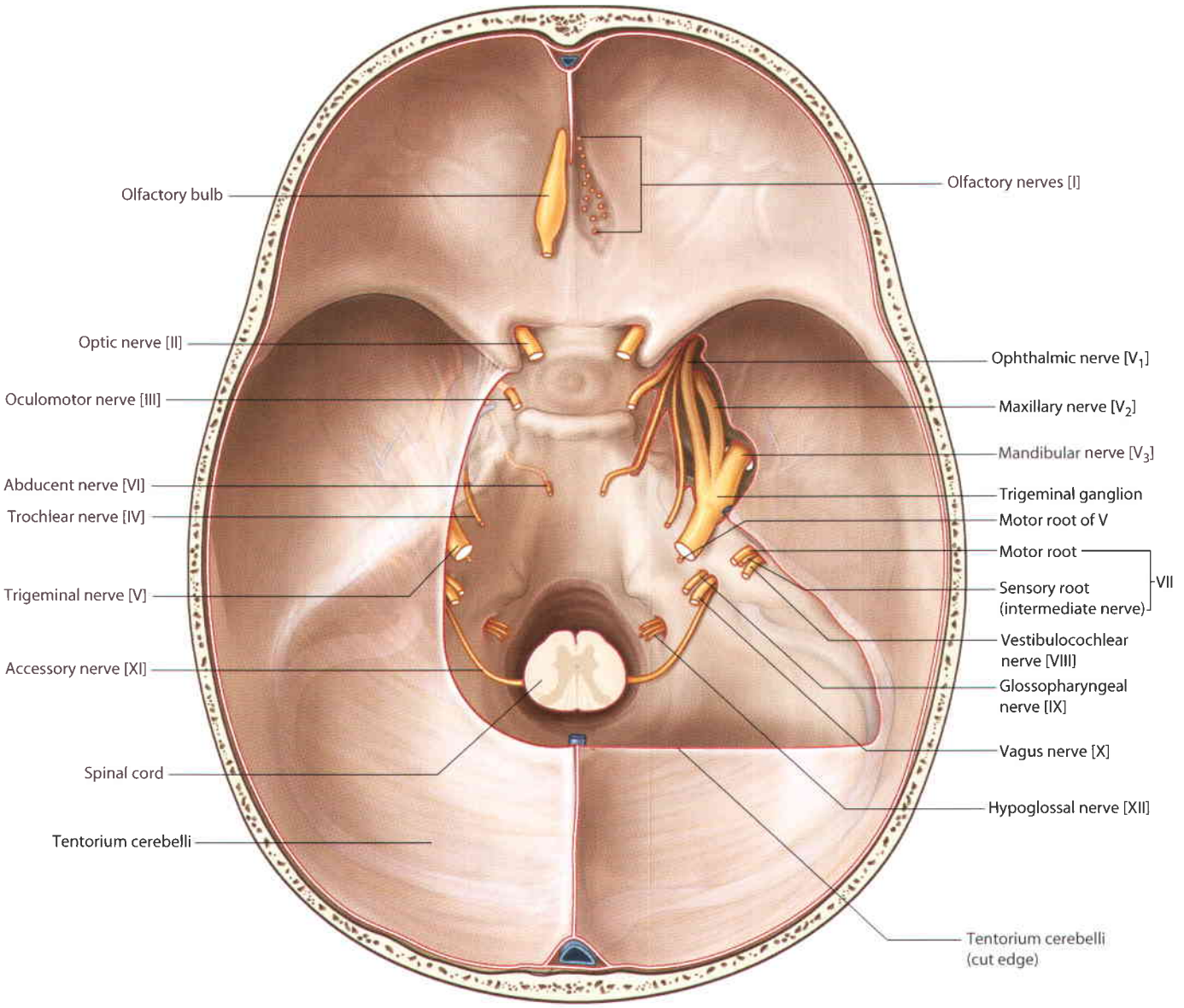
Sagittal view of the brain with major structures indicated.
T1-weighted MR image in sagittal plane

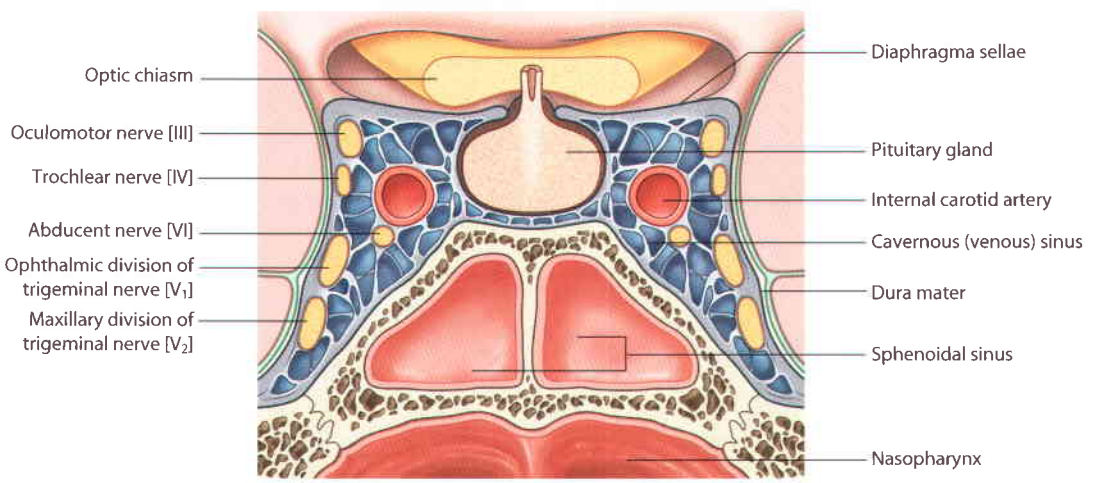


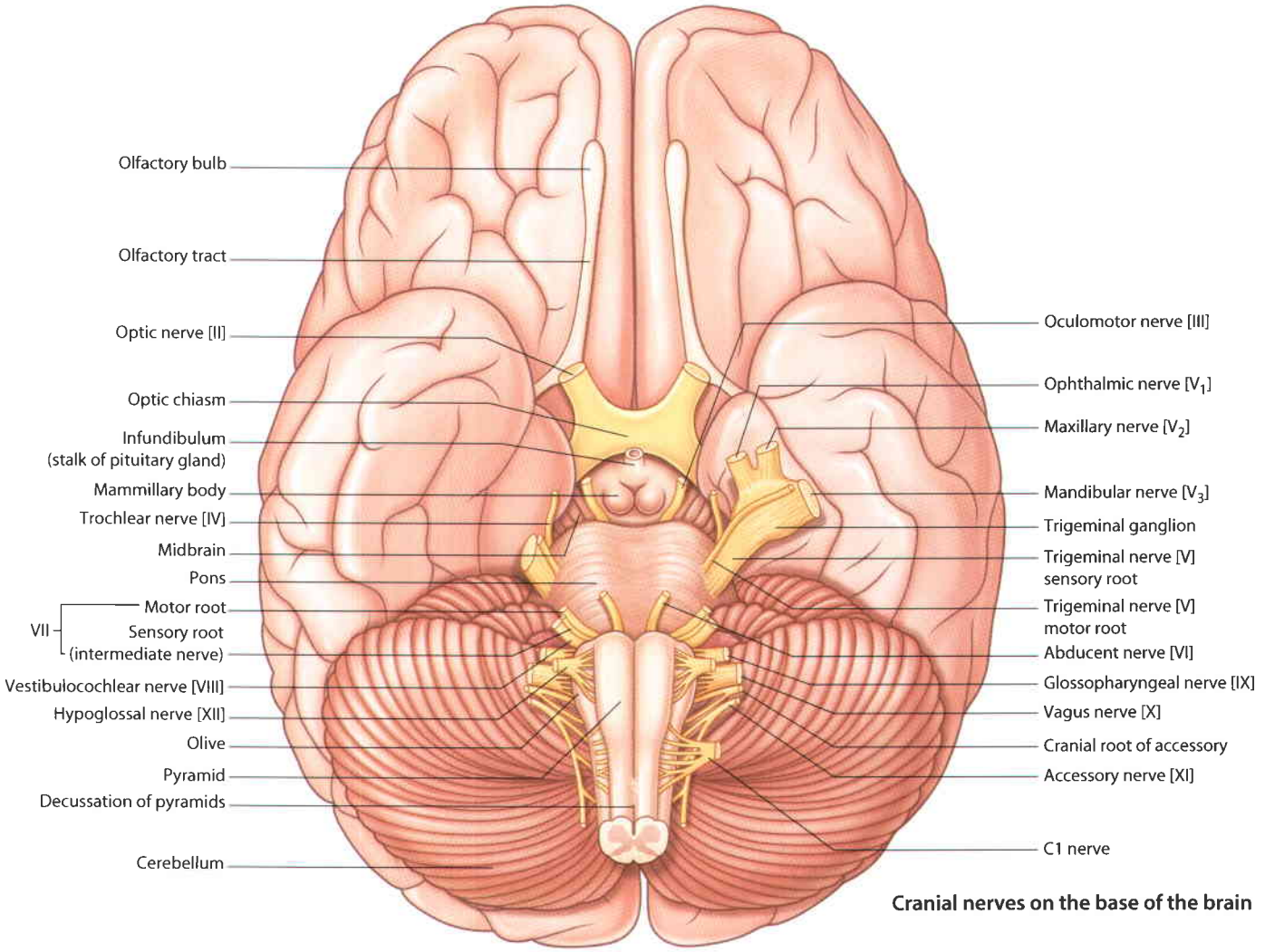
Axial or horizontal sections through the brain with major structures indicated.
A. Section showing structures related to the internal capsule.
B. Section showing structures related to the midbrain.
T1-weighted MR image in axial plane



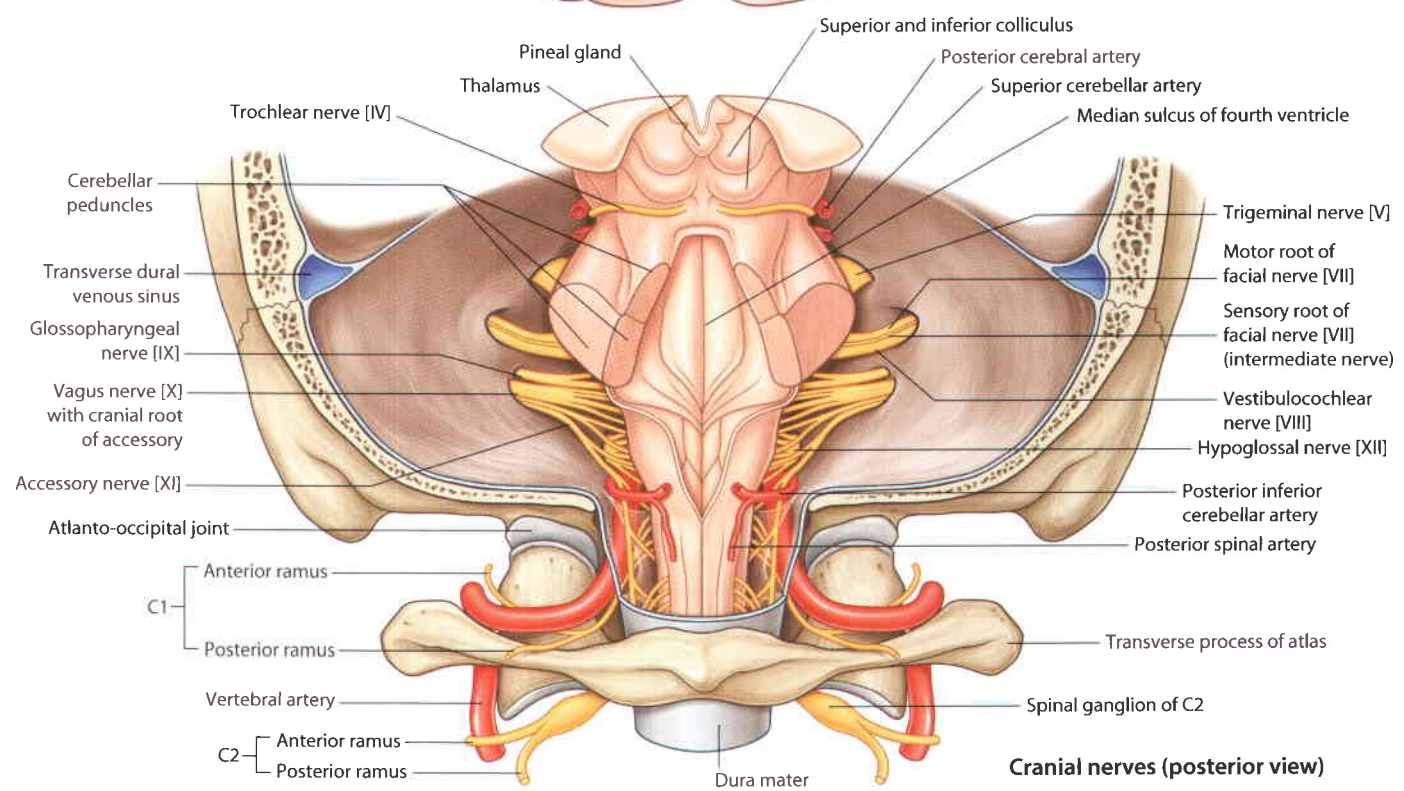
Coronal sections through the brain with major structures indicated.
A. Section showing structures related to the optic chiasm.
B. Section showing structures related to the third ventricle.
T1-weighted MR image in coronal plane


Olfactory bulb
Olfactory nerves [I]
Optic nerve [II]
Oculomotor nerve [III]
Abducent nerve [VI]
Trochlear nerve [IV]
Trigeminal nerve [V]
Accessory nerve [XI]
Spinal cord
Tentorium cerebelli
Ophthalmic nerve [V1]
Maxillary nerve [V2]
Mandibular nerve [V3]
Trigeminal ganglion
Motor root of V
Motor root
Sensory root (intermediate nerve)
VII
Vestibulocochlear nerve [VIII]
Glossopharyngeal nerve [IX]
Vagus nerve [X]
Hypoglossal nerve [XII]
Tentorium cerebelli (cut edge)

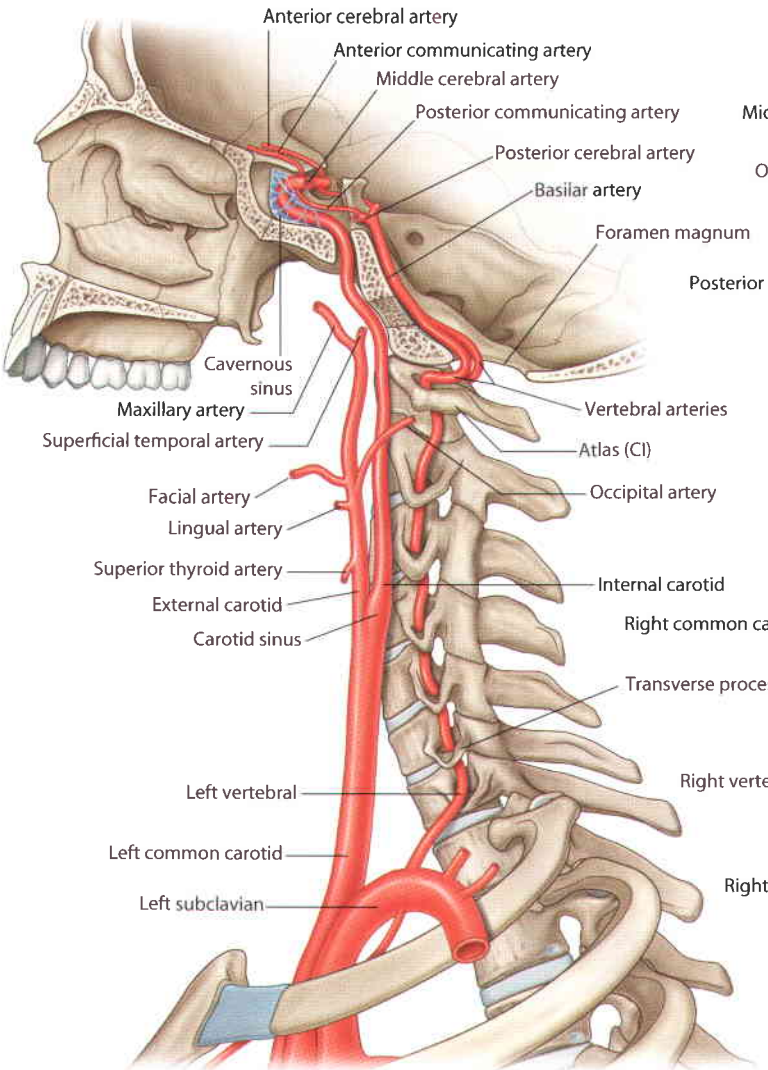

Optic chiasm
Oculomotor nerve [III]
Trochlear nerve [IV]
Abducent nerve [VI]
Ophthalmic division of trigeminal nerve [V1]
Maxillary division of trigeminal nerve [V2]
Diaphragma sellae
Pituitary gland
Internal carotid artery
Cavernous (venous) sinus
Dura mater
Sphenoidal sinus
Nasopharynx



Cranial nerves on the base of the brain



Cranial nerves (posterior view)



Arteries to brain (lateral view)

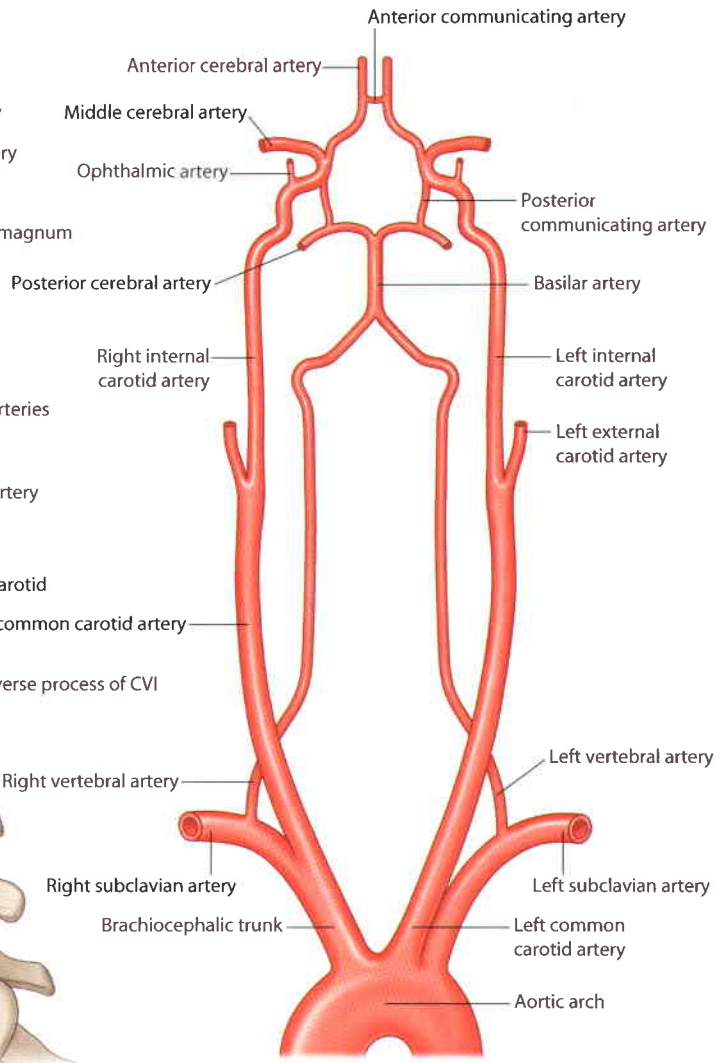
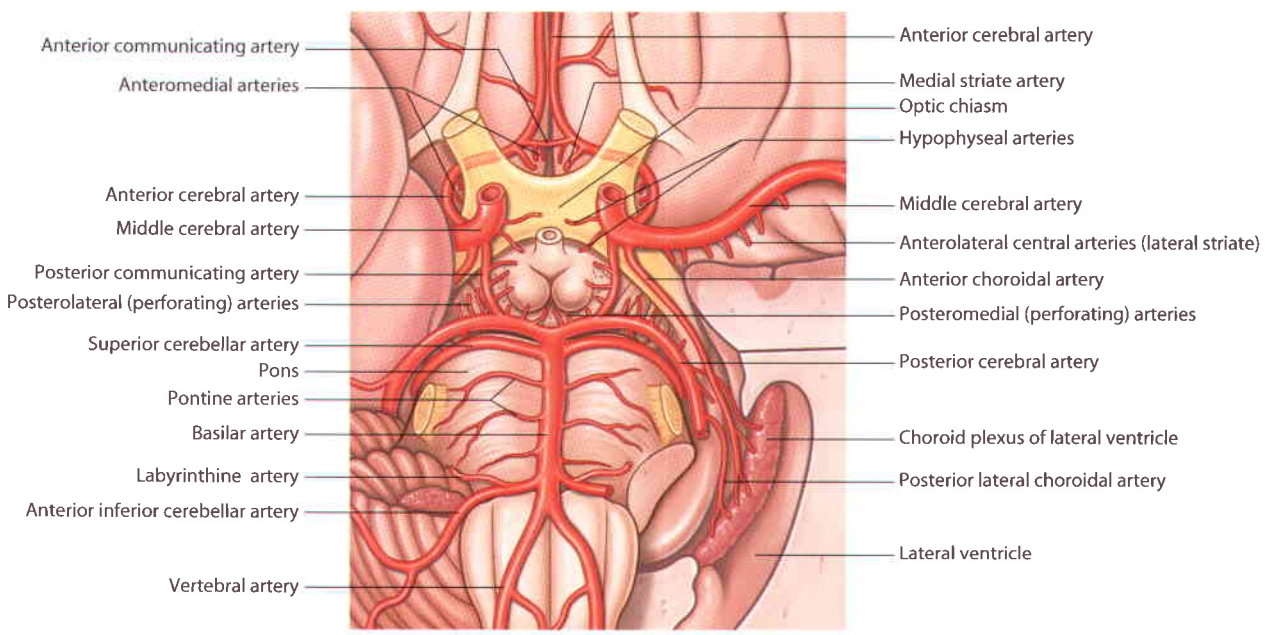
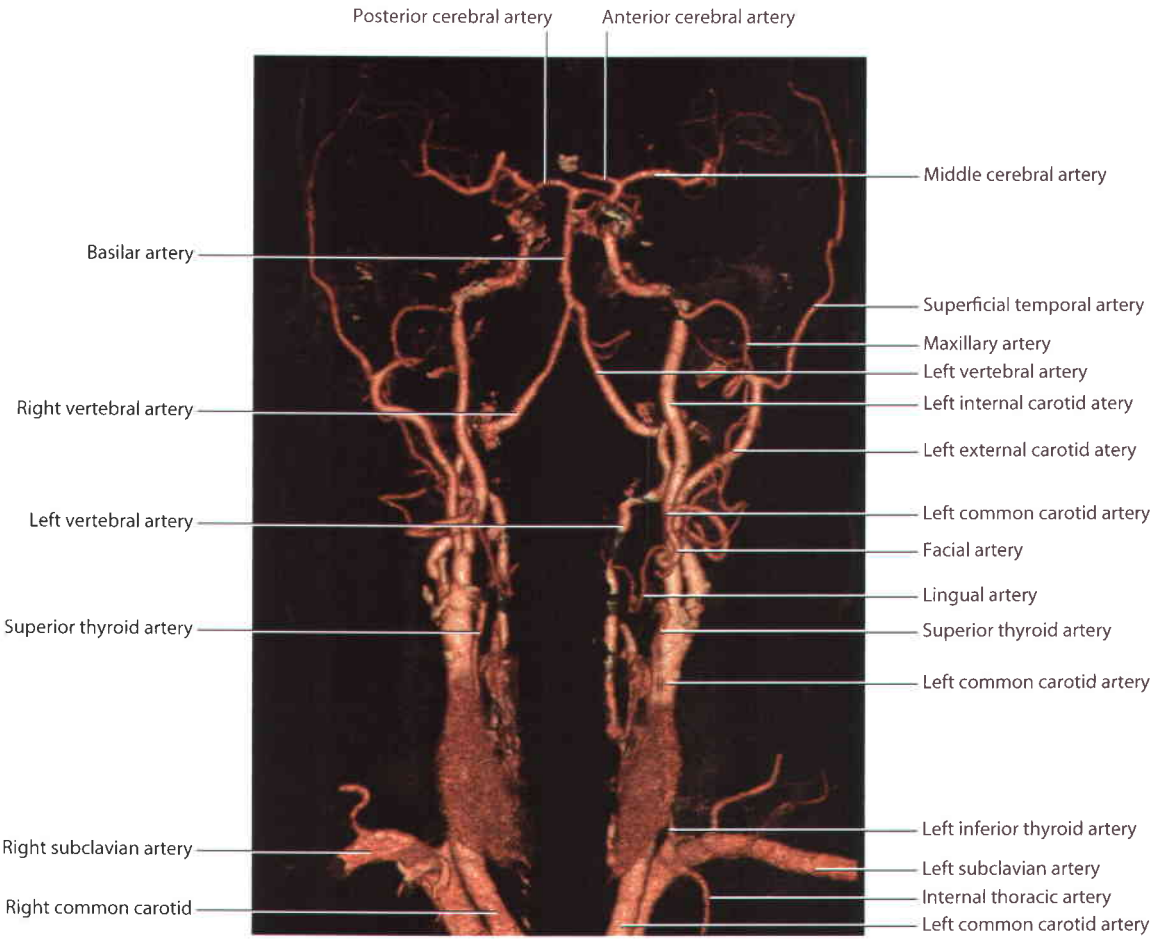


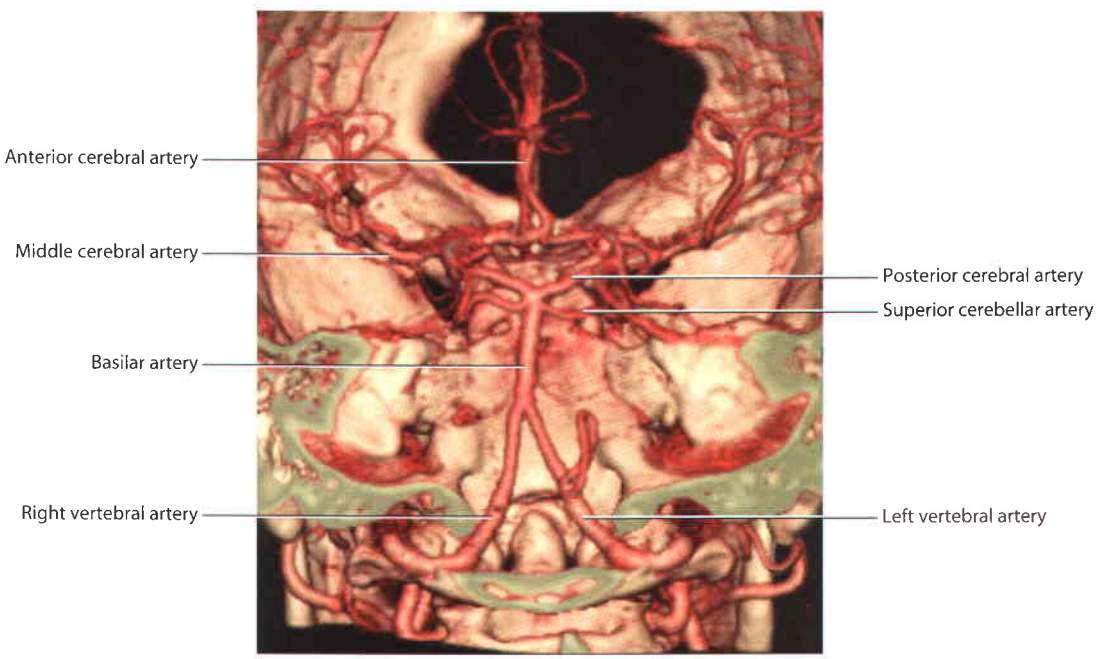
Diagram showing blood supply to brain



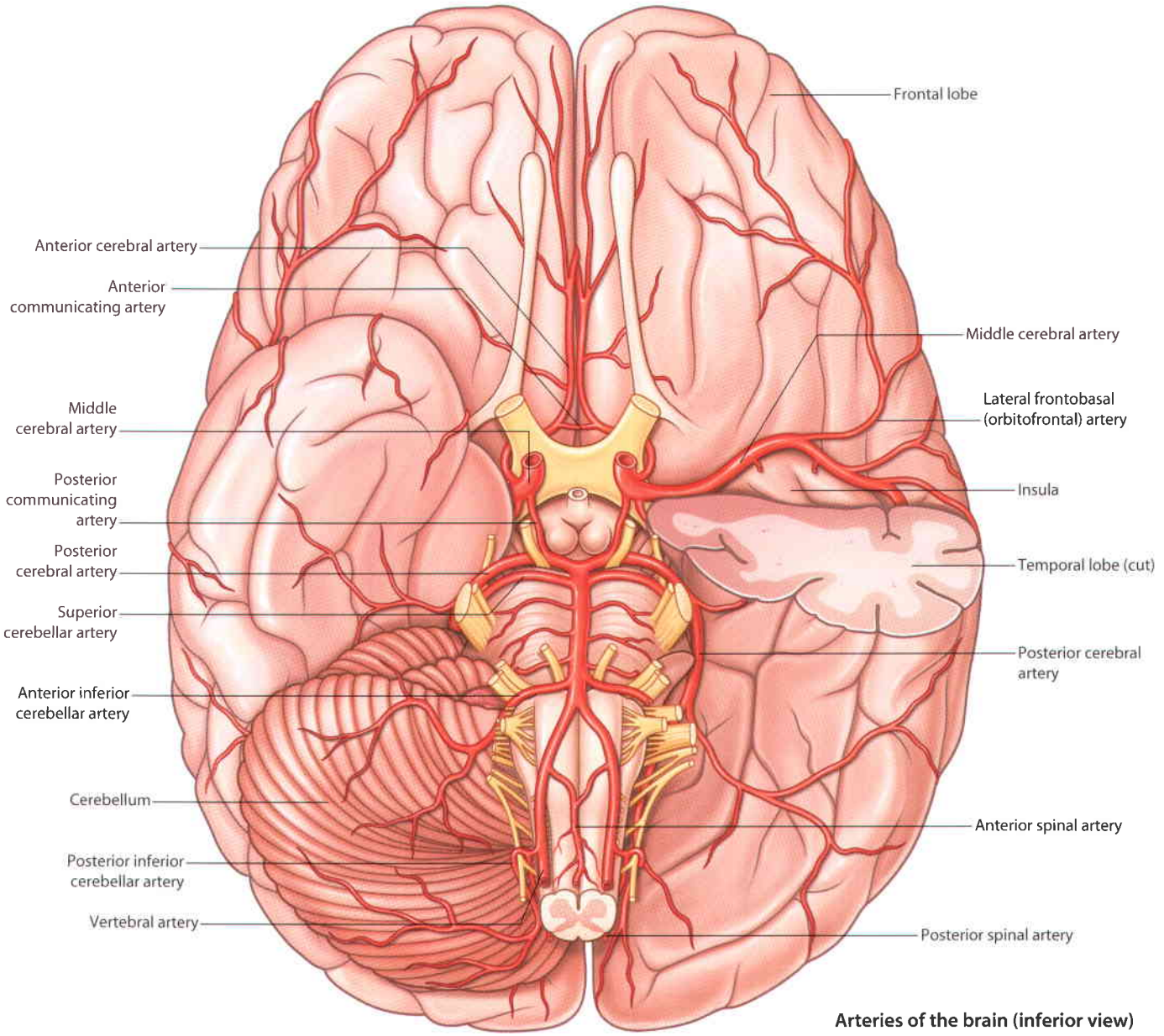
Cerebral arterial circle (of Willis)



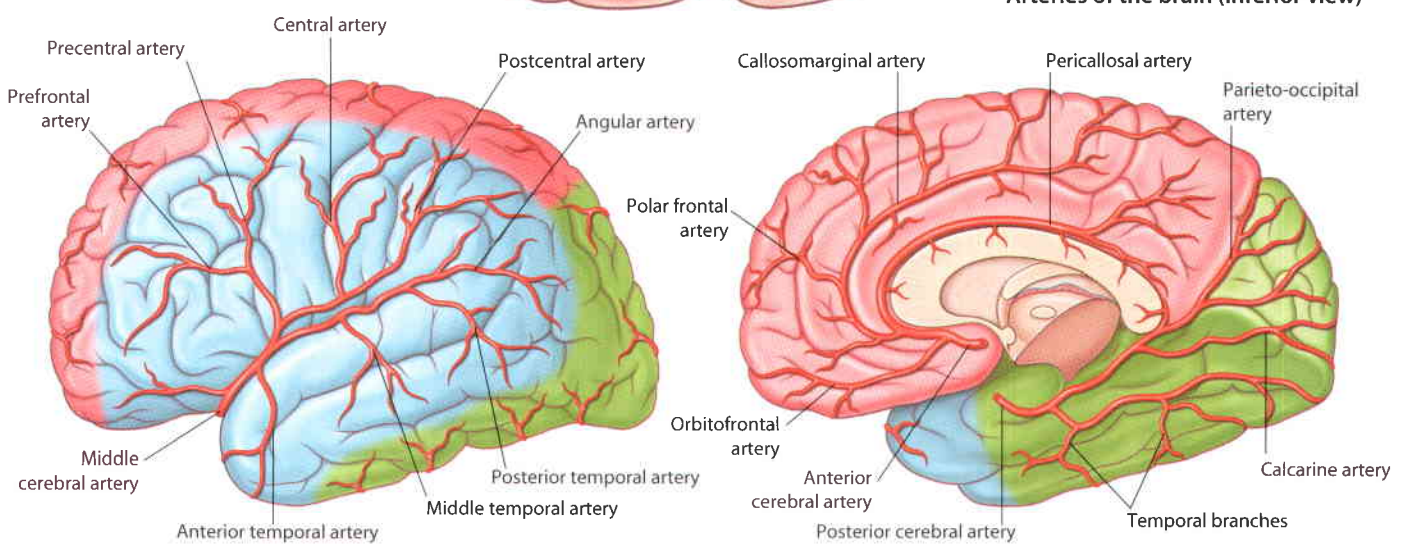
Anterior view of the carotid and vertebral arterial systems.
Volume-rendered anterior view using multidetector computed tomography



Posterior view of the cerebral arterial circle (of Willis).
Volume-rendered posterior view using multidetector computed tomography

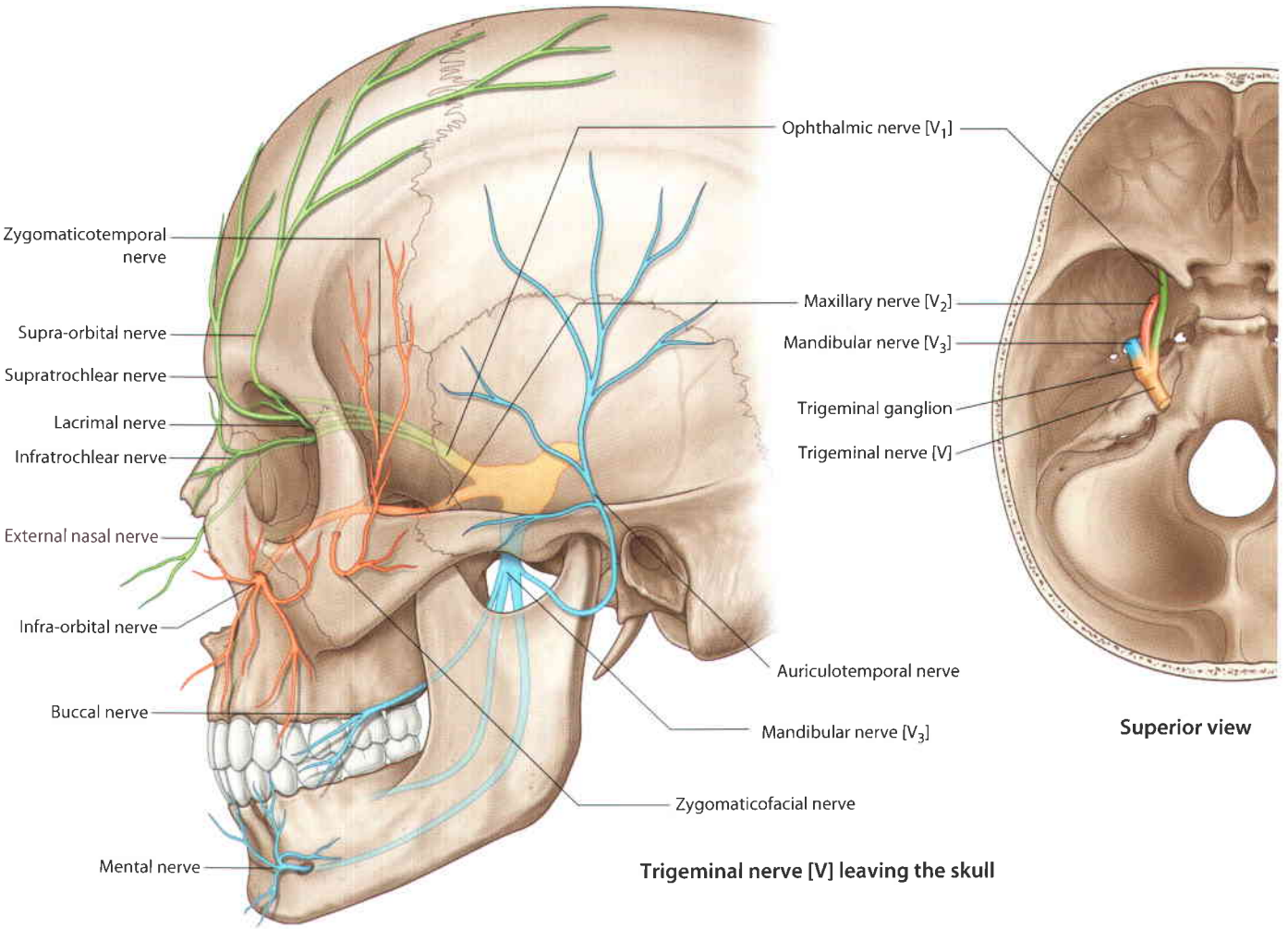


Arteries of the brain (inferior view)

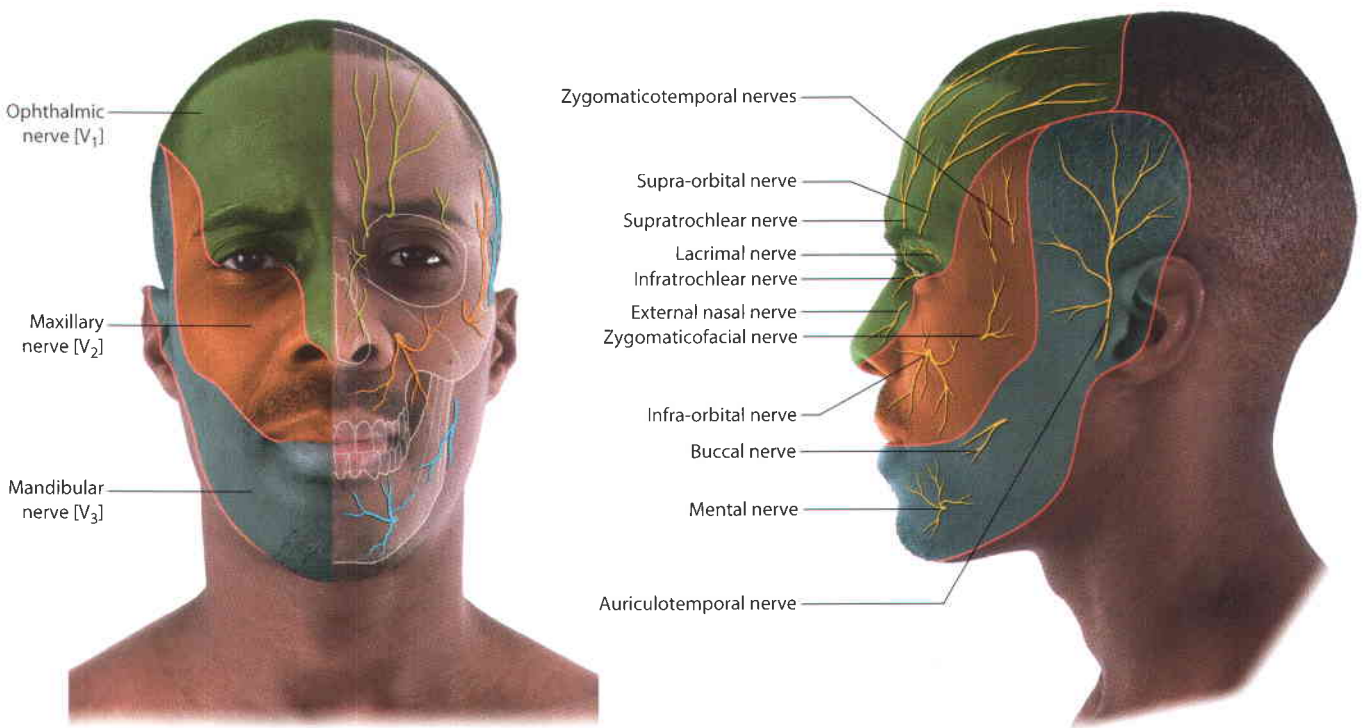


Lateral view **Medial view**

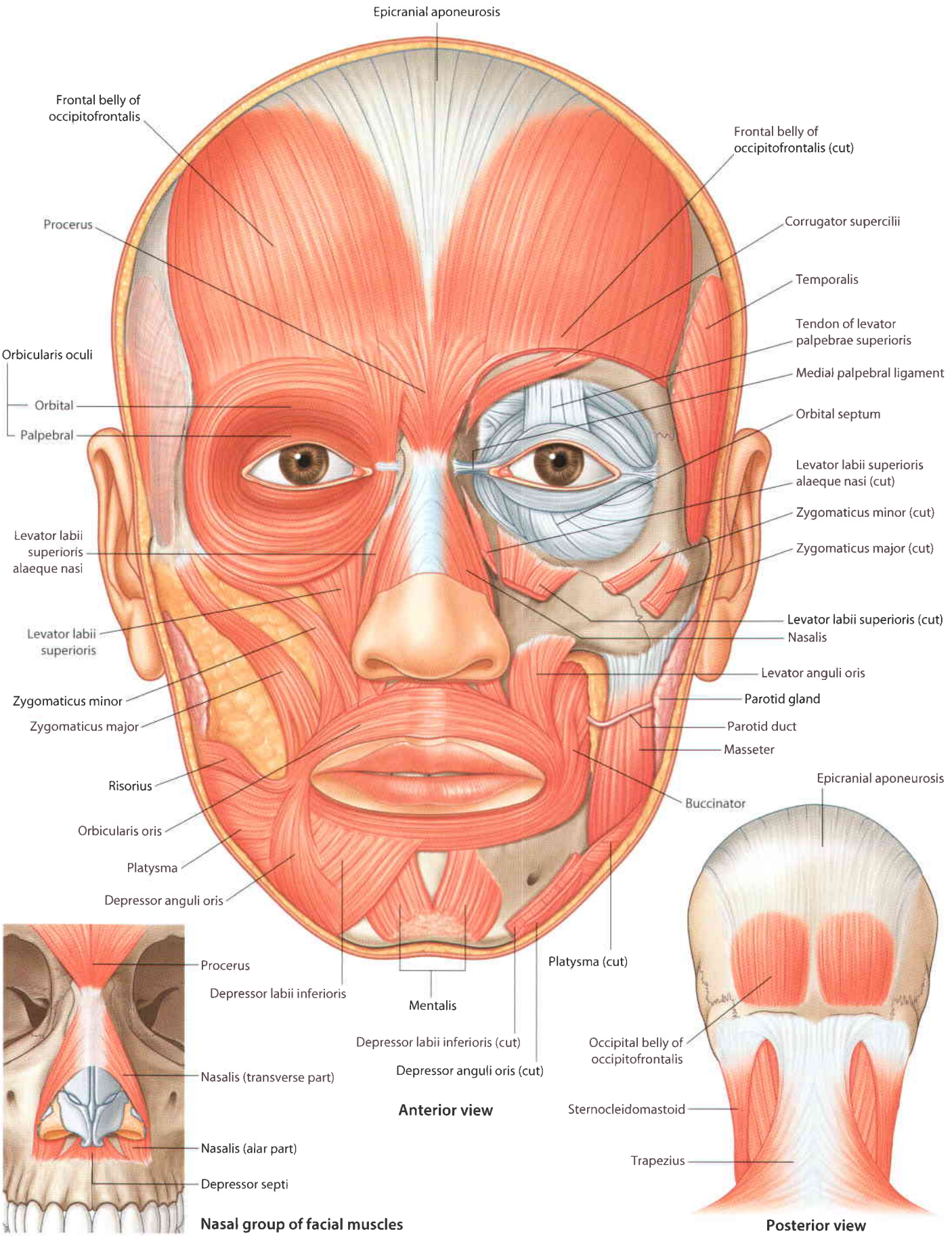
Blood supply to the cerebral hemispheres.
Anterior cerebral artery (pink), middle cerebral artery (blue), posterior cerebral artery (green)

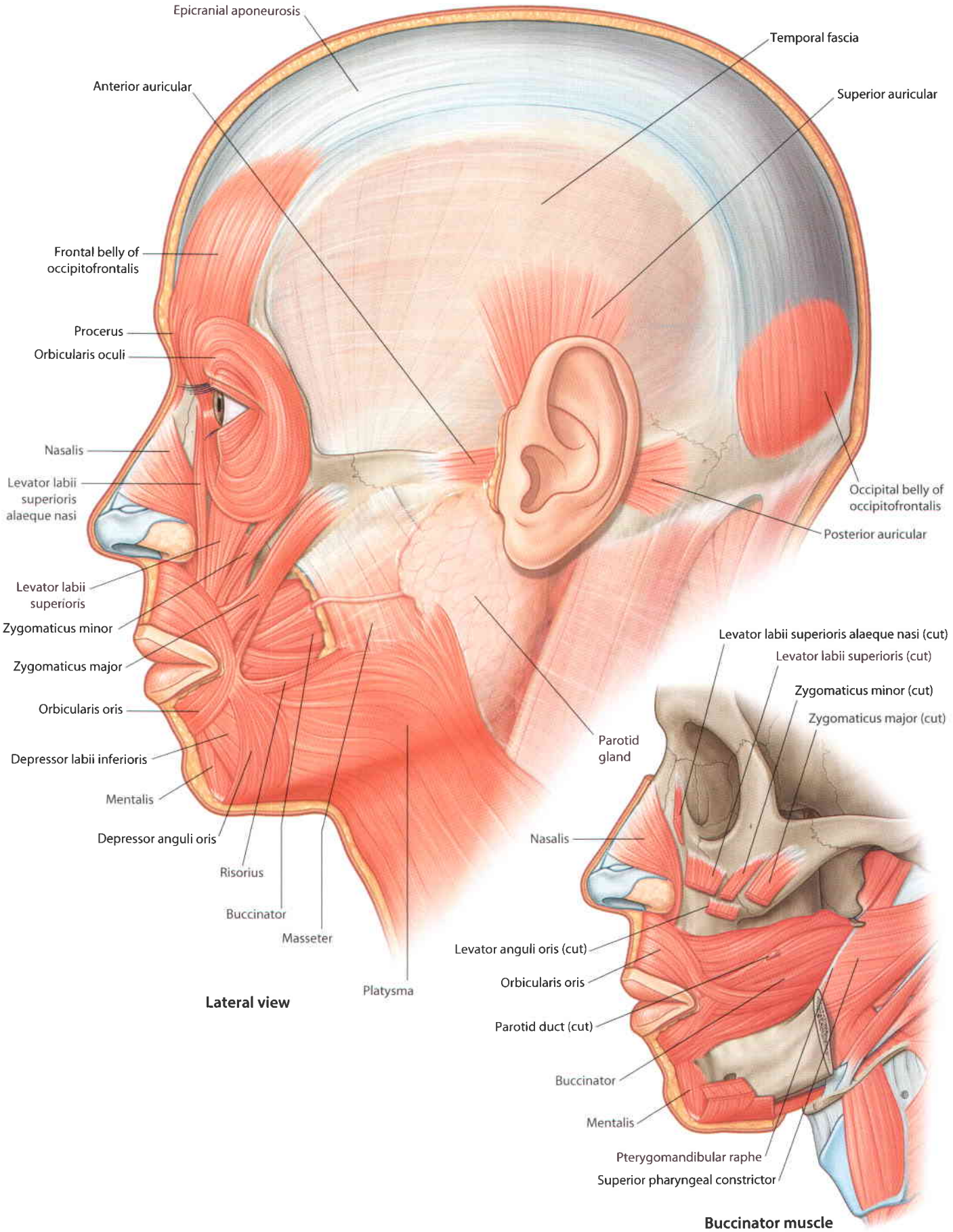


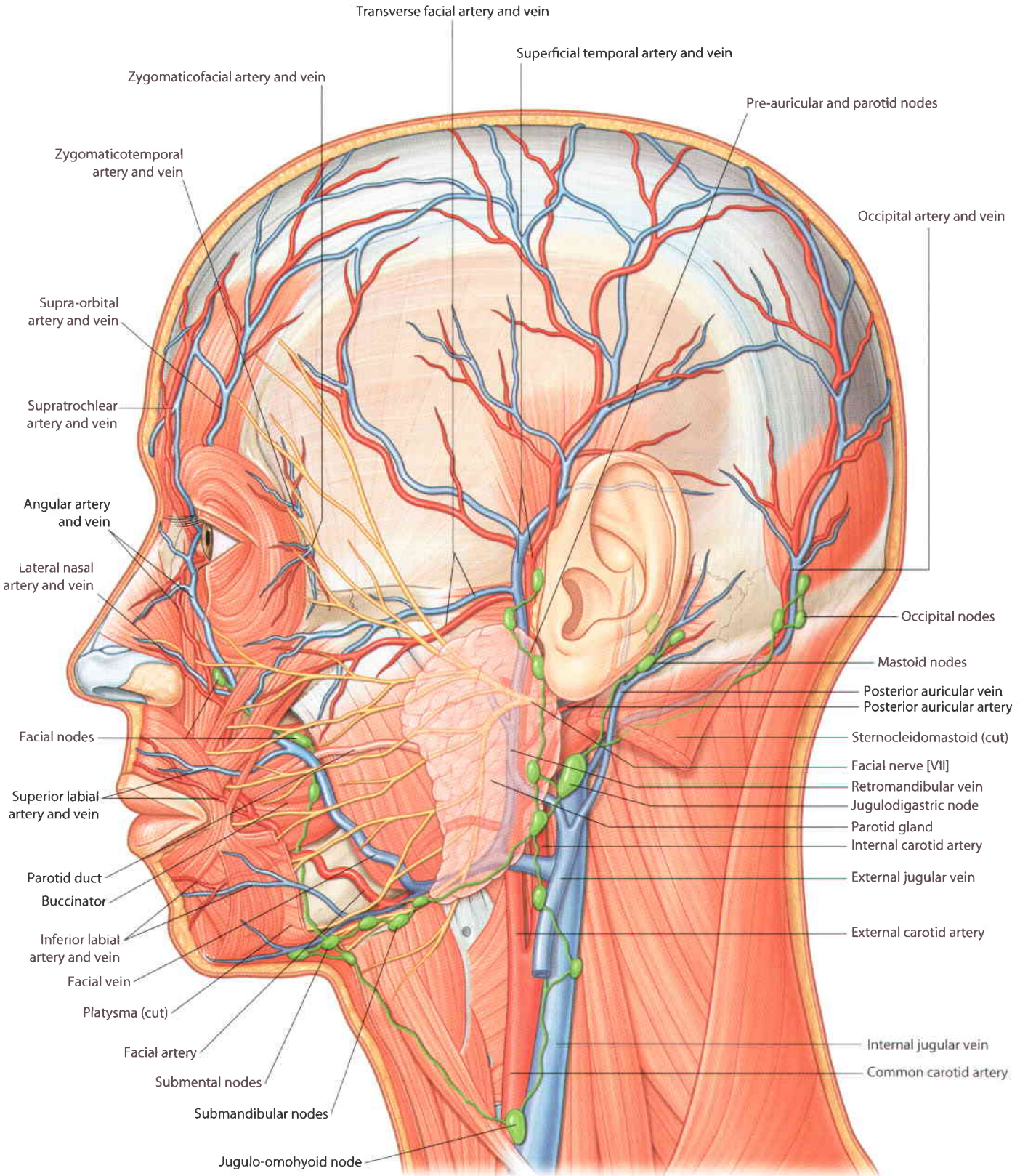
Trigeminal nerve [V] leaving the skull



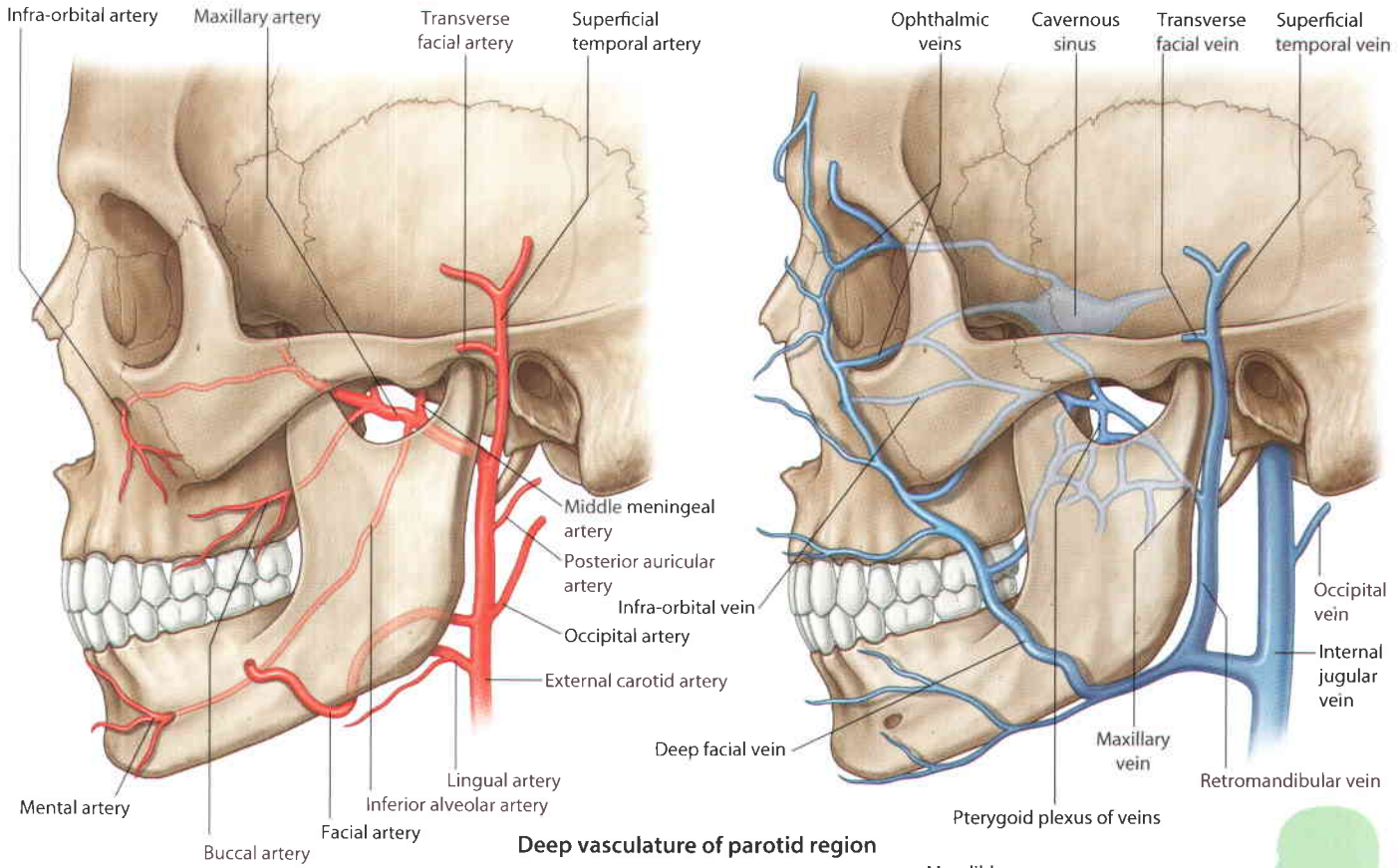
Cutaneous distribution of the trigeminal nerve [V]


Epicranial aponeurosis
Frontal belly of occipitofrontalis
Frontal belly of occipitofrontalis (cut)
Procerus
Corrugator supercilii
Temporalis
Tendon of levator palpebrae superioris
Orbicularis oculi
Orbital
Palpebral
Medial palpebral ligament
Orbital septum
Levator labii superioris alaeque nasi (cut)
Zygomaticus minor (cut)
Levator labii superioris alaeque nasi
Zygomaticus major (cut)
Levator labii superioris (cut)
Nasalis
Levator labii superioris
Levator anguli oris
Zygomaticus minor
Parotid gland
Zygomaticus major
Parotid duct
Masseter
Risorius
Buccinator
Orbicularis oris
Platysma
Depressor anguli oris
Procerus
Depressor labii inferioris
Mentalis
Platysma (cut)
Depressor labii inferioris (cut)
Depressor anguli oris (cut)
Nasalis (transverse part)
Nasalis (alar part)
Depressor septi
Anterior view
Epicranial aponeurosis
Occipital belly of occipitofrontalis
Sternocleidomastoid
Trapezius
Nasal group of facial muscles
Posterior view

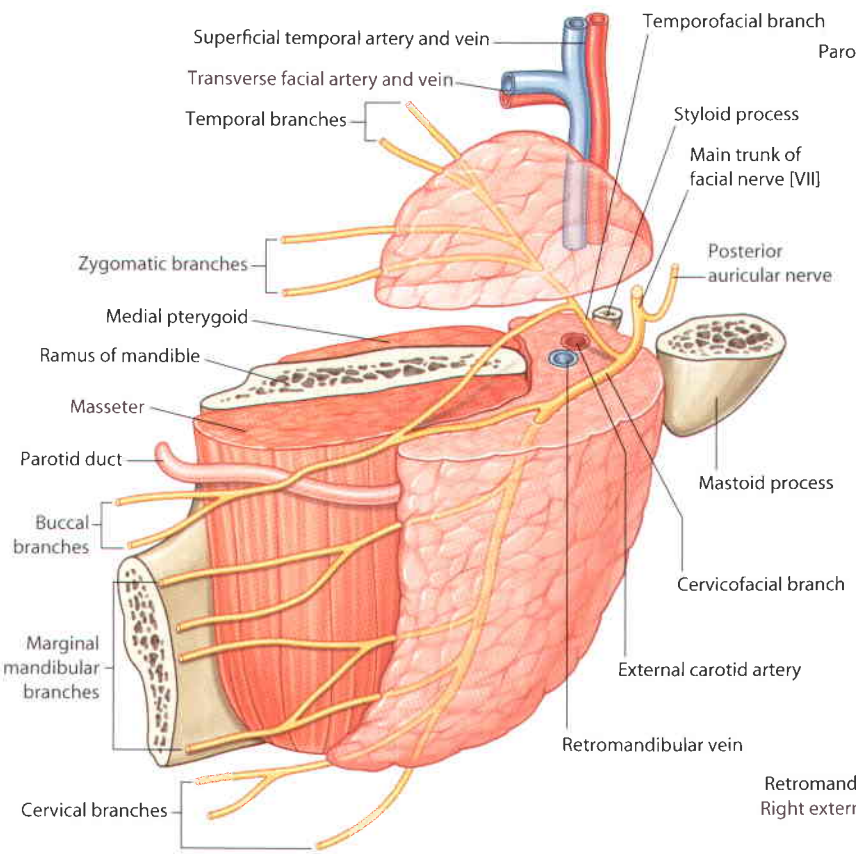

Epicranial aponeurosis
Temporal fascia
Anterior auricular
Superior auricular
Frontal belly of occipitofrontalis
Procerus
Orbicularis oculi
Nasalis
Levator labii superioris alaeque nasi
Occipital belly of occipitofrontalis
Posterior auricular
Levator labii superioris
Zygomaticus minor
Zygomaticus major
Orbicularis oris
Depressor labii inferioris
Mentalis
Depressor anguli oris
Risorius
Buccinator
Masseter
Platysma
Parotid gland
Lateral view
Levator labii superioris alaeque nasi (cut)
Levator labii superioris (cut)
Zygomaticus minor (cut)
Zygomaticus major (cut)
Nasalis
Levator anguli oris (cut)
Orbicularis oris
Parotid duct (cut)
Buccinator
Mentalis
Pterygomandibular raphe
Superior pharyngeal constrictor
Buccinator muscle



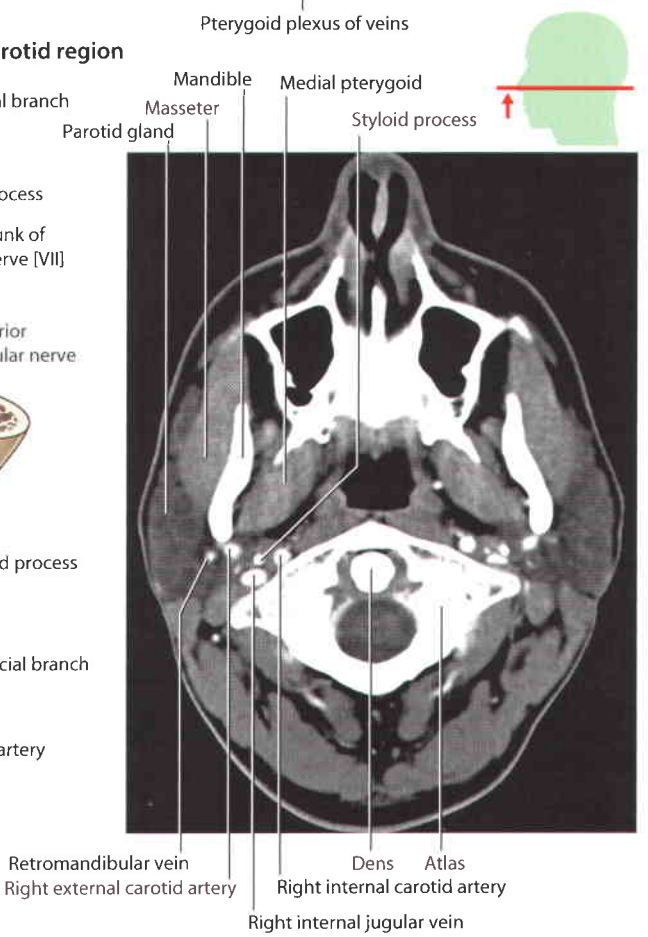
Vasculature, facial nerve [VII] and lymphatics of the face



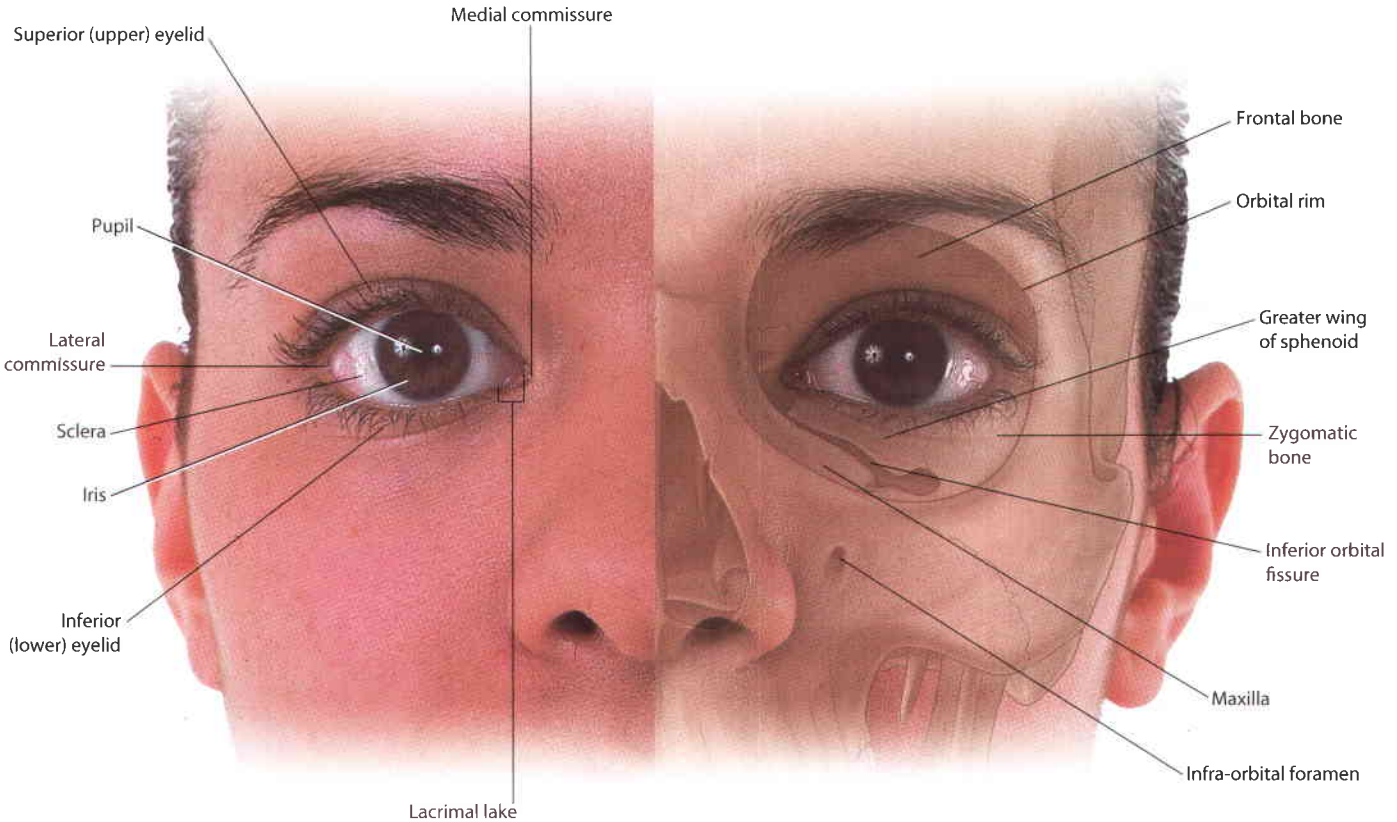
Deep vasculature of parotid region



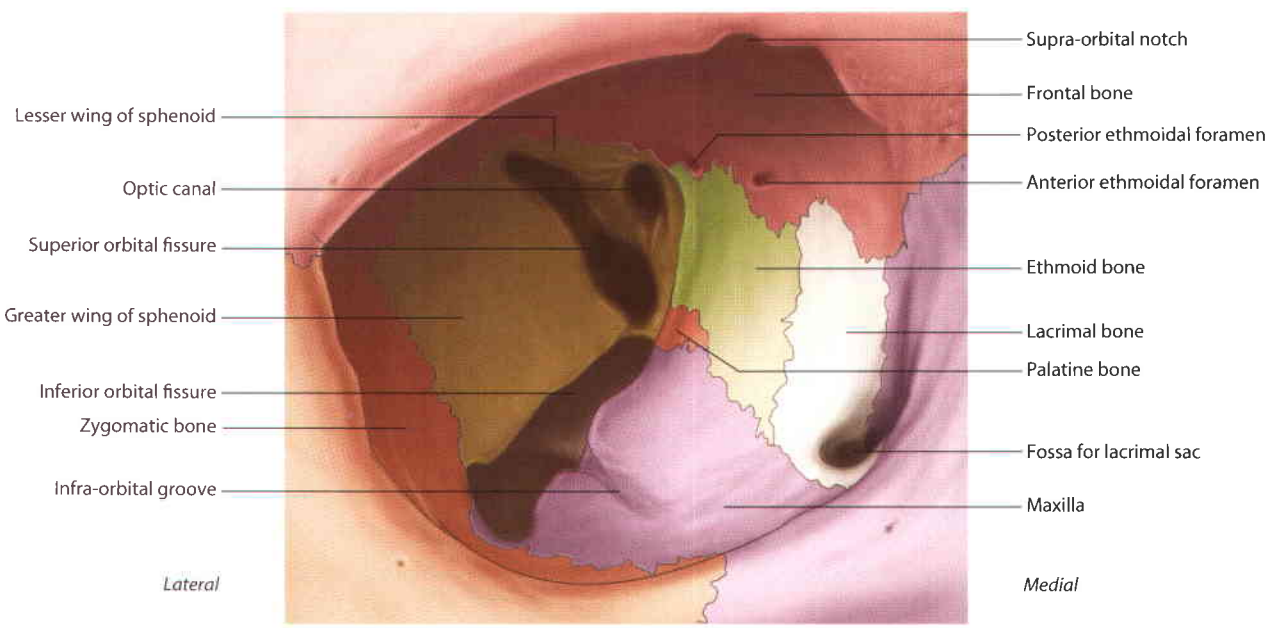
Parotid gland and facial nerve [VII]



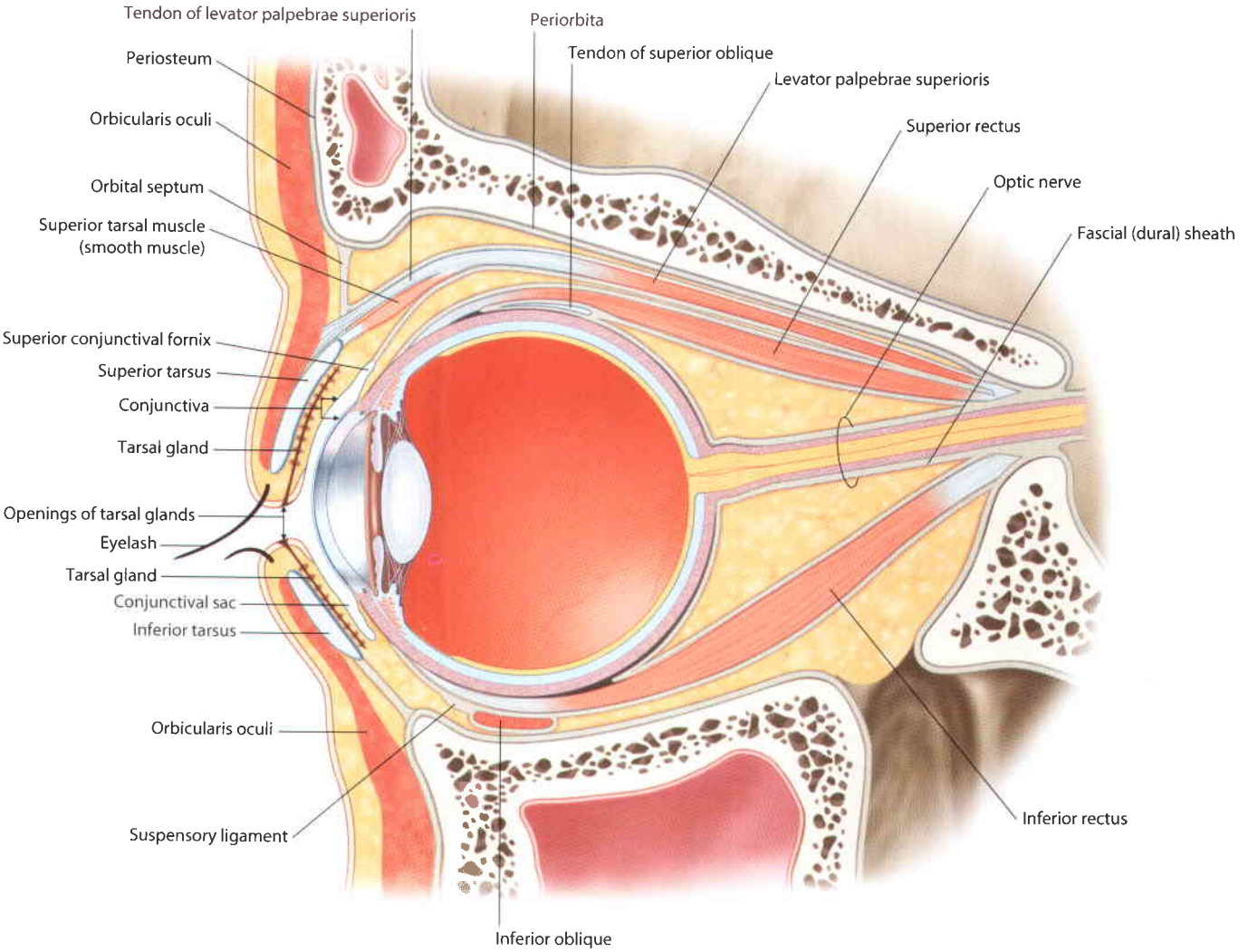
Axial section through the parotid gland showing its relationship to surrounding structures.
CT image in axial plane



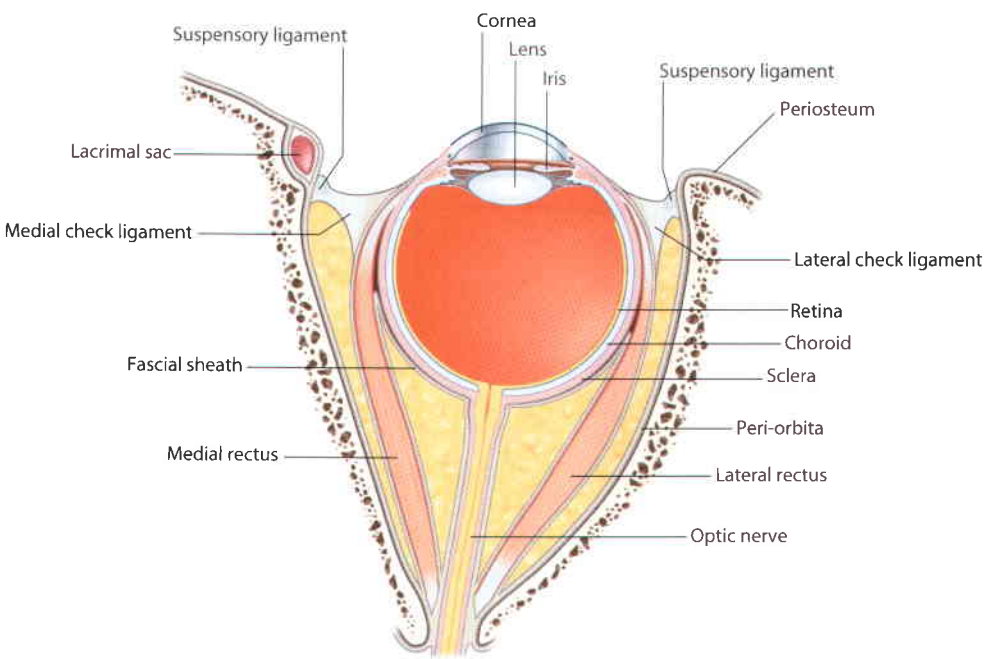
Surface anatomy



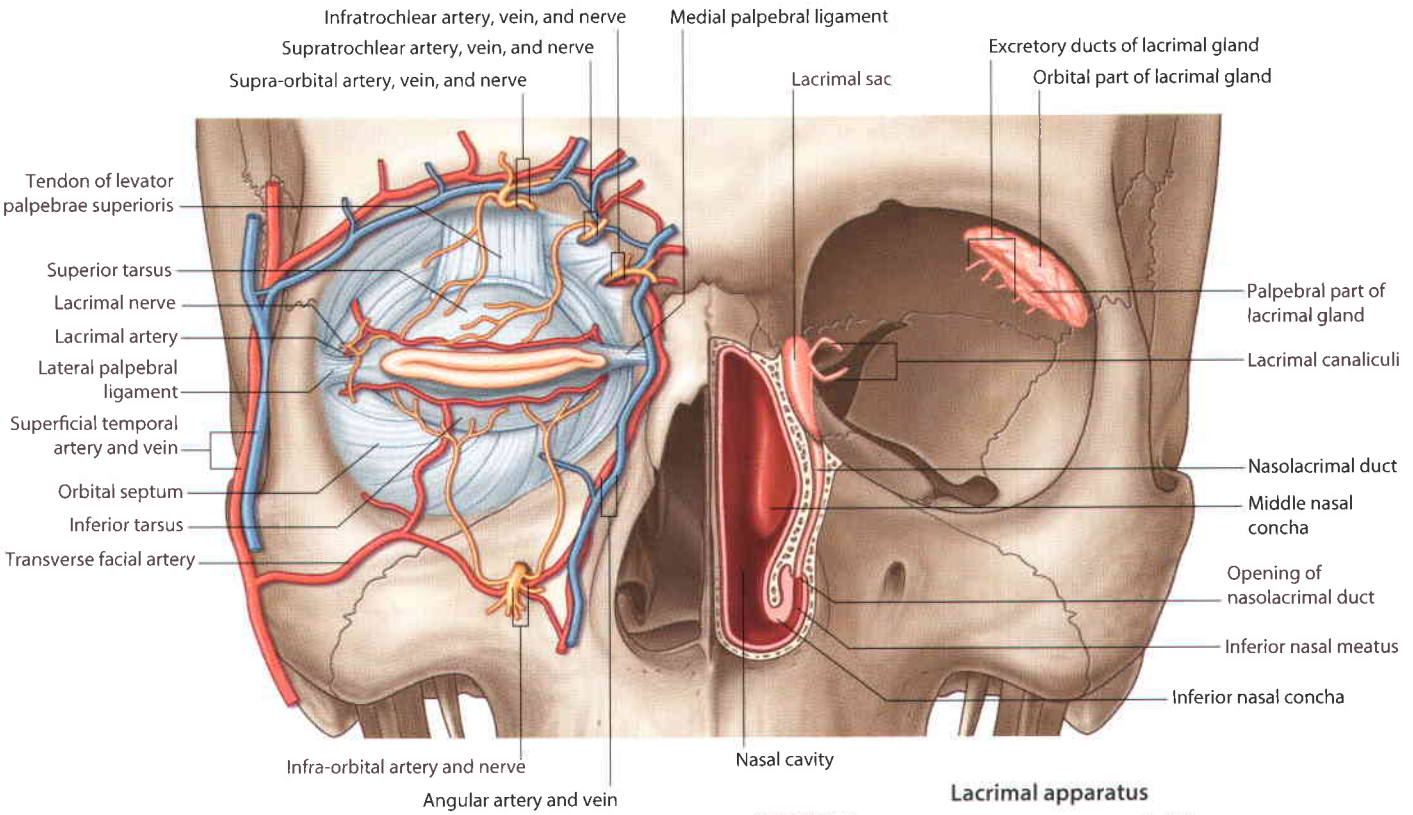
Bones of the right orbit



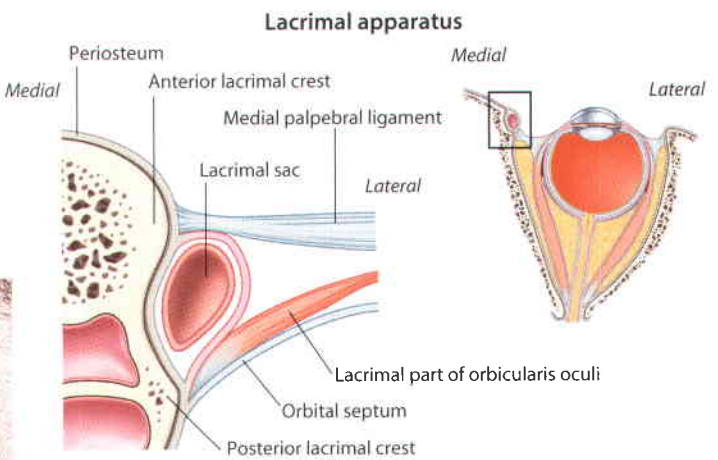
Sagittal section through orbit and eyeball



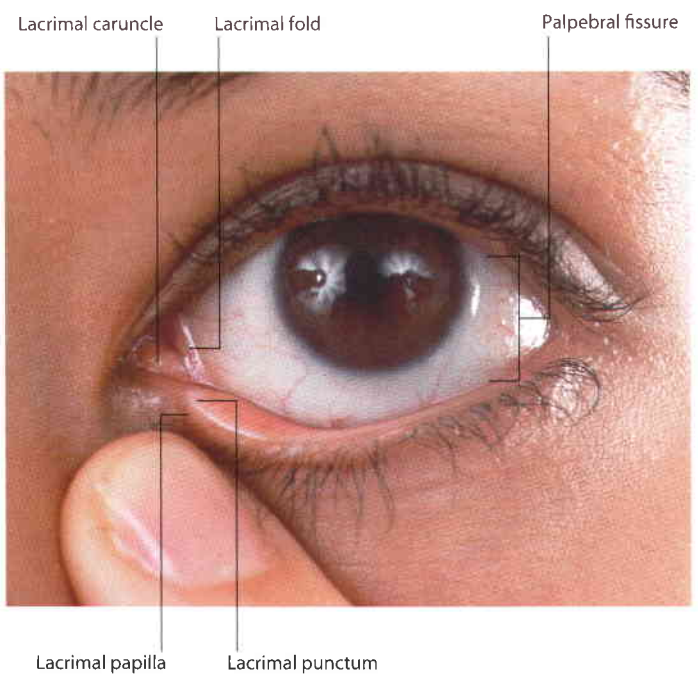
Horizontal (axial) section through orbit and eyeball



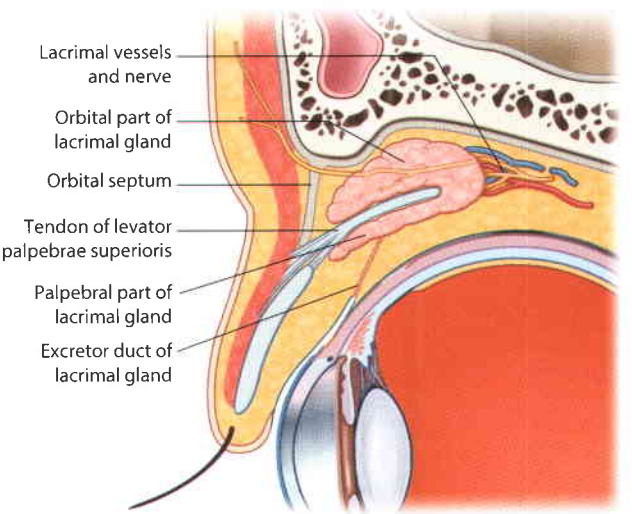
Vasculature and nerves of the eyelids



Lacrimal sac (horizontal section)

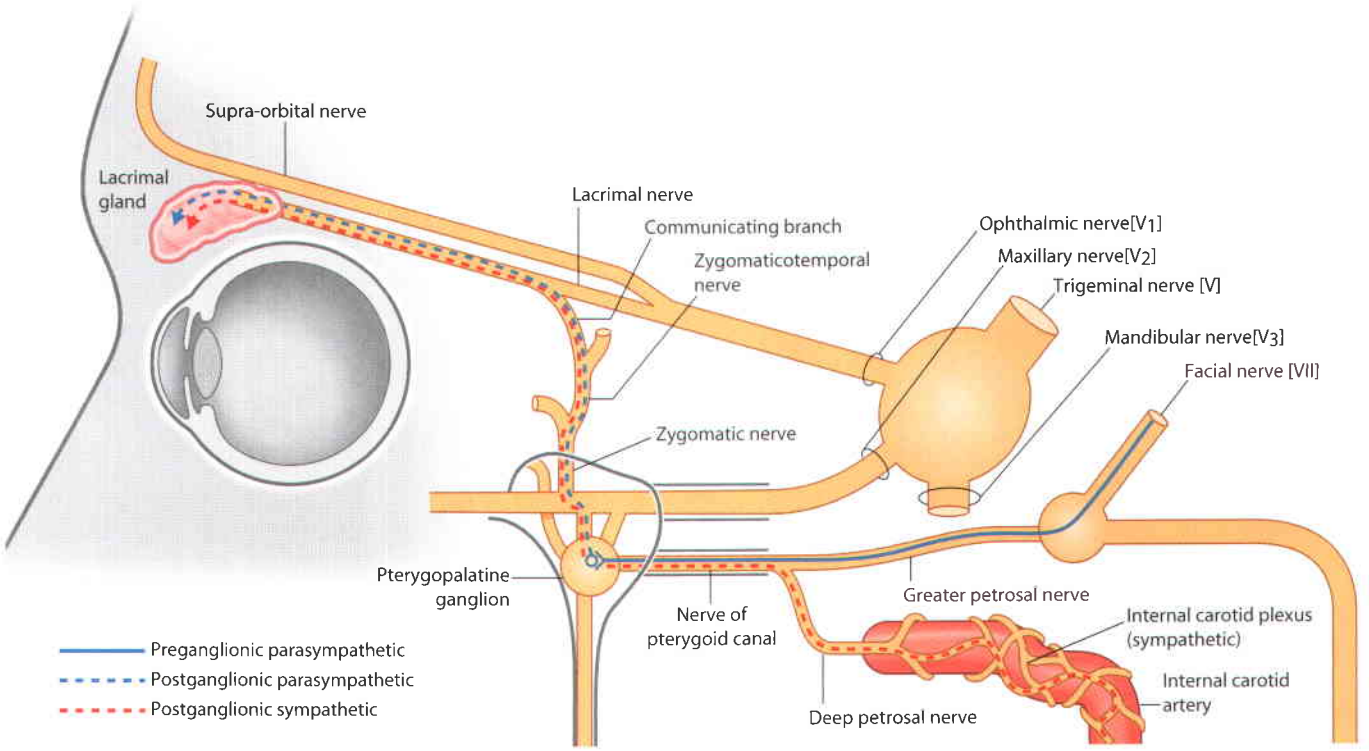


Lacrimal papilla and punctum of left eye

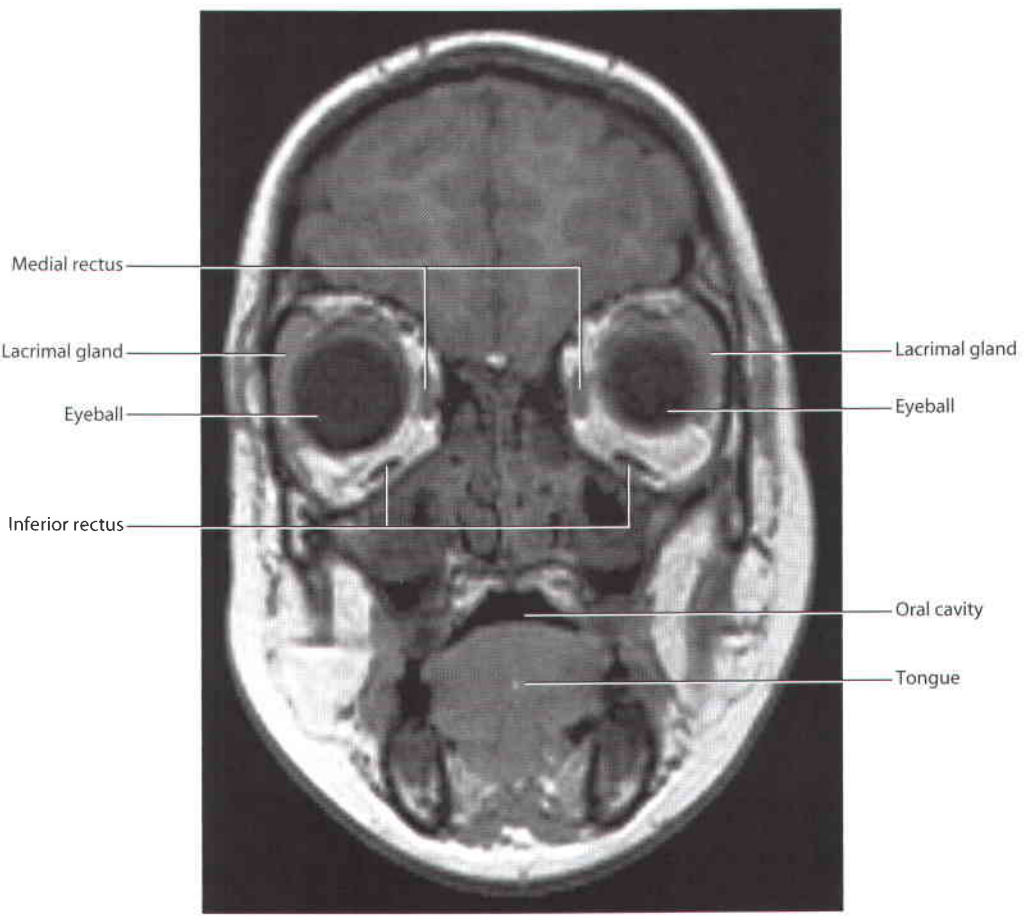


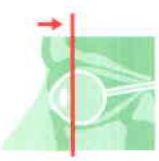
Lacrimal gland and levator palpebrae superioris (parasagittal section)

Lacrimal apparatus

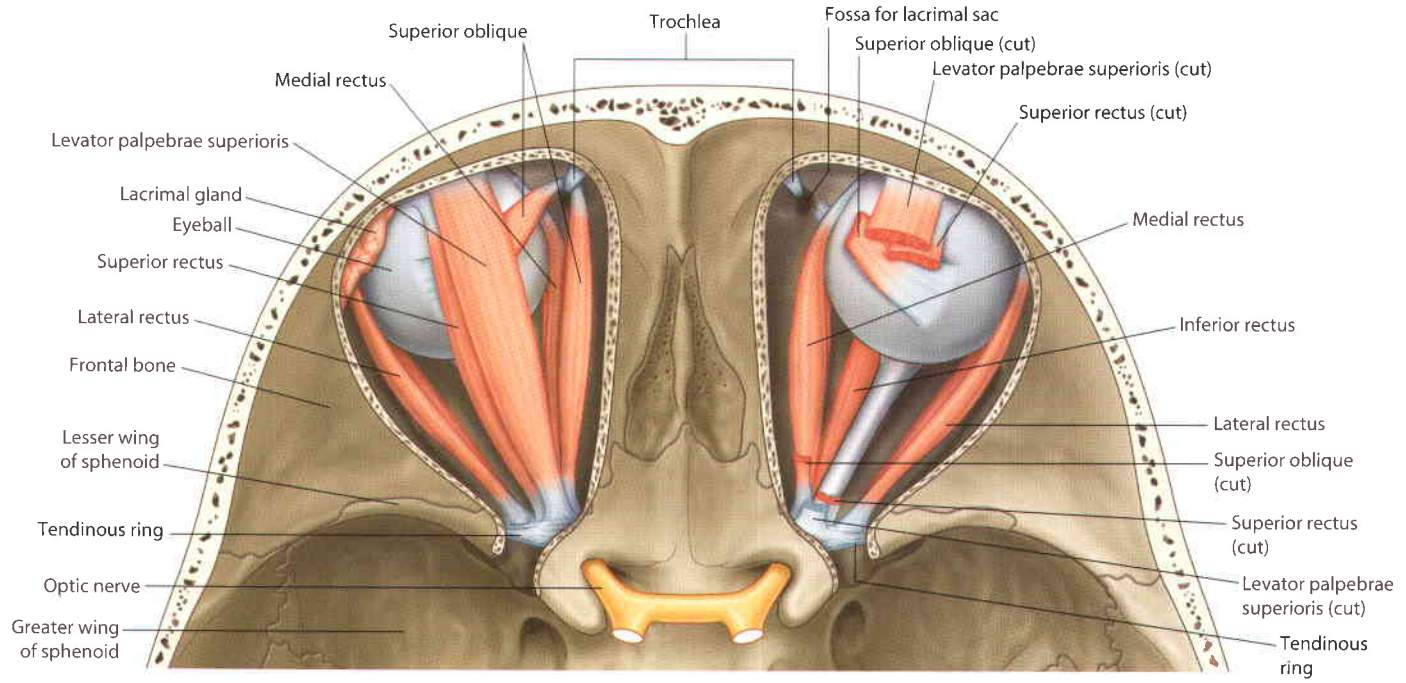


Visceral efferent (motor) innervation of the lacrimal gland

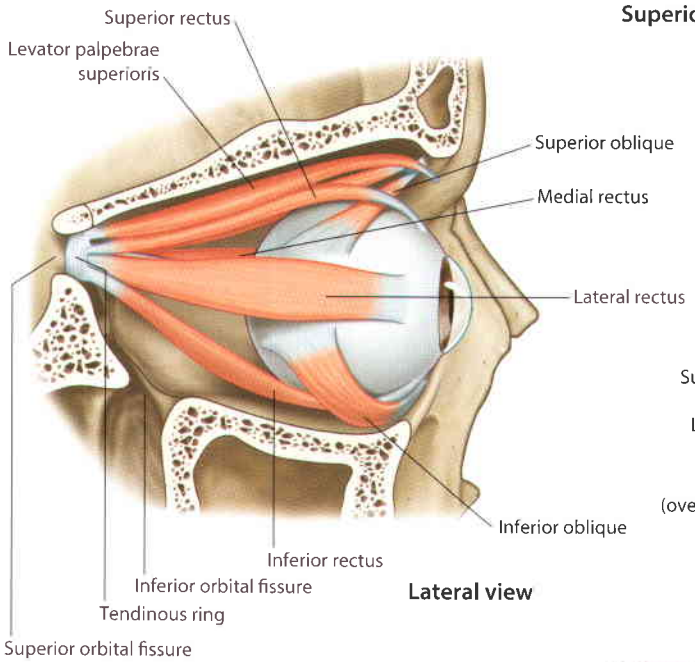




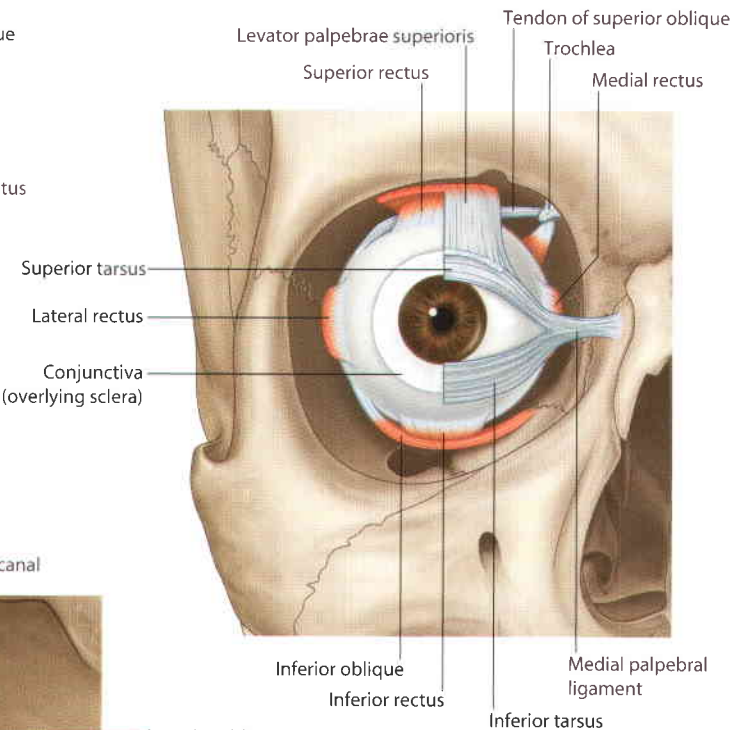
Coronal section through the orbit showing the lacrimal gland and its relationship to surrounding structures.
T1-weighted MR image in coronal plane



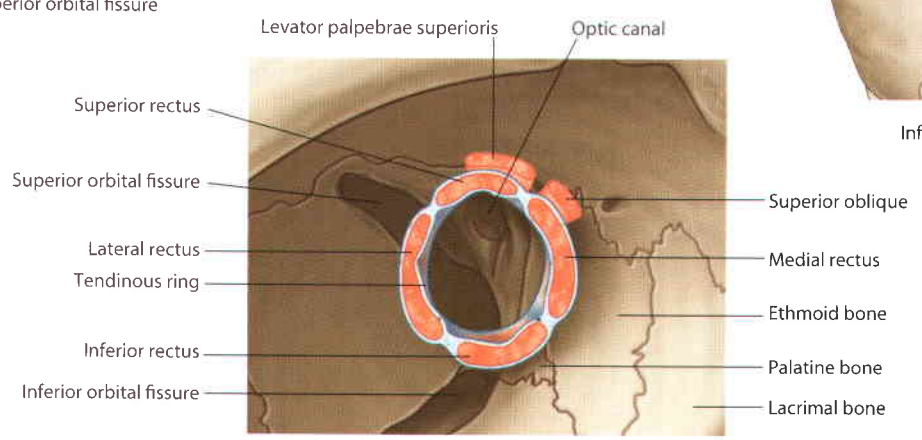
Superior view



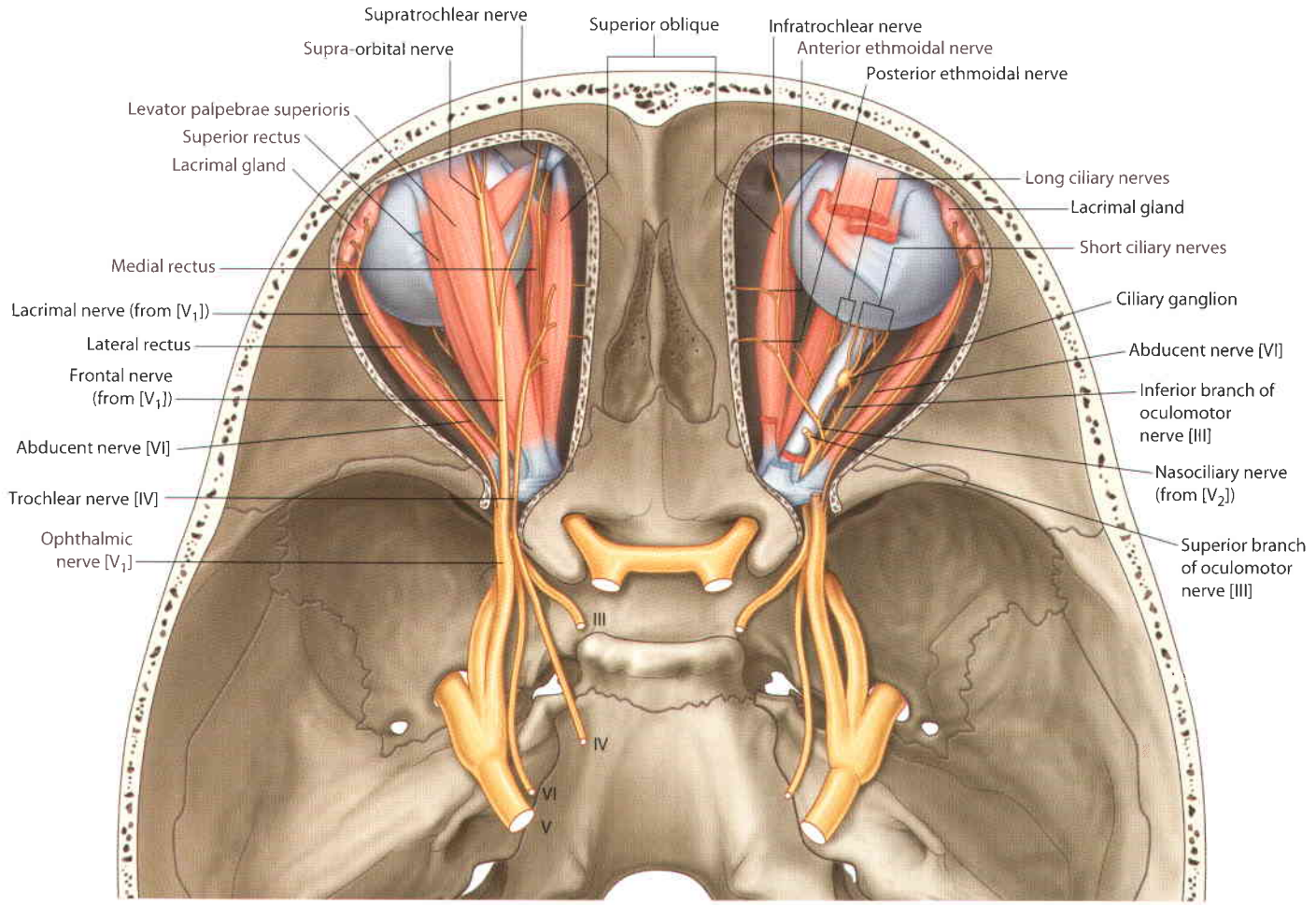
Lateral view



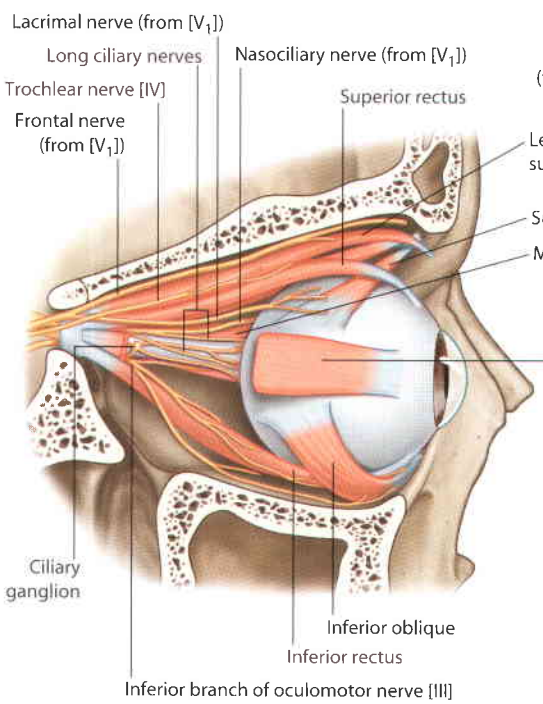
Anterior view



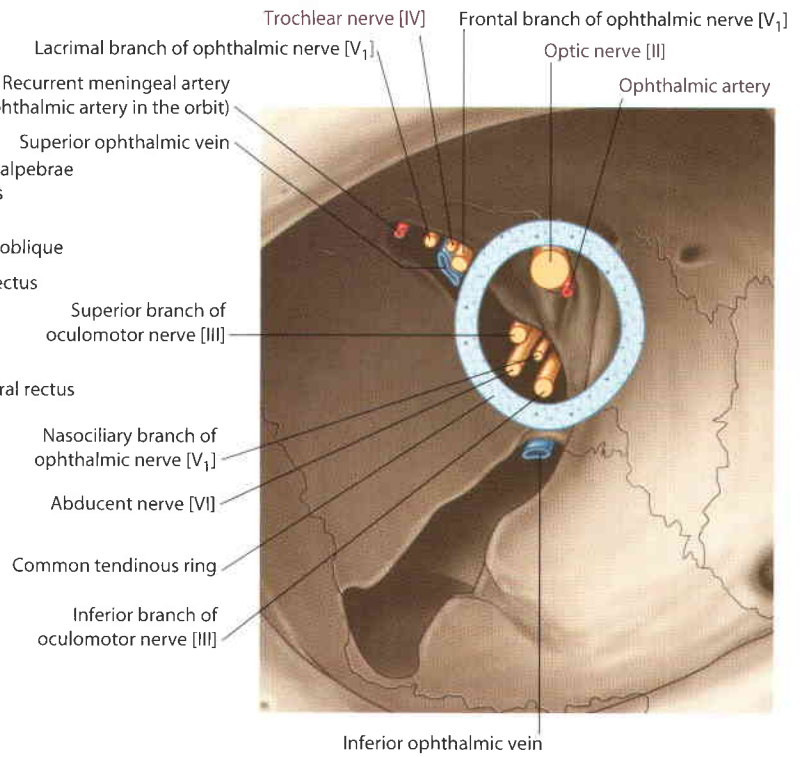
Origins of muscles of the eyeball



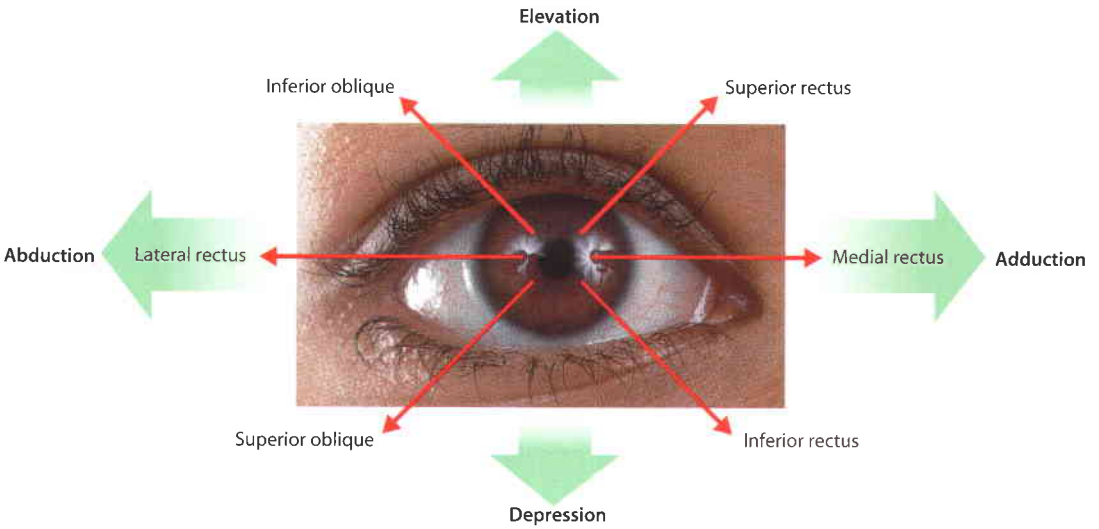
Superior view



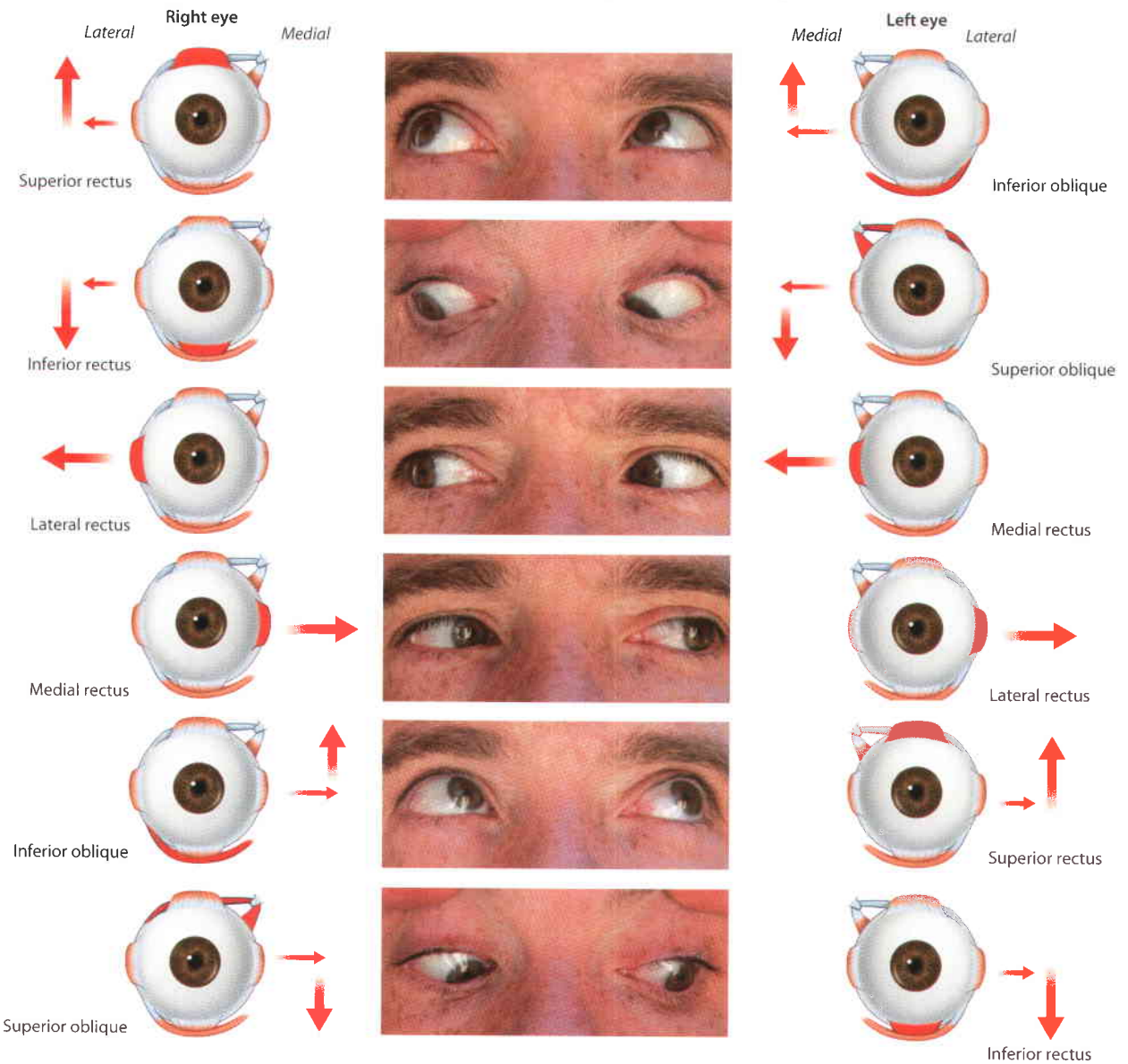
Lateral view



Anterior view

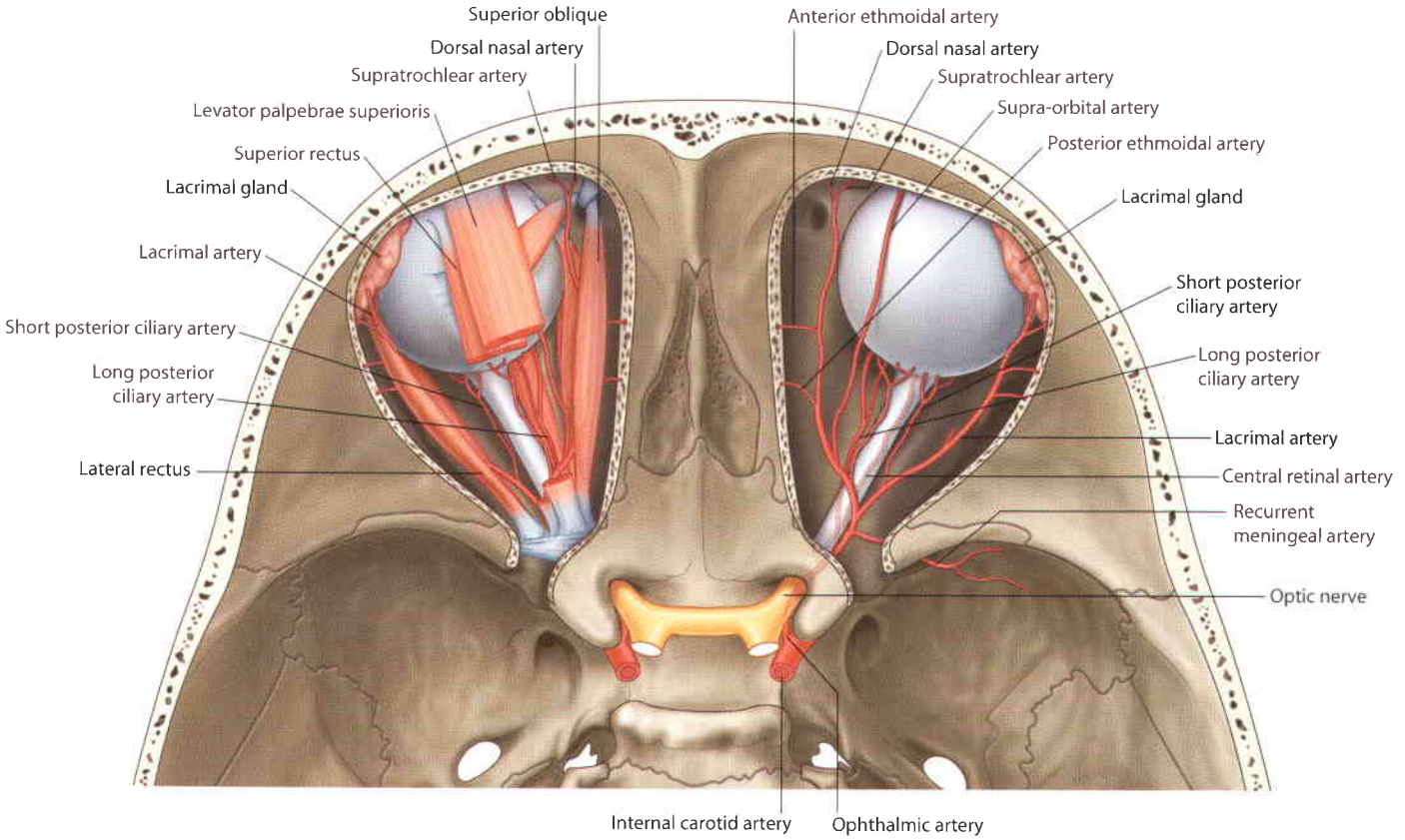


Actions of individual muscles (anatomical action)

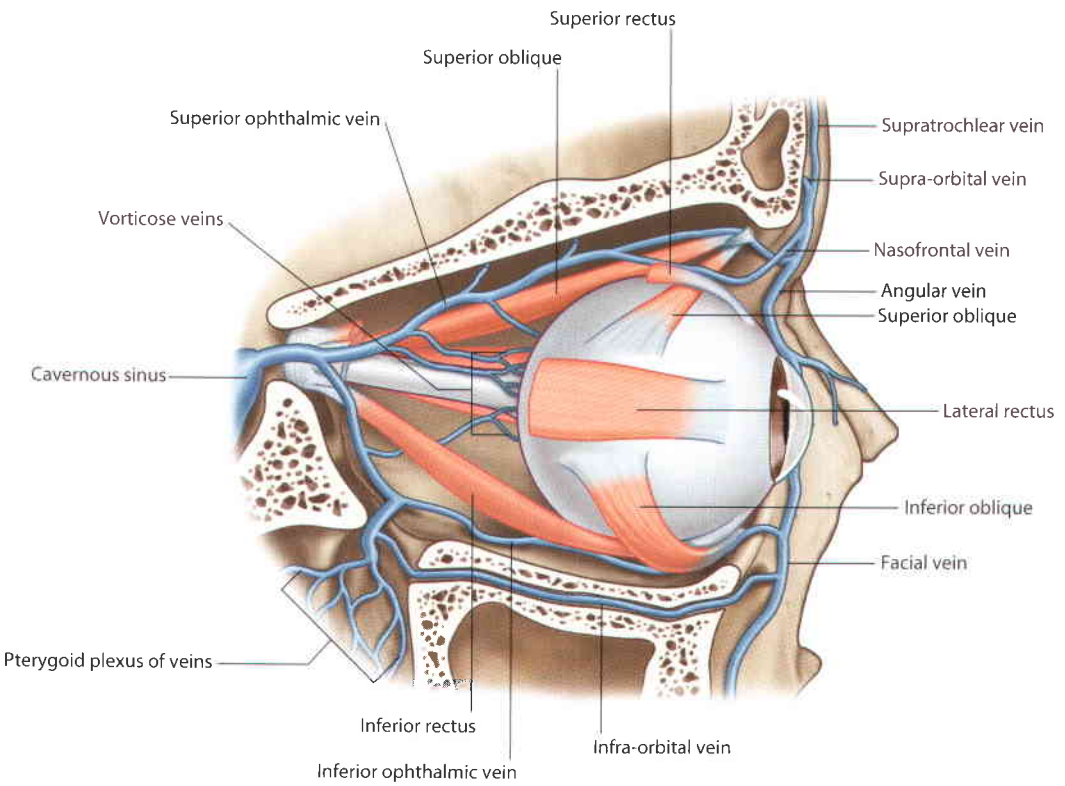


Movement of eyes when testing specific muscle (clinical testing).

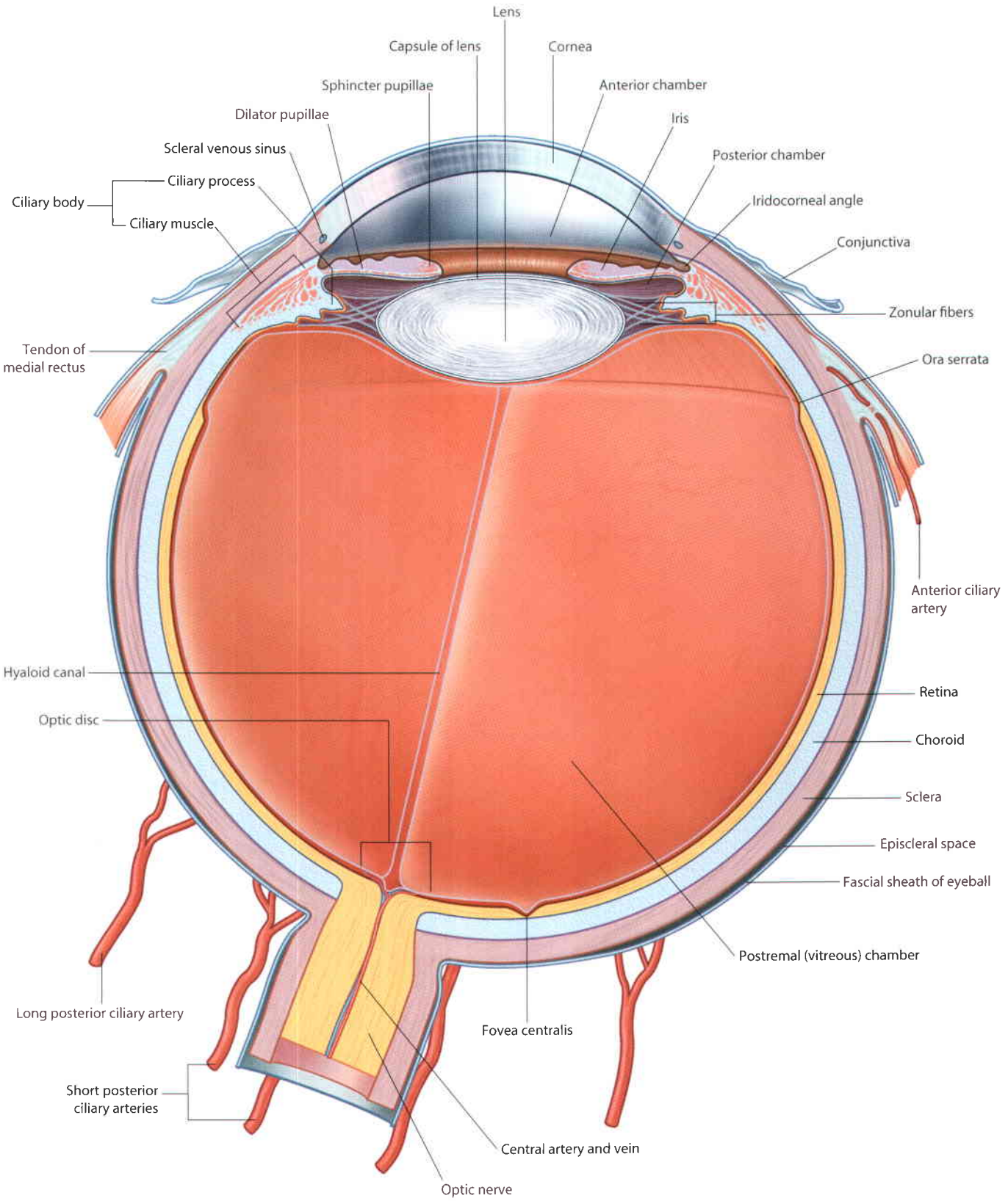
For testing some muscles, a patient is "asked" to first move the eye into a position (small arrow) where the indicated muscle can best be tested. The large arrow indicates the direction the patient is then "asked" to move the eye to test the muscle



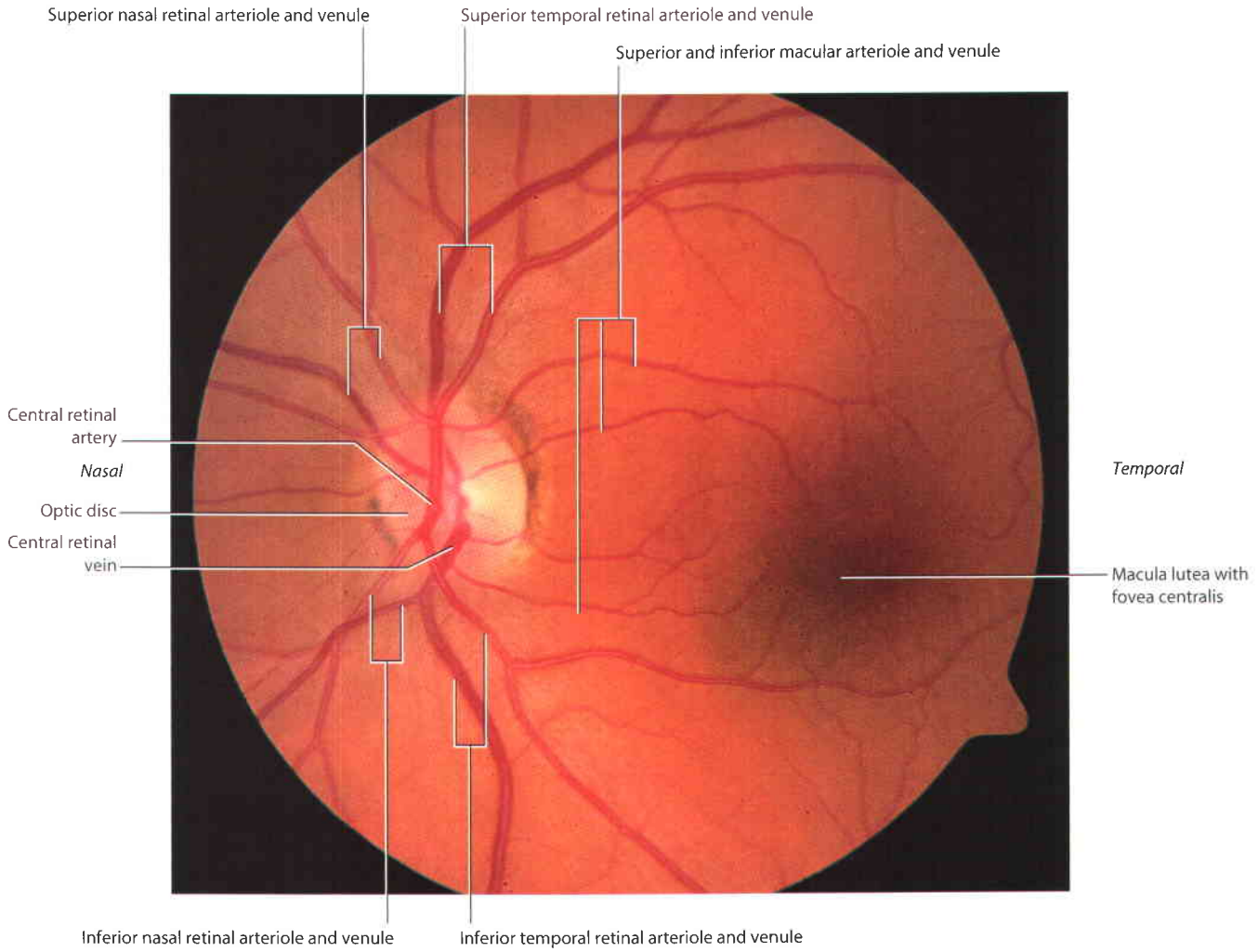
Arteries of the orbit and eyeball (superior view)



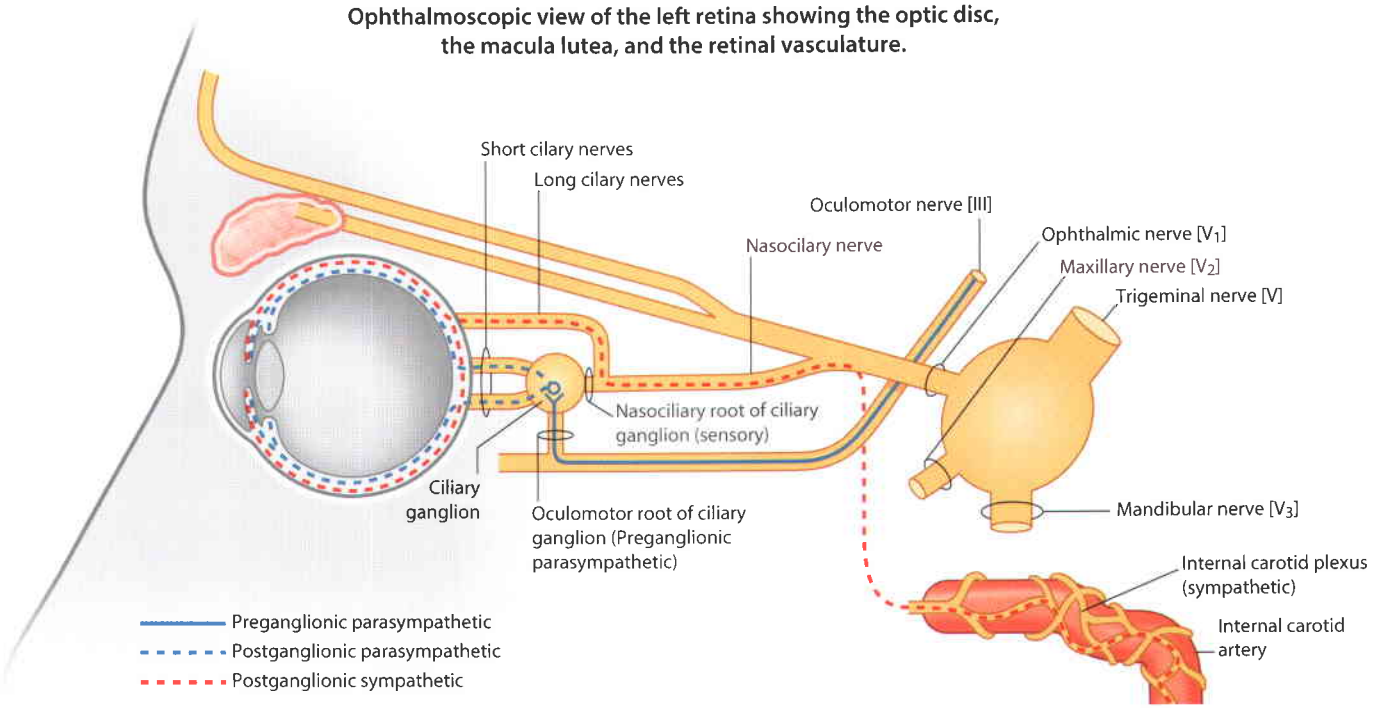
Veins of the orbit and eyeball (lateral view)



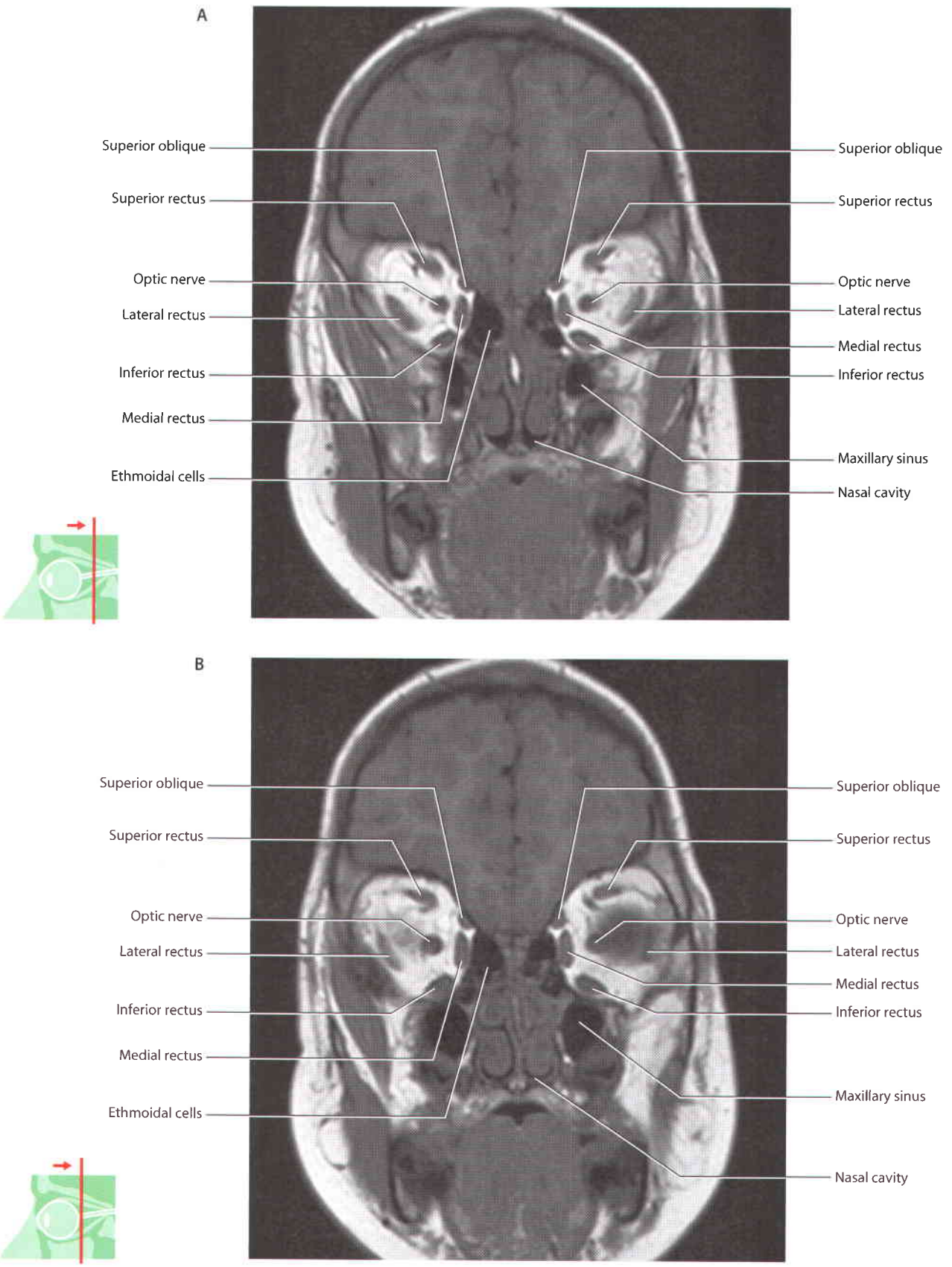
Eyeball (horizontal section)



Ophthalmoscopic view of the left retina showing the optic disc, the macula lutea, and the retinal vasculature.

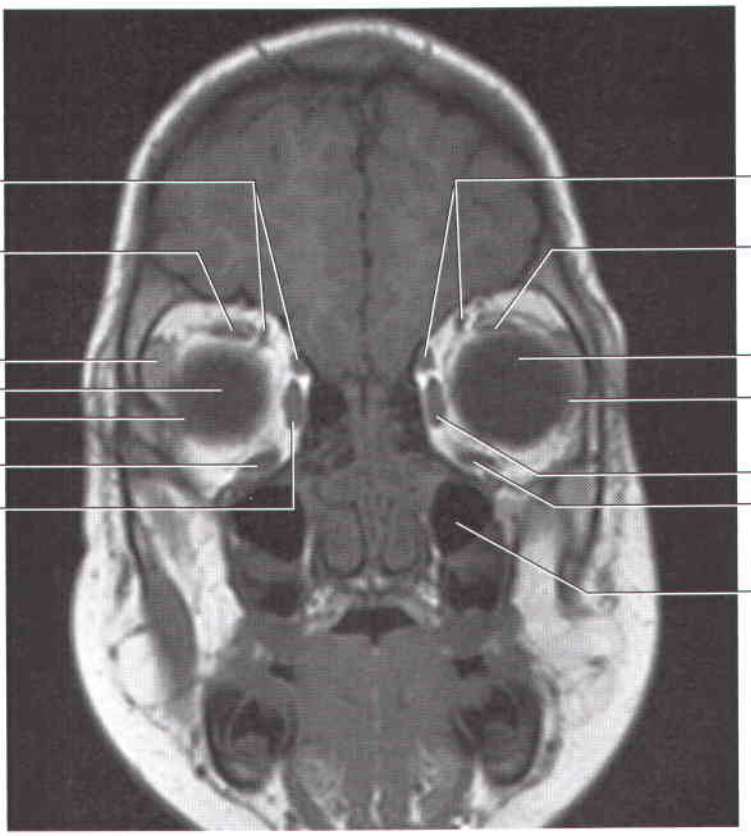


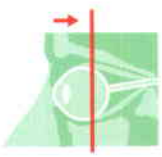
Visceral efferent (motor) innervation of eyeball (iris and ciliary body)



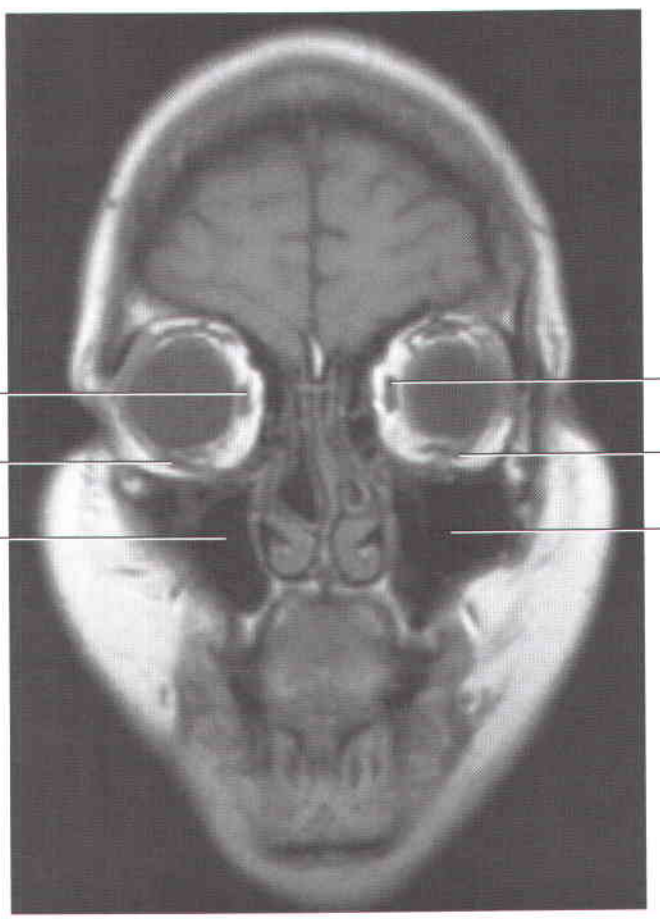
A through D – Coronal sections that pass through the orbit from posterior to anterior showing the extrinsic (extra-ocular) muscles and their relationships with each other and with other structures.
T1-weighted MR images in coronal plane

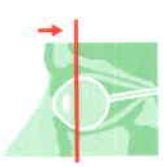
C

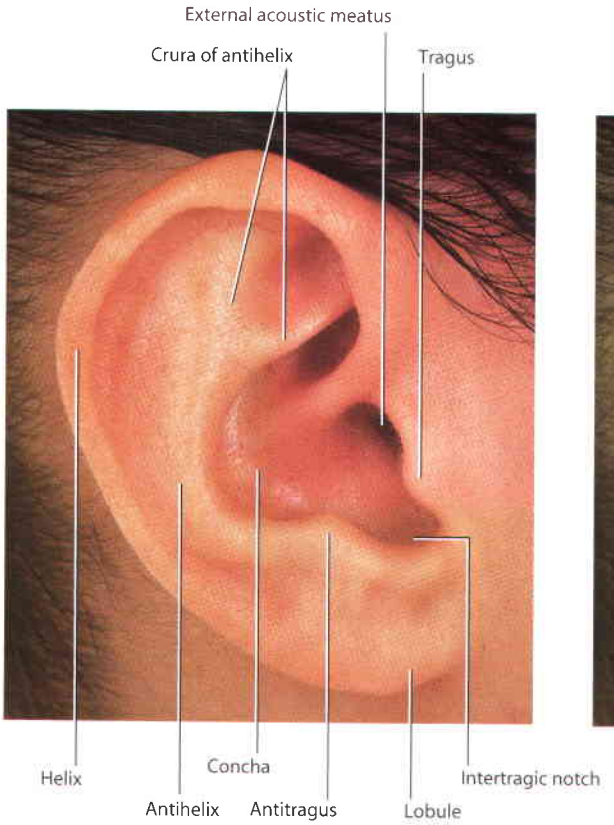

Superior oblique
Superior rectus
Lacrimal gland
Eyeball
Lateral rectus
Inferior rectus
Medial rectus
Superior oblique
Superior rectus
Eyeball
Lateral rectus
Medial rectus
Inferior rectus
Maxillary sinus



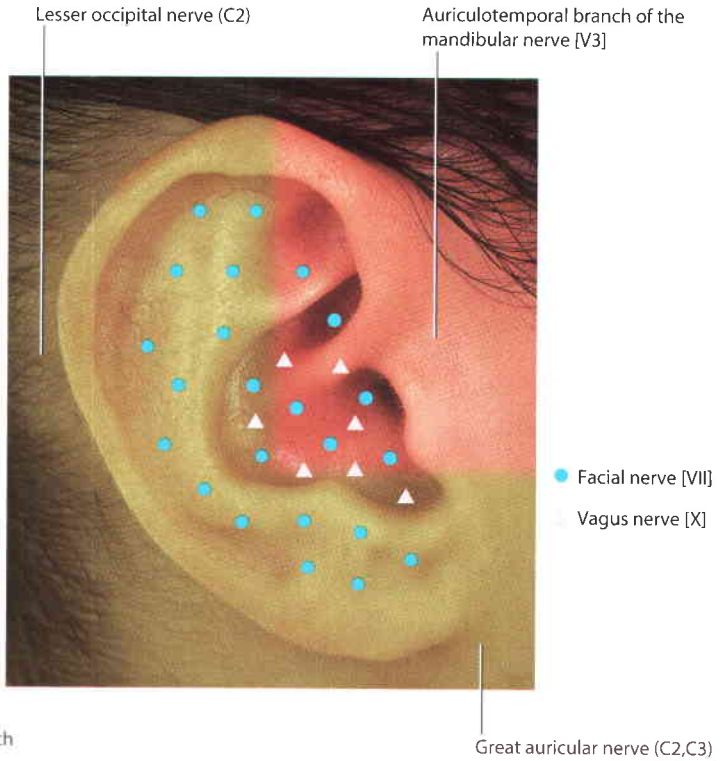
D


Medial rectus
Inferior oblique
Maxillary sinus
Medial rectus
Inferior oblique
Maxillary sinus

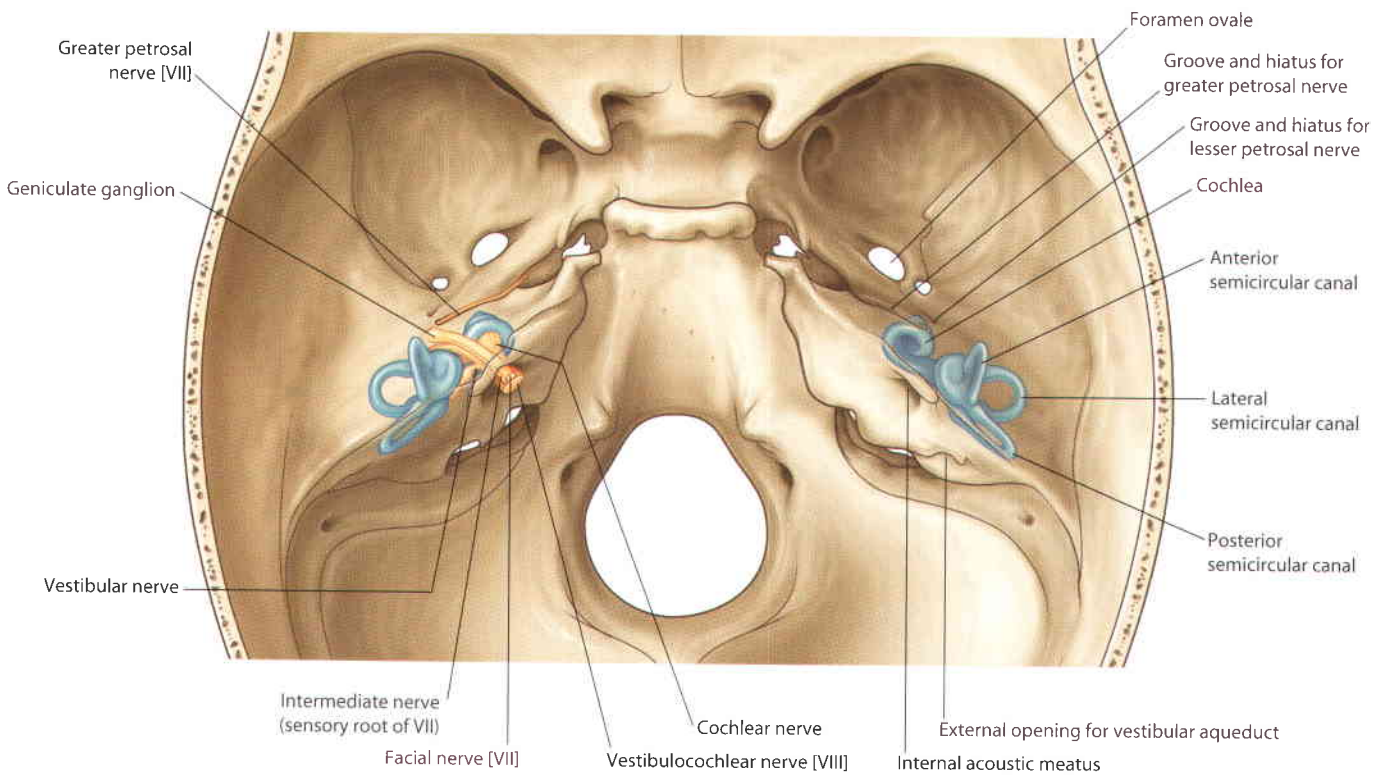




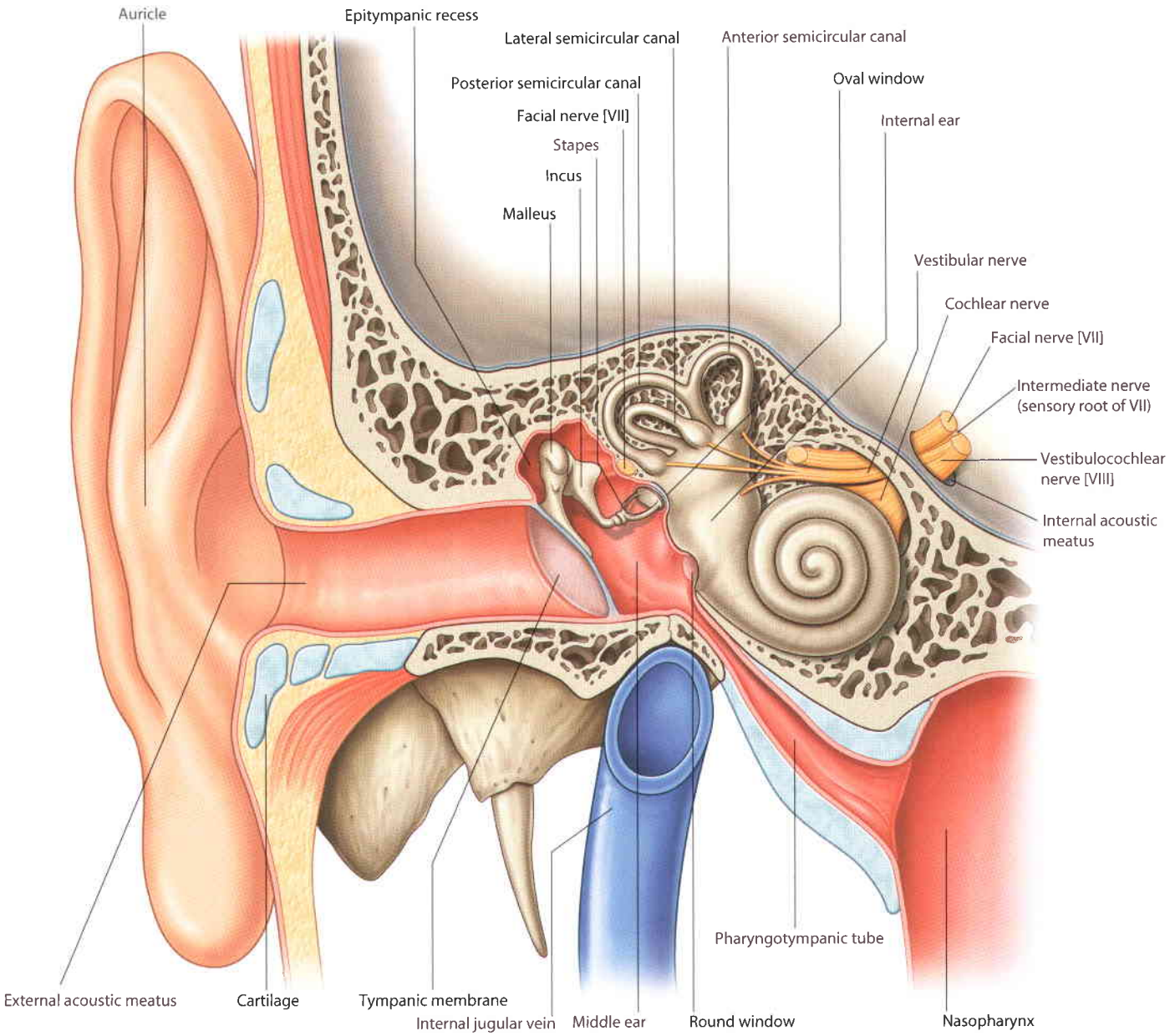
External ear (auricle)

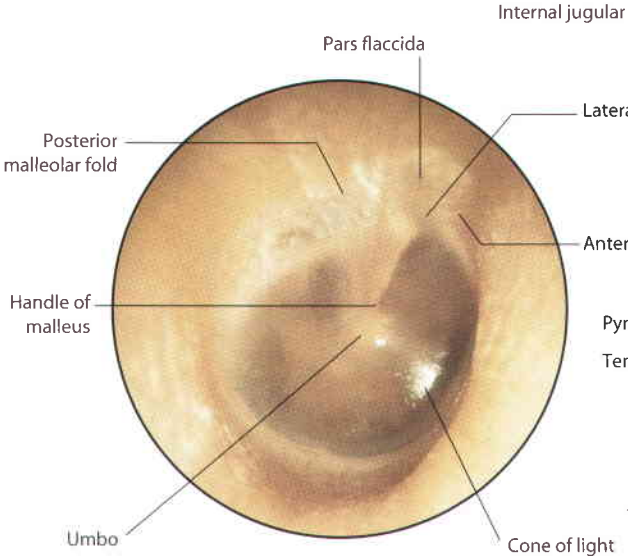


Sensory innervation of the auricle

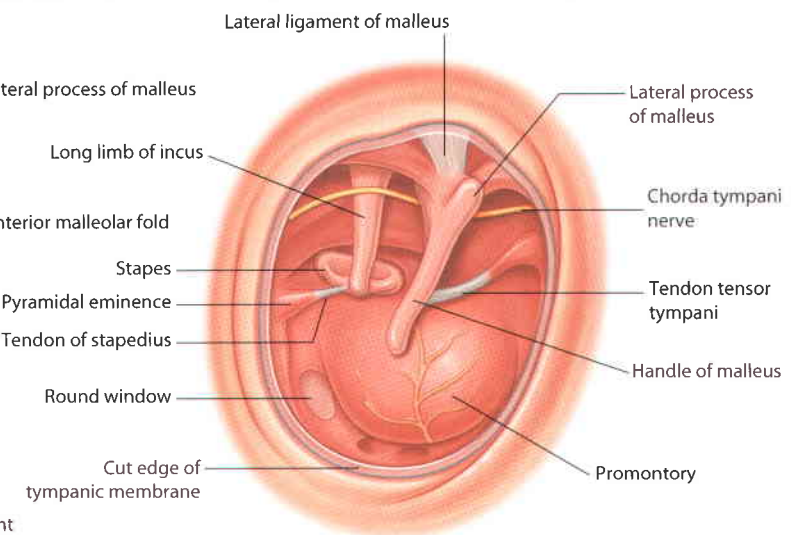


Superior projection of internal ear in the temporal bone

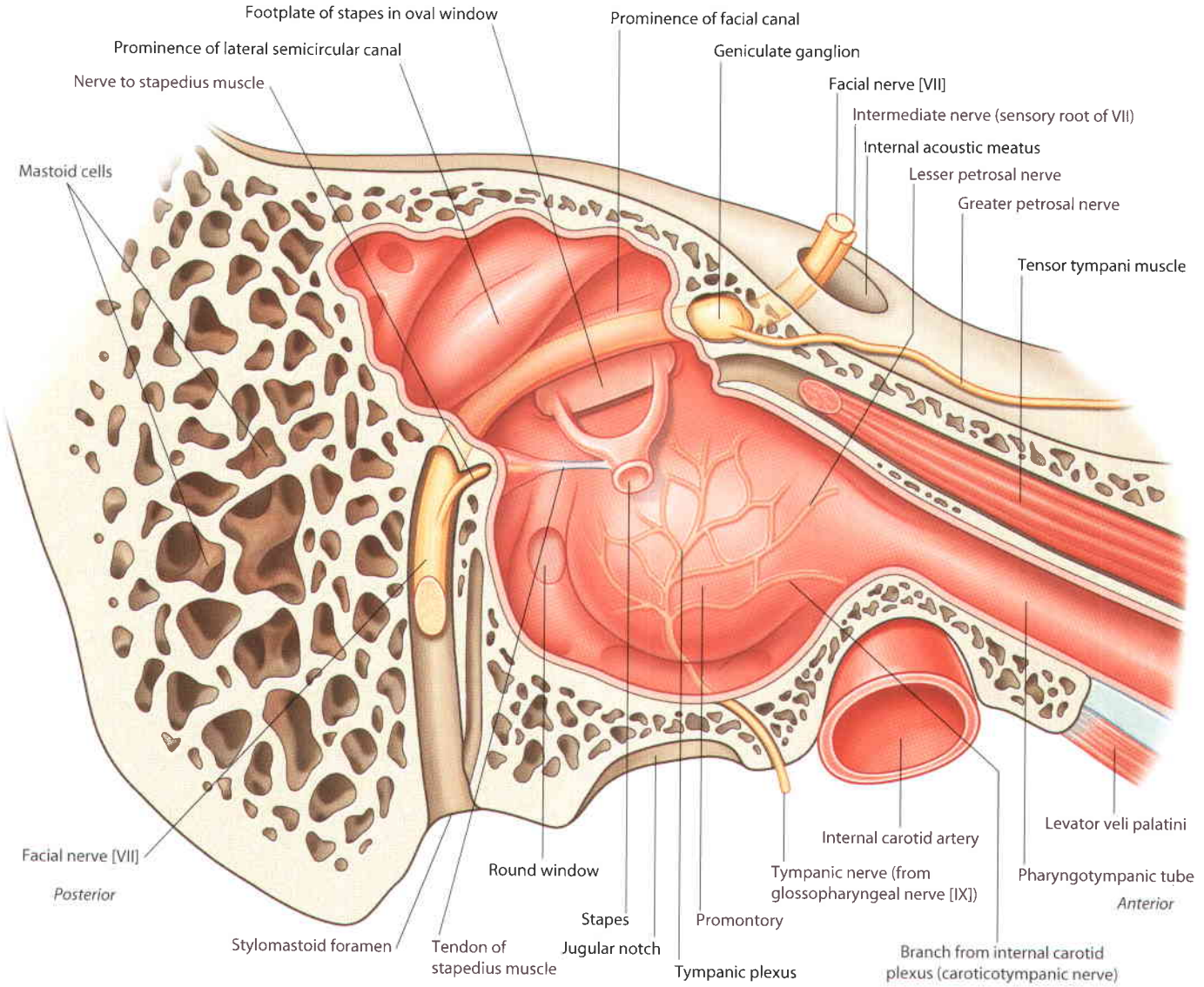




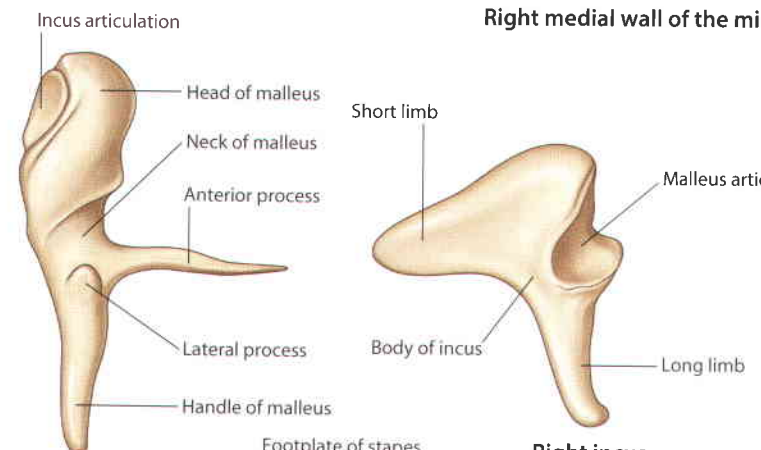
Right tympanic membrane



View into right tympanic cavity (tympanic membrane removed)

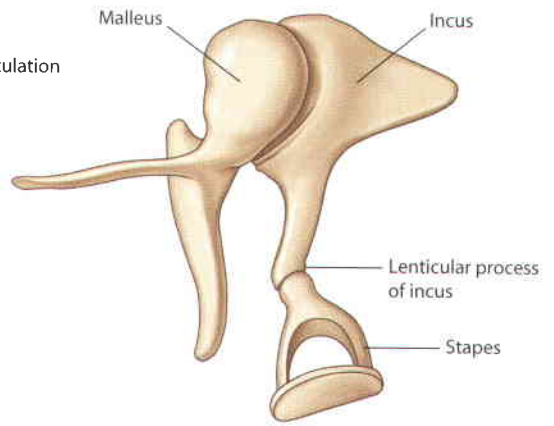


Right medial wall of the middle ear

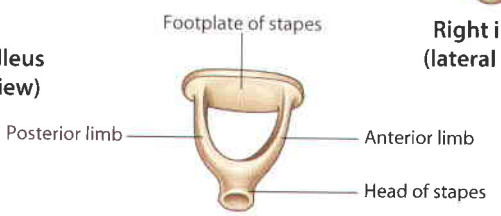


Right malleus (lateral view)

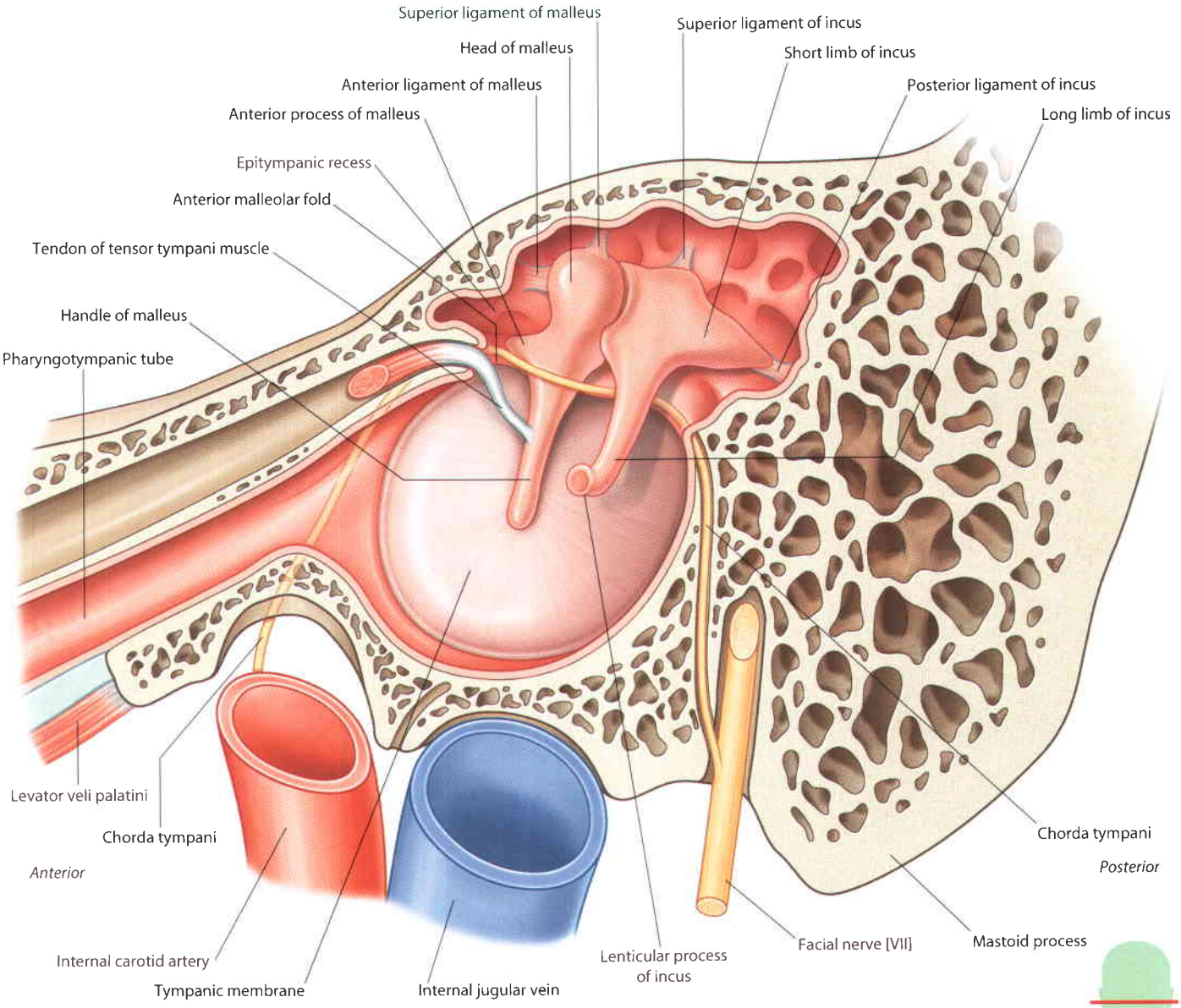
Right incus (lateral view)



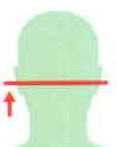
Right auditory ossicles articulated (medial view)

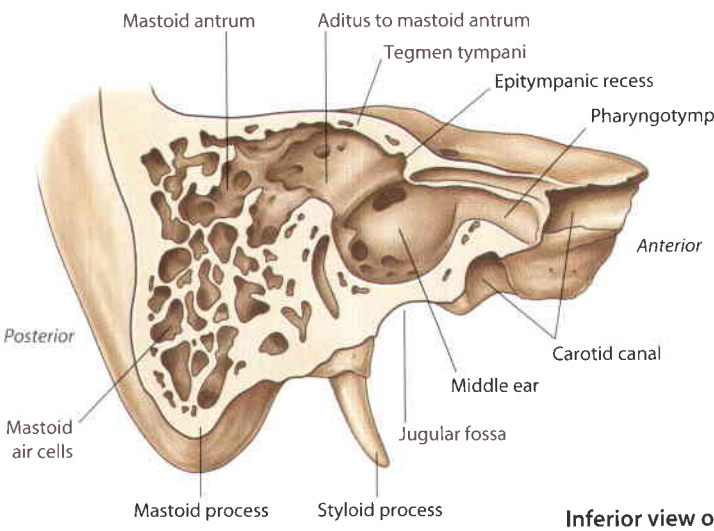


Right stapes (superolateral view)

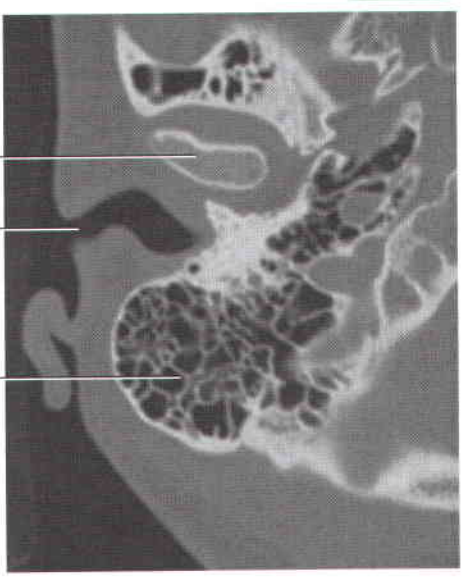


Right lateral wall of the middle ear

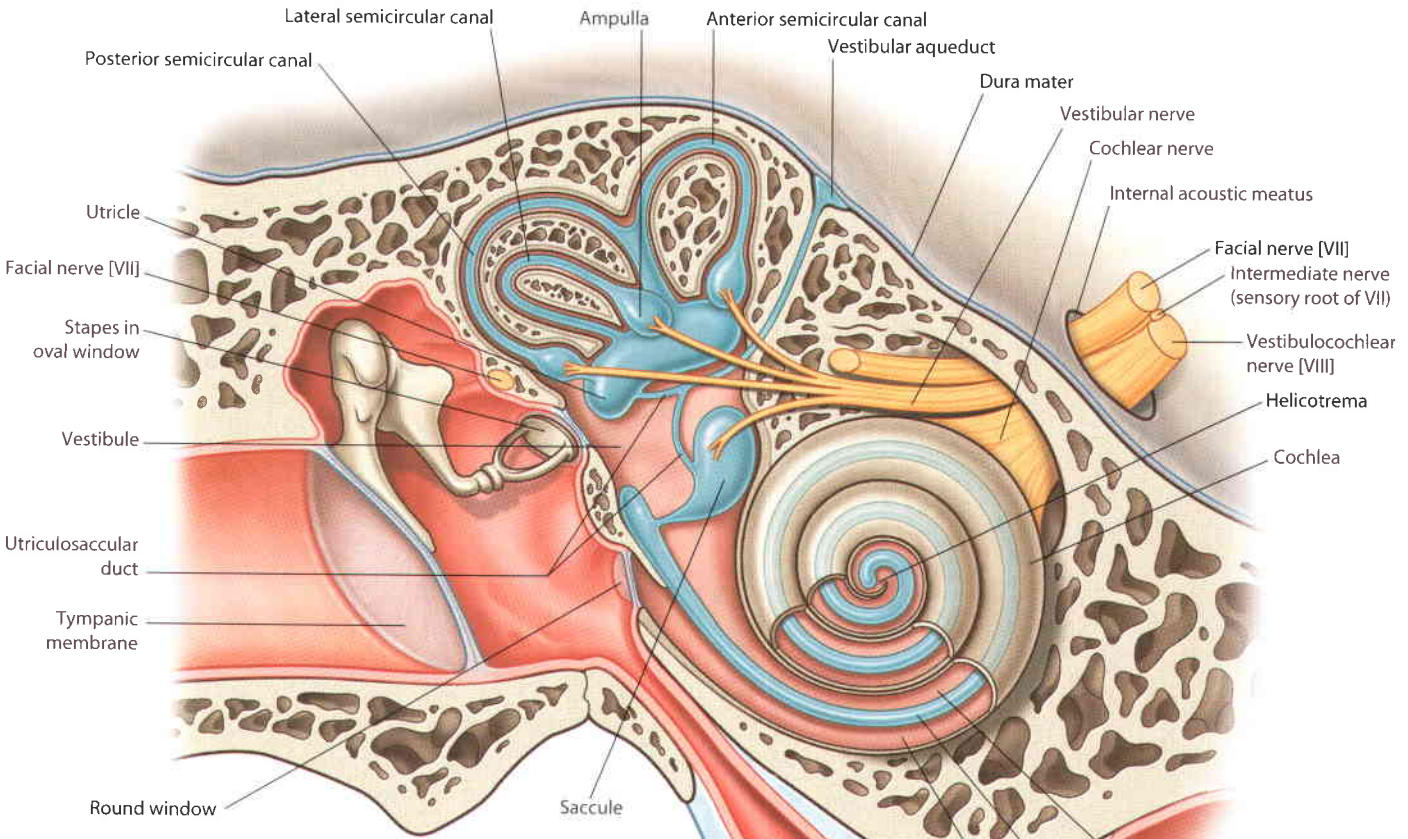




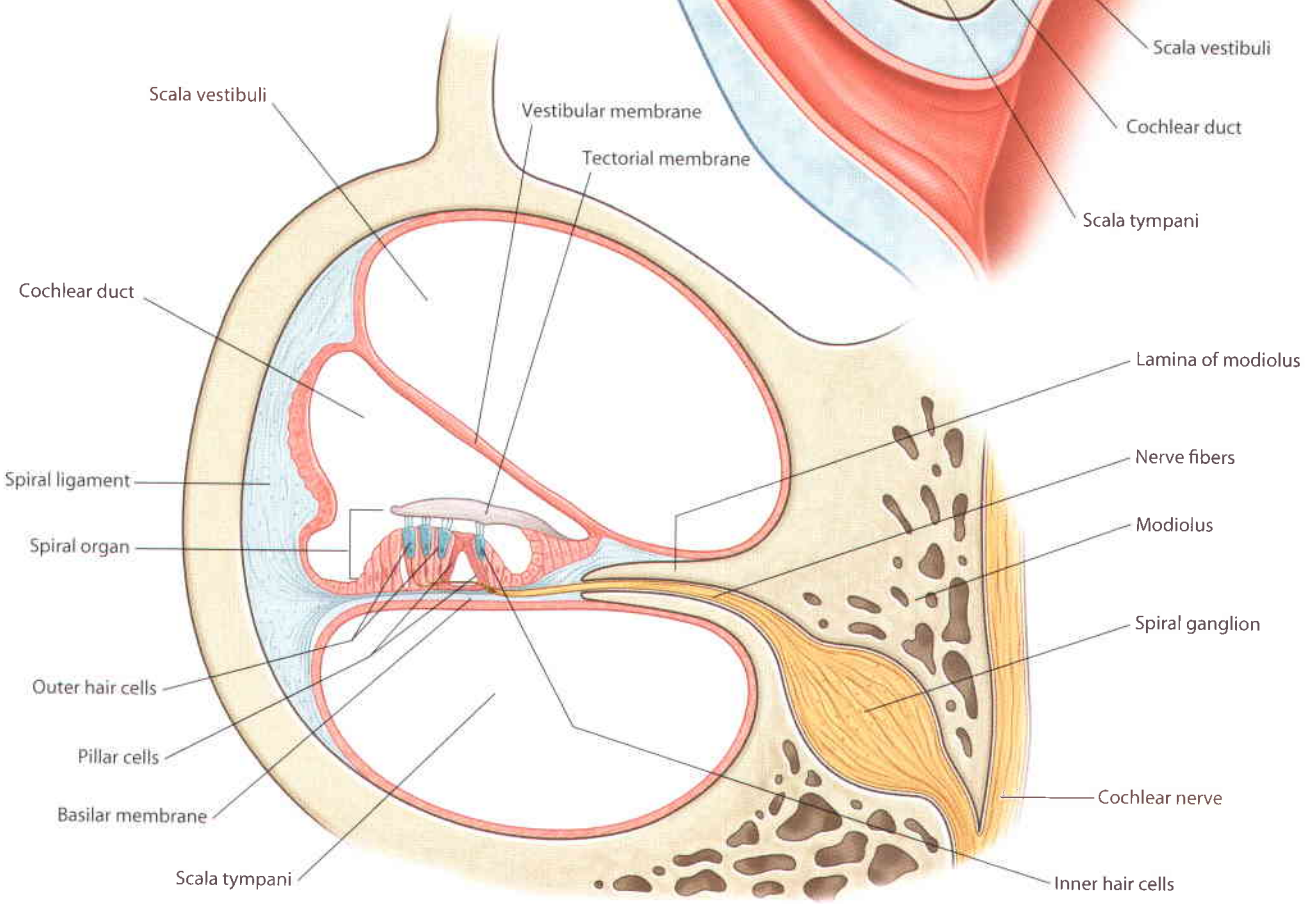
Right mastoid antrum and surrounding bone



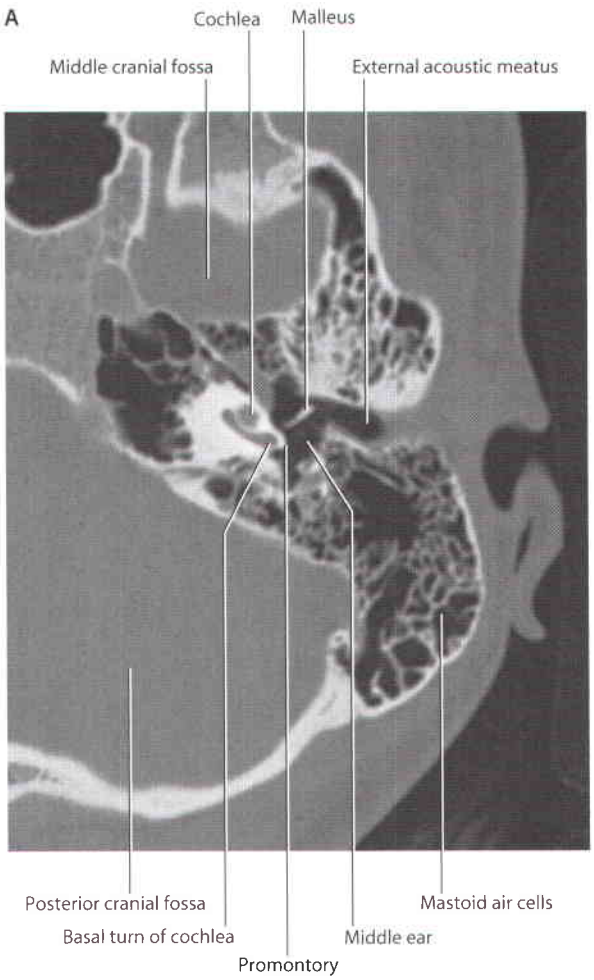
Inferior view of the mastoid area on the right side of the skull.
CT image in axial plane

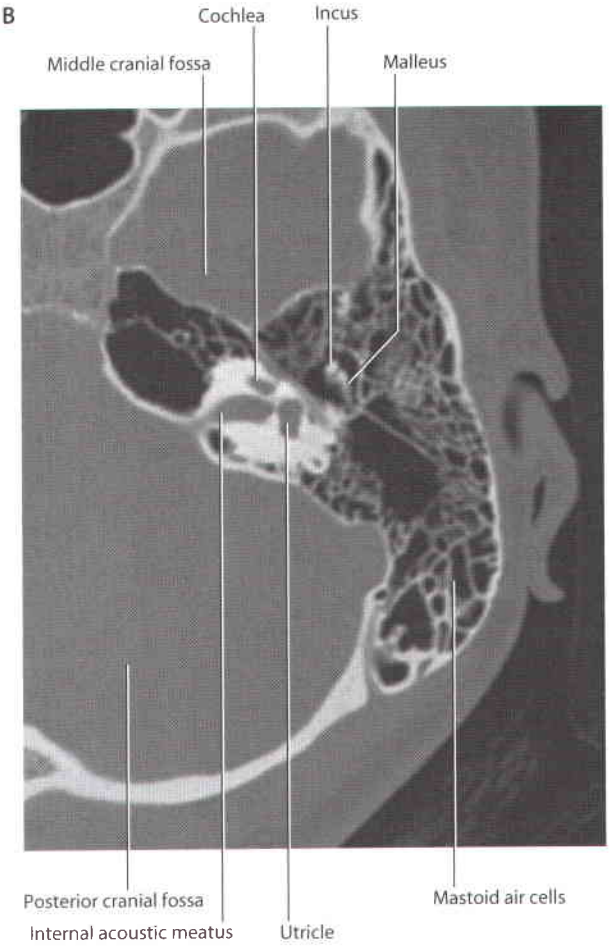


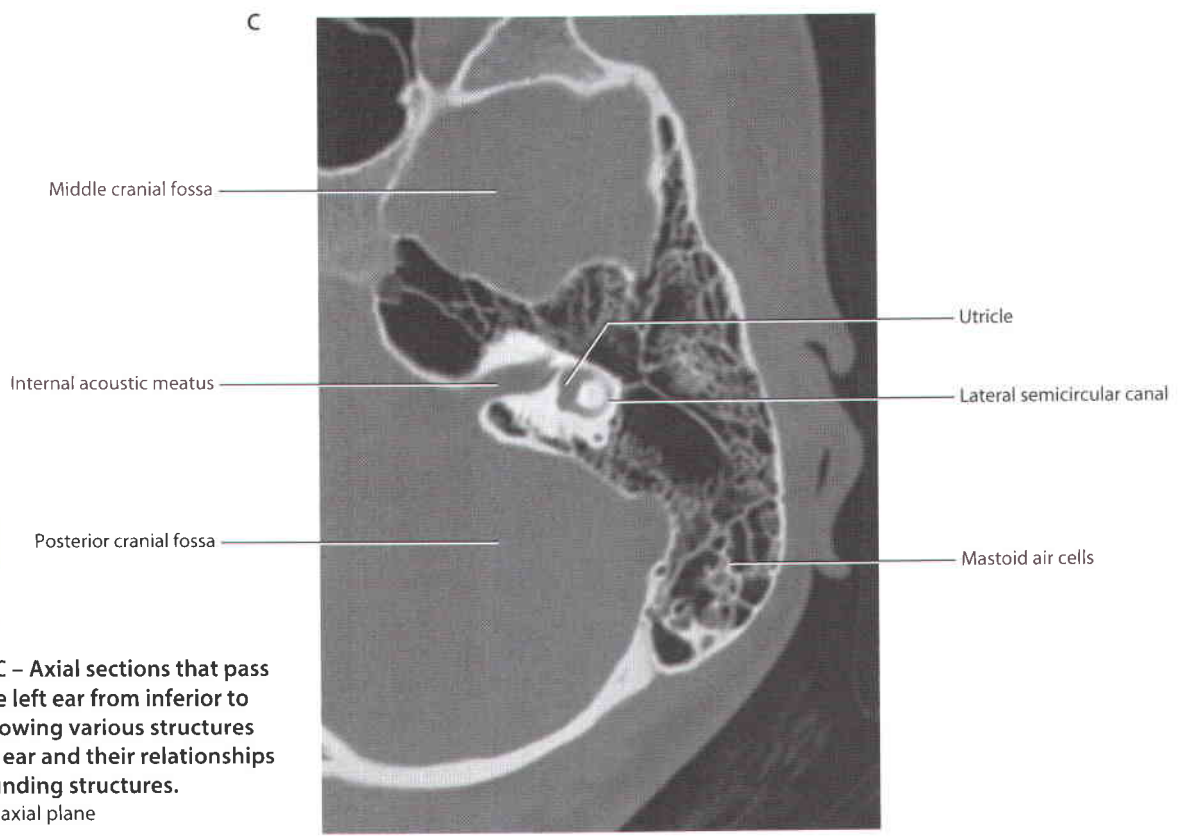
Structures of the internal ear (right)

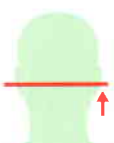


Cross section through cochlea

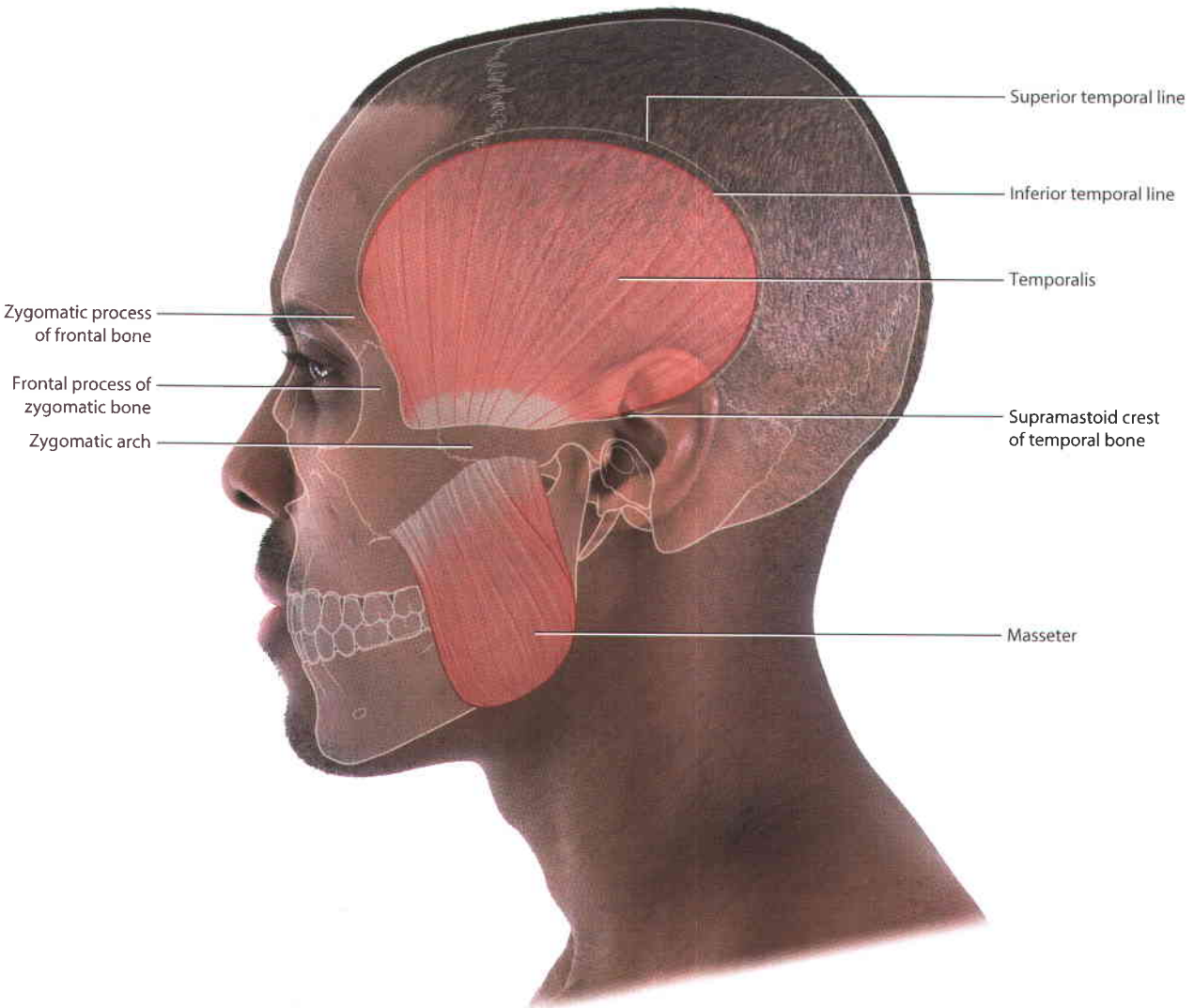


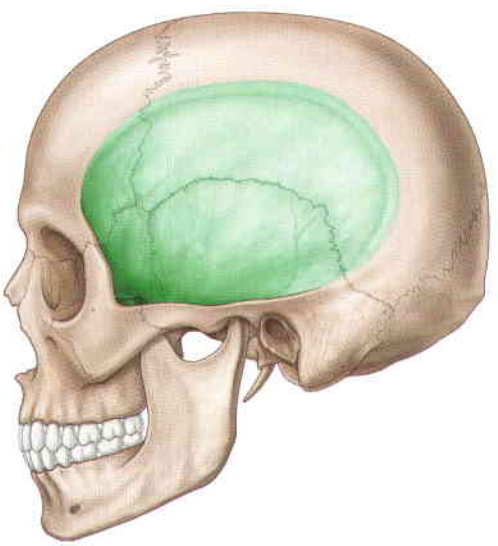




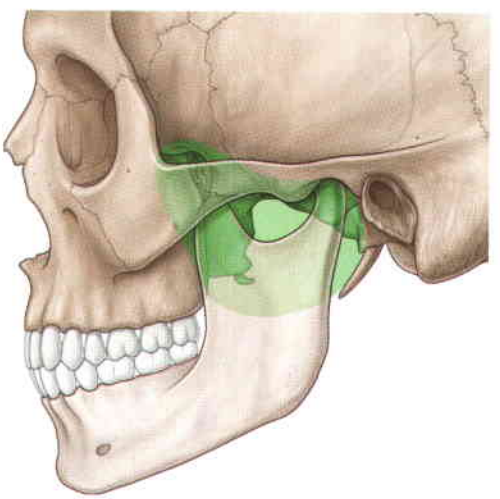


A through C – Axial sections that pass through the left ear from inferior to superior showing various structures in the right ear and their relationships with surrounding structures.
CT images in axial plane

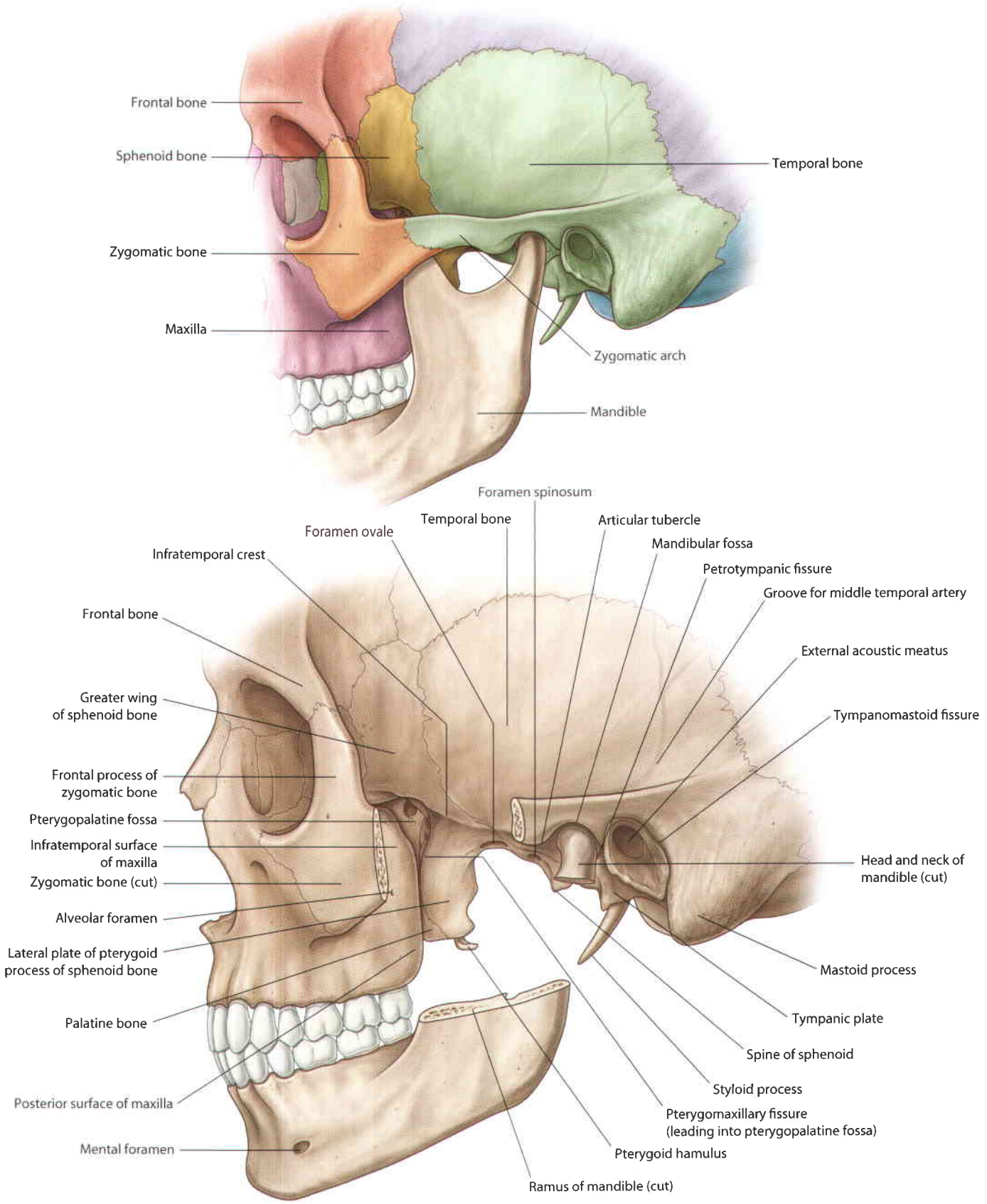




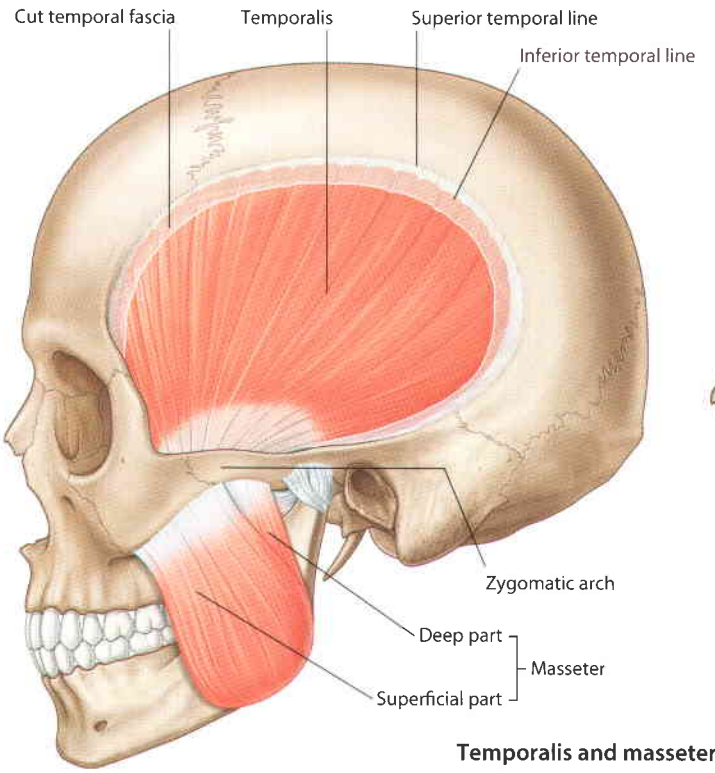
Temporal fossa



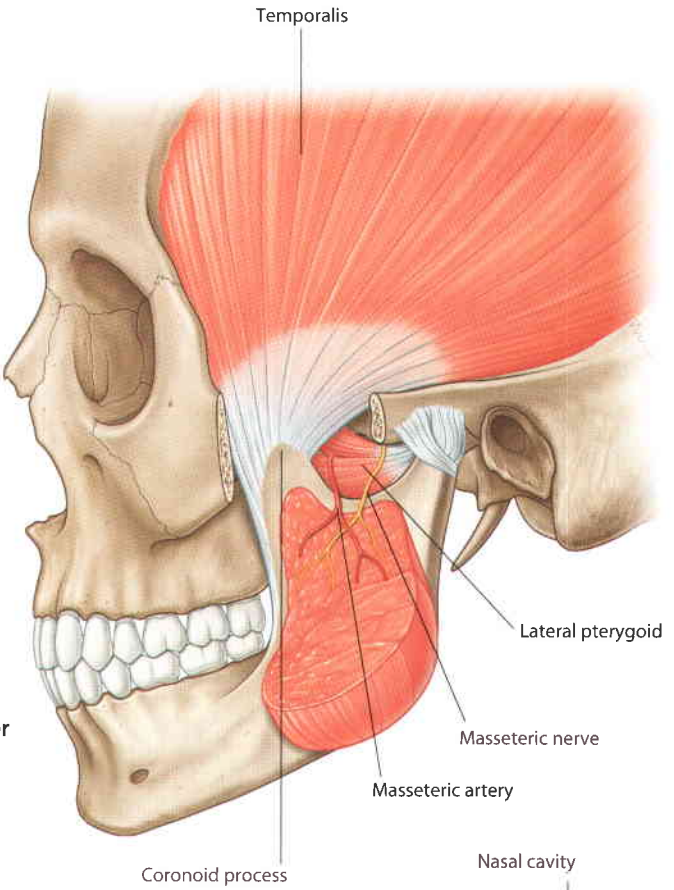
Infratemporal fossa

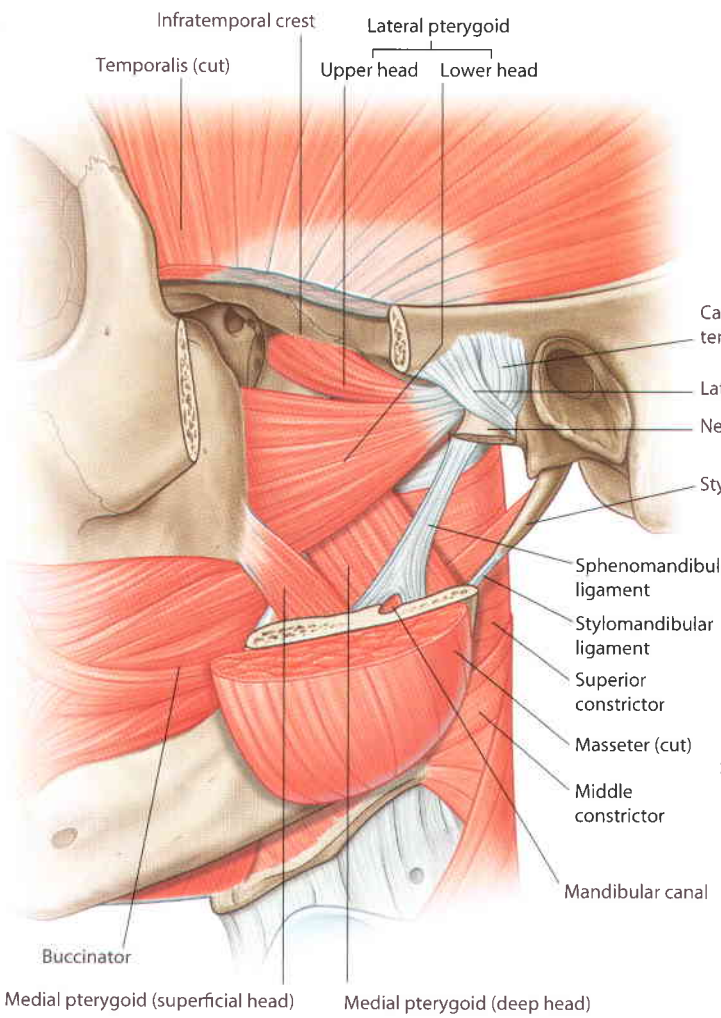


Bones of the temporal and infratemporal fossae

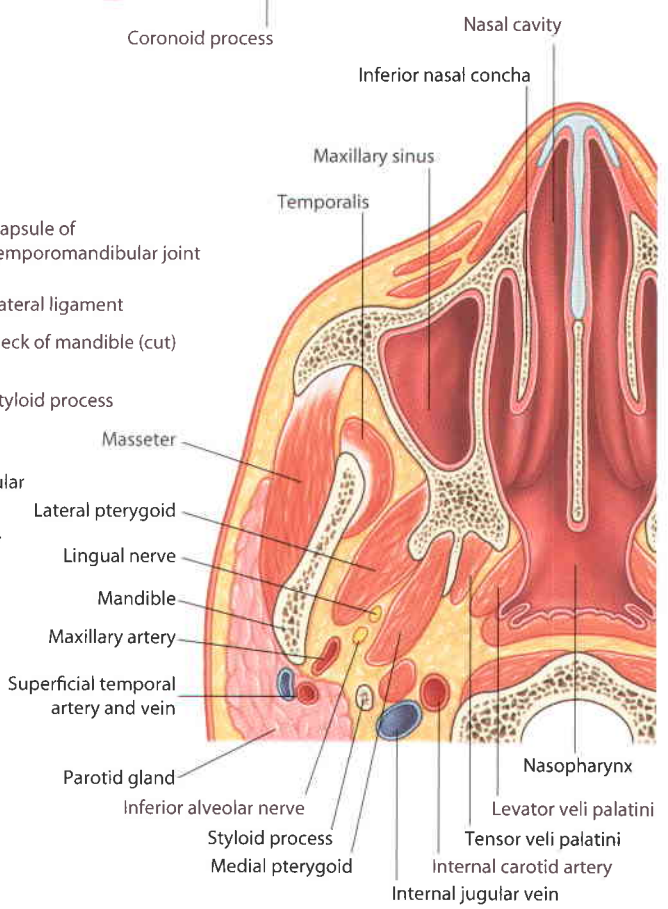


Temporalis and masseter

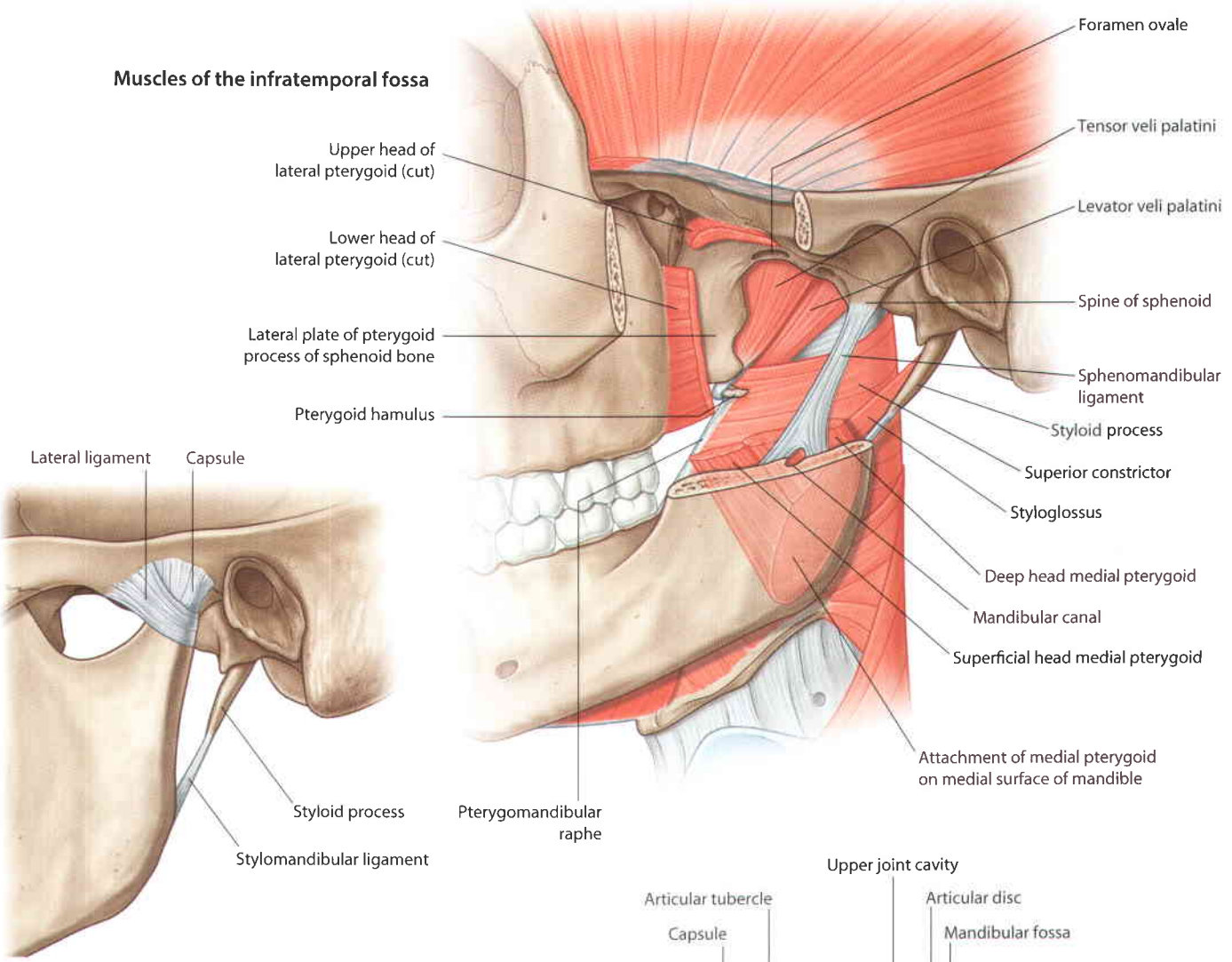




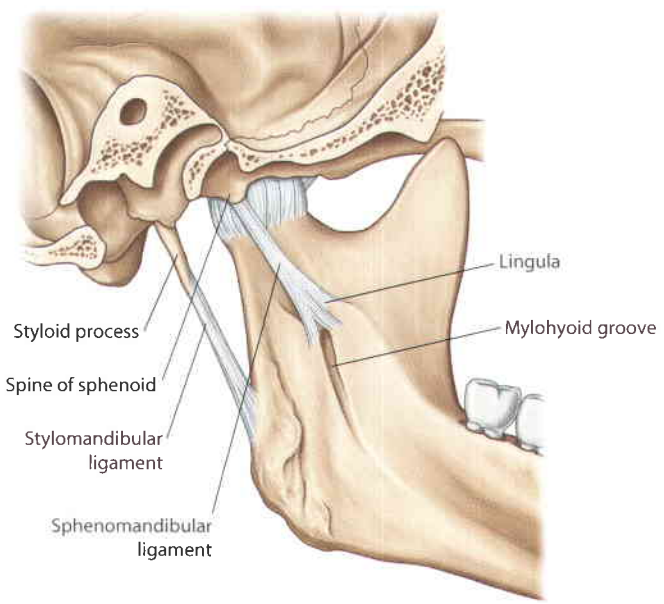
Muscles of the infratemporal fossa



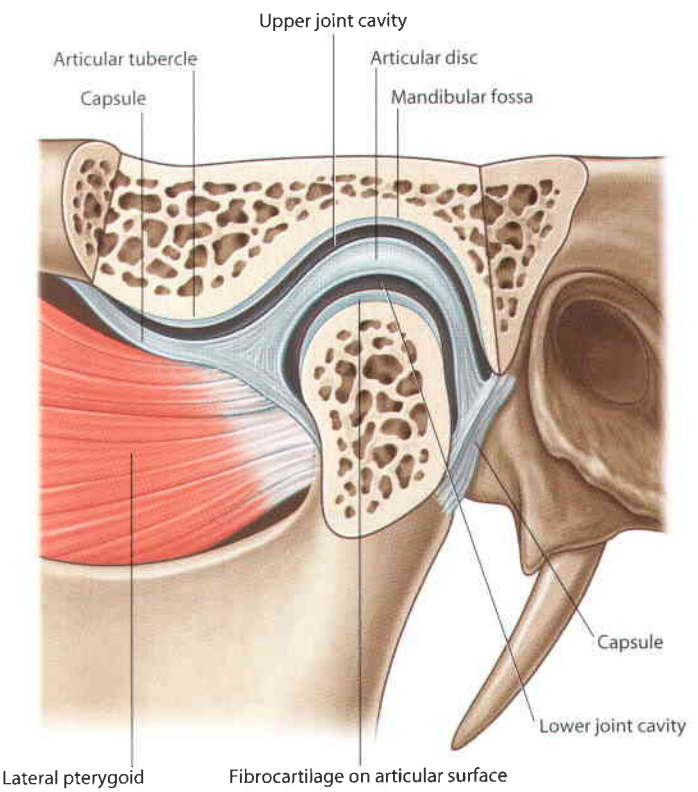
Horizontal (axial) through infratemporal fossa (inferior view)



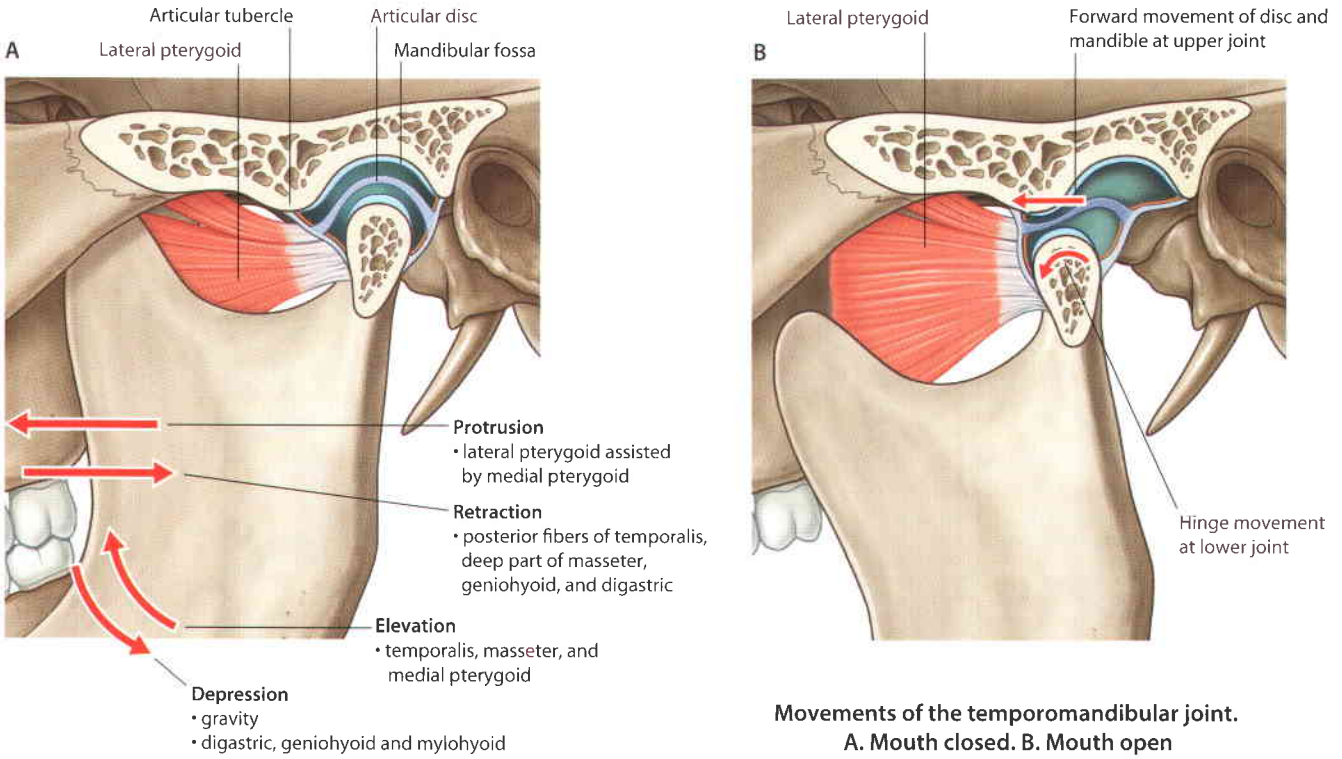
Temporomandibular joint (lateral view)



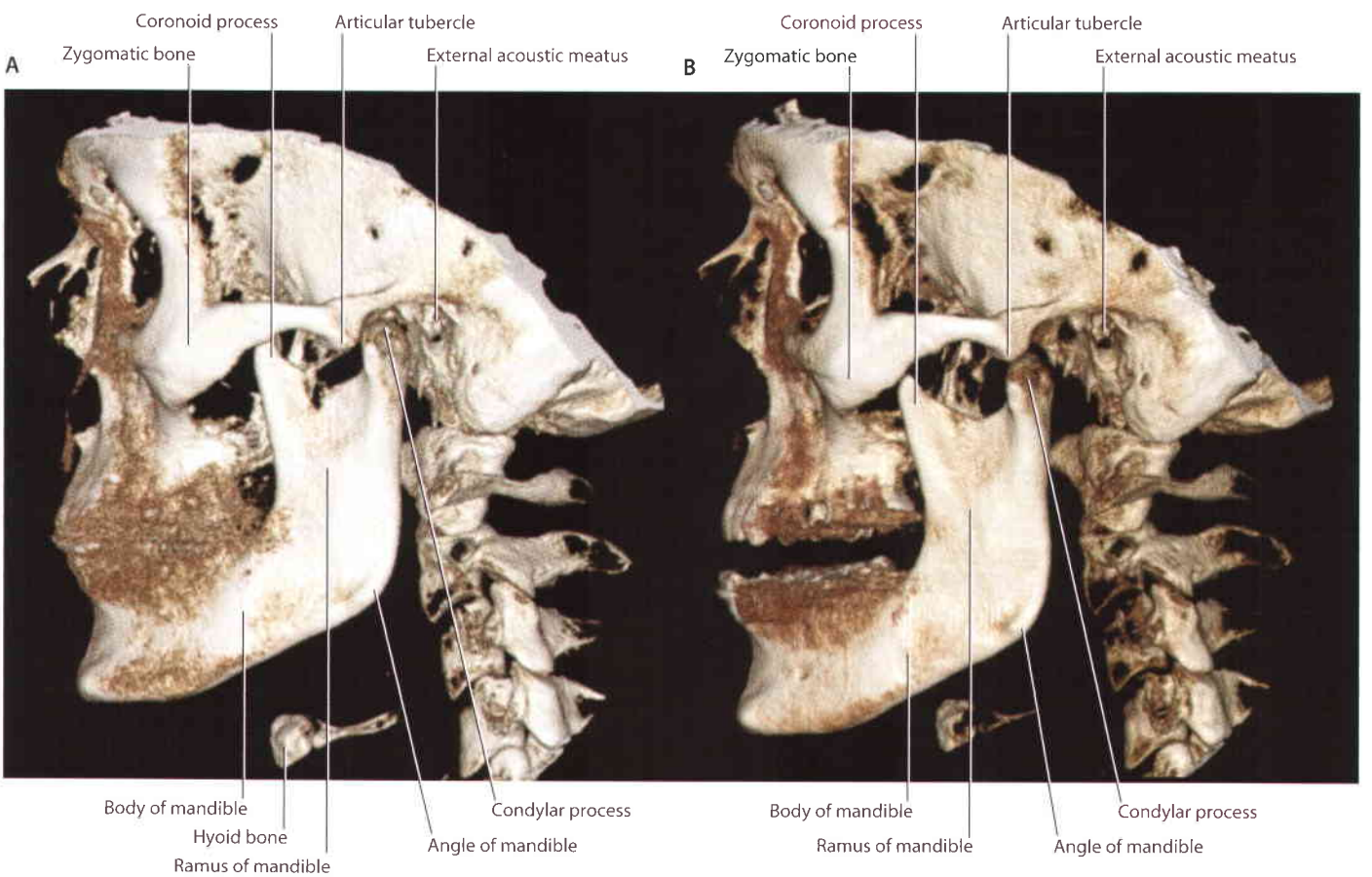
Temporomandibular joint (medial view)



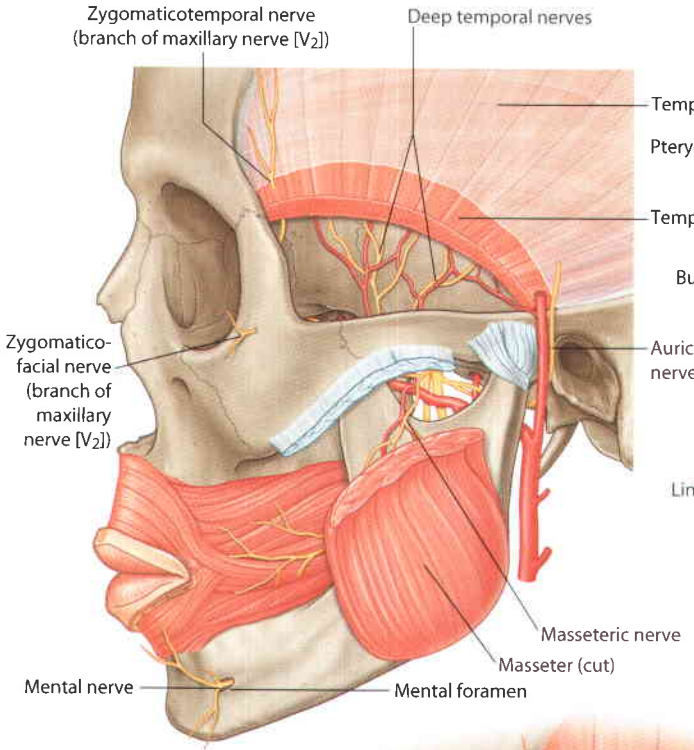
Sagittal section through temporomandibular joint

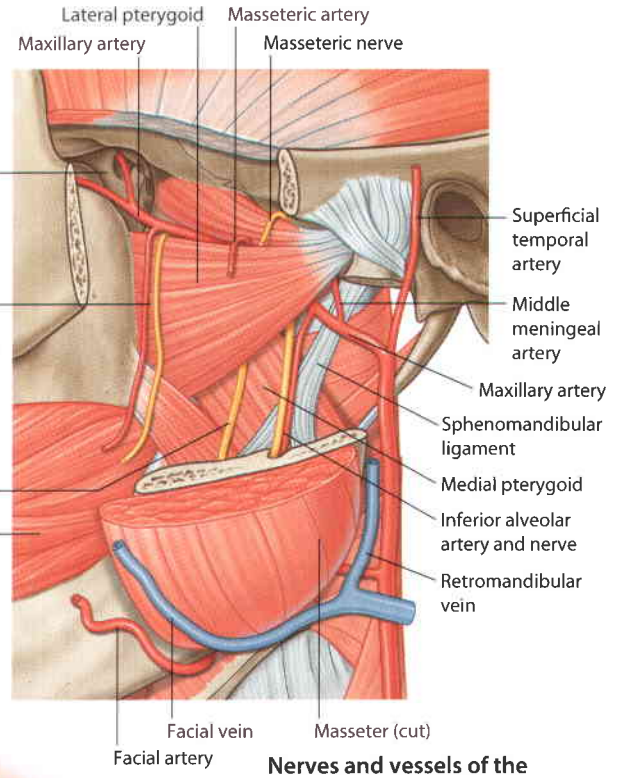


Movements of the temporomandibular joint. A. Mouth closed. B. Mouth open



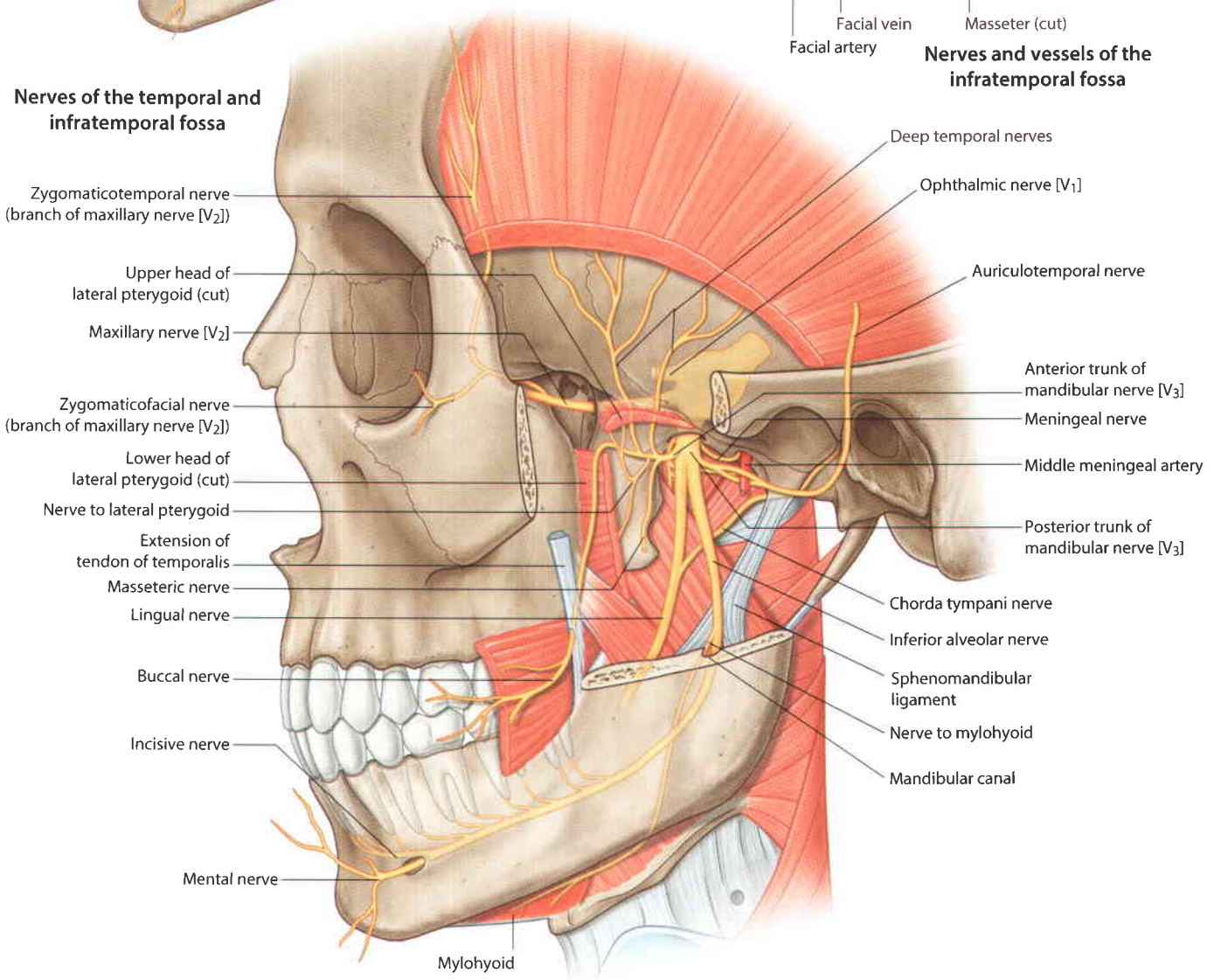
Lateral view of the right temporomandibular joint. A. Mouth closed. B. Mouth open.
Image taken with Cone Beam Computerized Tomography (CBCT) technology viewed in the radiographic mode

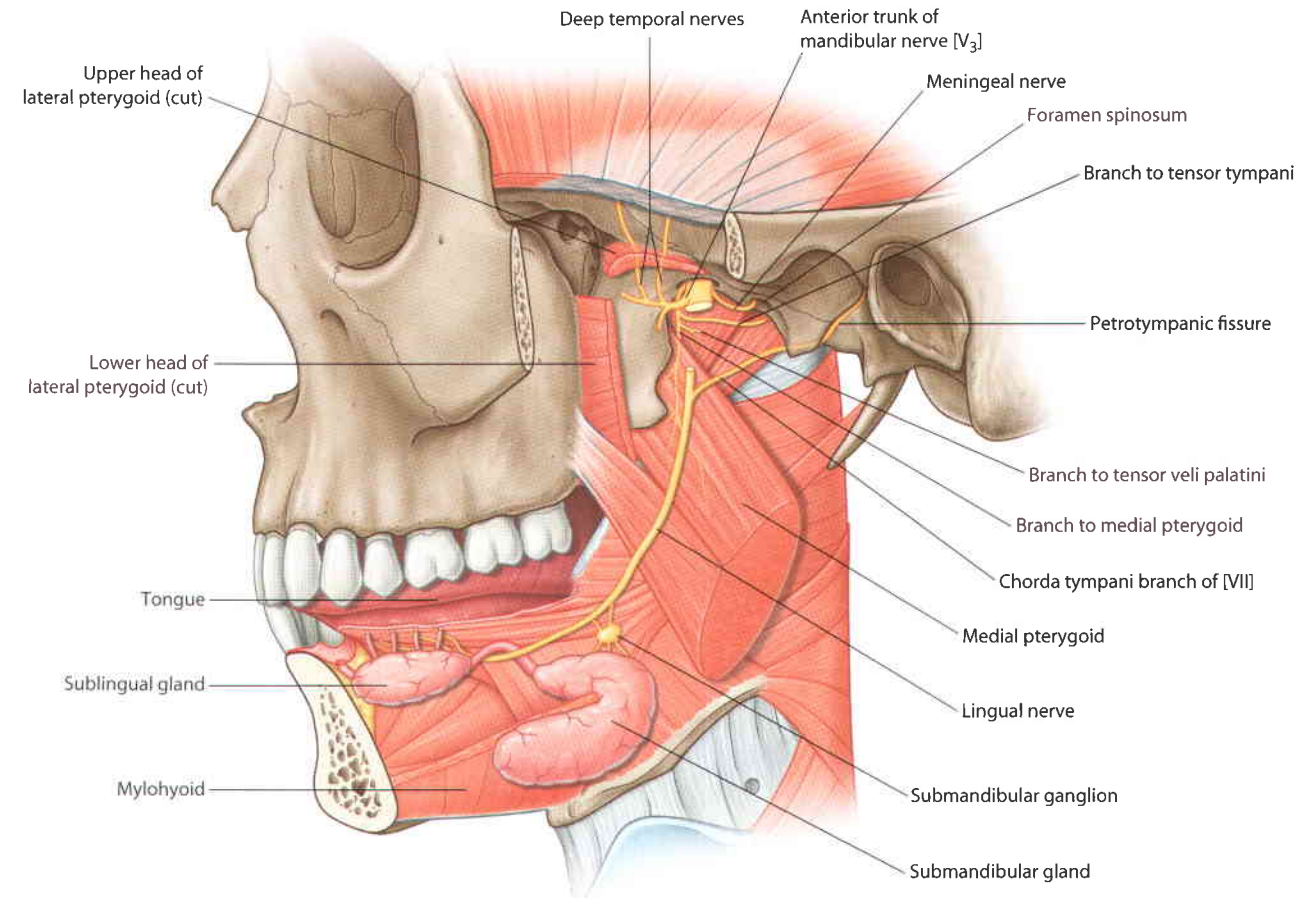




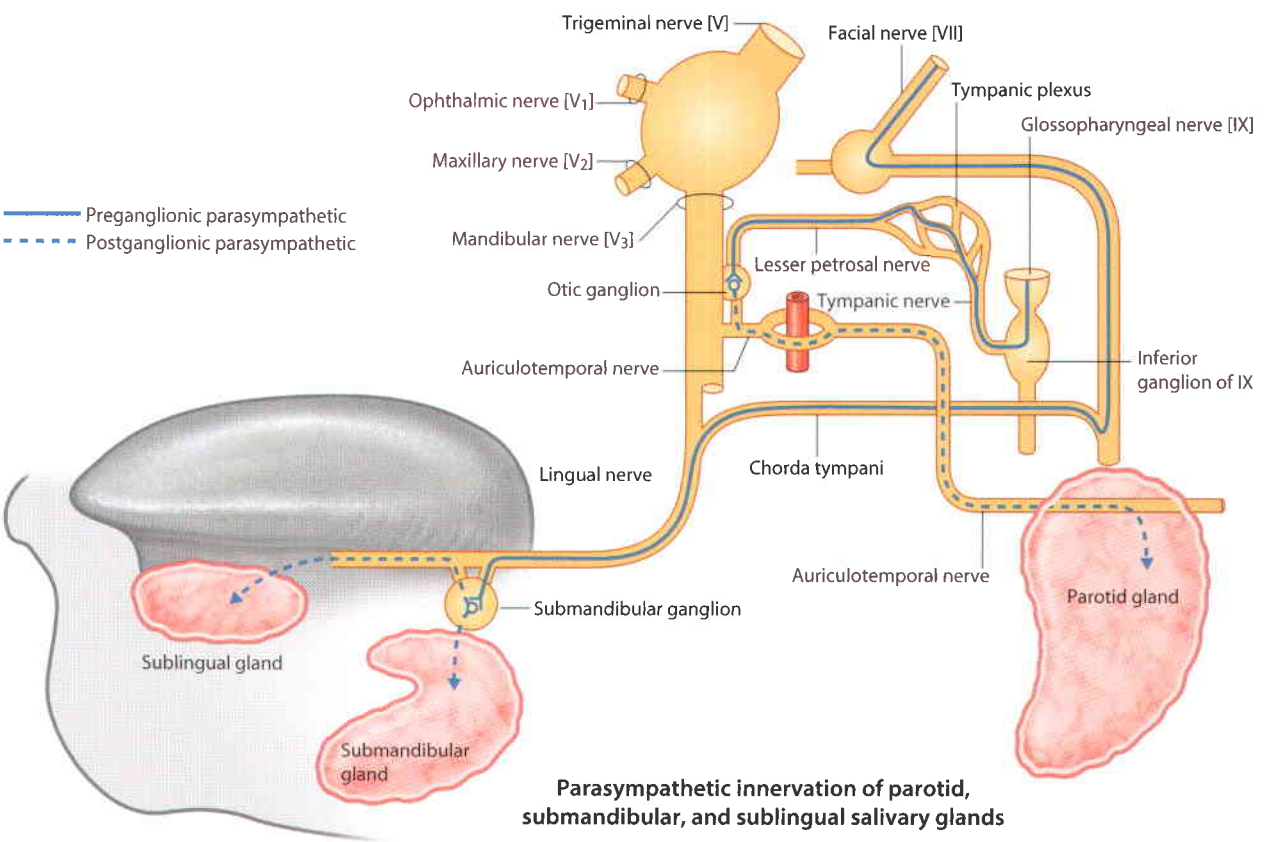
Nerves and vessels of the infratemporal fossa

Nerves of the temporal and infratemporal fossa

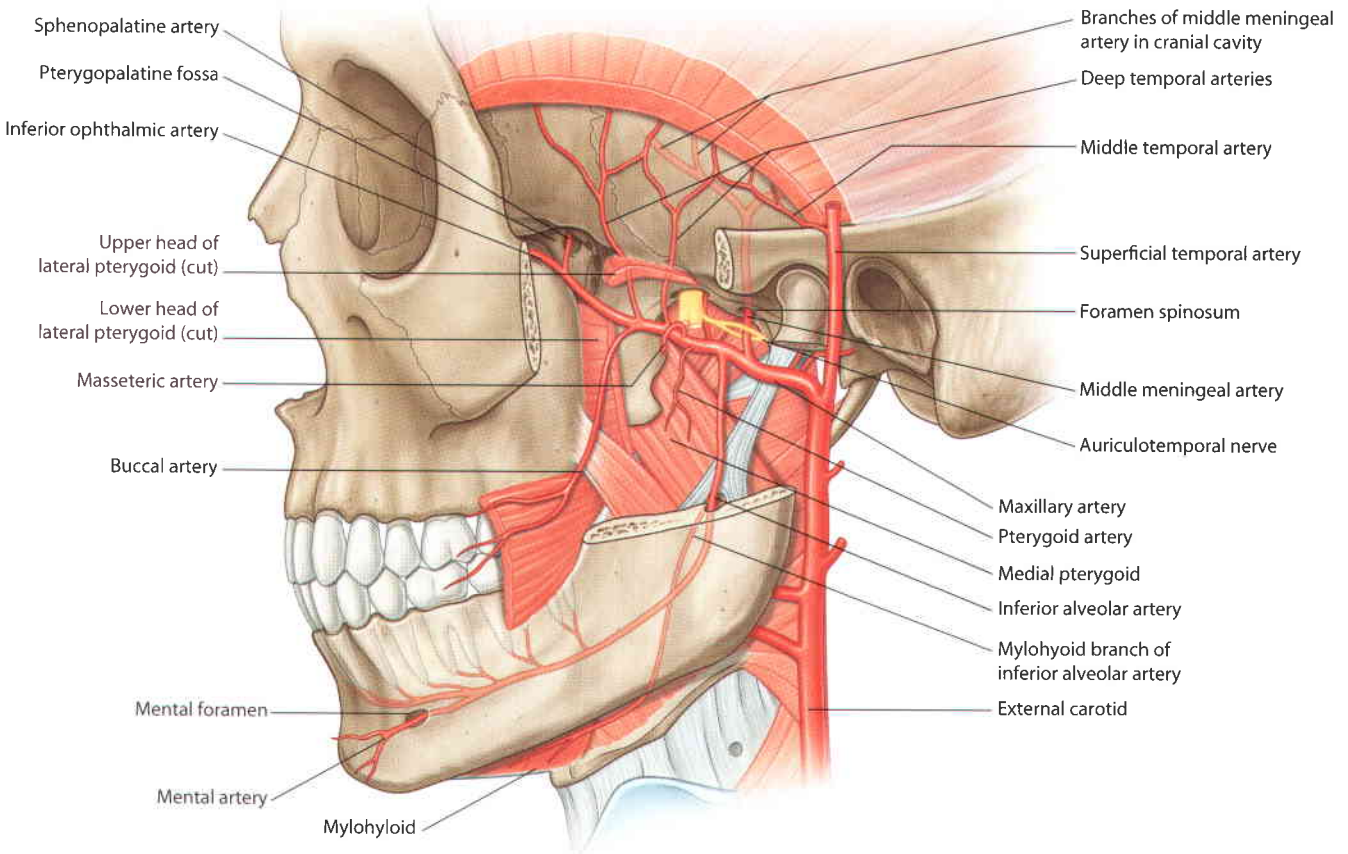




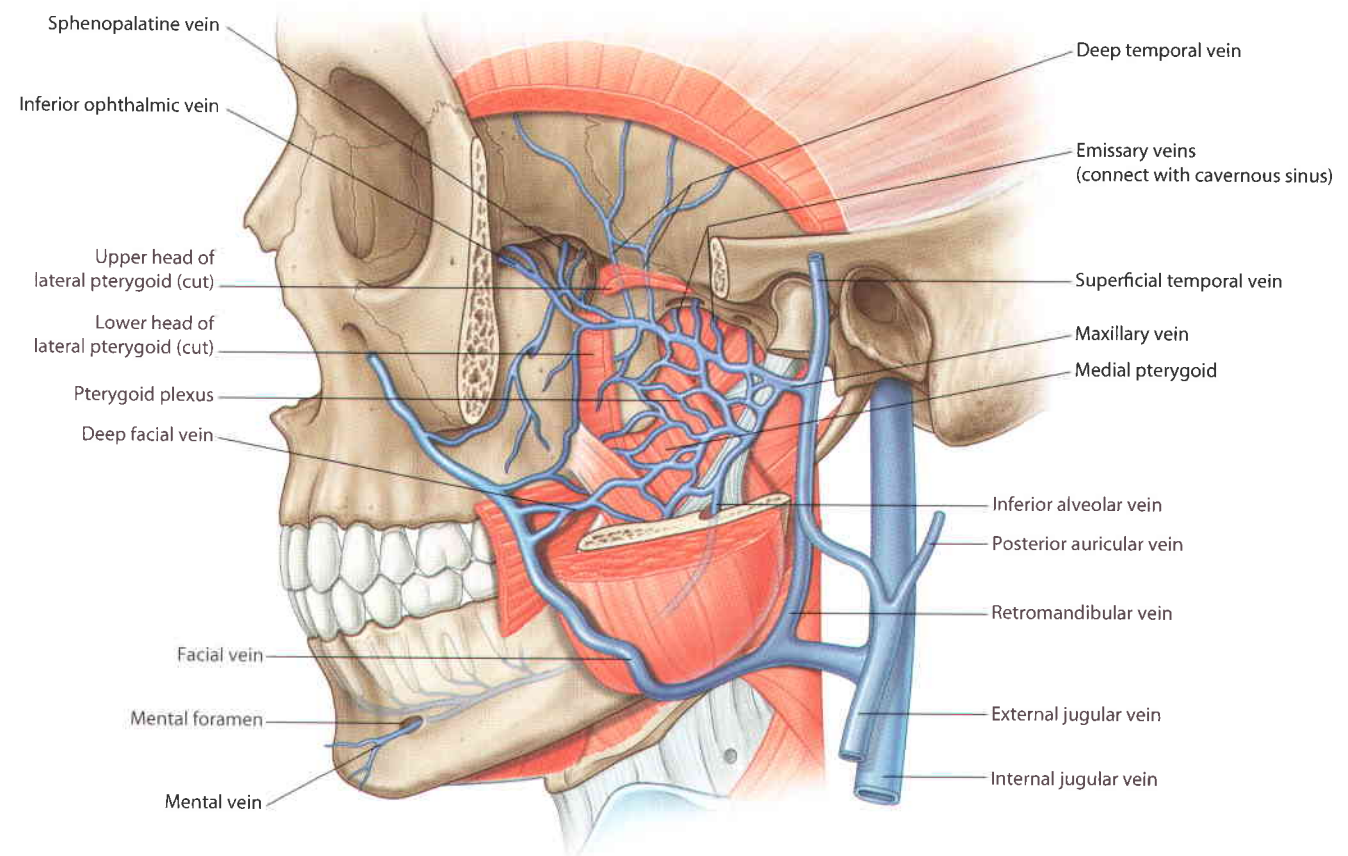
Nerves of the infratemporal fossa



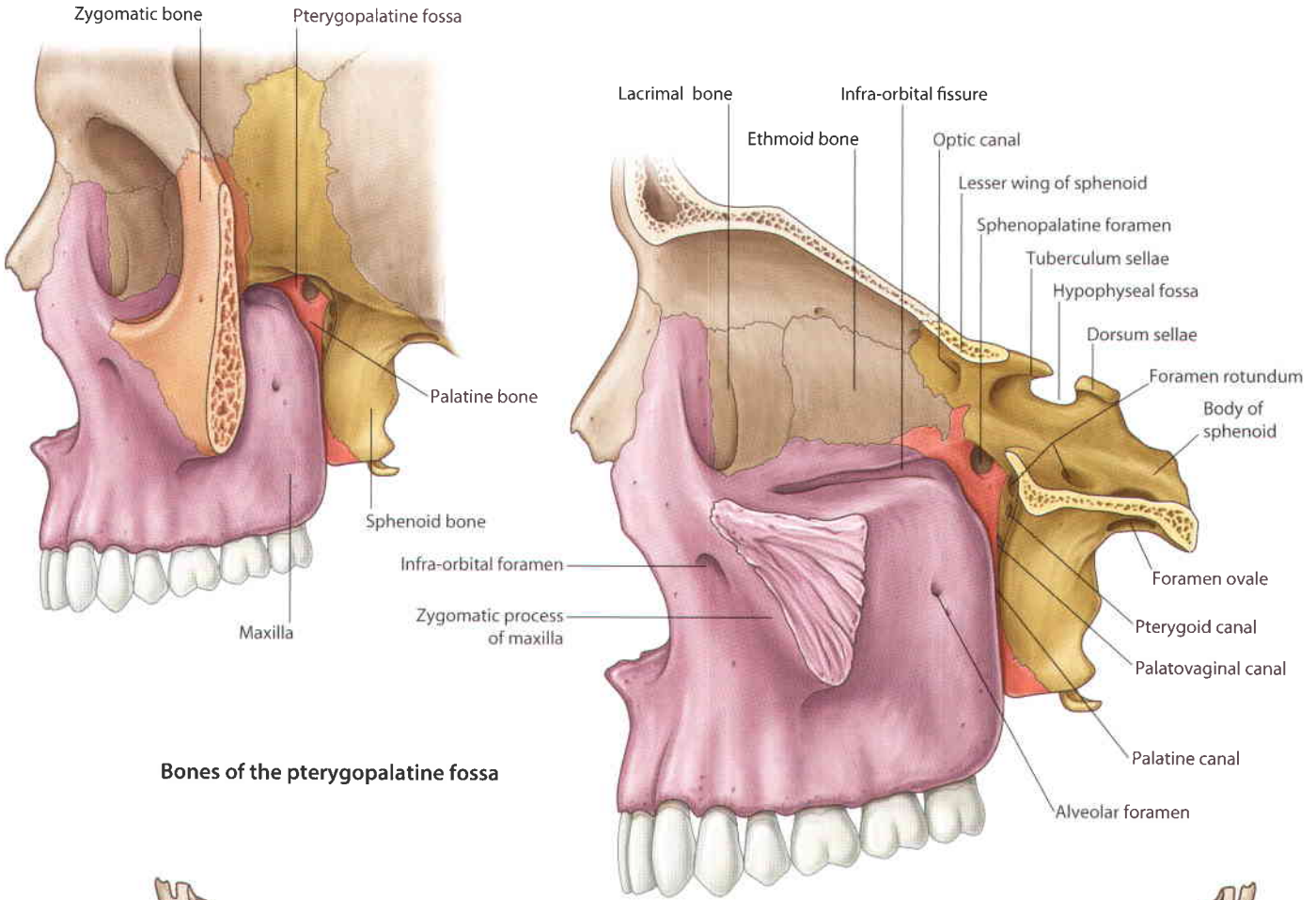
Parasympathetic innervation of parotid, submandibular, and sublingual salivary glands



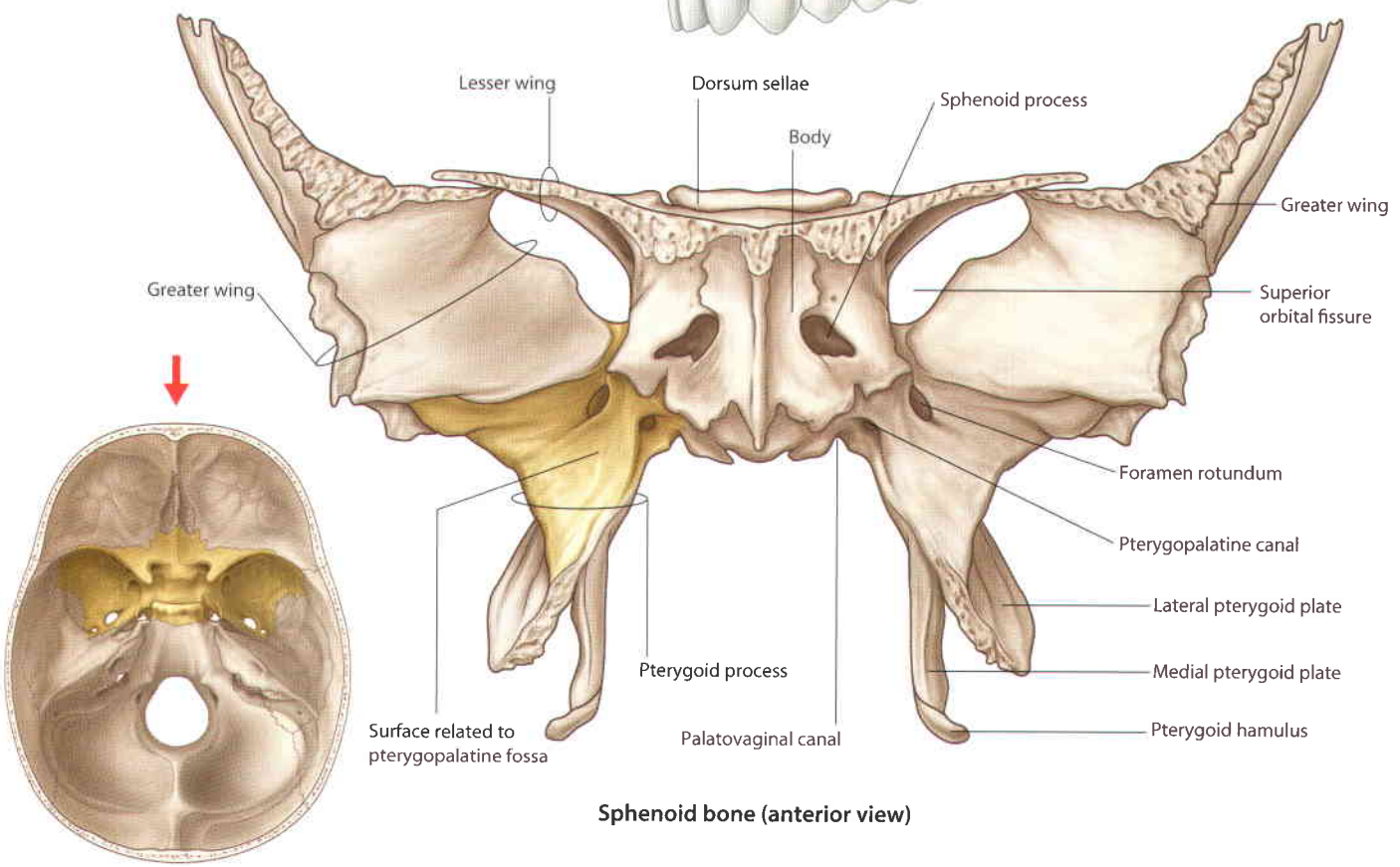
Arteries of the temporal and infratemporal fossae



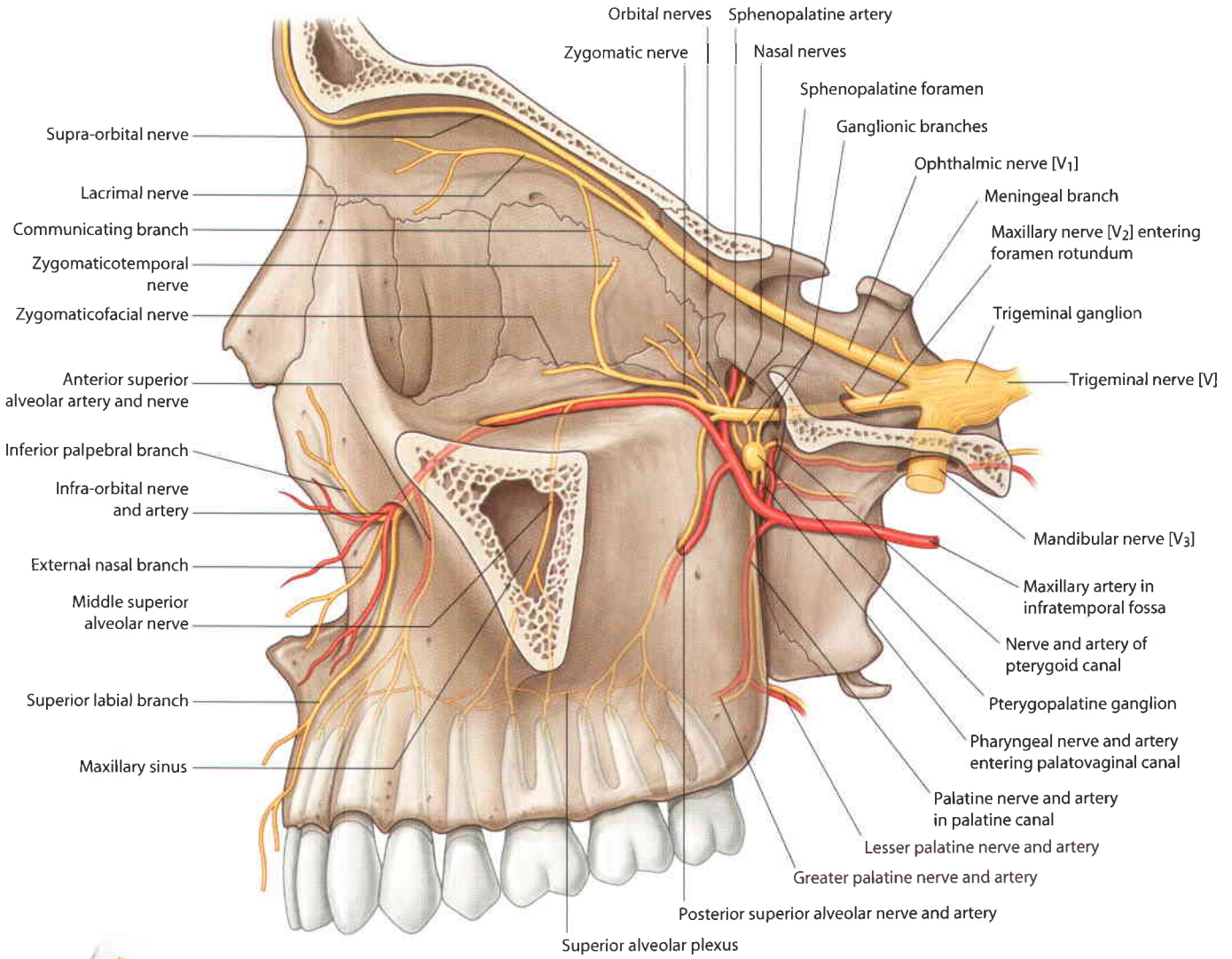
Veins of the temporal and infratemporal fossae



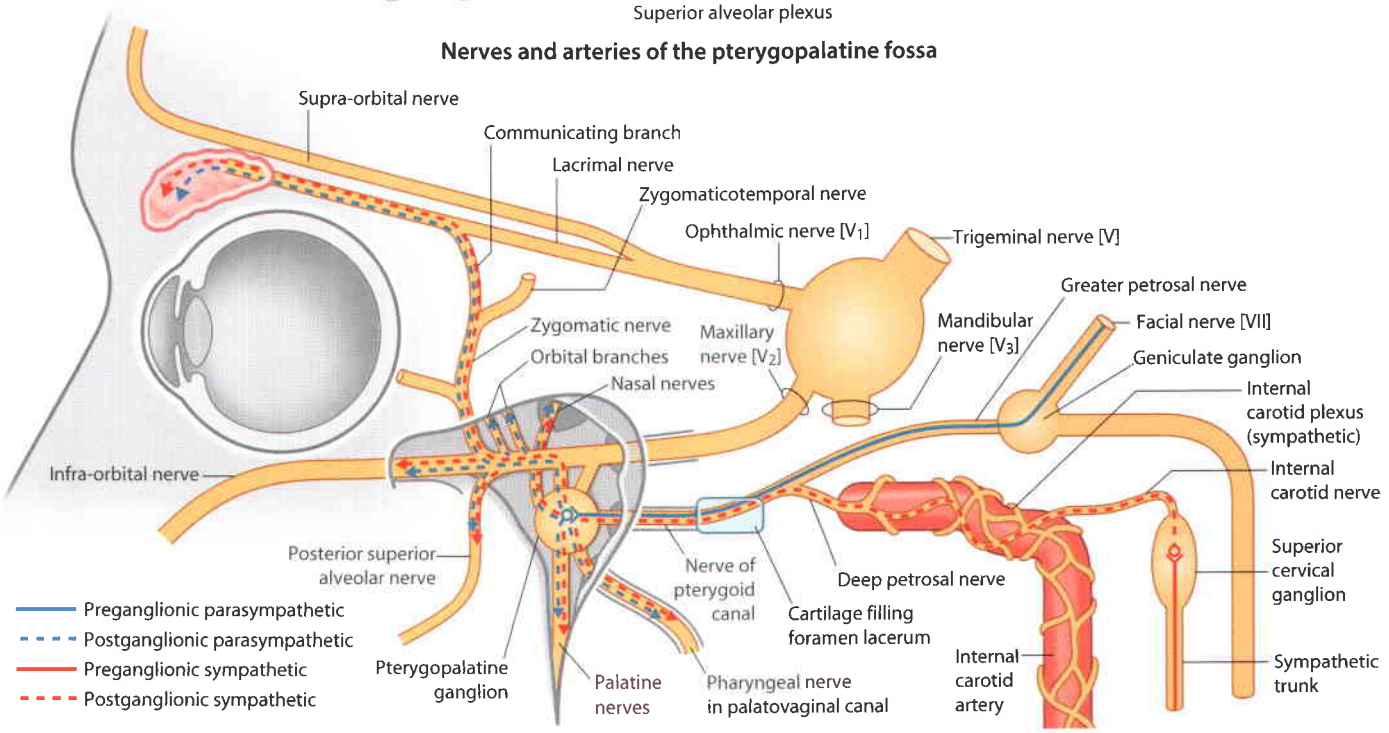
Bones of the pterygopalatine fossa



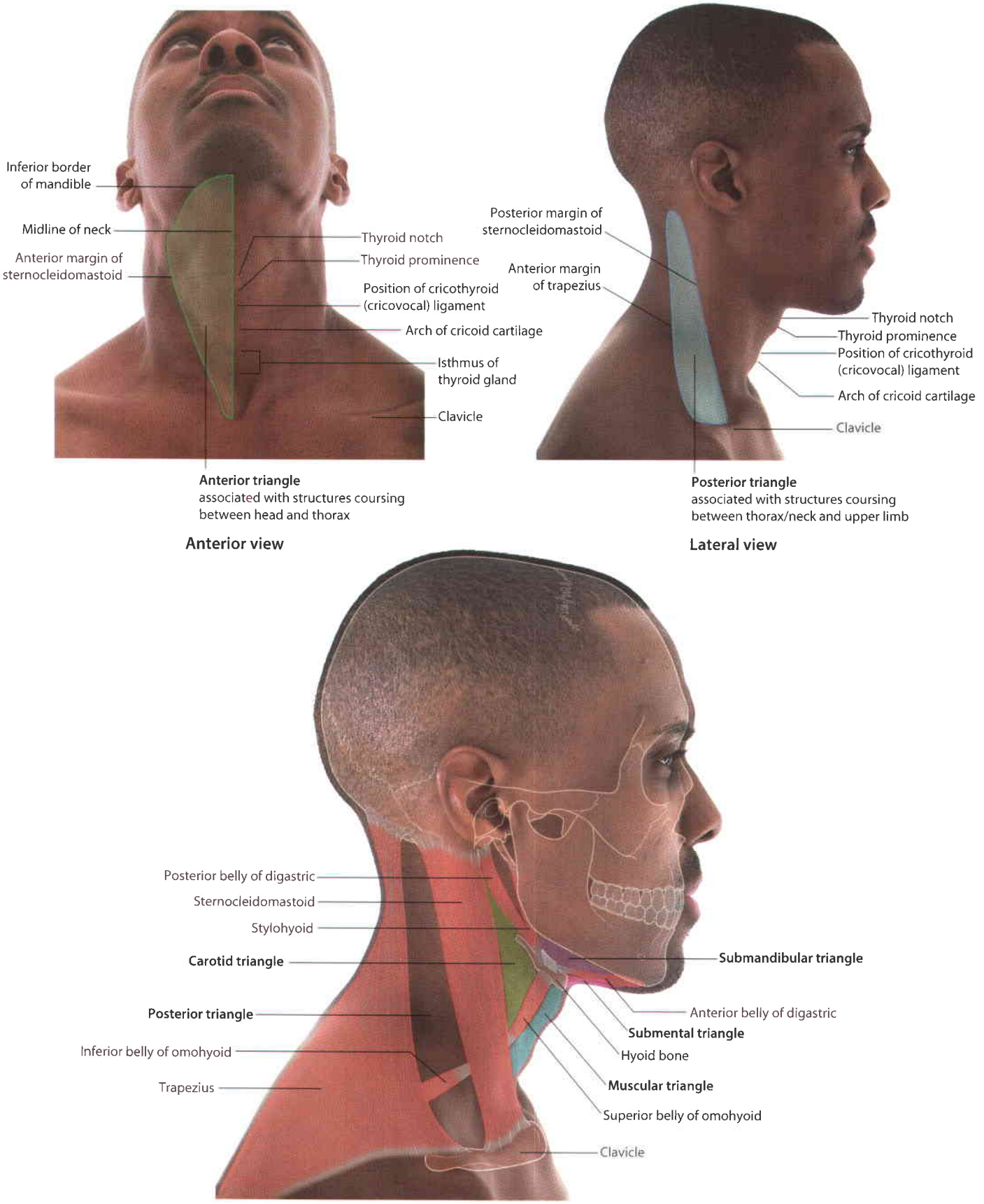
Sphenoid bone (anterior view)



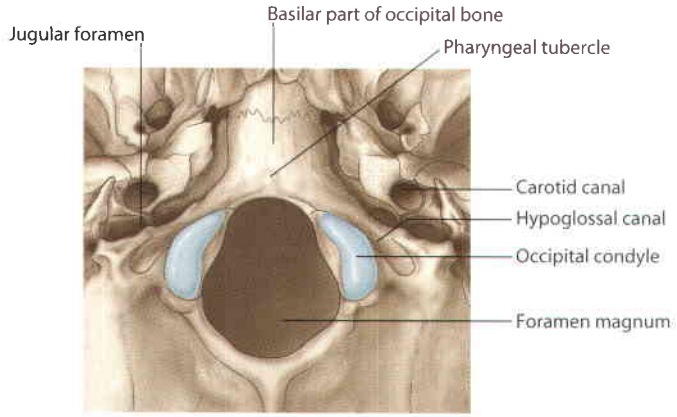
Nerves and arteries of the pterygopalatine fossa



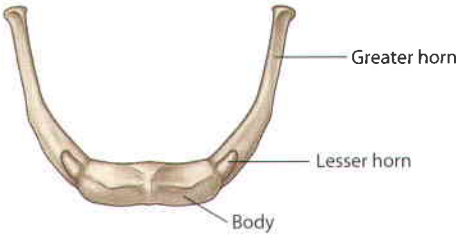
Visceral efferent (motor) pathways through the pterygopalatine fossa



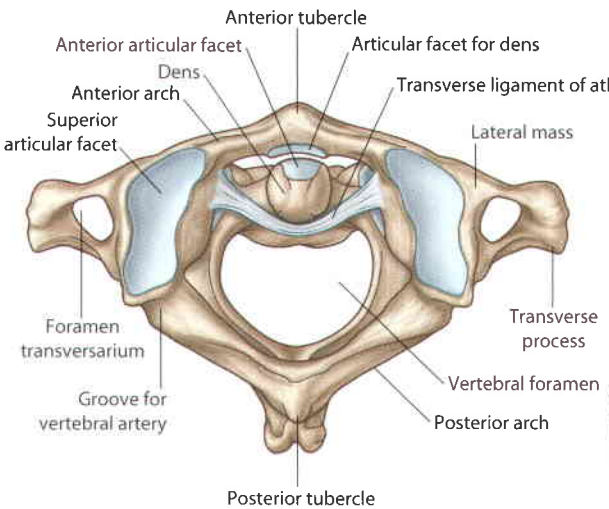
Boundaries and subdivisions of the anterior triangle and boundaries of the posterior triangle



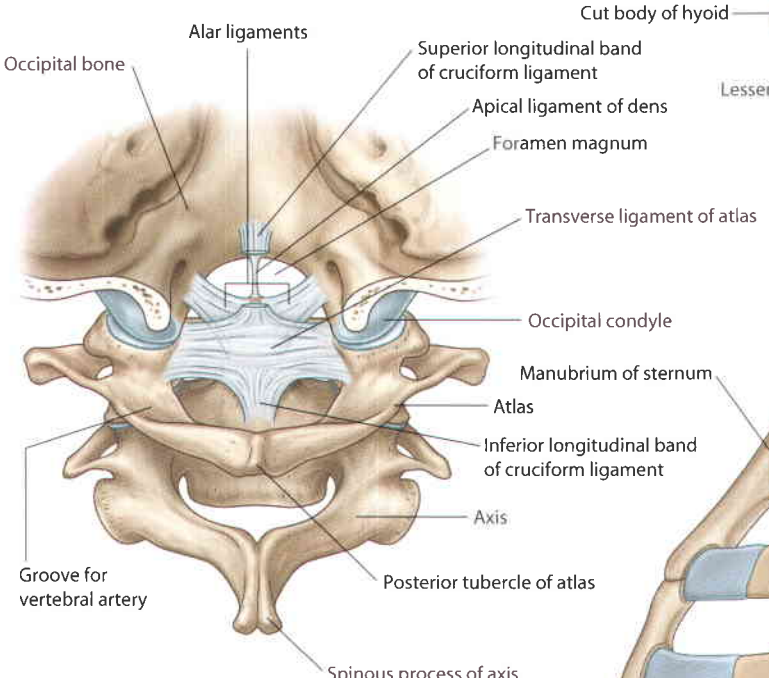
Occipital condyles of skull (inferior view)



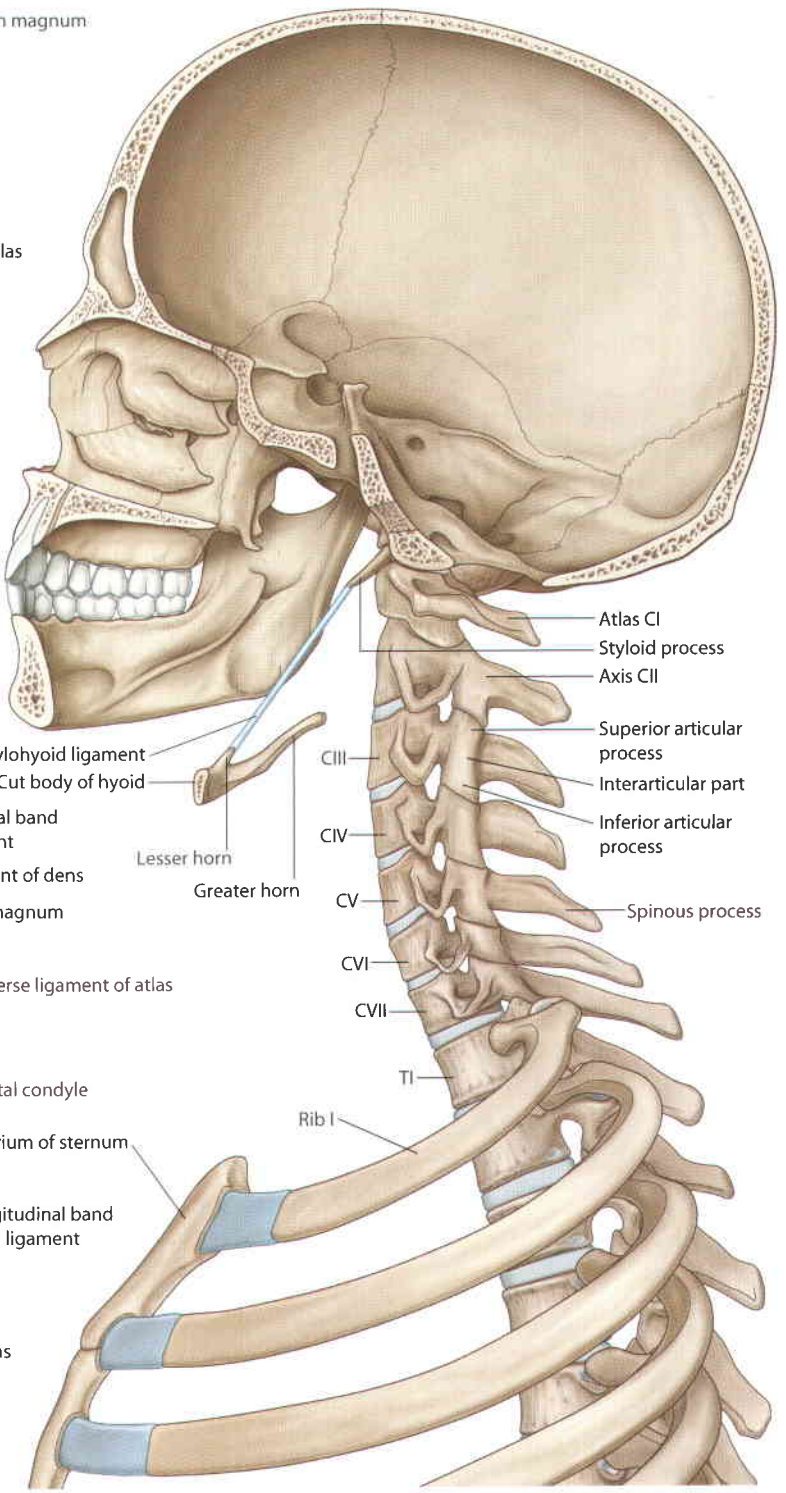
Hyoid bone (superior view)



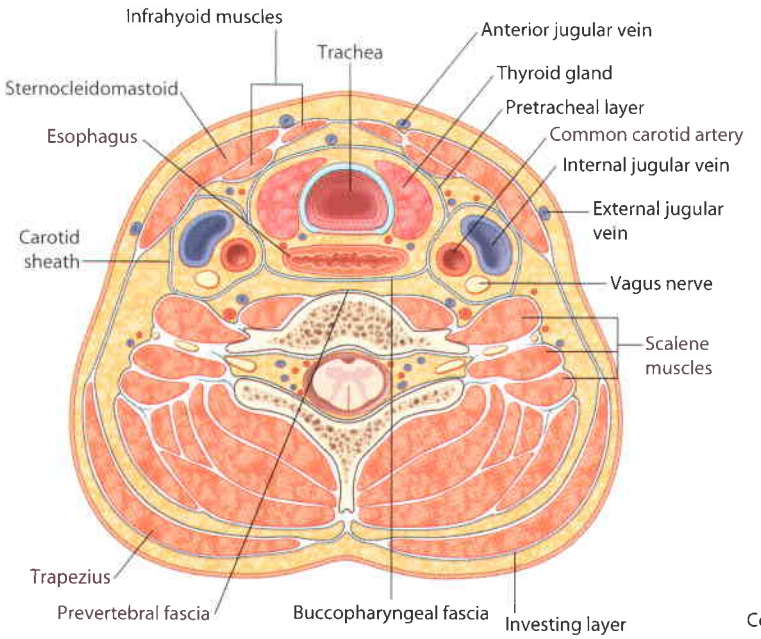
Atlas and axis (superior view)



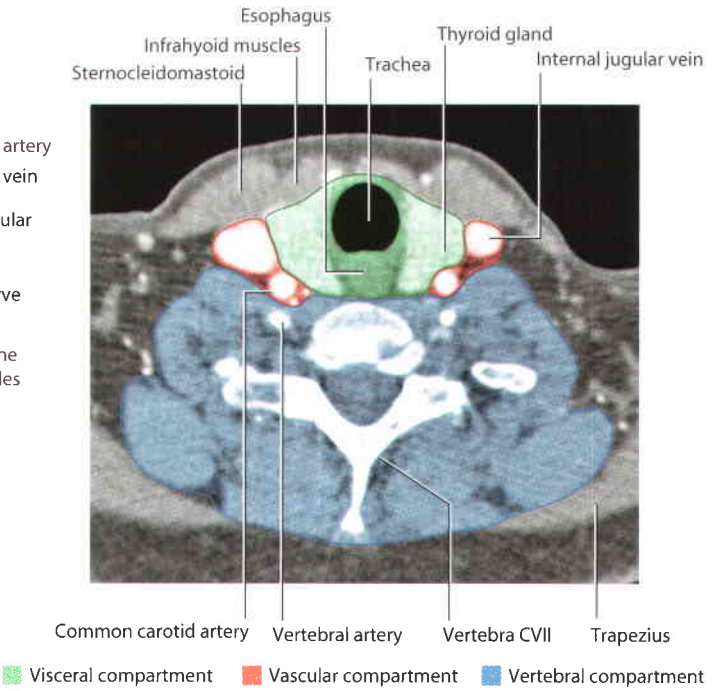
Atlanto-occipital joint (posterior view)



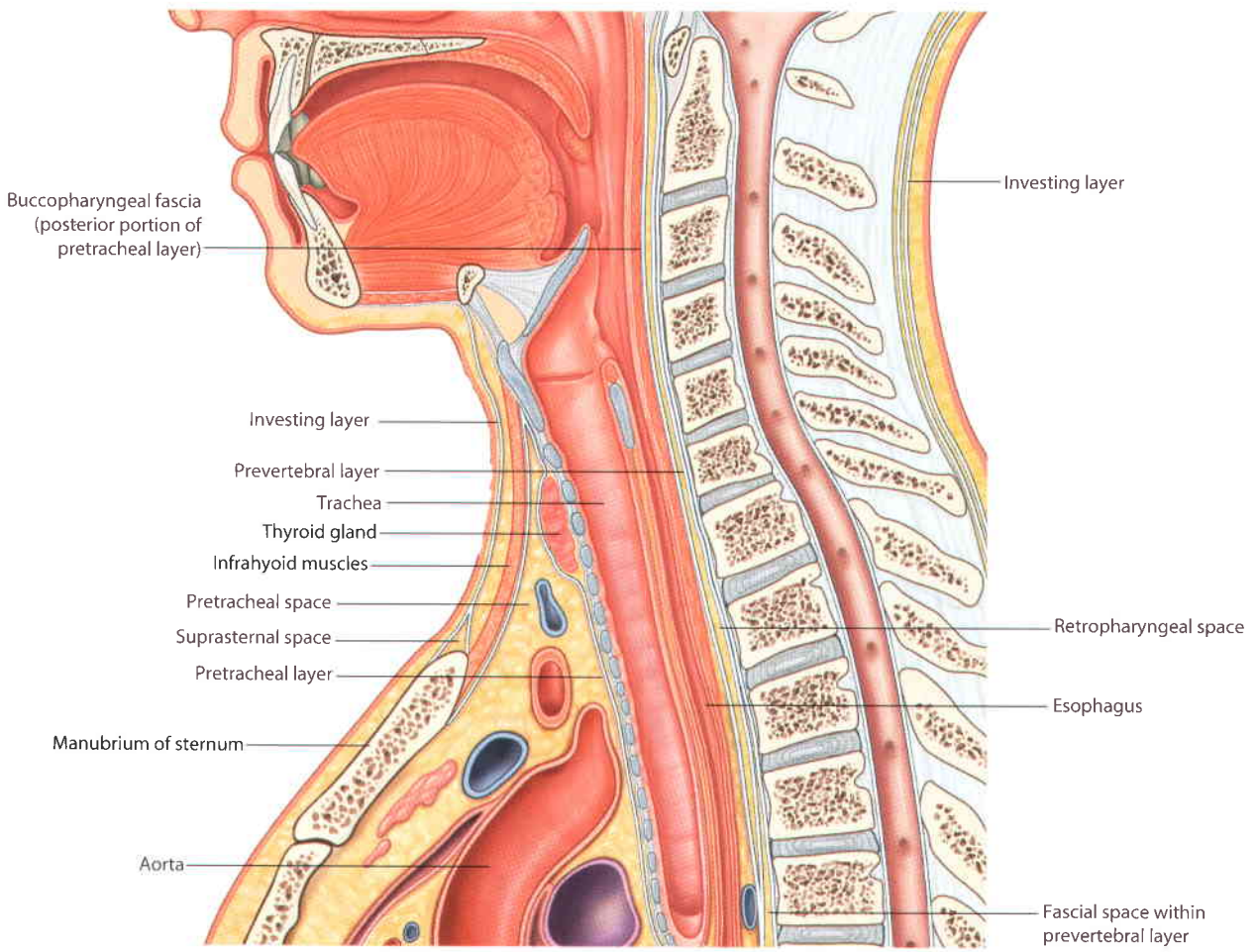
Bones of the neck (lateral view)



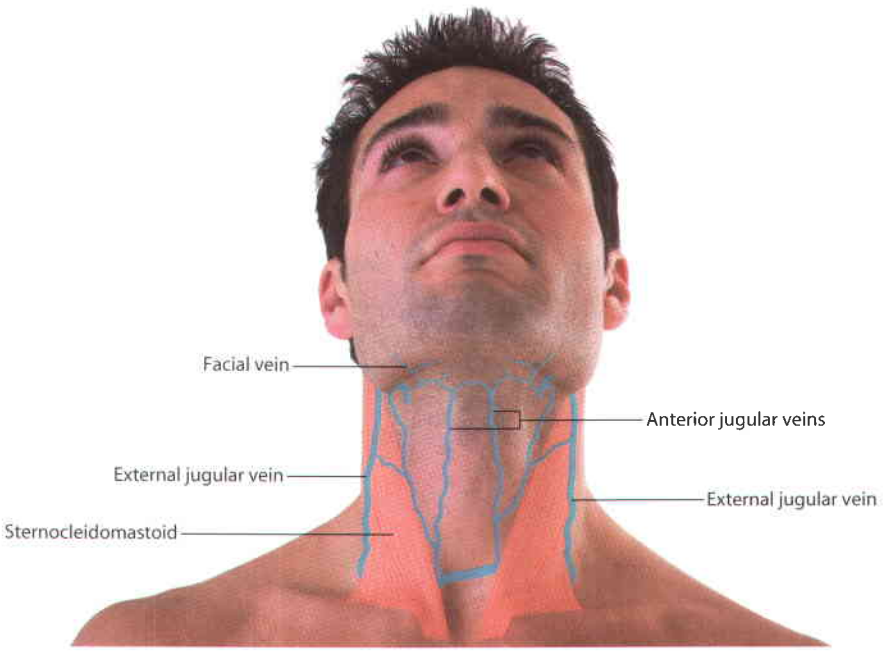
Fascia of the neck (transverse view)



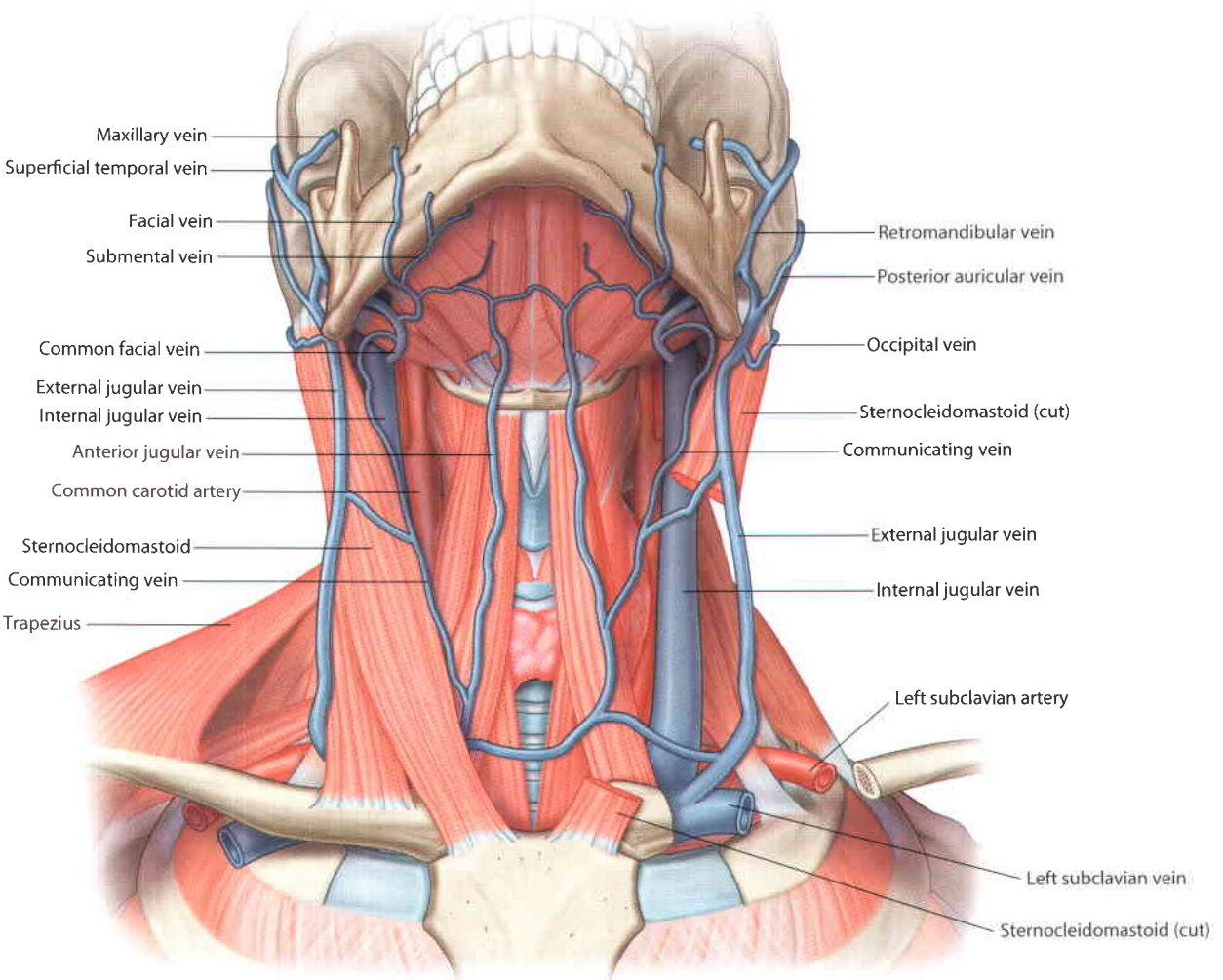
Fascia compartments of the neck.
CT image, with contrast, in axial plane



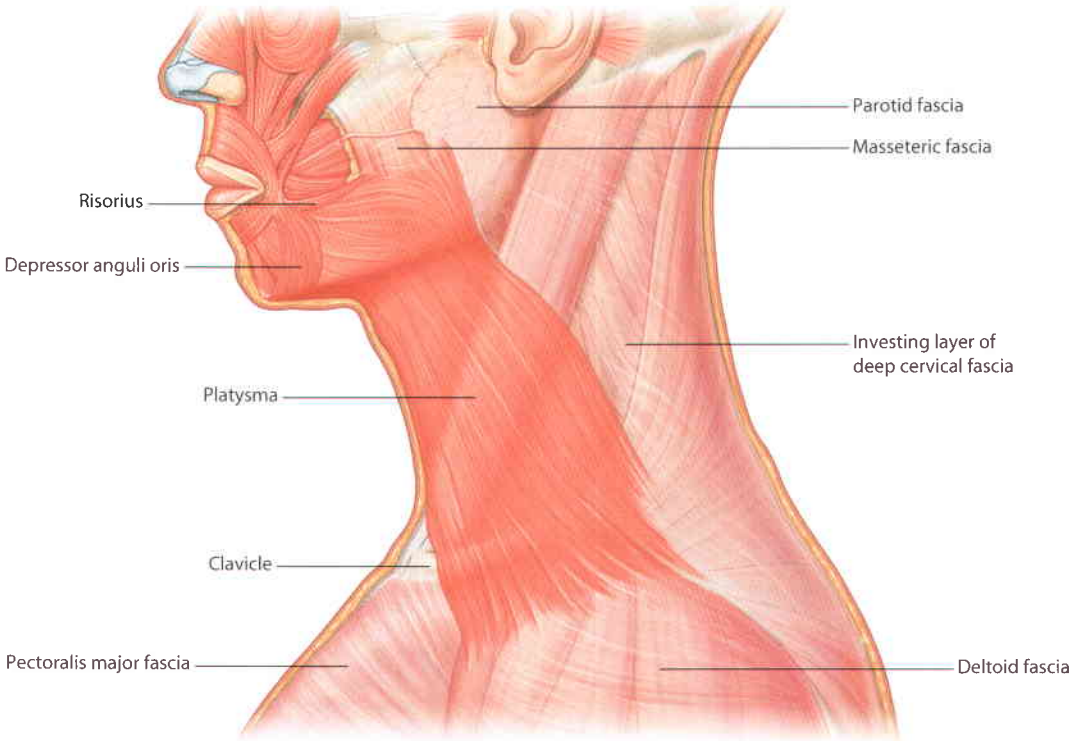
Fascia of the neck (sagittal view)



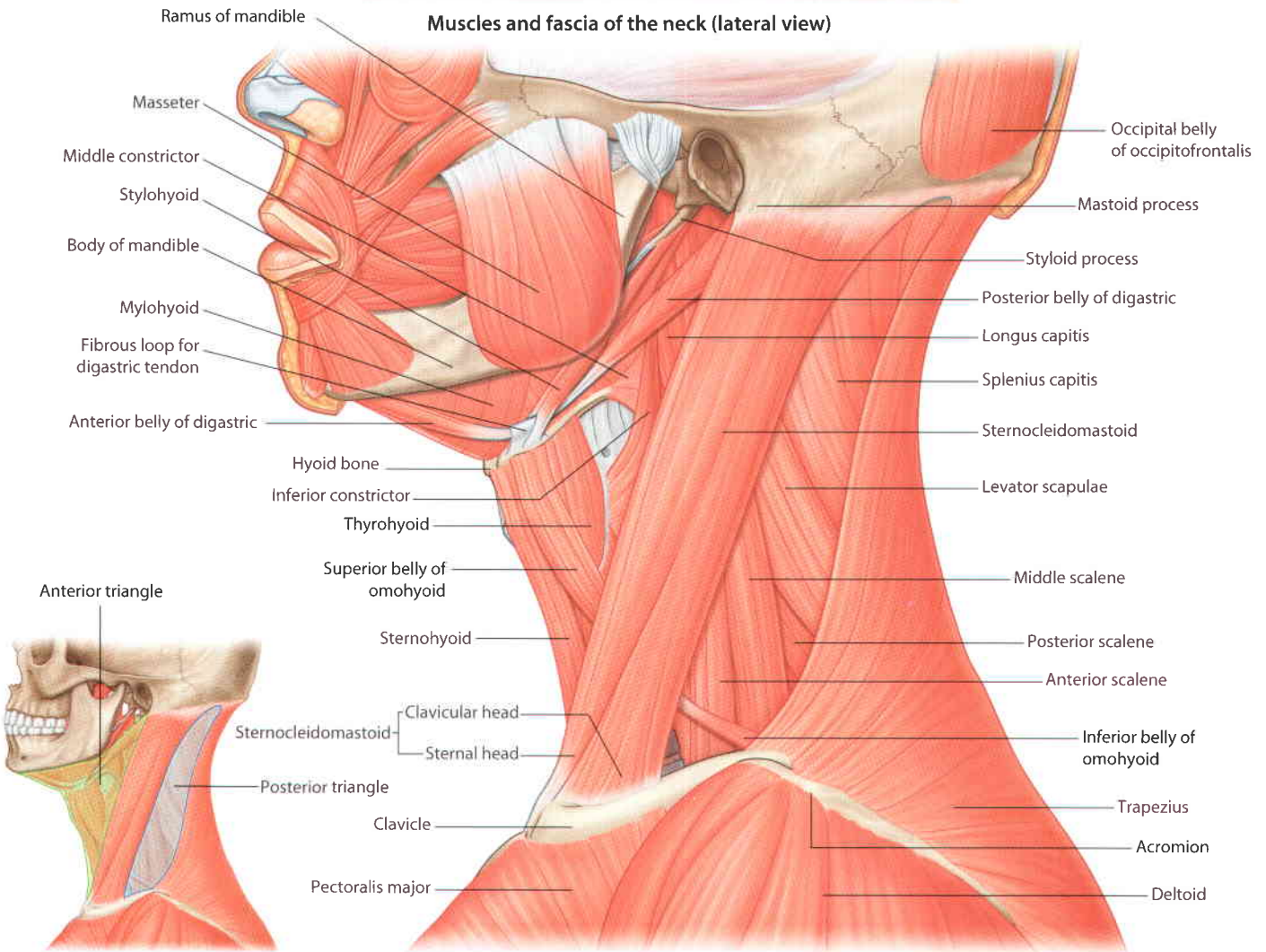
Palpable veins of the neck (or visible)

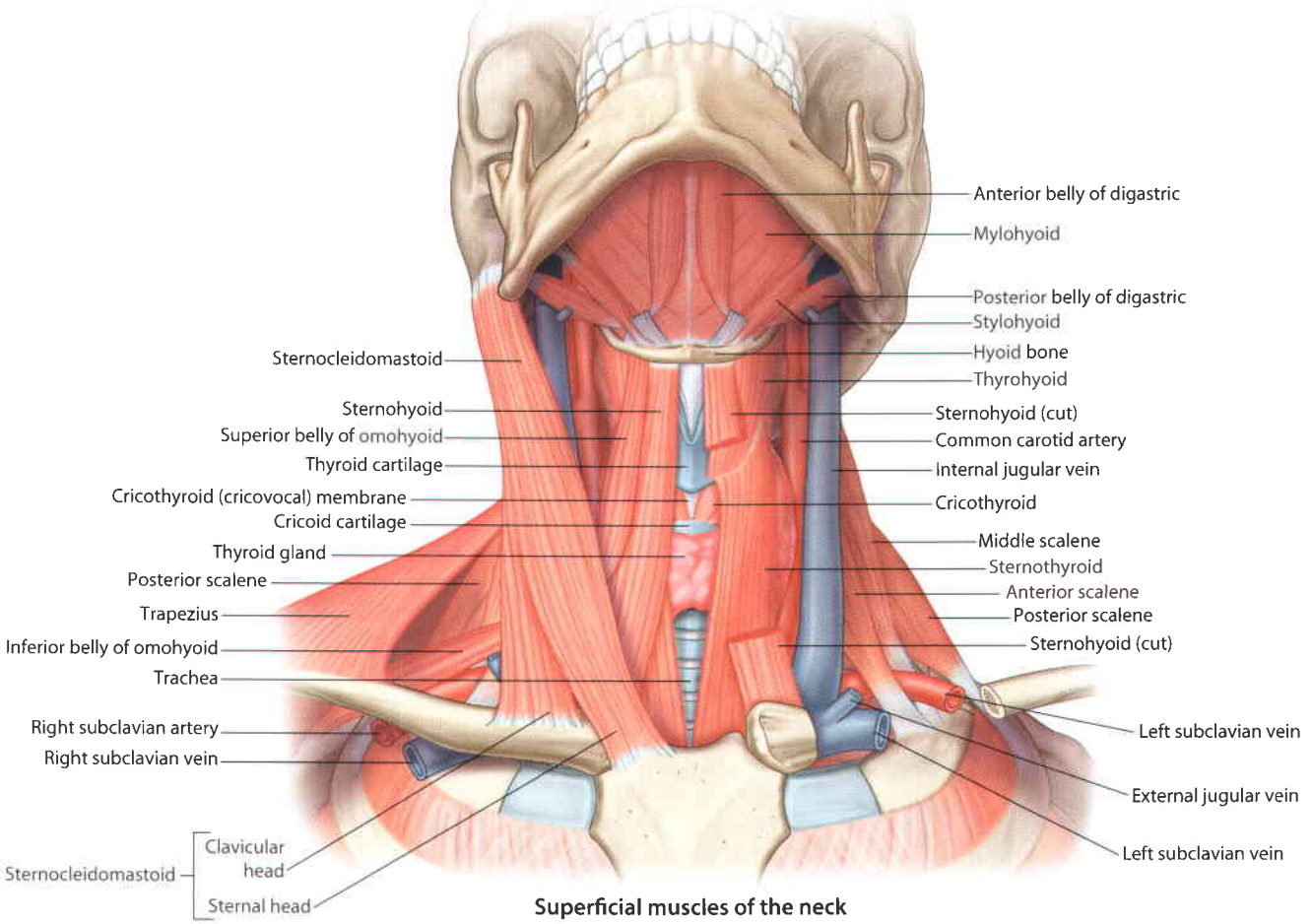


Superficial veins of the neck

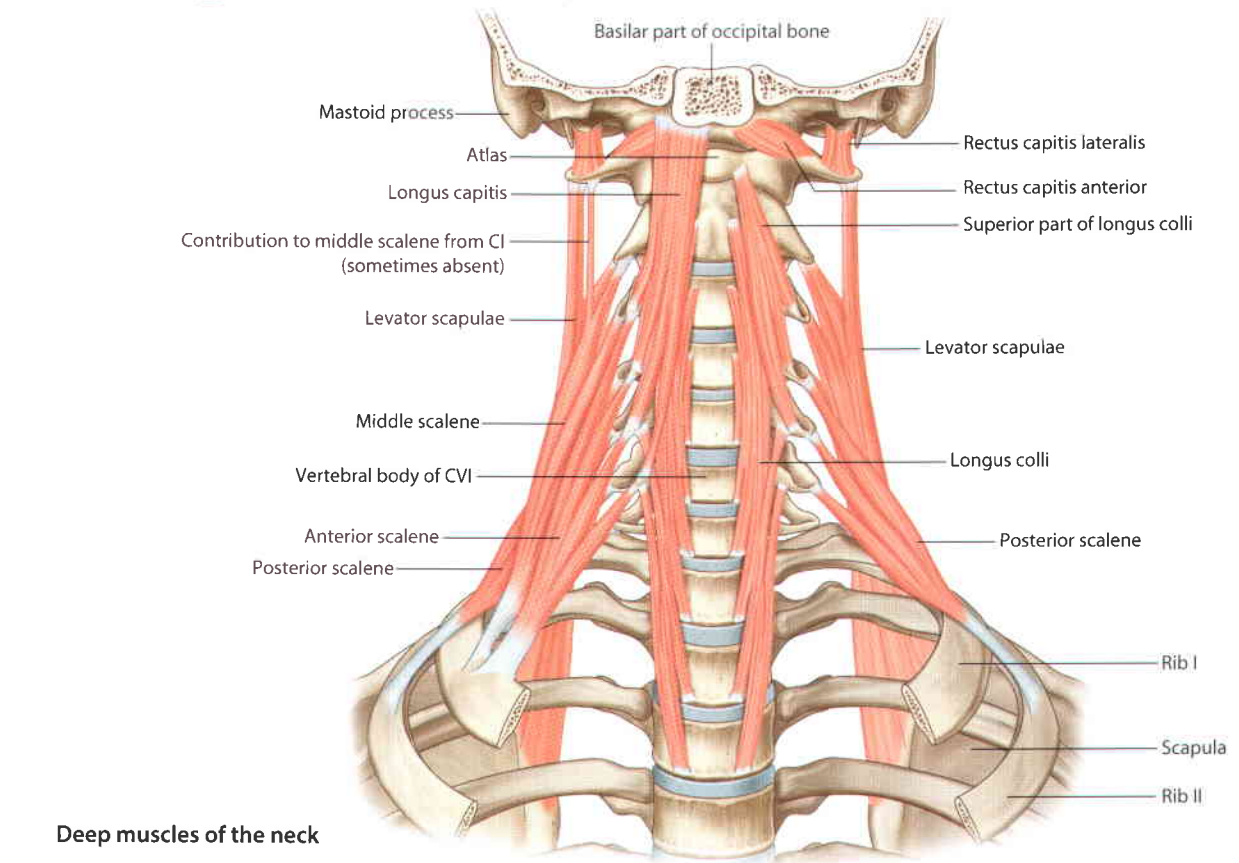


Muscles and fascia of the neck (lateral view)

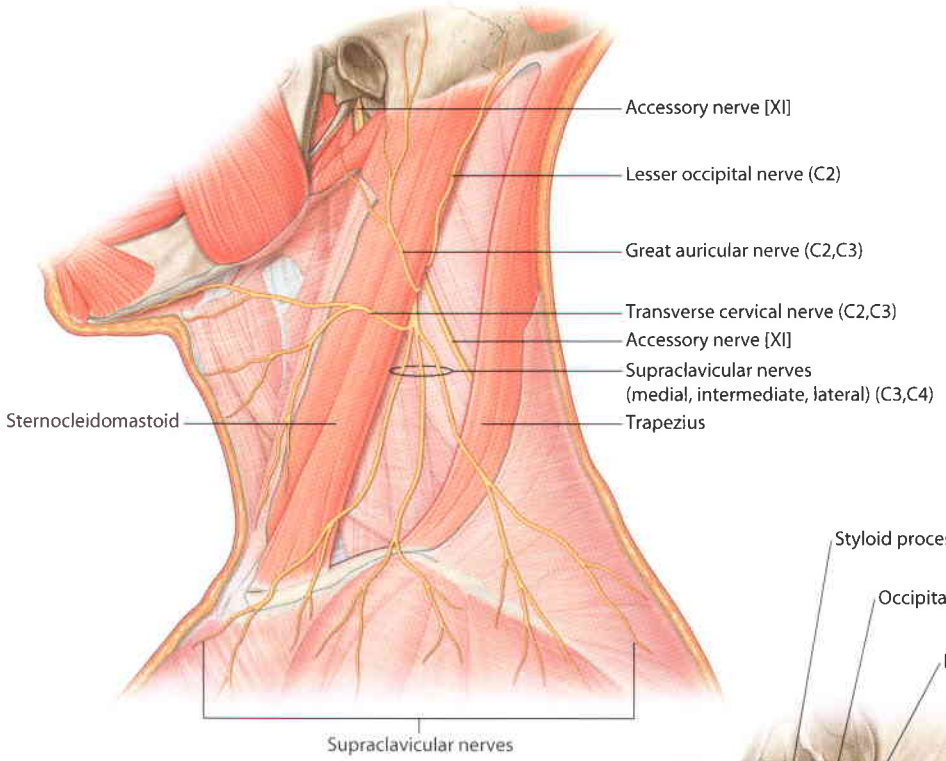




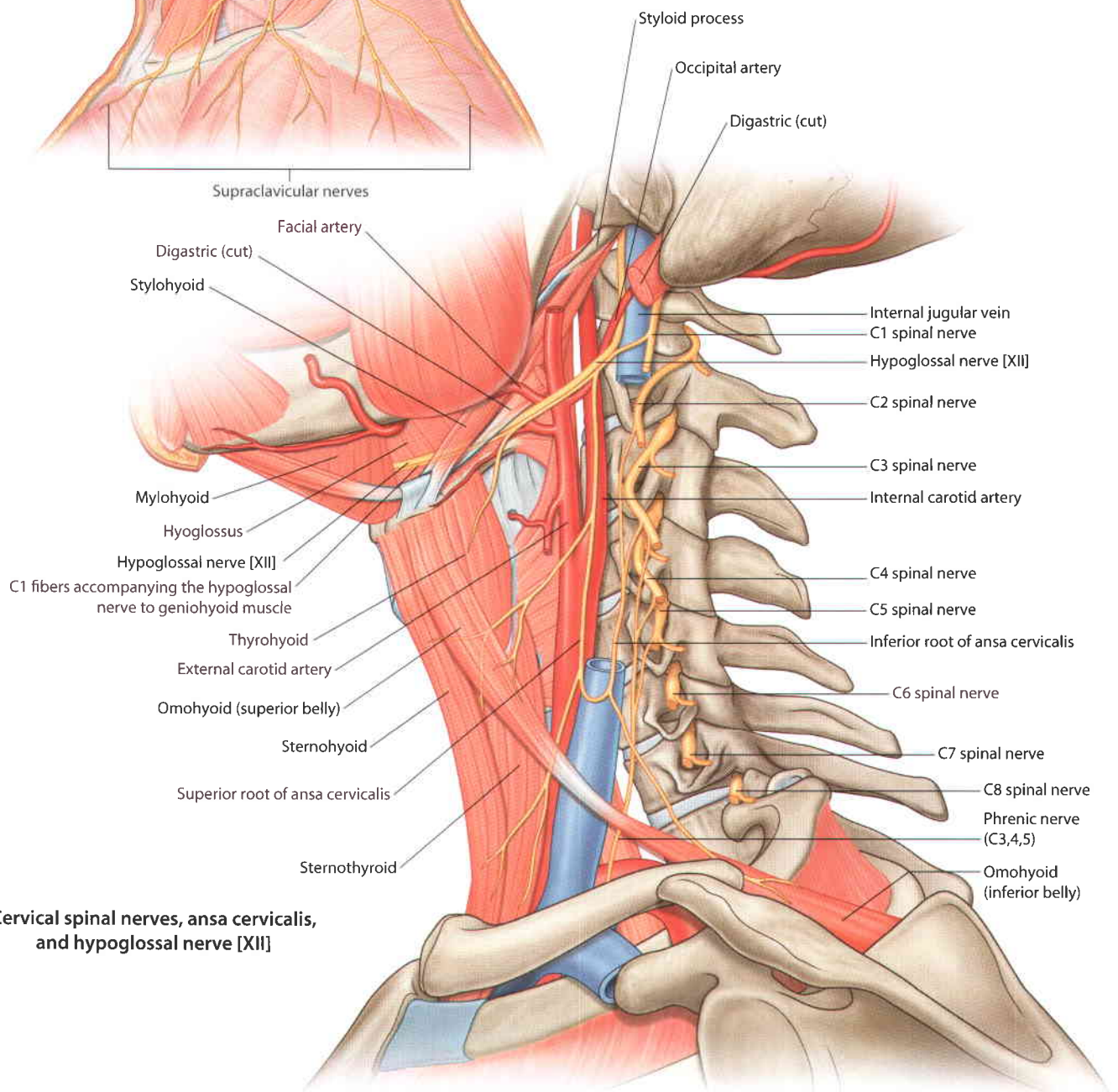
Superficial muscles of the neck



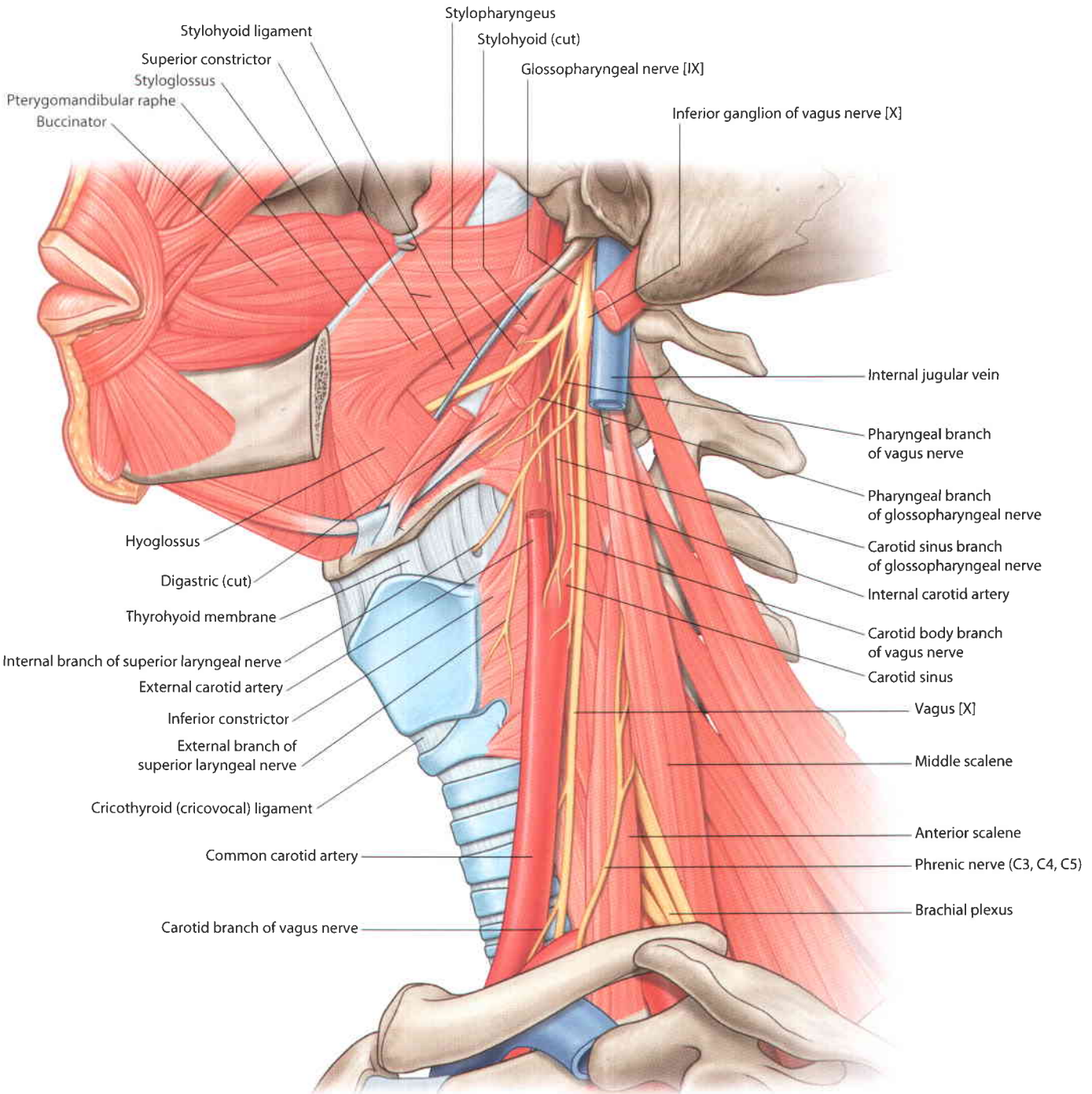
Deep muscles of the neck



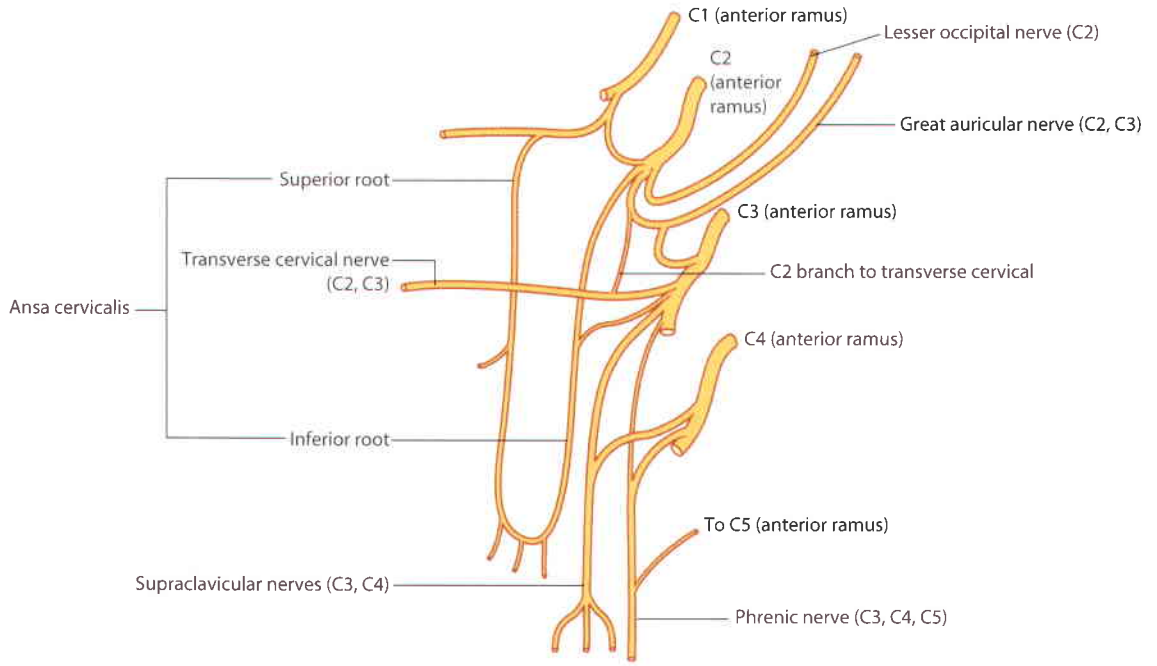
Accessory nerve and branches of the cervical plexus



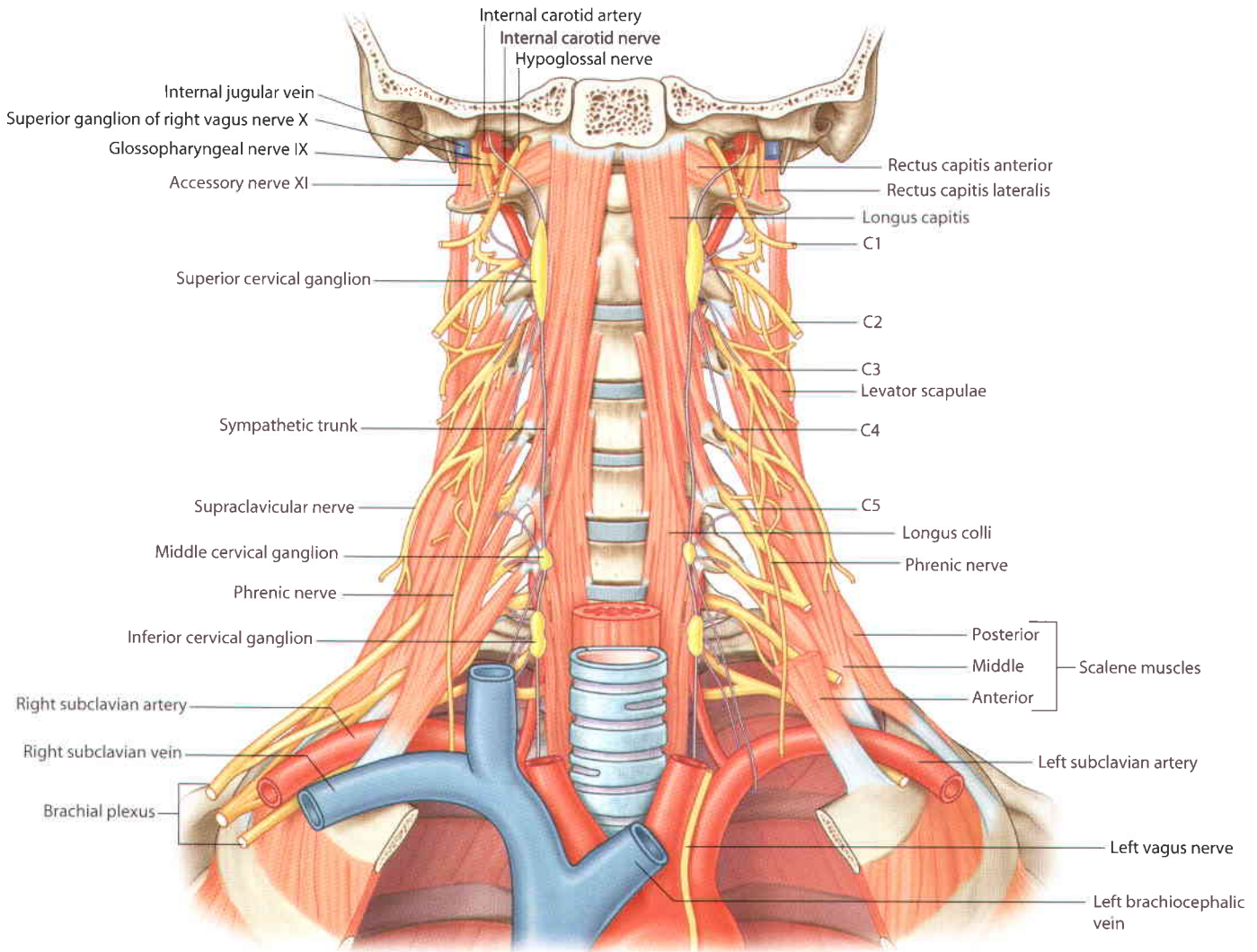
Cervical spinal nerves, ansa cervicalis, and hypoglossal nerve [XII]



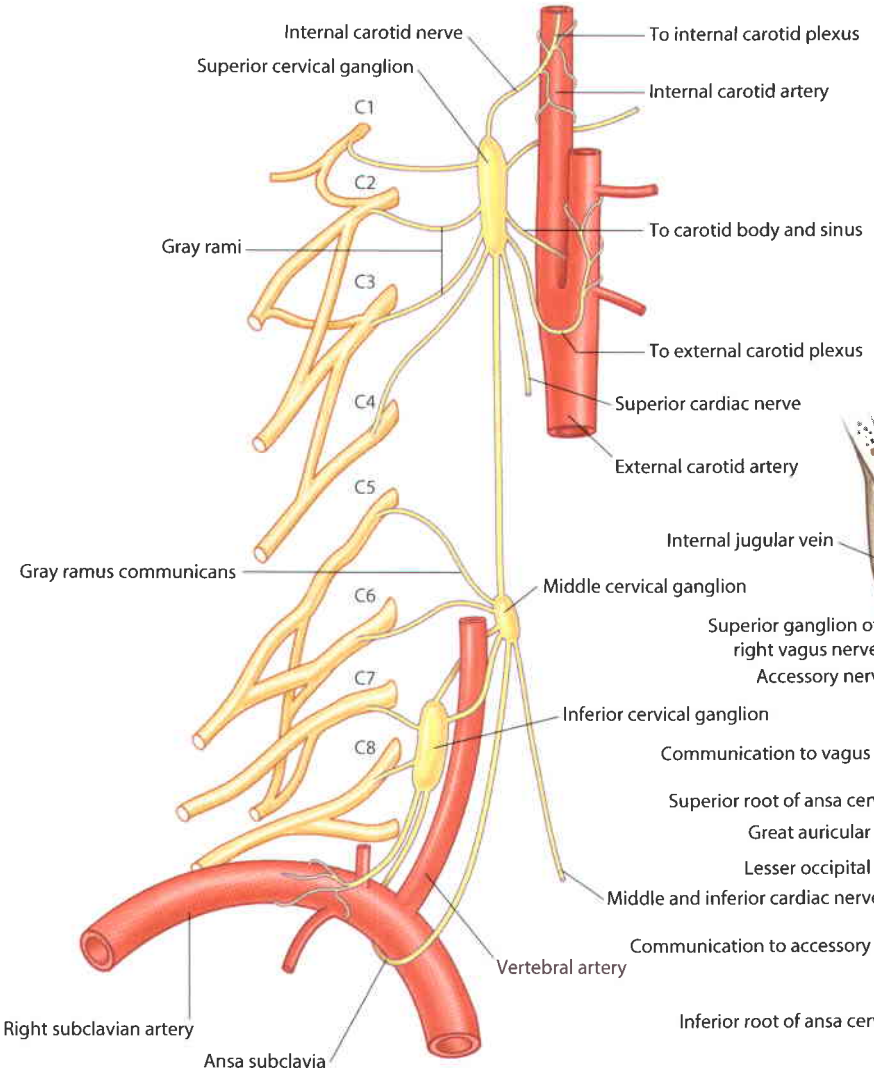
Branches of glossopharyngeal [IX] and vagus nerves [X] in neck



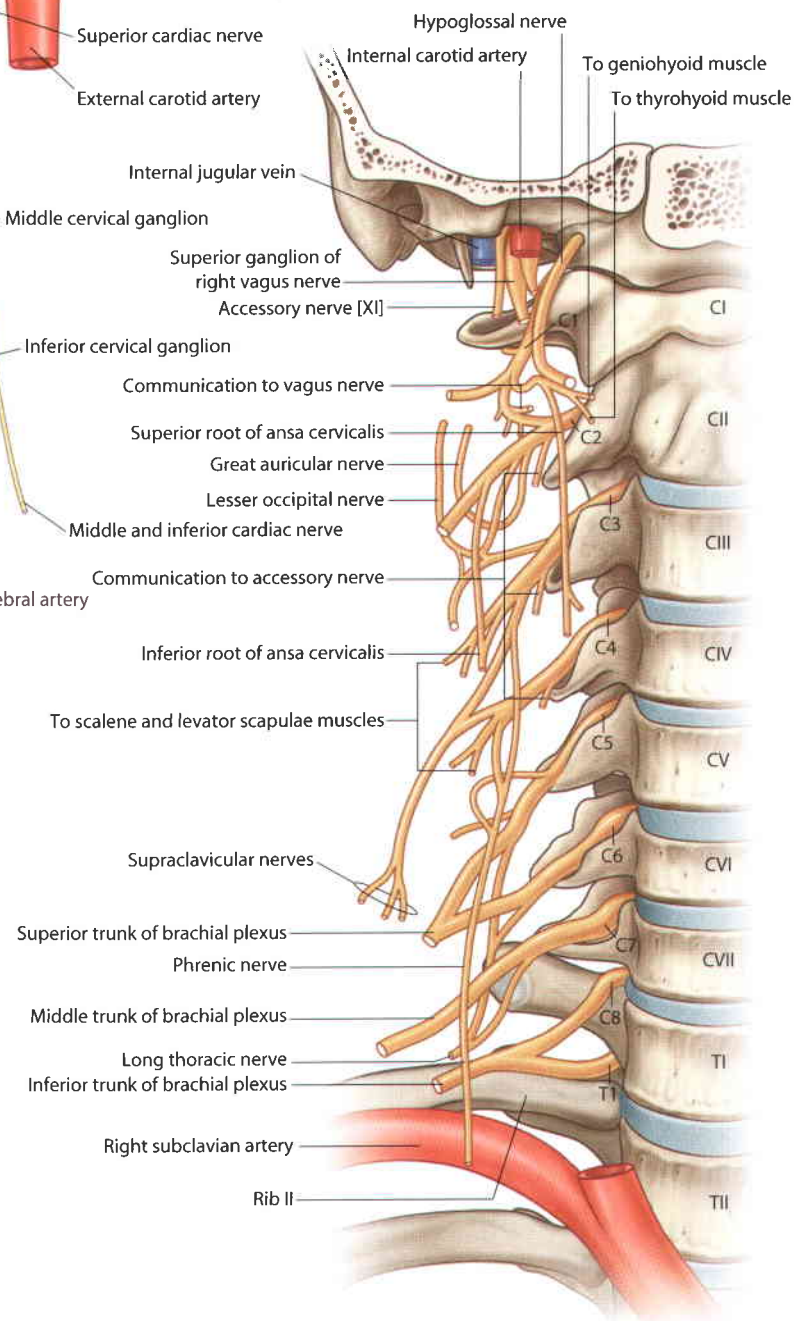
Cervical plexus



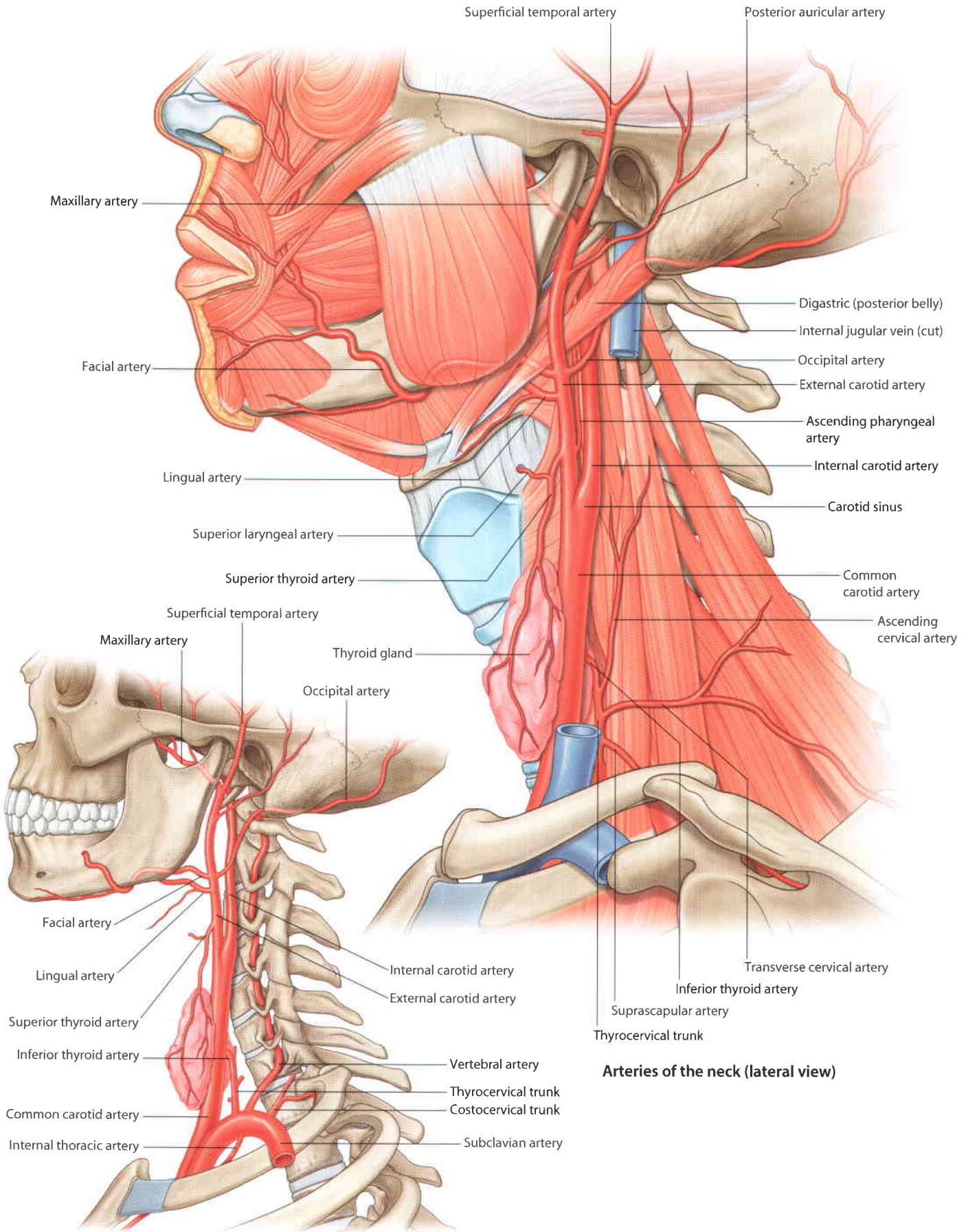
Components of the sympathetic nervous system in the root of the neck



Cervical part of the sympathetic trunk

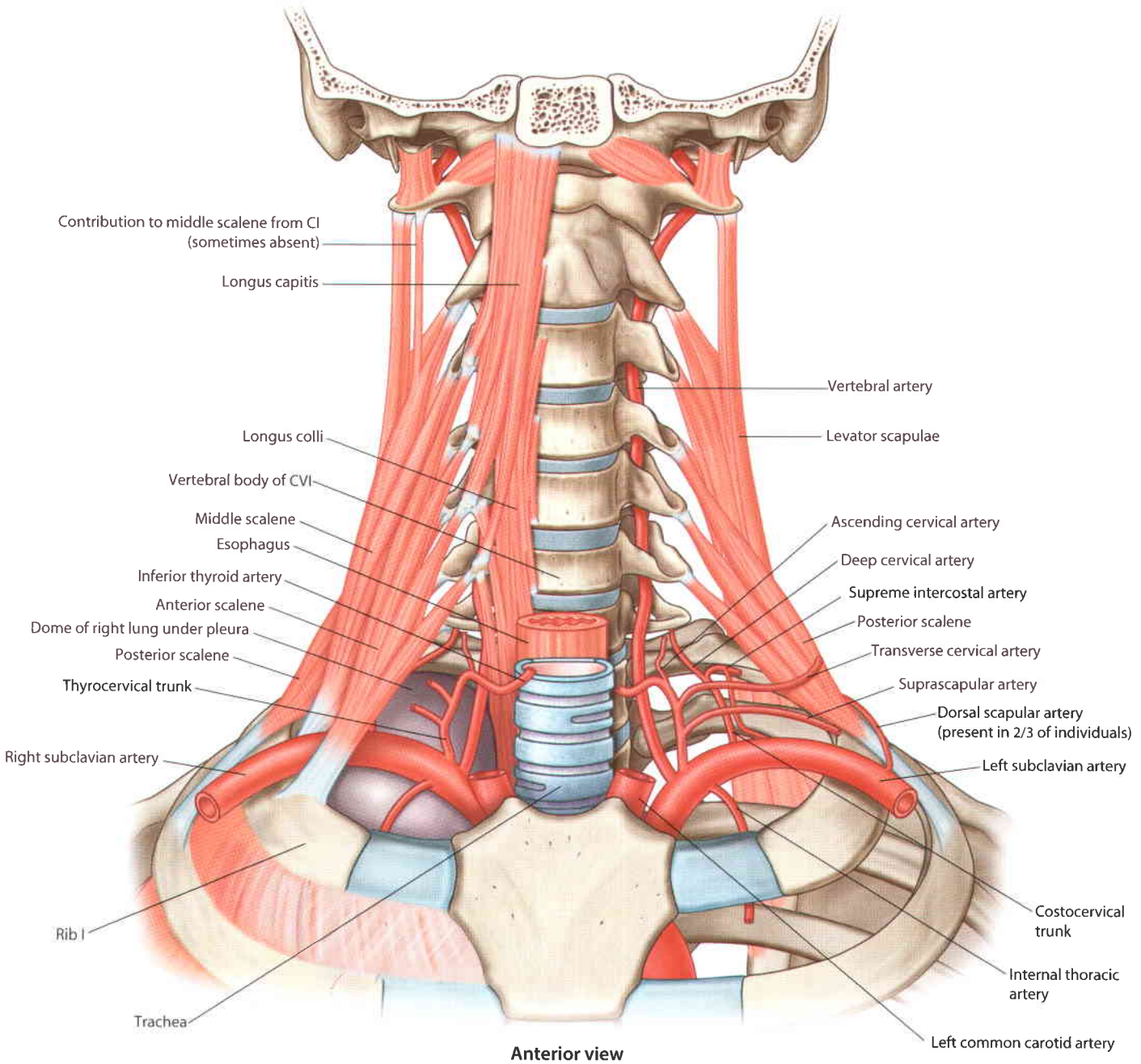


Branches of the cervical plexus (rib I removed)

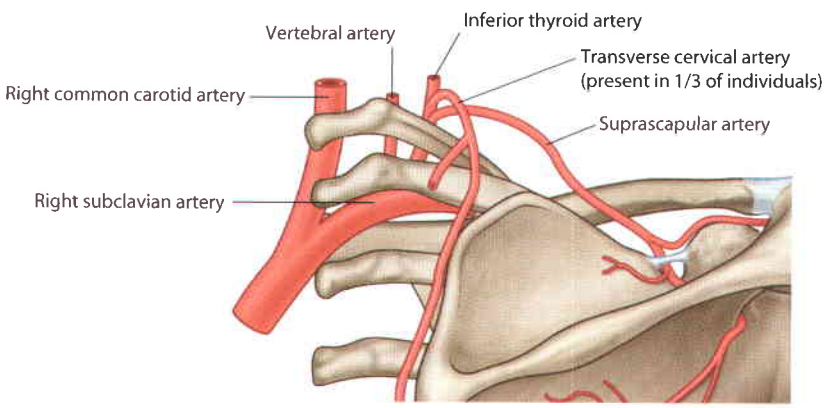


Arteries of the neck (lateral view)

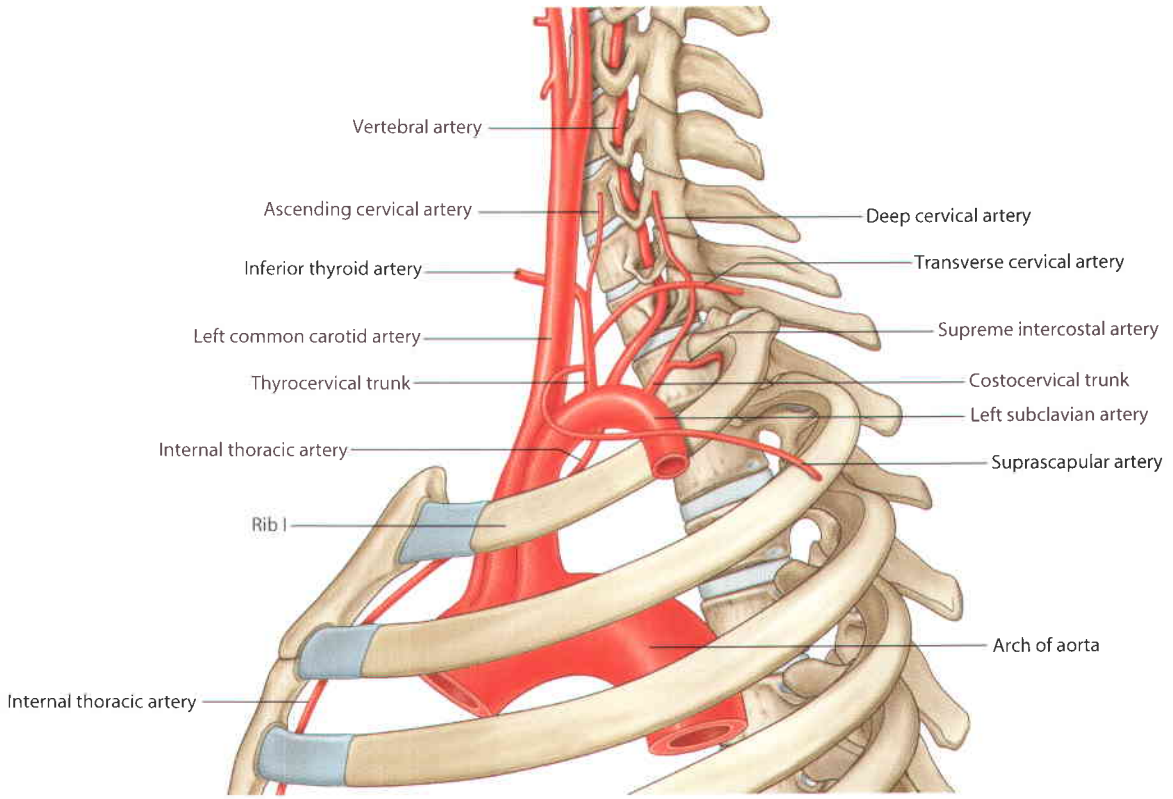
Lateral view of the branches of the external carotid artery.
Volume-rendered angiographic image with contrast using multidetector CT



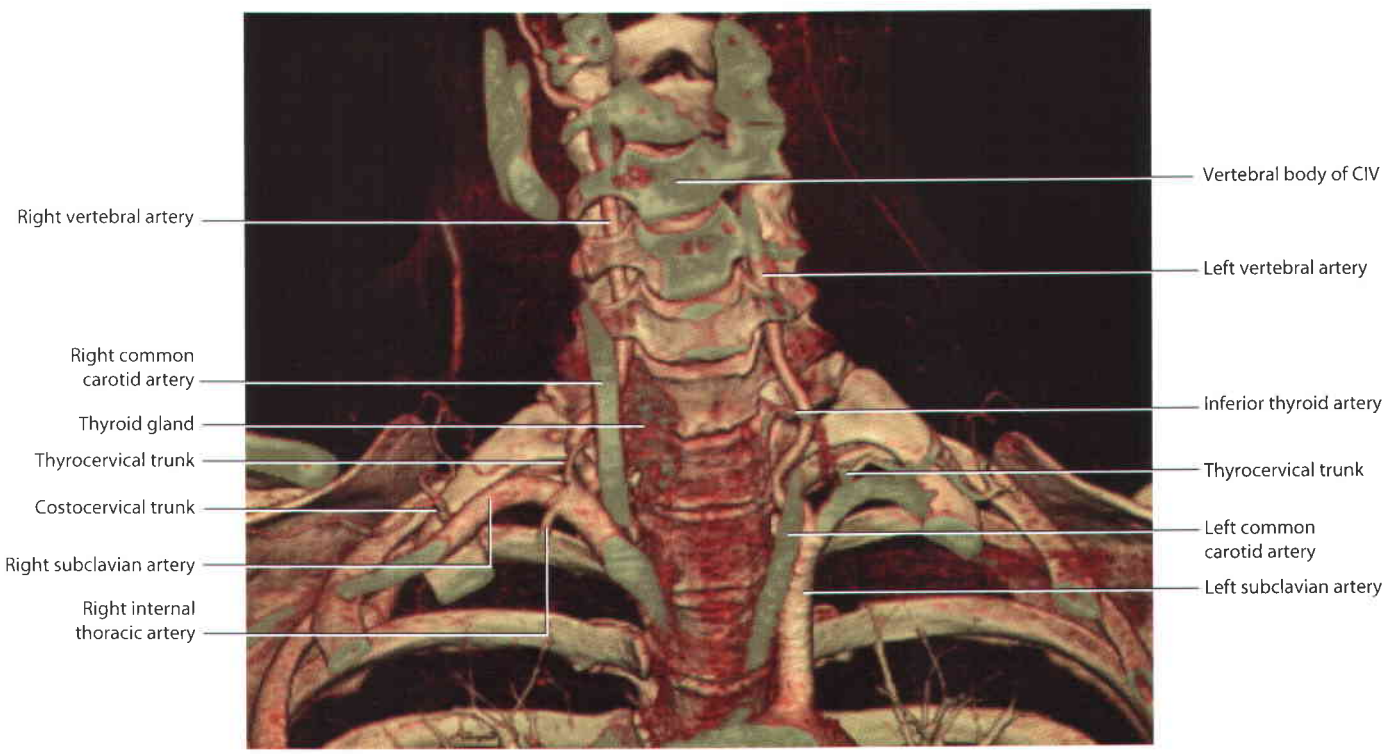
Anterior view



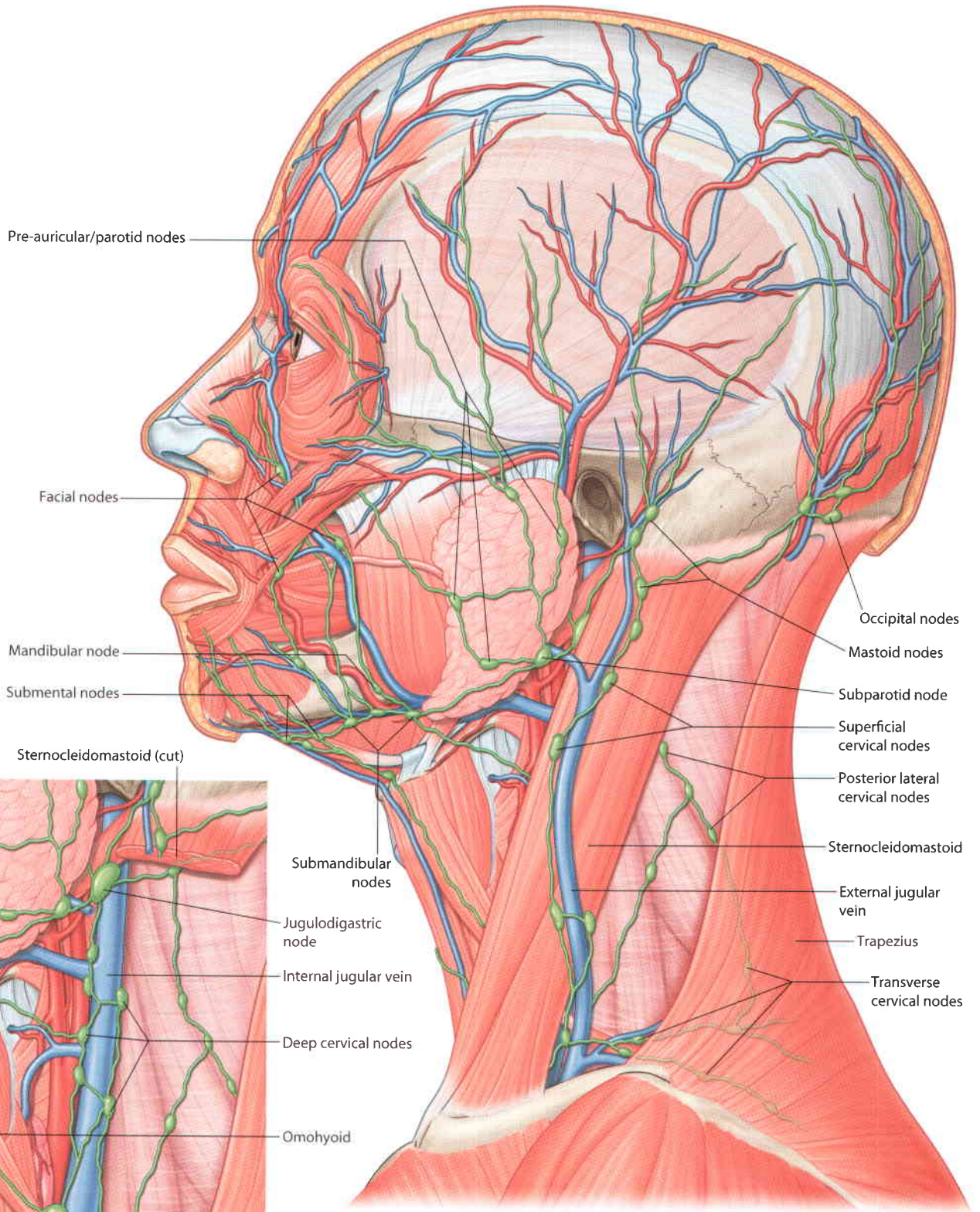
Posterior view



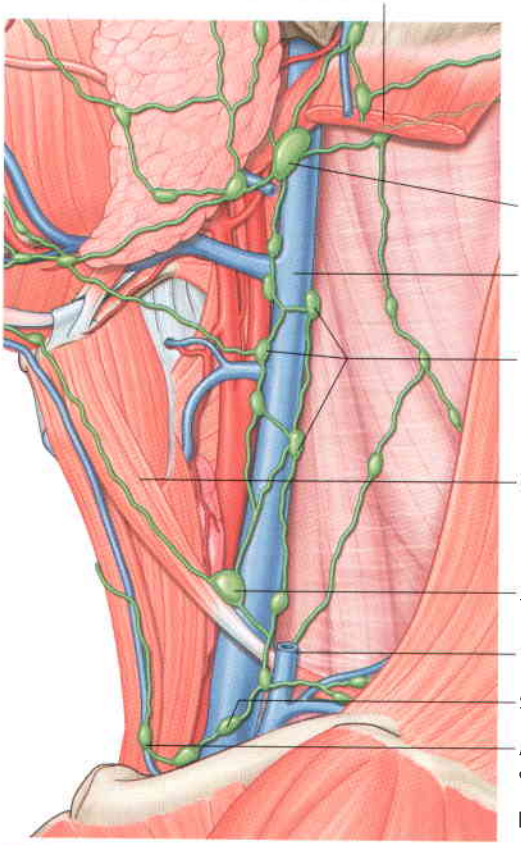
Lateral view



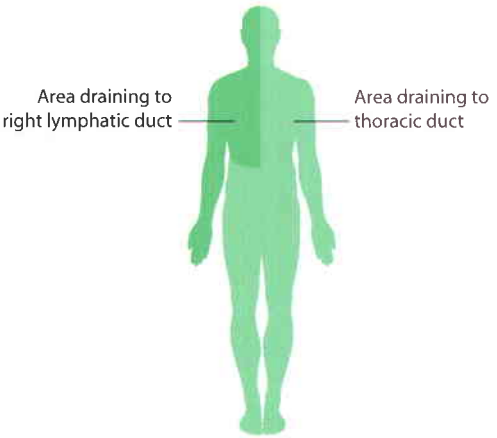
Anterior view of the root of the neck showing the branches of the subclavian arteries.
Volume-rendered angiographic image with contrast using multidetector CT



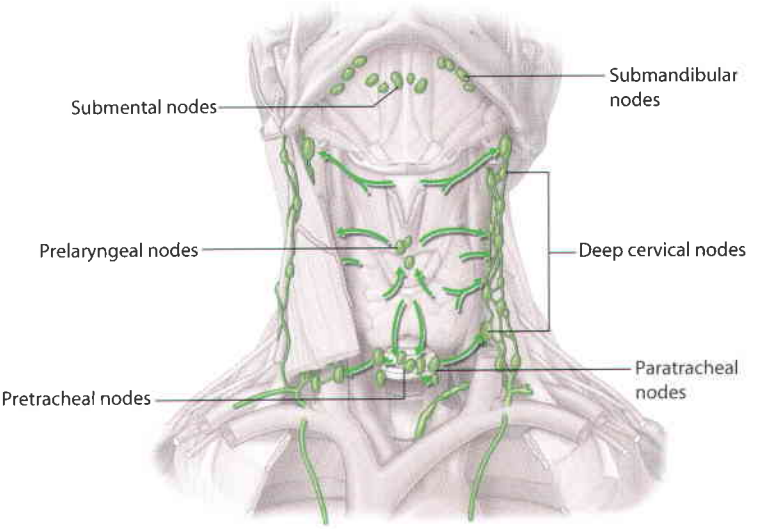
Lymphatic system in the neck



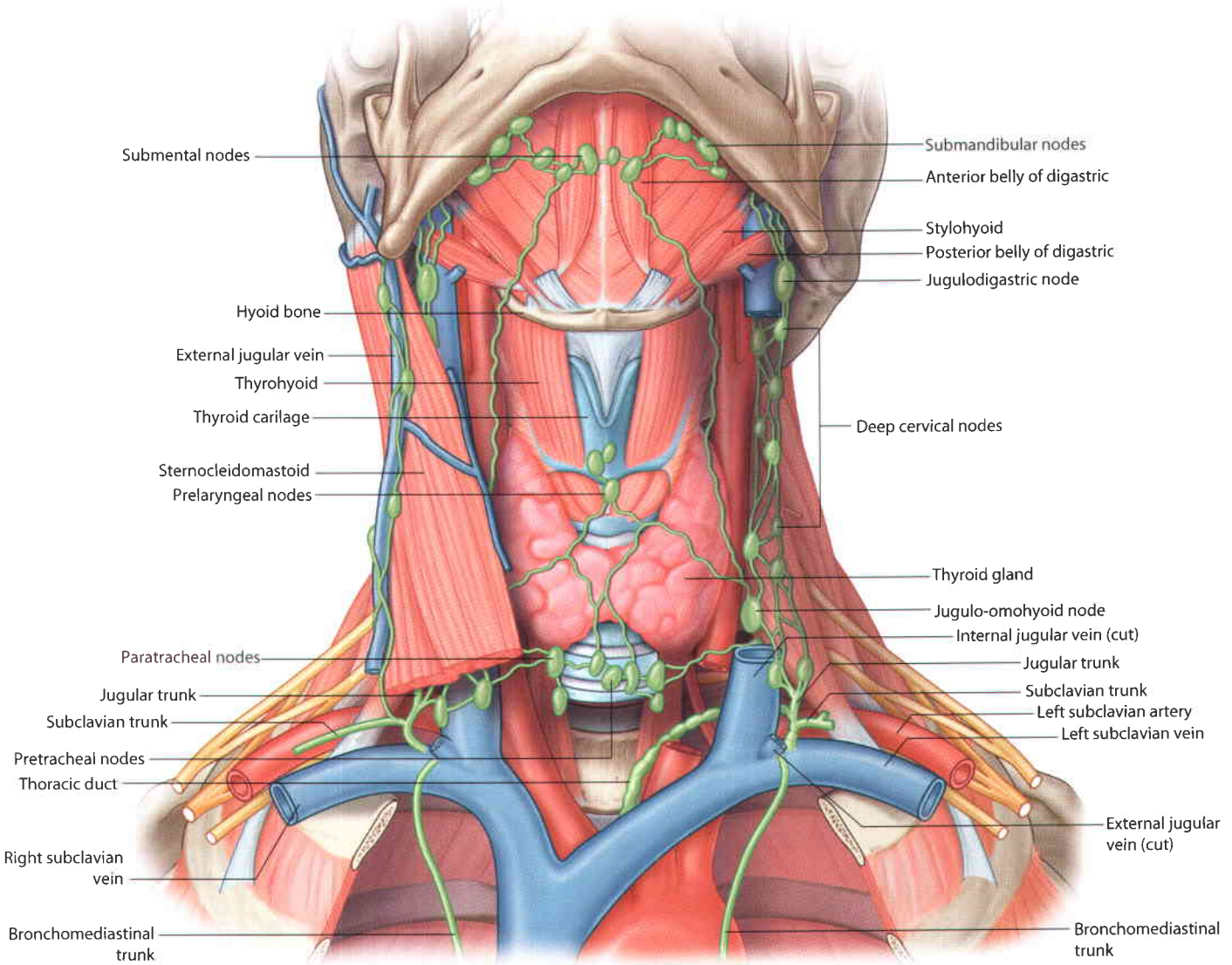
Deep cervical nodes



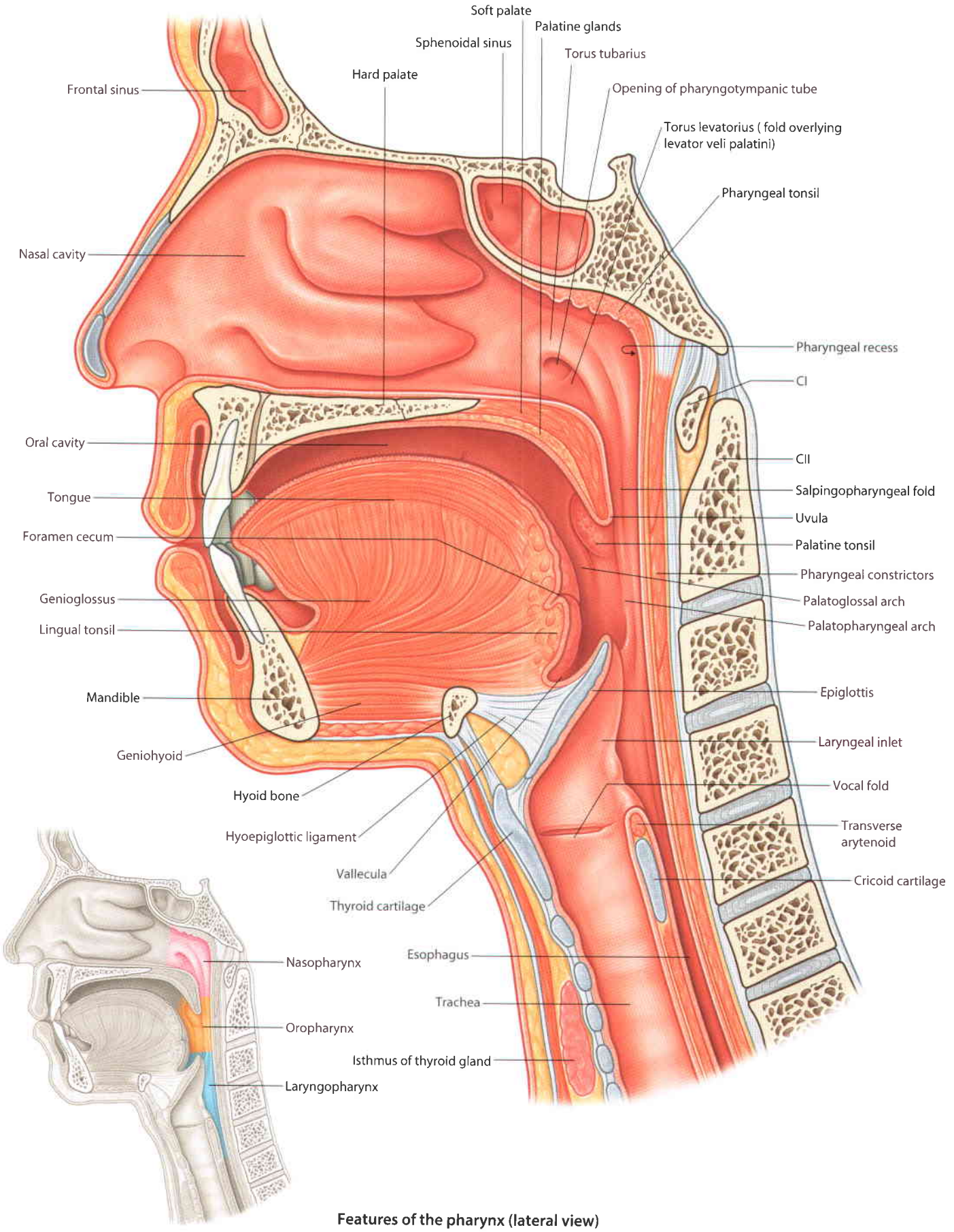
Areas of lymphatic drainage



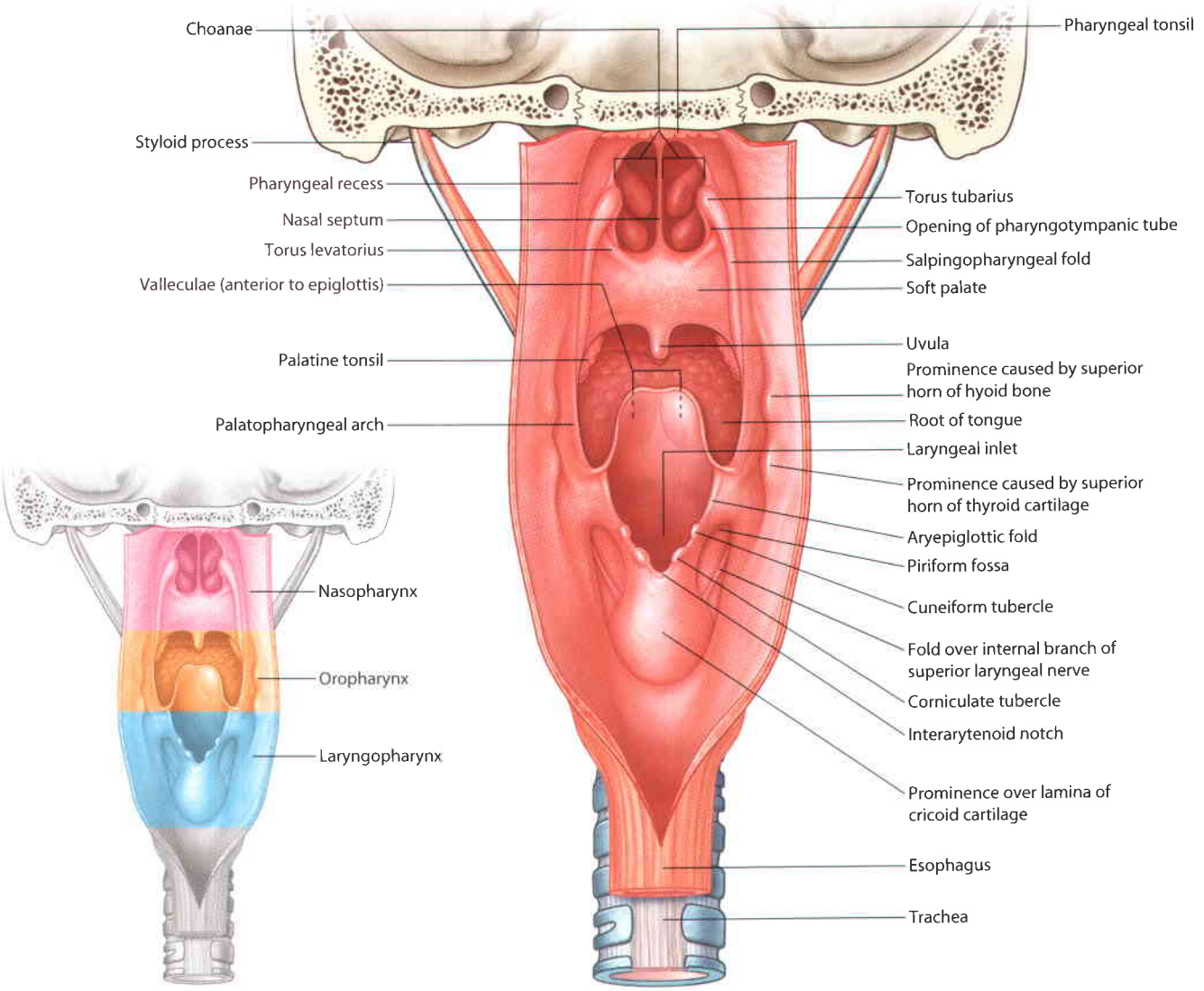
Lymphatic drainage of the thyroid gland, larynx, and trachea



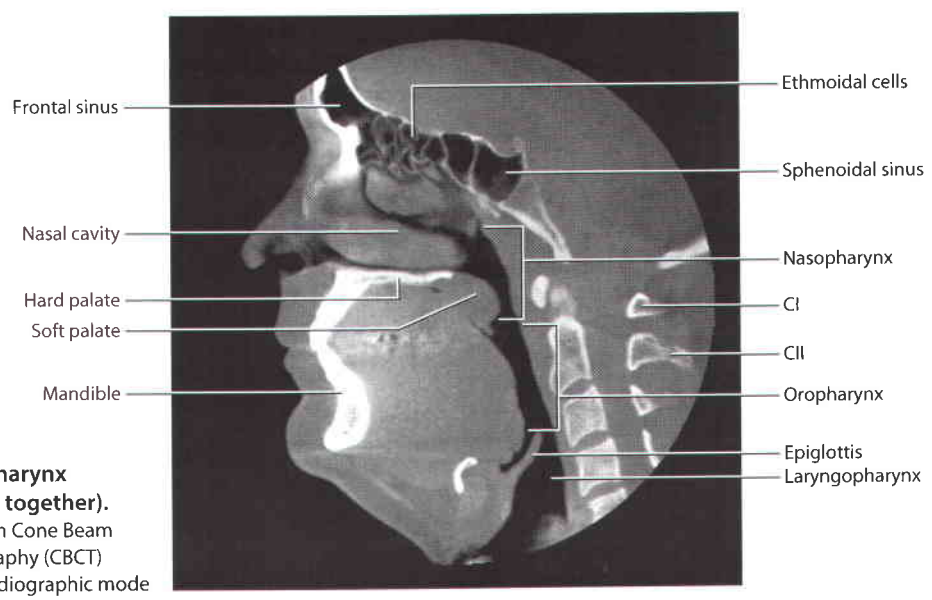
Lymphatic system in the neck



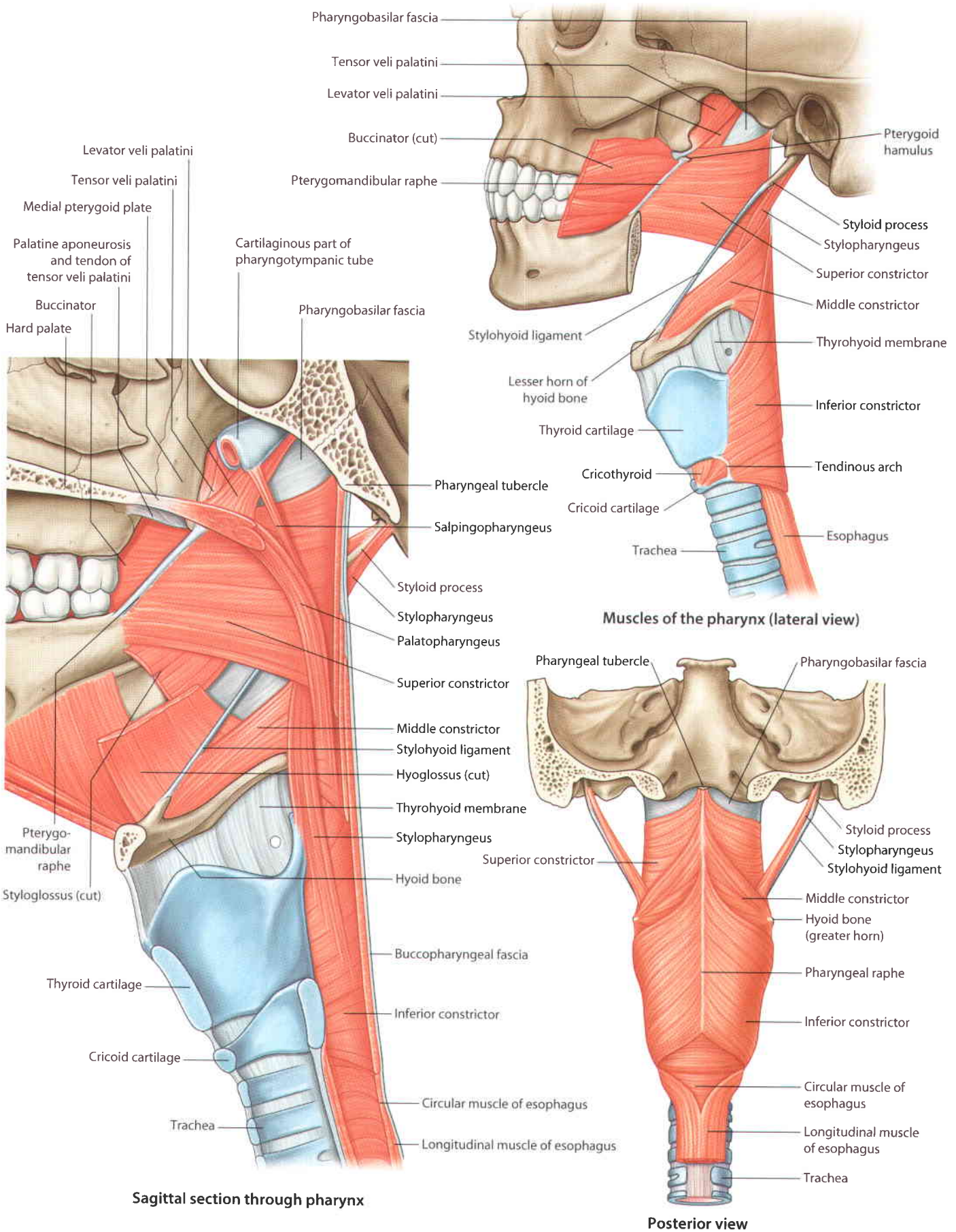
Features of the pharynx (lateral view)

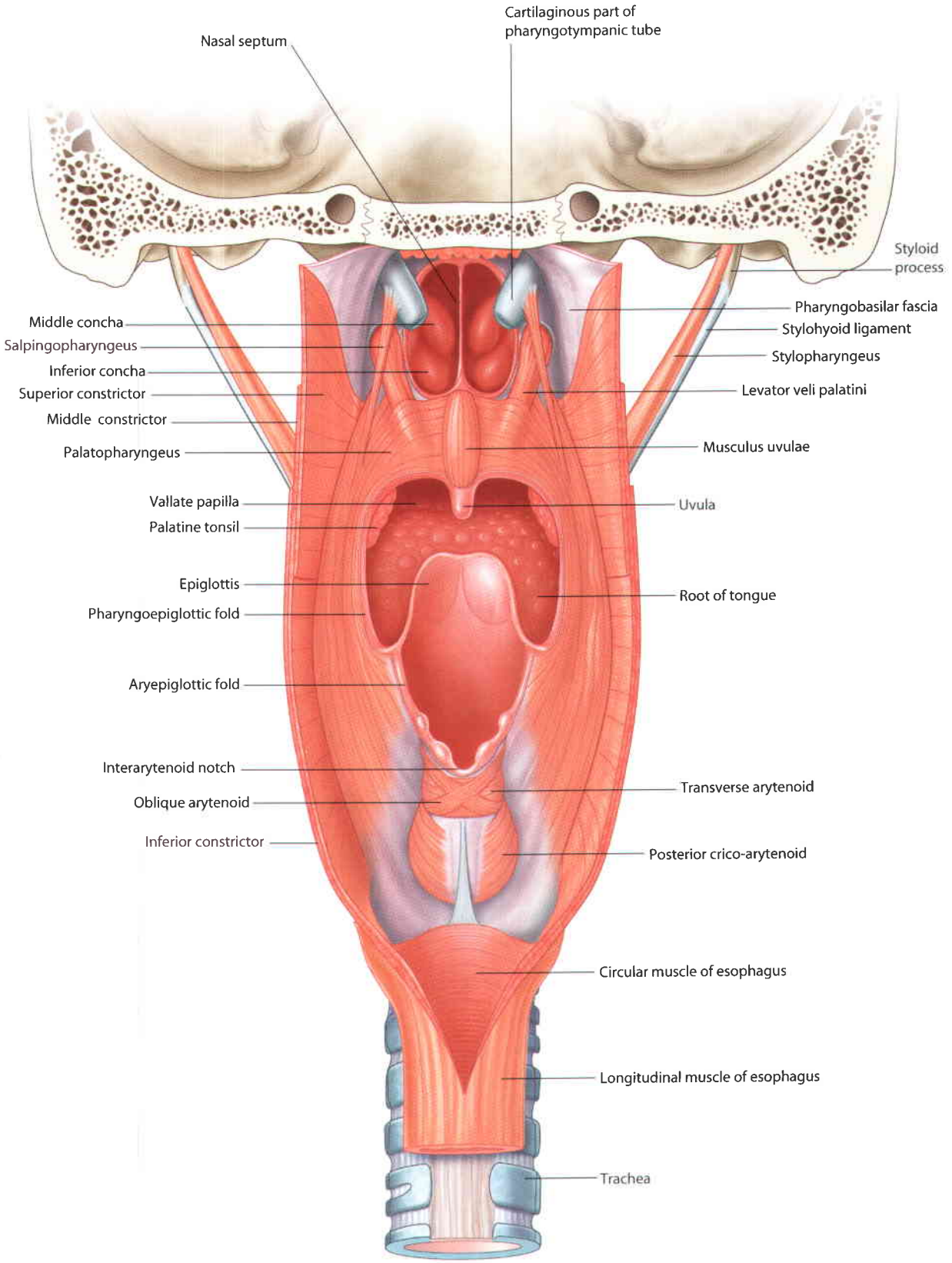


Features of the pharynx
(posterior view with the pharyngeal wall opened)

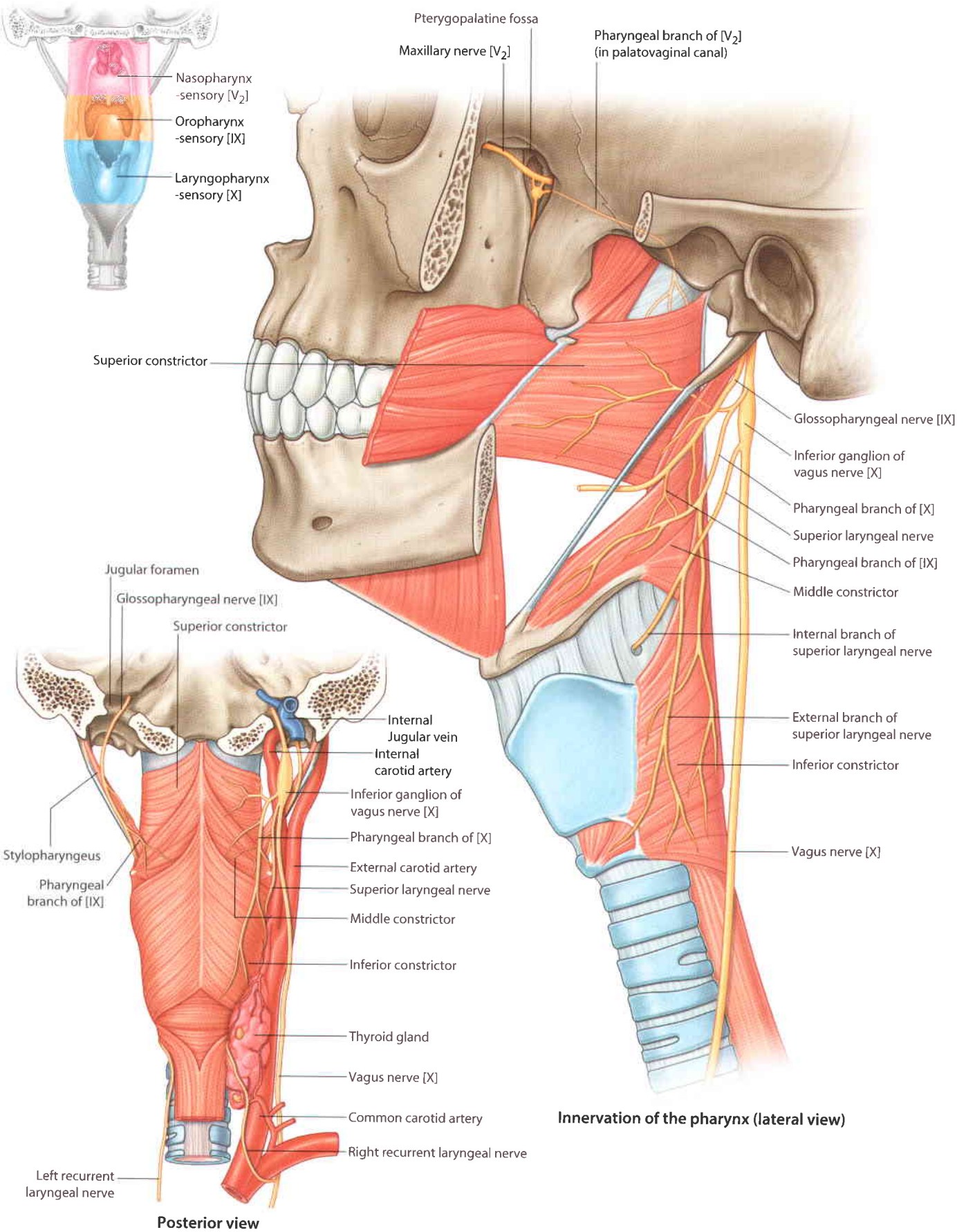


Regions of the pharynx
(mouth closed, teeth together).
Sagittal image taken with Cone Beam Computerized Tomography (CBCT) technology, viewed in the radiographic mode


Pharyngobasilar fascia
Tensor veli palatini
Levator veli palatini
Buccinator (cut)
Pterygomandibular raphe
Pterygoid hamulus
Styloid process
Stylopharyngeus
Superior constrictor
Middle constrictor
Thyrohyoid membrane
Stylohyoid ligament
Lesser horn of hyoid bone
Inferior constrictor
Thyroid cartilage
Tendinous arch
Cricothyroid
Cricoid cartilage
Esophagus
Trachea
Muscles of the pharynx (lateral view)
Levator veli palatini
Tensor veli palatini
Medial pterygoid plate
Palatine aponeurosis and tendon of tensor veli palatini
Buccinator
Hard palate
Cartilaginous part of pharyngotympanic tube
Pharyngobasilar fascia
Pharyngeal tubercle
Salpingopharyngeus
Styloid process
Stylopharyngeus
Palatopharyngeus
Superior constrictor
Middle constrictor
Stylohyoid ligament
Hyoglossus (cut)
Thyrohyoid membrane
Stylopharyngeus
Pterygo-mandibular raphe
Hyoid bone
Styloglossus (cut)
Buccopharyngeal fascia
Thyroid cartilage
Inferior constrictor
Cricoid cartilage
Circular muscle of esophagus
Trachea
Longitudinal muscle of esophagus
Sagittal section through pharynx
Pharyngeal tubercle
Pharyngobasilar fascia
Styloid process
Stylopharyngeus
Stylohyoid ligament
Superior constrictor
Middle constrictor
Hyoid bone (greater horn)
Pharyngeal raphe
Inferior constrictor
Circular muscle of esophagus
Longitudinal muscle of esophagus
Trachea
Posterior view

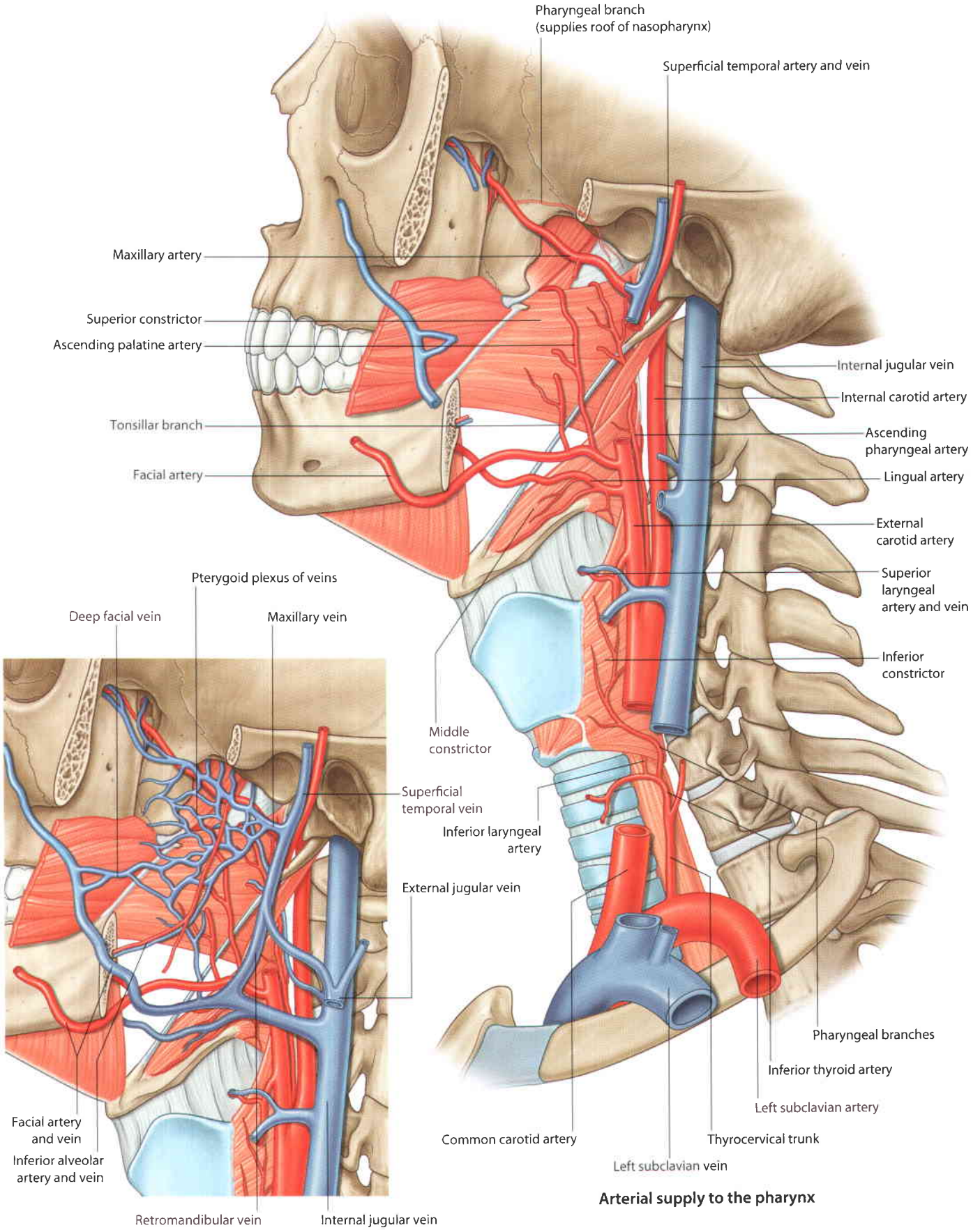


Muscles of the posterior wall of the pharynx



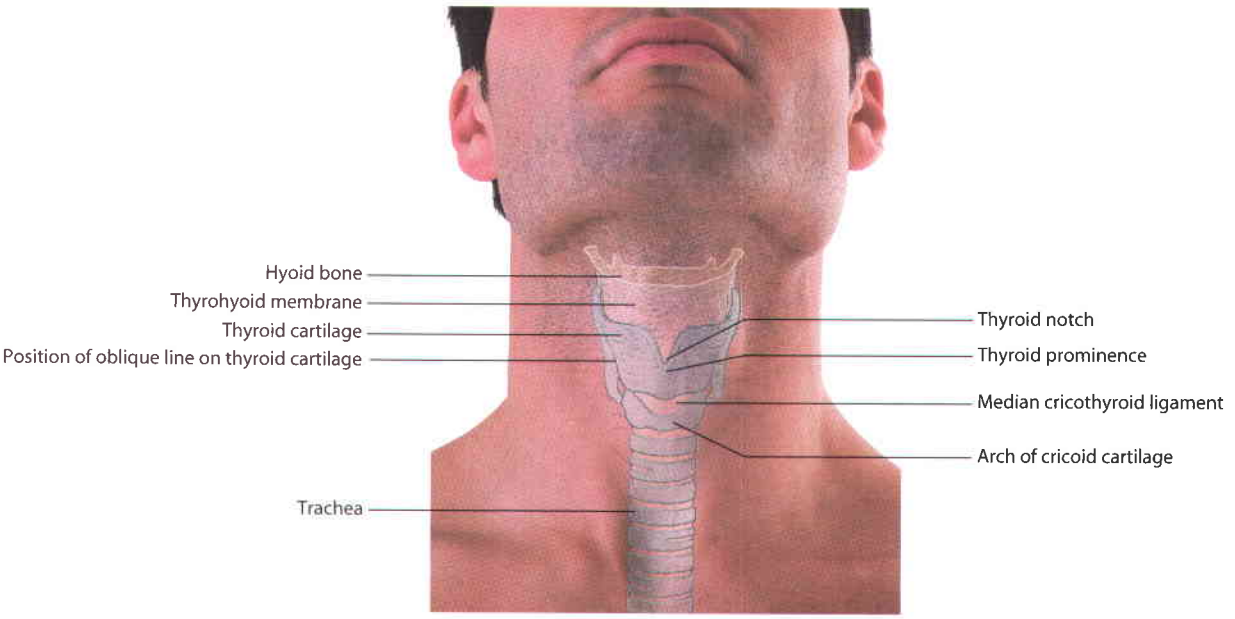
Innervation of the pharynx (lateral view)

Posterior view

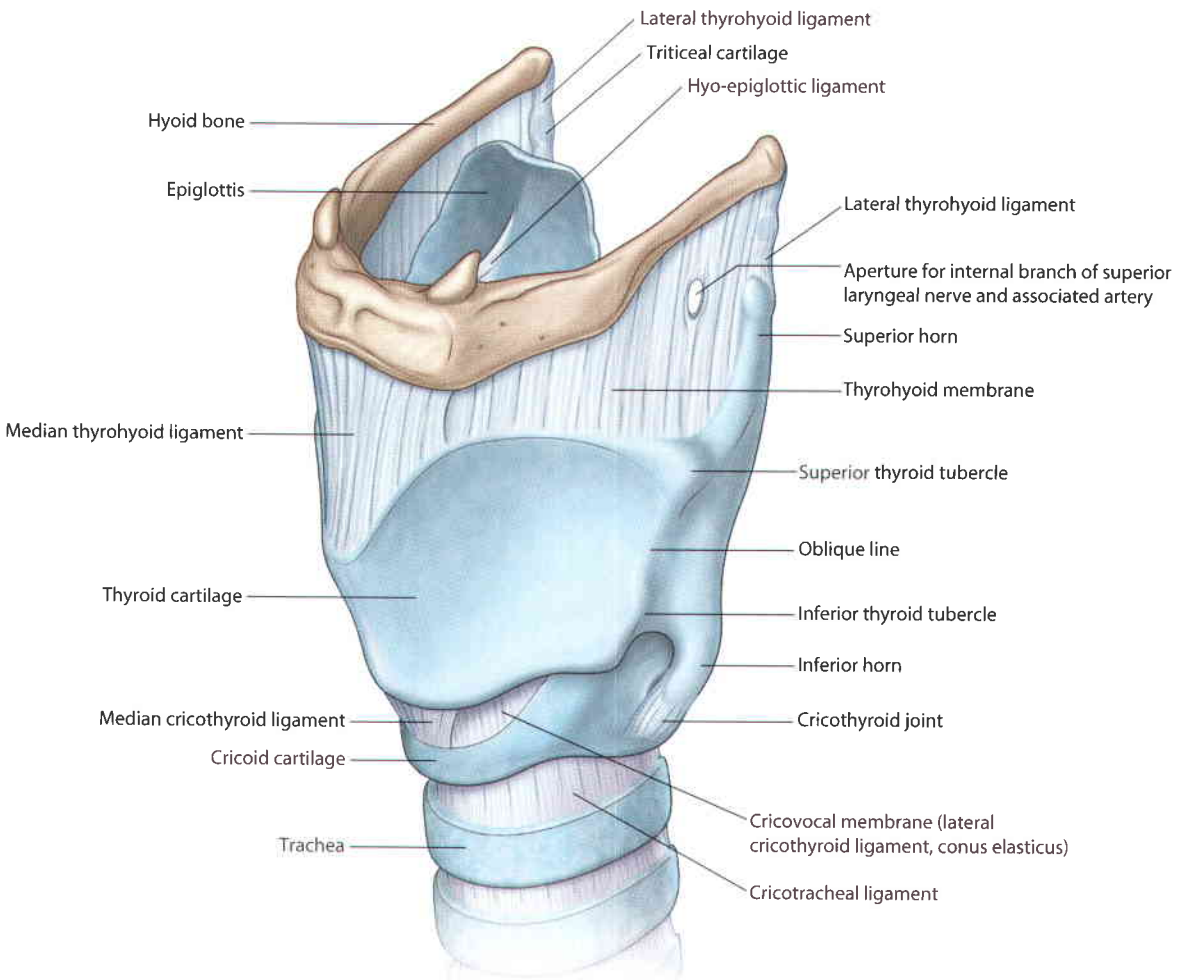


Arterial supply to the pharynx

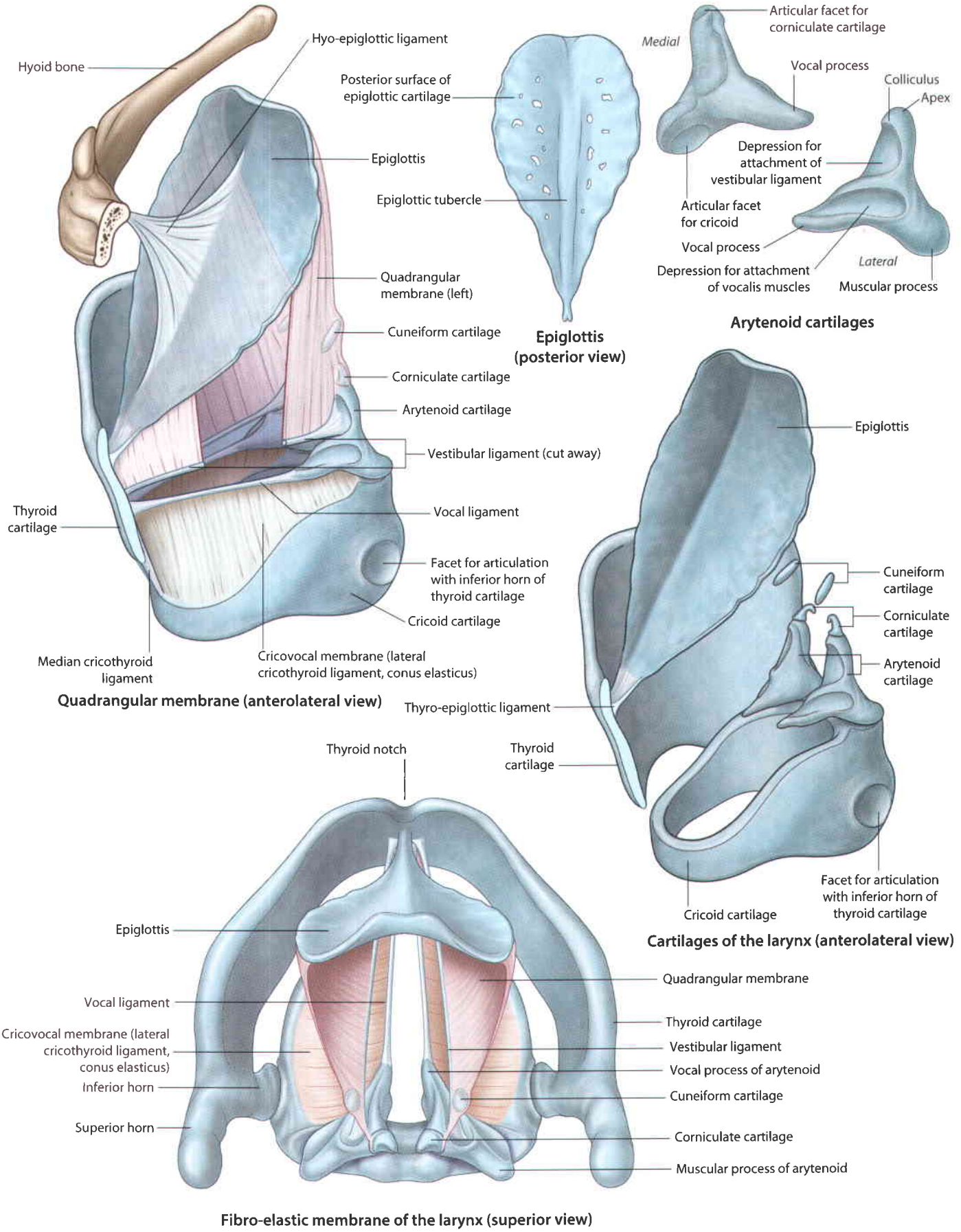
Venous drainage of the pharynx

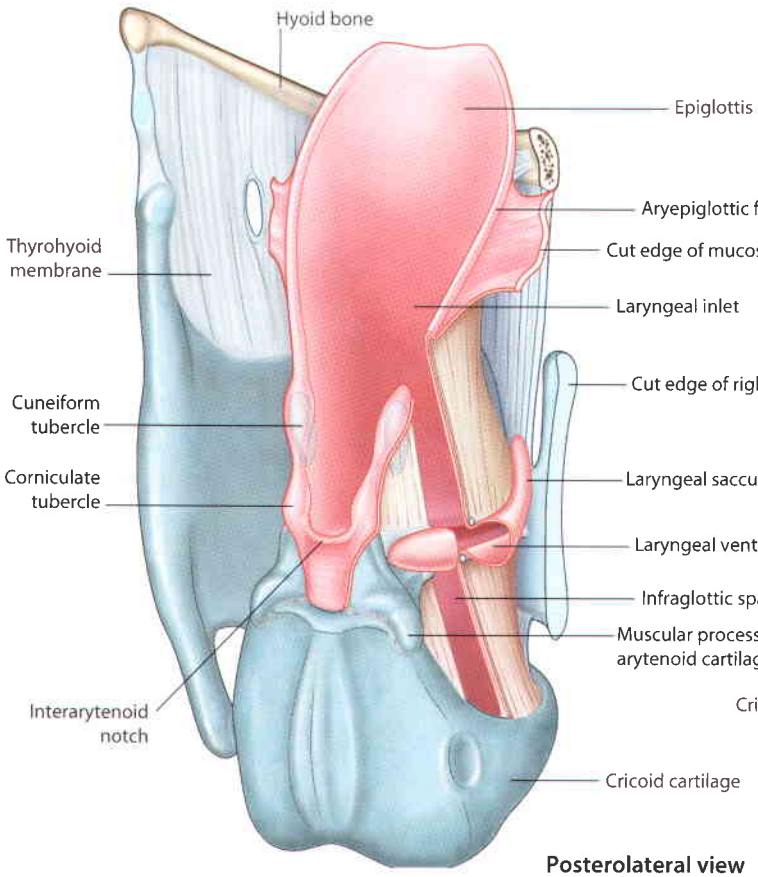


Position of larynx in the neck as it relates to the surface

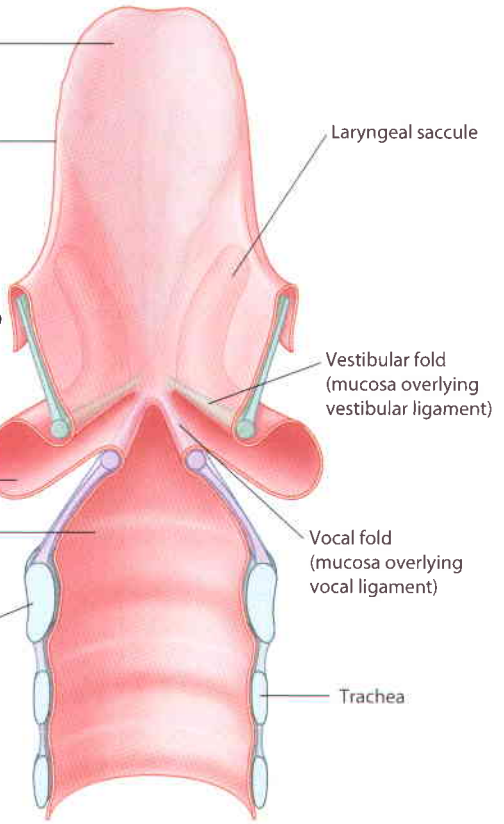


External features of the larynx (anterolateral view)

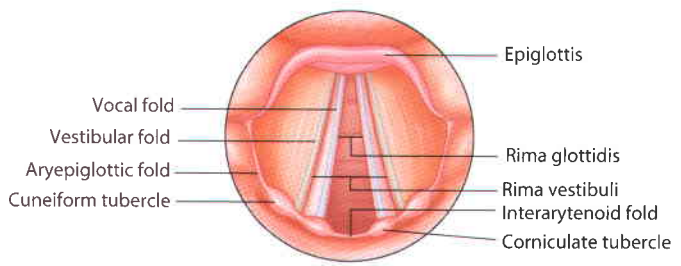

Hyoid bone
Hyo-epiglottic ligament
Epiglottis
Quadrangular membrane (left)
Cuneiform cartilage
Corniculate cartilage
Arytenoid cartilage
Vestibular ligament (cut away)
Vocal ligament
Thyroid cartilage
Facet for articulation with inferior horn of thyroid cartilage
Cricoid cartilage
Median cricothyroid ligament
Cricovocal membrane (lateral cricothyroid ligament, conus elasticus)
Quadrangular membrane (anterolateral view)
Posterior surface of epiglottic cartilage
Epiglottic tubercle
Epiglottis (posterior view)
Medial
Articular facet for corniculate cartilage
Vocal process
Colliculus
Apex
Depression for attachment of vestibular ligament
Articular facet for cricoid
Vocal process
Depression for attachment of vocalis muscles
Lateral
Muscular process
Arytenoid cartilages
Epiglottis
Cuneiform cartilage
Corniculate cartilage
Arytenoid cartilage
Thyro-epiglottic ligament
Thyroid cartilage
Cricoid cartilage
Facet for articulation with inferior horn of thyroid cartilage
Cartilages of the larynx (anterolateral view)
Thyroid notch
Epiglottis
Vocal ligament
Cricovocal membrane (lateral cricothyroid ligament, conus elasticus)
Inferior horn
Superior horn
Quadrangular membrane
Thyroid cartilage
Vestibular ligament
Vocal process of arytenoid
Cuneiform cartilage
Corniculate cartilage
Muscular process of arytenoid
Fibro-elastic membrane of the larynx (superior view)

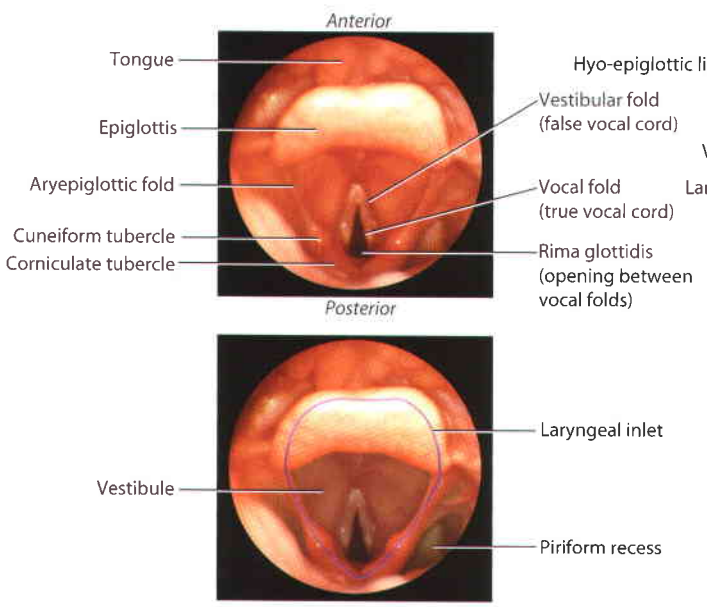


Posterolateral view

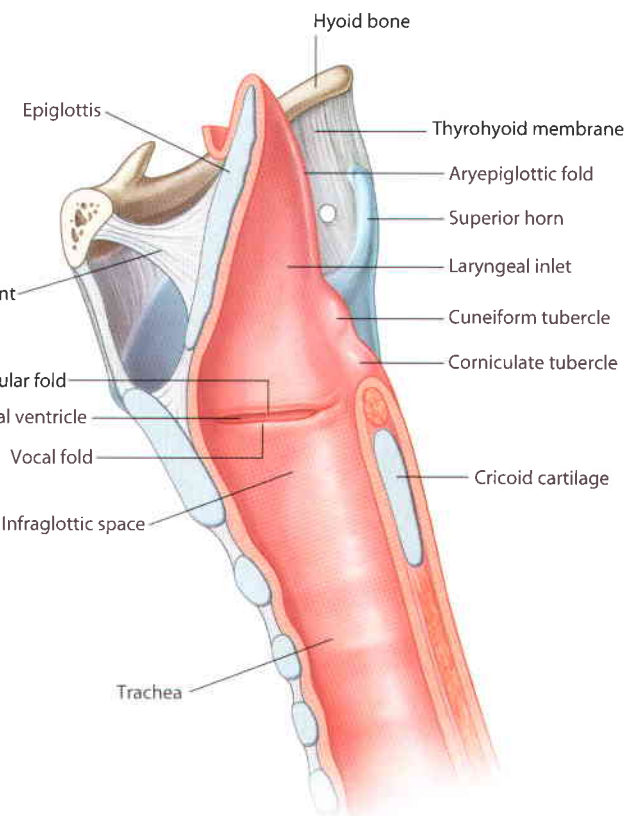


Posterior view (cutaway)

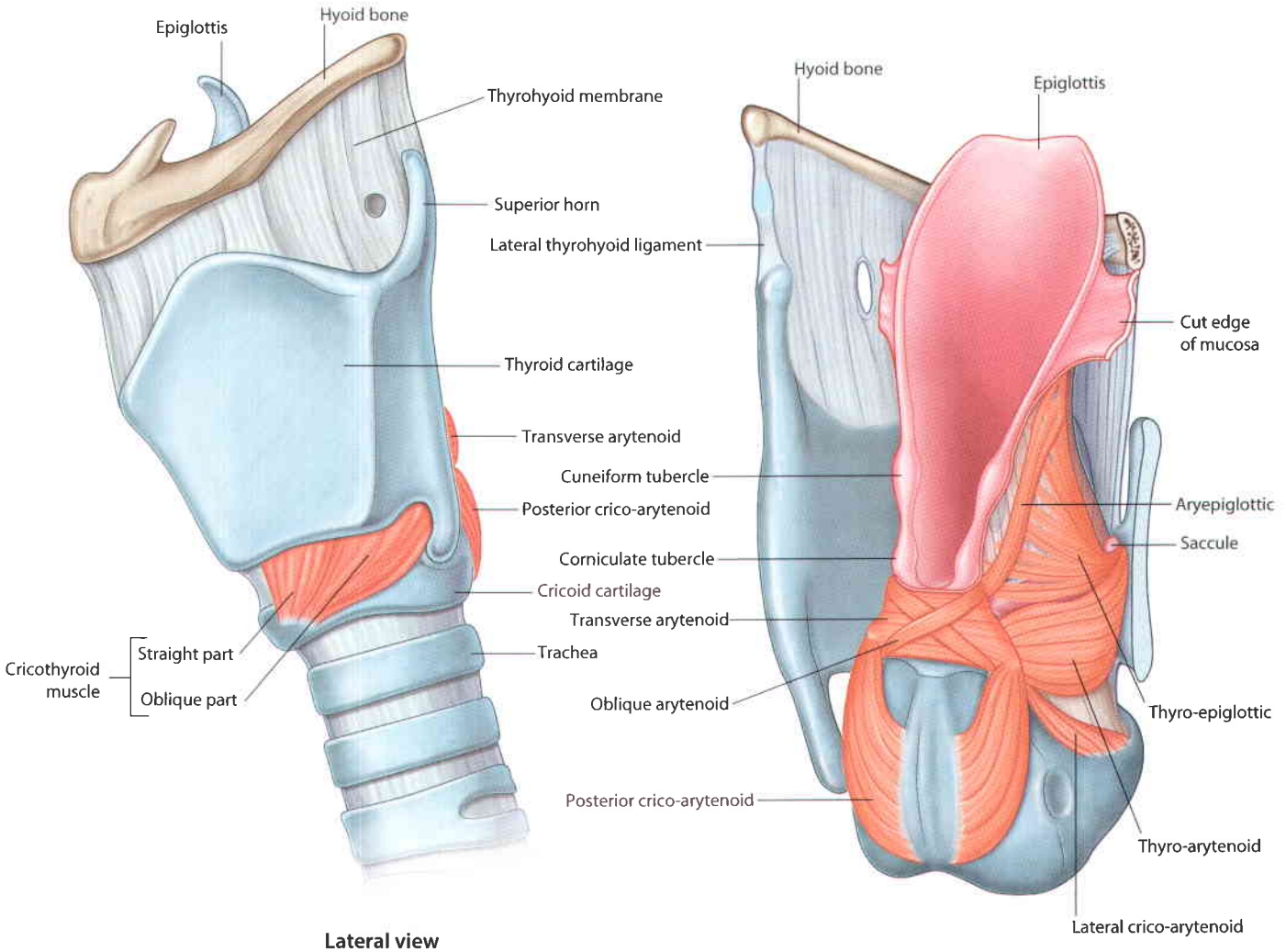




Superior view through the laryngeal inlet

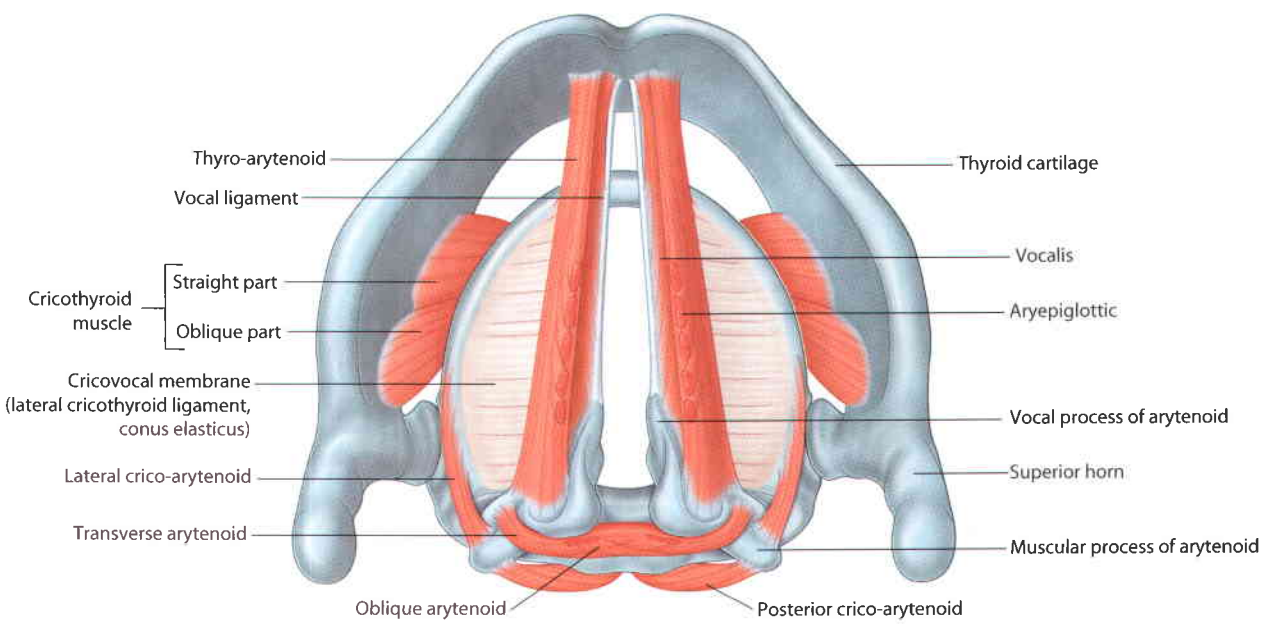


Sagittal section through laryngeal cavity

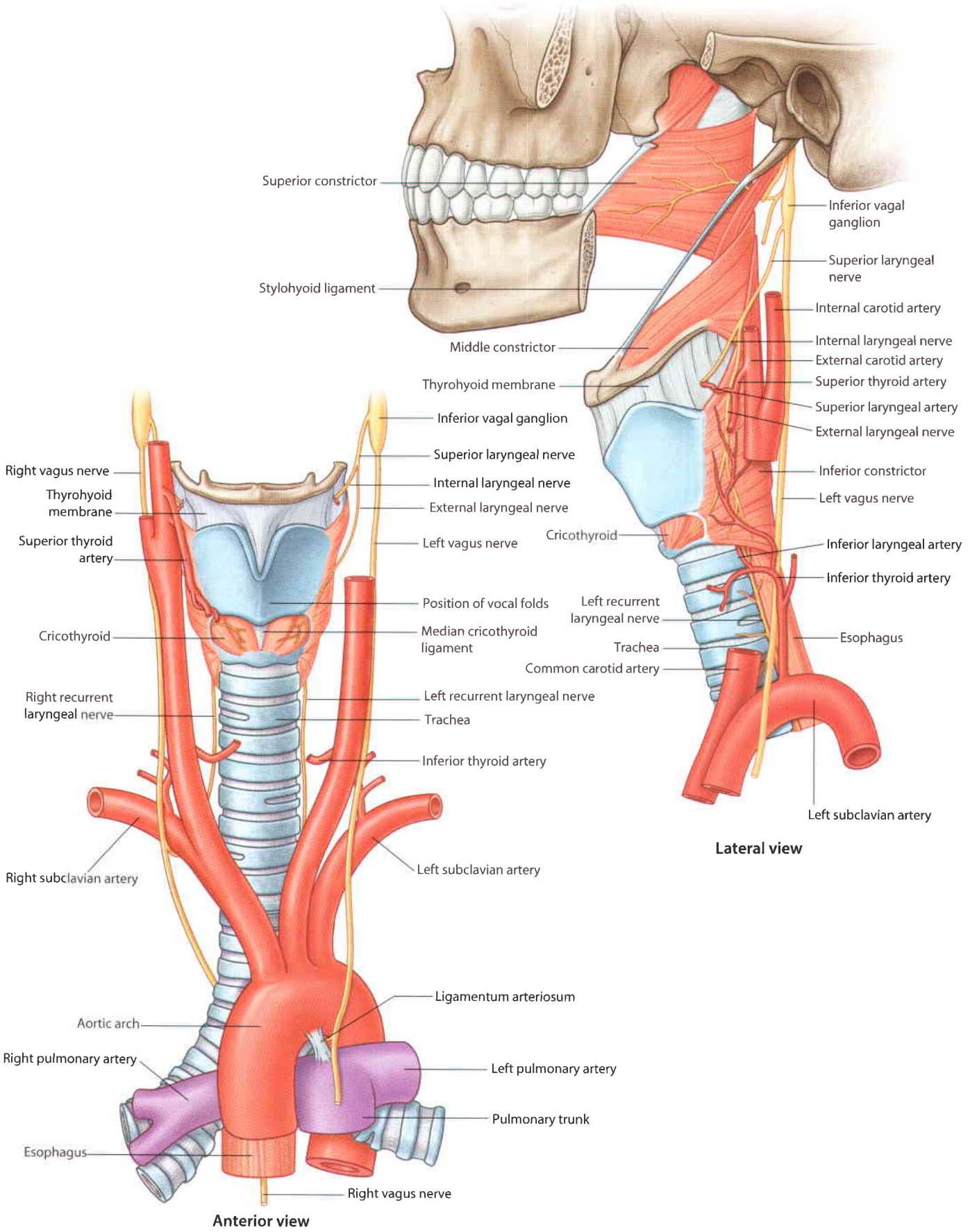


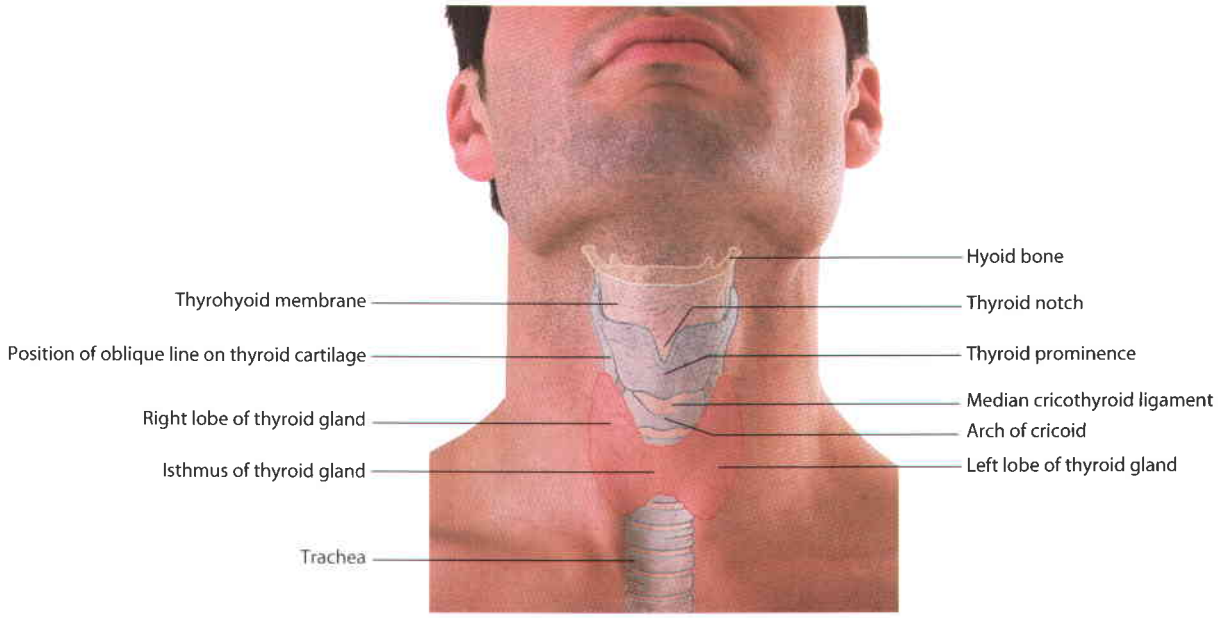
Lateral view

Posterolateral view

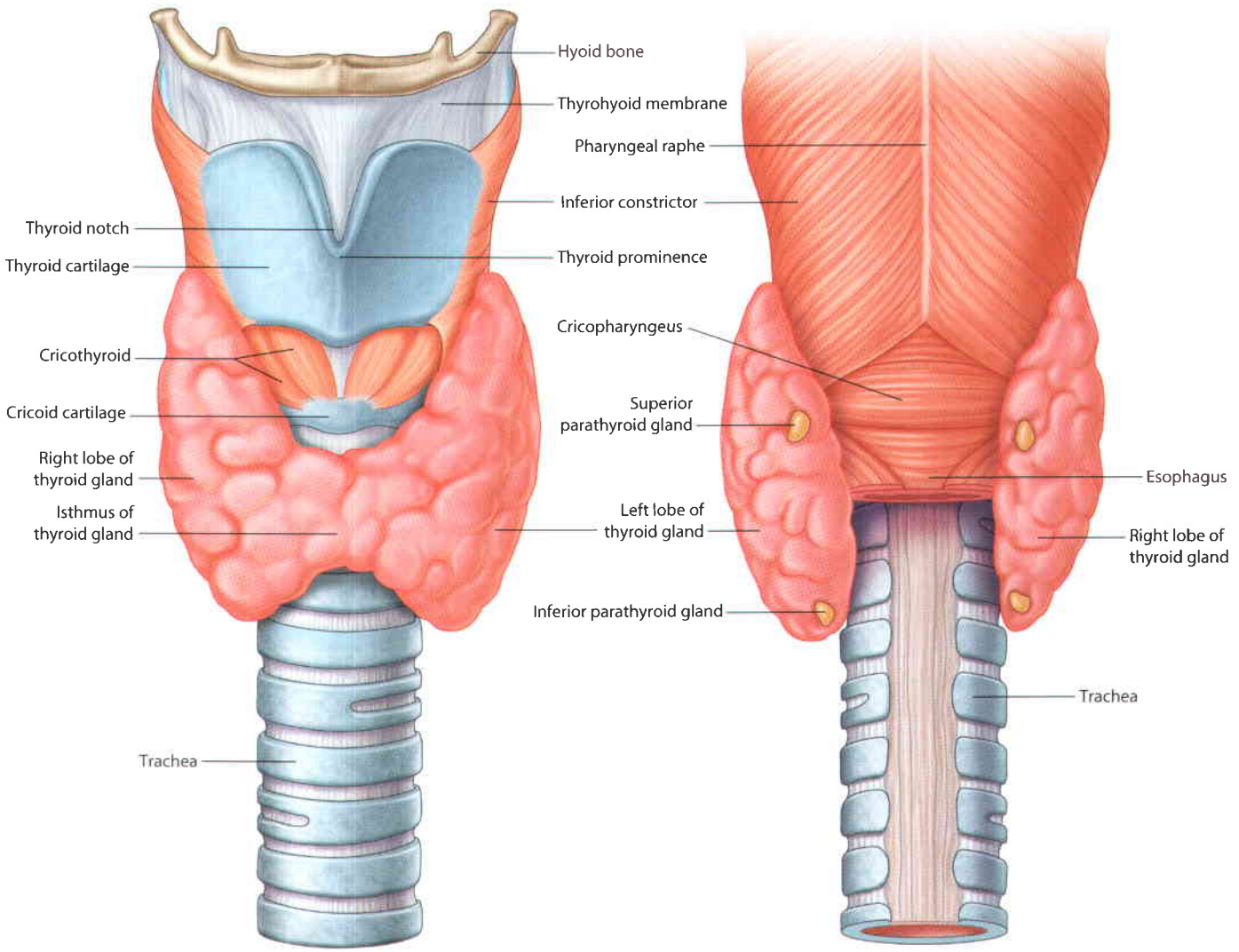


Superior view

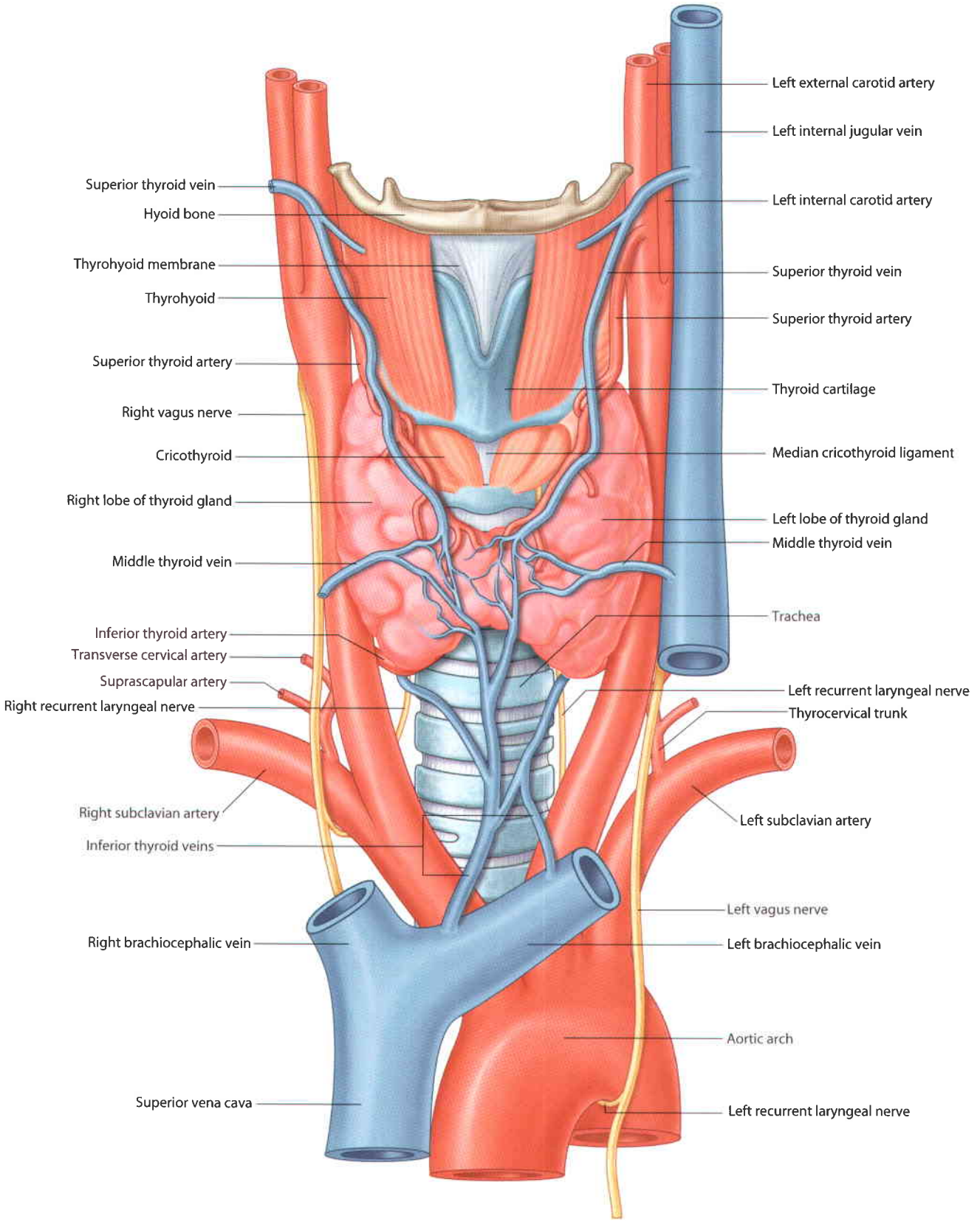

Superior constrictor
Stylohyoid ligament
Middle constrictor
Thyrohyoid membrane
Inferior vagal ganglion
Superior laryngeal nerve
Internal laryngeal nerve
External laryngeal nerve
Left vagus nerve
Cricothyroid
Inferior laryngeal artery
Inferior thyroid artery
Left recurrent laryngeal nerve
Esophagus
Trachea
Common carotid artery
Left subclavian artery
Internal carotid artery
External carotid artery
Superior thyroid artery
Superior laryngeal artery
Inferior constrictor
Lateral view
Right vagus nerve
Thyrohyoid membrane
Superior thyroid artery
Position of vocal folds
Median cricothyroid ligament
Right recurrent laryngeal nerve
Right subclavian artery
Ligamentum arteriosum
Aortic arch
Right pulmonary artery
Left pulmonary artery
Pulmonary trunk
Esophagus
Right vagus nerve
Anterior view



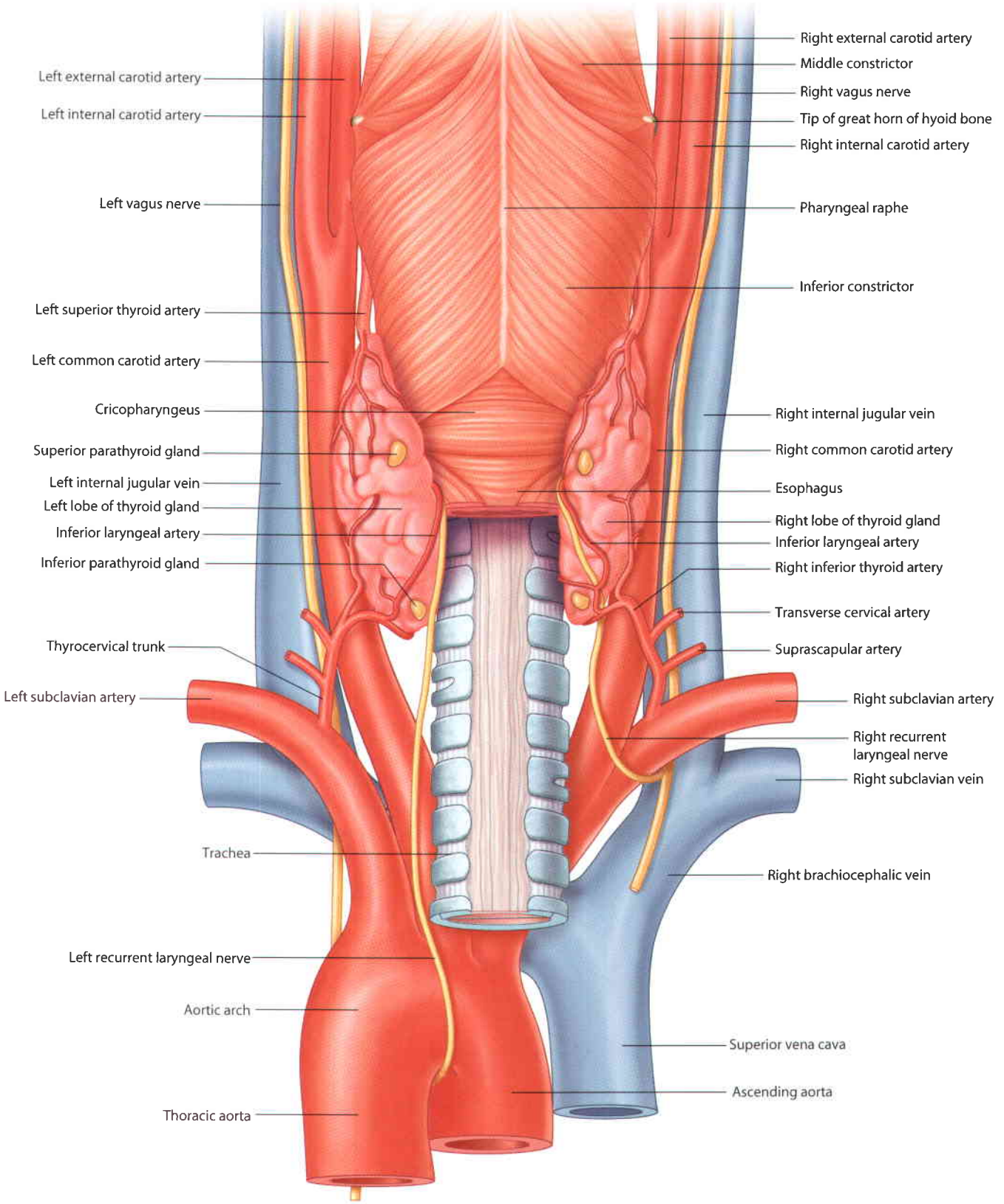
Thyroid gland as it relates to surface



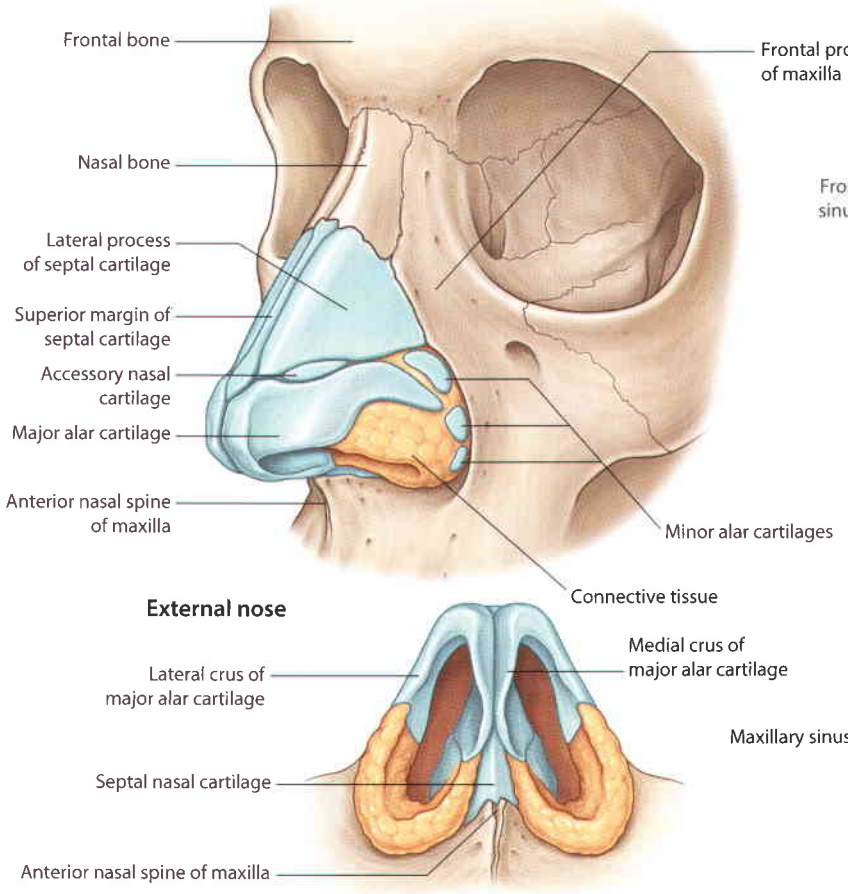
Anterior view **Posterior view**



Anterior view

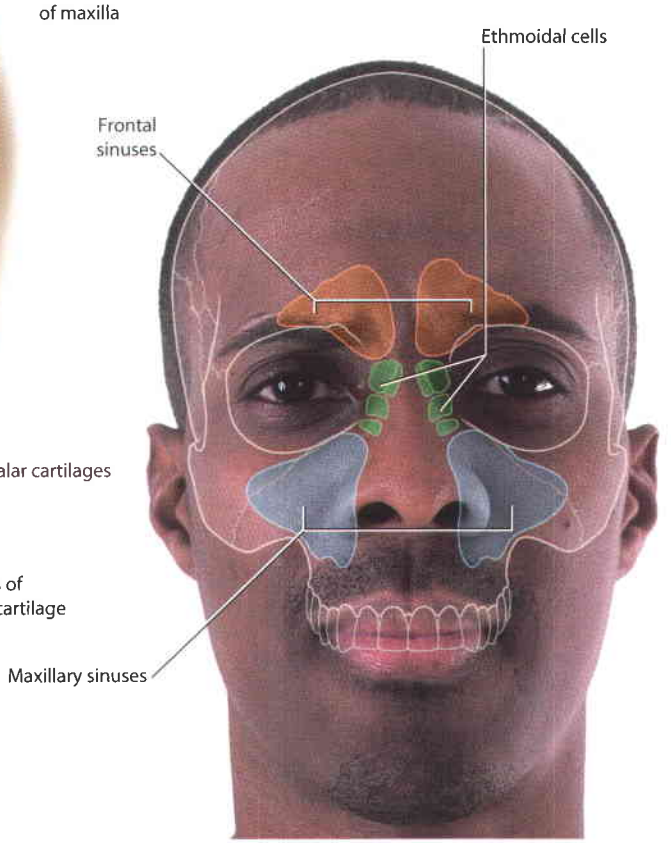


Posterior view

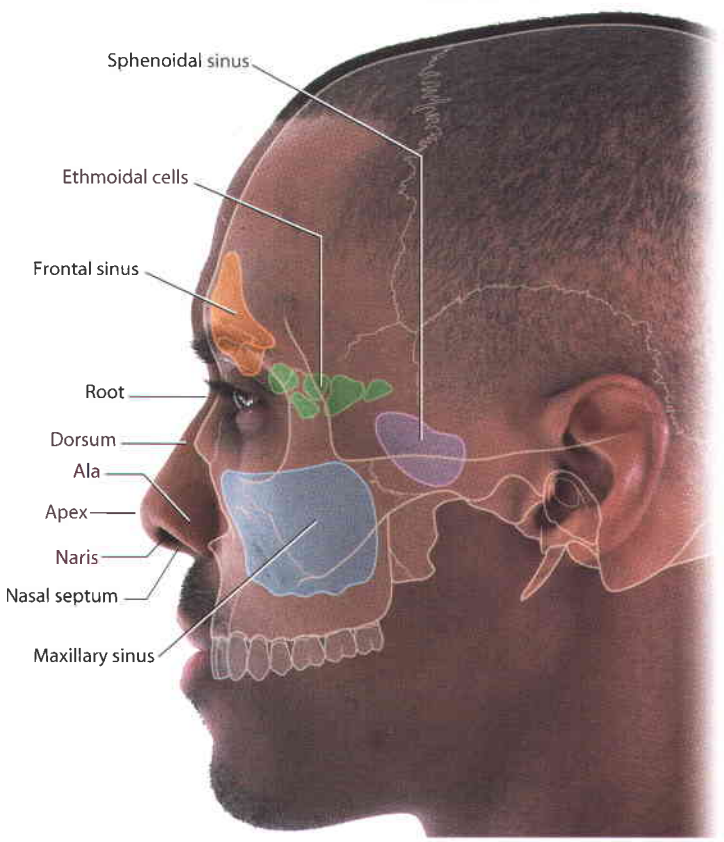


External nose

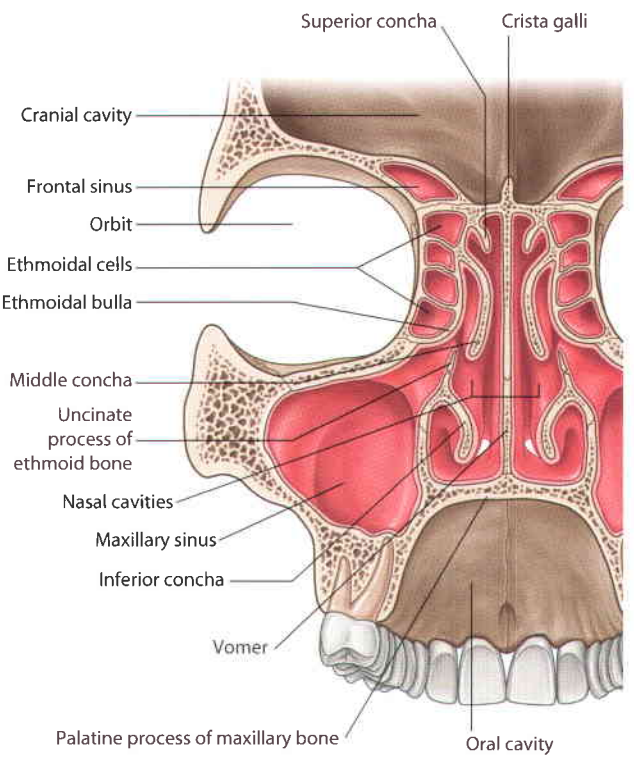
Inferior view



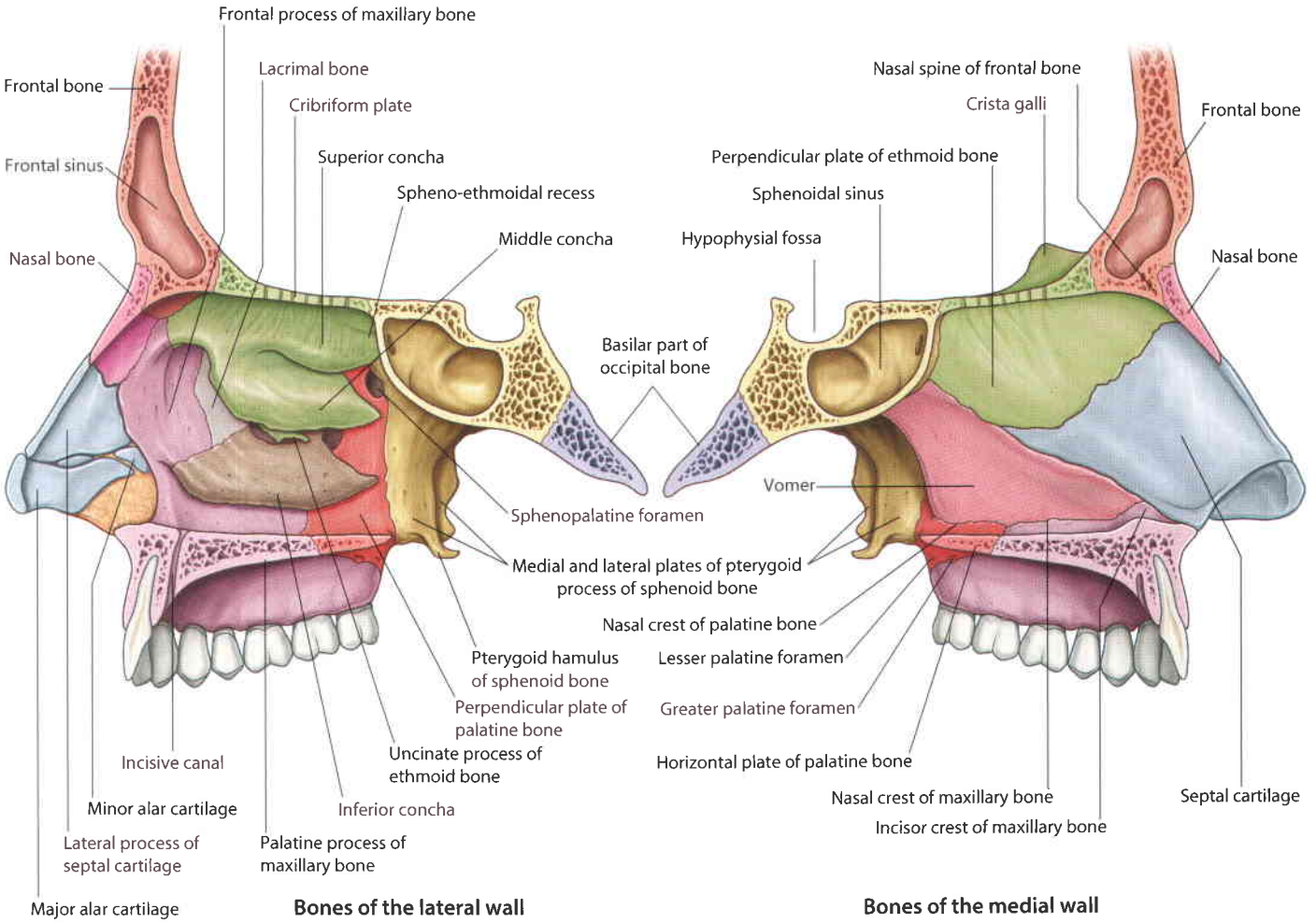
Paranasal sinuses (anterior view)



Surface anatomy of nose and paranasal sinuses (lateral view)

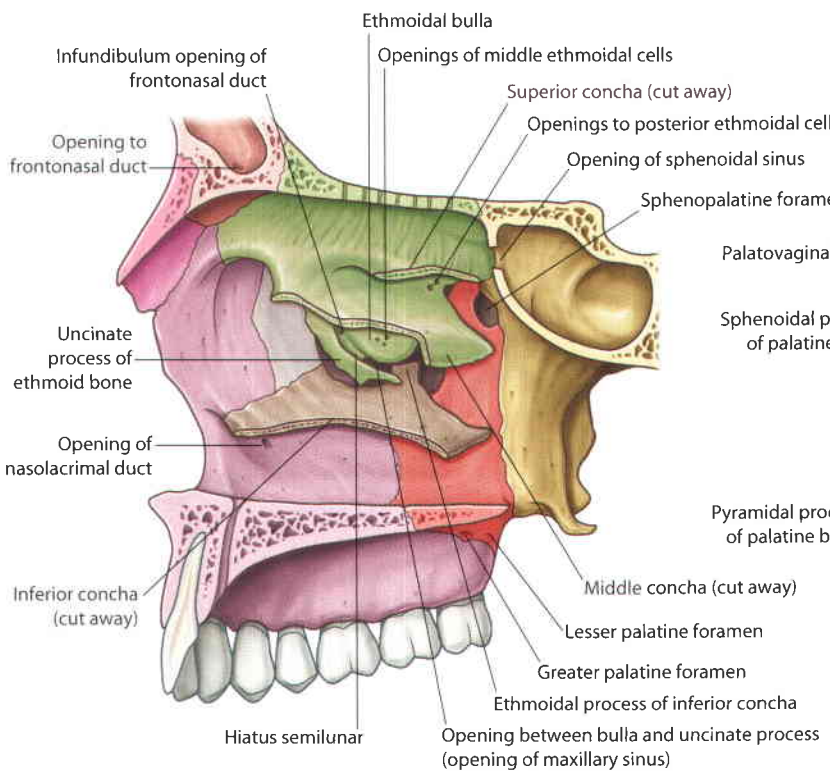


Coronal section through nasal cavity (posterior view)

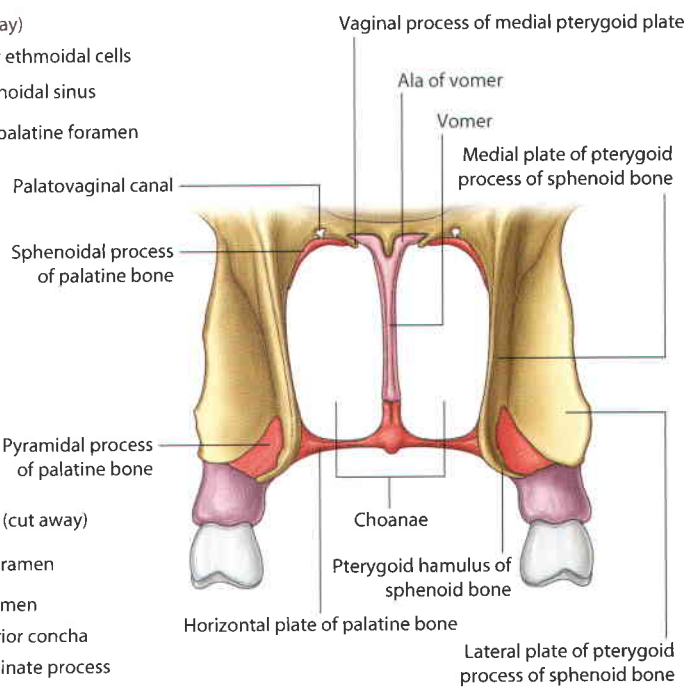


Bones of the lateral wall

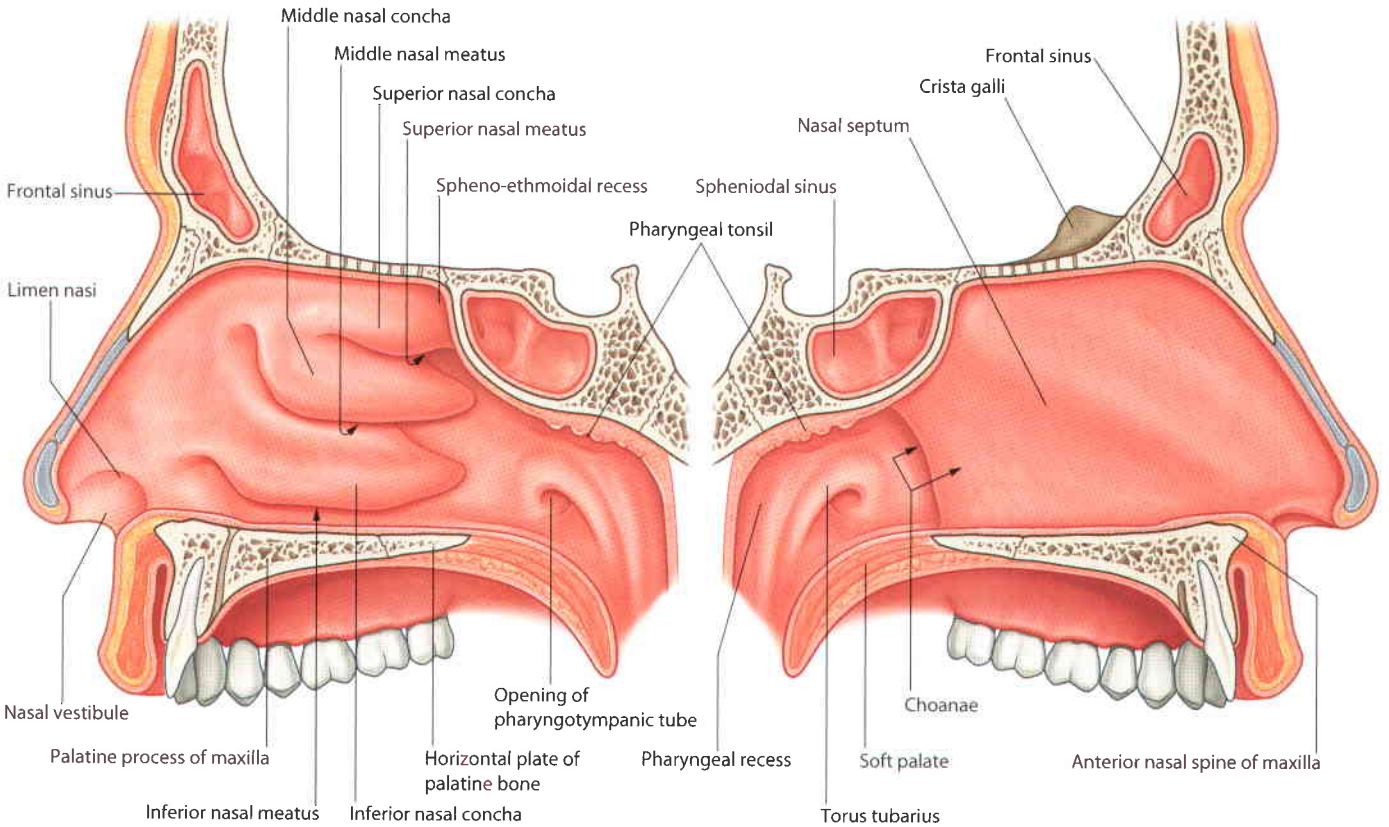
Bones of the medial wall



Concha cut away

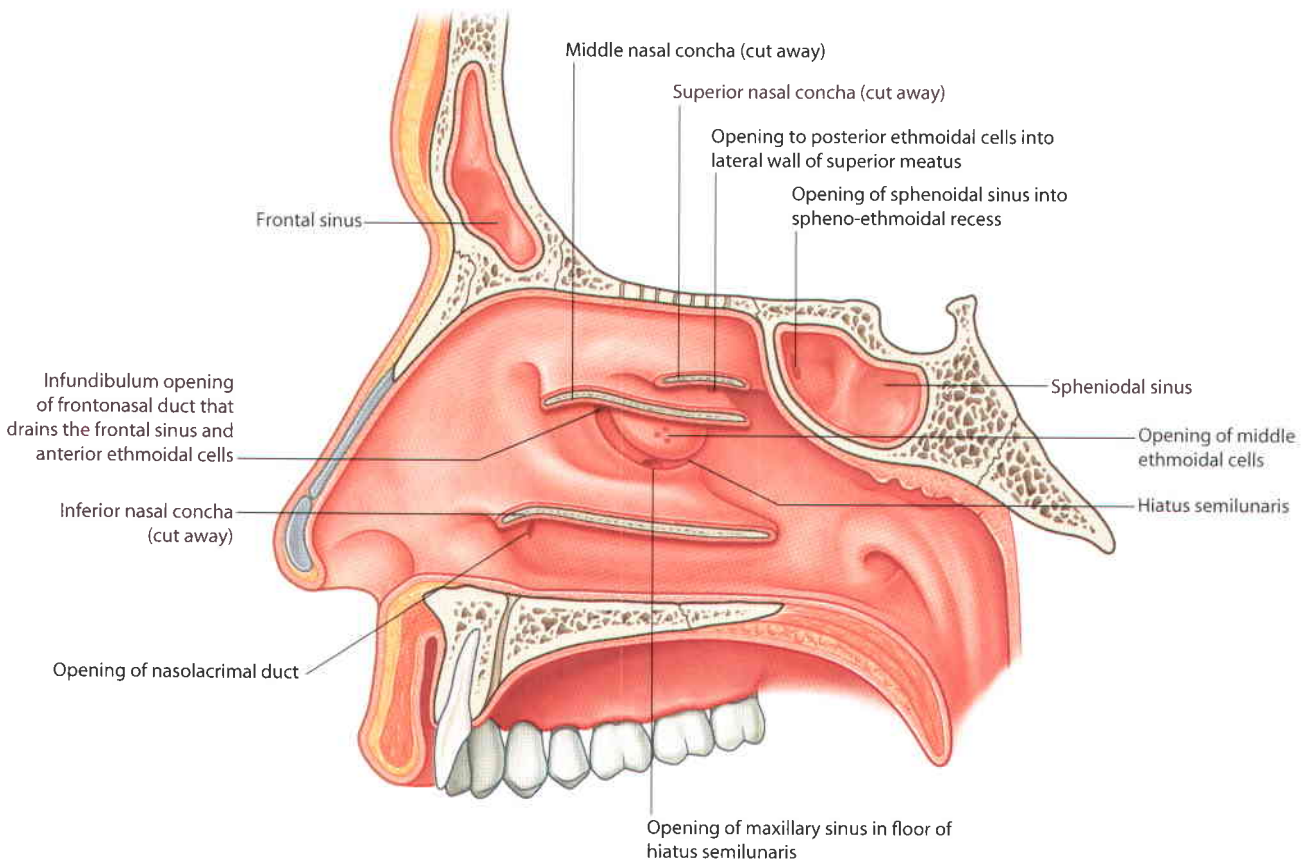


Posterior view

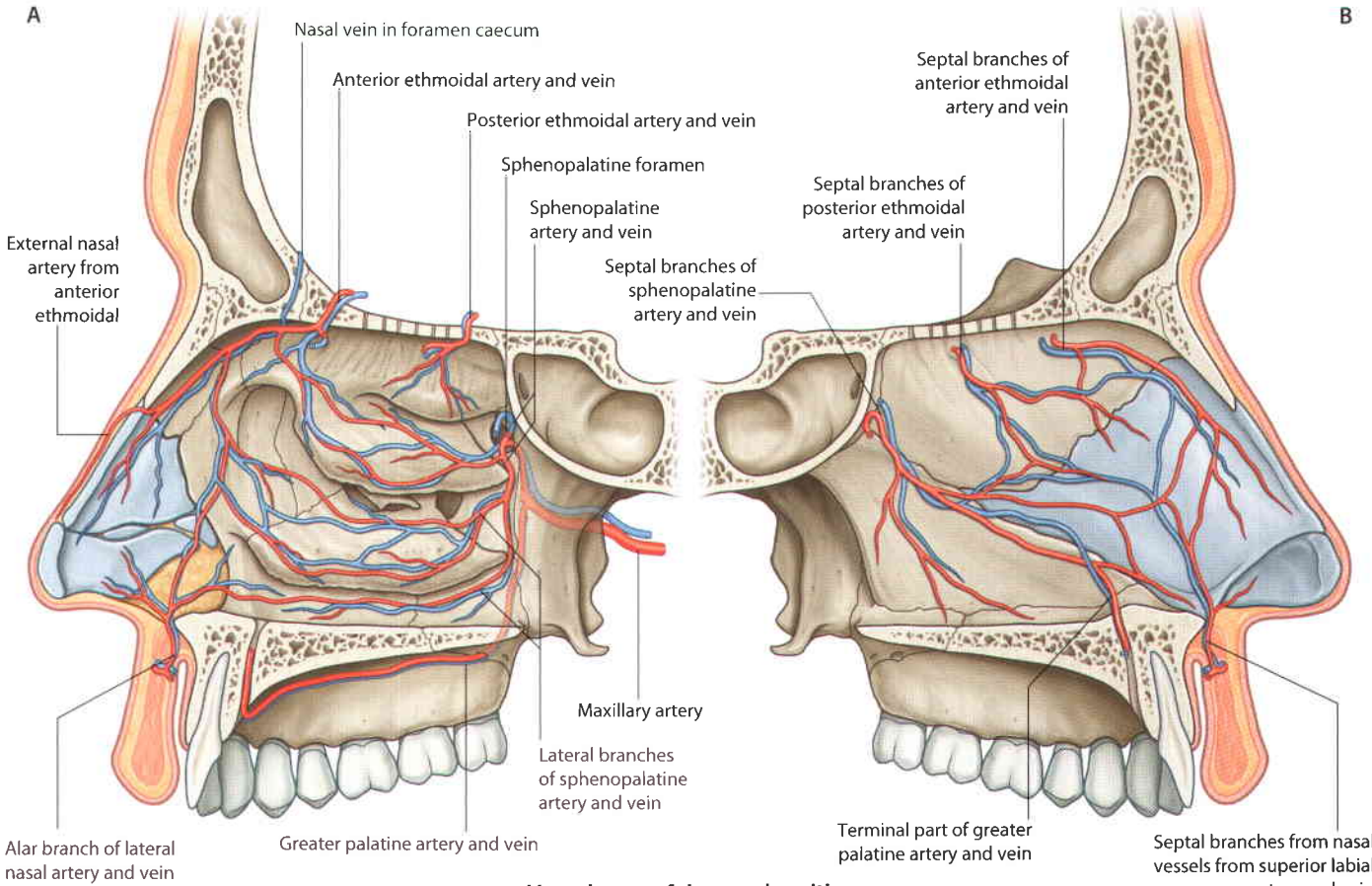


Lateral wall of the nasal cavity

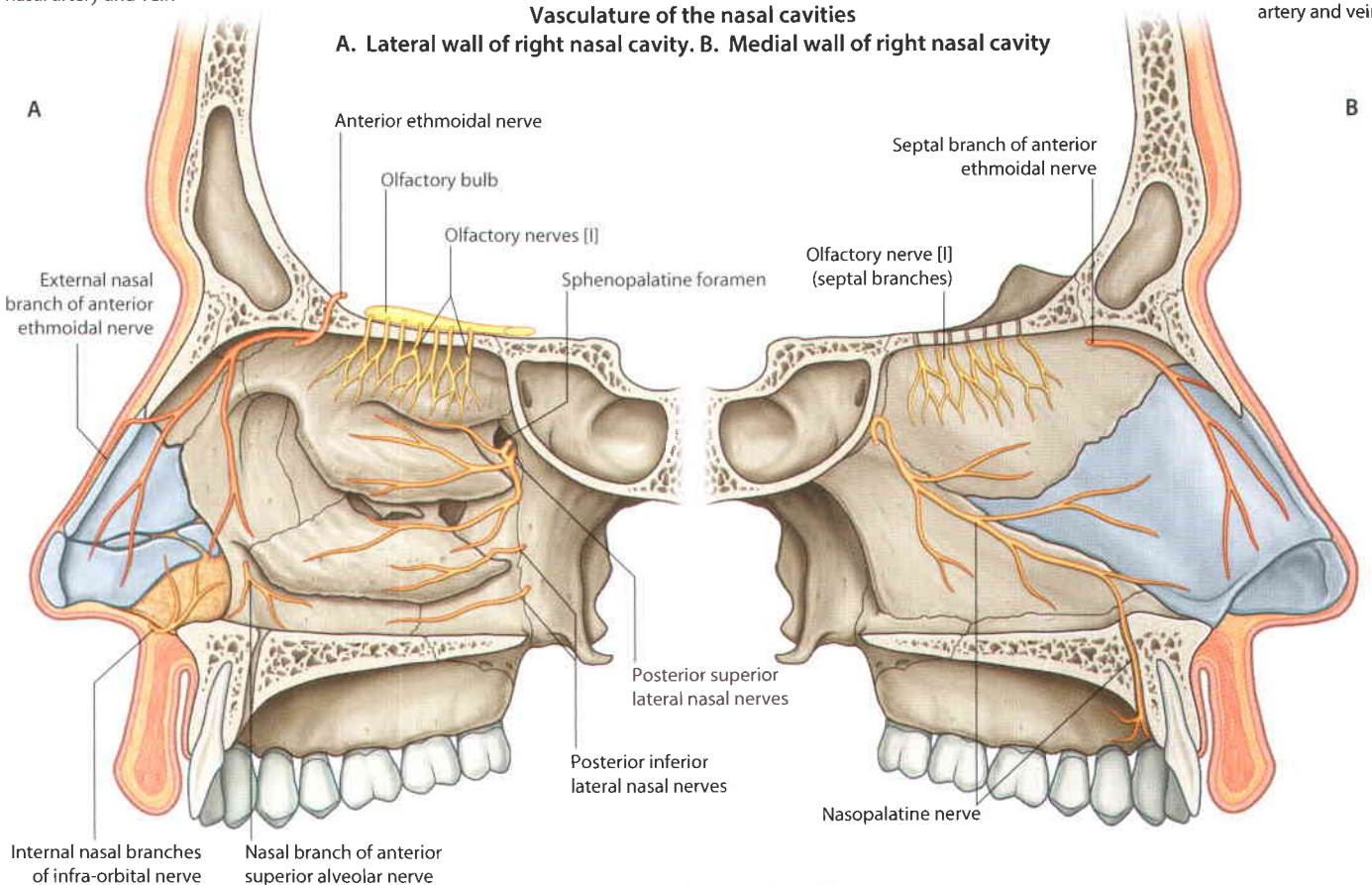
Medial wall of the nasal cavity



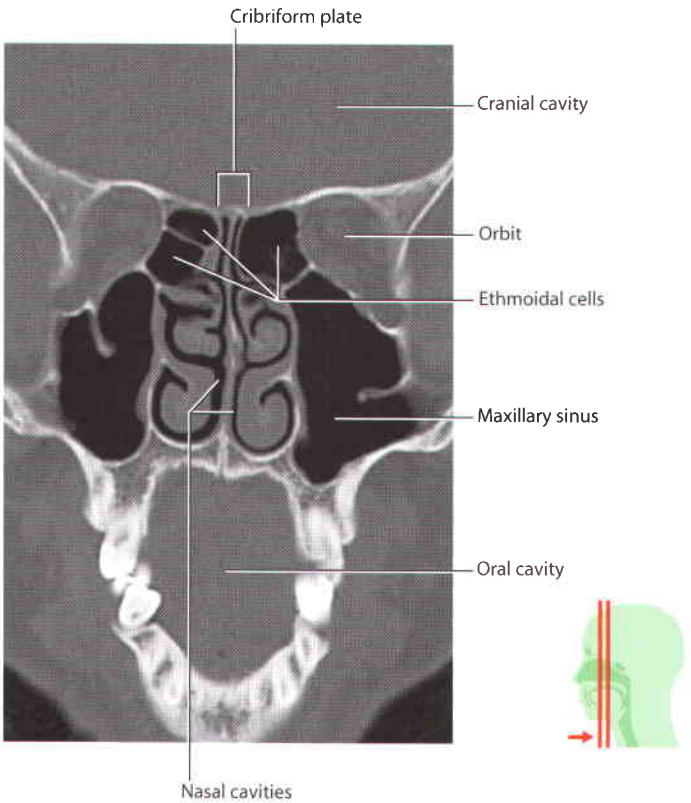
Lateral wall of the nasal cavity, concha cut away



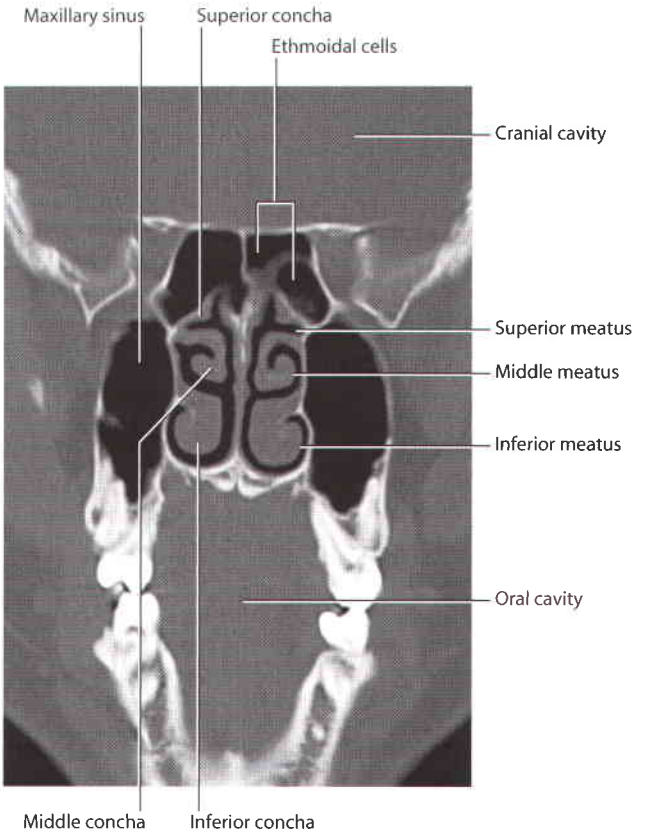
Vasculature of the nasal cavities
A. Lateral wall of right nasal cavity. B. Medial wall of right nasal cavity



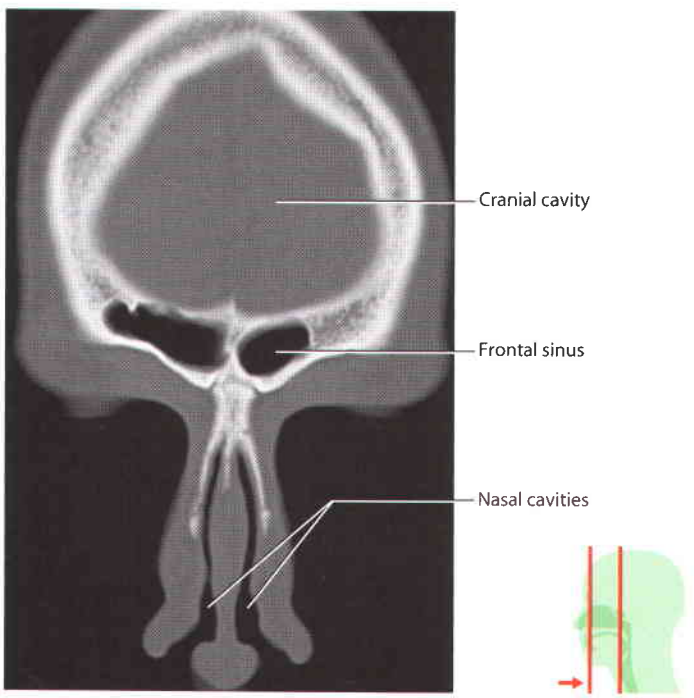
Innervation of the nasal cavities
A. Lateral wall of right nasal cavity. B. Medial wall of right nasal cavity



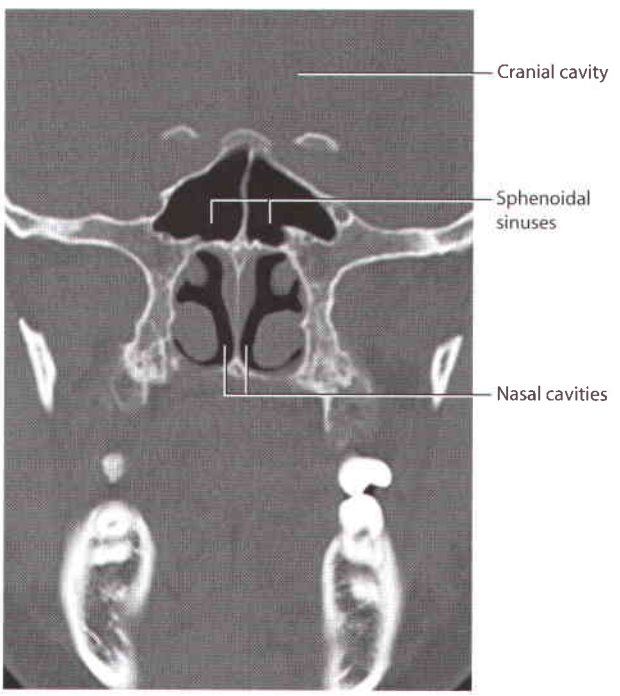
Anterior view of the maxillary sinus and ethmoidal cells.
CT image in coronal plane



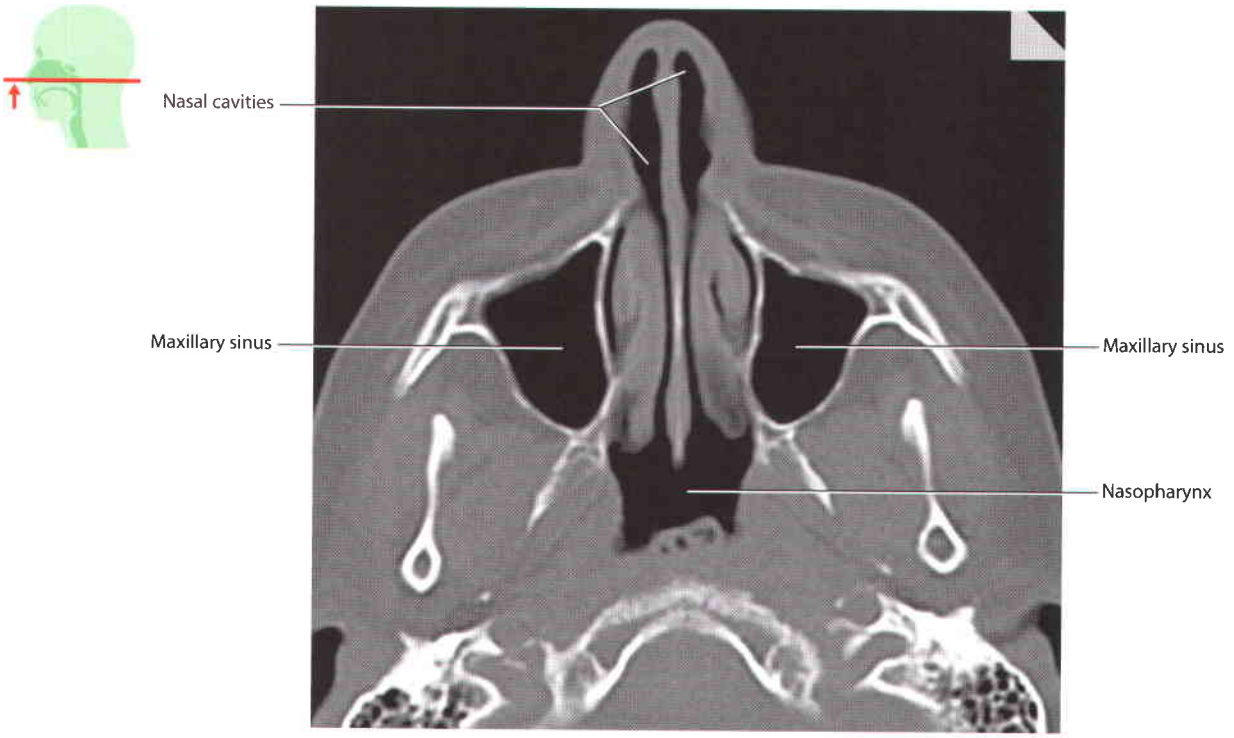
Anterior view looking into the nasal cavity showing the relationship of various structures.
CT image in coronal plane



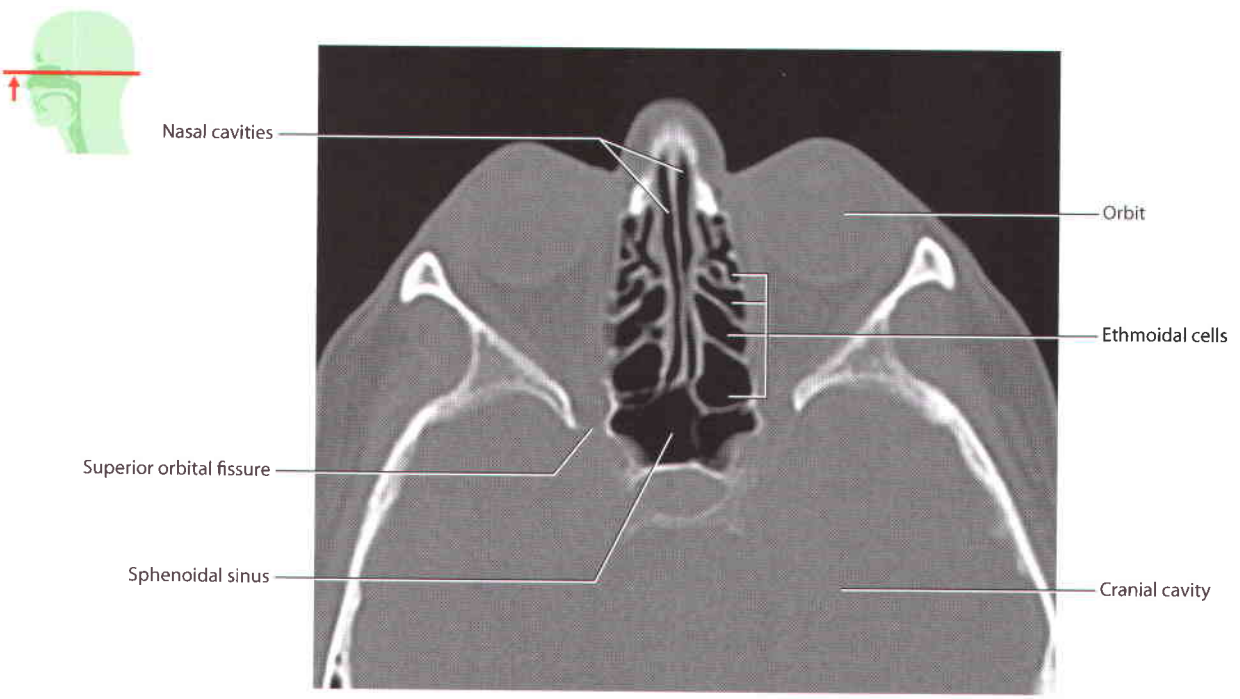
Anterior view of the frontal sinuses.
CT image in coronal plane



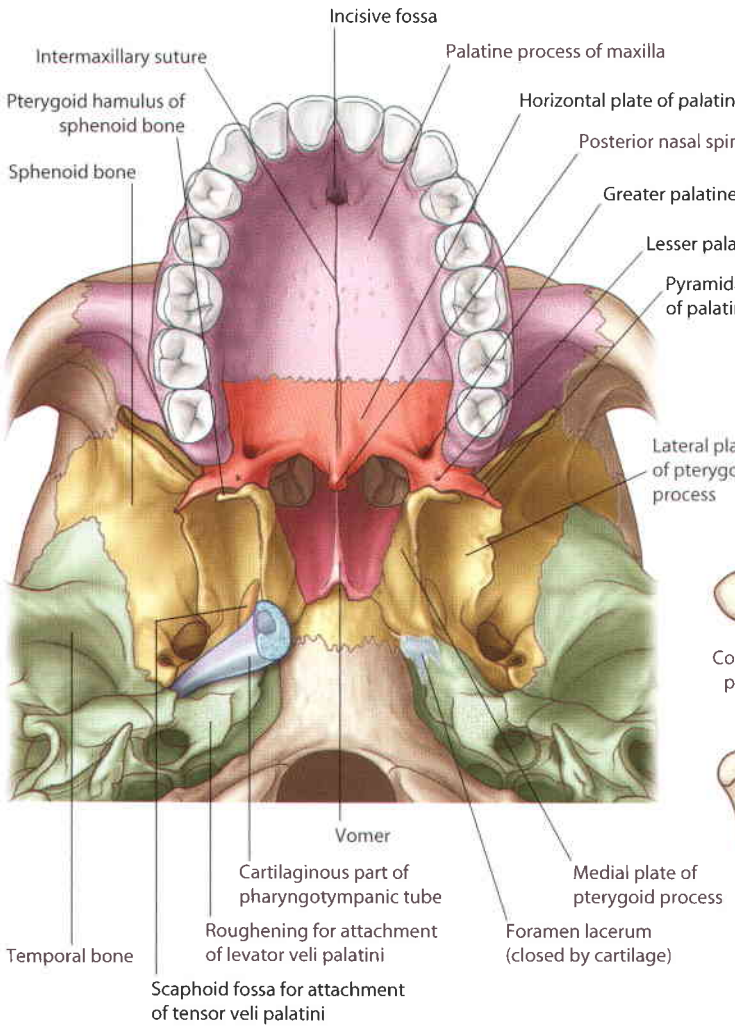
Anterior view of the sphenoidal sinuses showing their relationship to the nasal cavity.
CT image in coronal plane



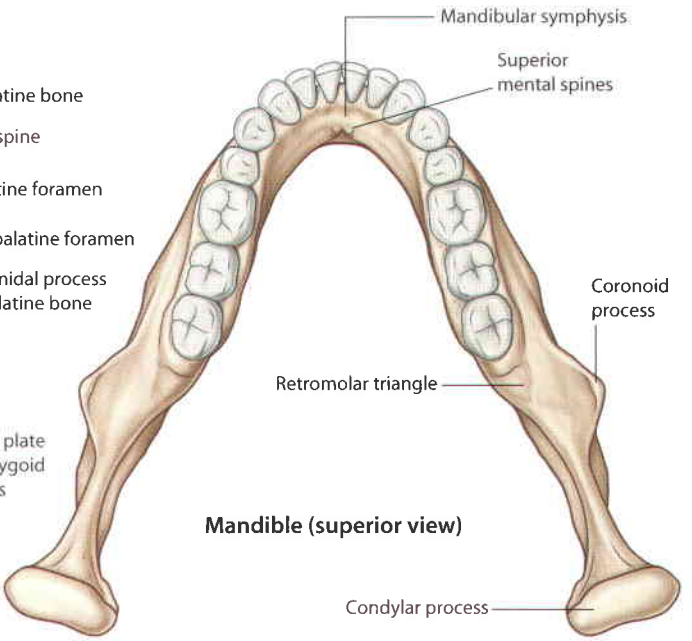
Axial section showing the relationship between the nasal cavity, nasopharynx, and maxillary sinuses.
CT image in axial plane



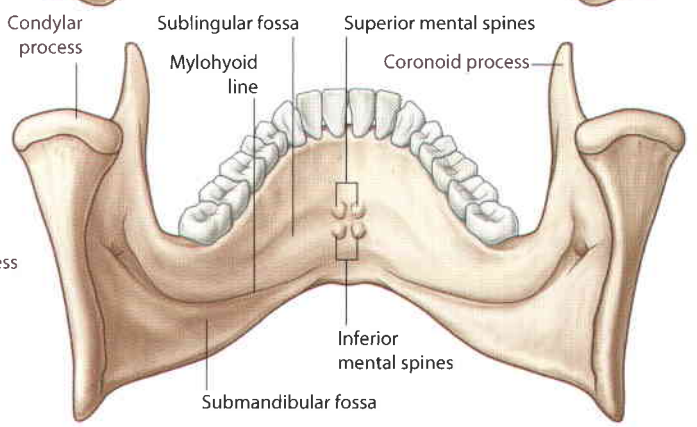
Axial section showing the ethmoidal cells and the sphenoidal sinuses and the relationship of these structures to the orbit.
CT image in axial plane



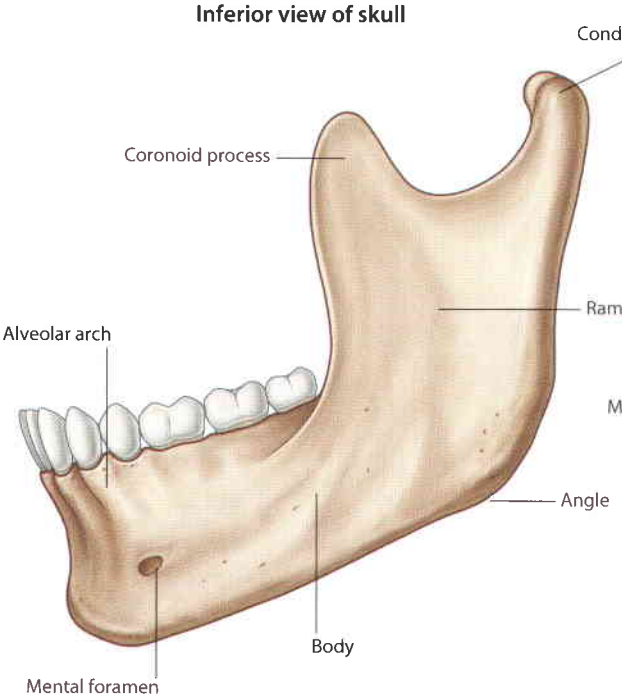
Inferior view of skull



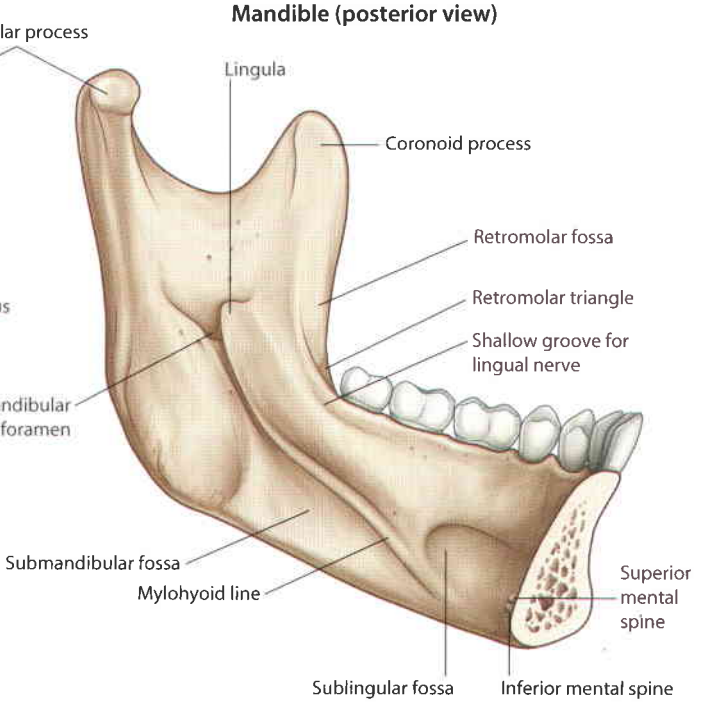
Mandible (superior view)



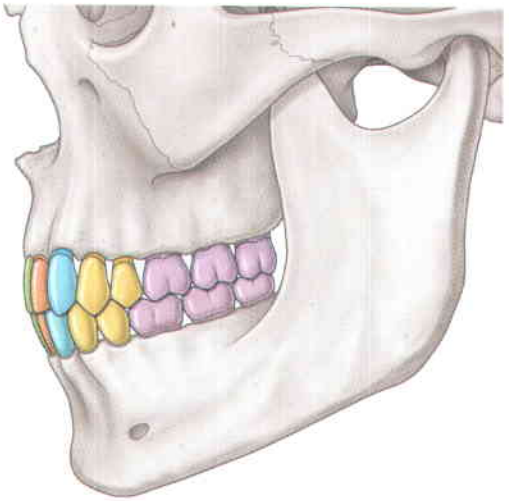
Mandible (posterior view)

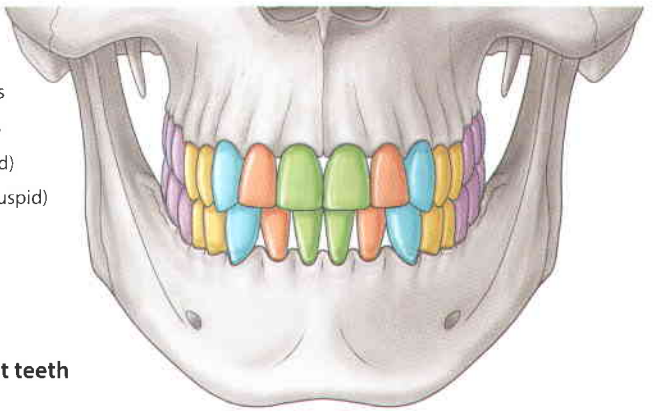


Mandible (lateral view)

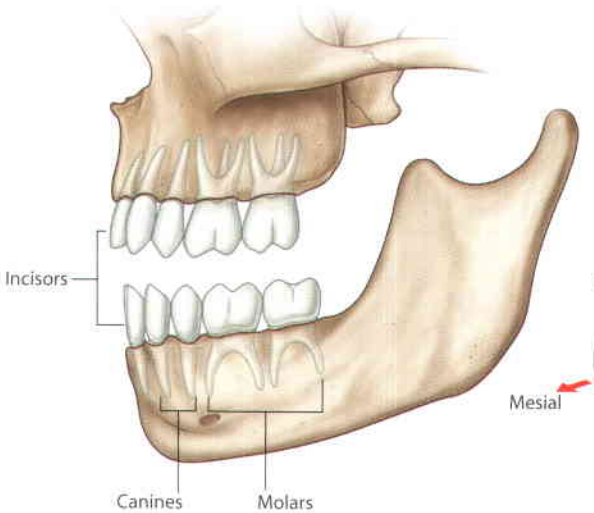


Mandible (medial view)

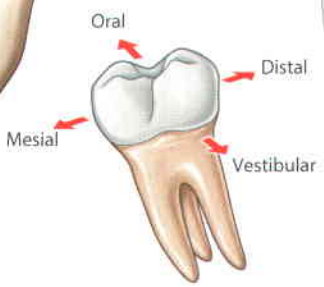


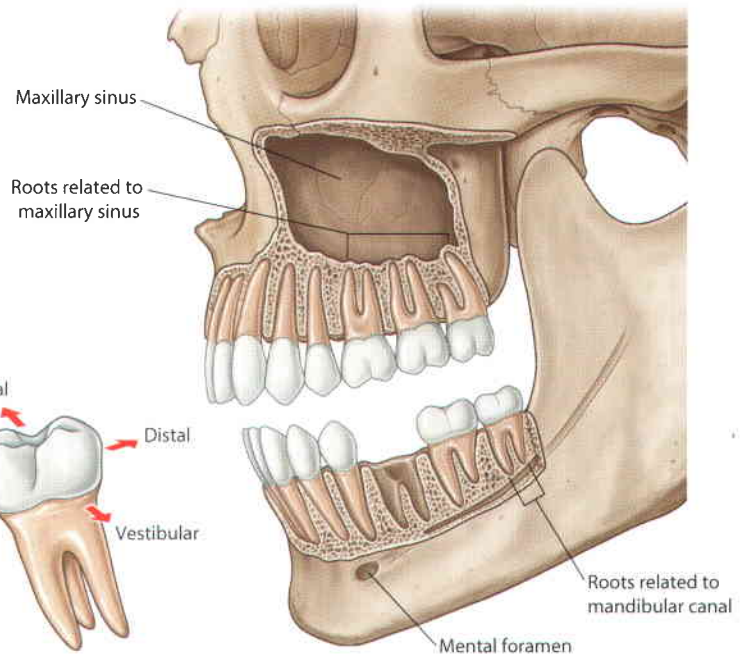


Adult permanent teeth

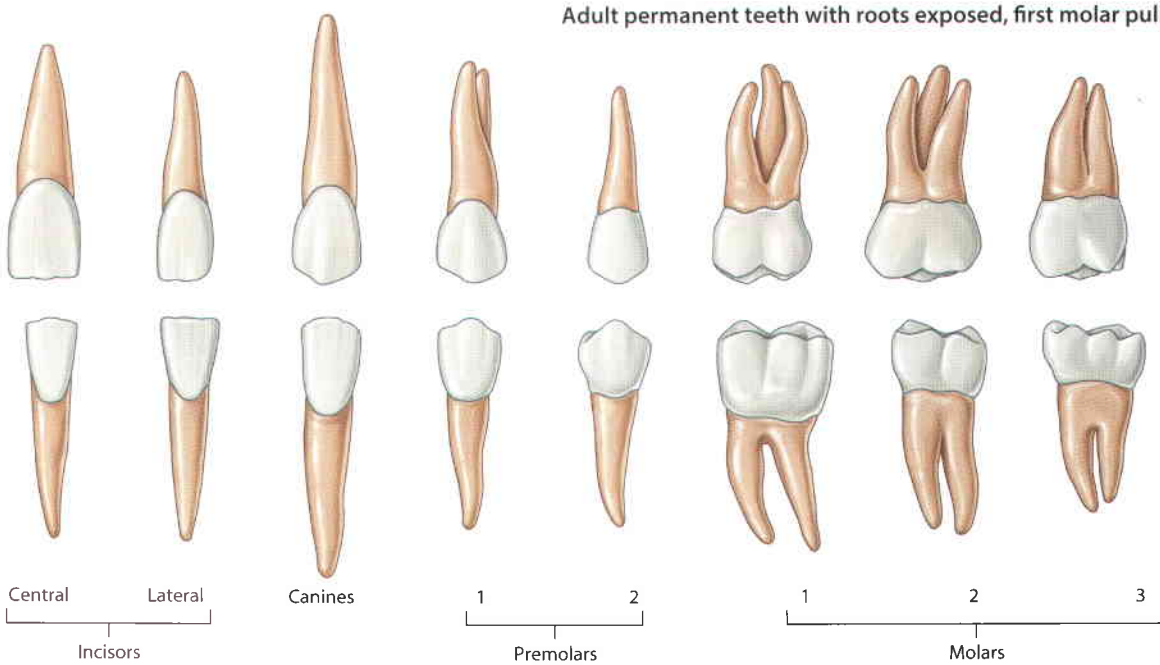


Deciduous (baby) teeth

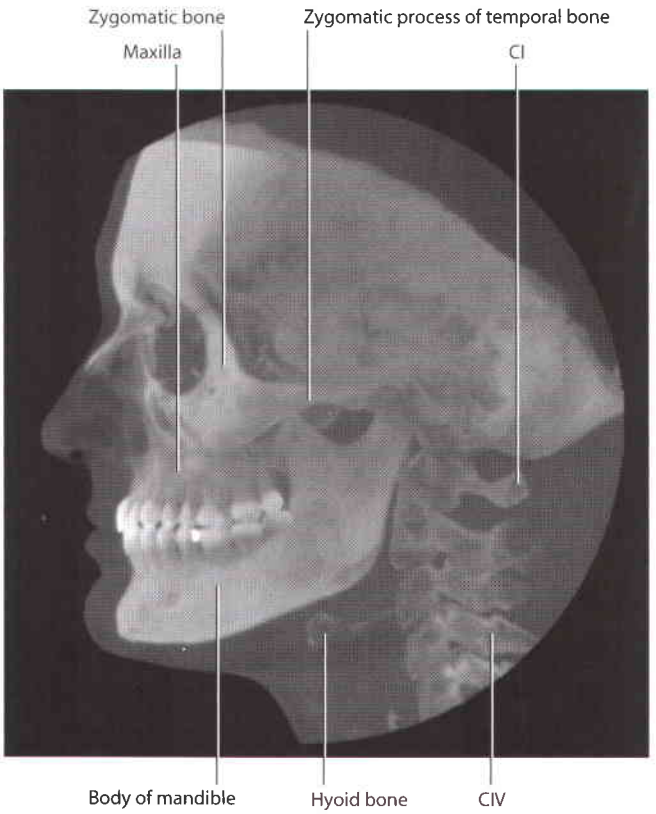




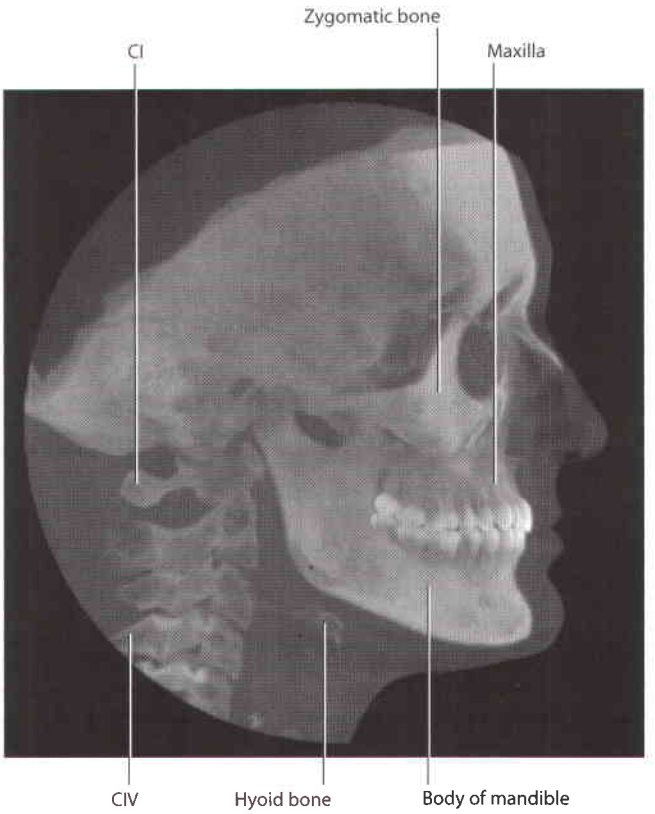
Adult permanent teeth with roots exposed, first molar pulled out



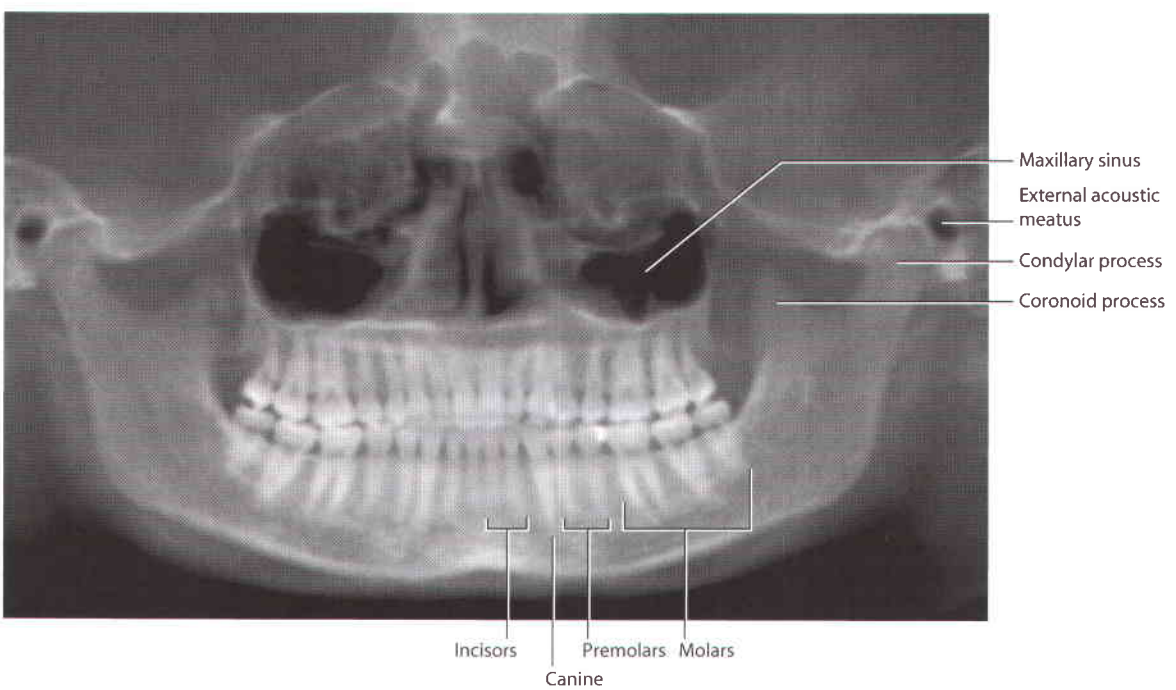
Adult upper and lower permanent teeth (vestibular view)



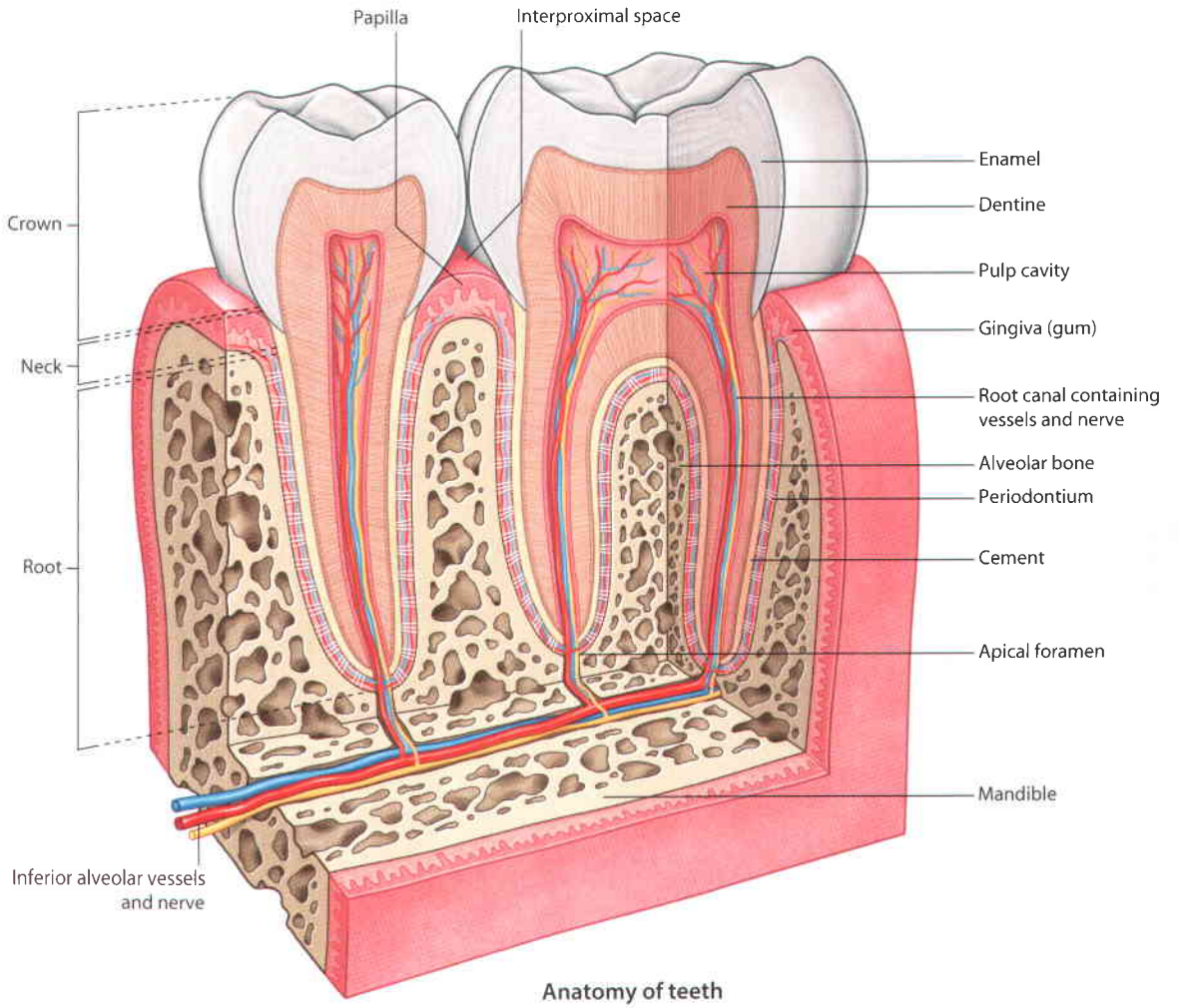
View of the left side of the face showing the craniofacial structures including the teeth.
Image taken with Cone Beam Computerized Tomography (CBCT) technology, viewed in the Maximum Intensity Projection (MIP) mode, which combines a radiographic view with a view of surface structures



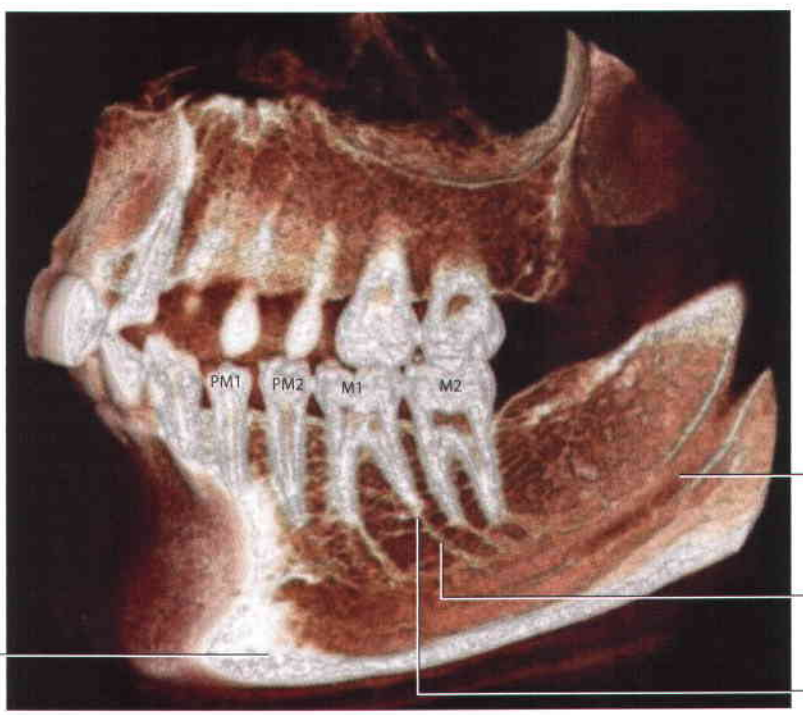
View of the right side of the face showing the craniofacial structures including the teeth.
Image taken with Cone Beam Computerized Tomography (CBCT) technology, viewed in the Maximum Intensity Projection (MIP) mode, which combines a radiographic view with a view of surface structures



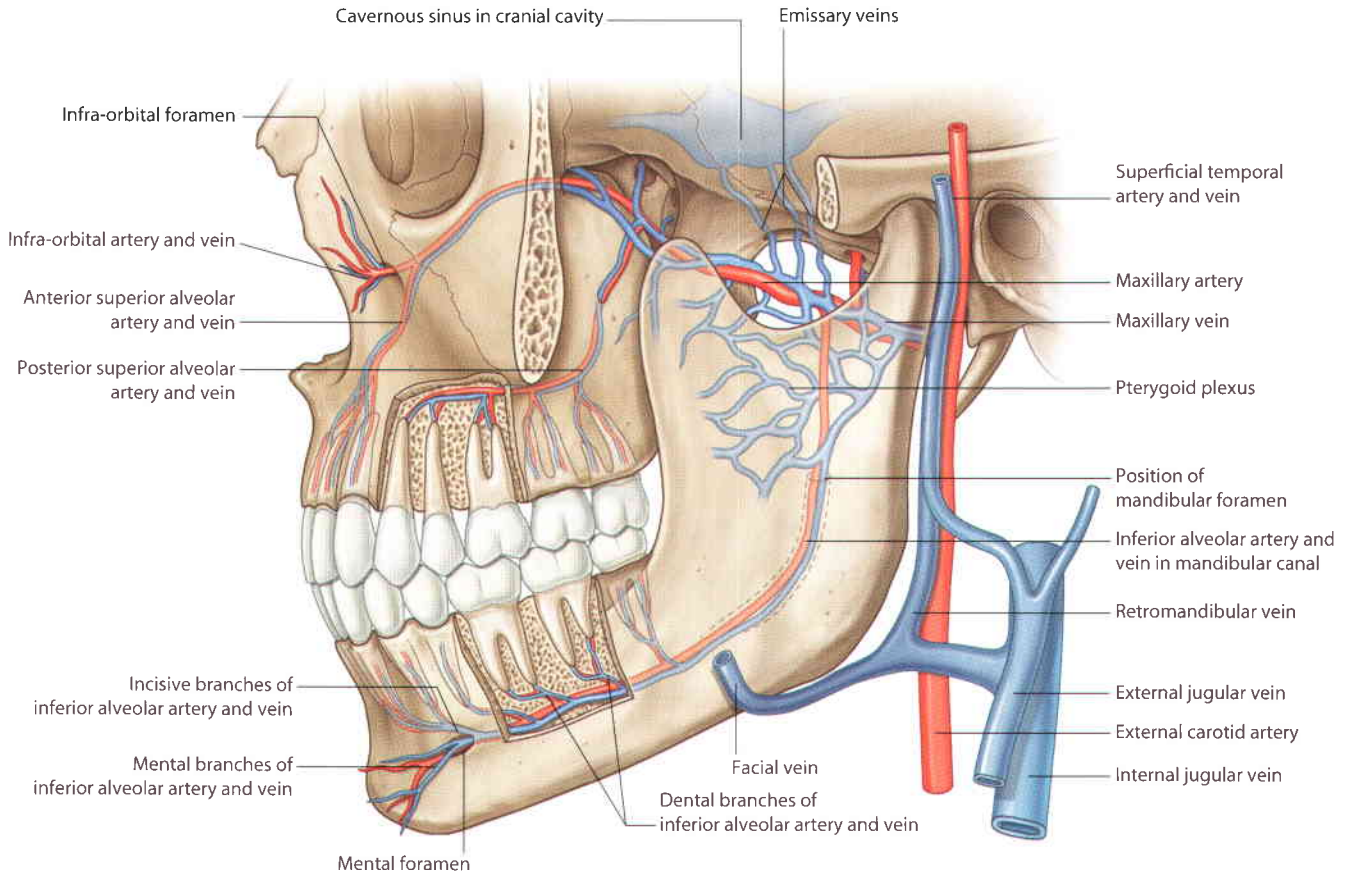
Panoramic view of the teeth (dentition), which also shows the maxillary sinuses and mandibular condylar processes.
Image taken with Cone Beam Computerized Tomography (CBCT) technology



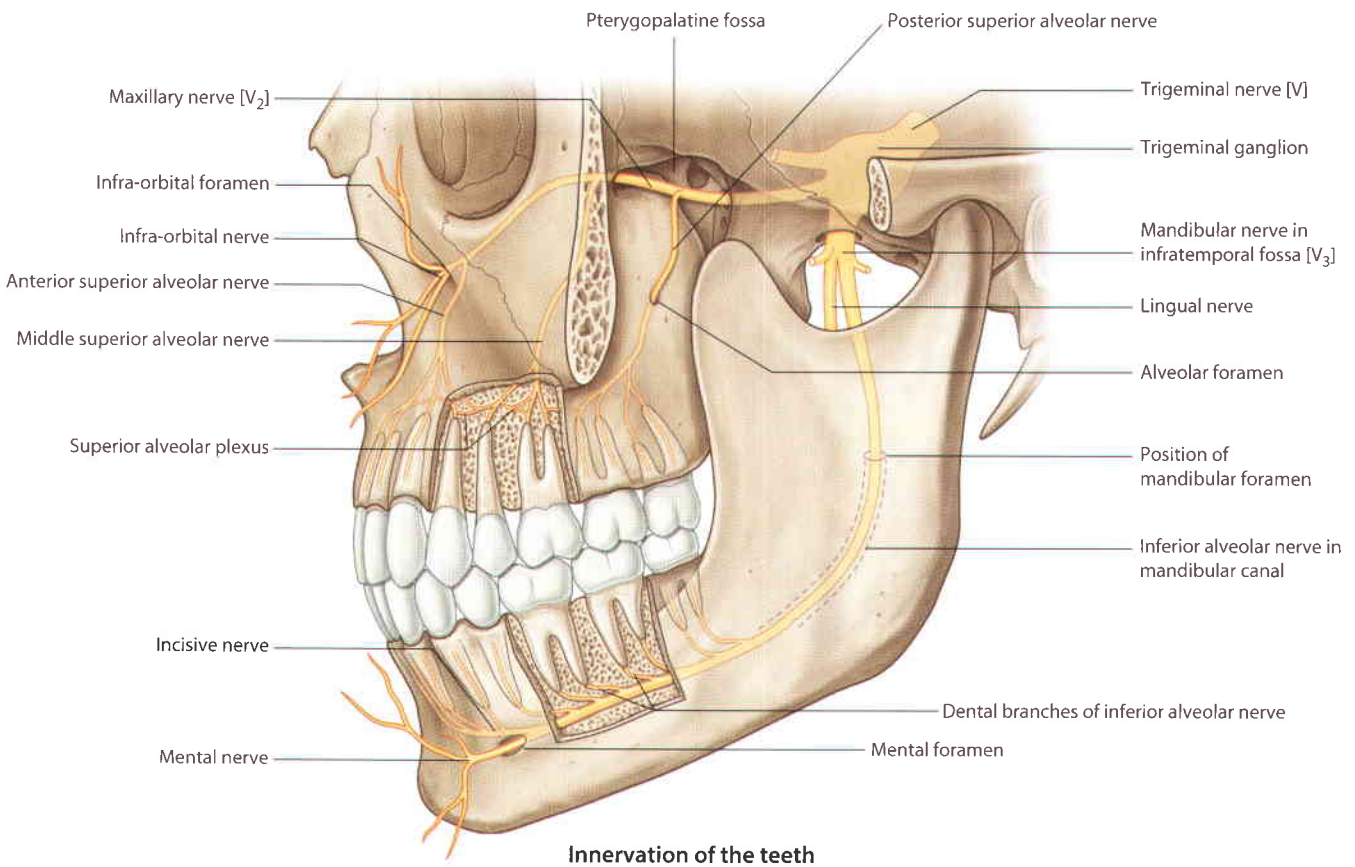
Anatomy of teeth



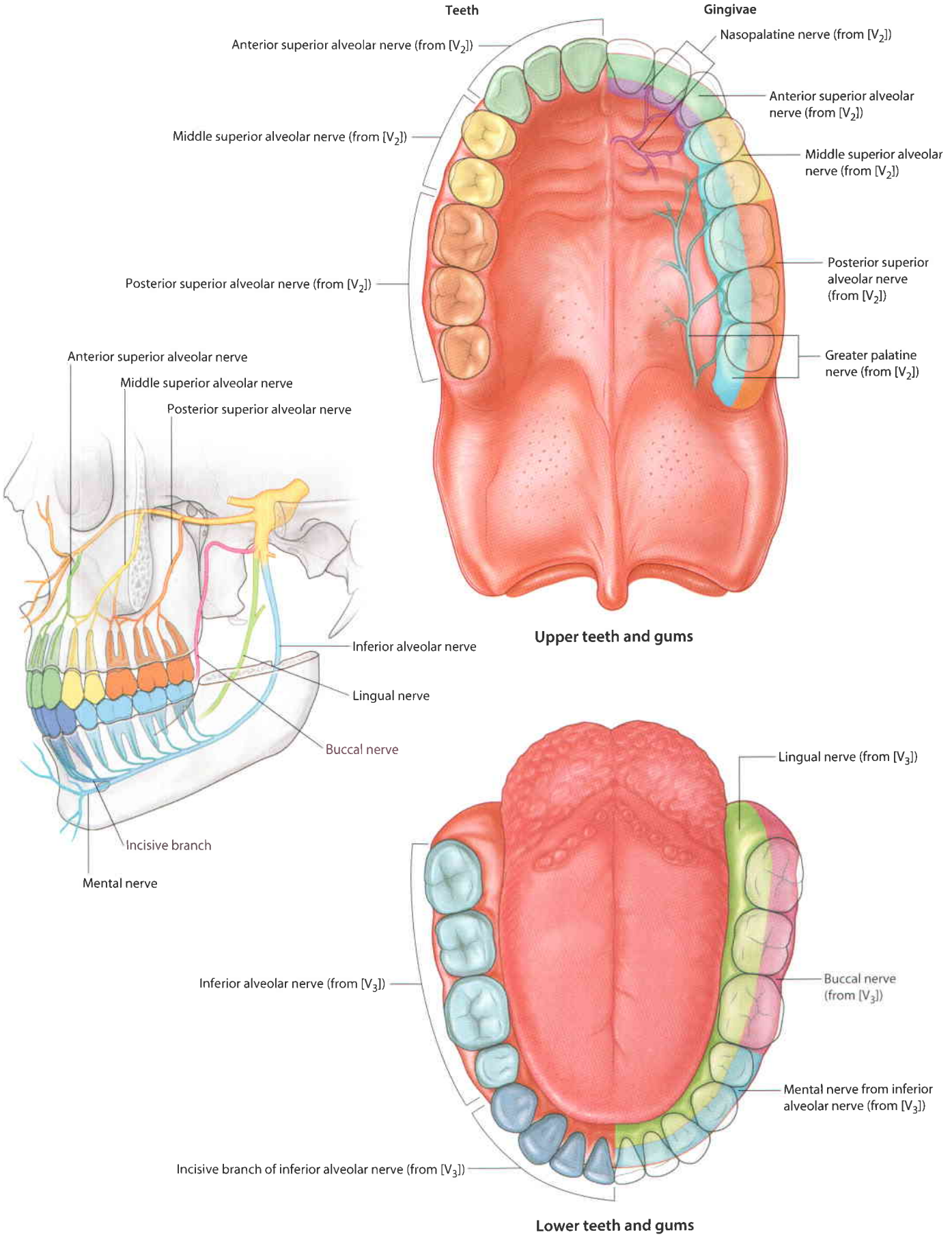
Inside, lingual or sagittal view of the right side of the maxillary and mandibular alveolar processes in occlusion (teeth together).
Image taken with Cone Beam Computerized Tomography (CBCT) technology viewed in the surface mode

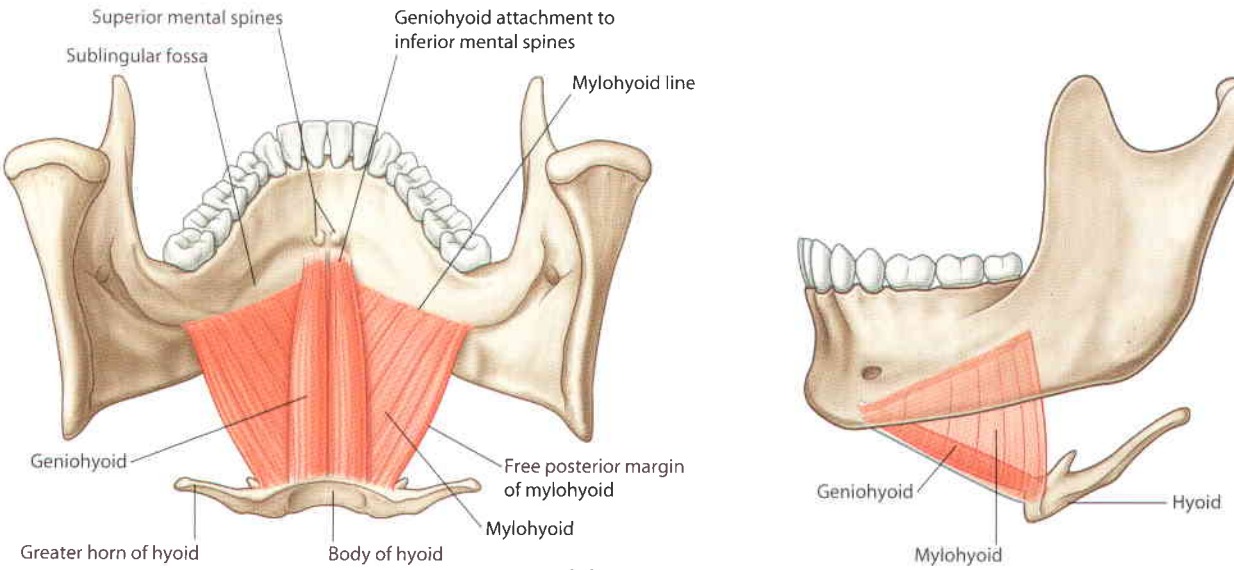


Arteries and veins supplying teeth

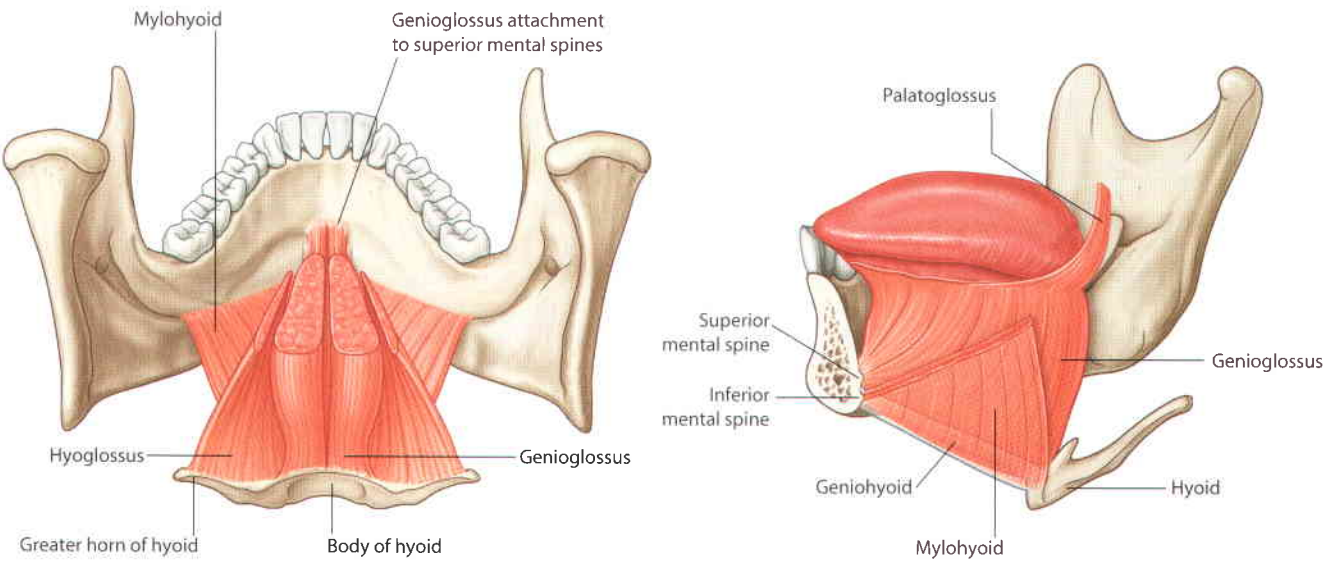


Innervation of the teeth

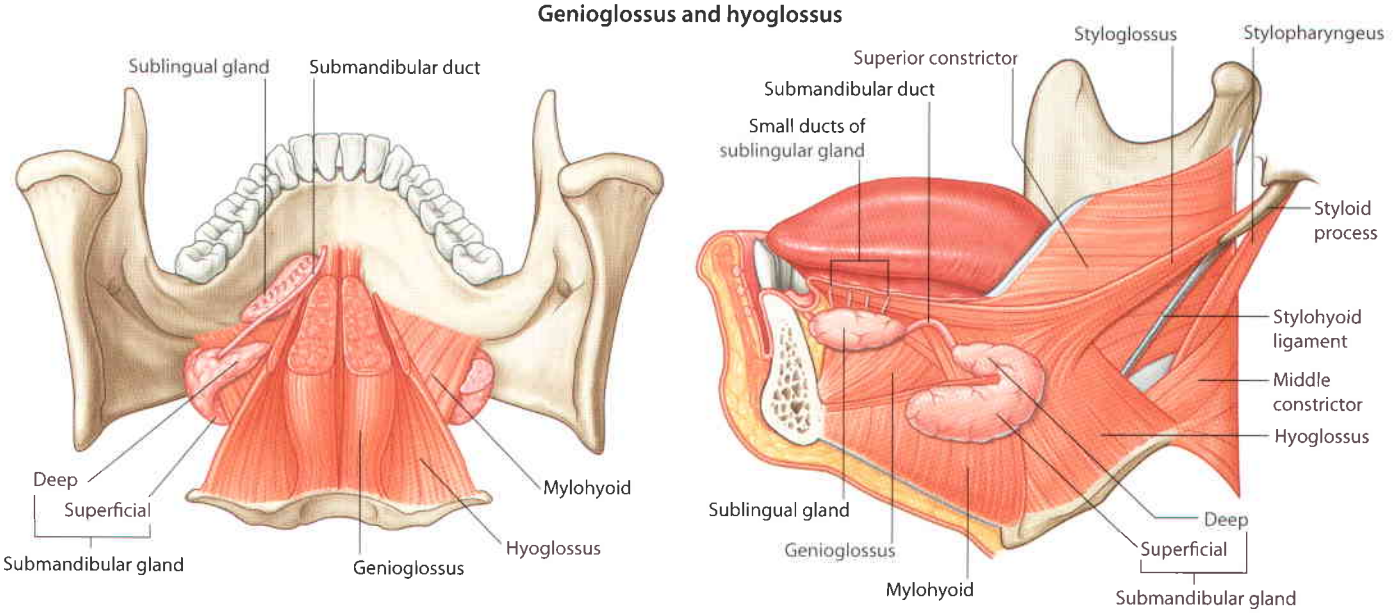

Teeth
Gingivae
Anterior superior alveolar nerve (from [V2])
Nasopalatine nerve (from [V2])
Anterior superior alveolar nerve (from [V2])
Middle superior alveolar nerve (from [V2])
Middle superior alveolar nerve (from [V2])
Posterior superior alveolar nerve (from [V2])
Posterior superior alveolar nerve (from [V2])
Greater palatine nerve (from [V2])
Anterior superior alveolar nerve
Middle superior alveolar nerve
Posterior superior alveolar nerve
Inferior alveolar nerve
Lingual nerve
Buccal nerve
Incisive branch
Mental nerve
Upper teeth and gums
Lingual nerve (from [V3])
Inferior alveolar nerve (from [V3])
Buccal nerve (from [V3])
Mental nerve from inferior alveolar nerve (from [V3])
Incisive branch of inferior alveolar nerve (from [V3])
Lower teeth and gums



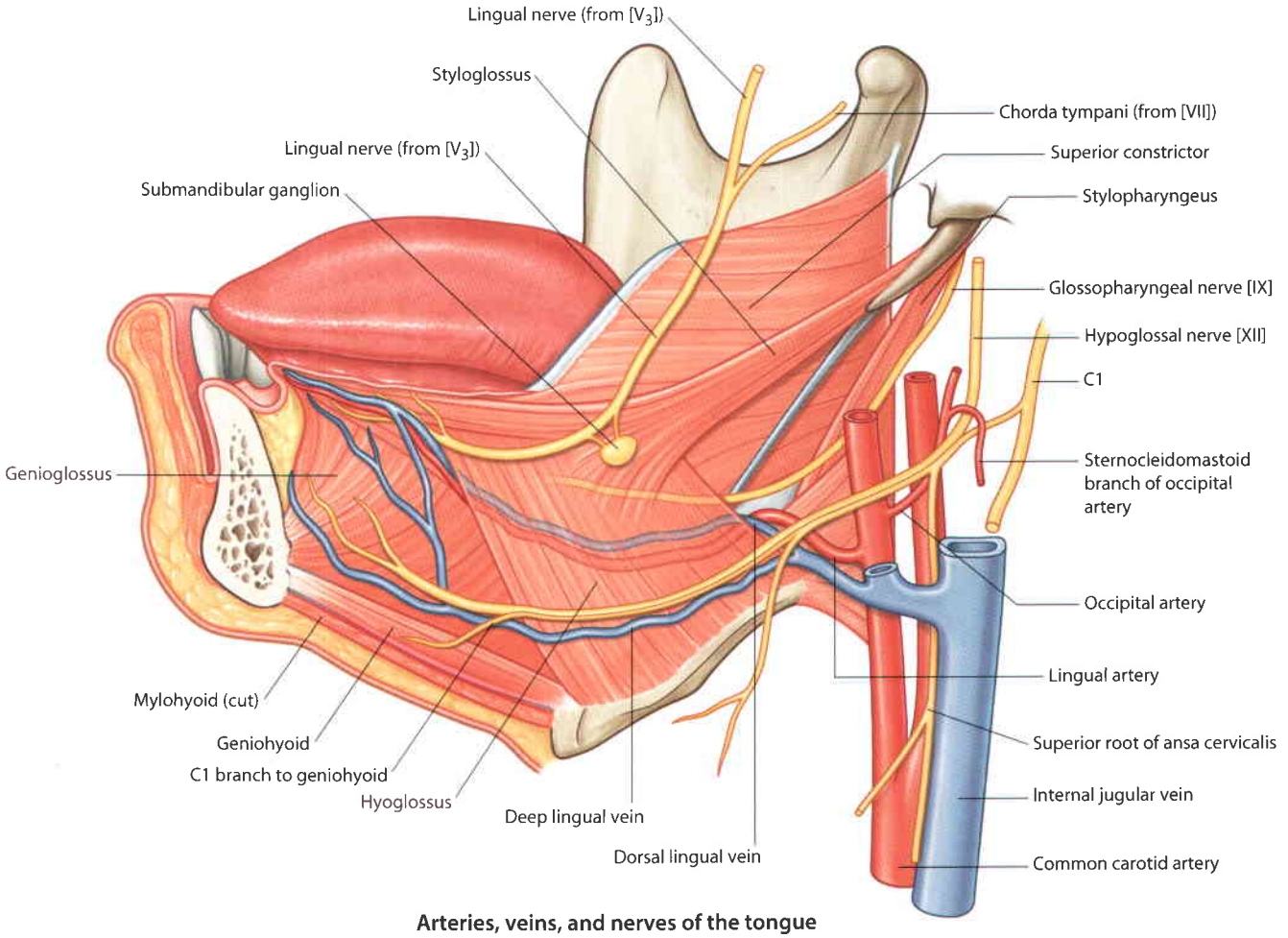
Mylohyoid and geniohyoid



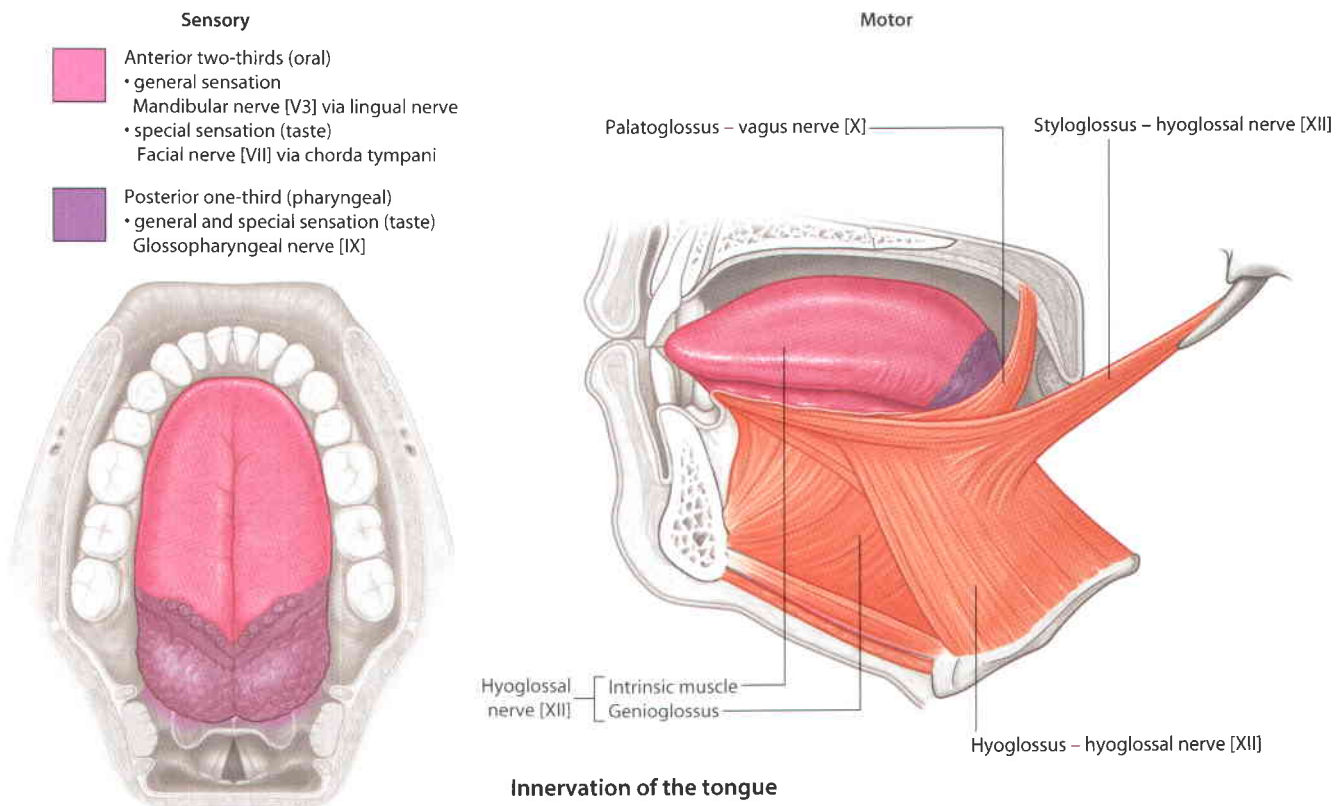
Genioglossus and hyoglossus



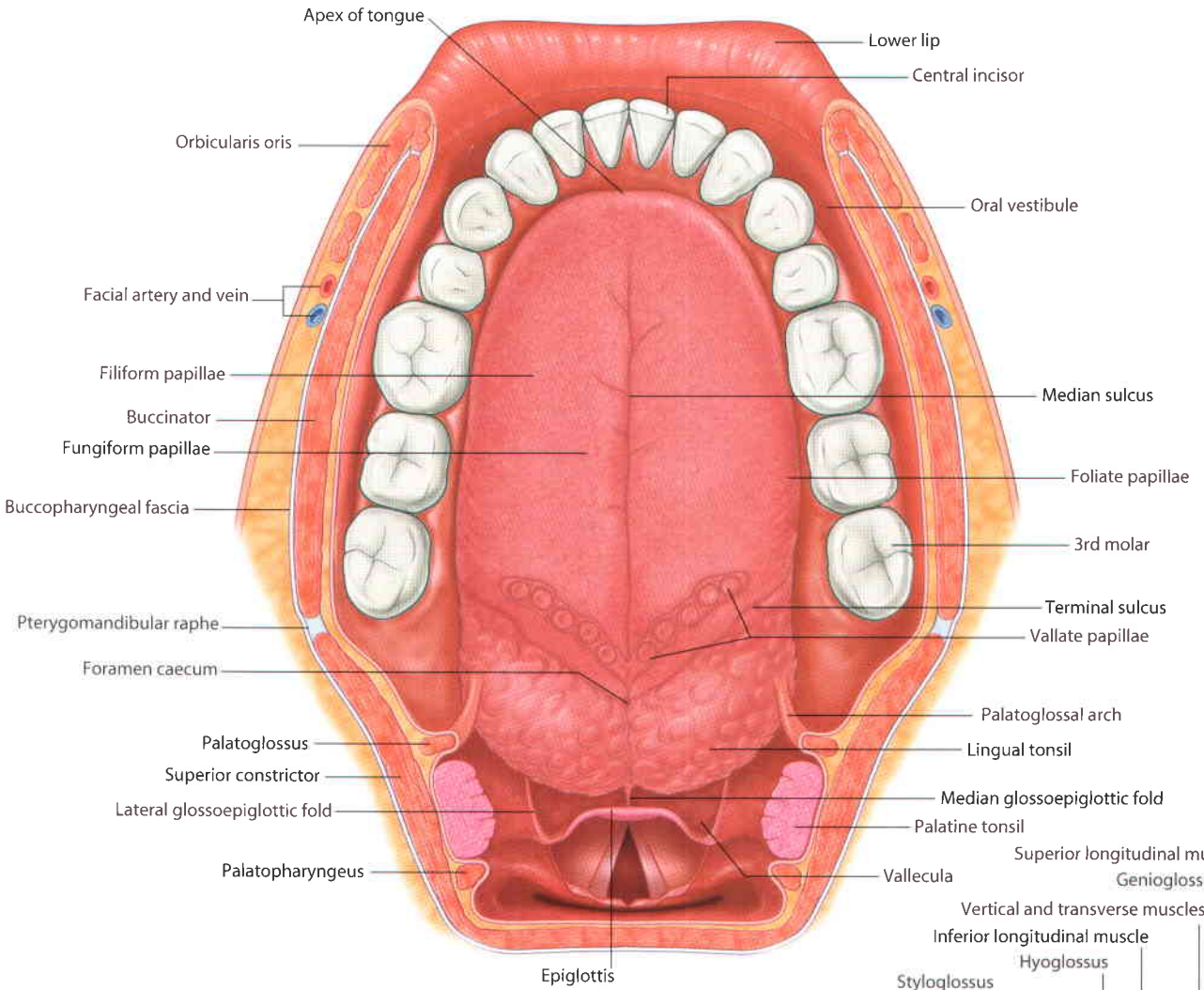
Posterior view **Submandibular and sublingual glands** **Lateral view**



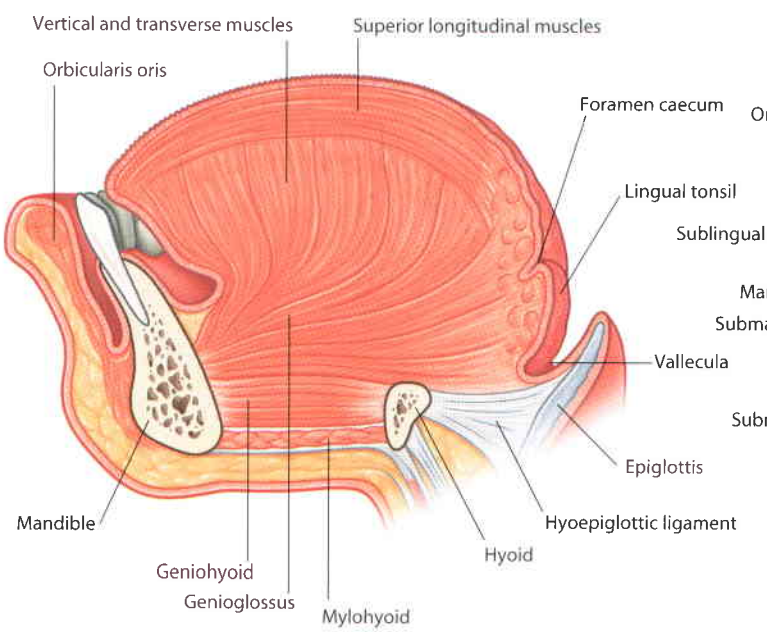
Arteries, veins, and nerves of the tongue



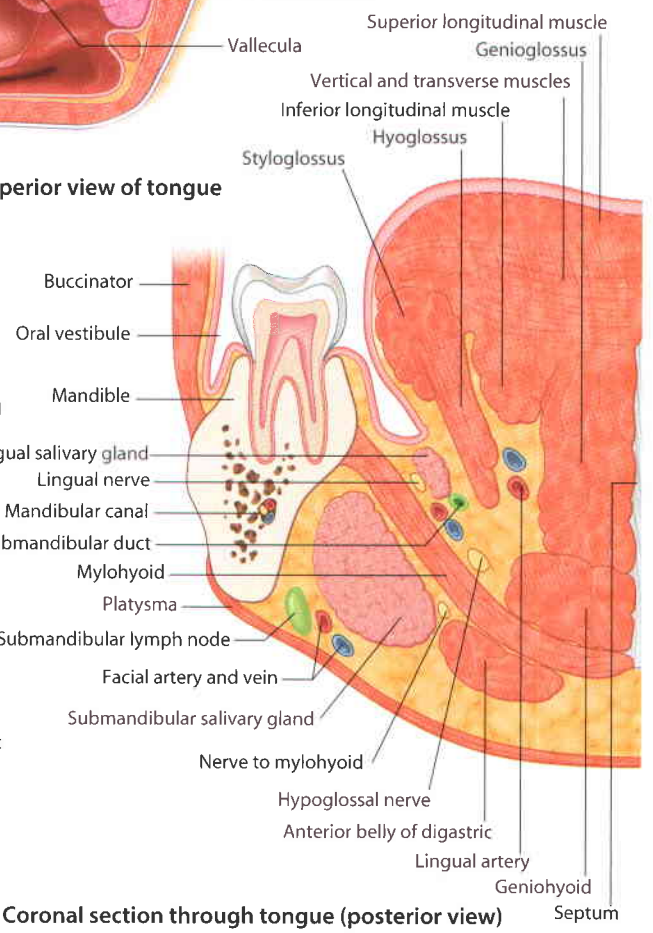
Innervation of the tongue



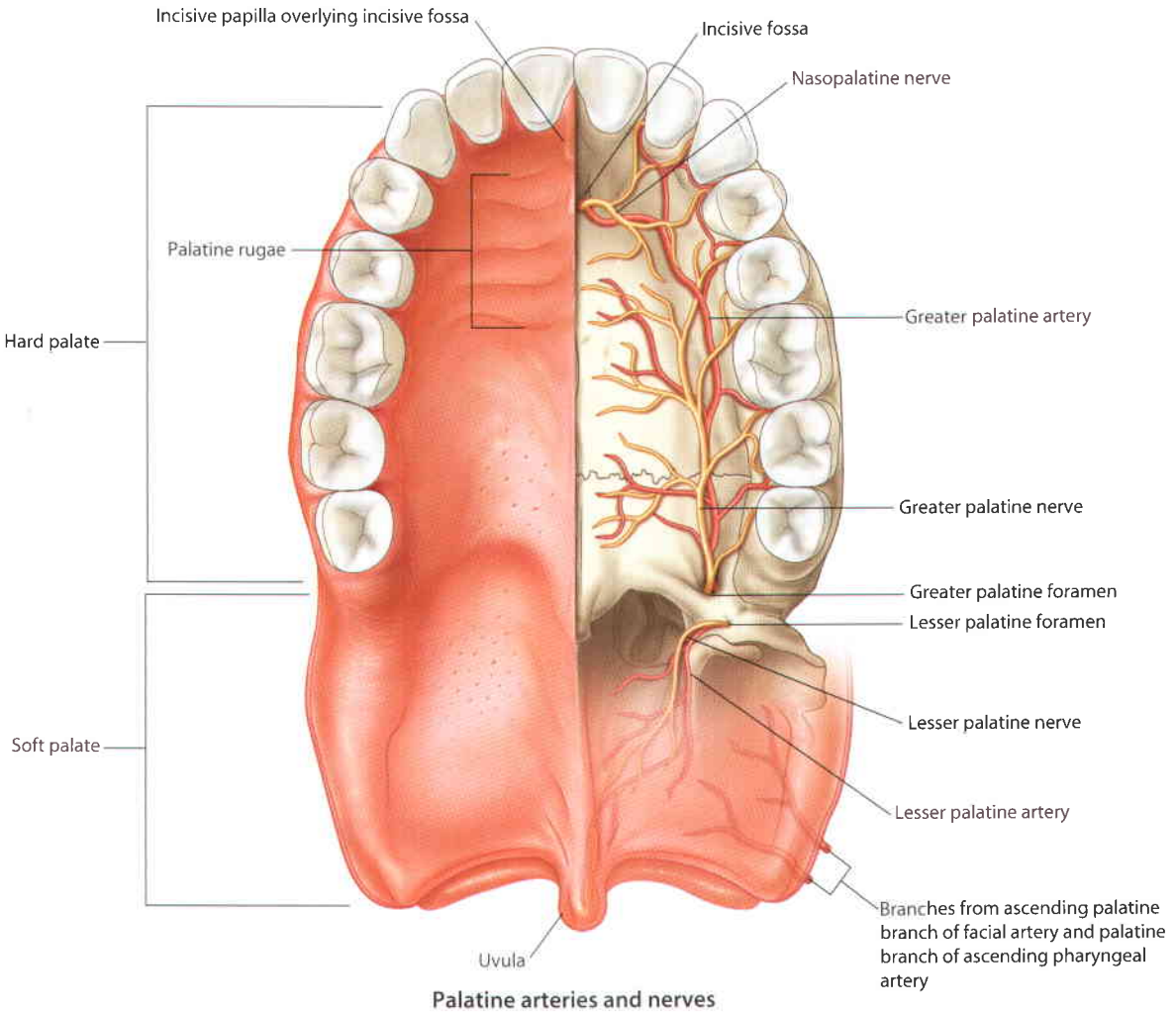
Horizontal section showing superior view of tongue



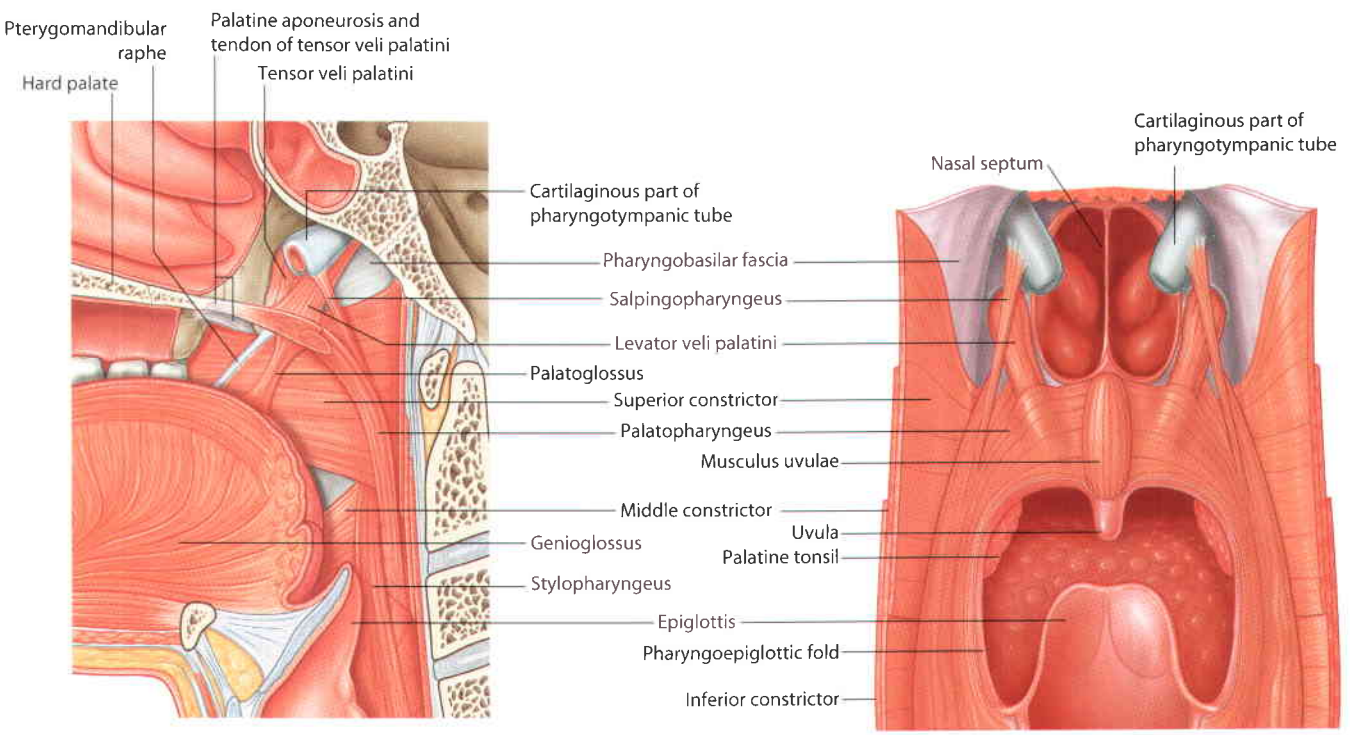
Paramedian sagittal section through tongue



Coronal section through tongue (posterior view)

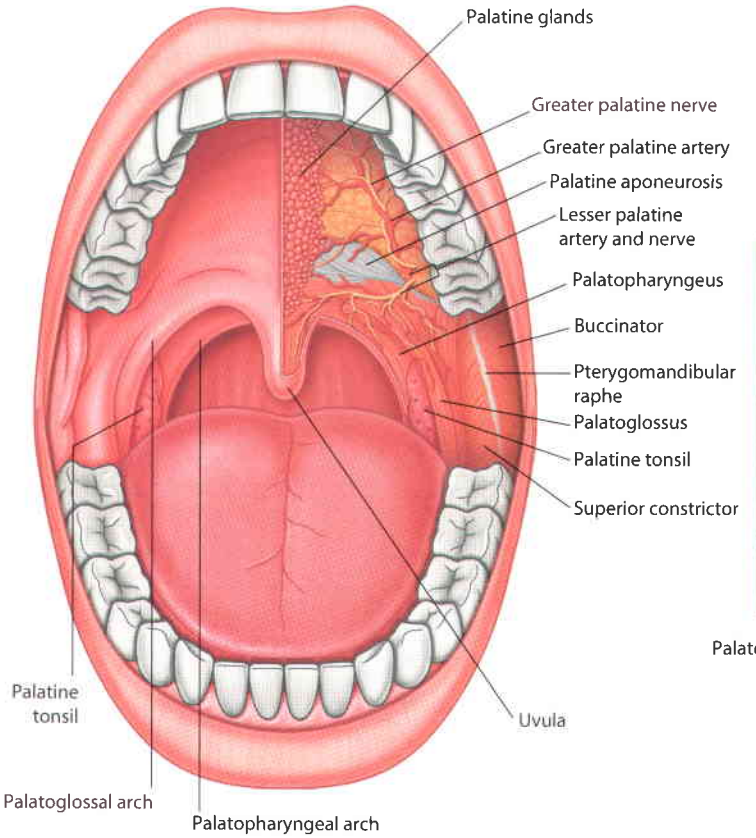


Palatine arteries and nerves

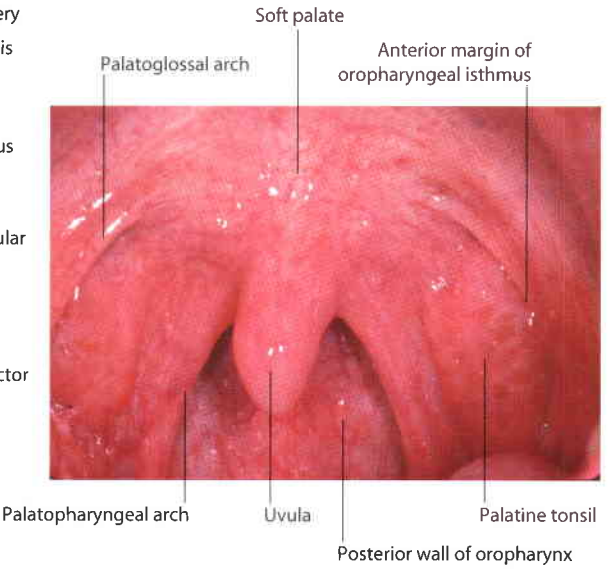


Muscles of the soft palate (sagittal section)

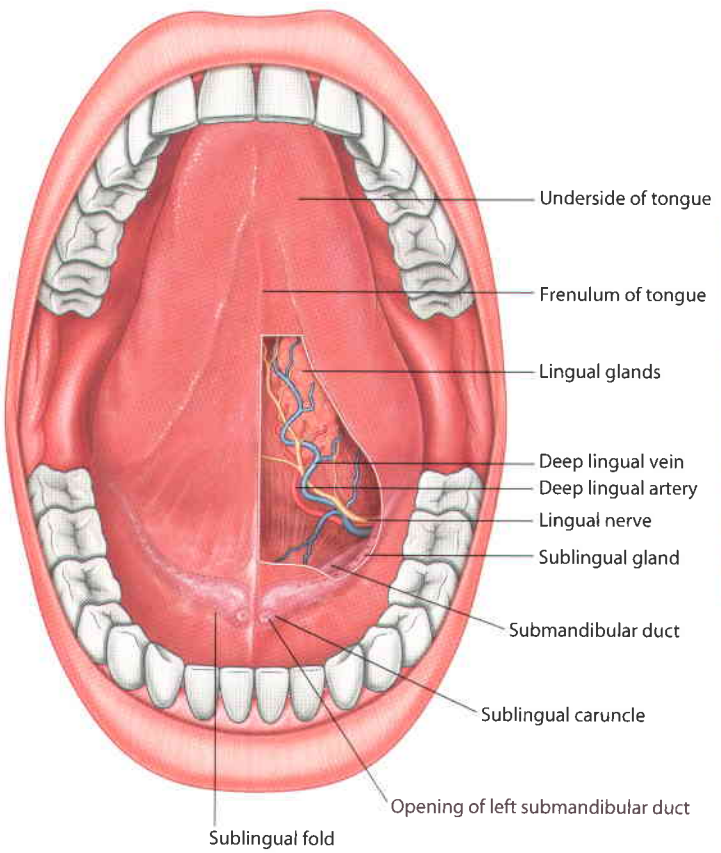
Muscles of the soft palate (posterior view)



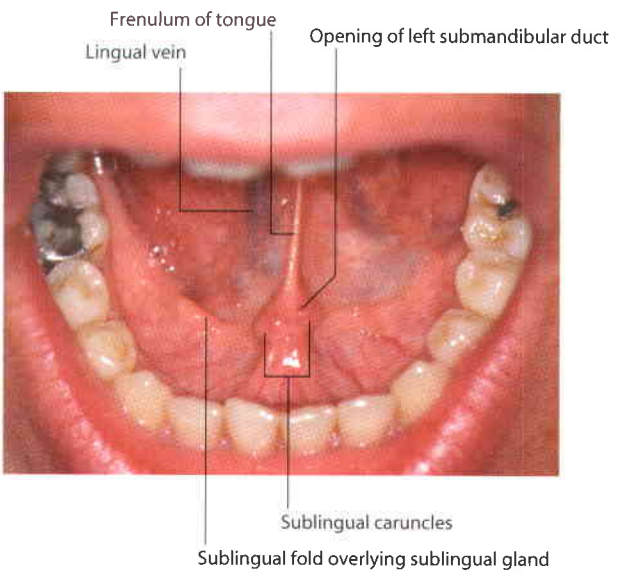
Roof of oral cavity



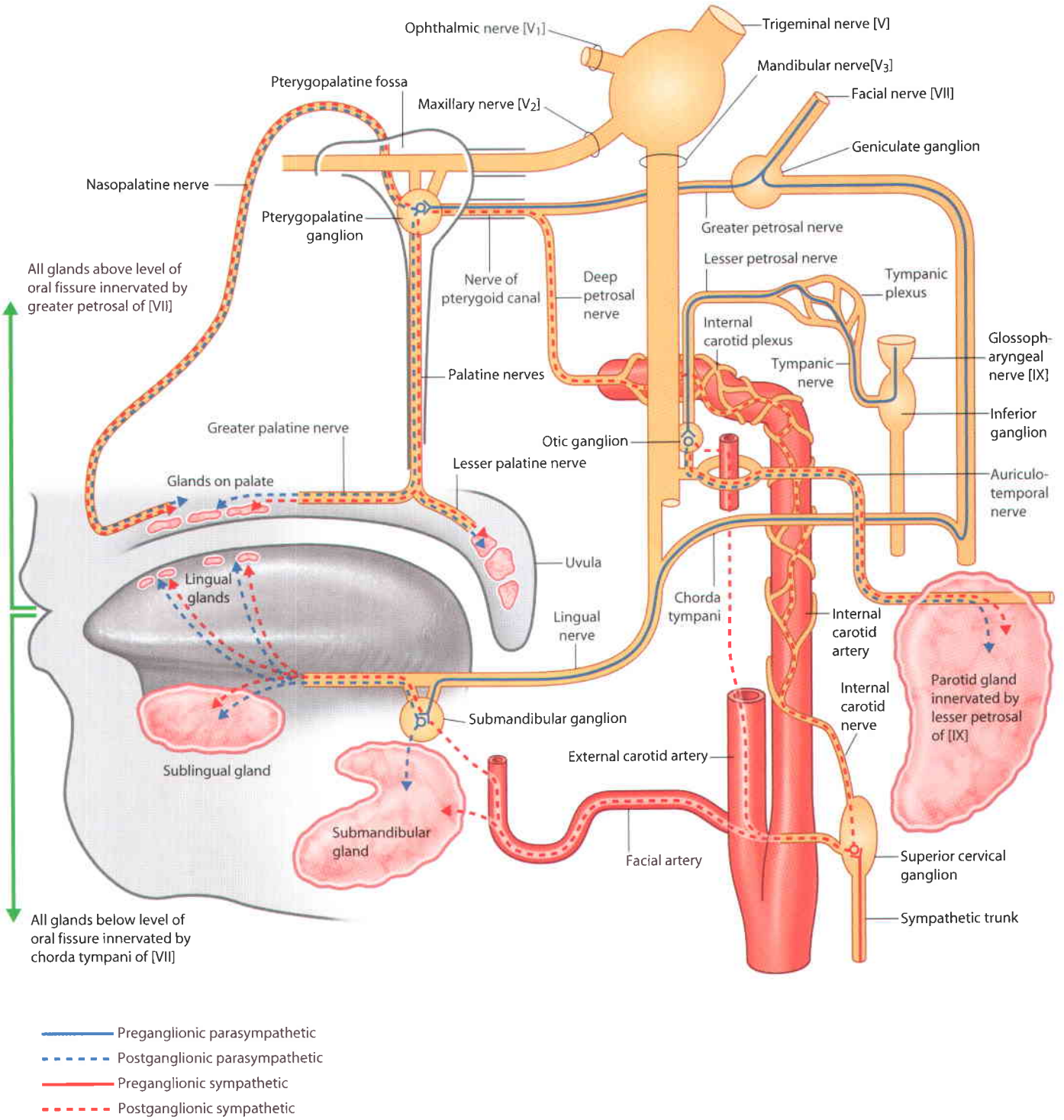
Open mouth showing soft palate



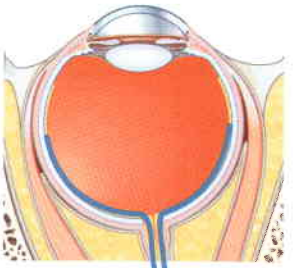
Inferior surface of tongue and floor of oral cavity



Sublingual glands (anterosuperior view)



Visceral efferent (motor) innervation of glands related to the oral cavity

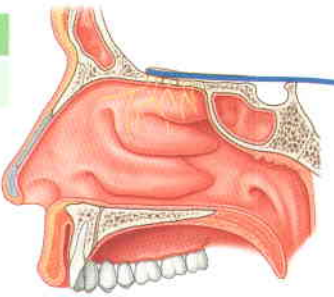


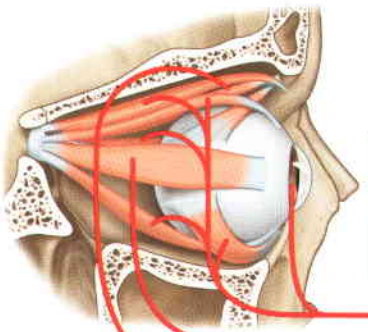
Optic nerve [II]

Special sensory – vision

Olfactory nerve [I]

Special sensory – smell





Oculomotor nerve [III]

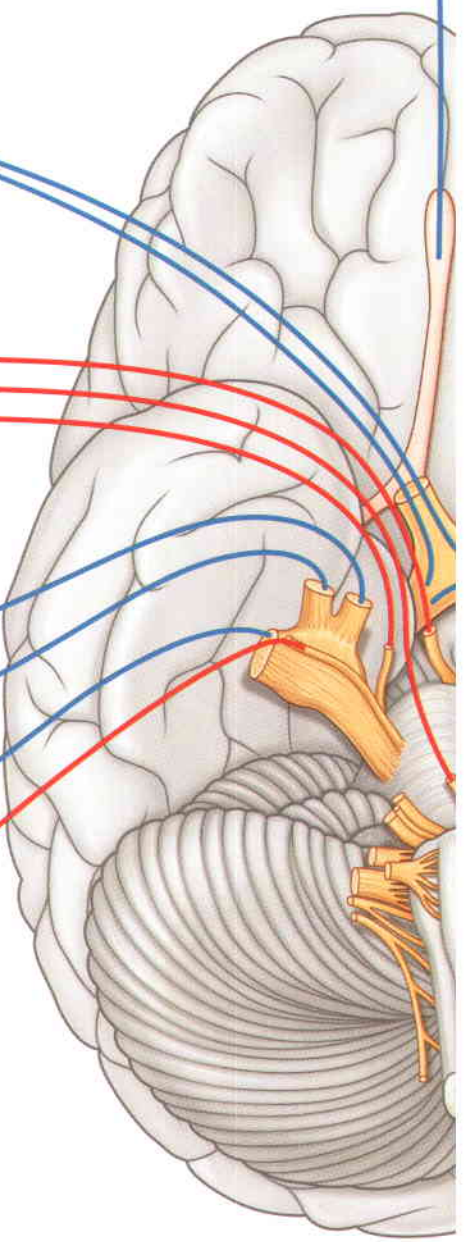
Somatic motor – five extra-ocular muscles (superior rectus, medial rectus, inferior oblique, inferior rectus, and levator palpebrae superioris)
Visceral motor – ciliary muscles and sphincter pupillae muscles

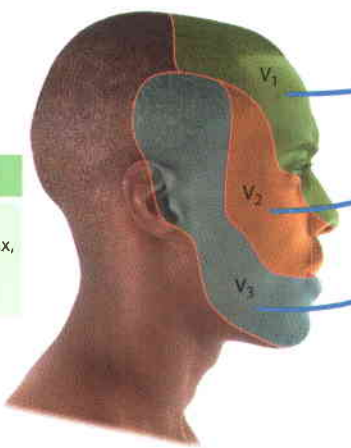
Trochlear nerve [IV]

Somatic motor – one extra-ocular muscle (superior oblique)

Abducent nerve [IV]

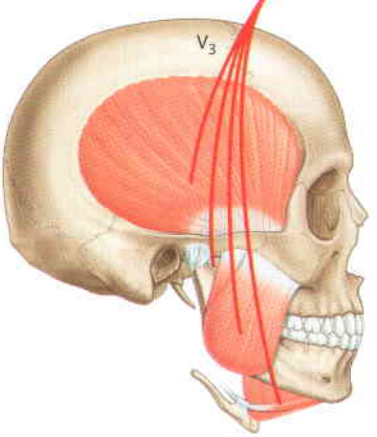
Somatic motor – one extra- ocular muscle (lateral rectus)





Trigeminal nerve [V] sensory root

Somatic sensory – eyes, orbital contents, face, sinuses, teeth, nasal cavities, oral cavity, nasopharynx, dura, anterior part of external ear, and part of external acoustic meatus



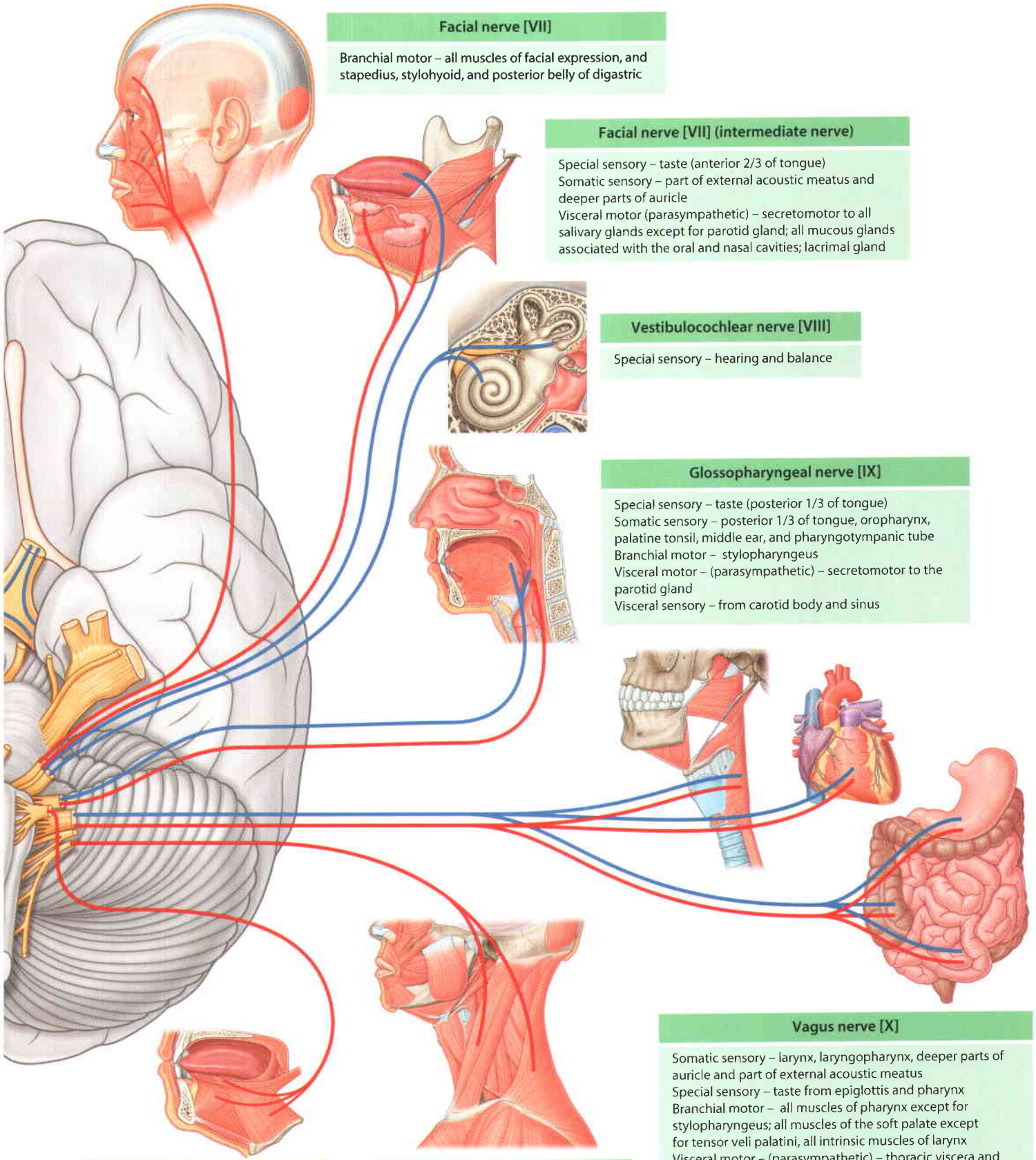
Trigeminal nerve [V] motor root

Branchial motor – the four muscles of mastication (medial pterygoid, lateral pterygoid, masseter, temporalis) and mylohyoid, anterior belly of digastric, tensor tympani, and tensor veli palatini

Efferent (motor) fibers

Afferent (sensory) fibers

Overview of cranial nerves



Facial nerve [VII]

Branchial motor – all muscles of facial expression, and stapedius, stylohyoid, and posterior belly of digastric

Facial nerve [VII] (intermediate nerve)

Special sensory – taste (anterior 2/3 of tongue)
Somatic sensory – part of external acoustic meatus and deeper parts of auricle
Visceral motor (parasympathetic) – secretomotor to all salivary glands except for parotid gland; all mucous glands associated with the oral and nasal cavities; lacrimal gland

Vestibulocochlear nerve [VIII]

Special sensory – hearing and balance

Glossopharyngeal nerve [IX]

Special sensory – taste (posterior 1/3 of tongue)
Somatic sensory – posterior 1/3 of tongue, oropharynx, palatine tonsil, middle ear, and pharyngotympanic tube
Branchial motor – stylopharyngeus
Visceral motor – (parasympathetic) – secretomotor to the parotid gland
Visceral sensory – from carotid body and sinus

Vagus nerve [X]

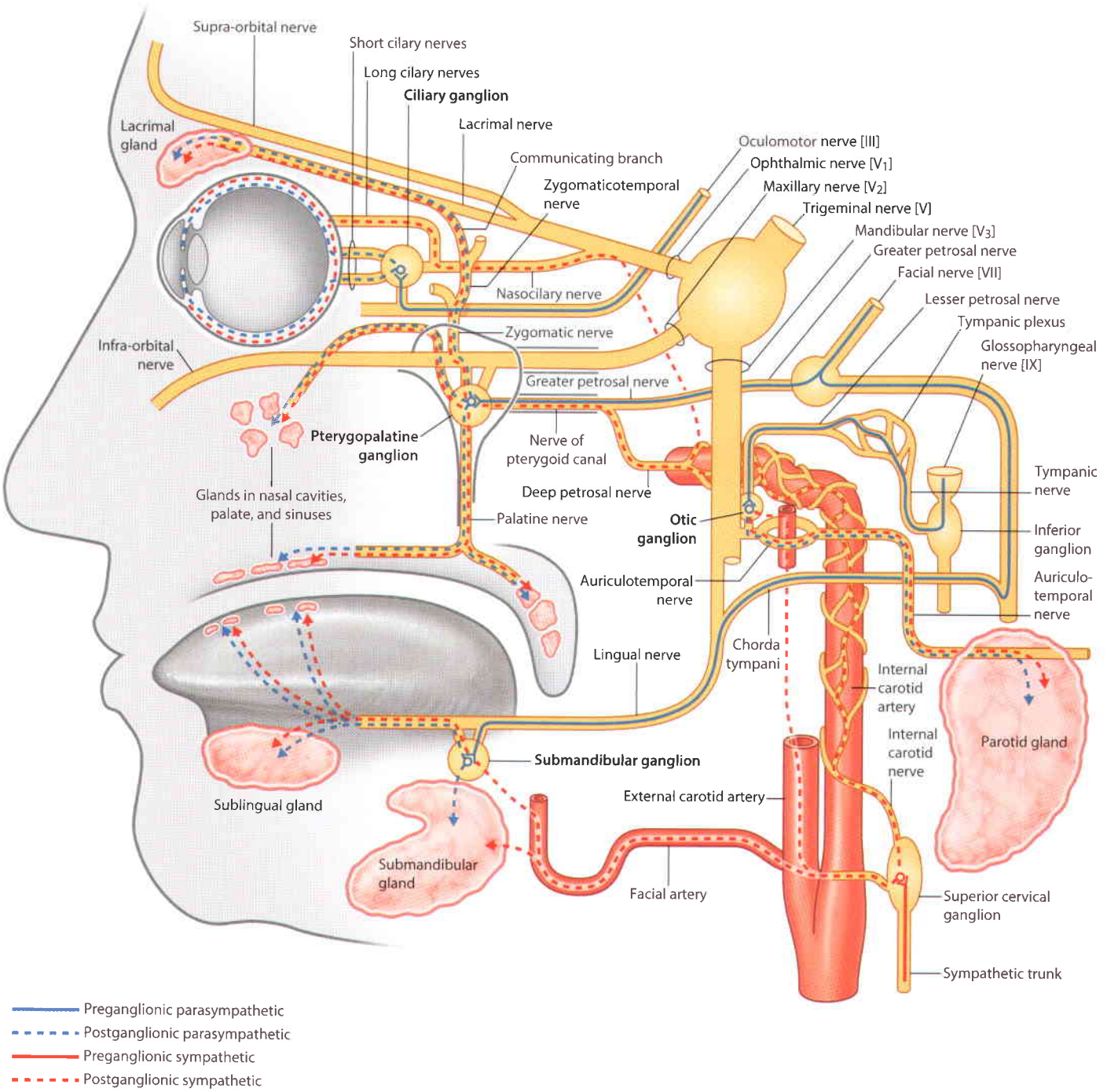
Somatic sensory – larynx, laryngopharynx, deeper parts of auricle and part of external acoustic meatus
Special sensory – taste from epiglottis and pharynx
Branchial motor – all muscles of pharynx except for stylopharyngeus; all muscles of the soft palate except for tensor veli palatini, all intrinsic muscles of larynx
Visceral motor – (parasympathetic) – thoracic viscera and abdominal viscera to end of midgut
Visceral sensory – thoracic viscera and abdominal viscera to end of midgut, chemo- and baroreceptors (and in some cases carotid body)

Hypoglossal nerve [XII]

Somatic motor – all muscles of the tongue except palatoglossus

Accessory nerve [XI]

Branchial motor – sternocleidomastoid and trapezius



Summary of visceral efferent (motor) pathways in the head

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