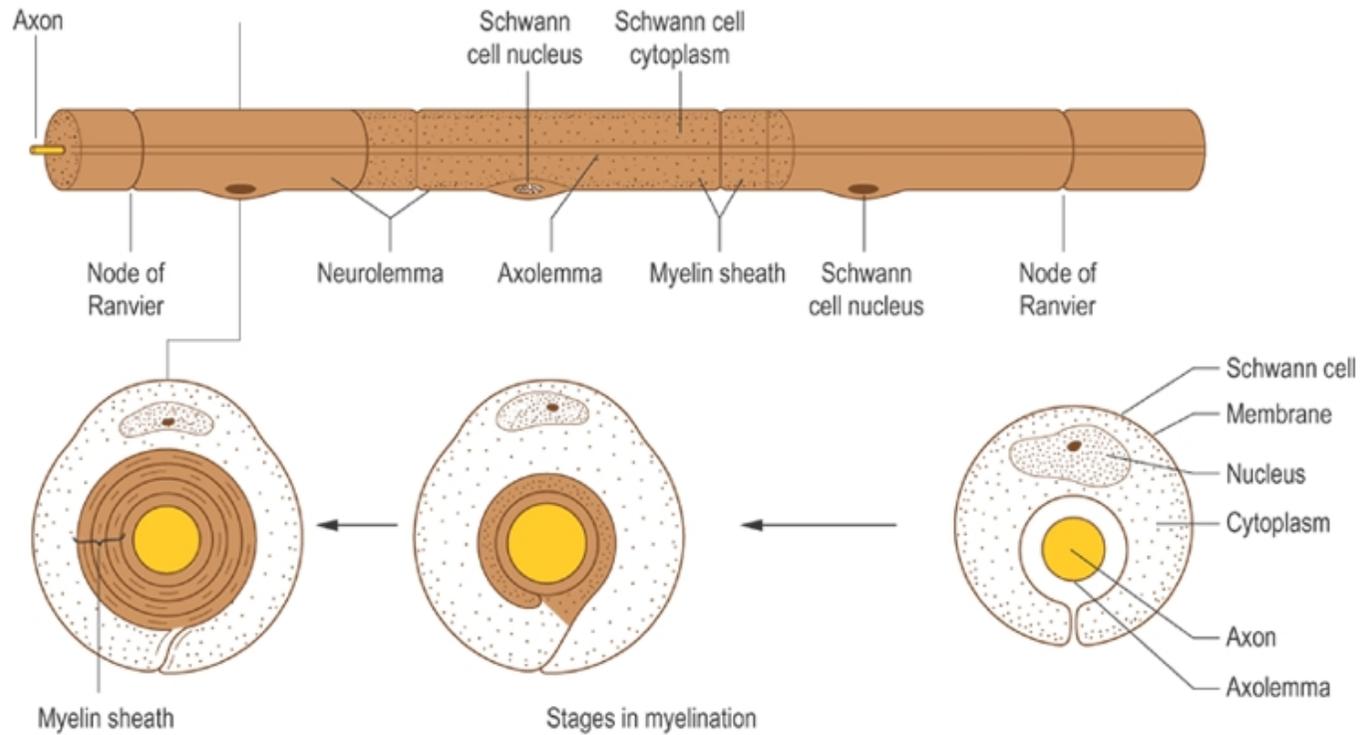
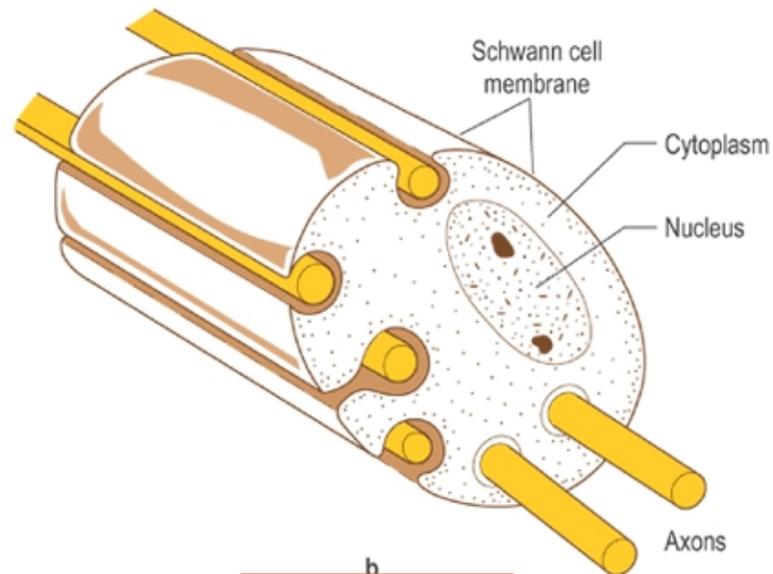


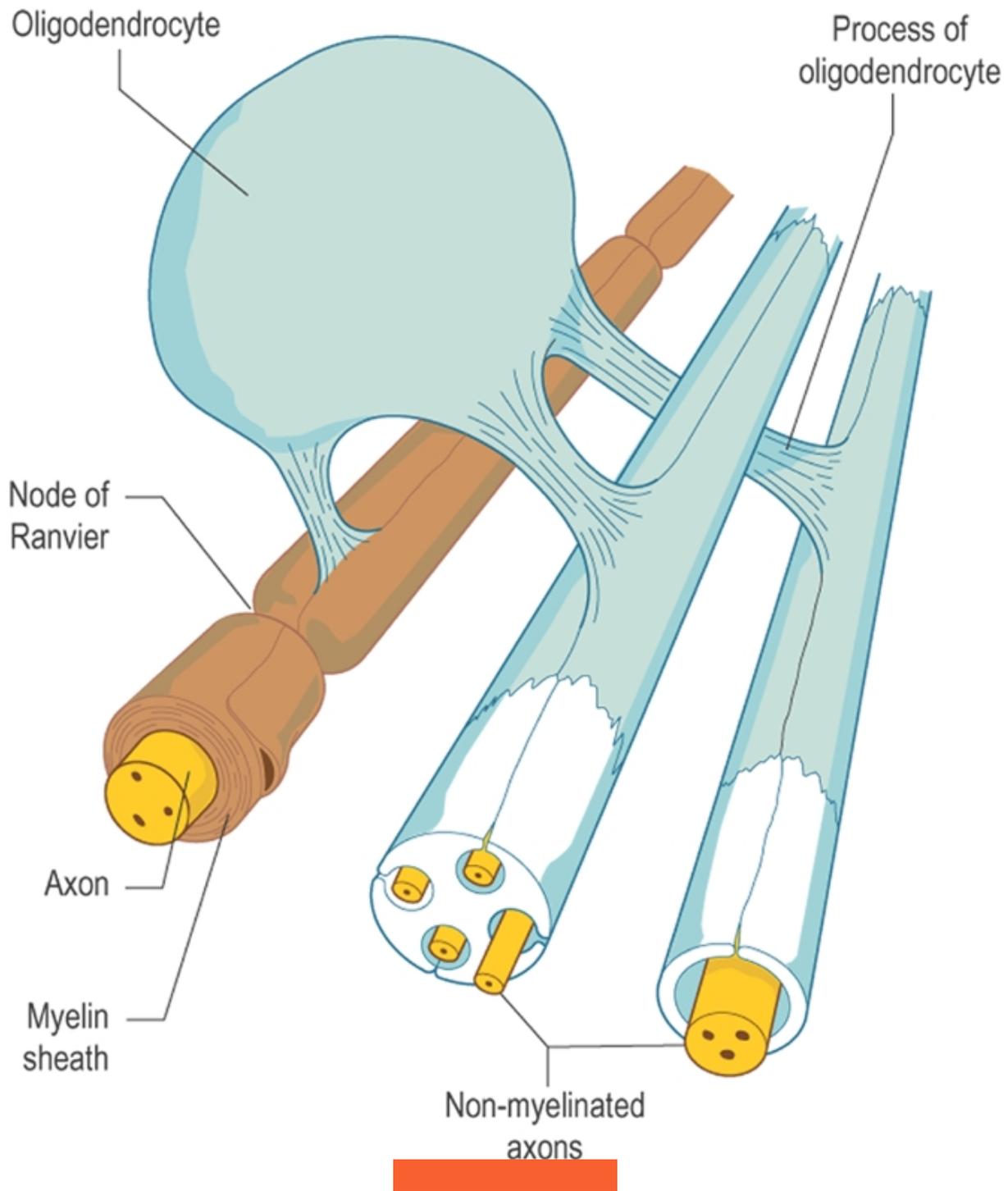
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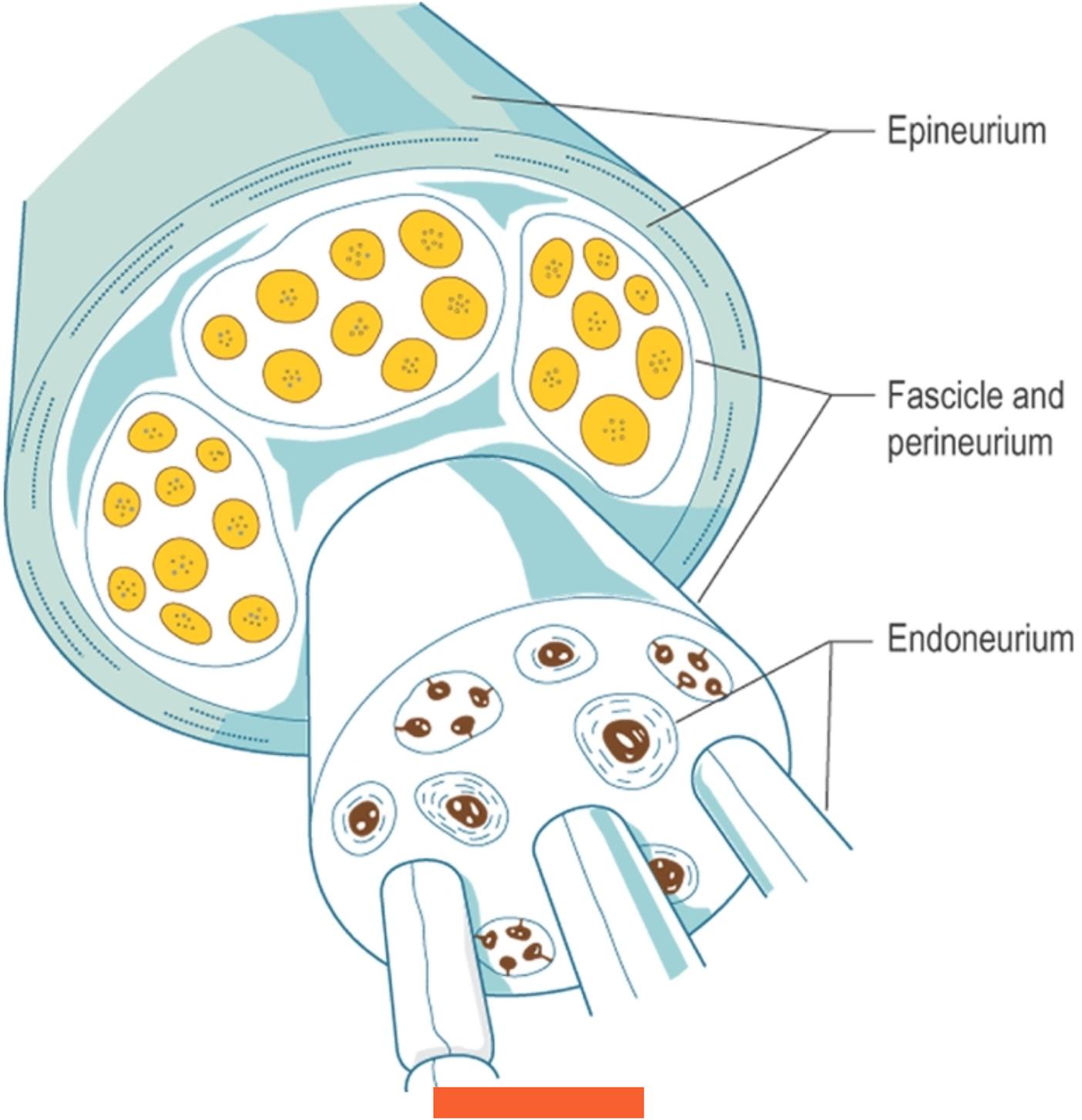


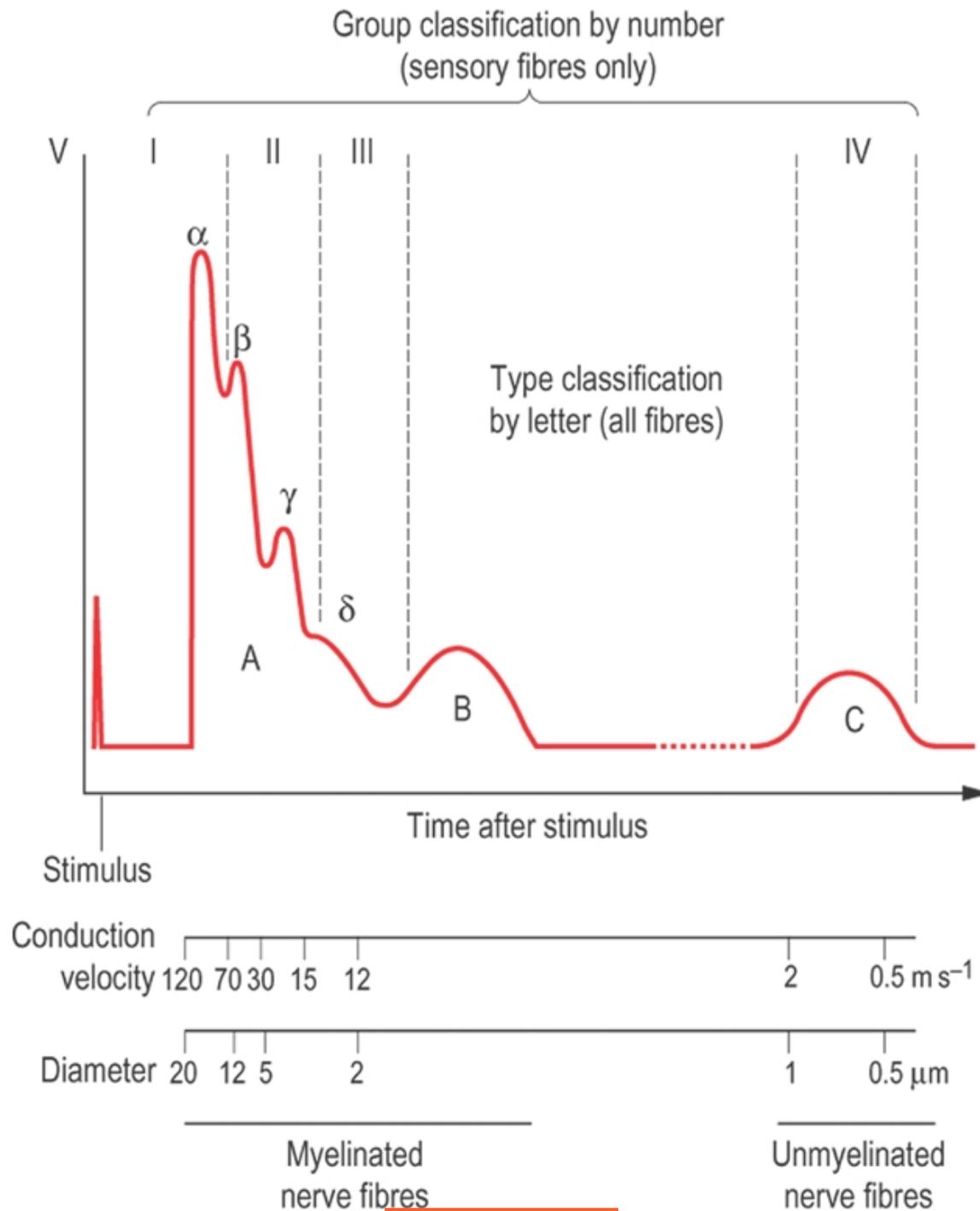
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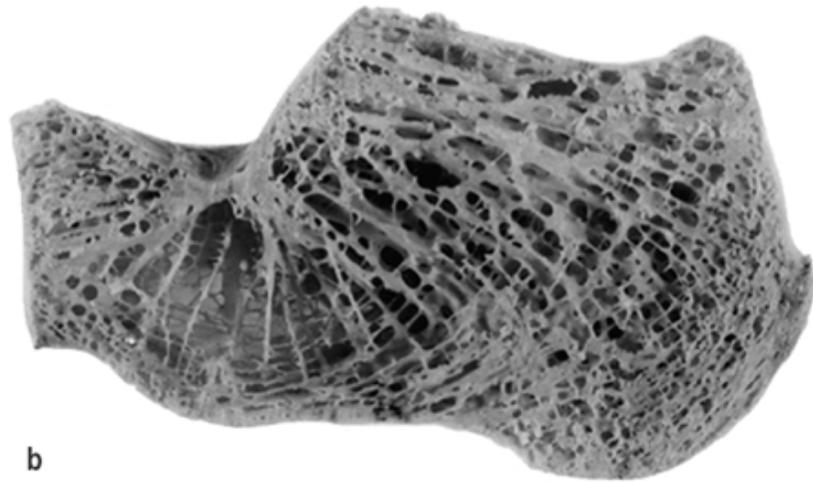






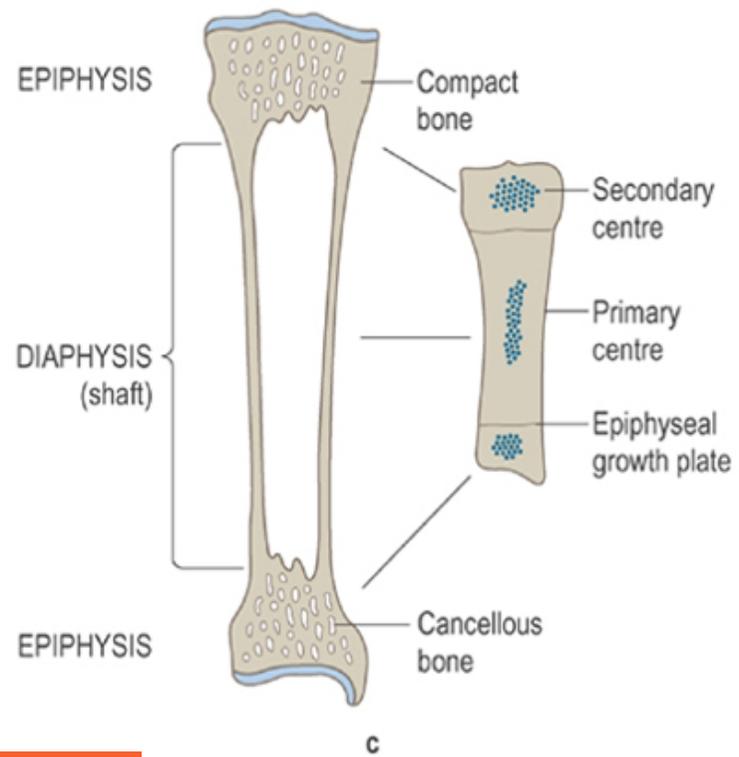
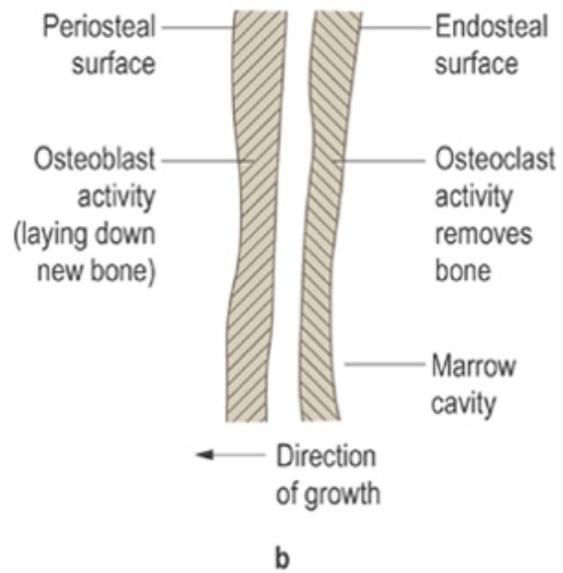
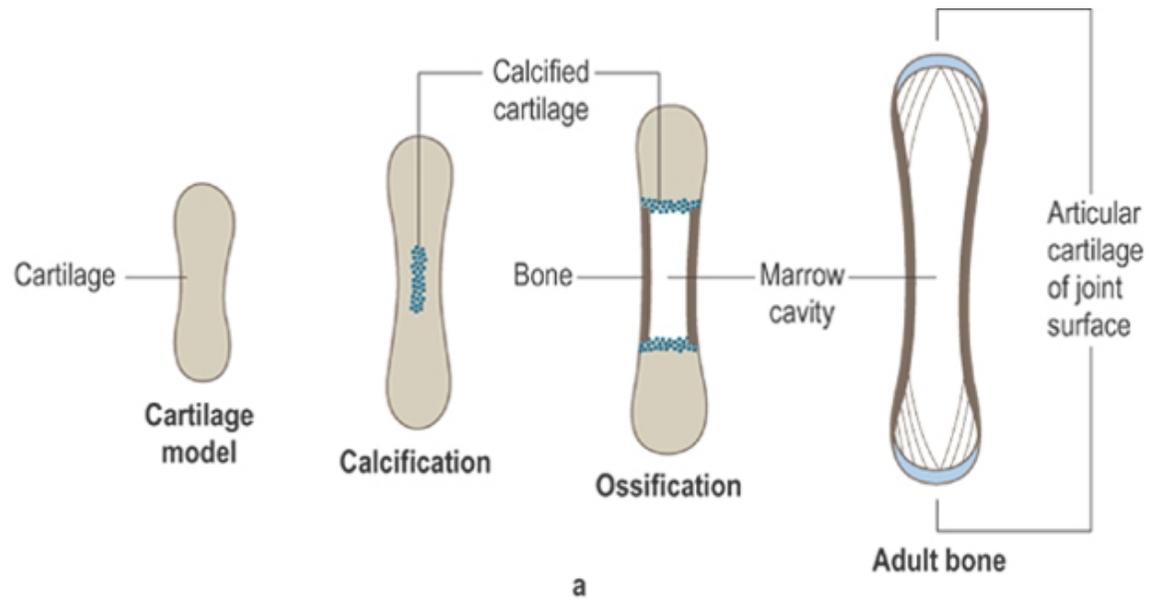


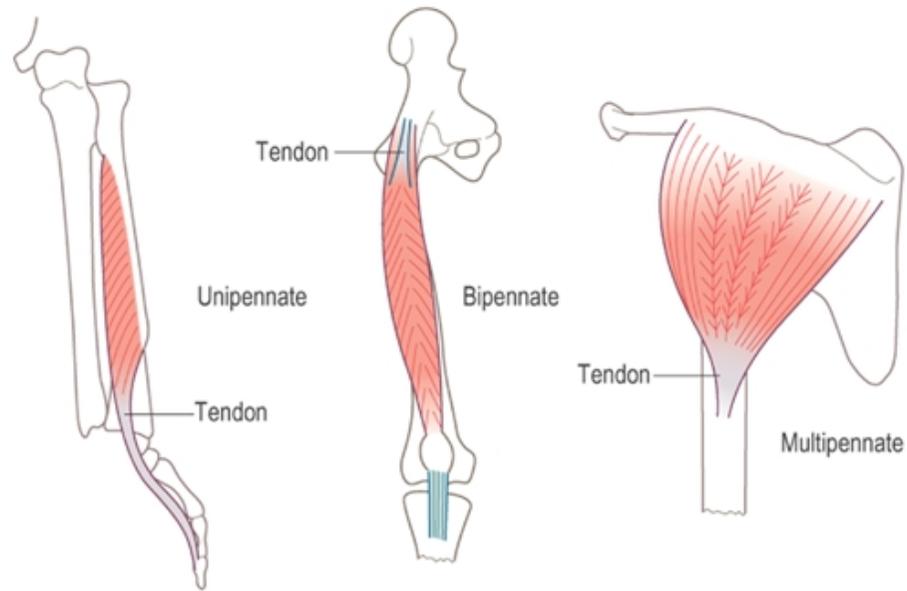
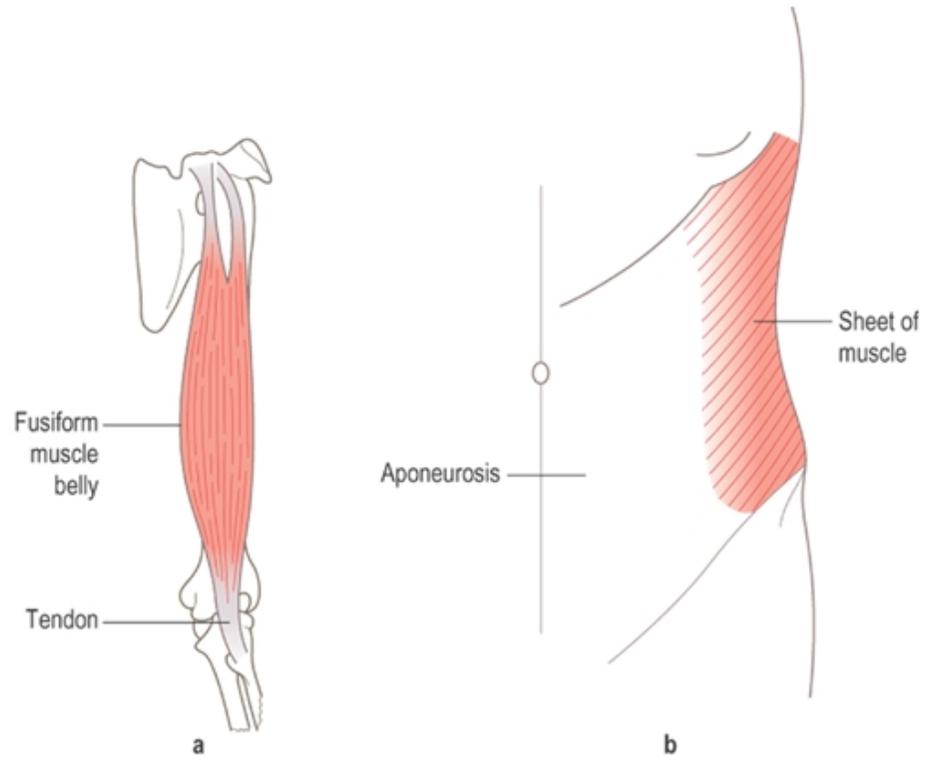
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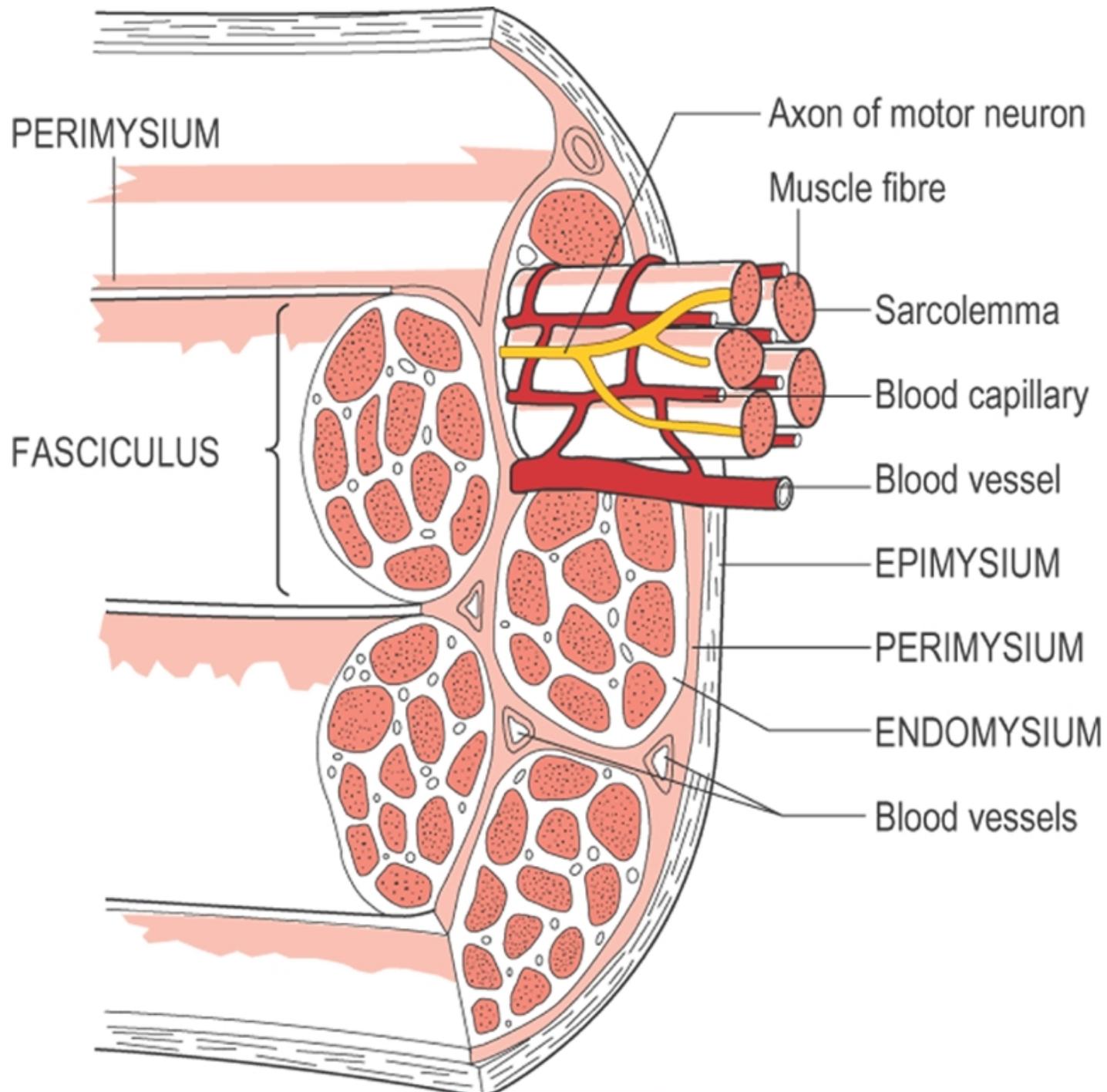


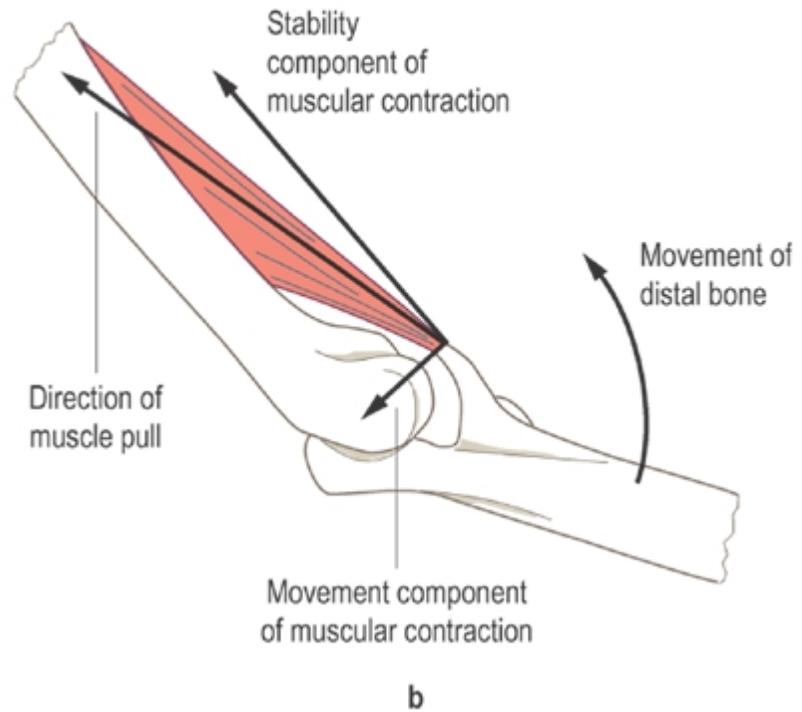
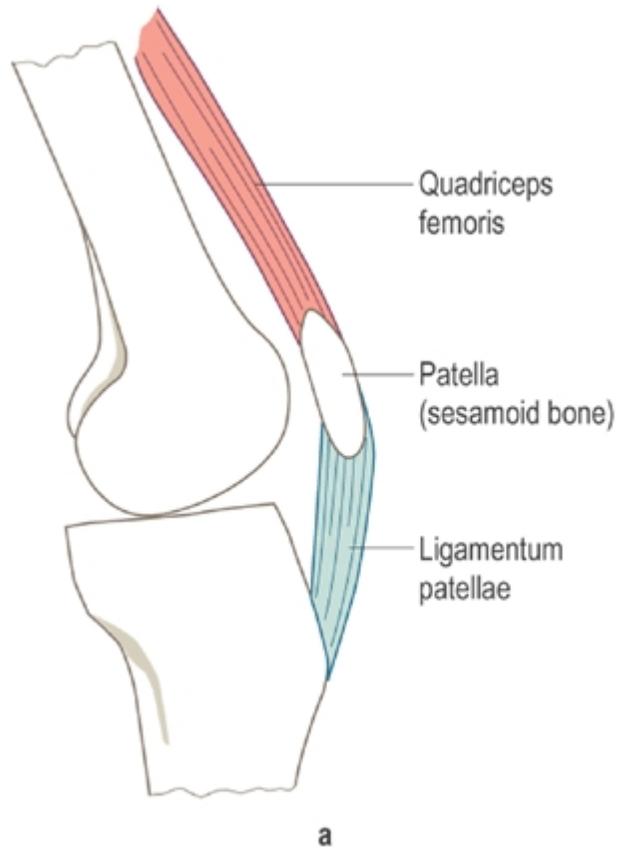
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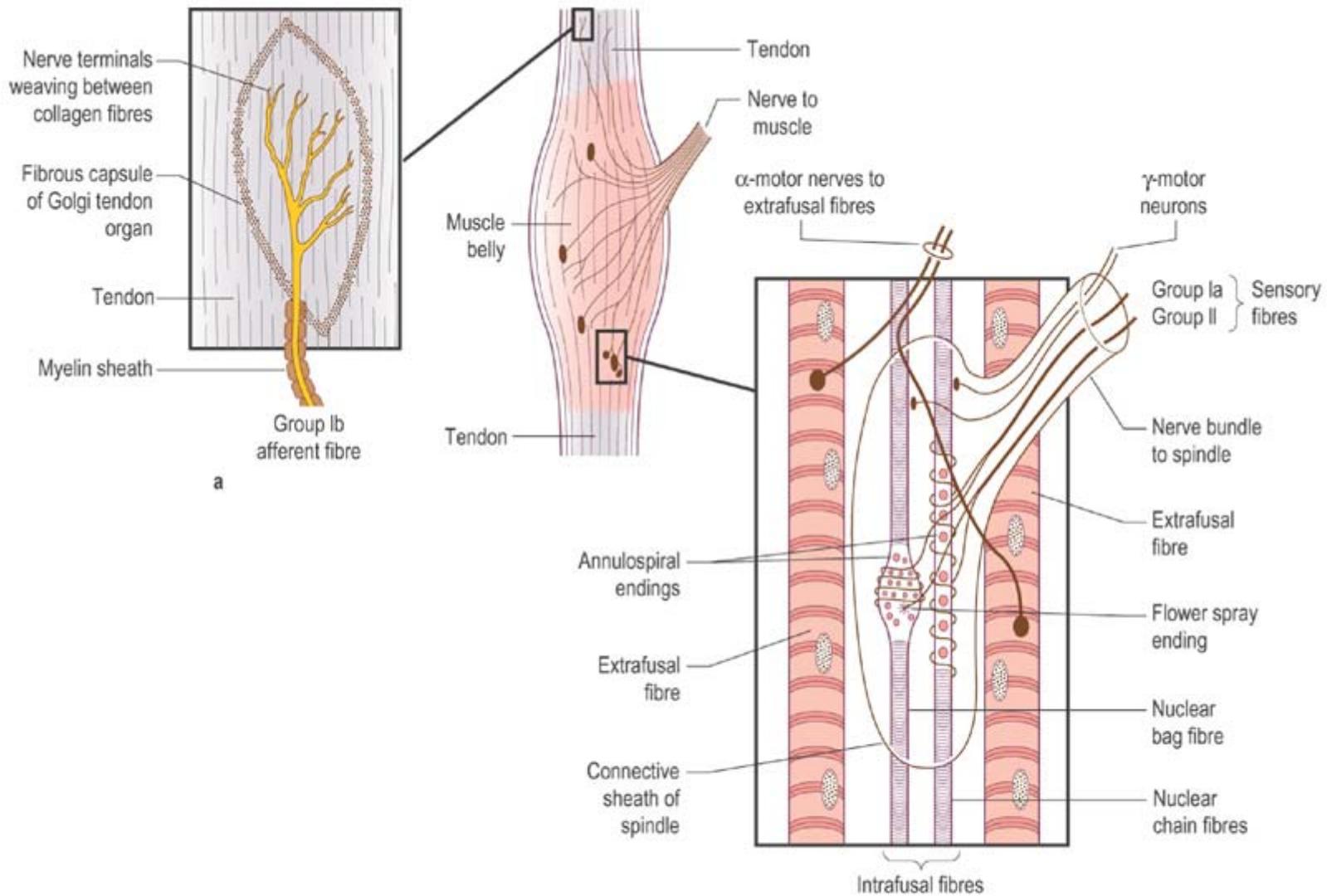




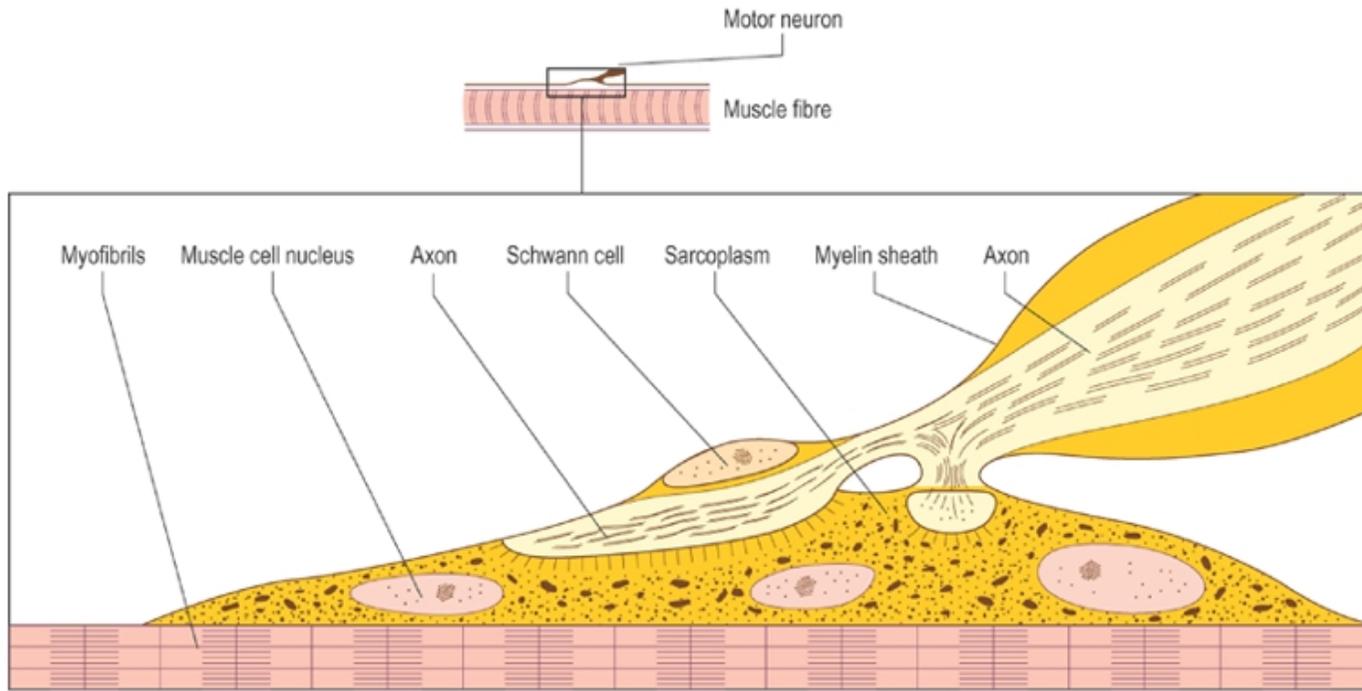




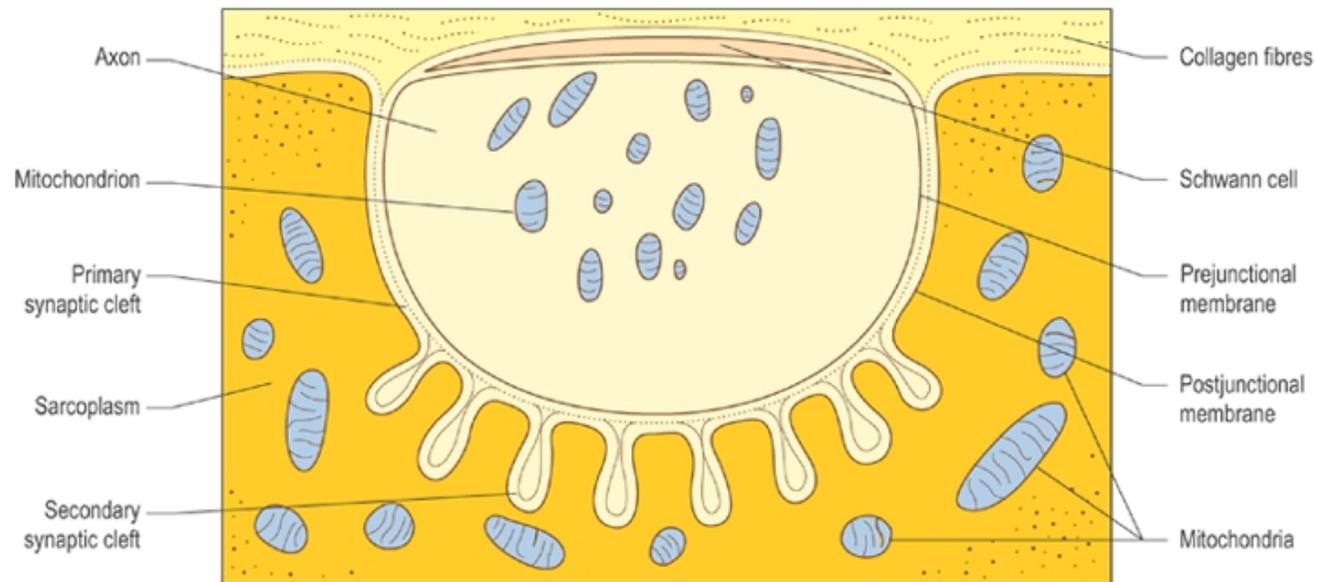
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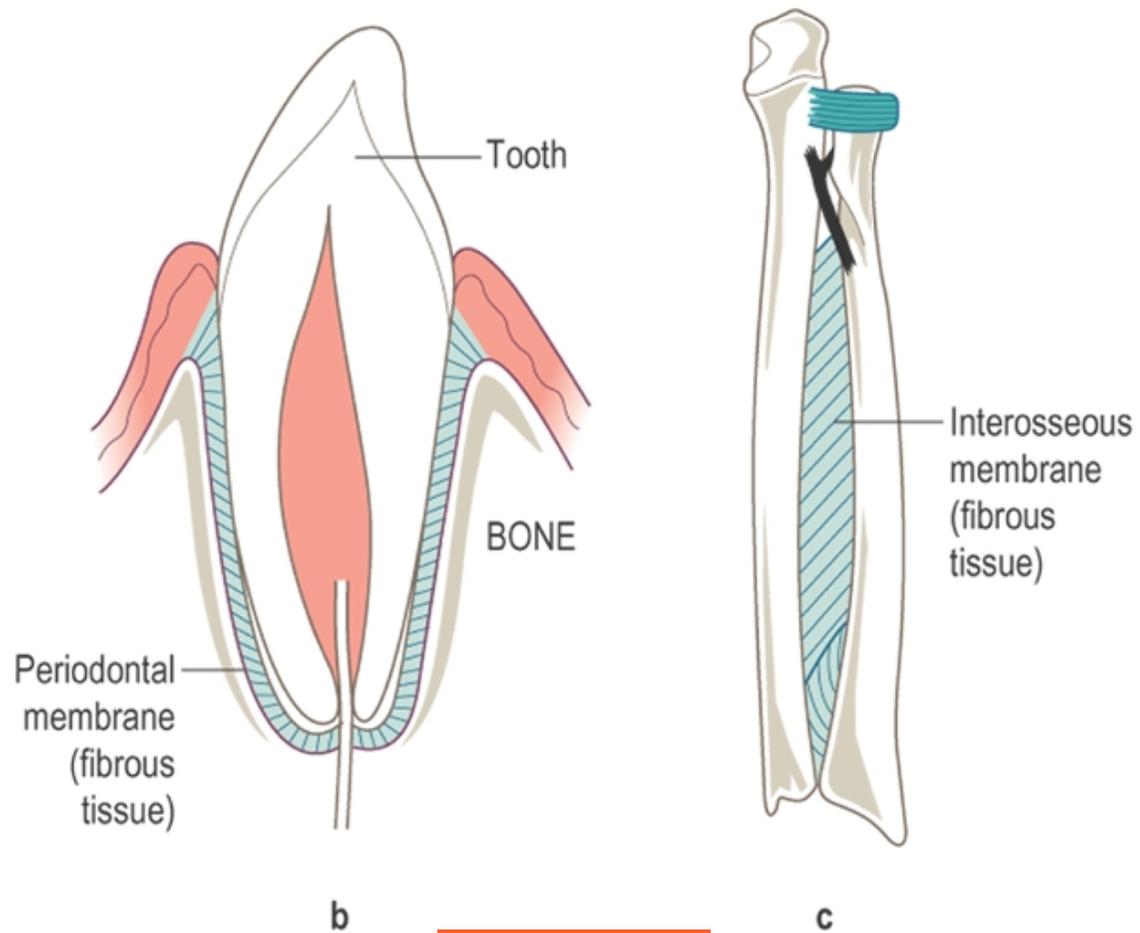
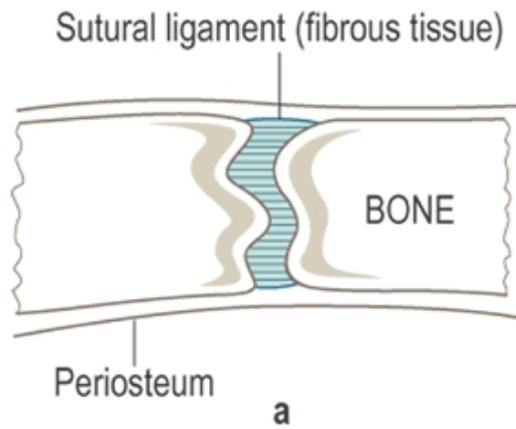


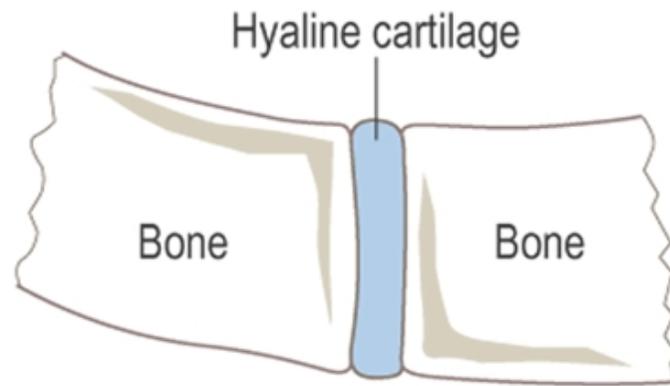
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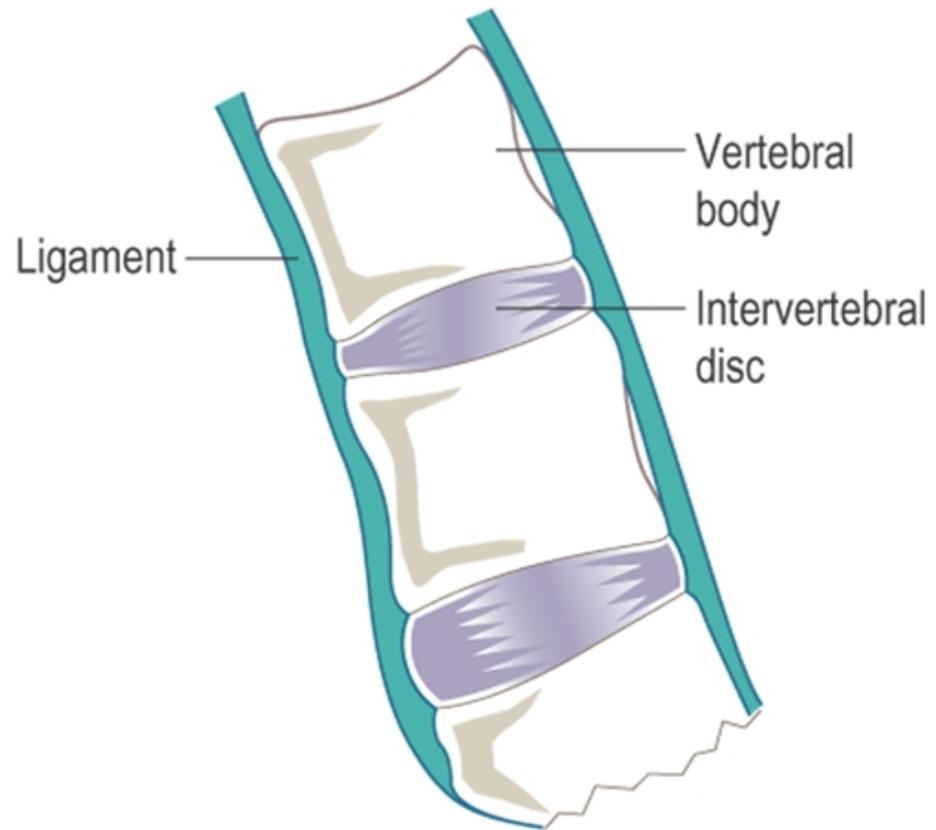
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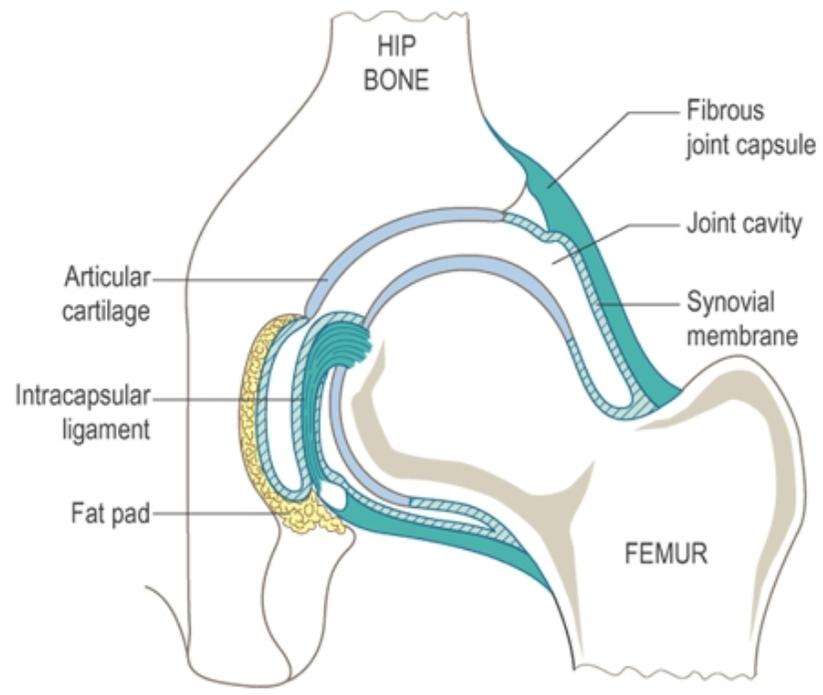


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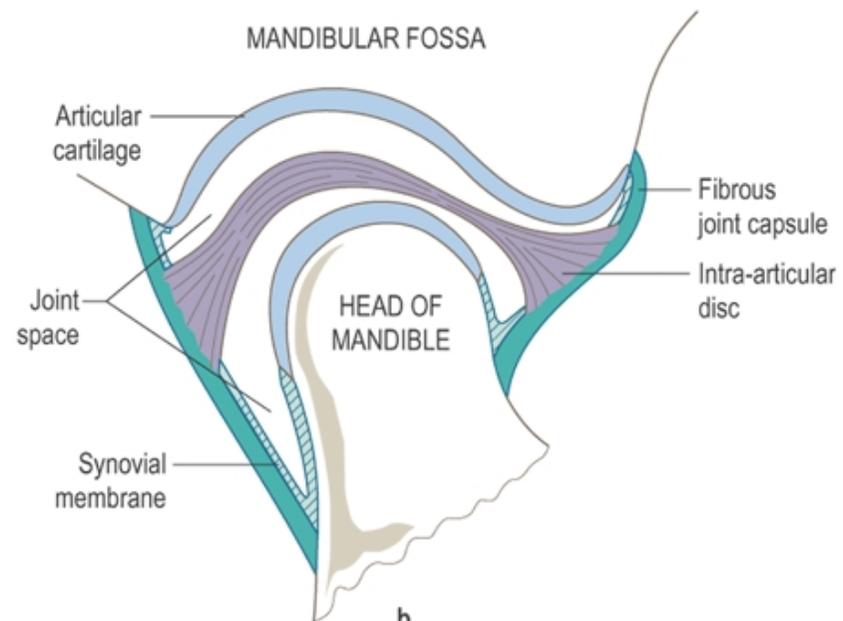


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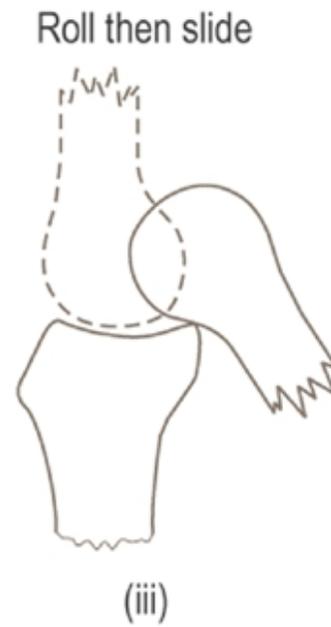
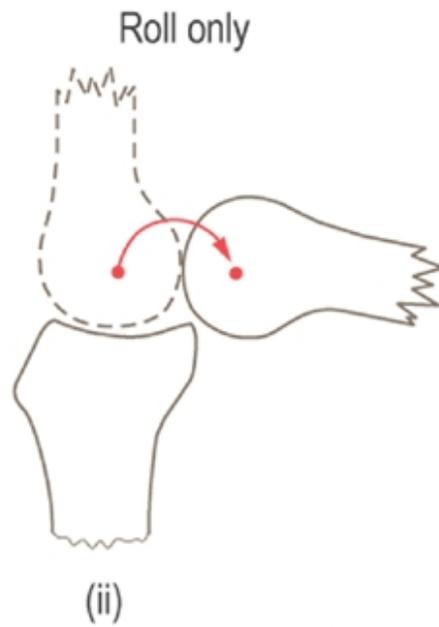
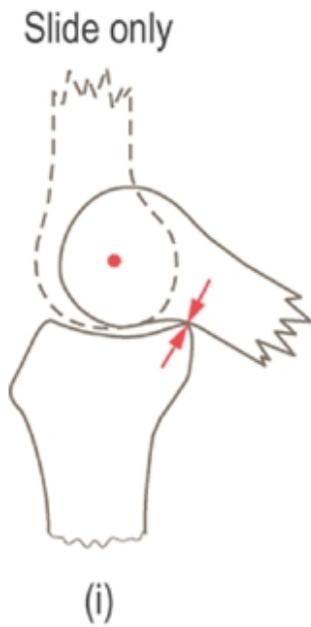
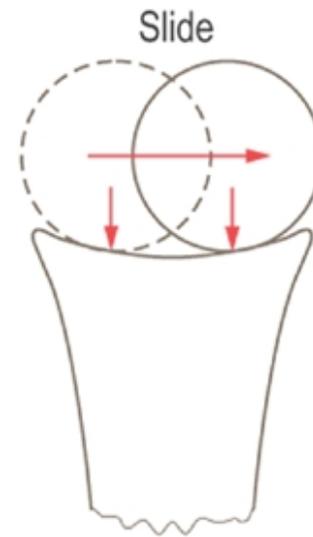
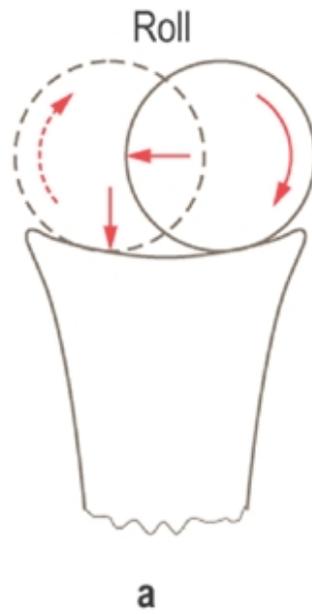
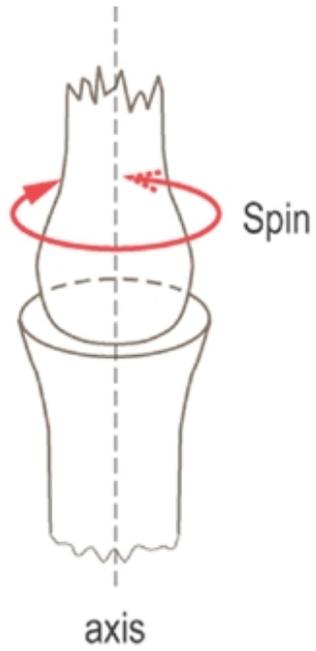




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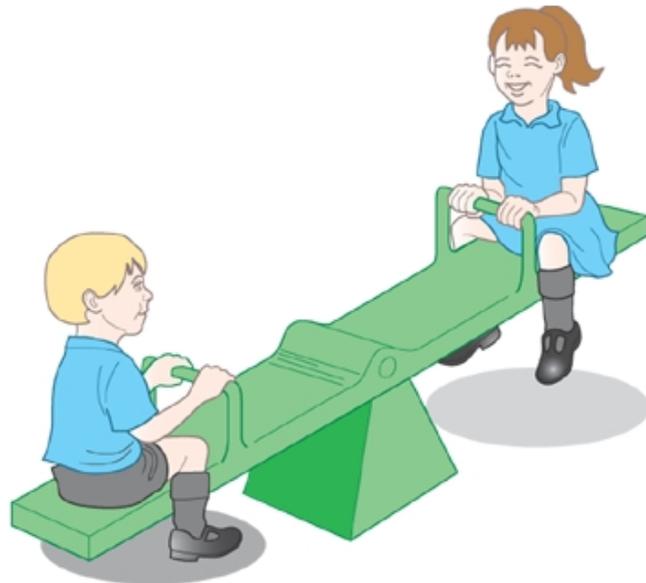


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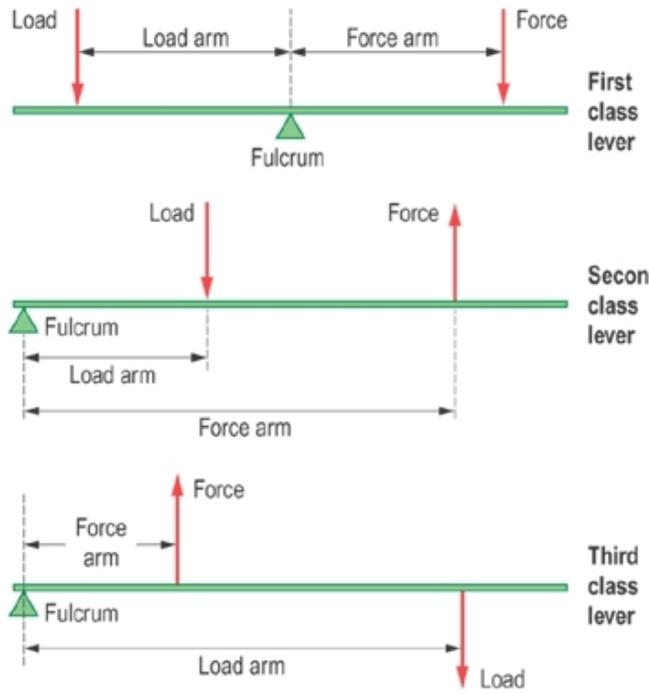


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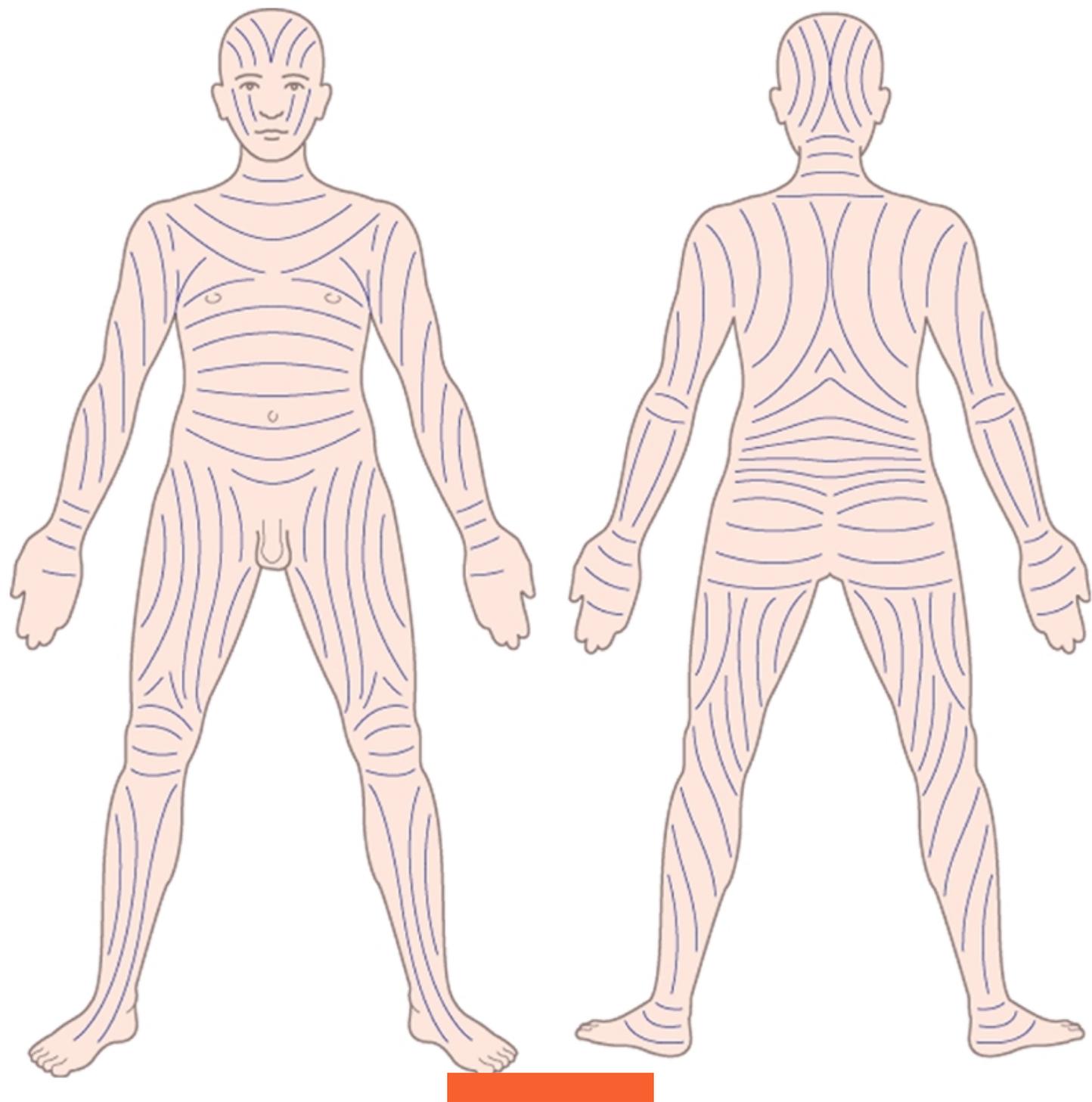


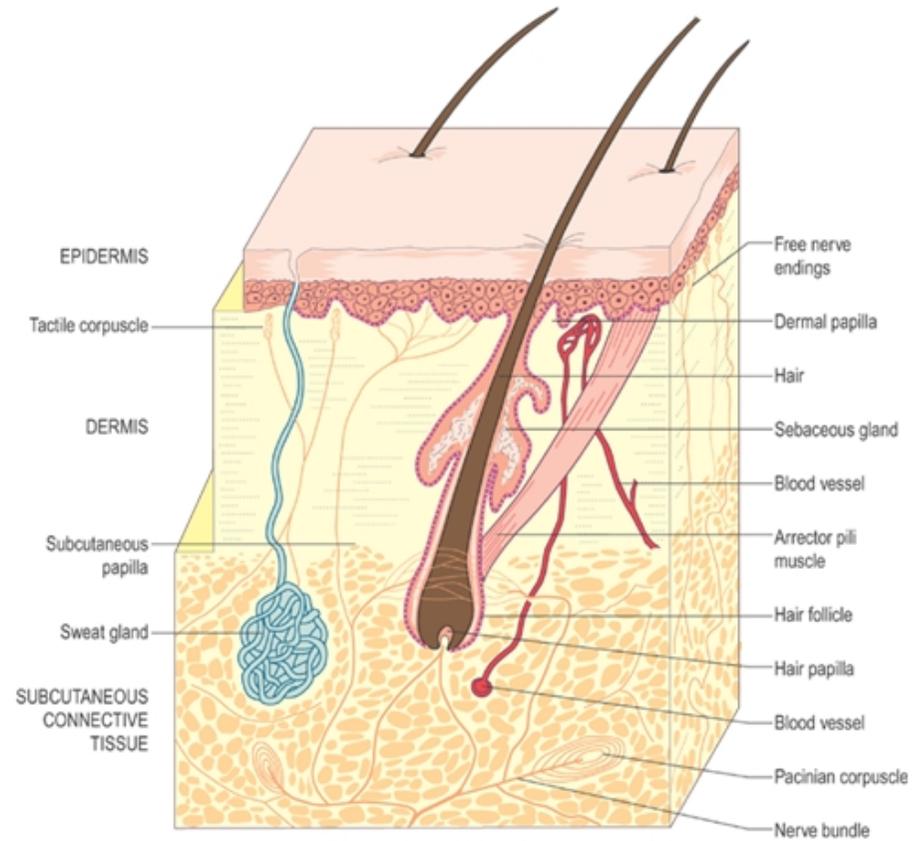
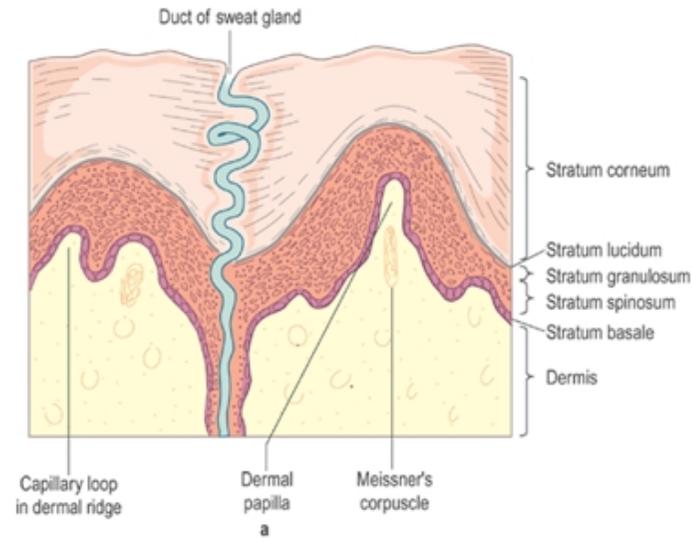
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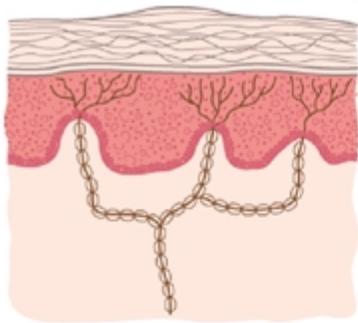


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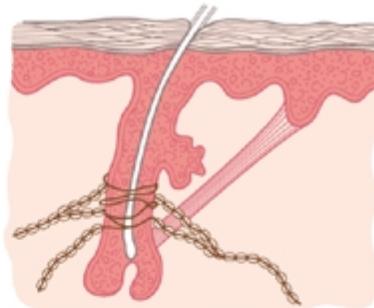




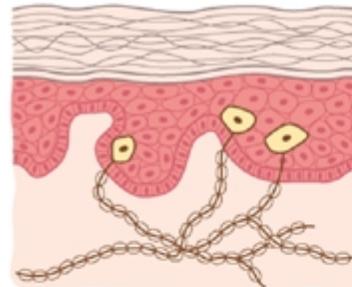




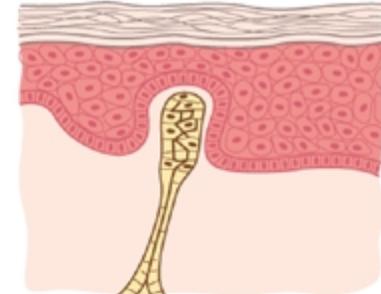
Free nerve endings



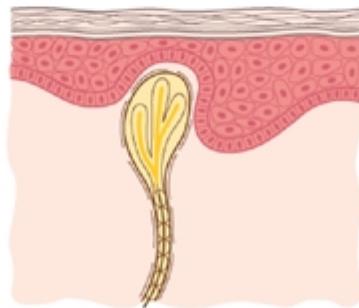
Hair follicle afferents



Merkel's discs



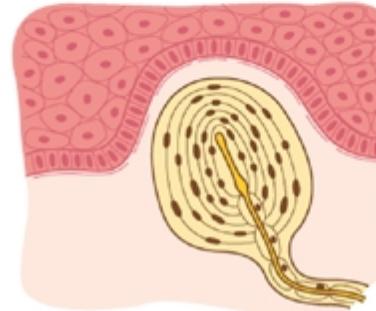
Meissner corpuscle



Krause end bulb

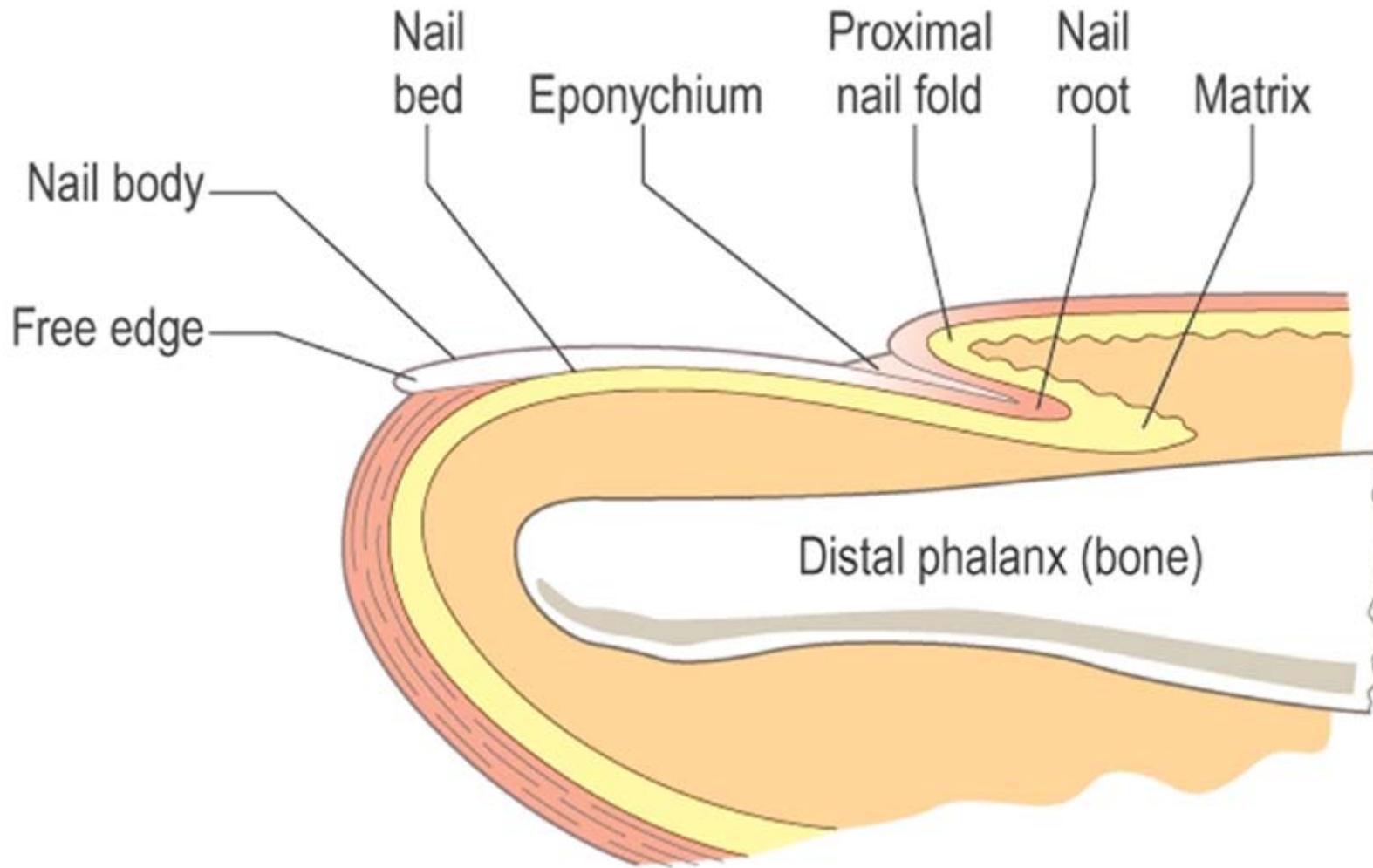


Ruffini corpuscle



Pacinian corpuscle

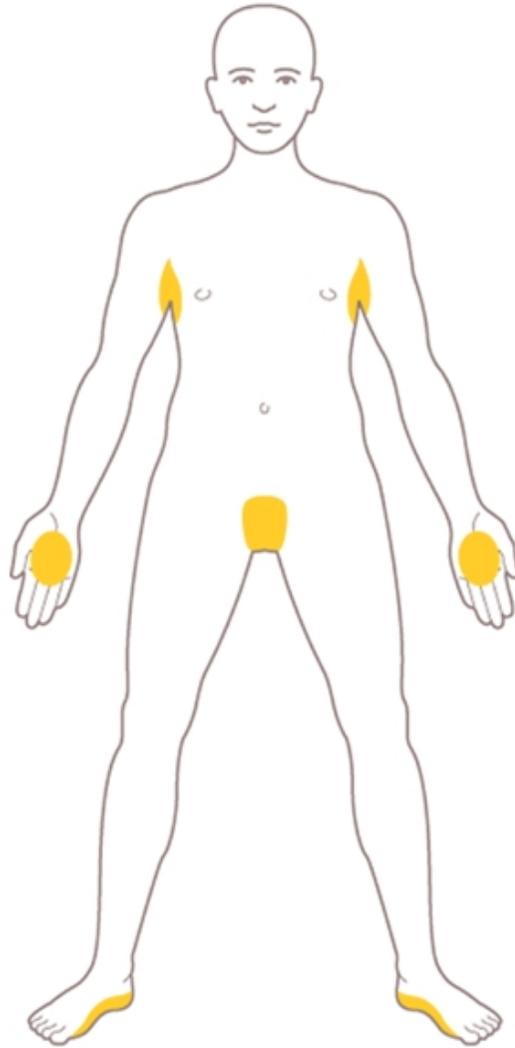
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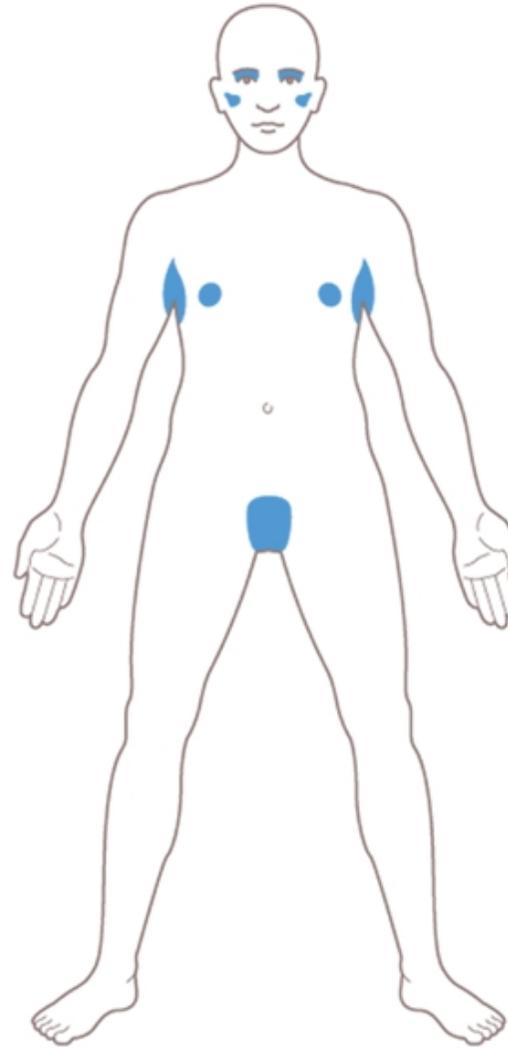
Sweat glands

Eccrine



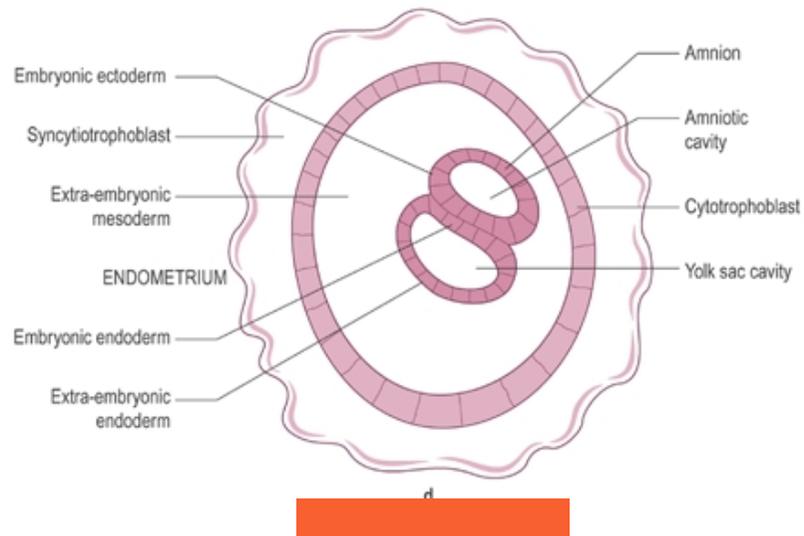
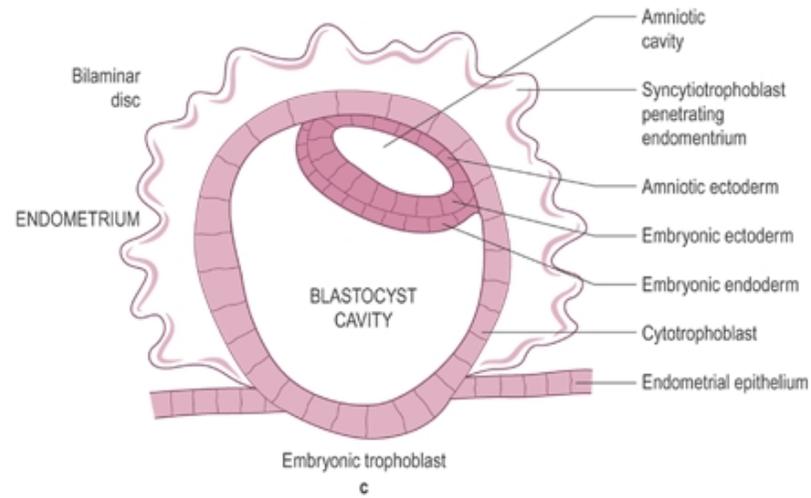
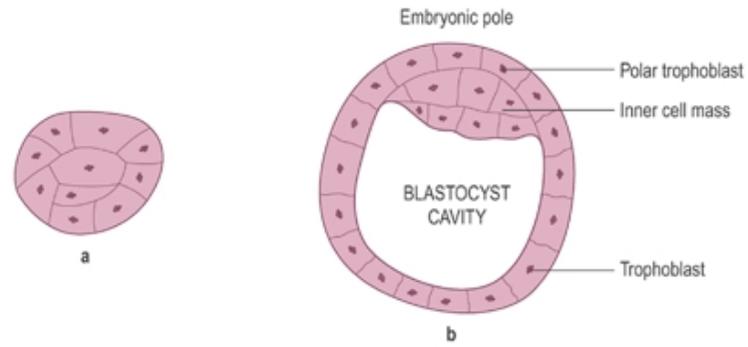
Axillae
Groin
Palms and soles

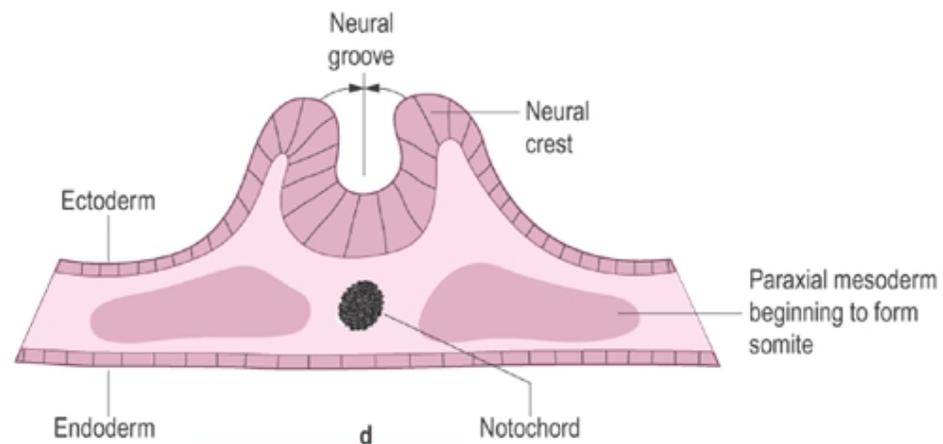
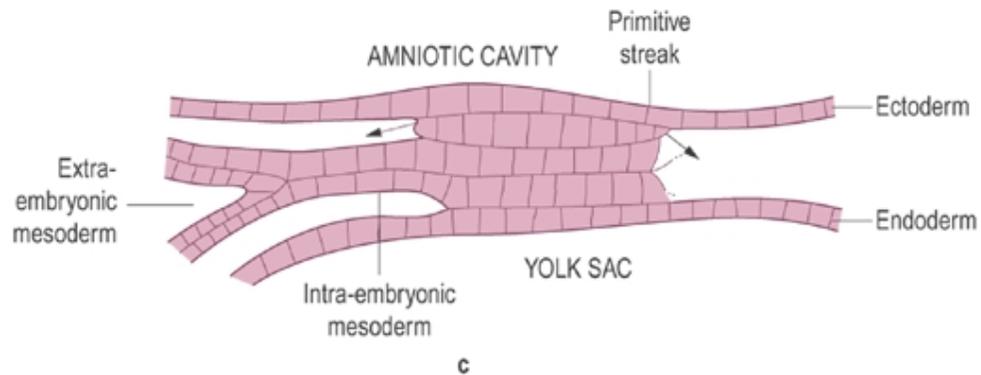
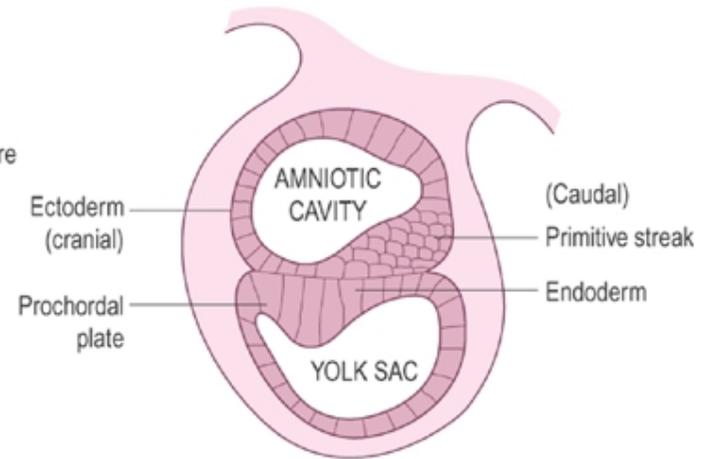
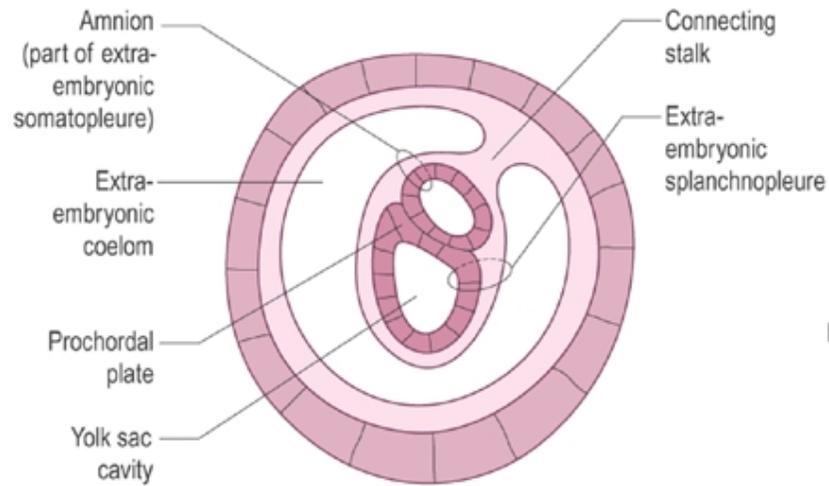
Apocrine

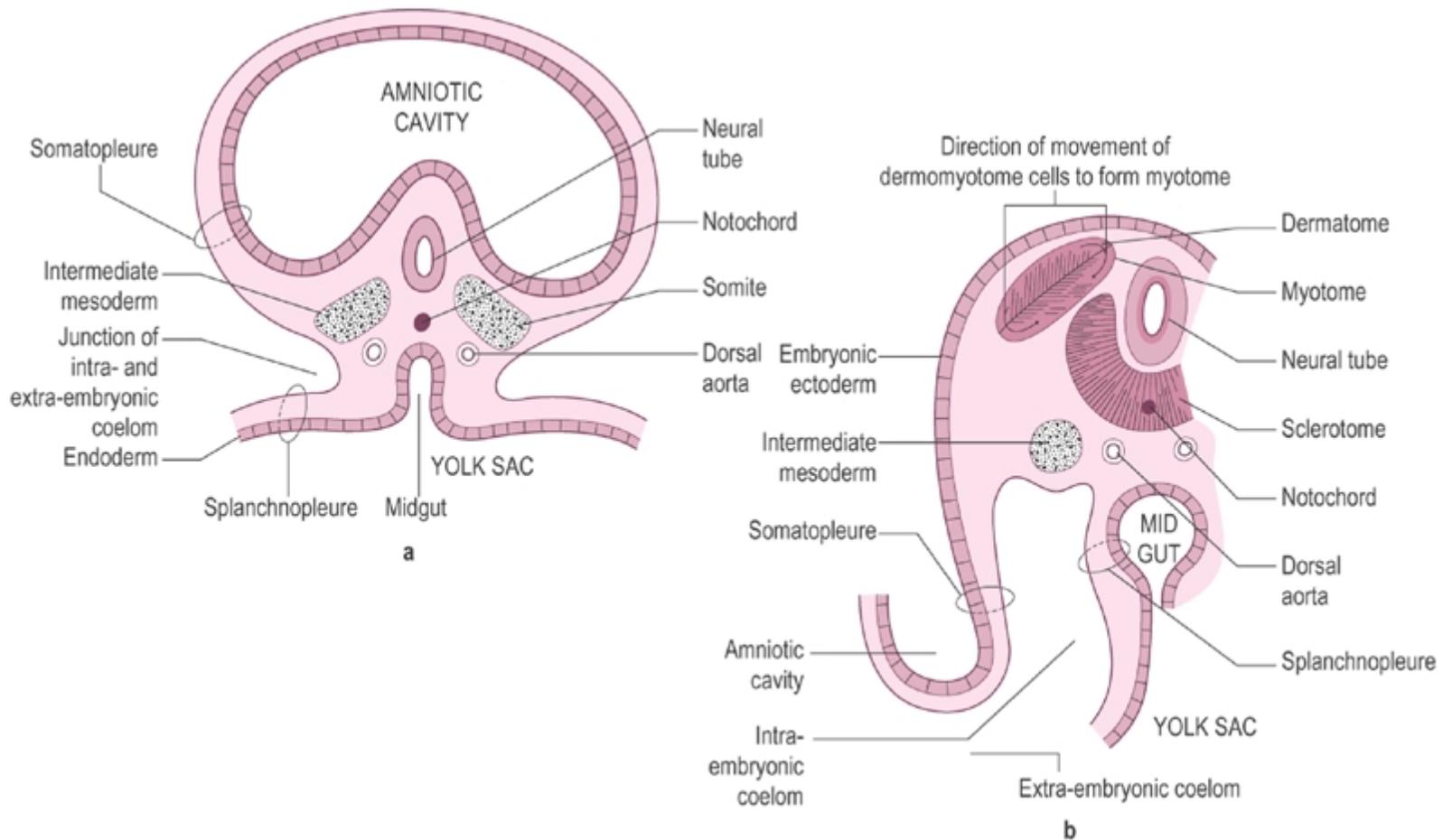


Eyelids
External acoustic meatus
Axillae
Areolae
Groin

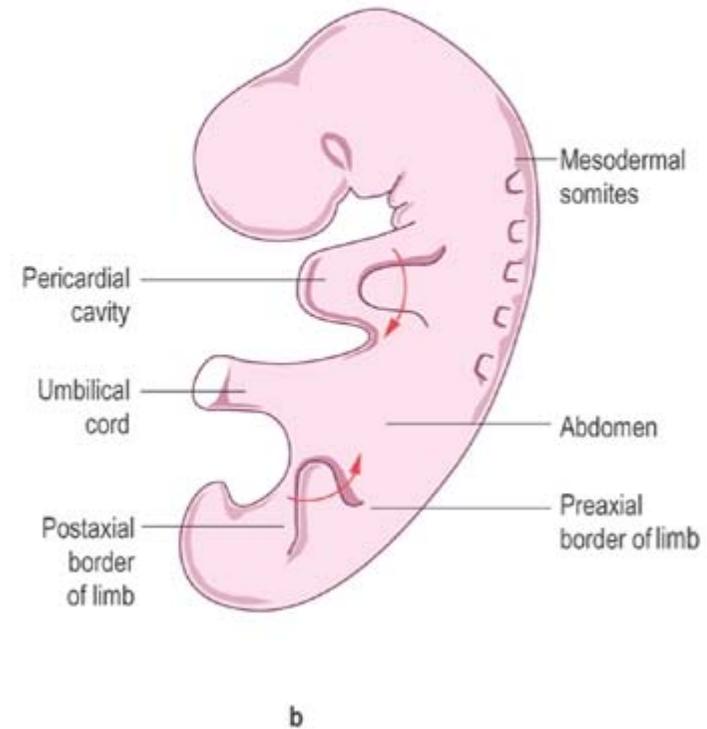
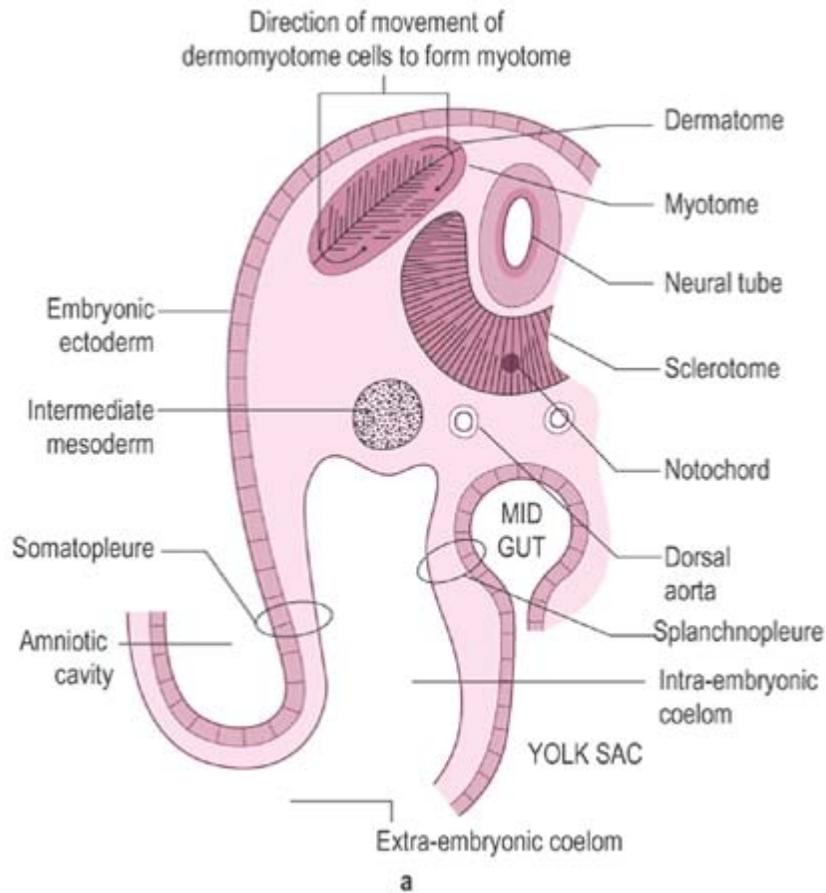




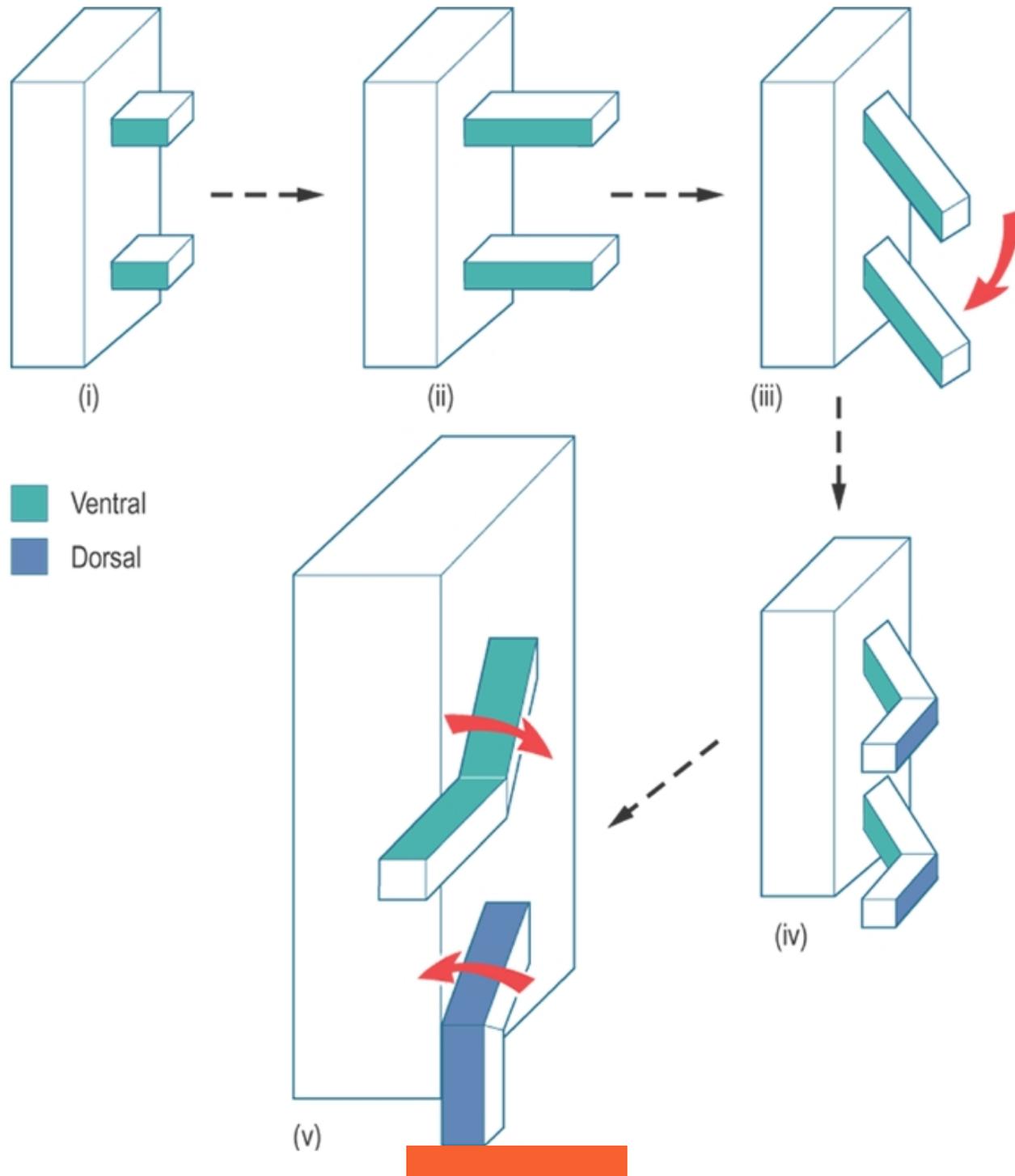




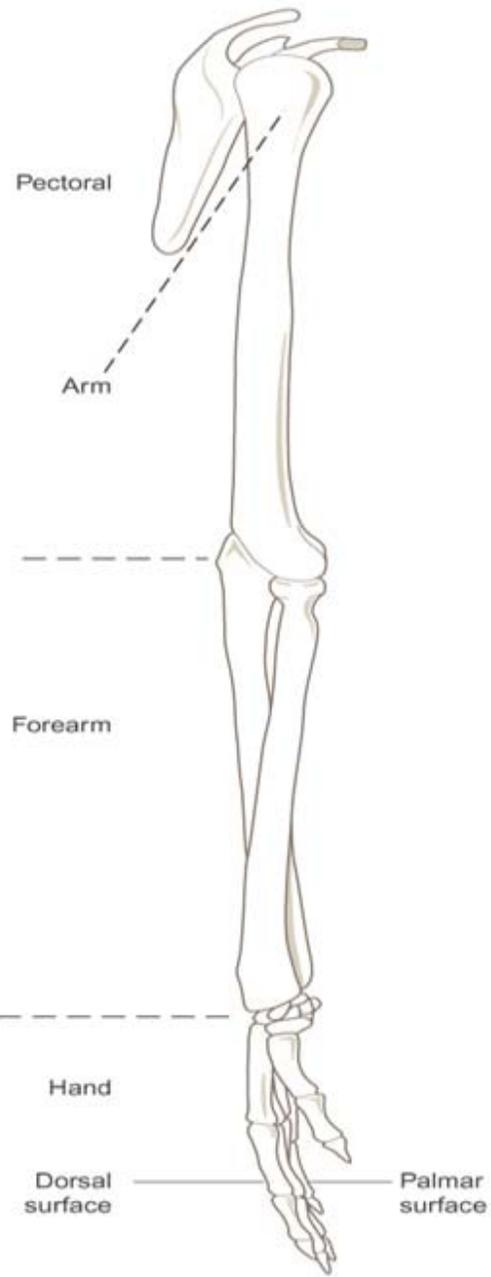
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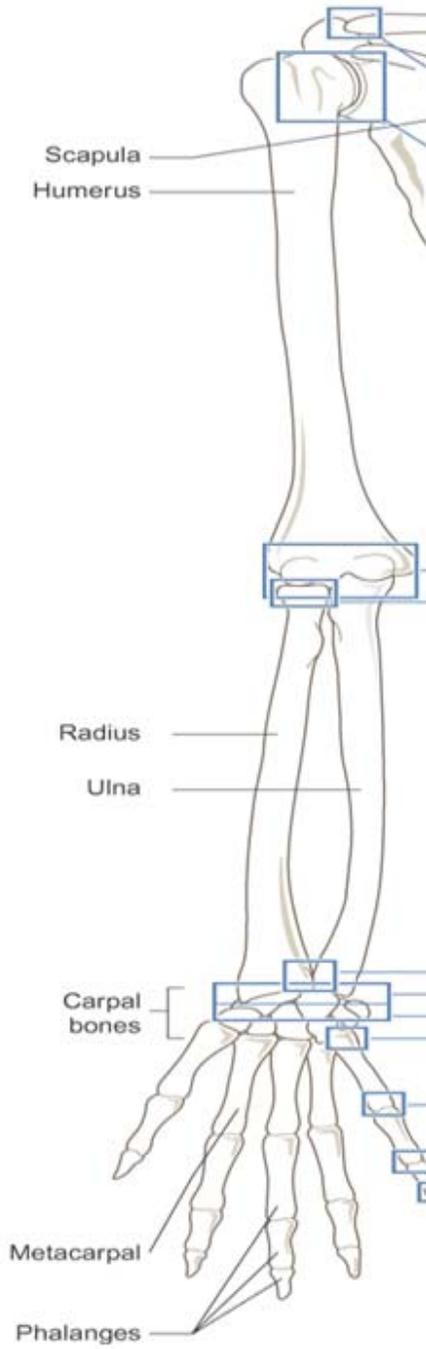
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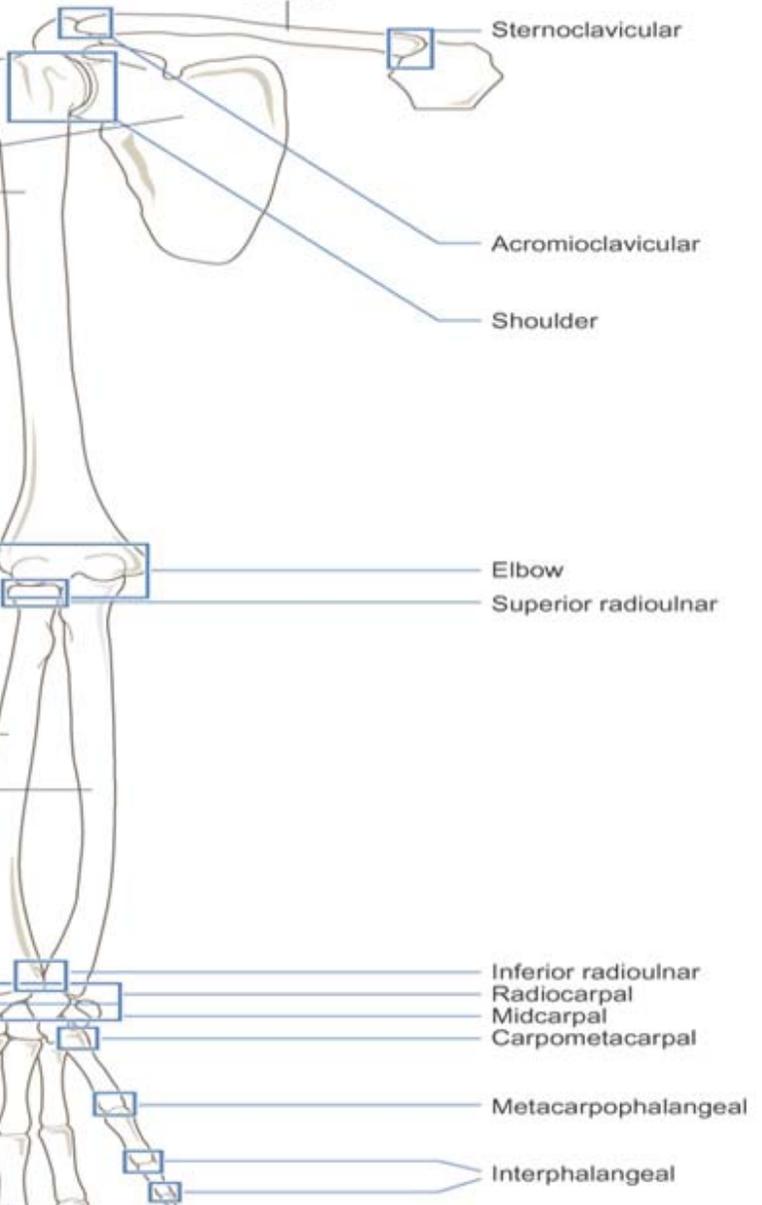
REGIONS

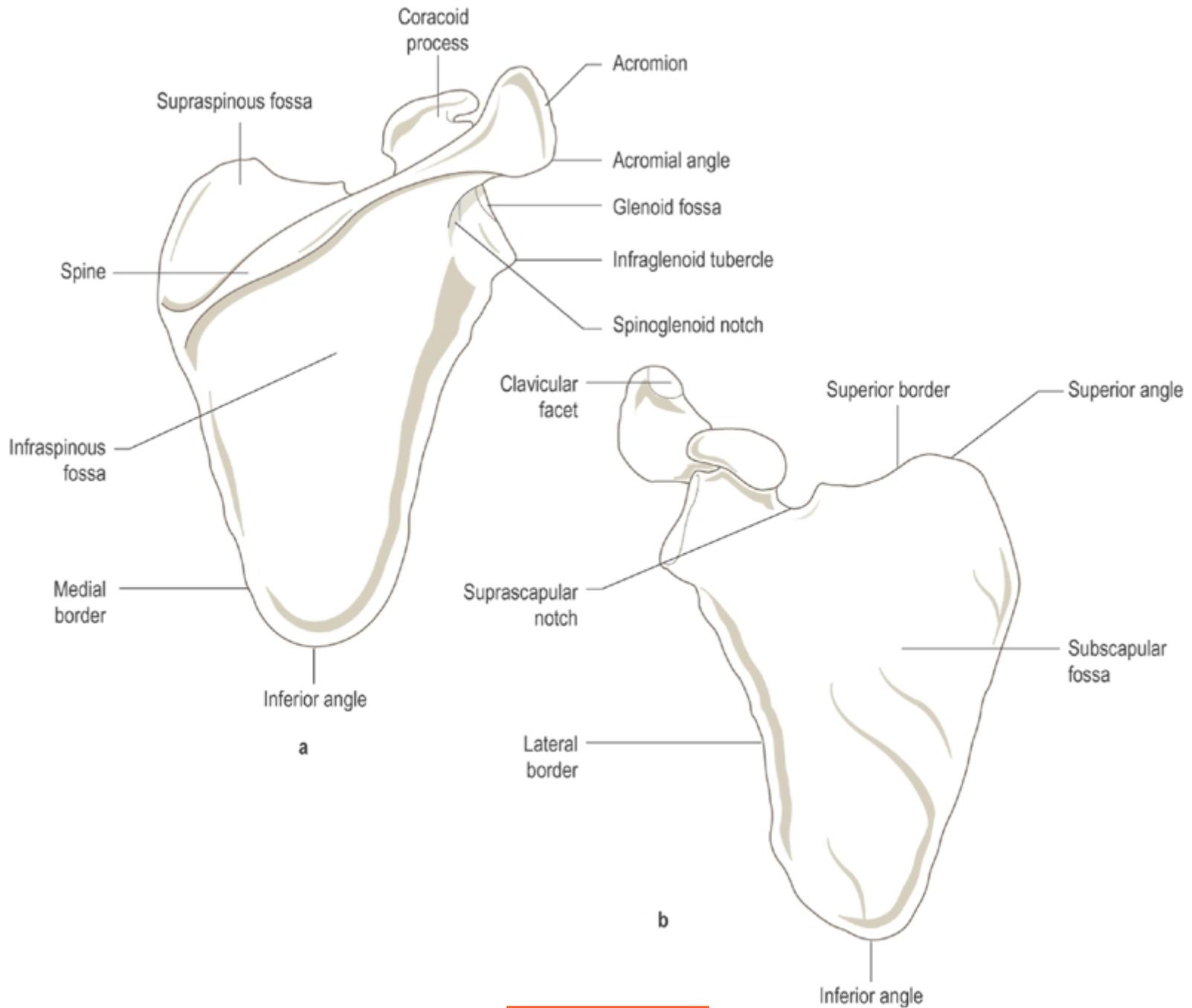


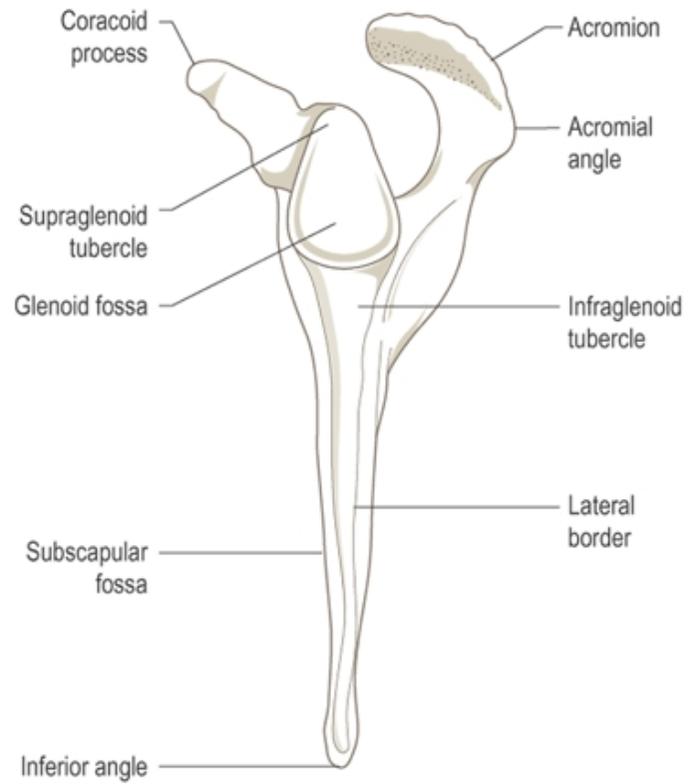
BONES



JOINTS



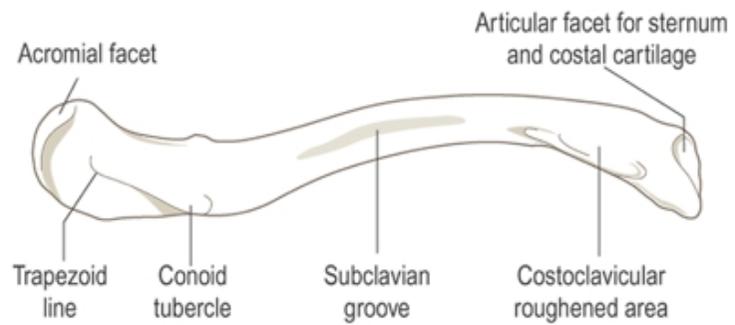




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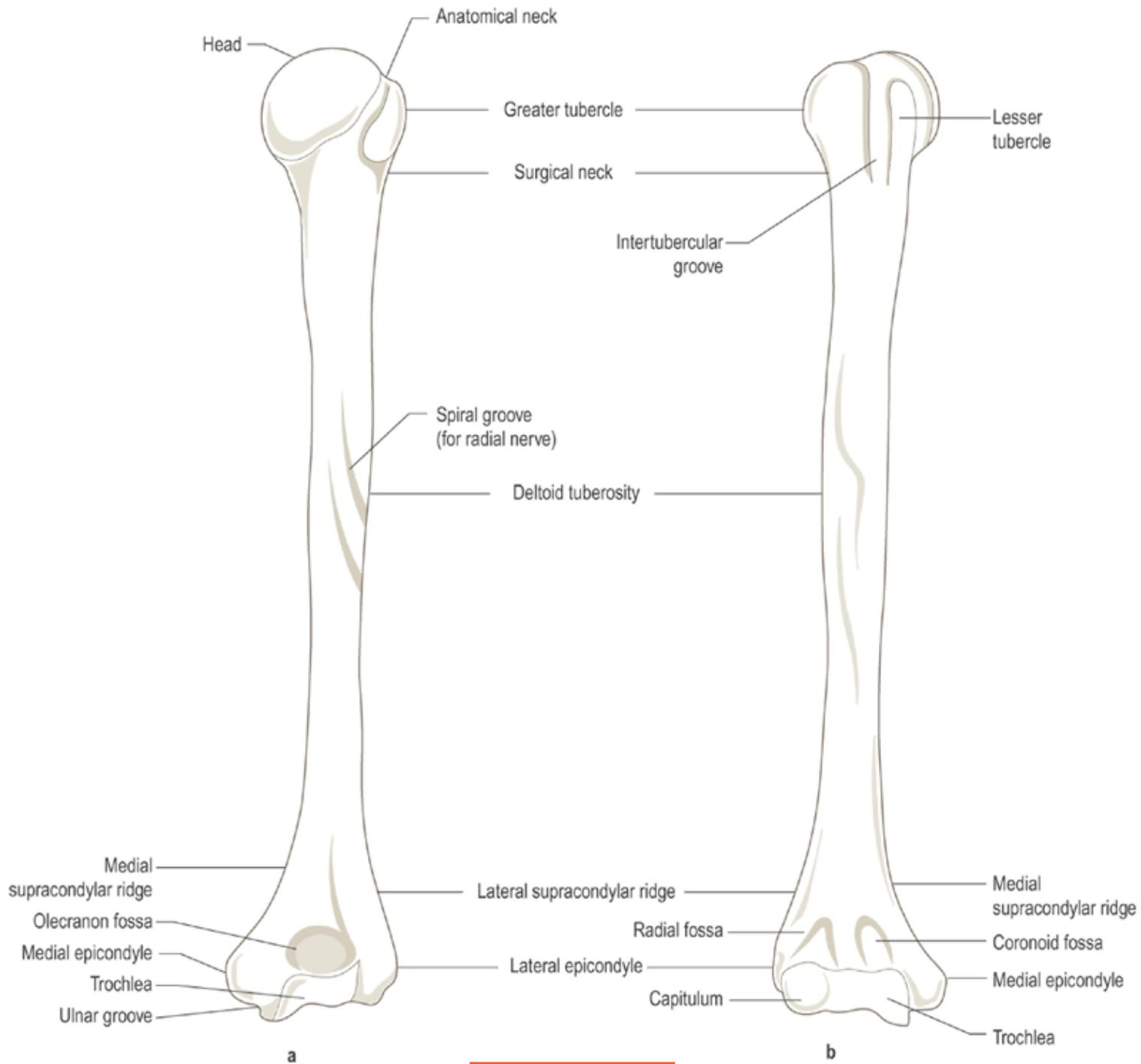


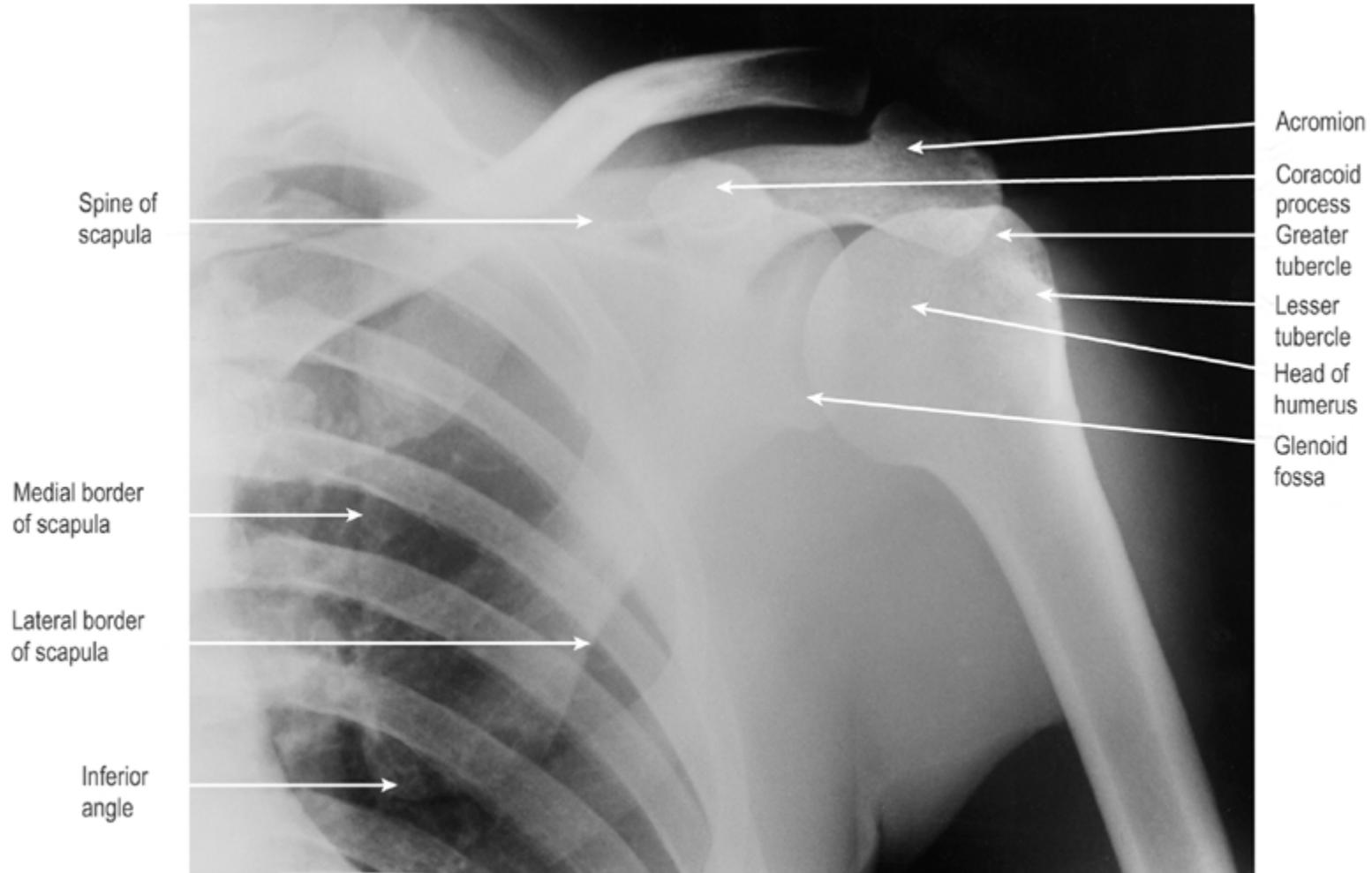
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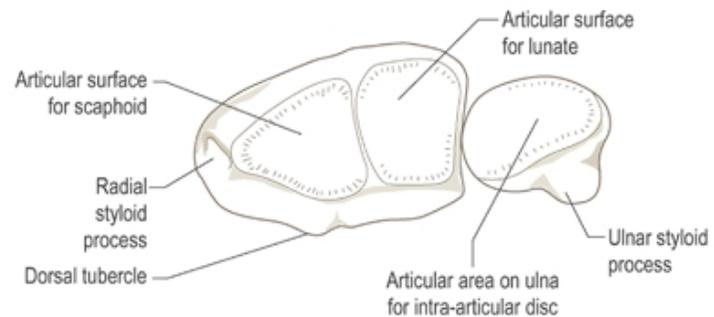
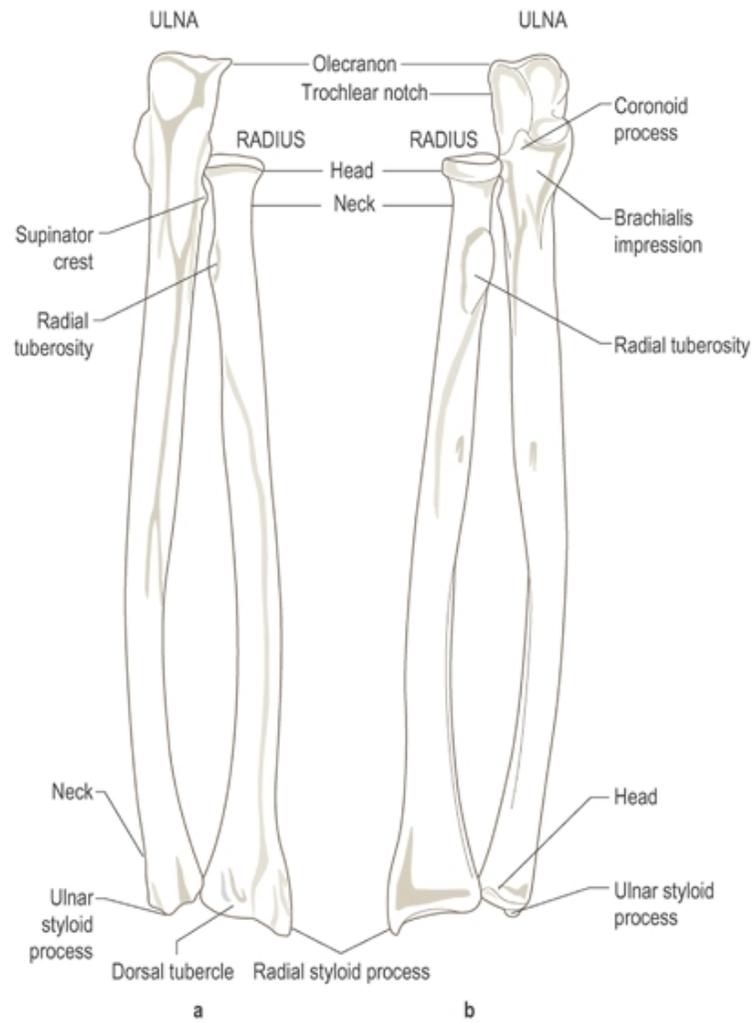
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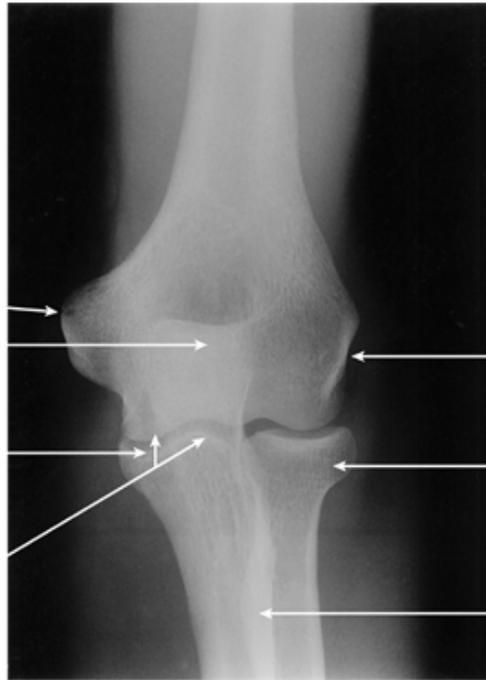
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Medial epicondyle
Superimposed olecranon
and coronoid fossae

Joint space between
coronoid and trochlea

Coronoid process



Lateral epicondyle

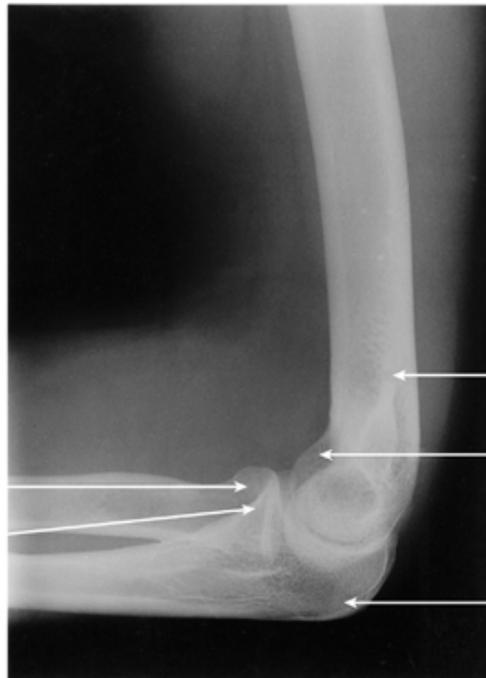
Head of radius

Tuberosity of radius

a

Radial head

Coronoid process



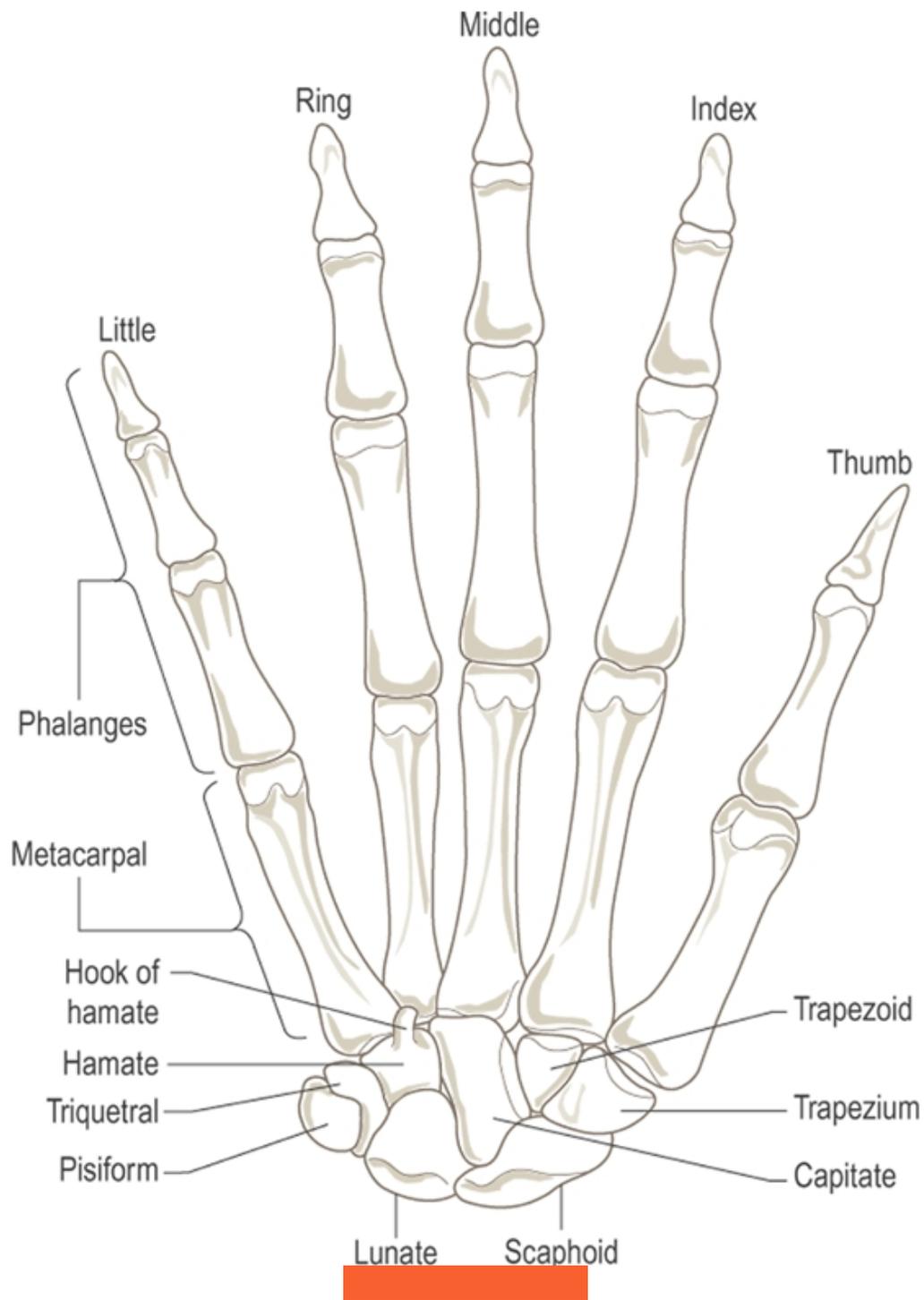
Supracondylar ridges

Capitulum

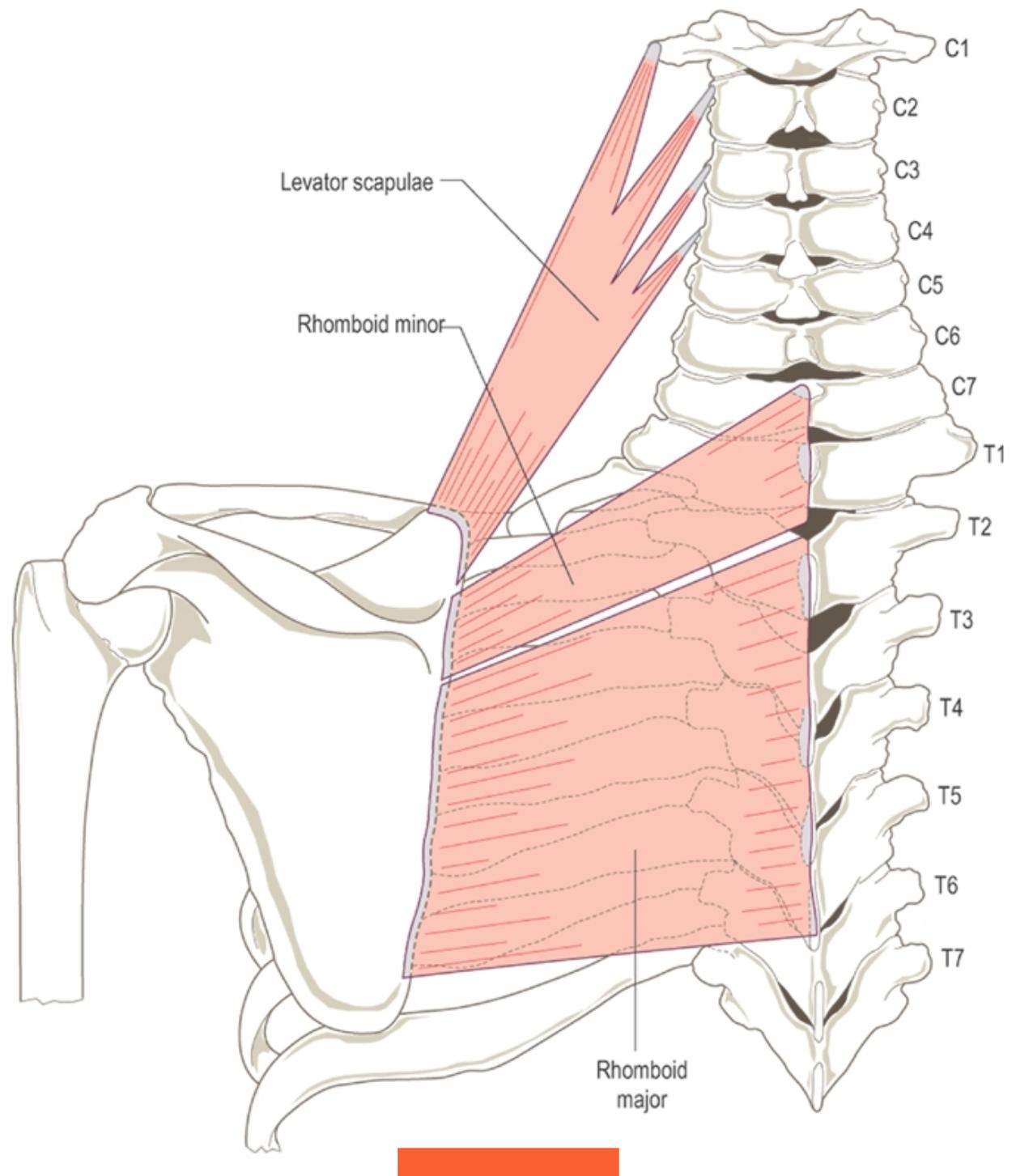
Olecranon

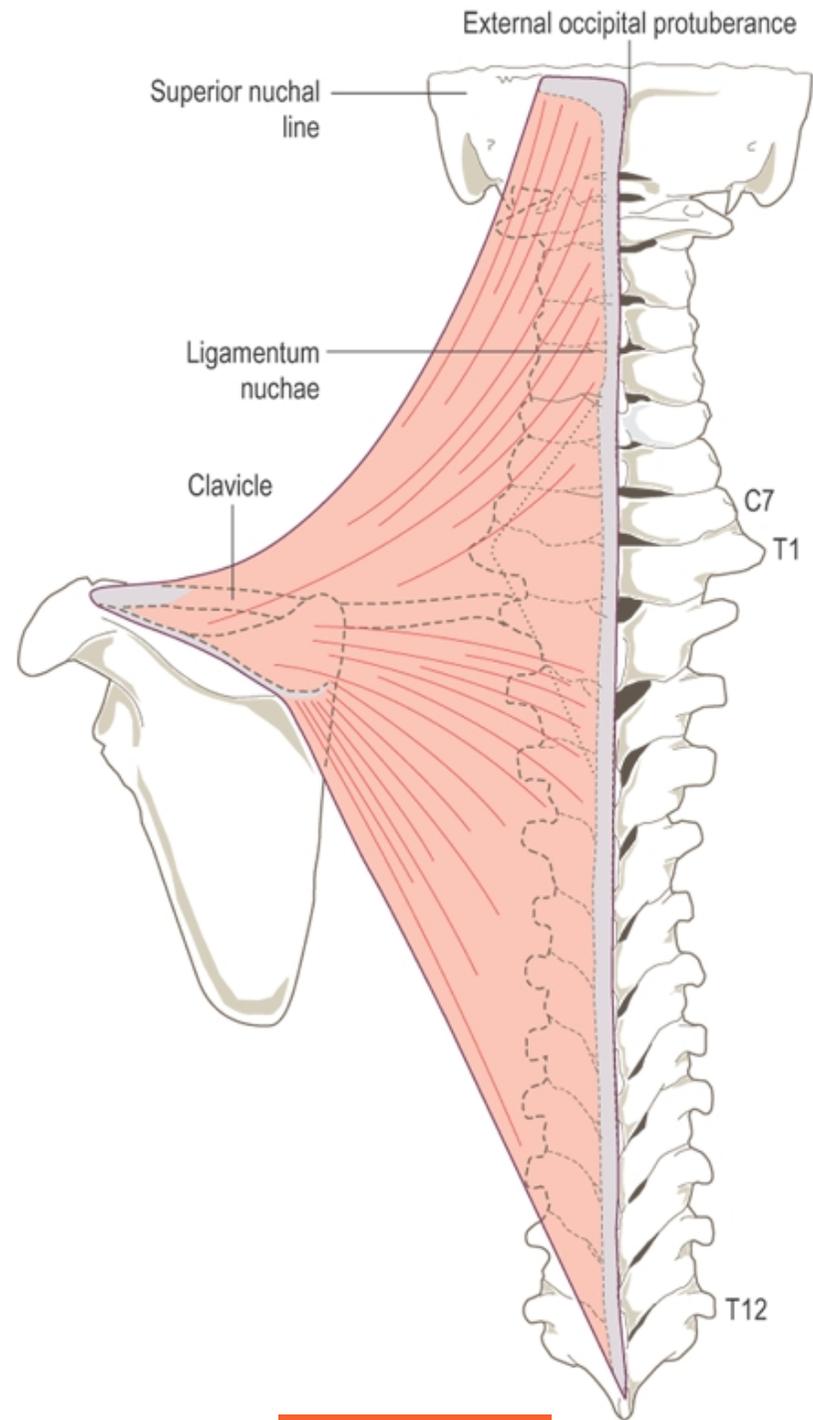
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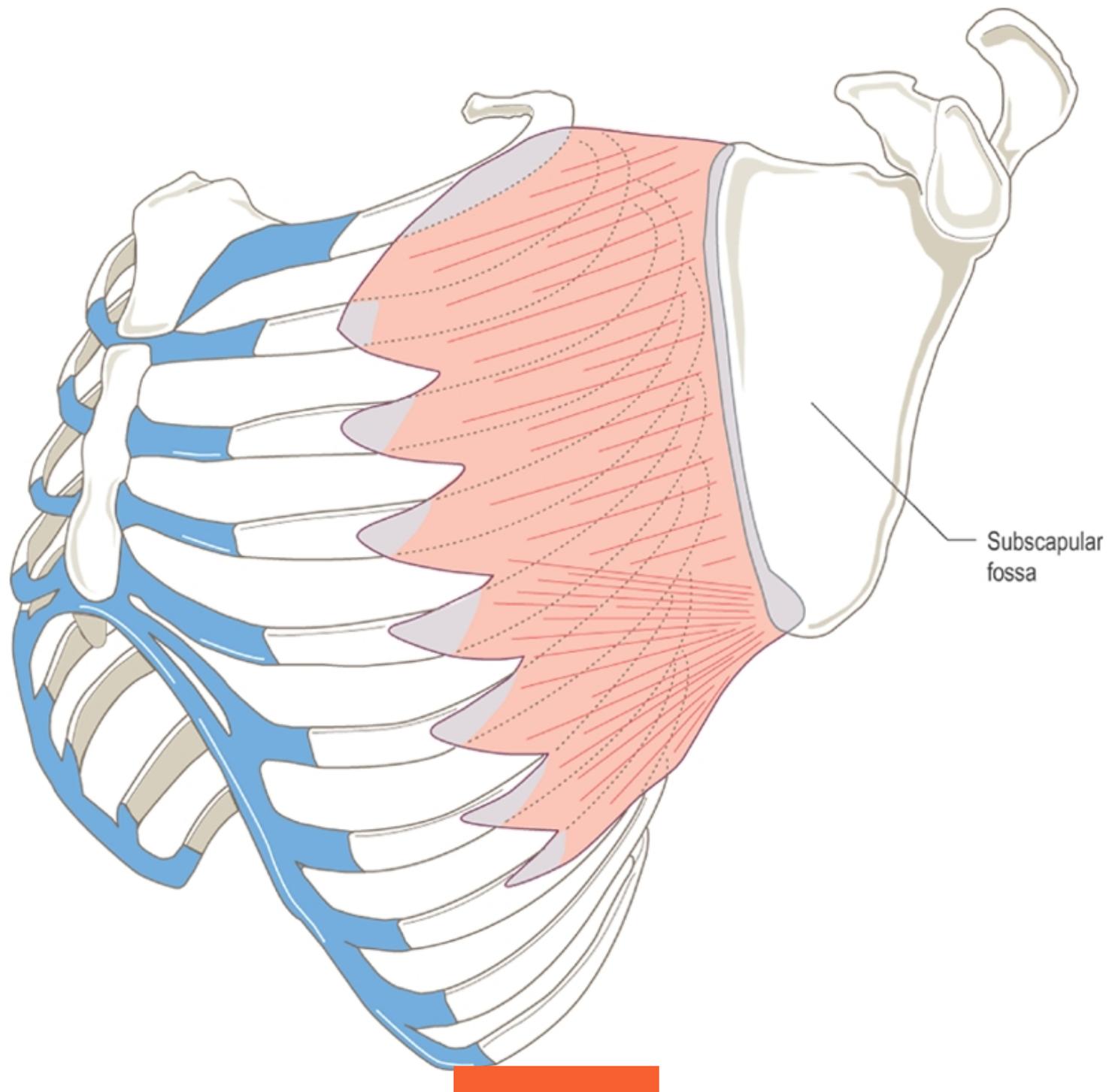




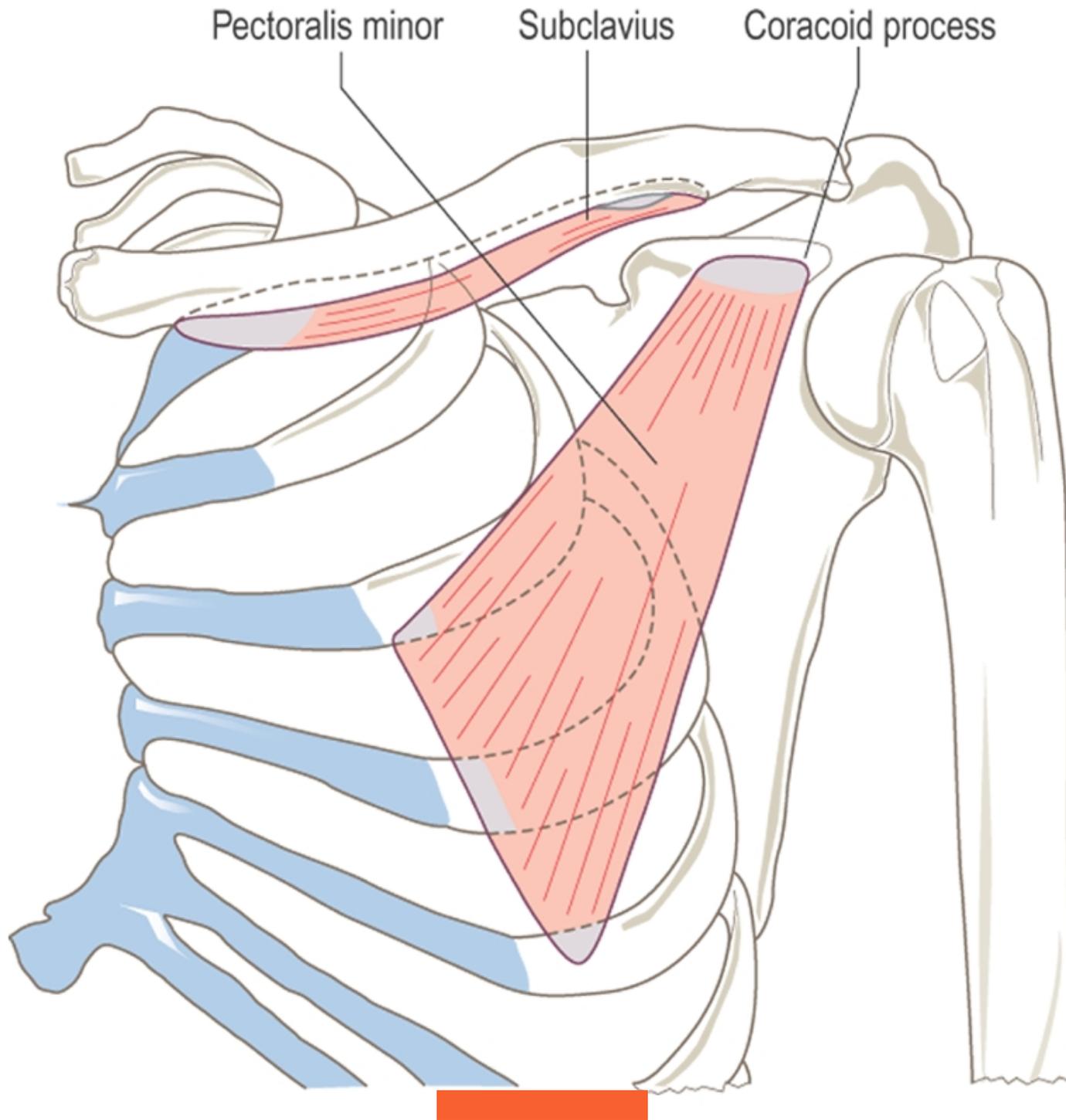


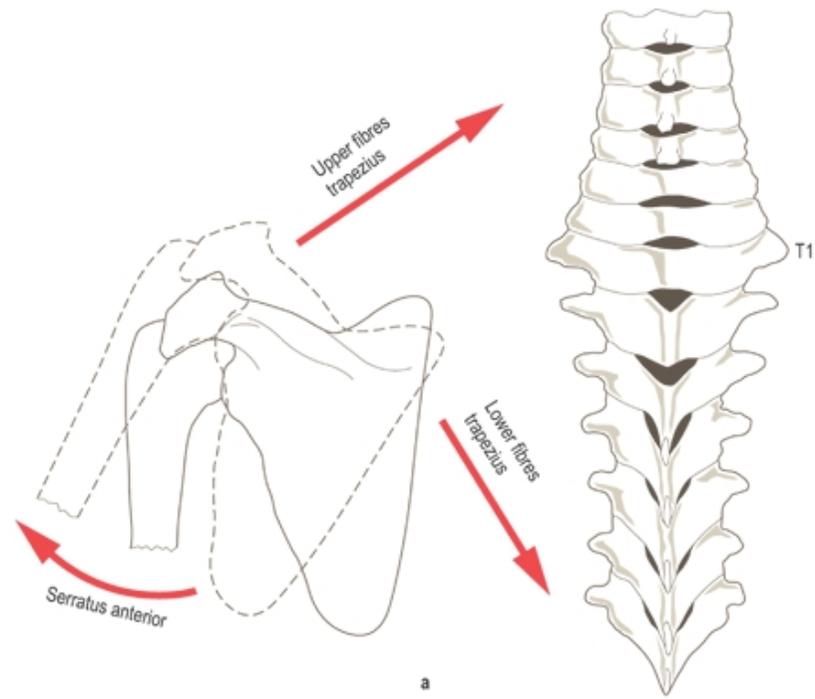




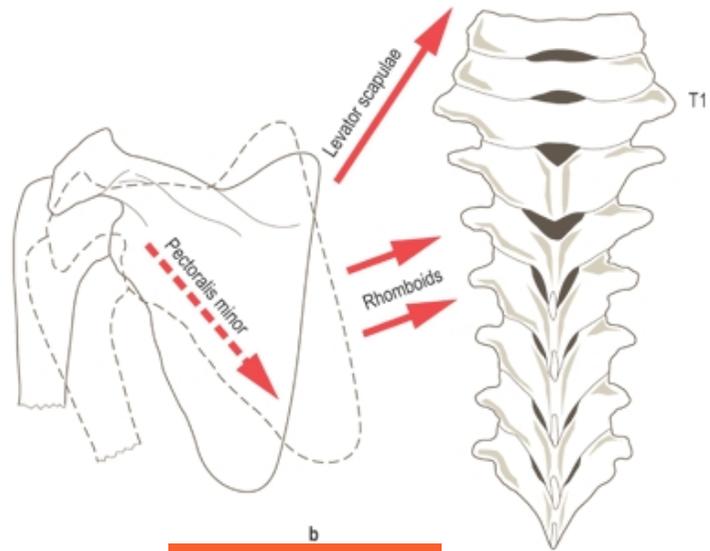


Subscapular
fossa



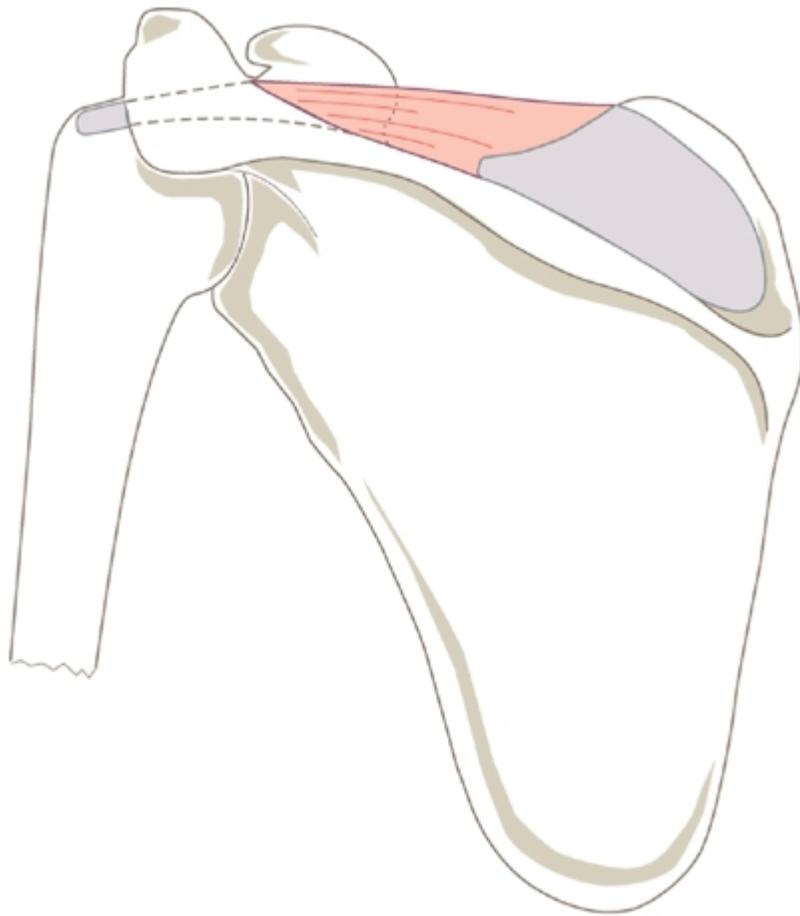


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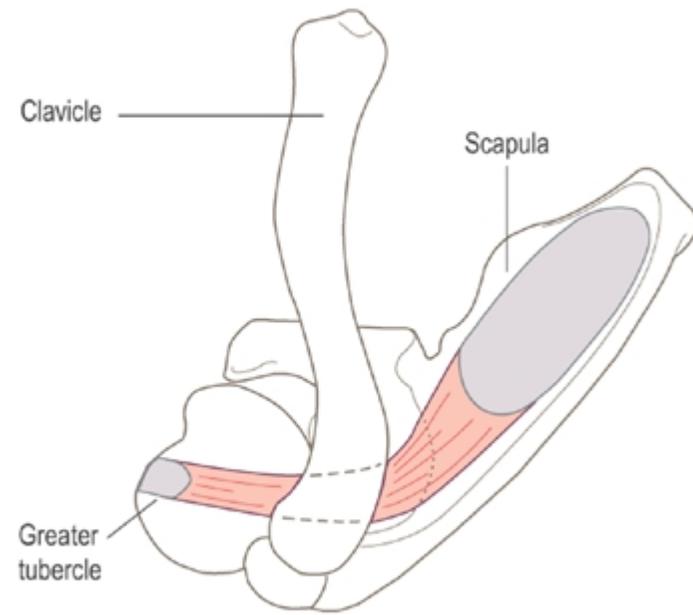


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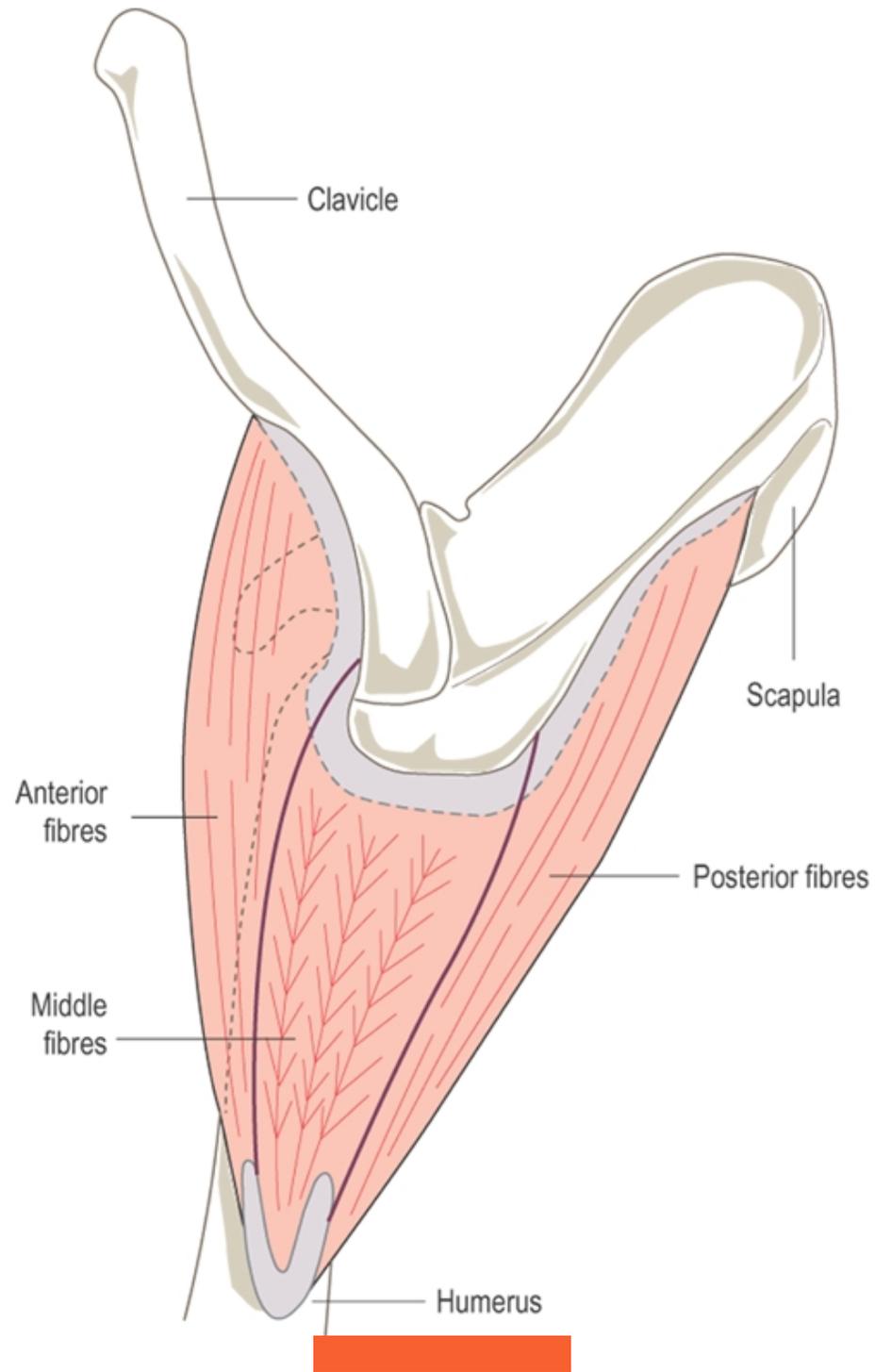


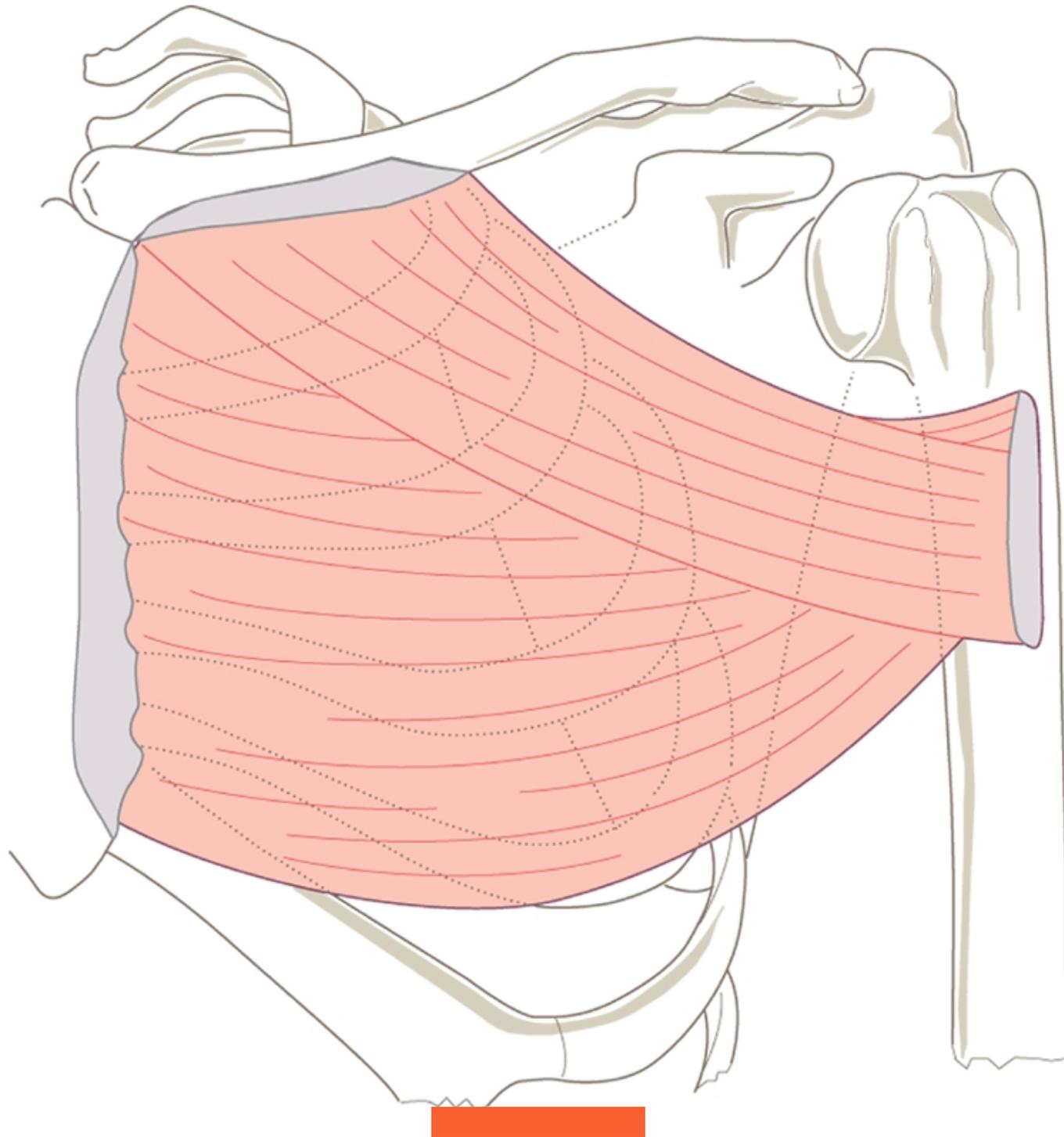
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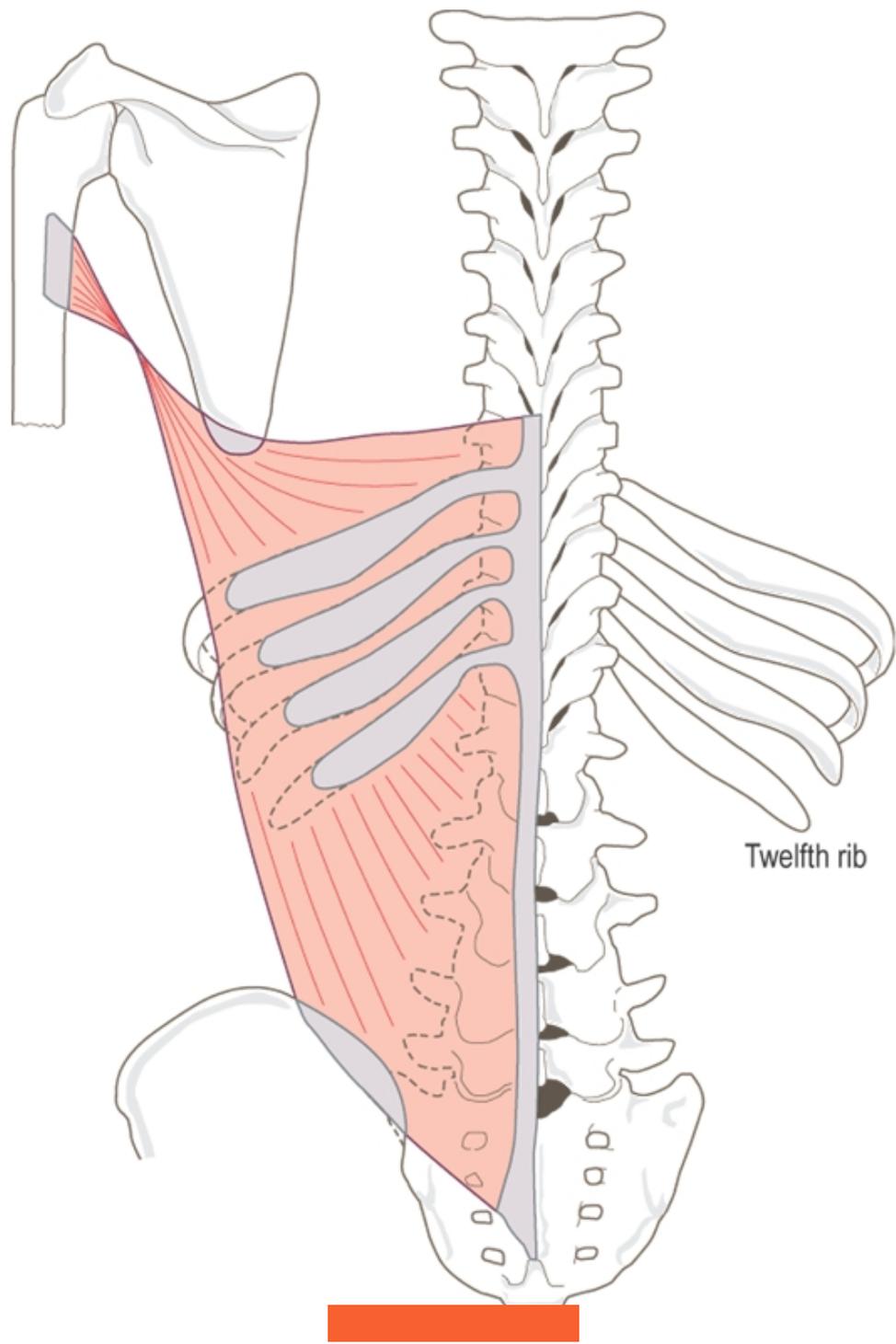


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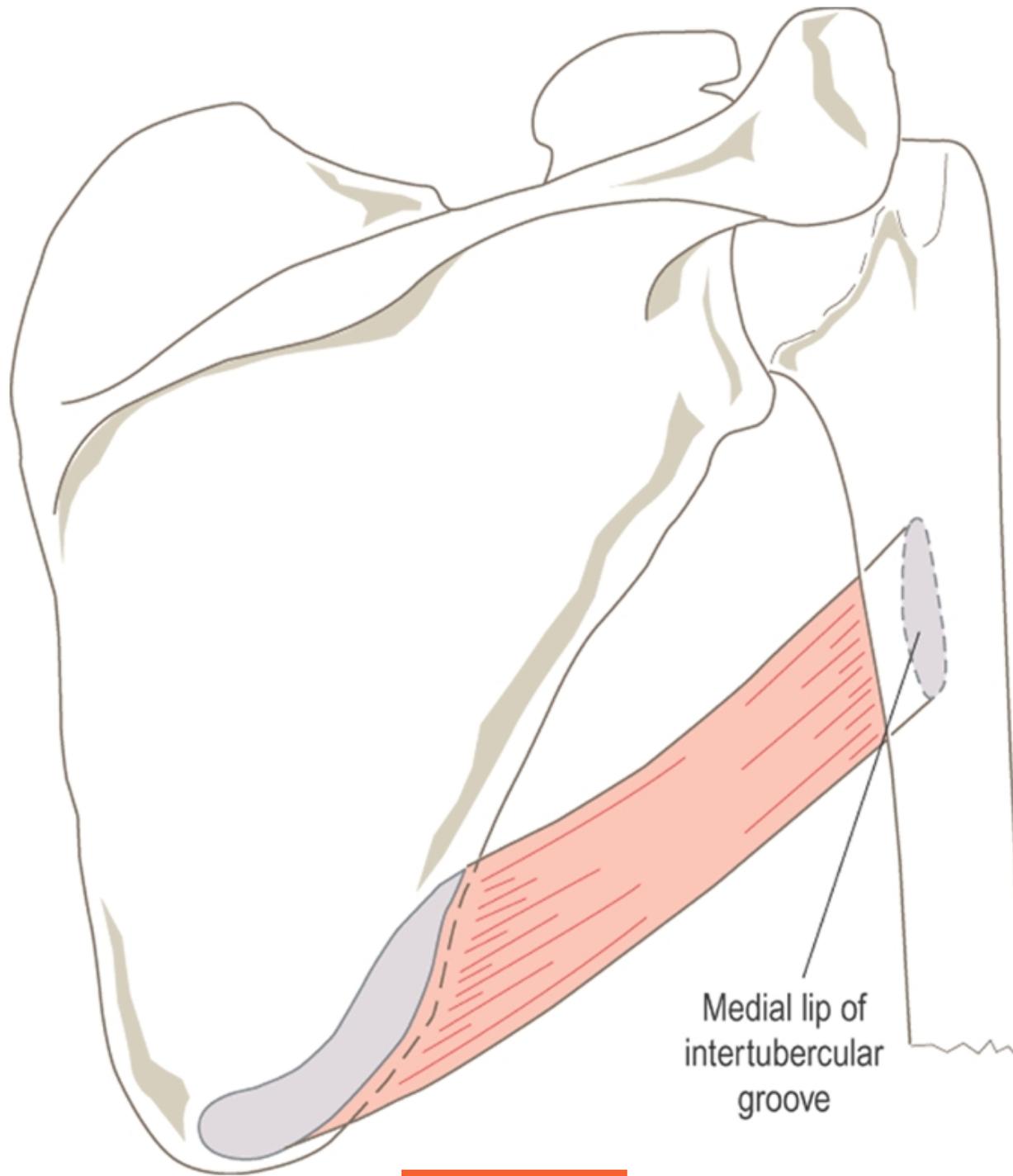


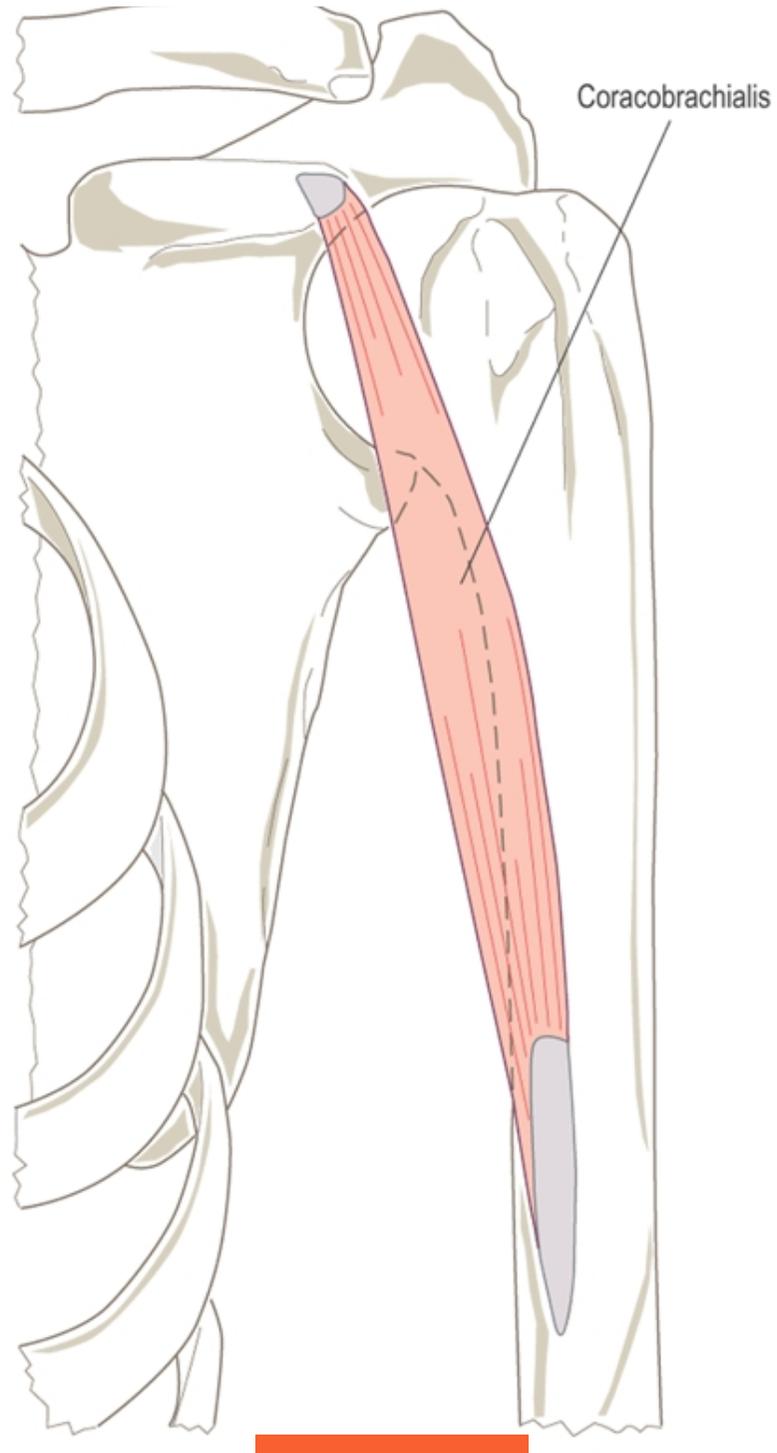


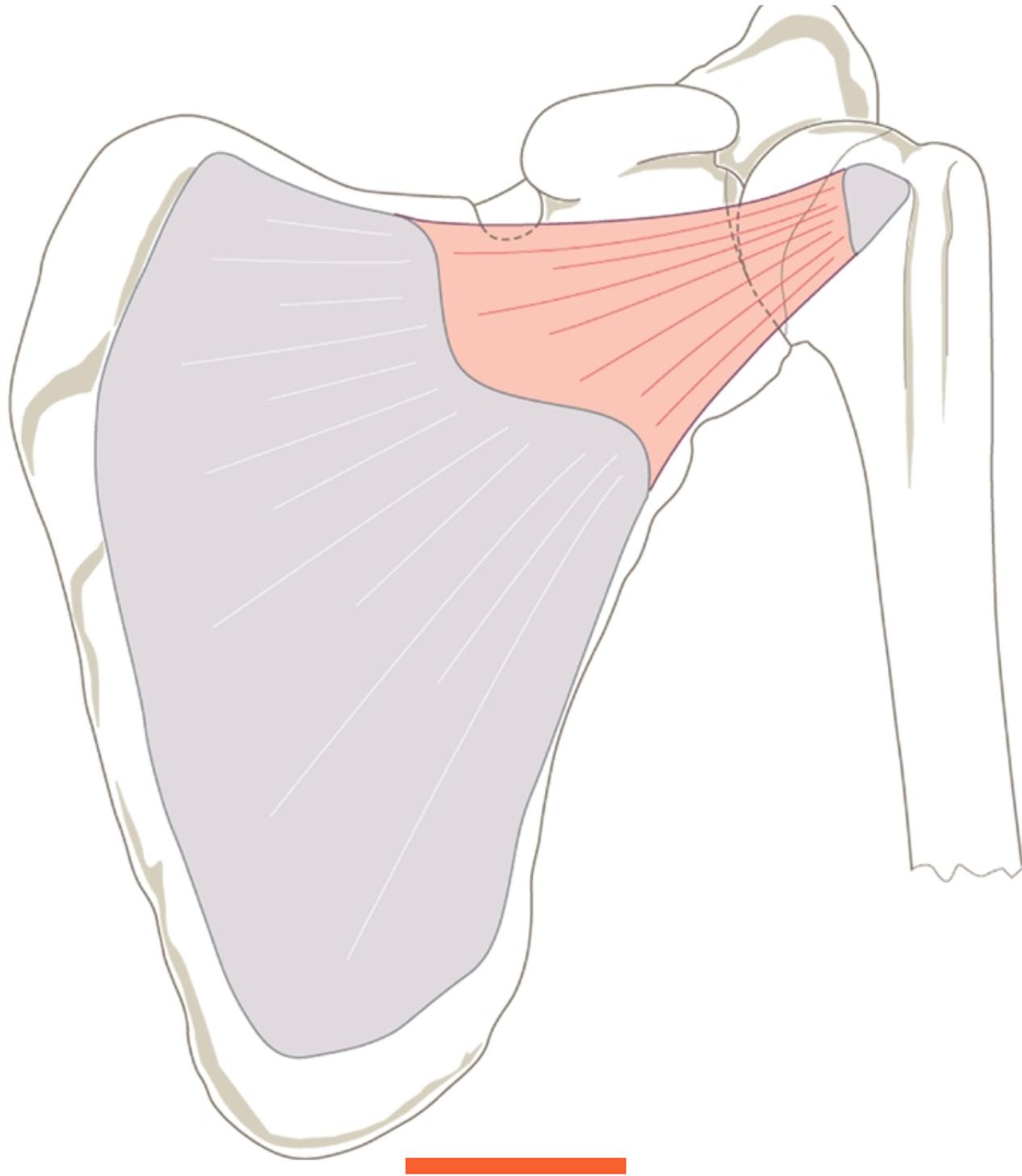


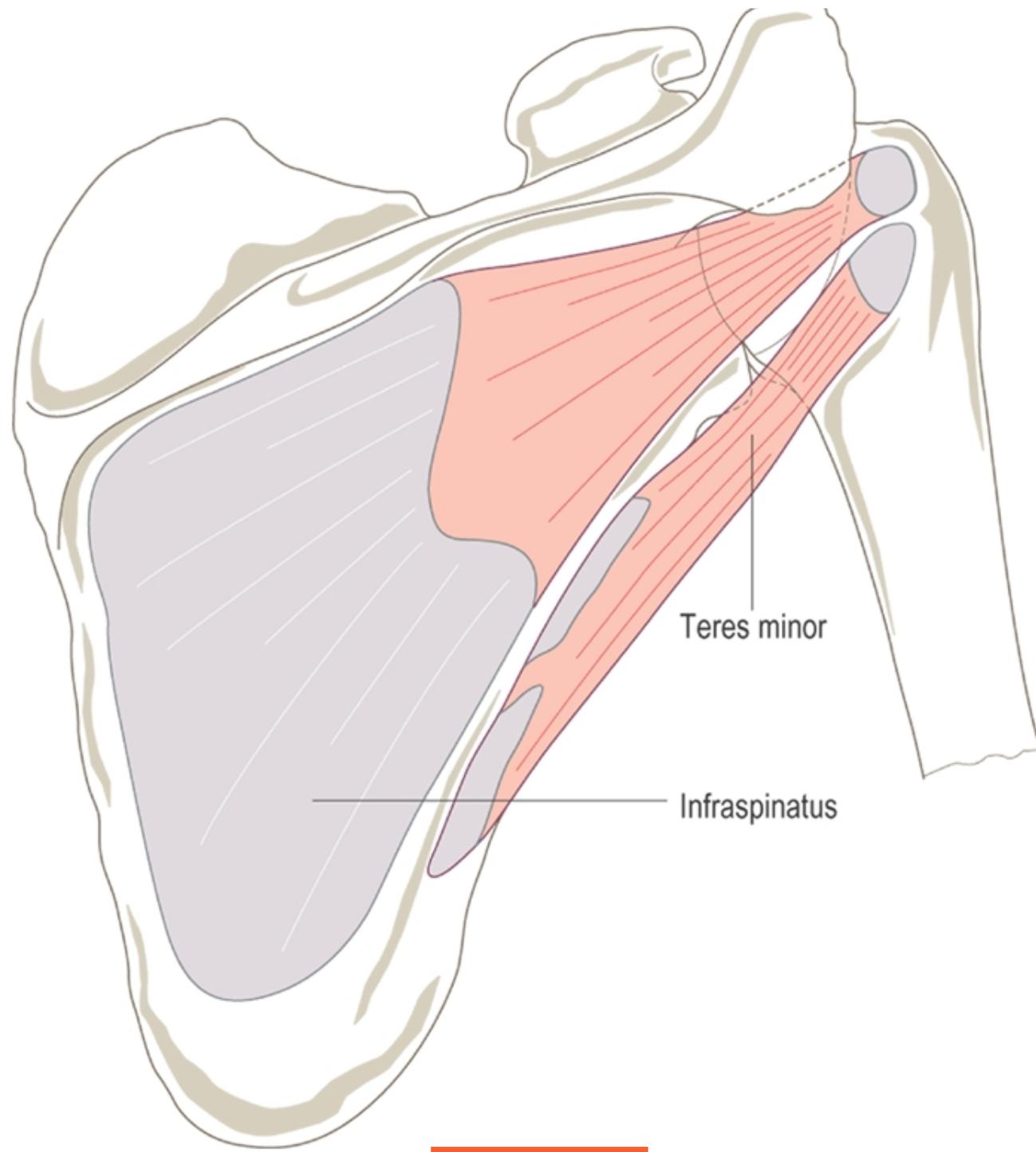
Twelfth rib





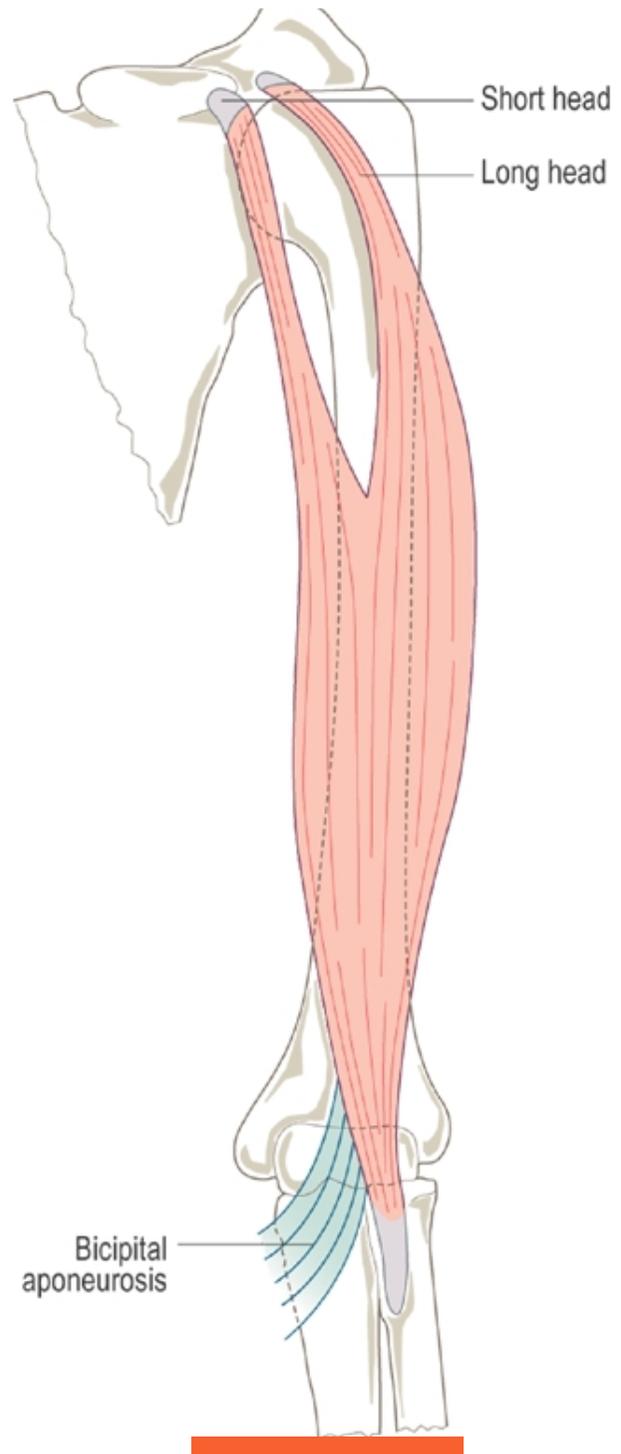


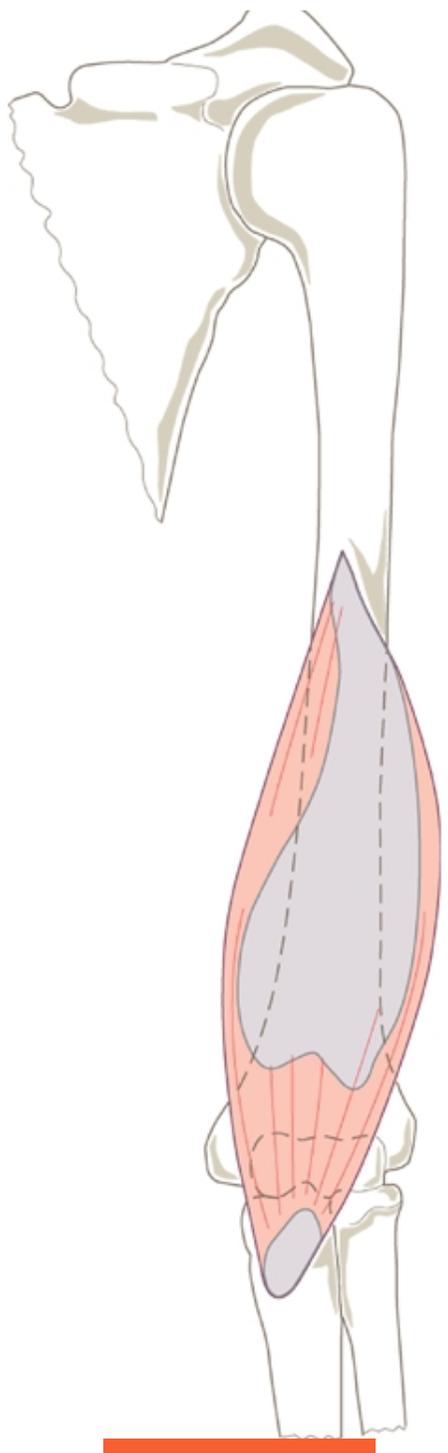


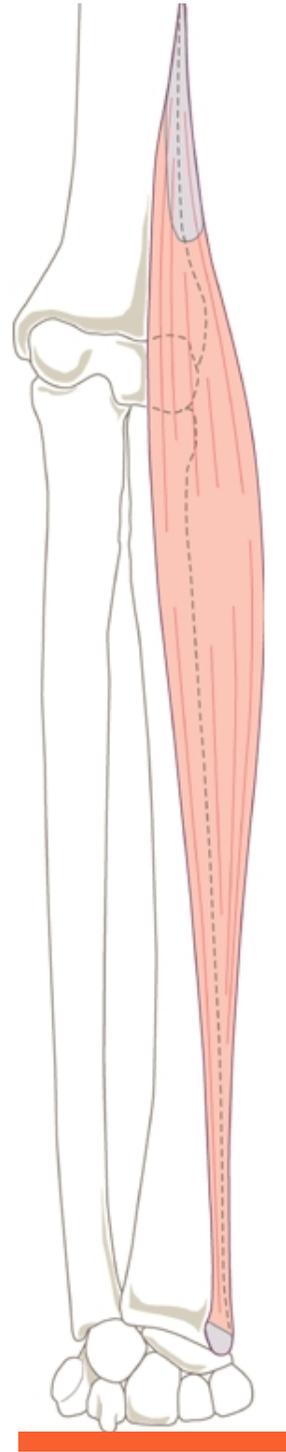


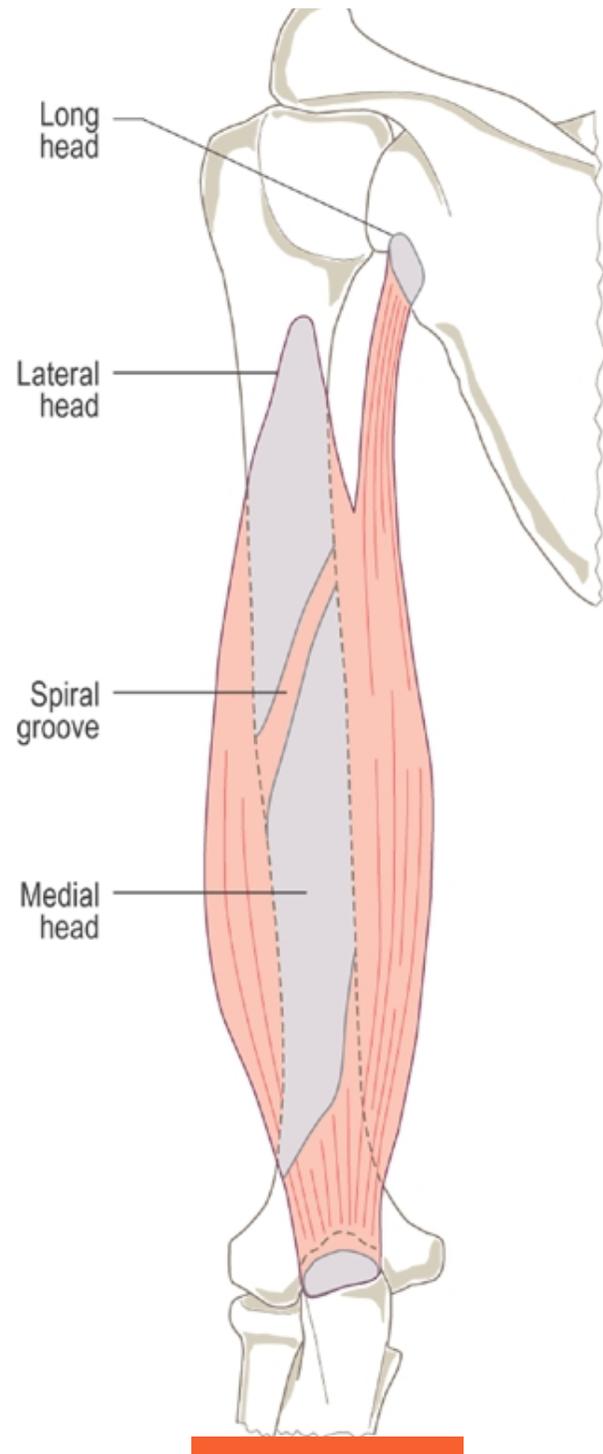
Teres minor

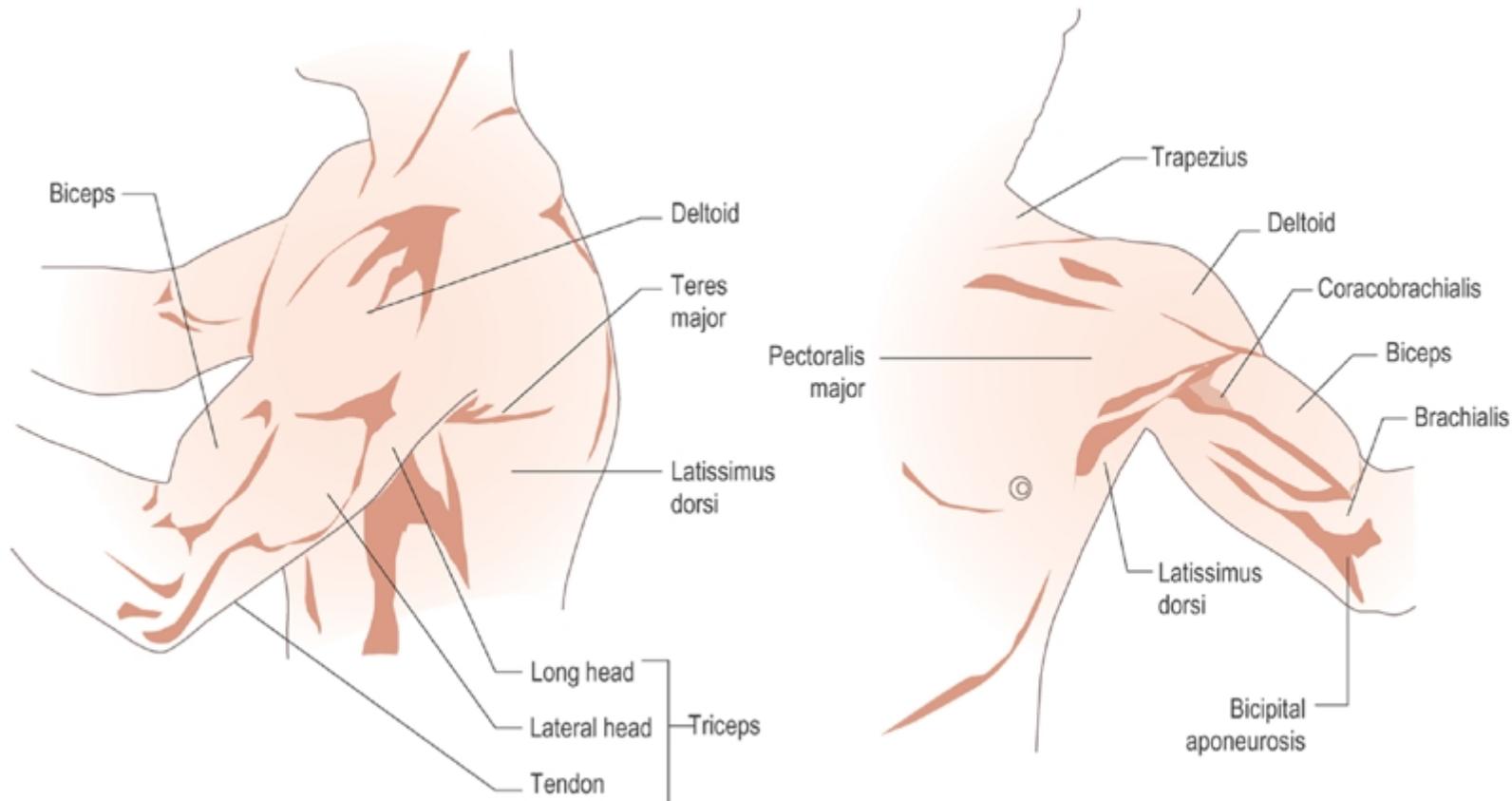
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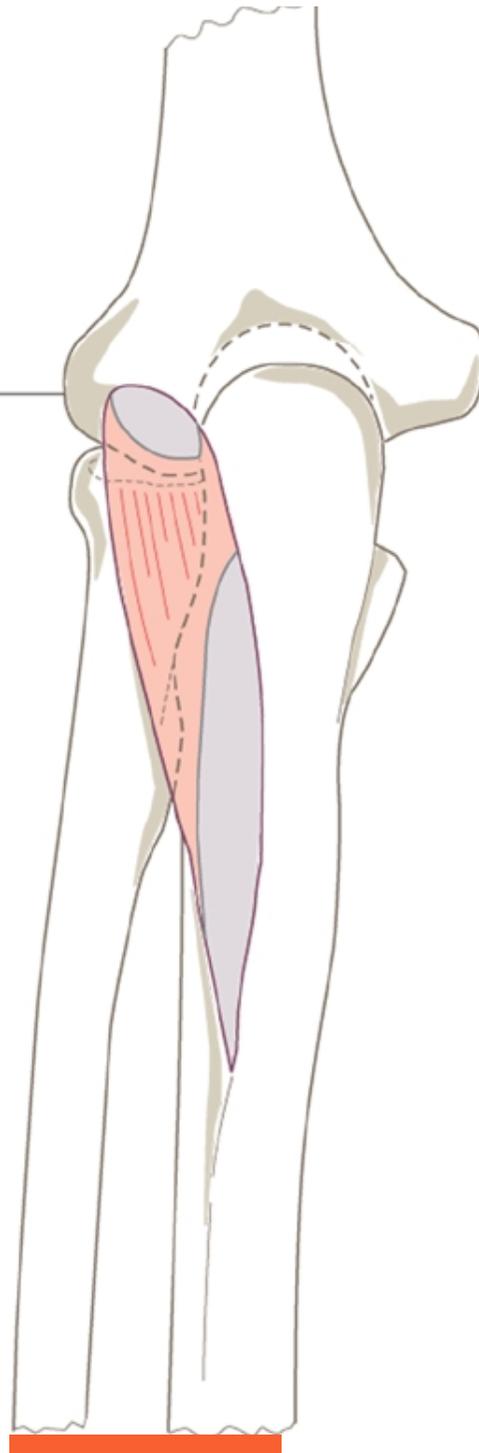


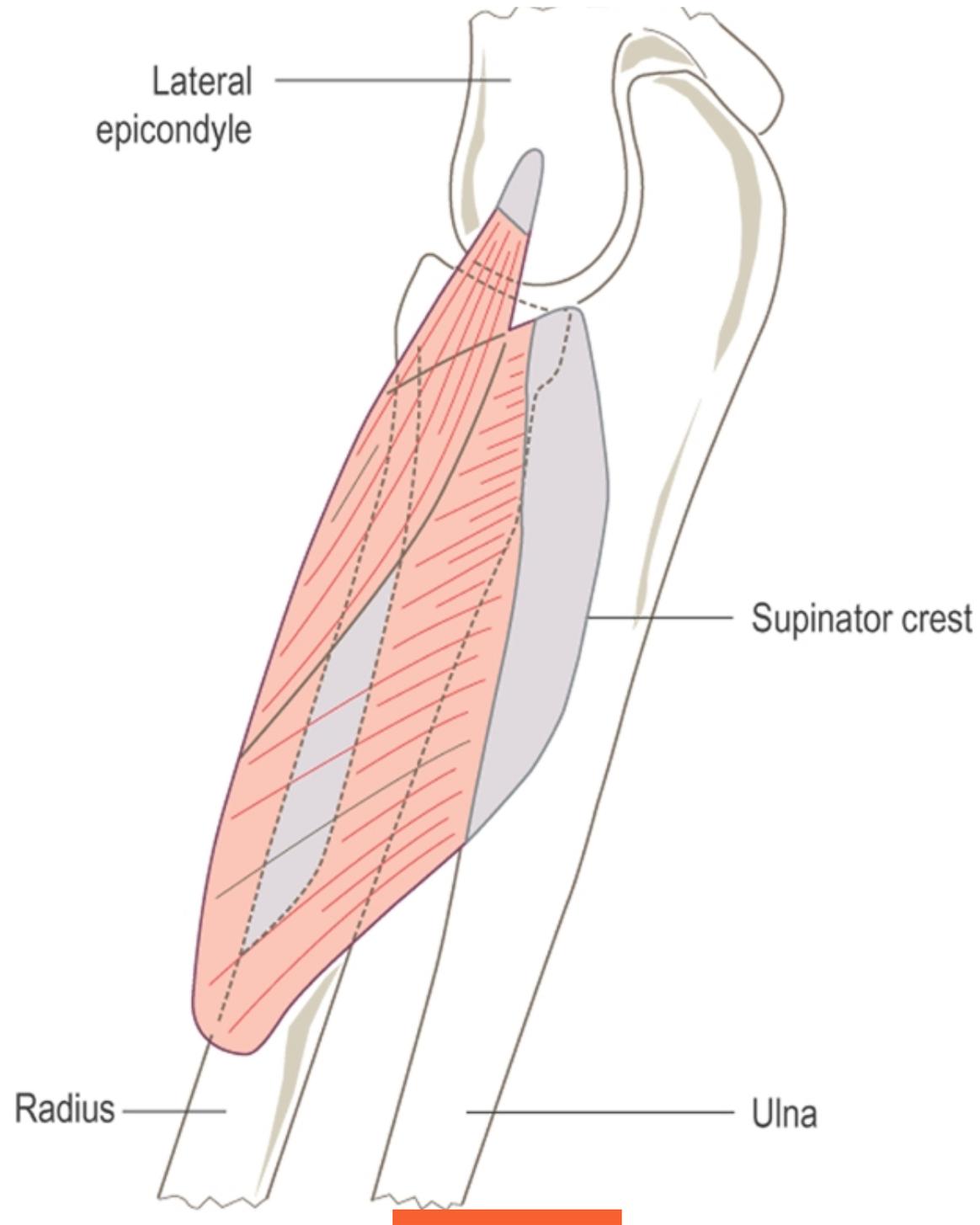


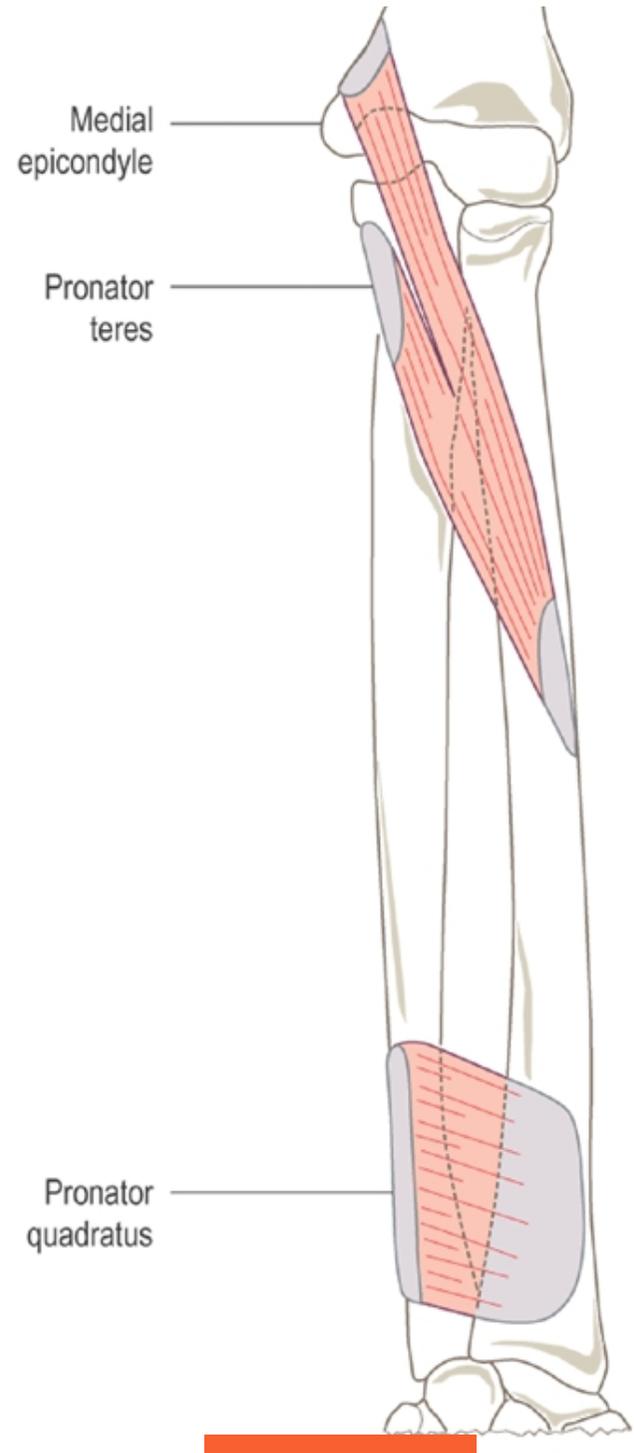


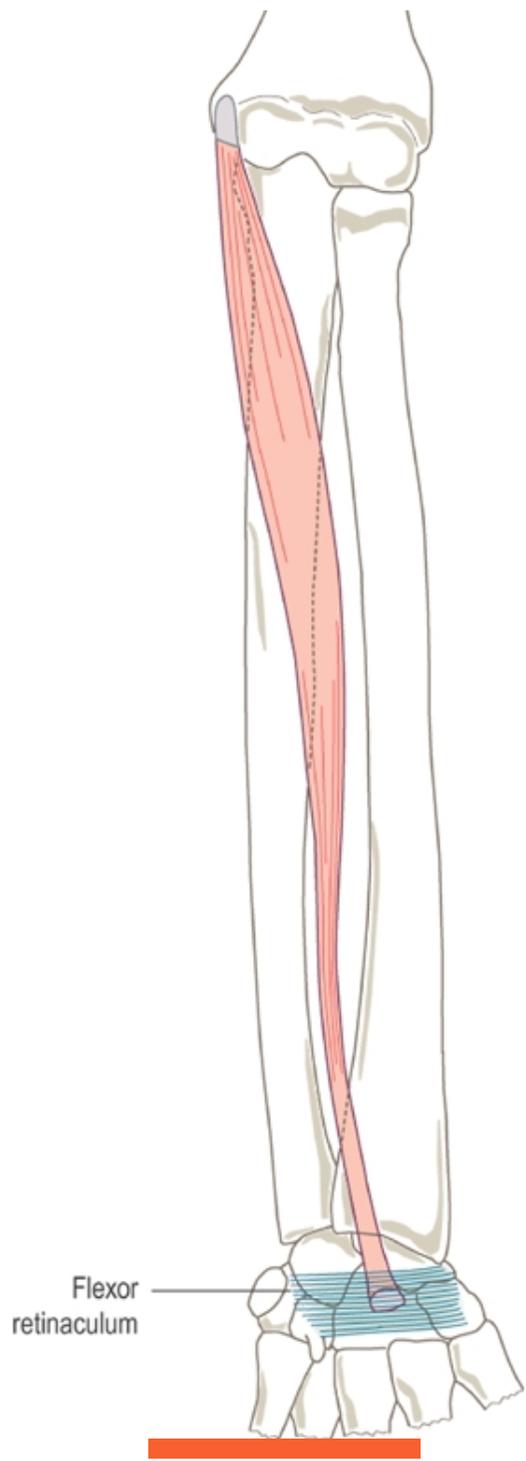
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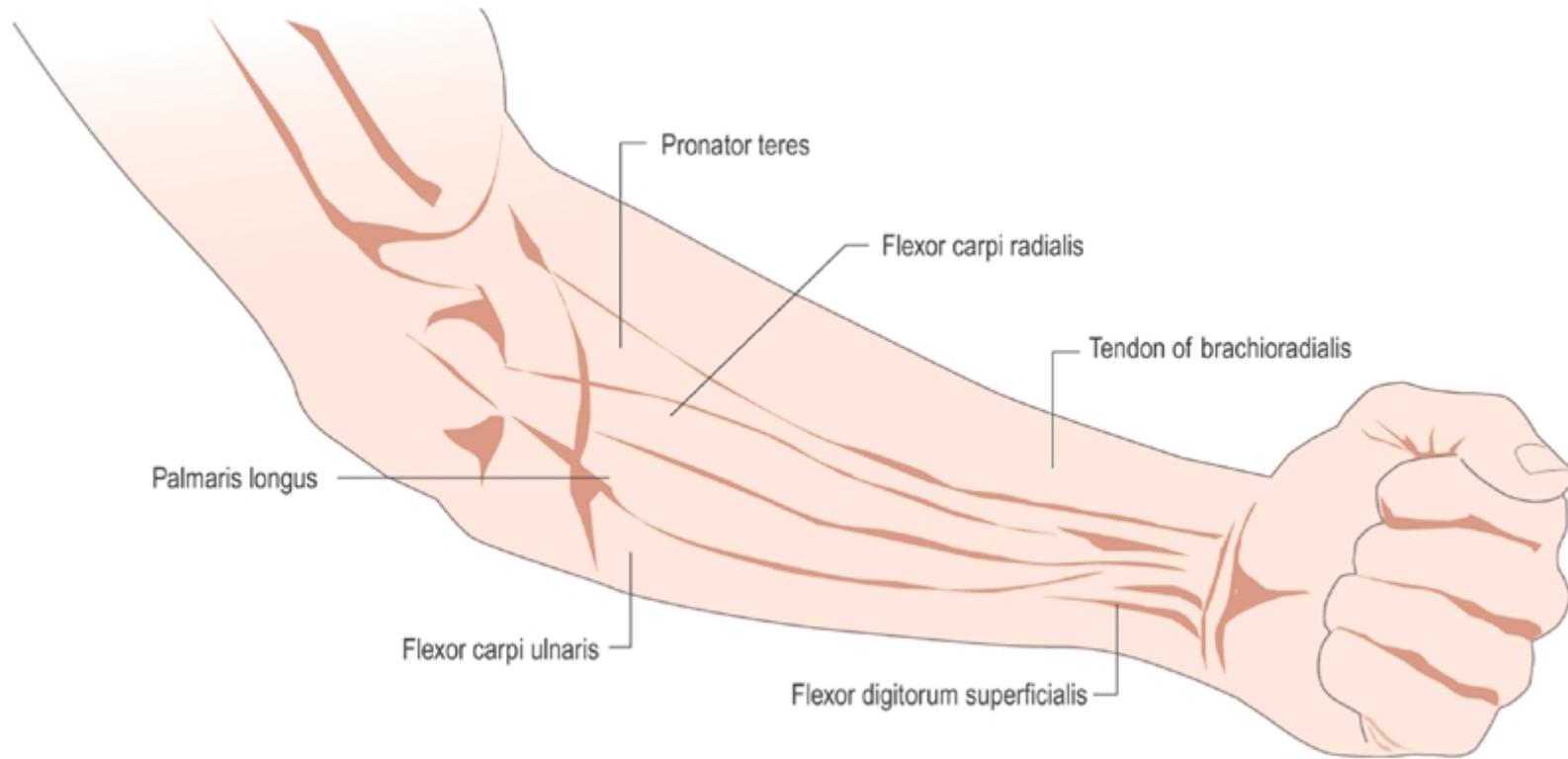




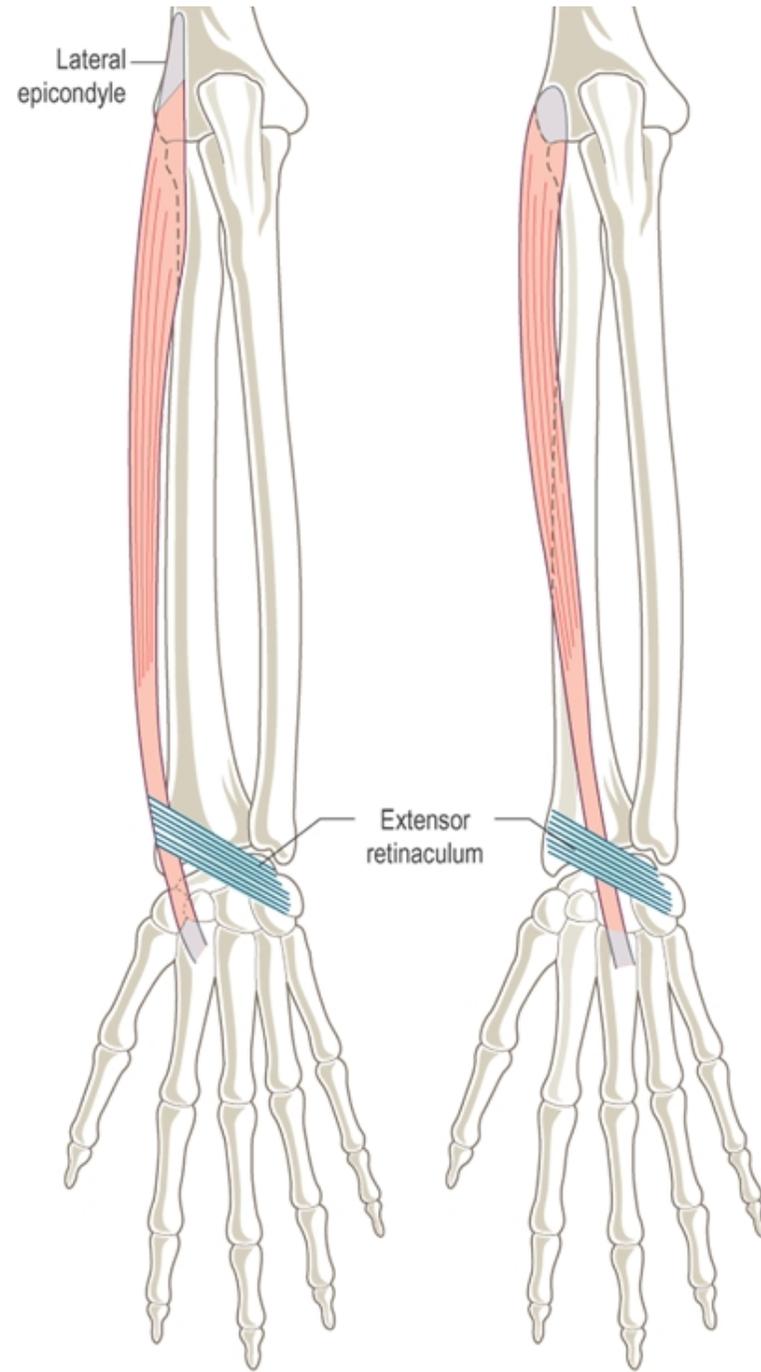


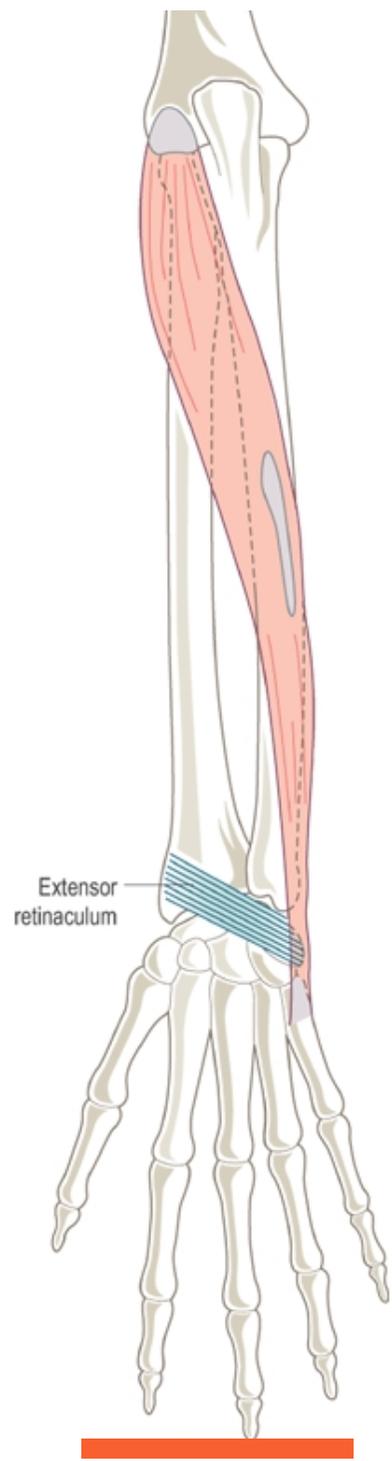


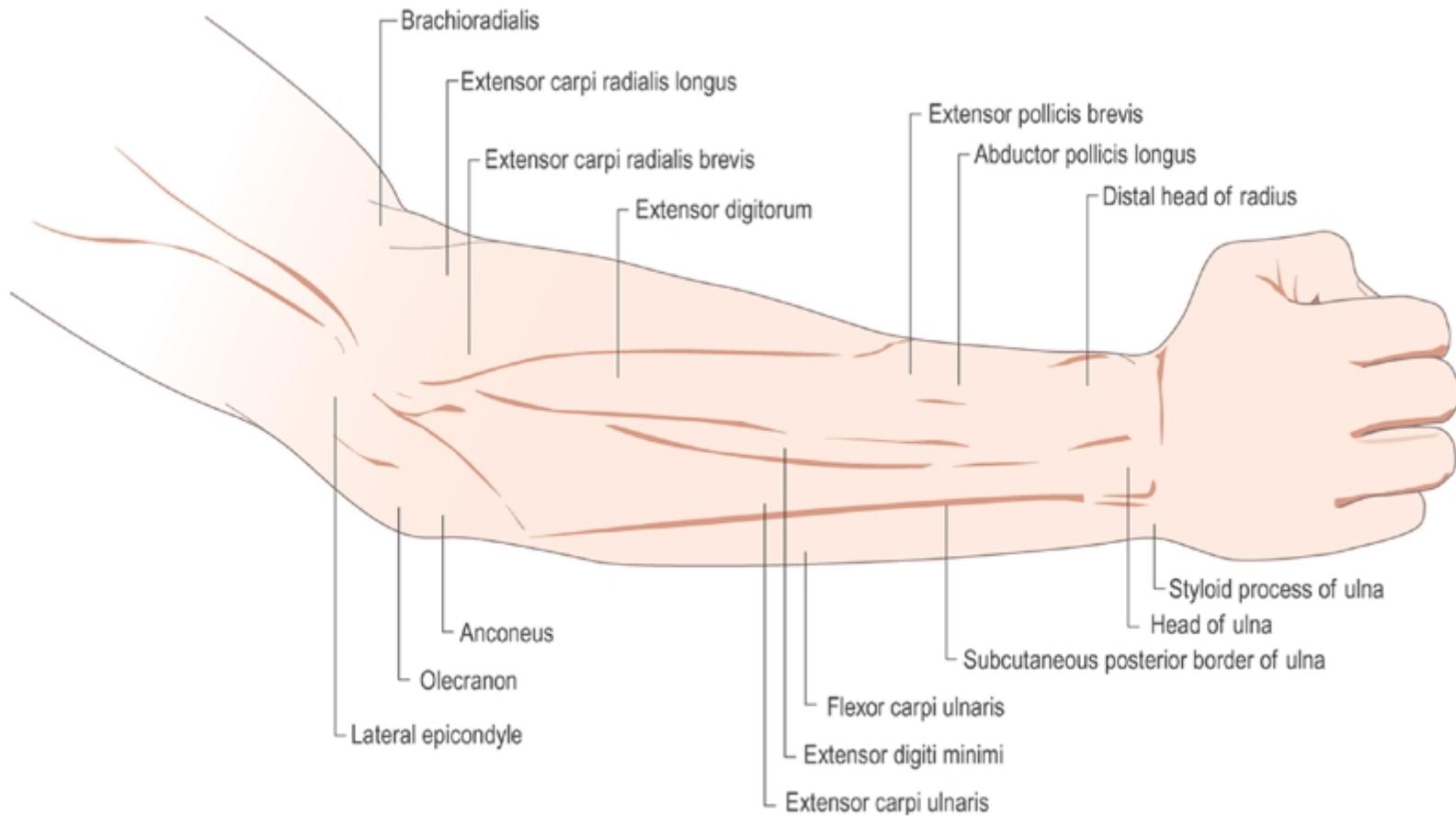




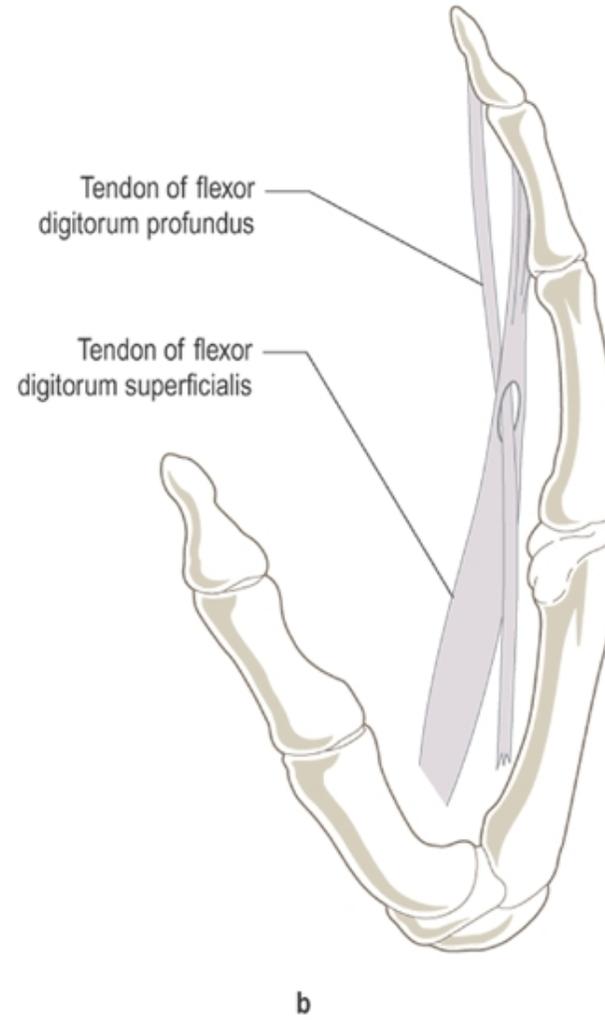
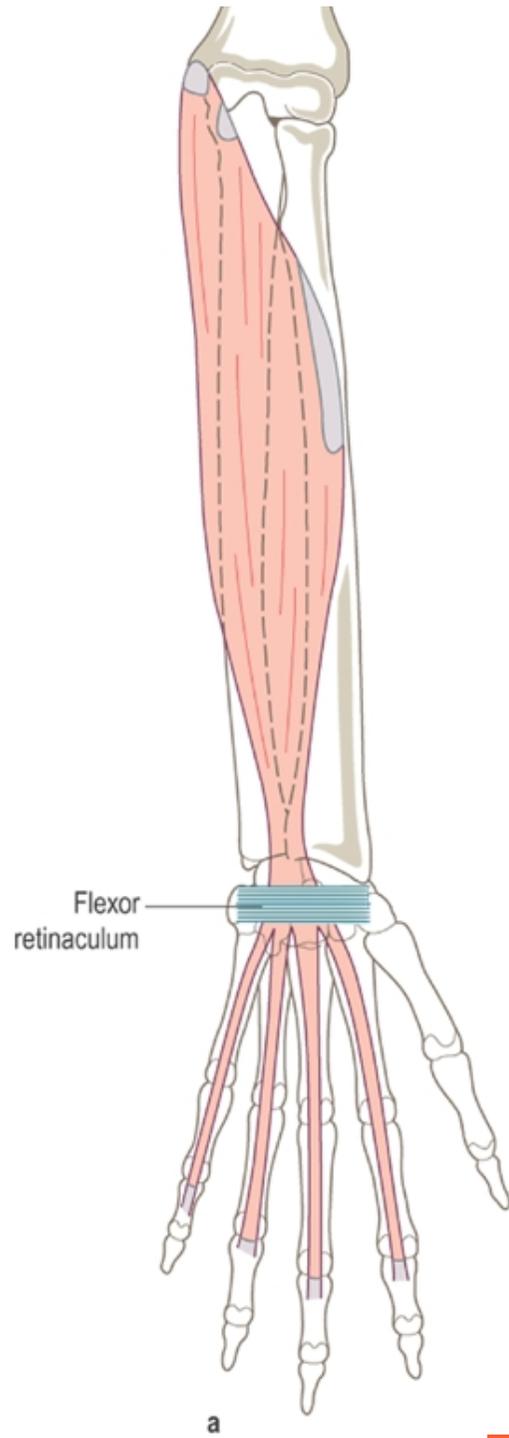
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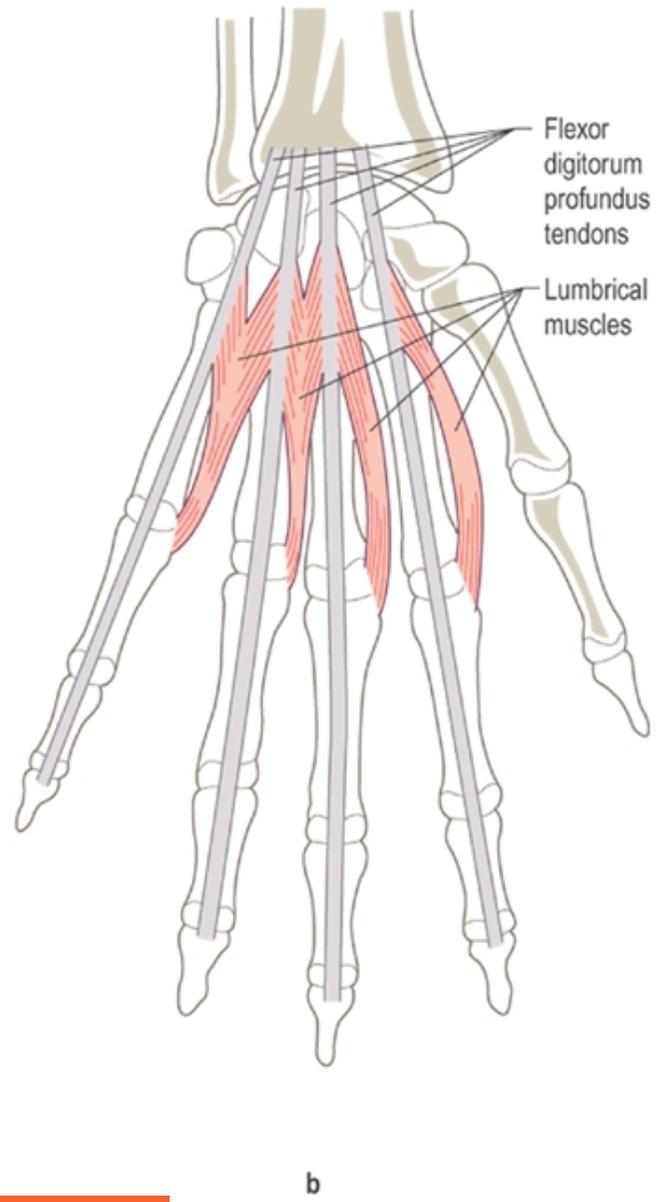
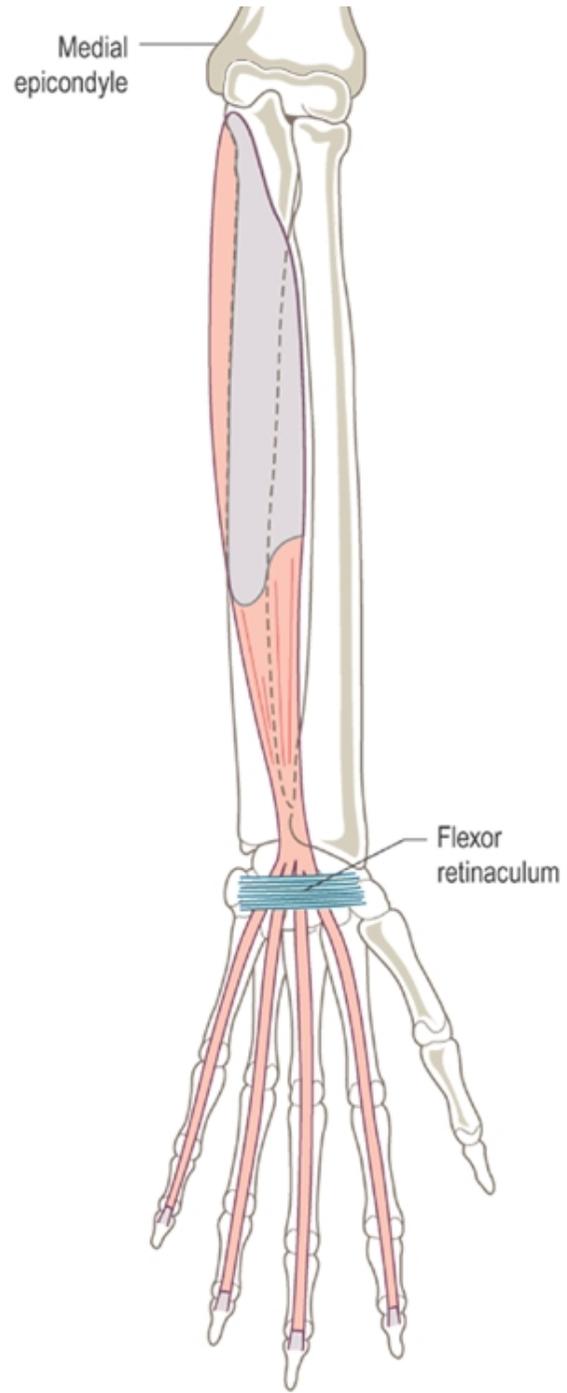


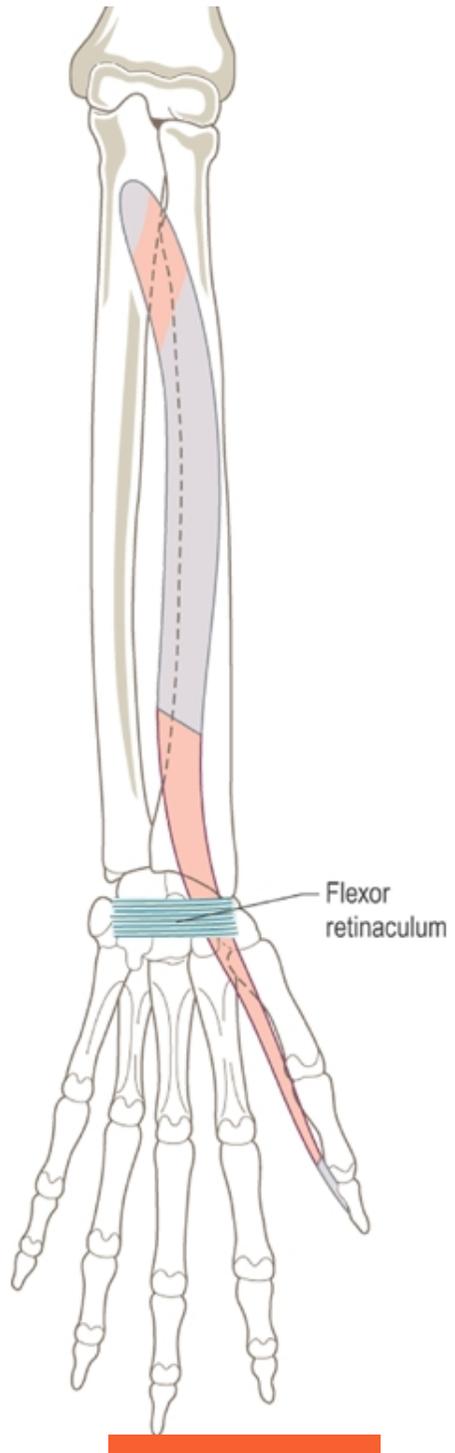




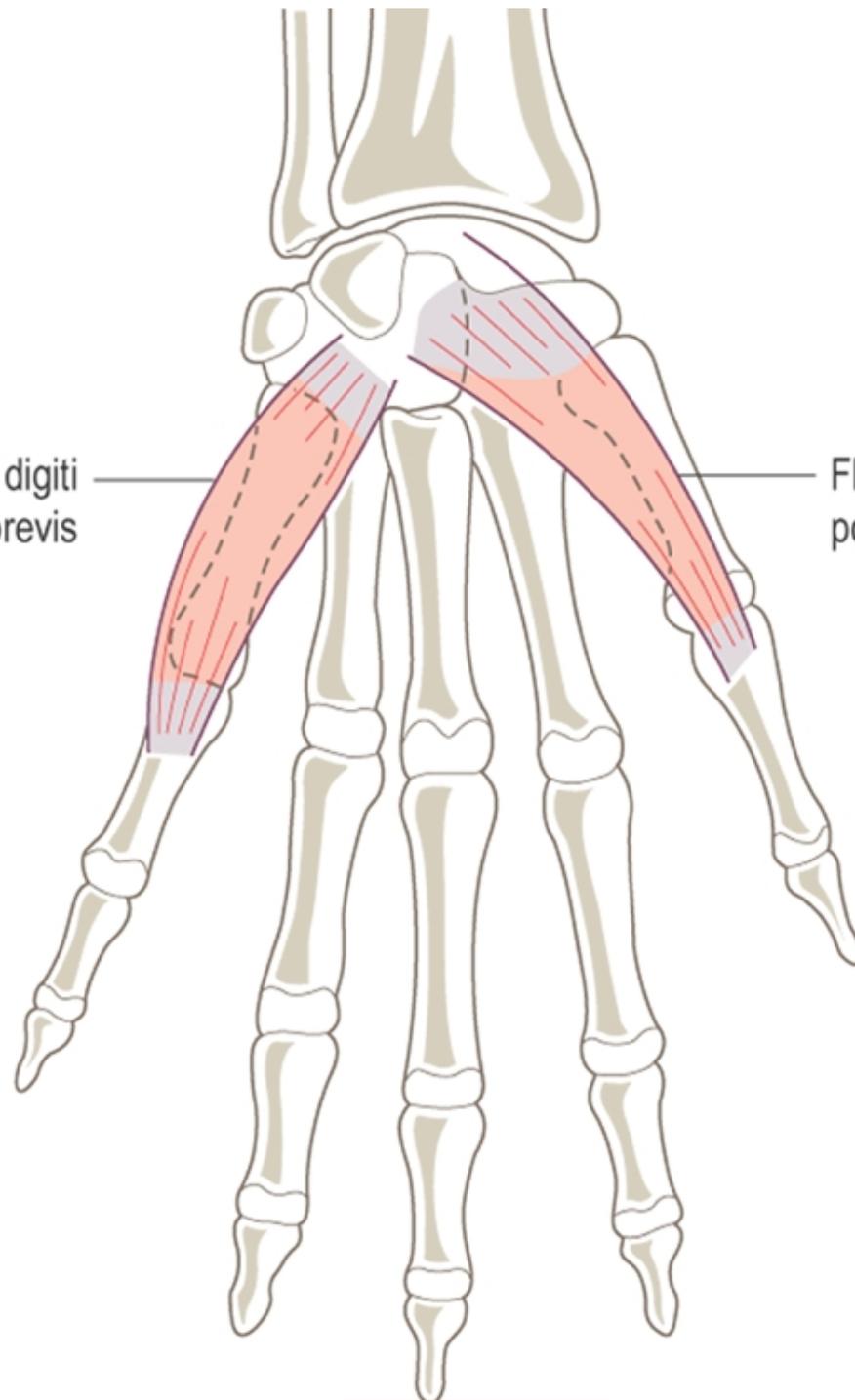
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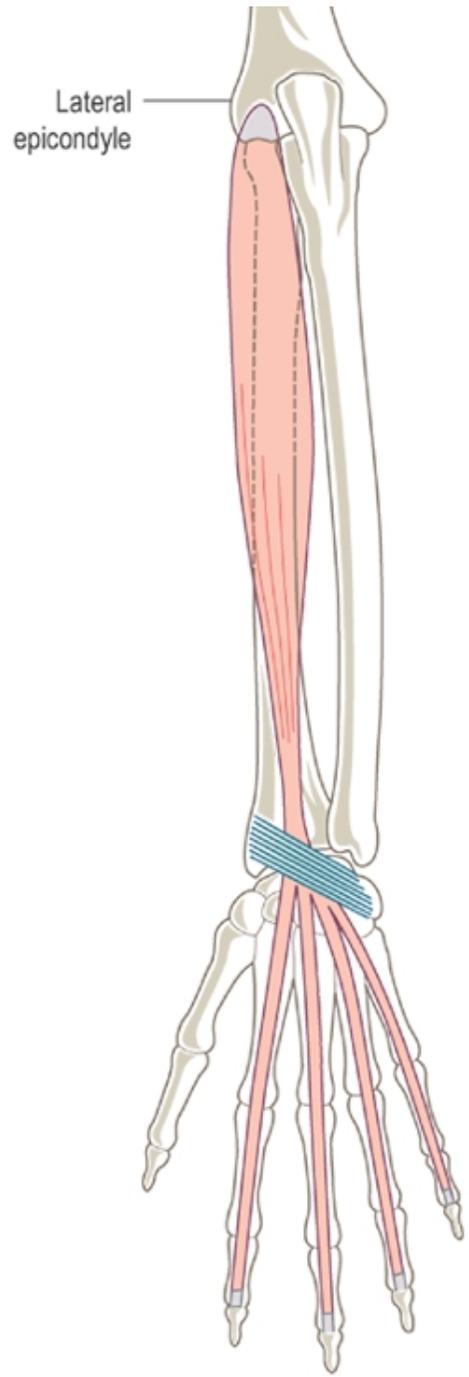




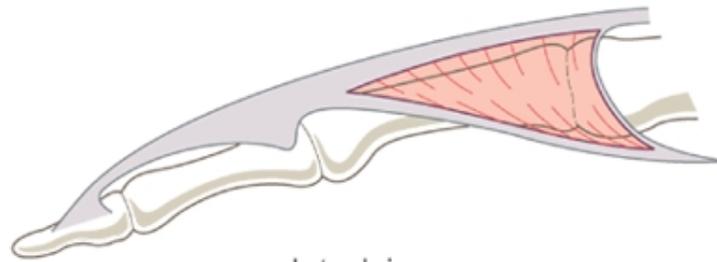
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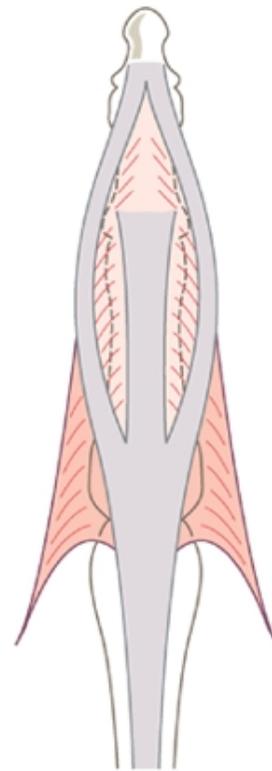
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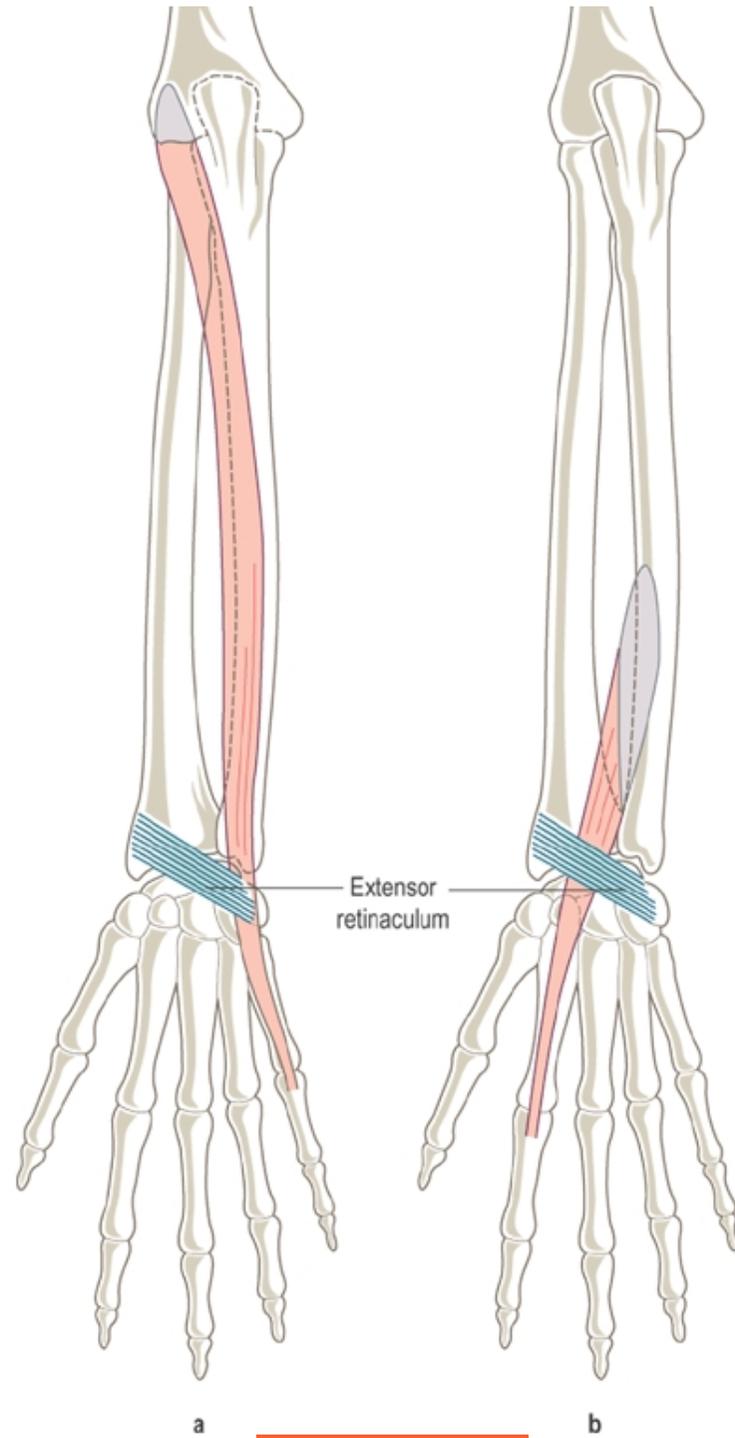
Lateral view

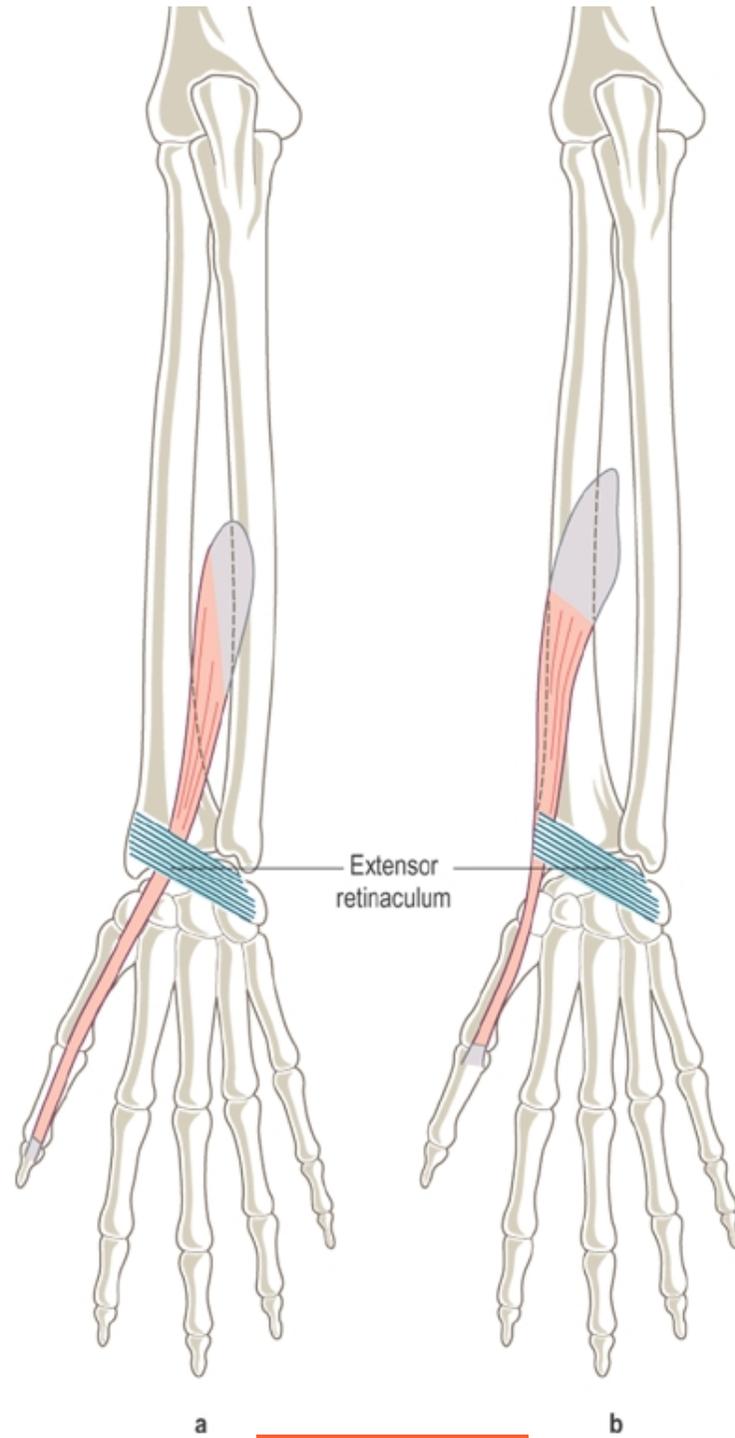


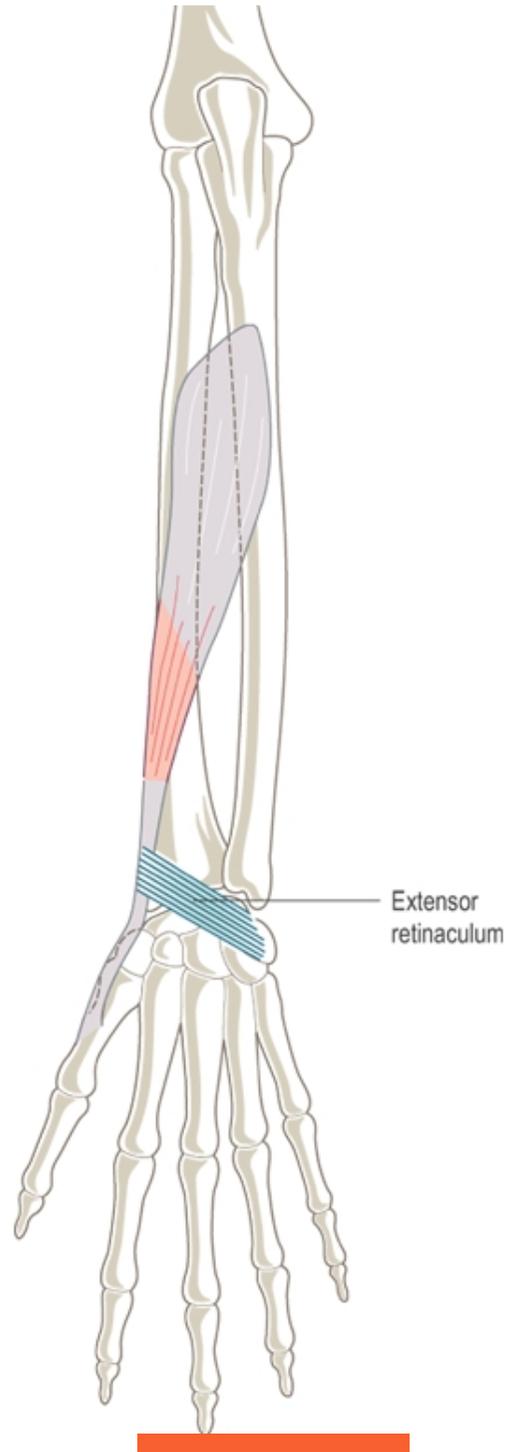
Dorsal view

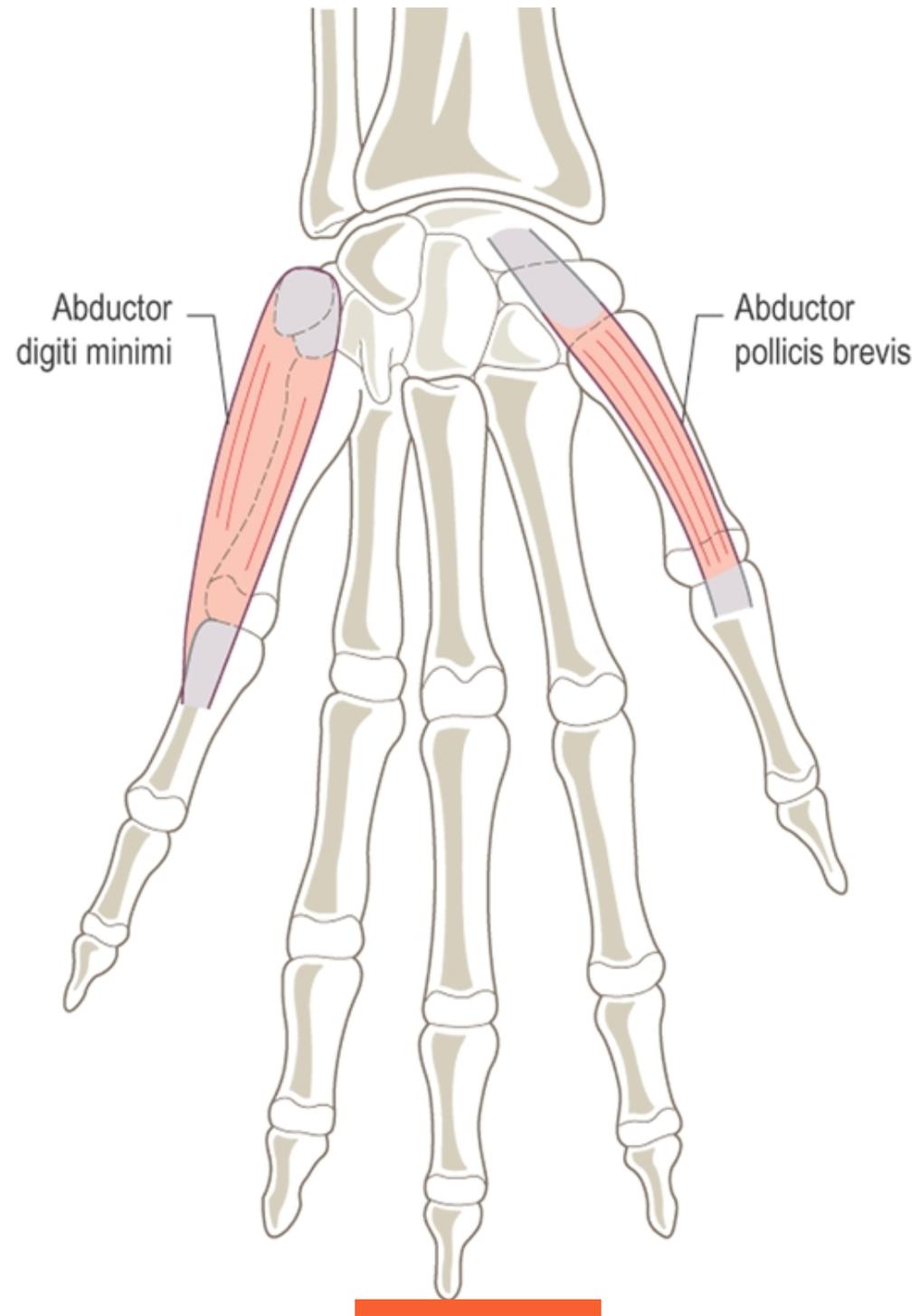
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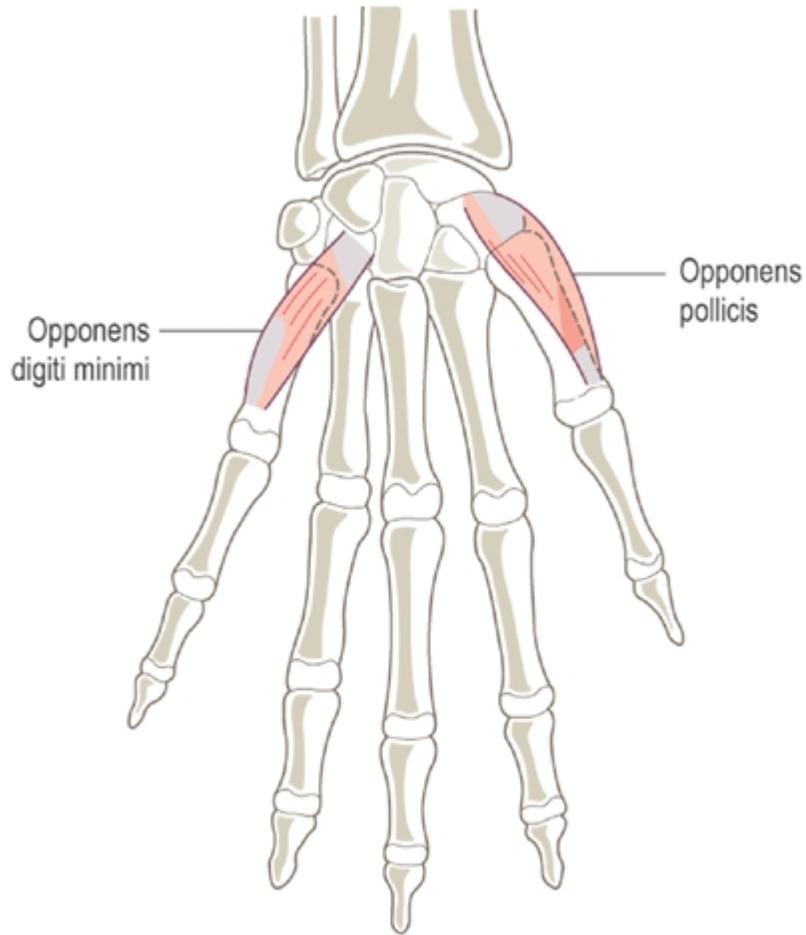




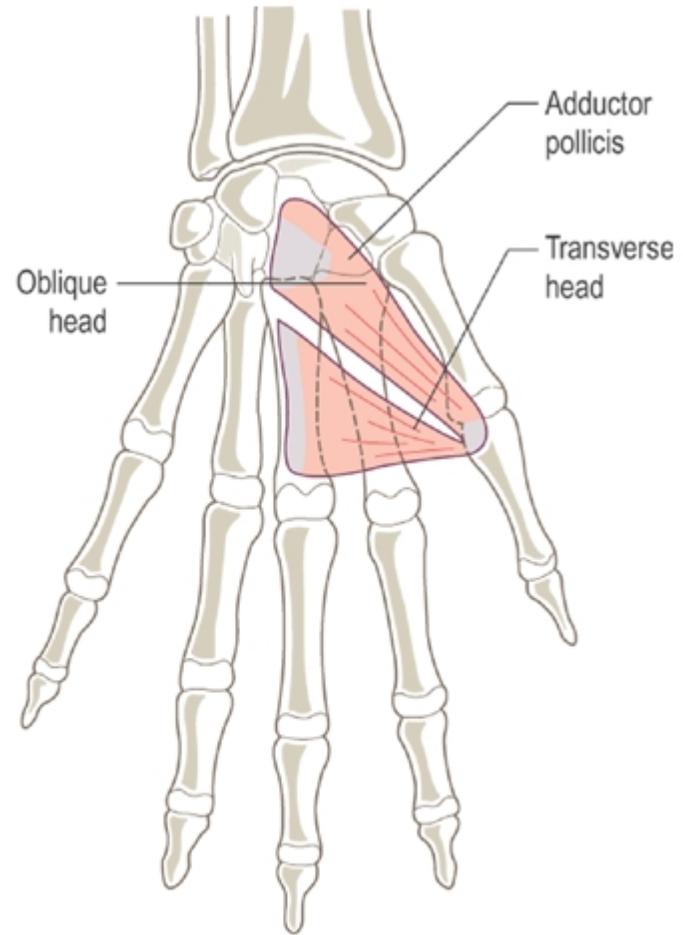






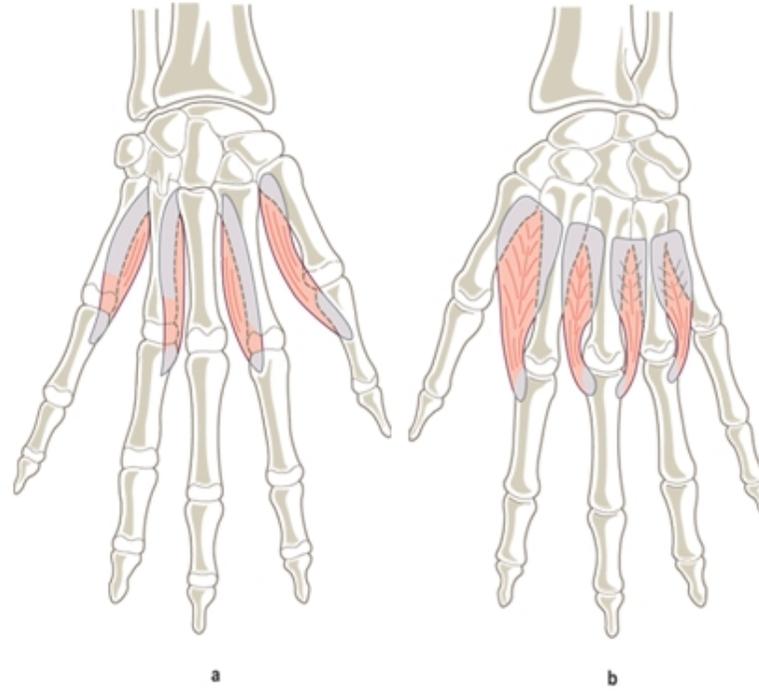


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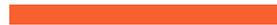


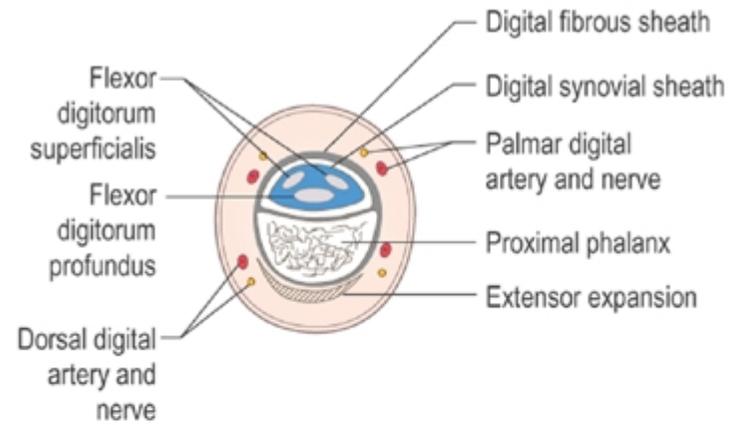
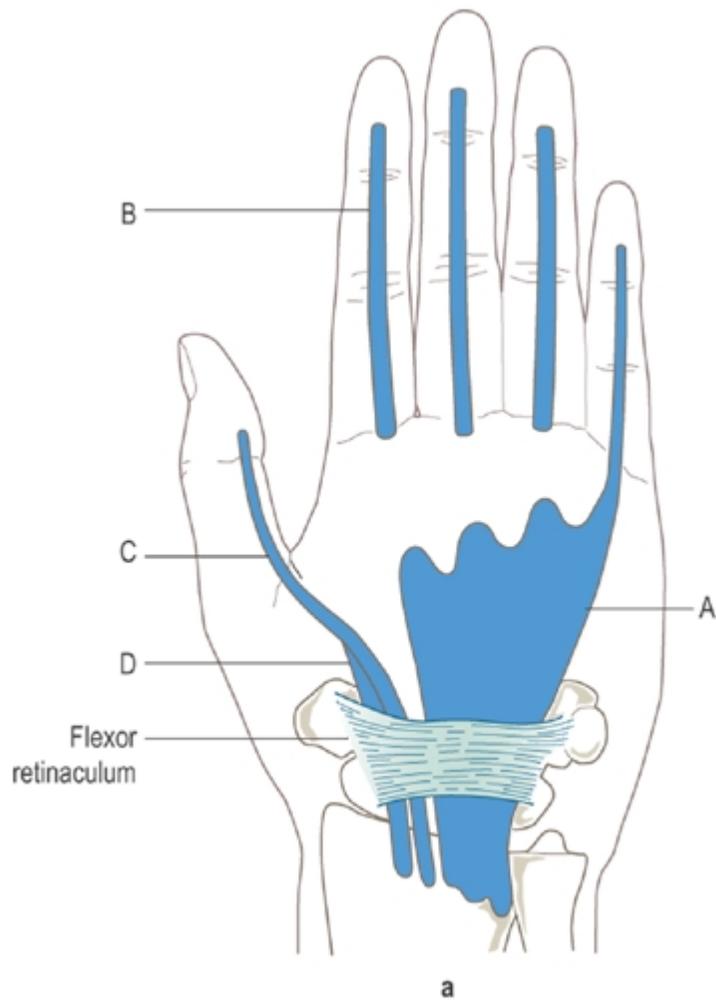
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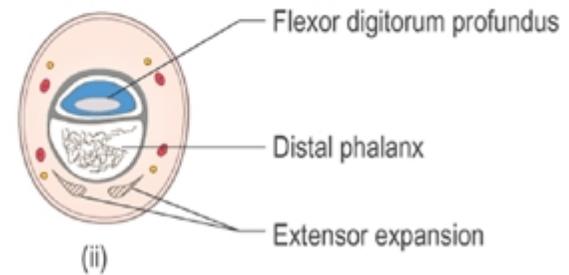


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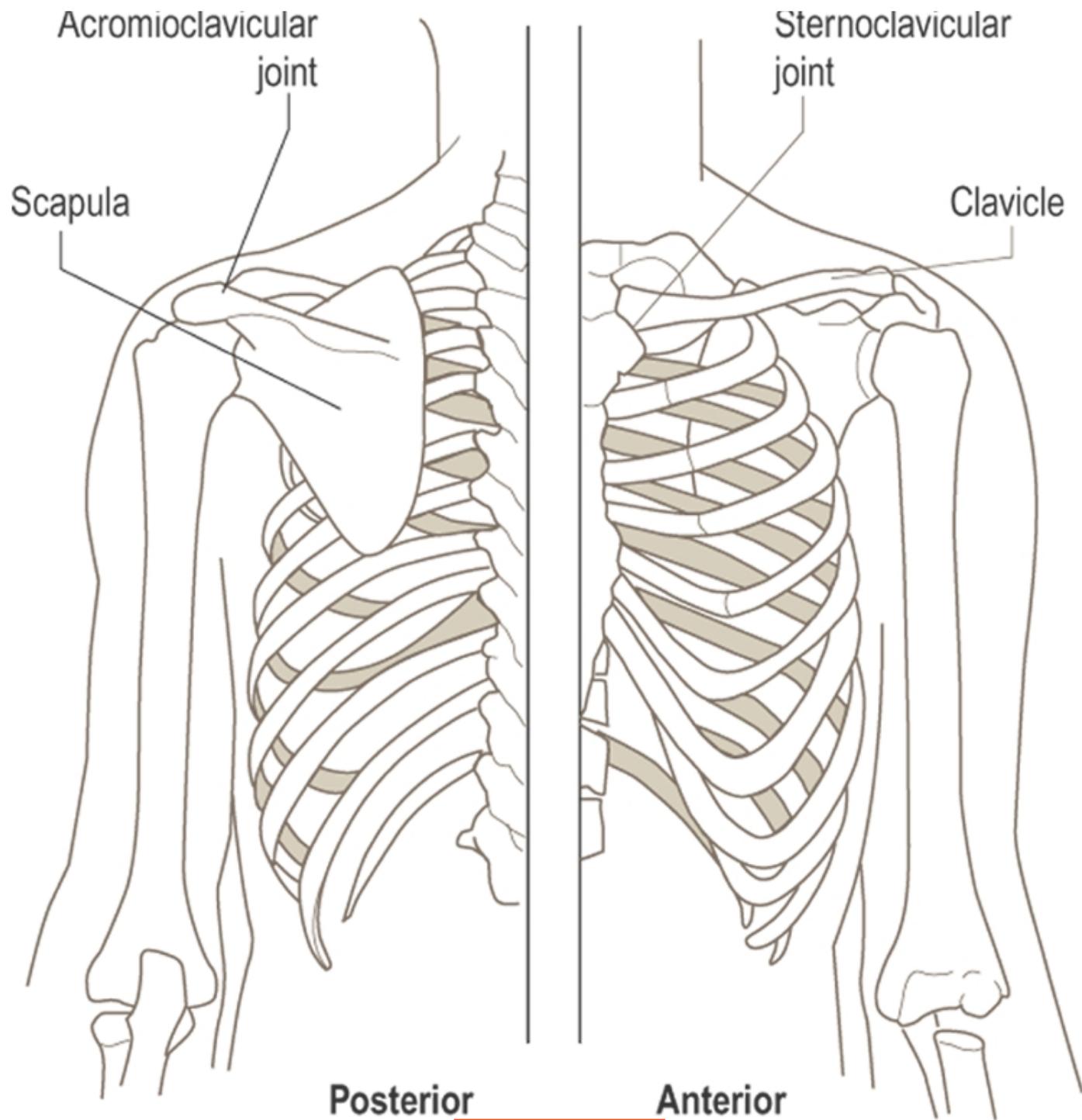


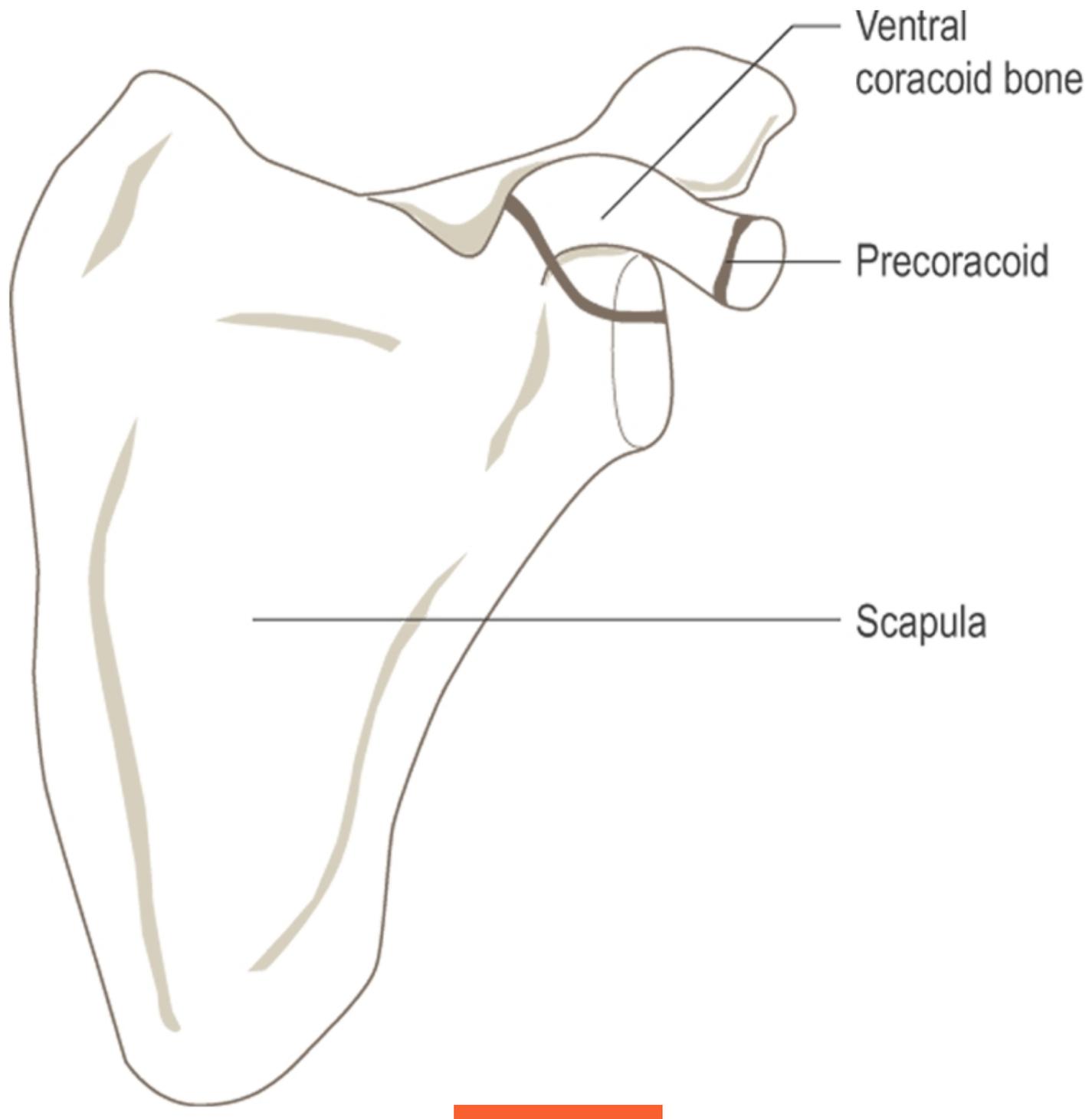
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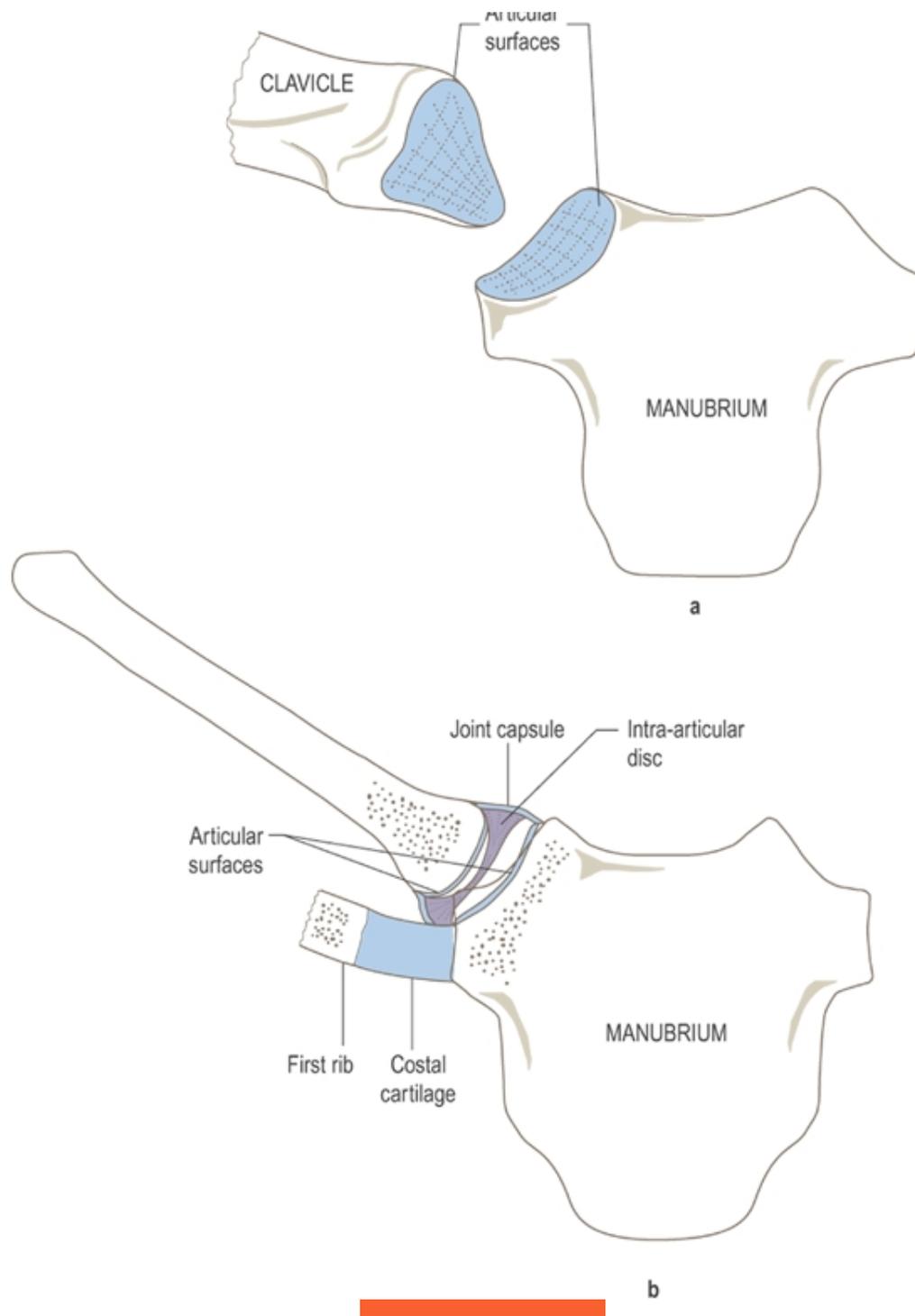


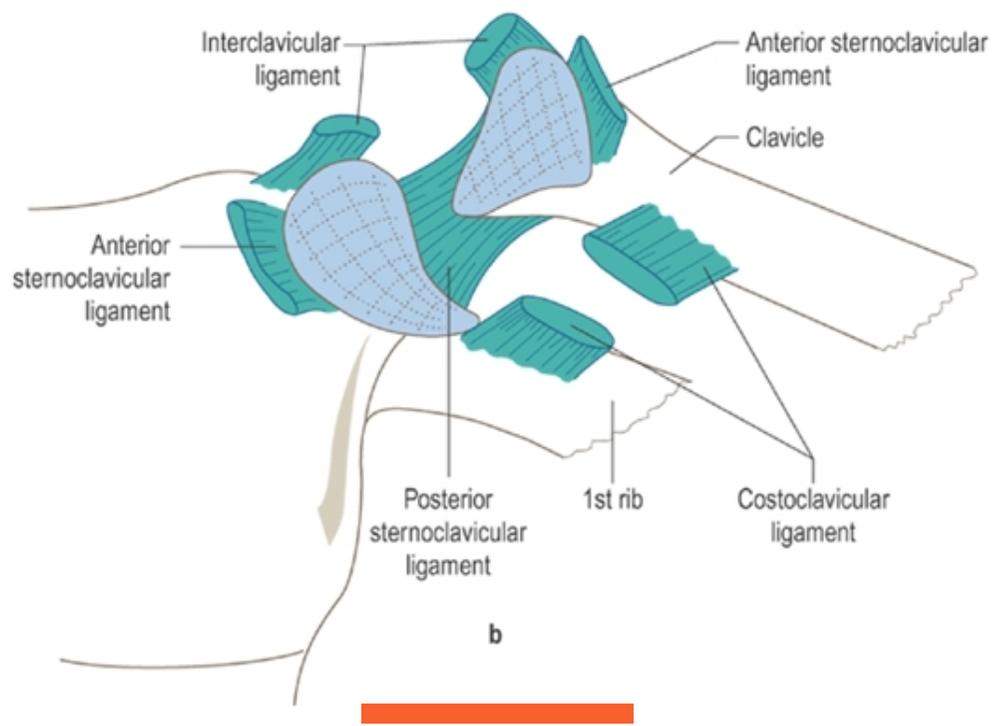
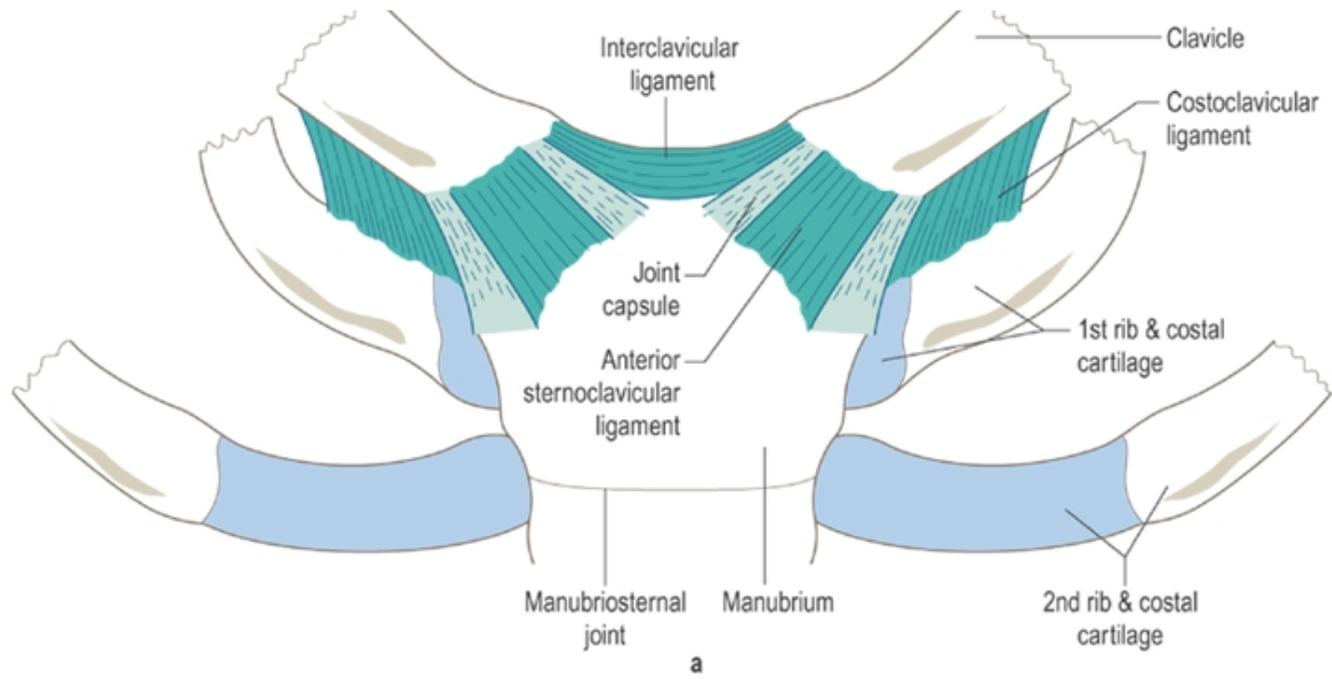
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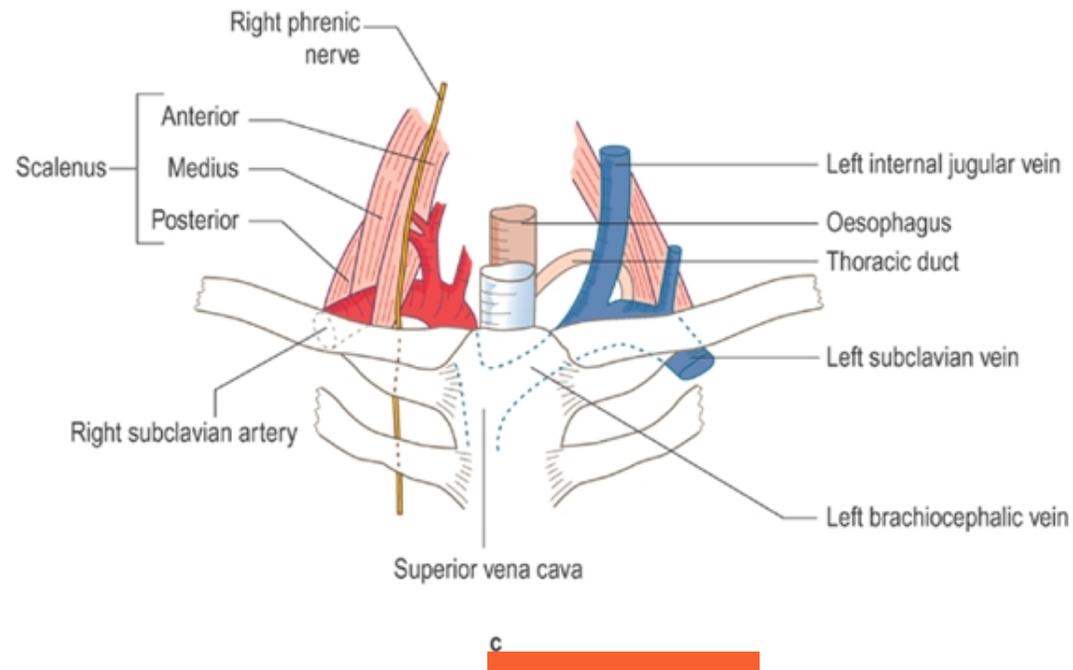
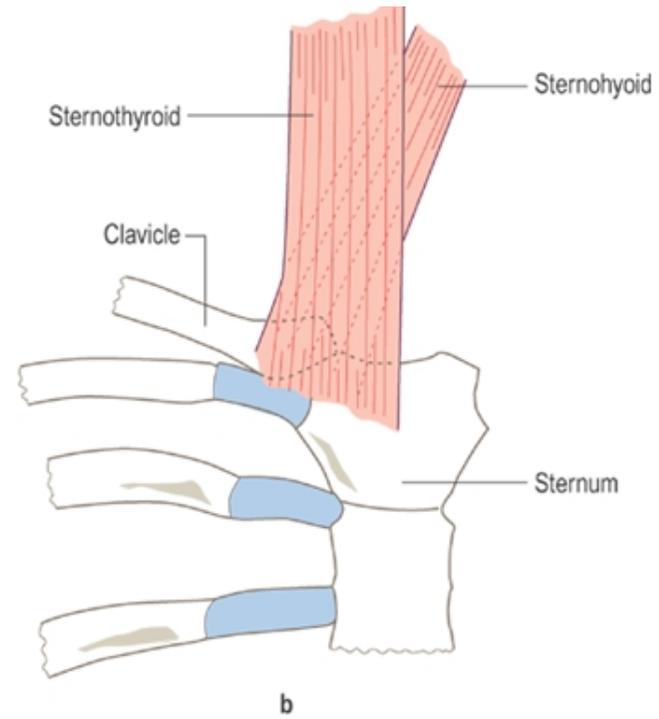
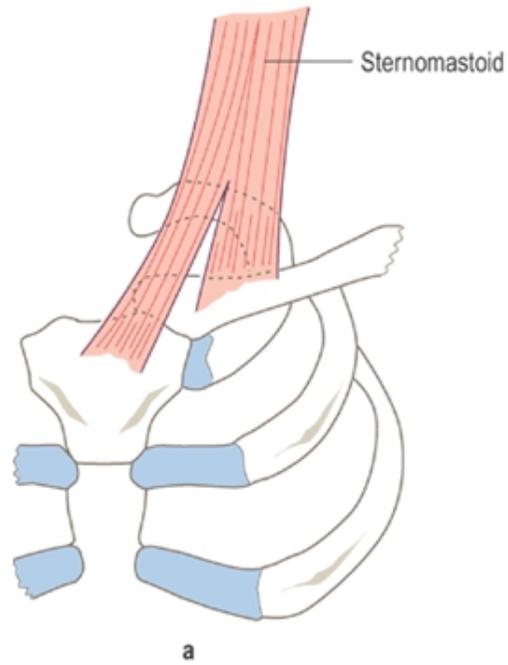
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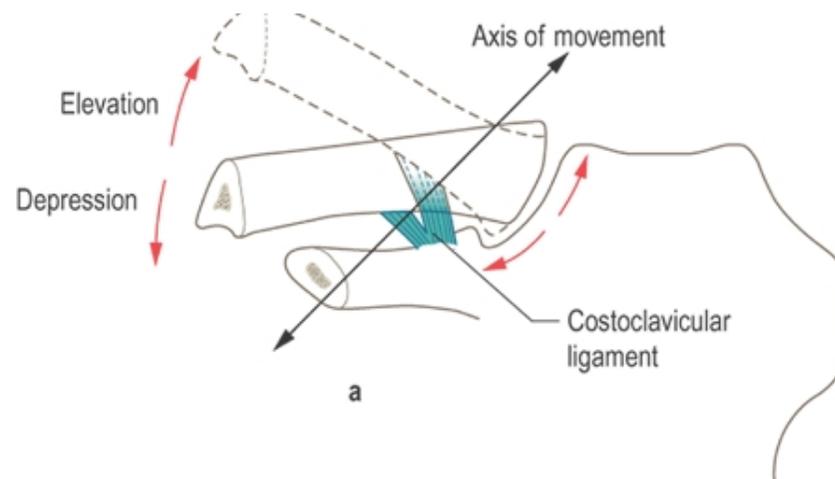




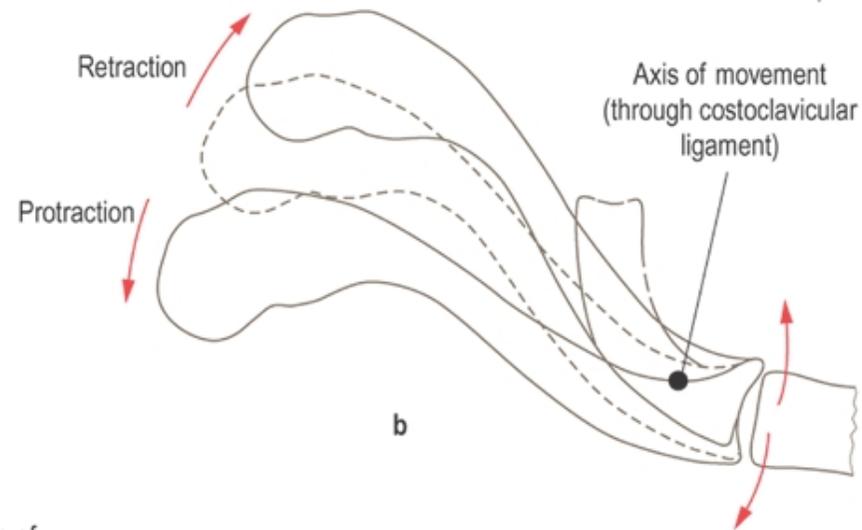




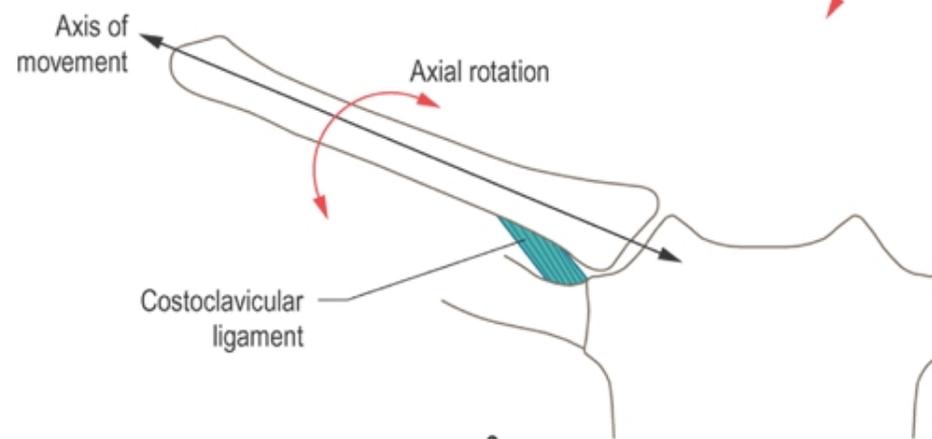




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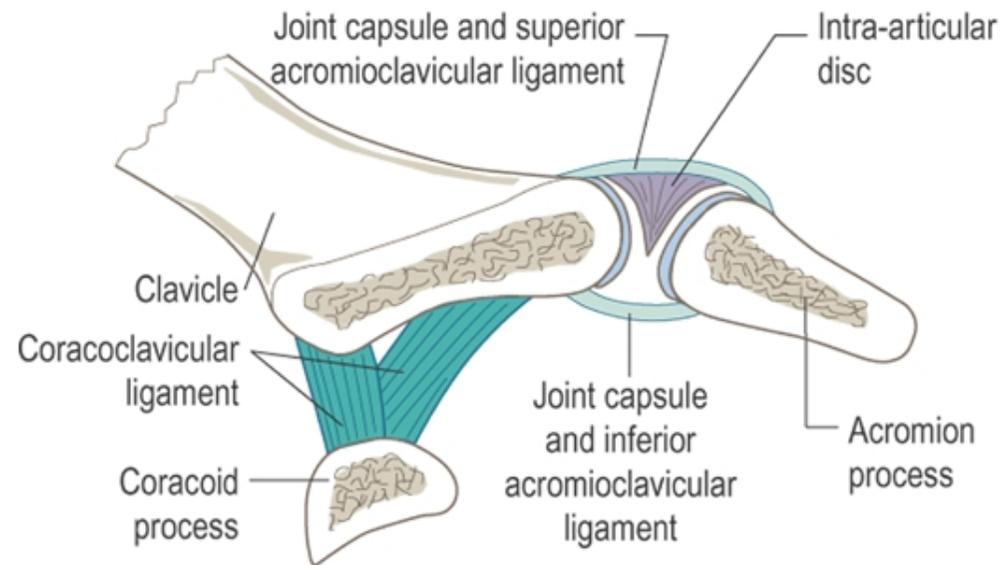
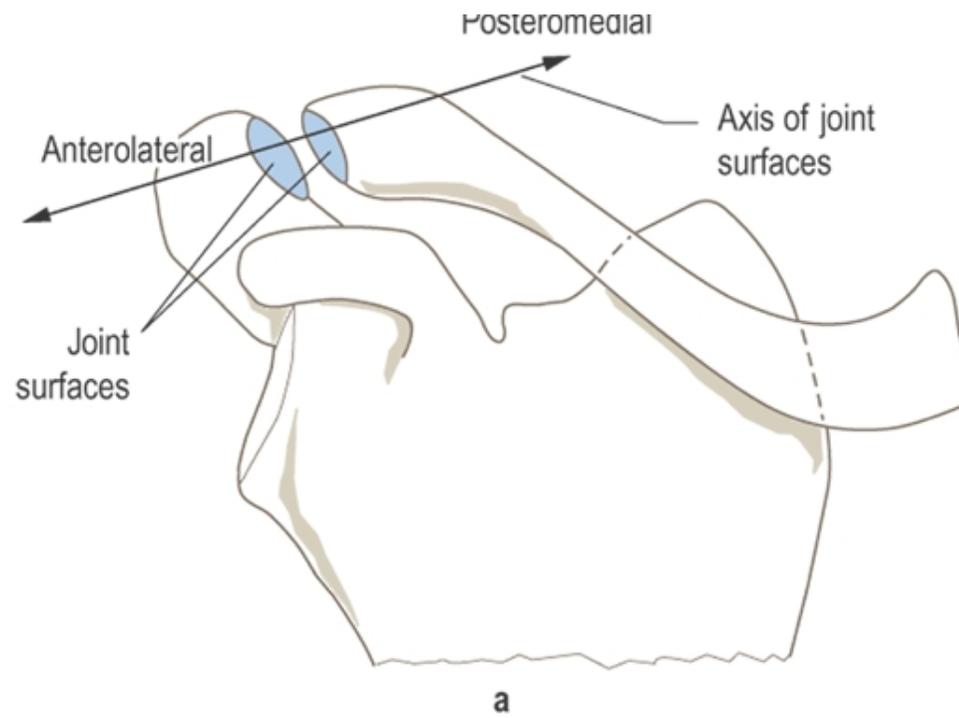


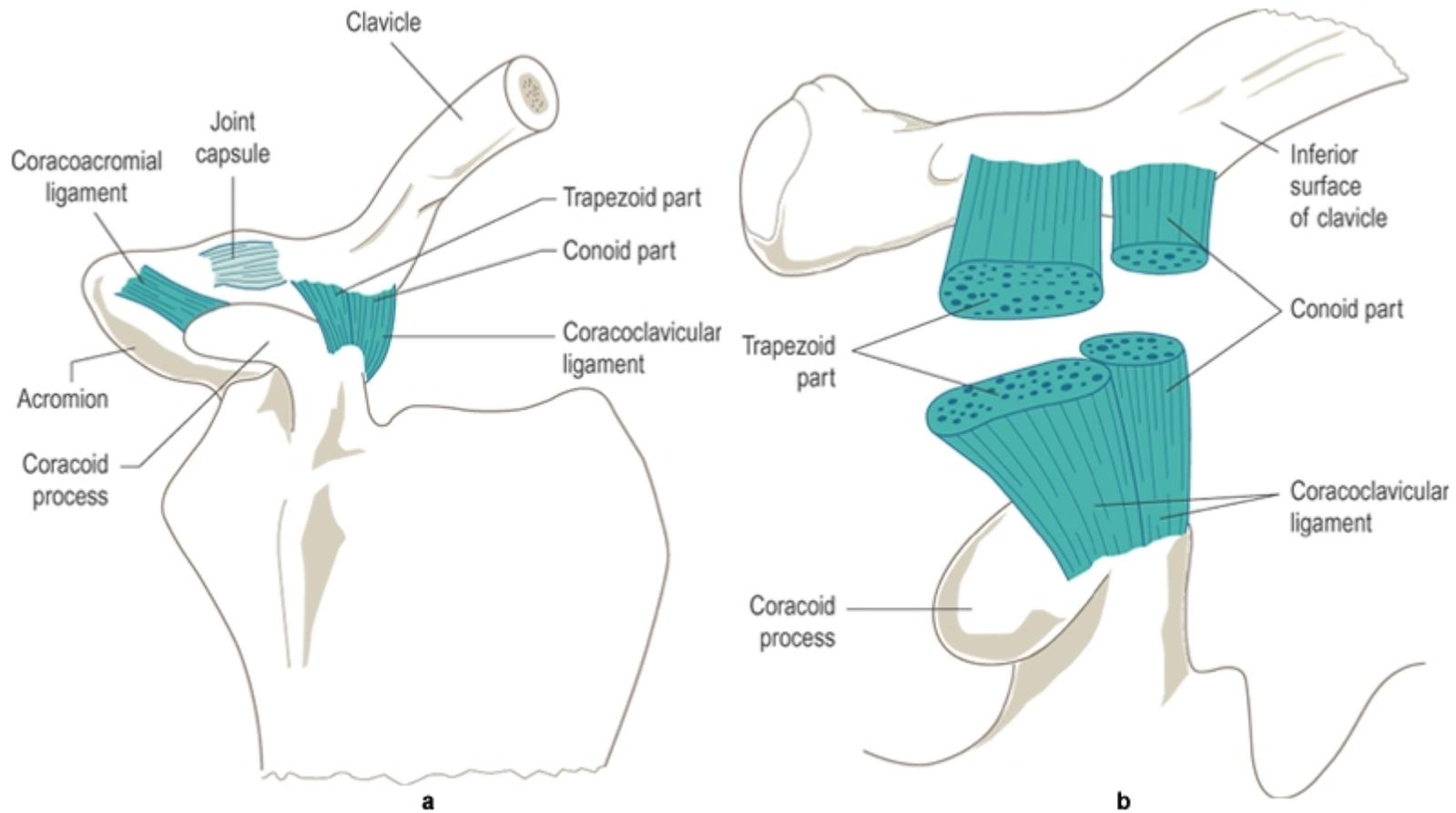
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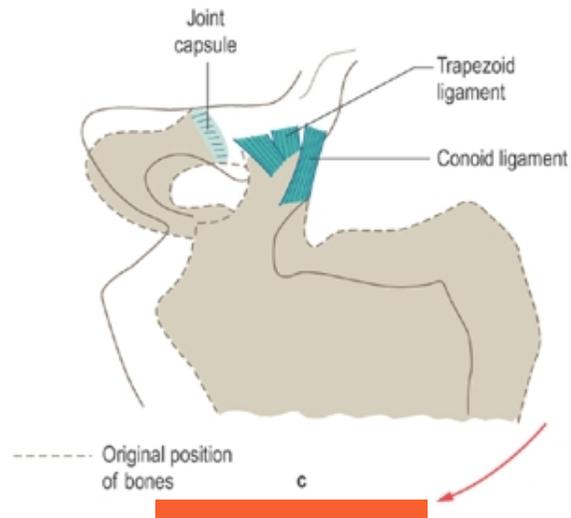
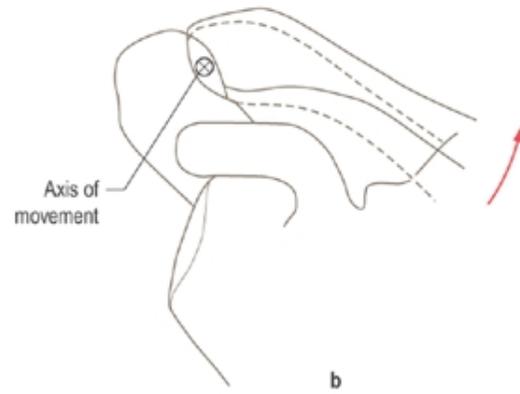
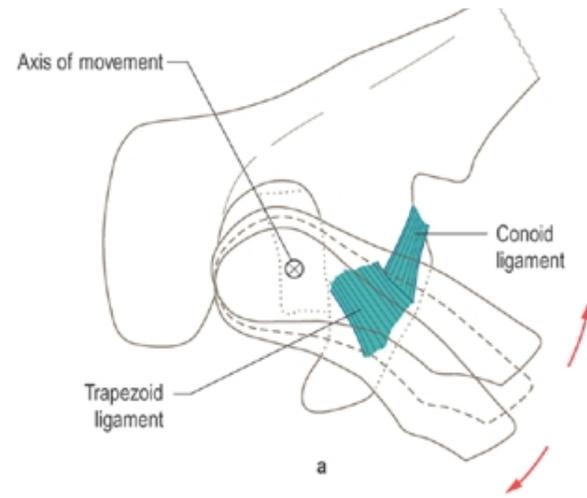
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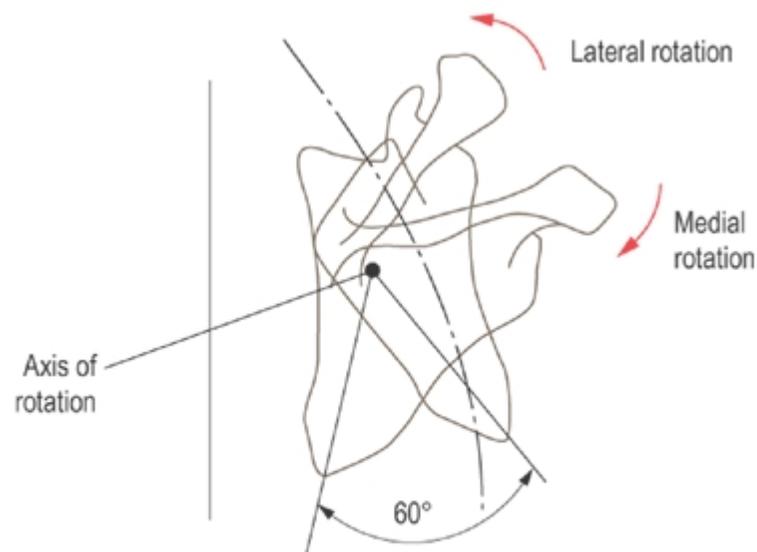
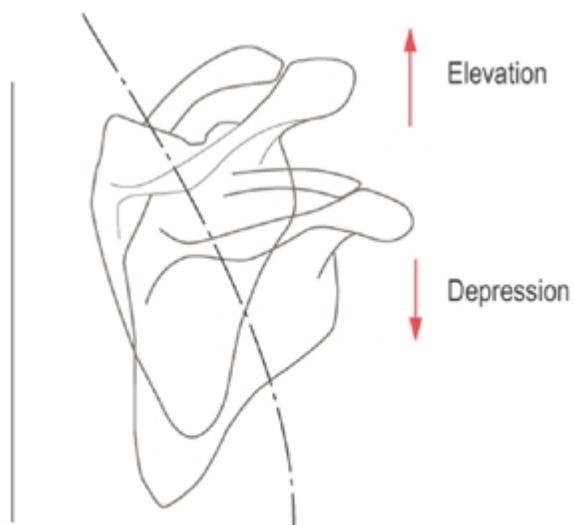
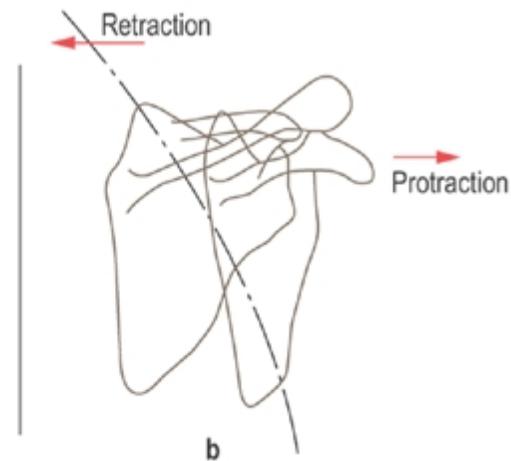
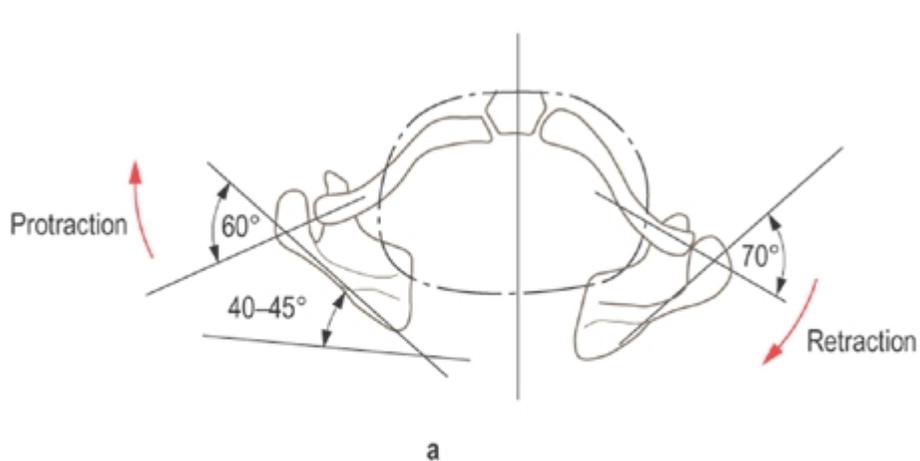




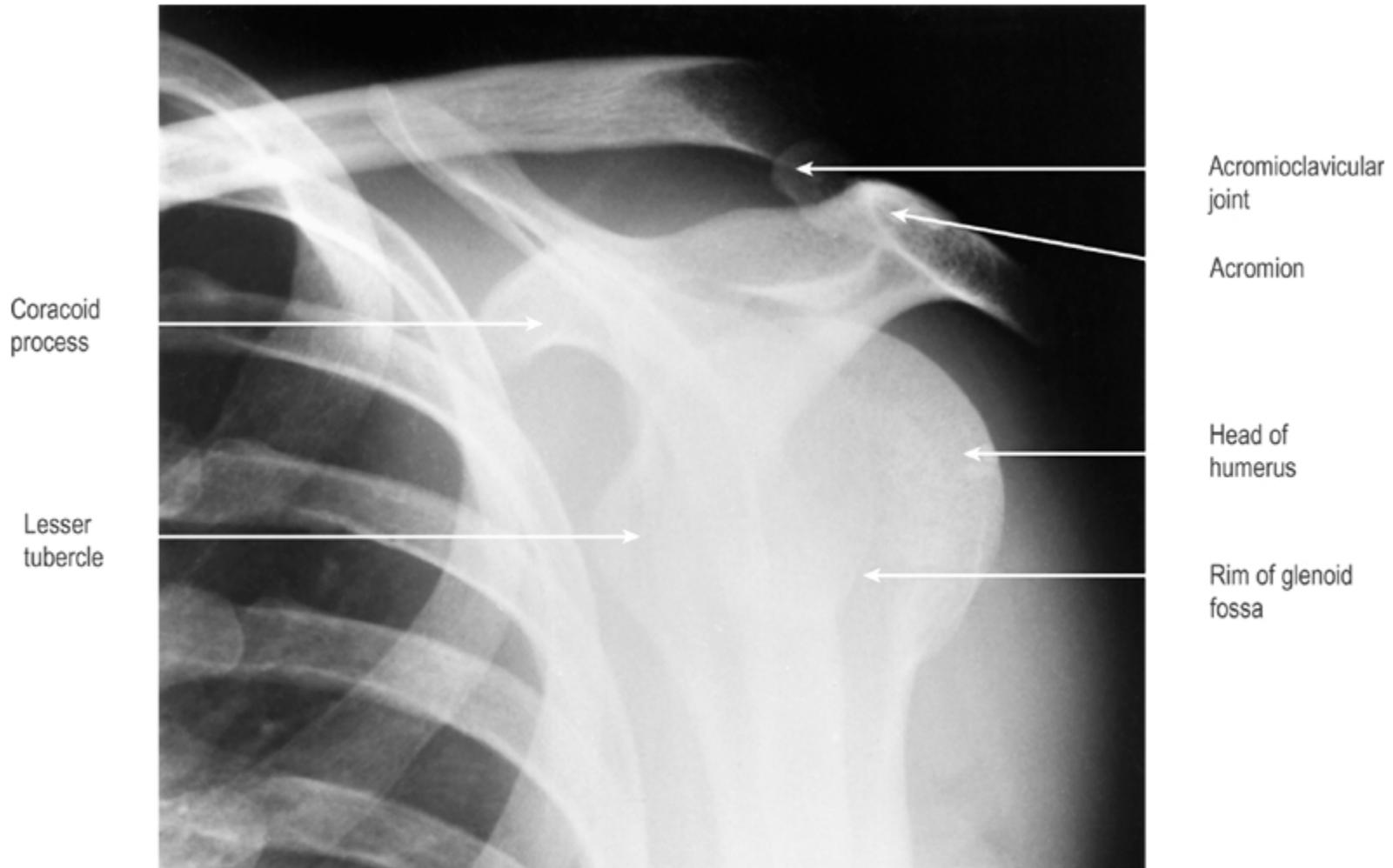


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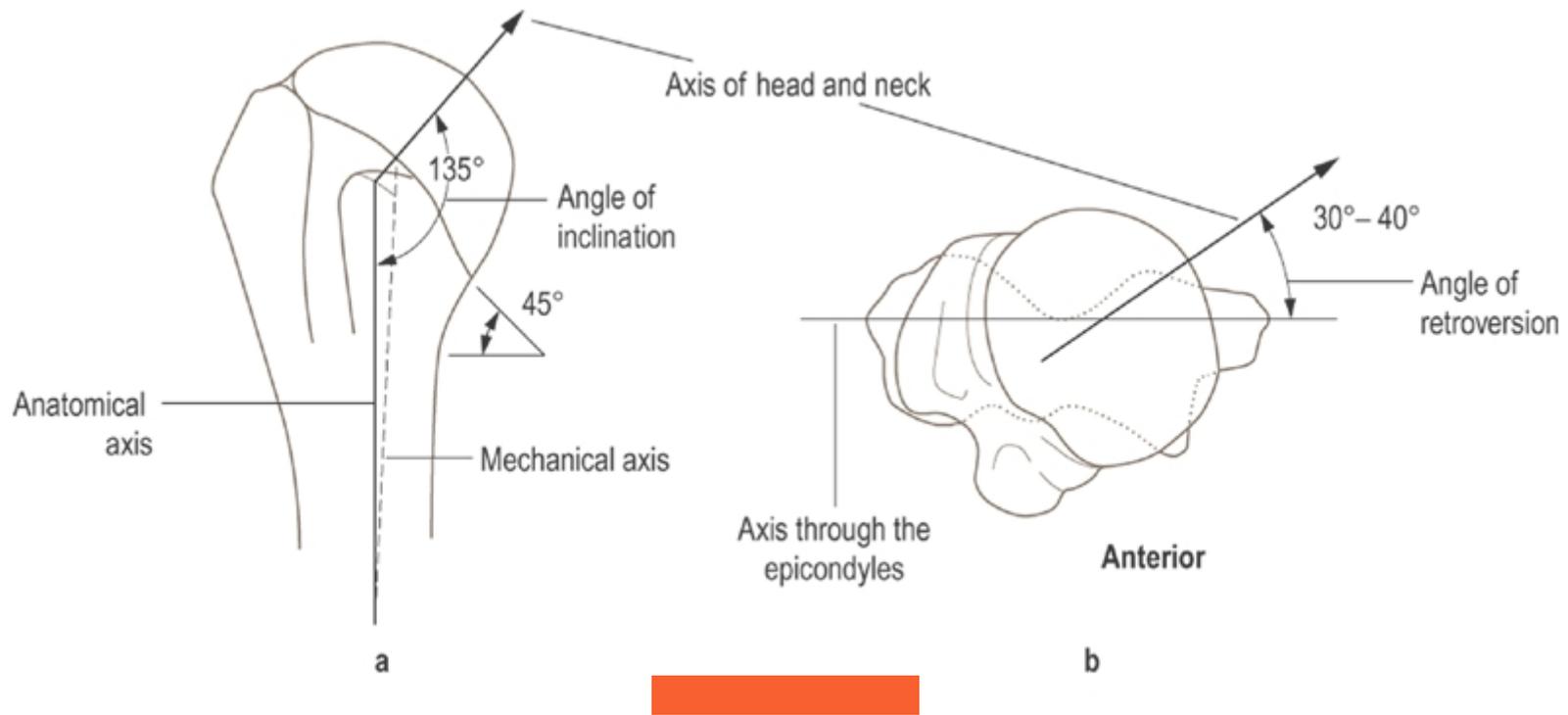




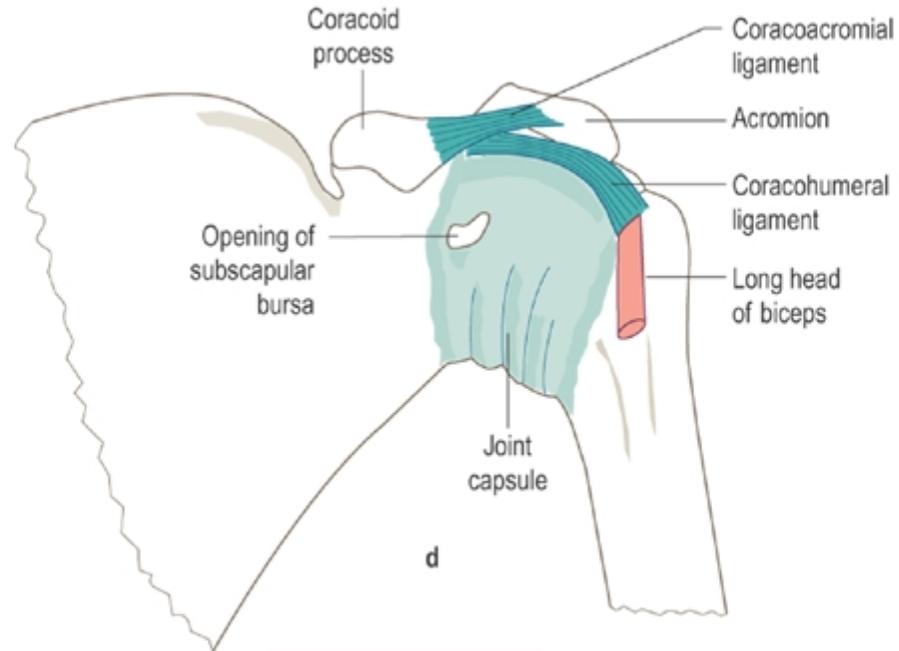
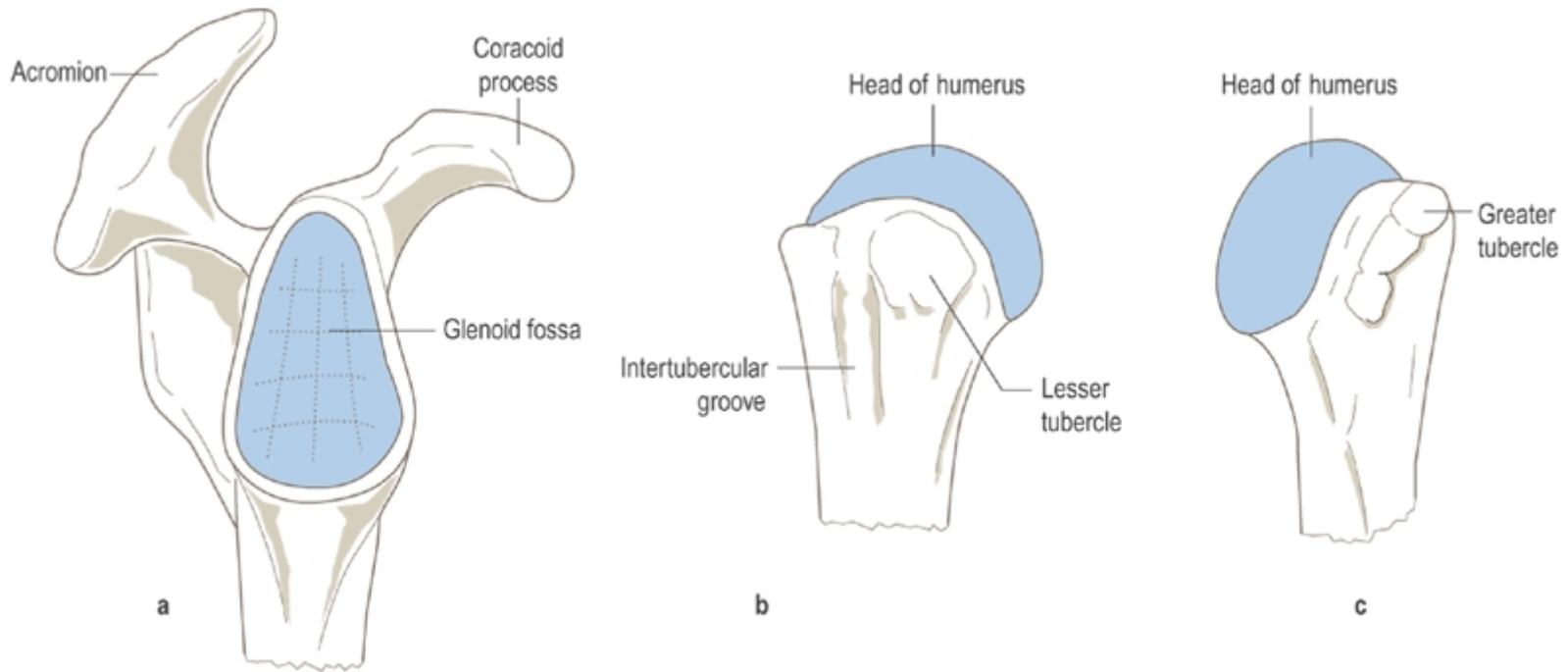
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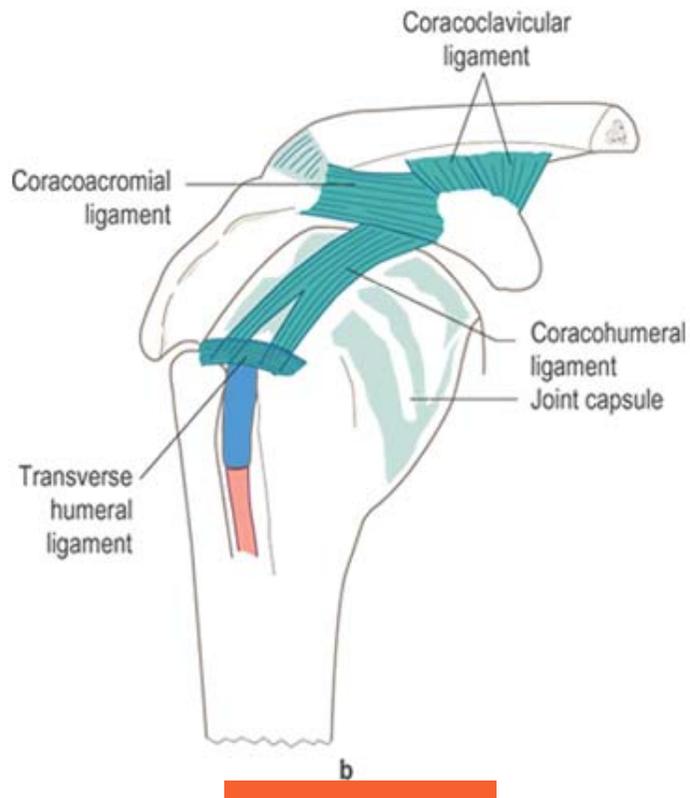
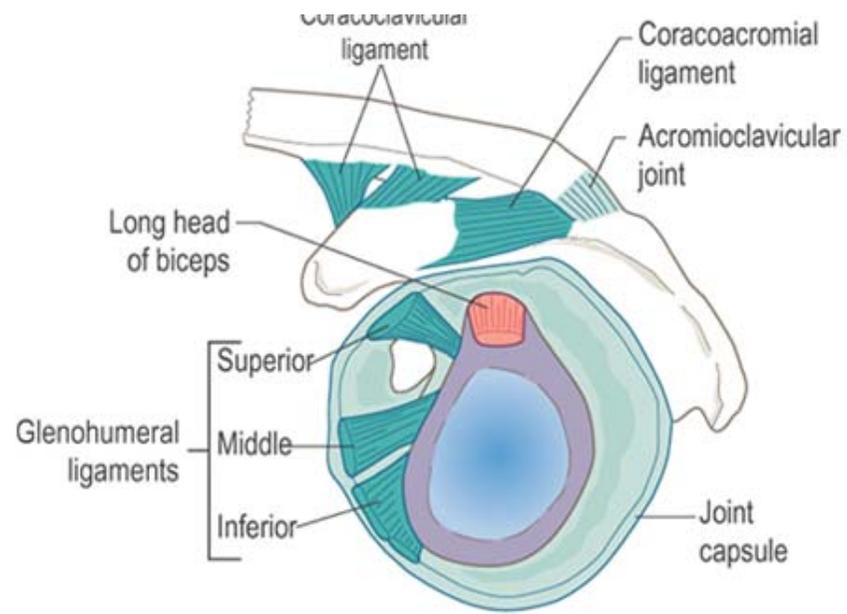


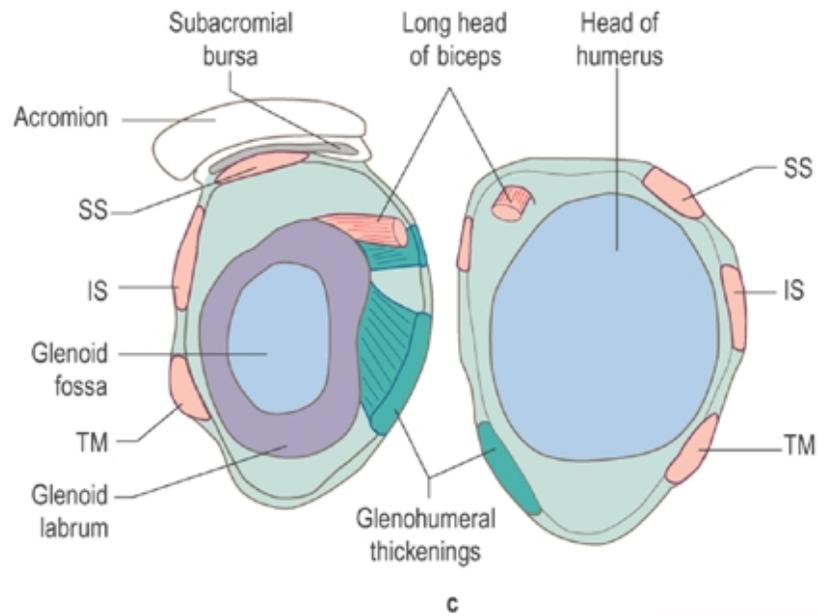
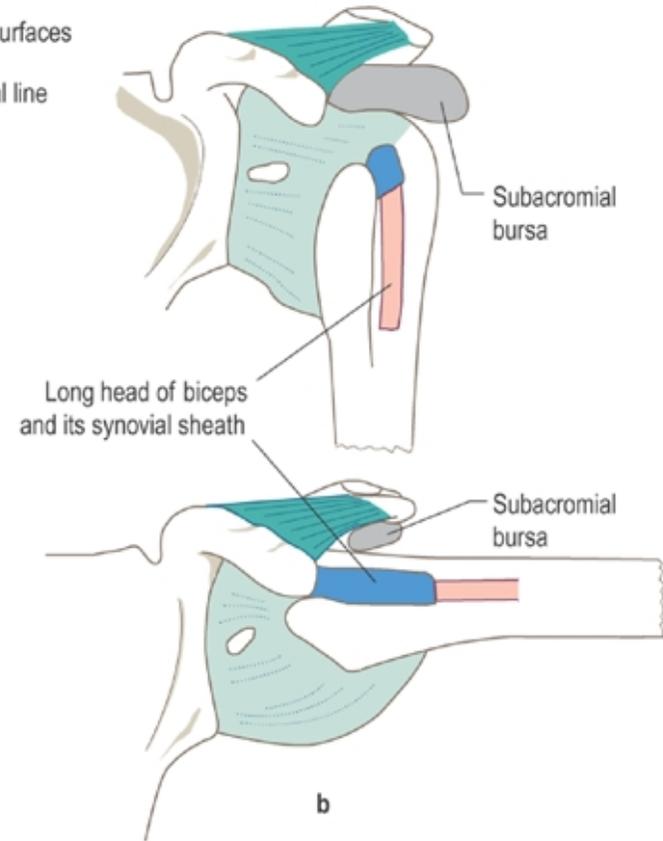
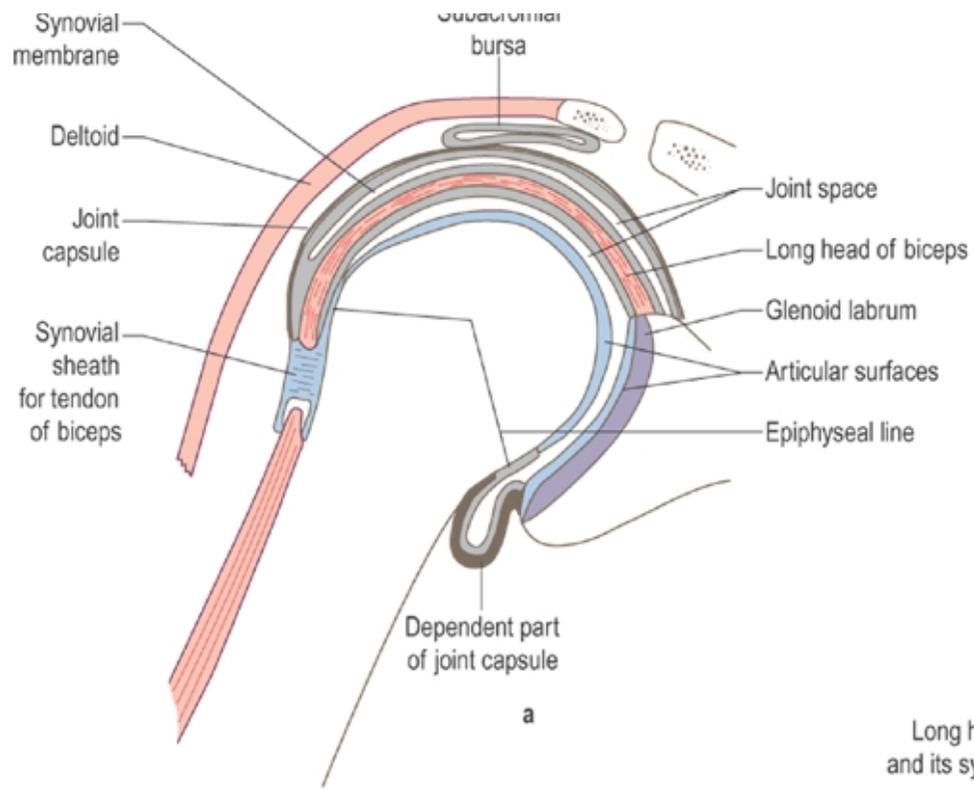
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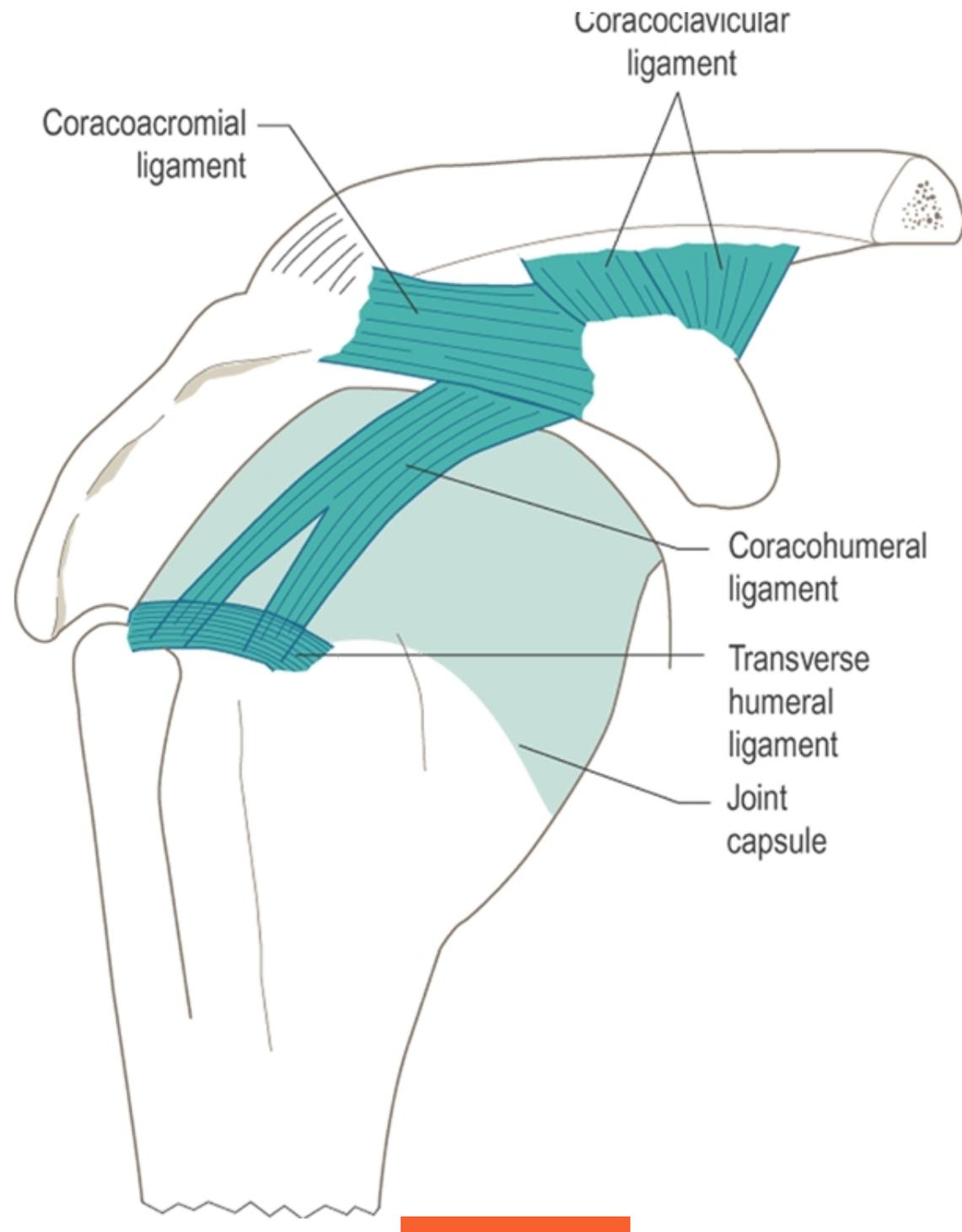


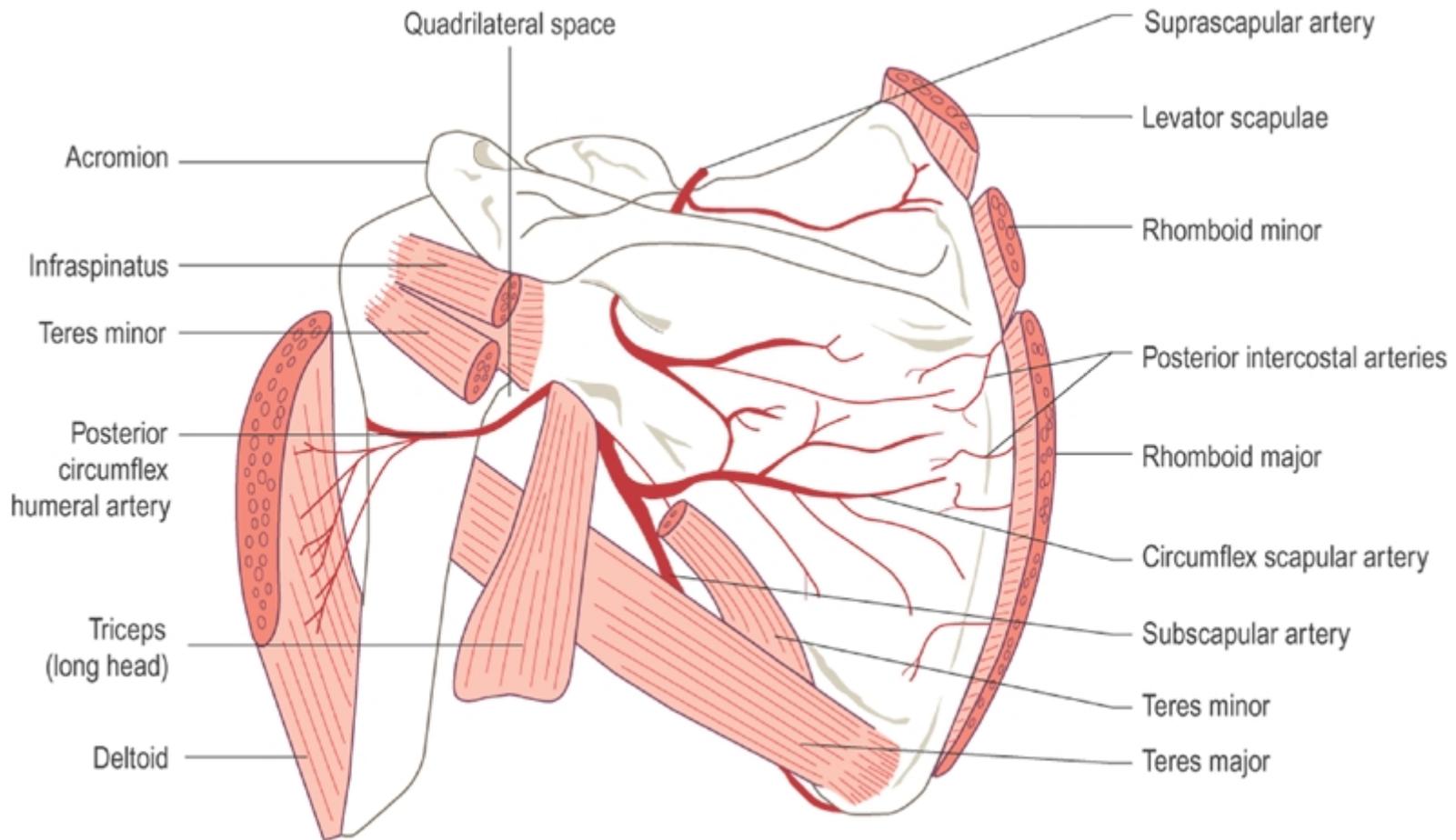
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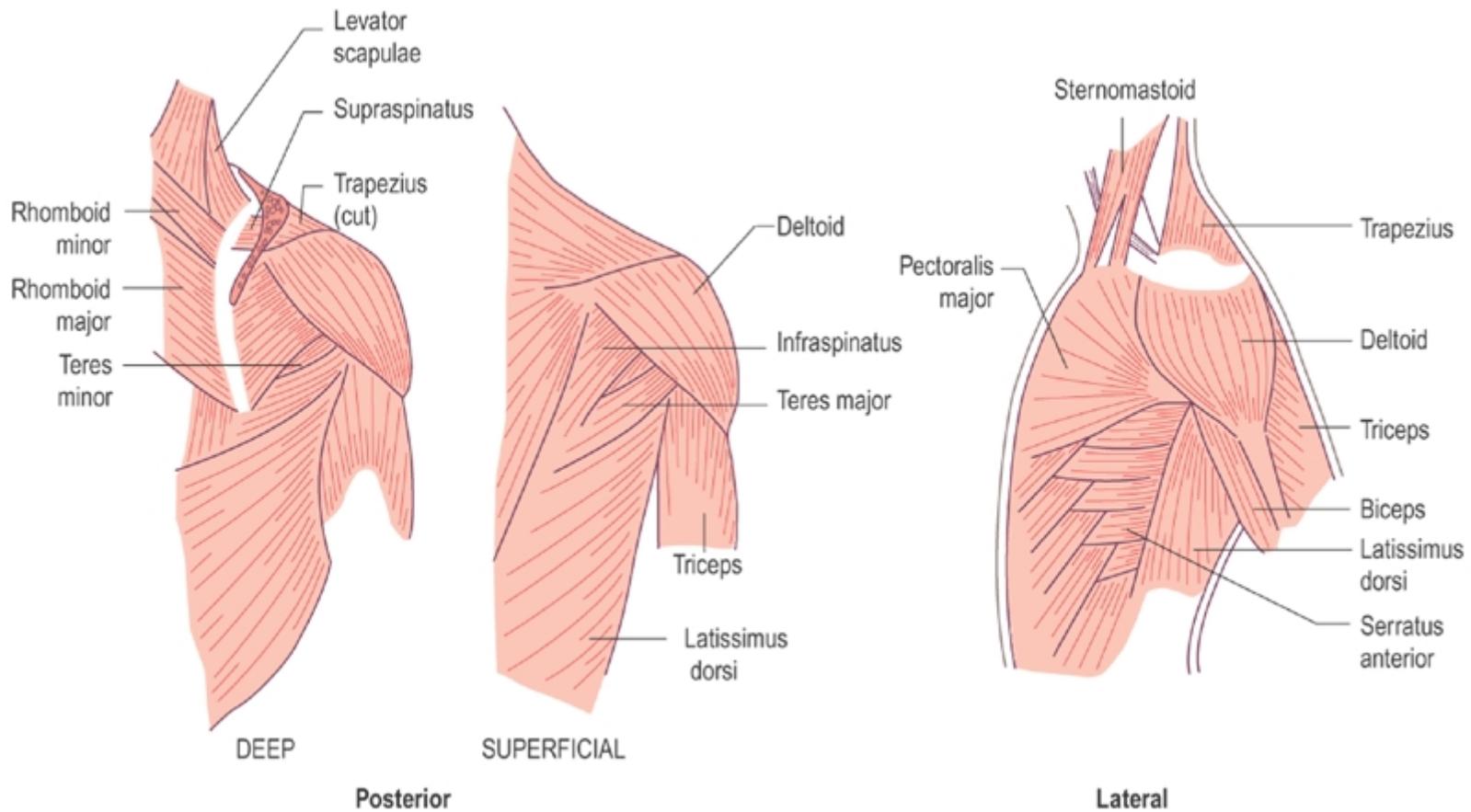




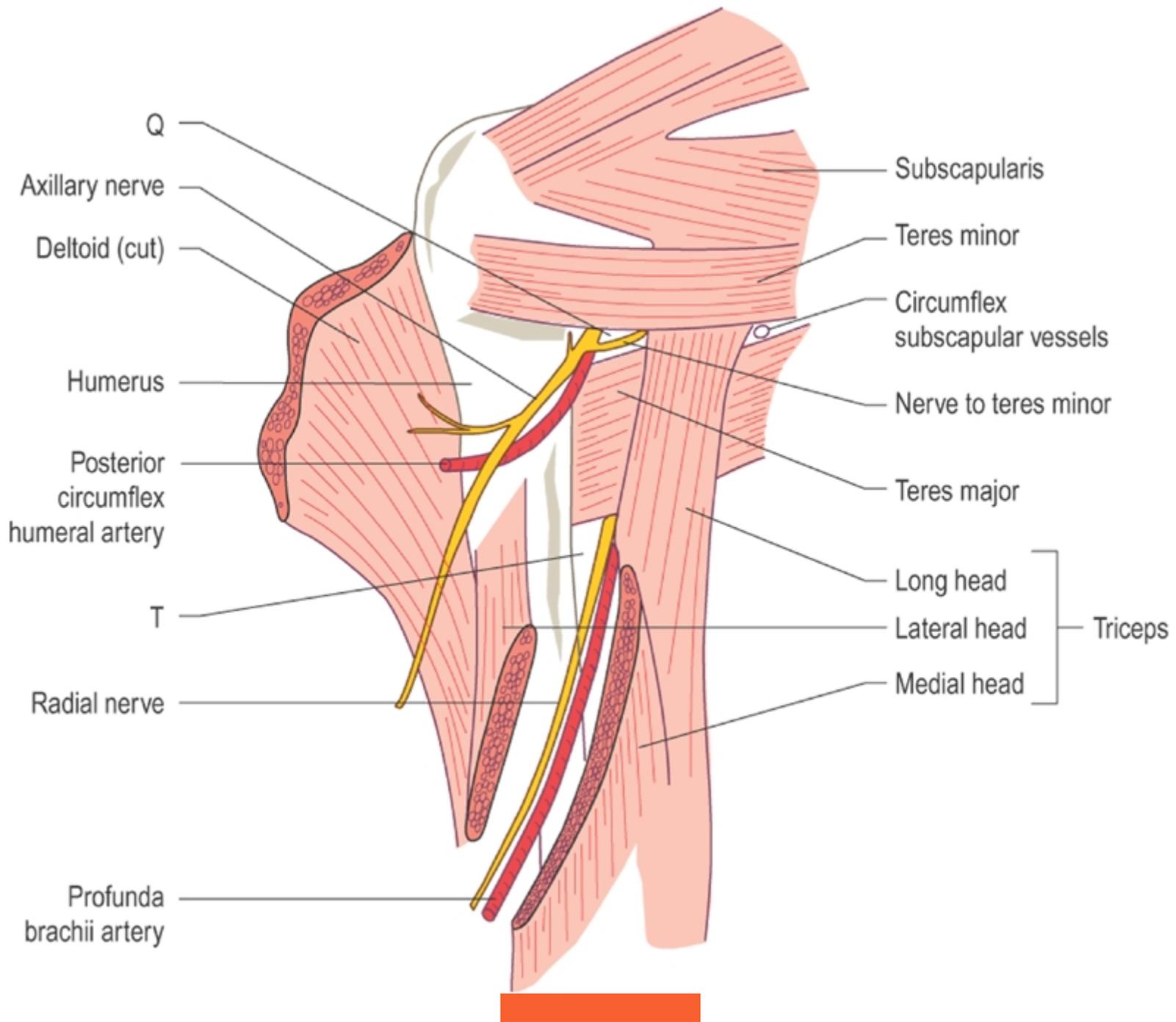


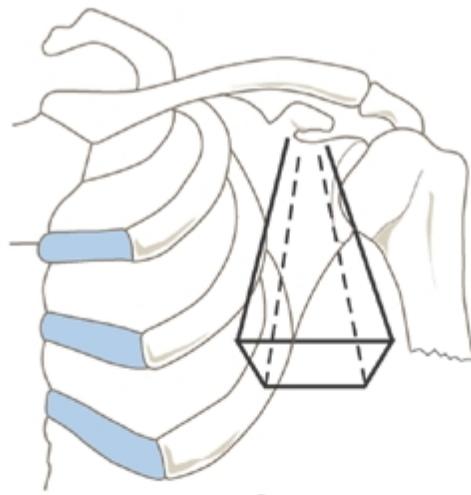


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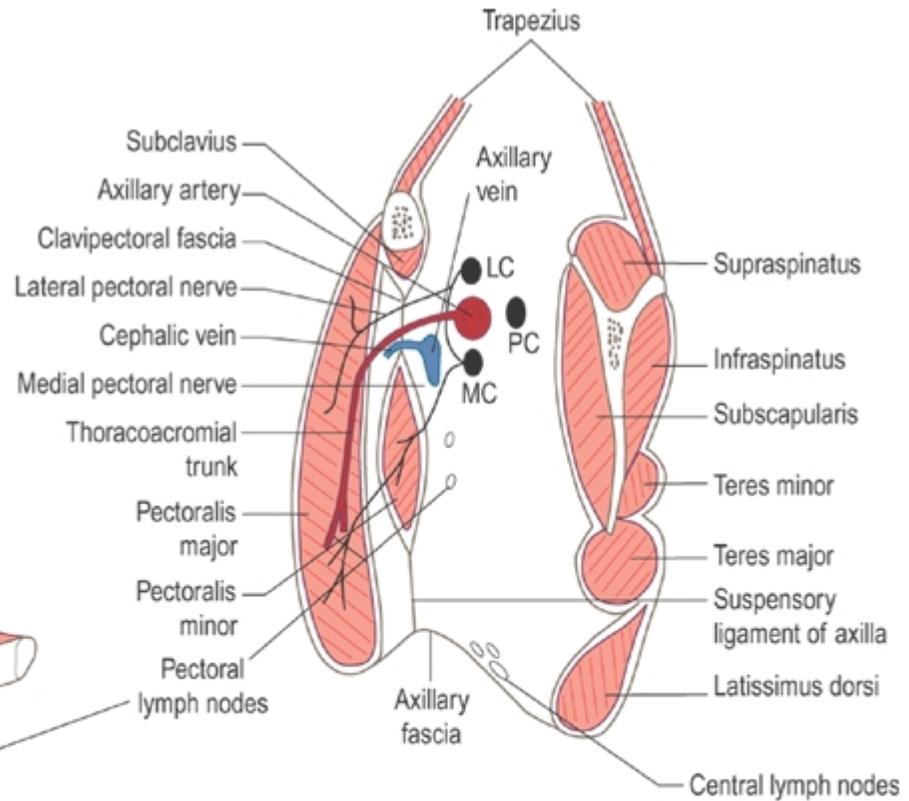


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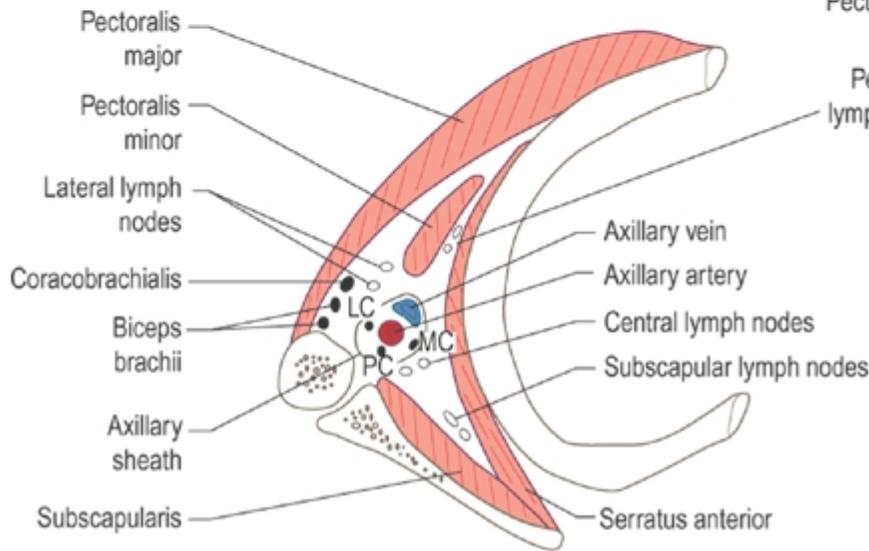




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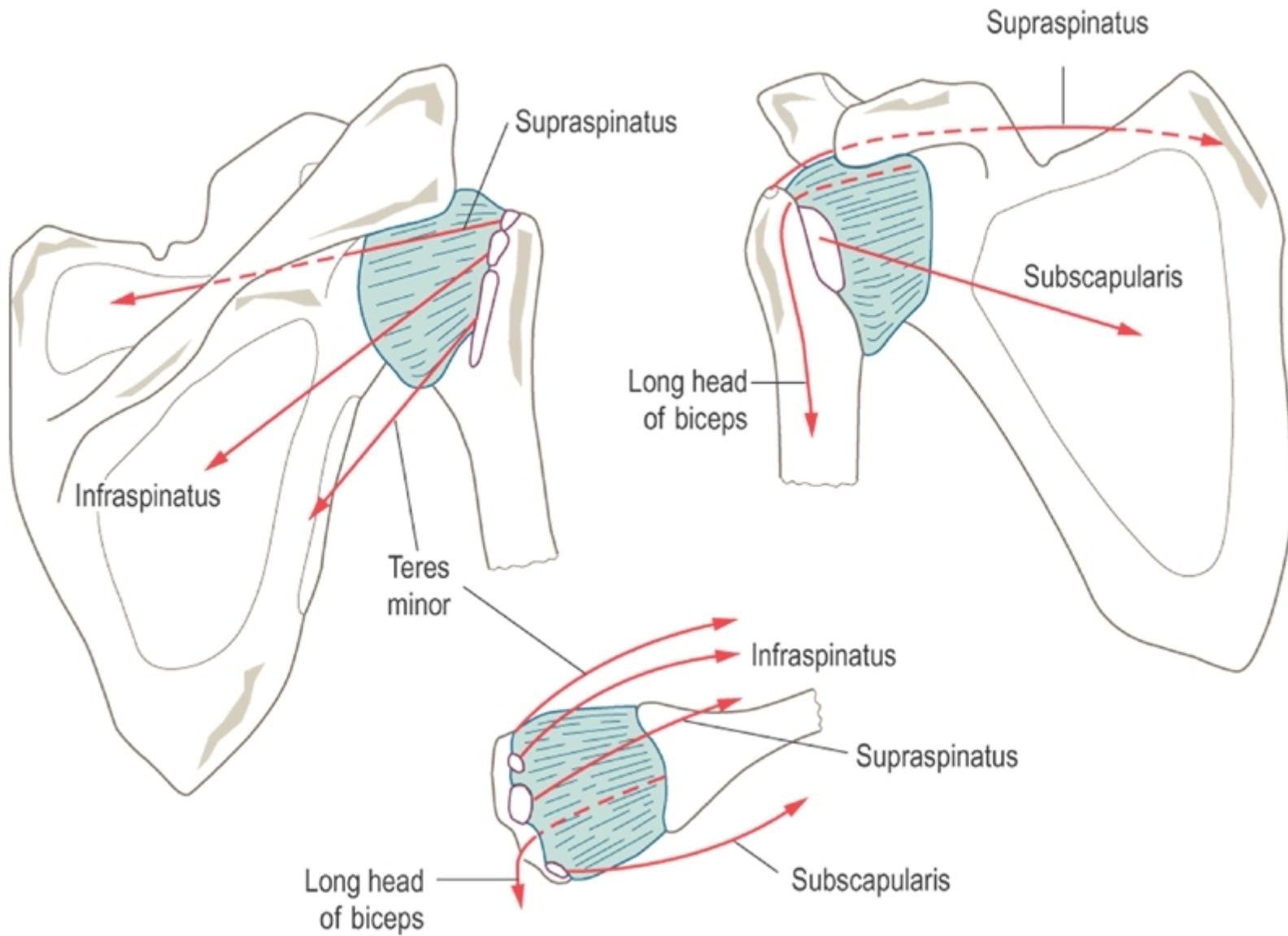


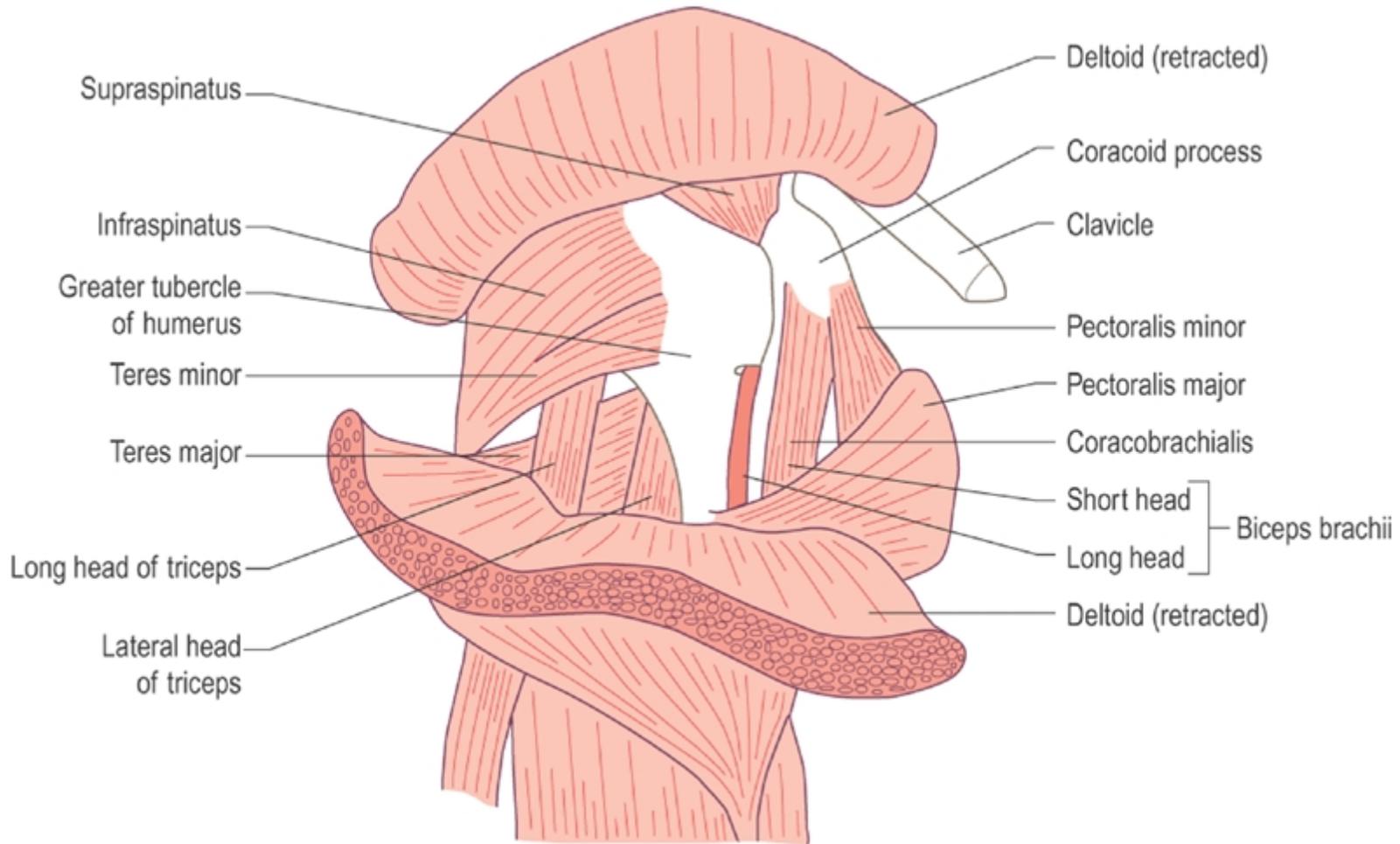
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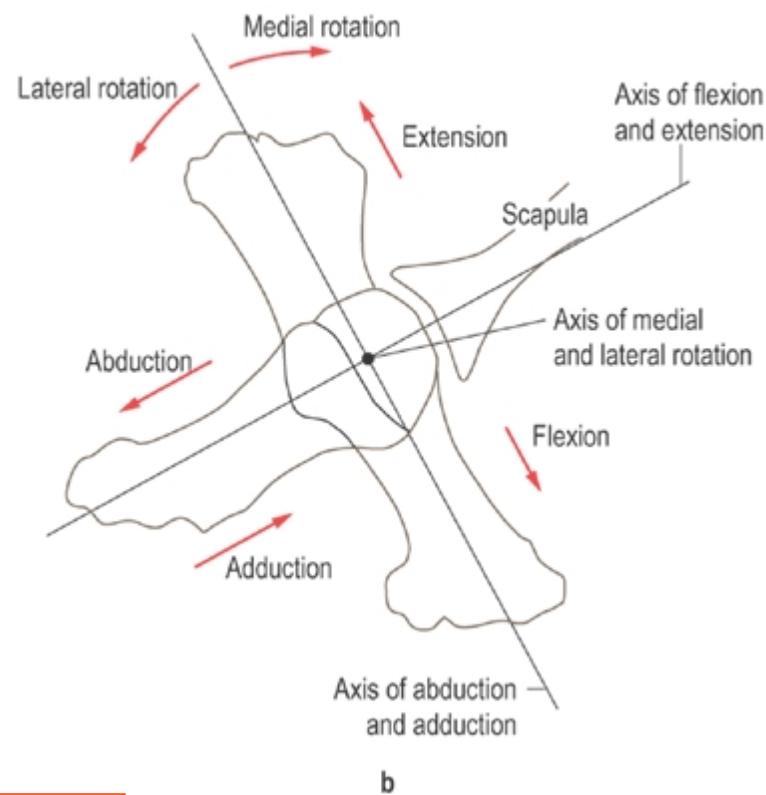
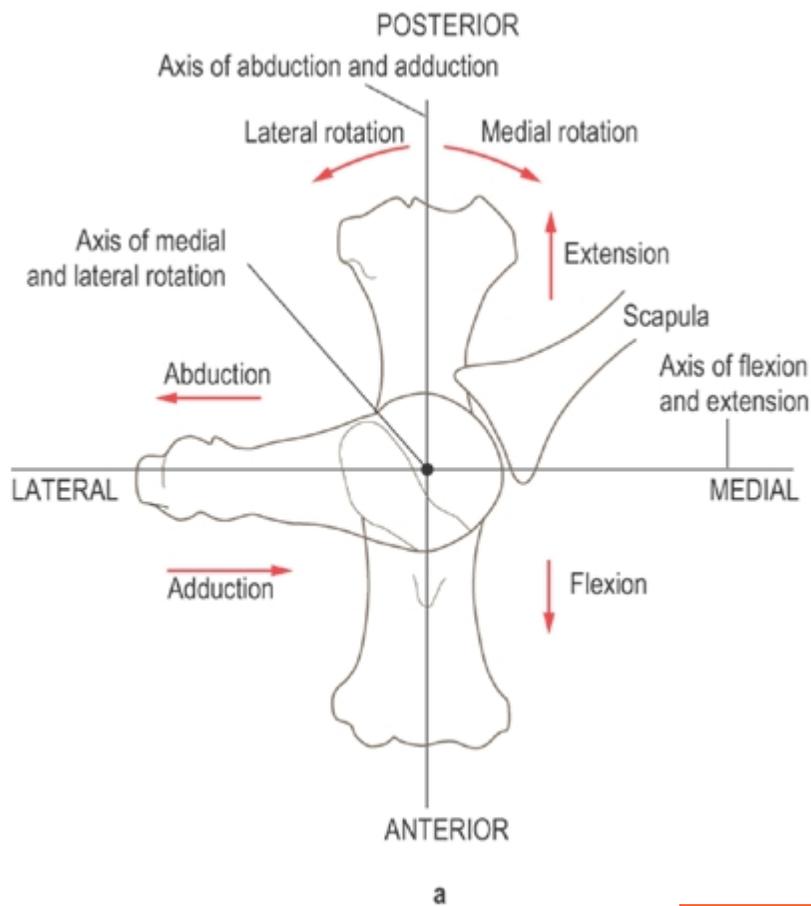
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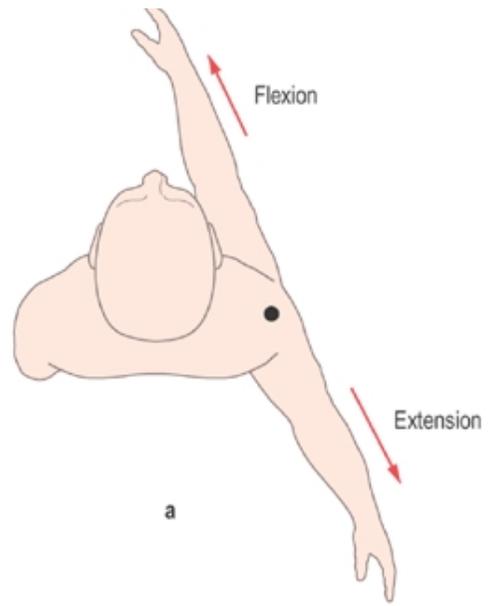




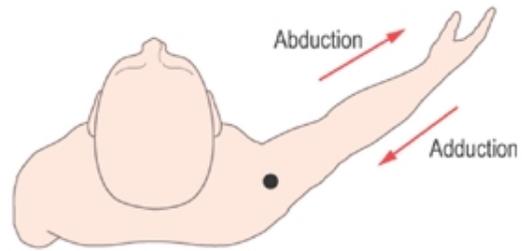
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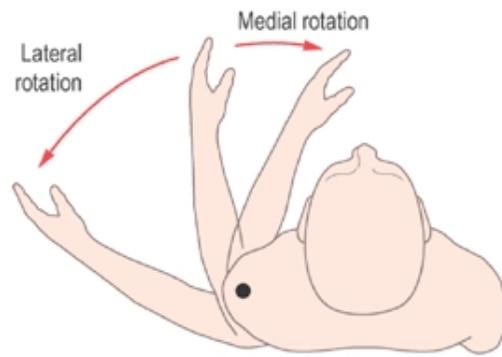
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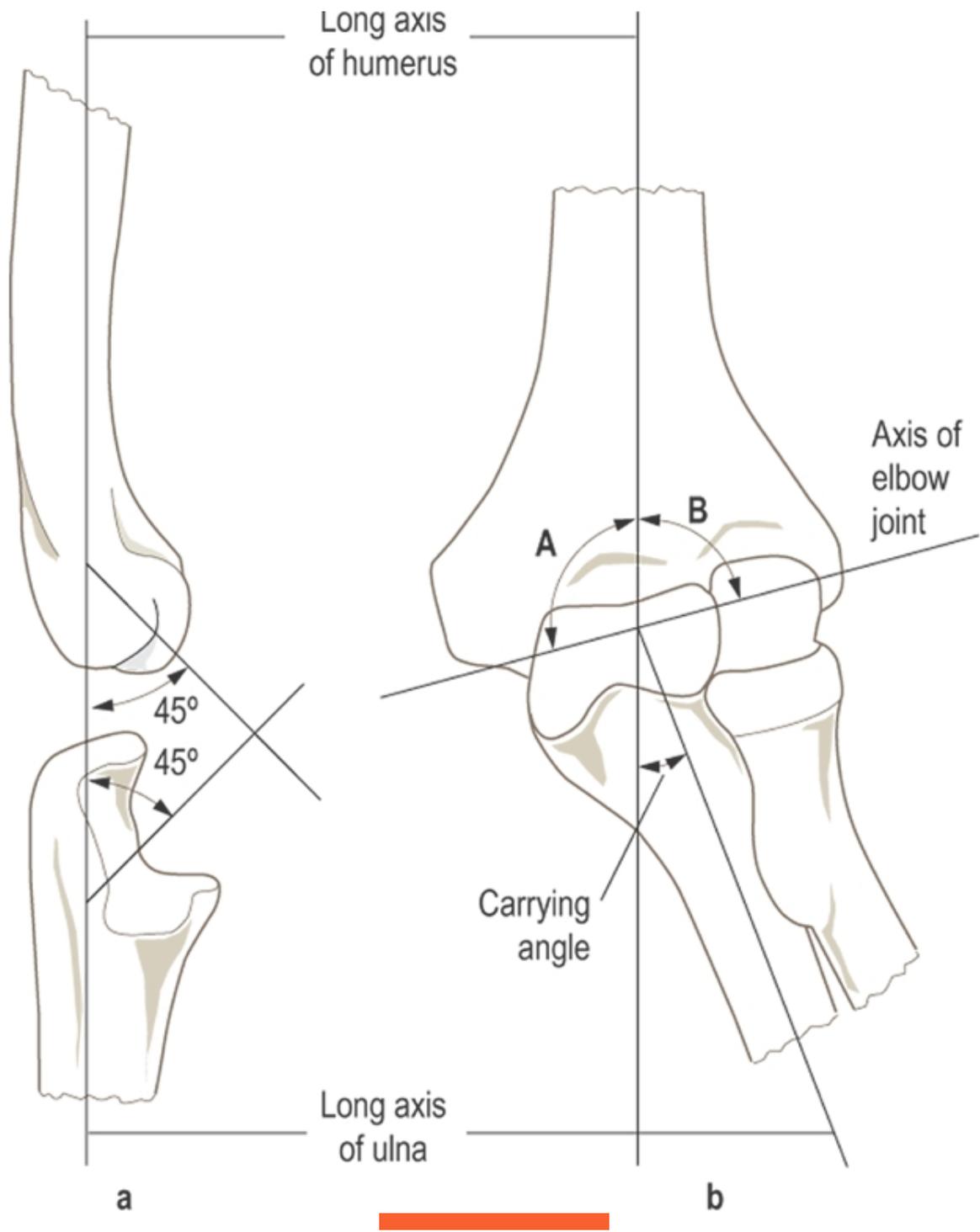


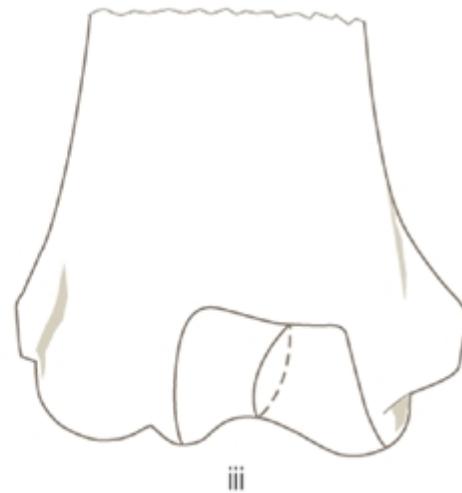
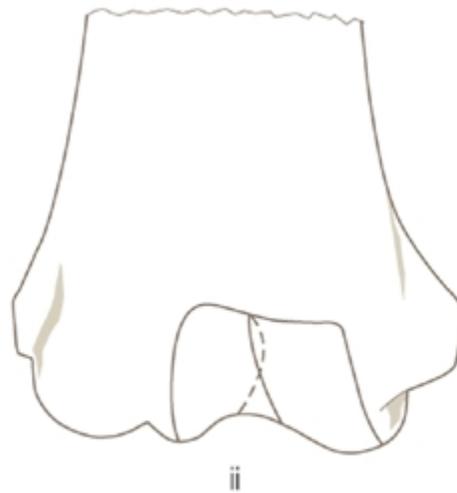
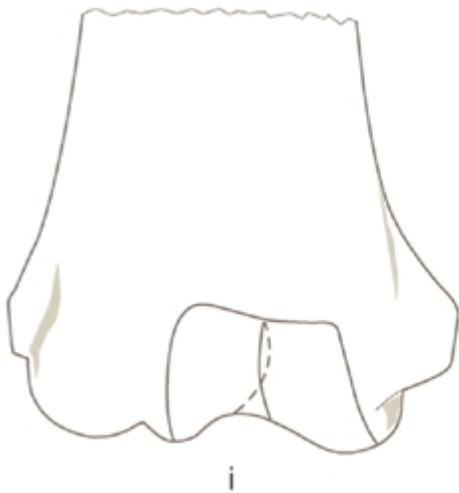
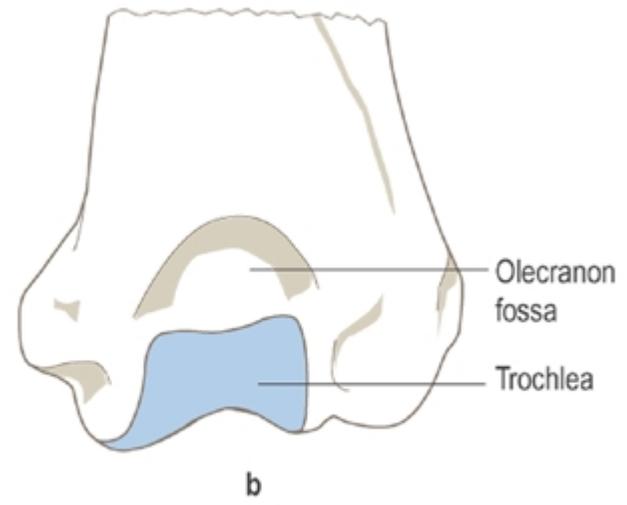
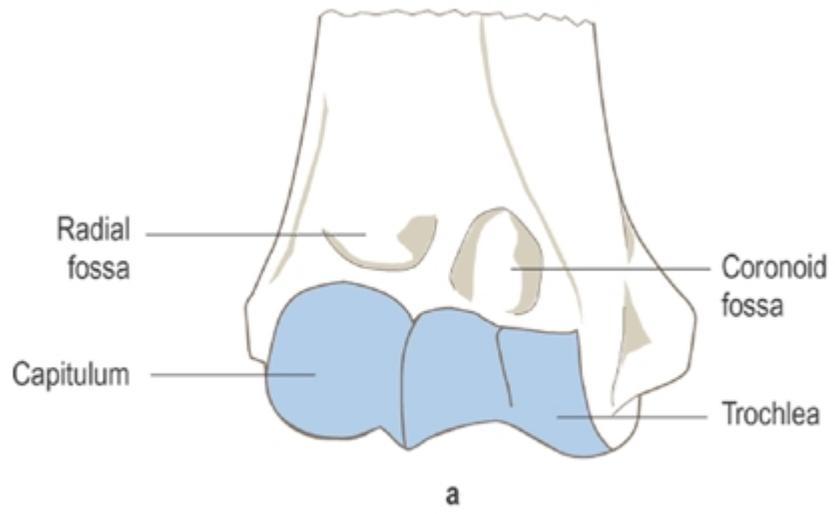
Posterior view



Lateral view

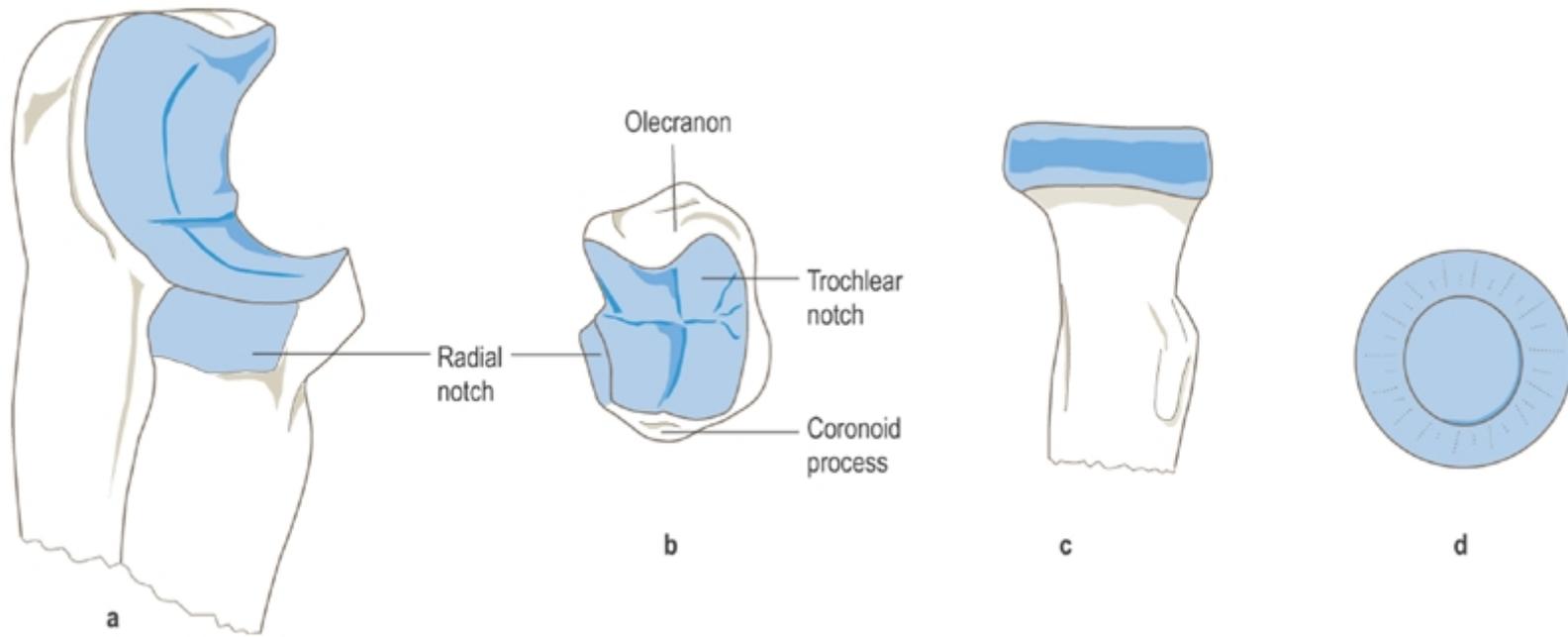




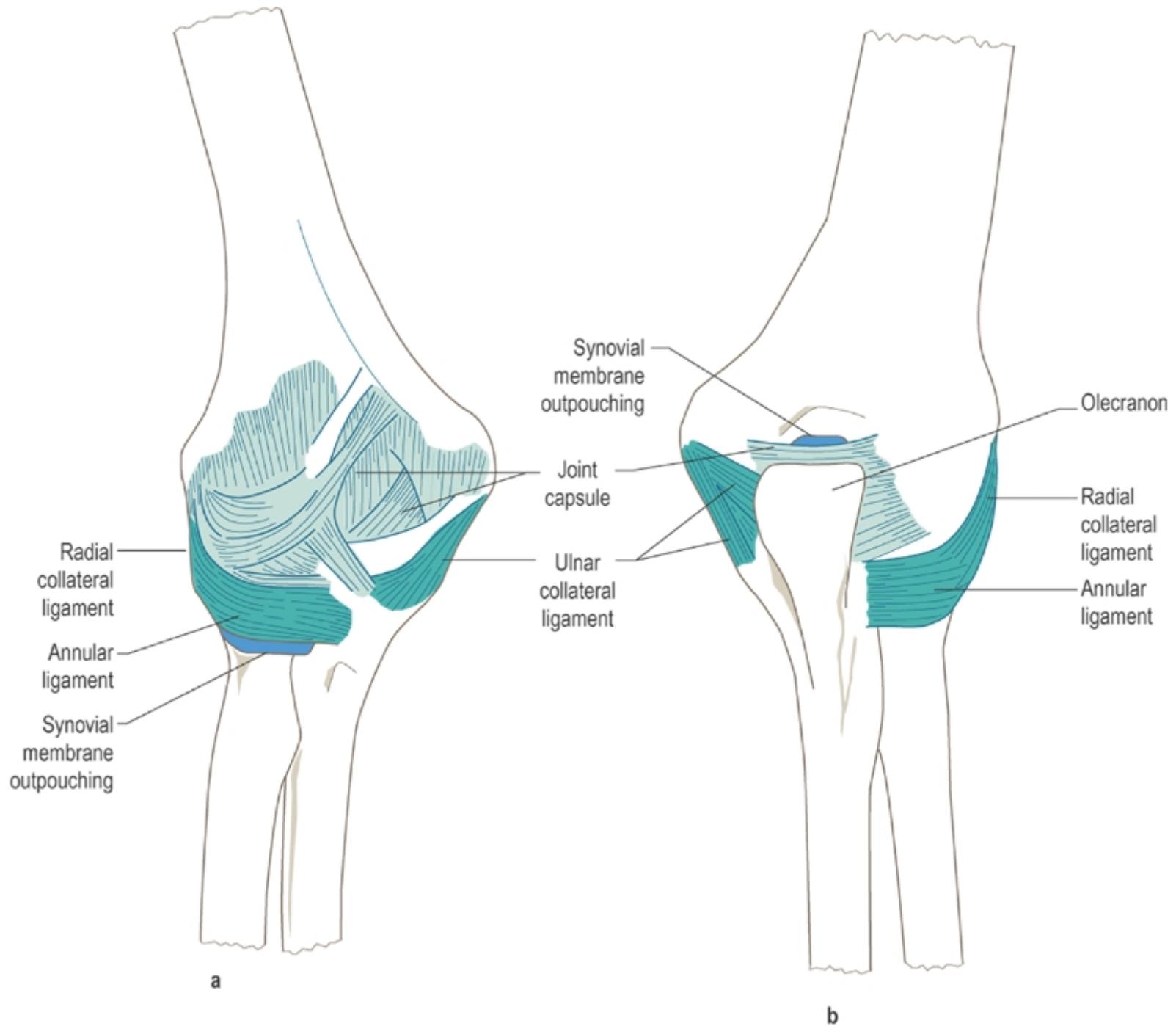


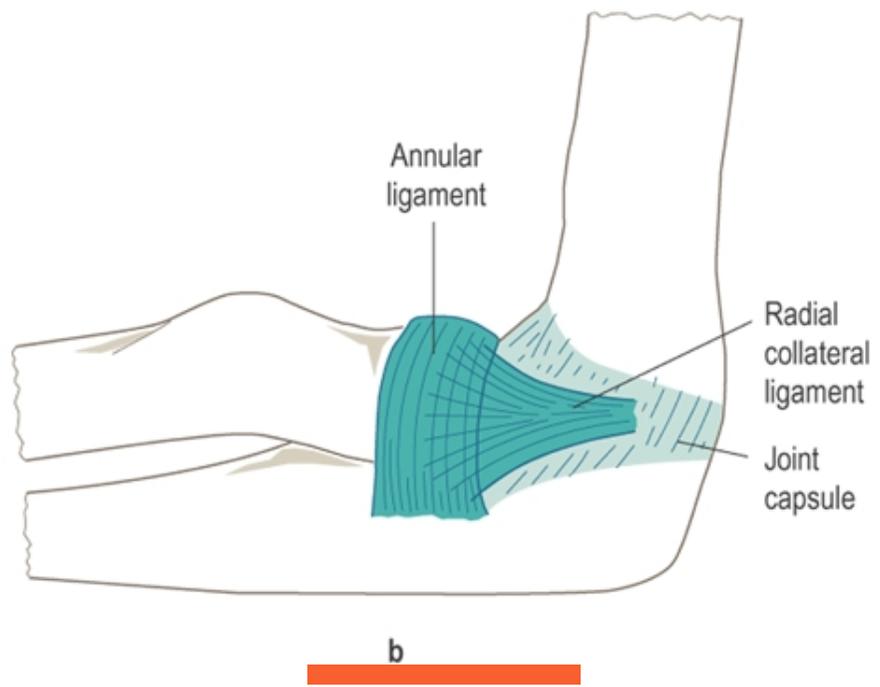
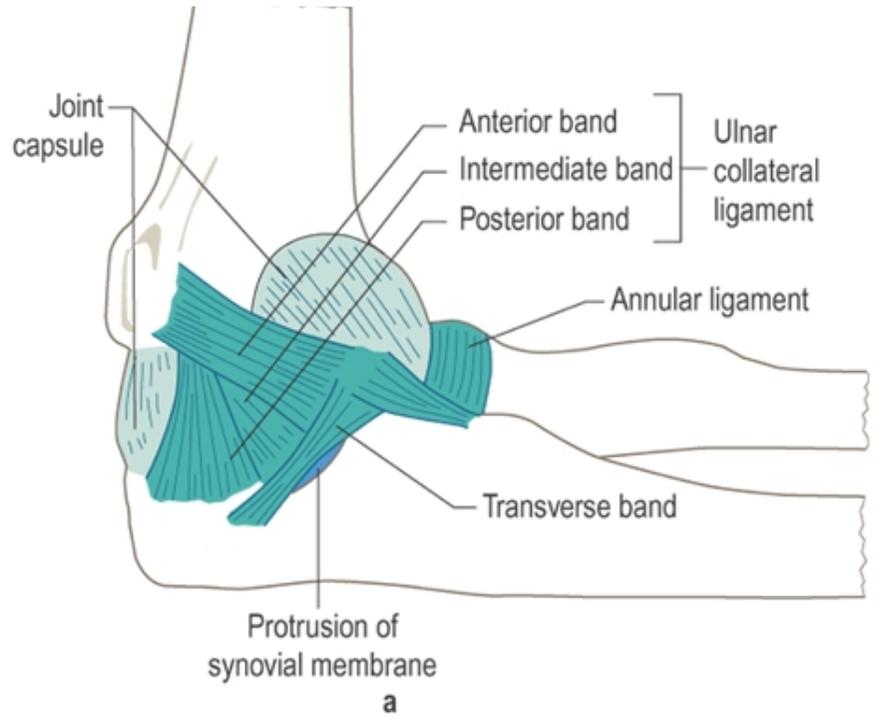
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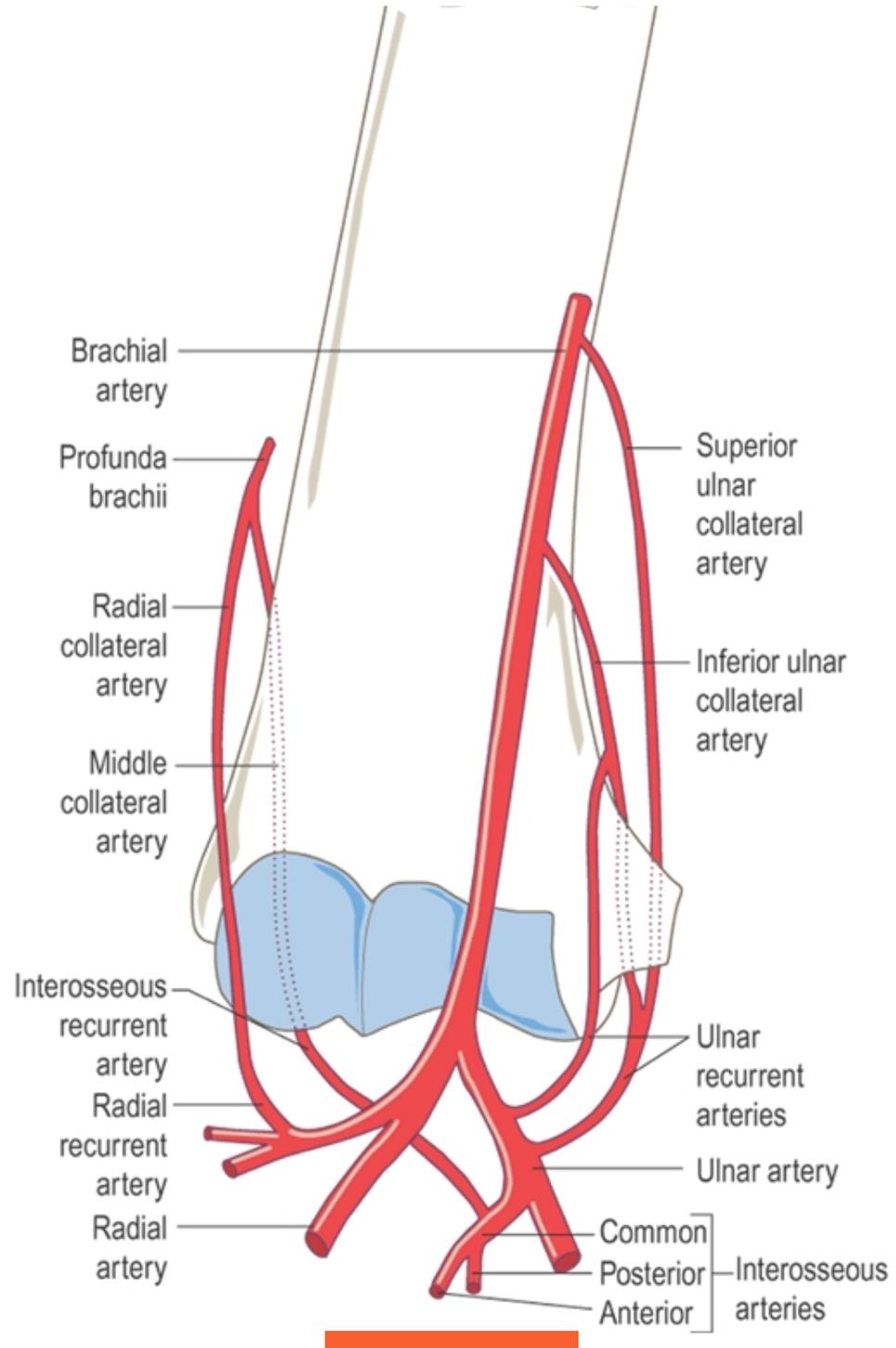


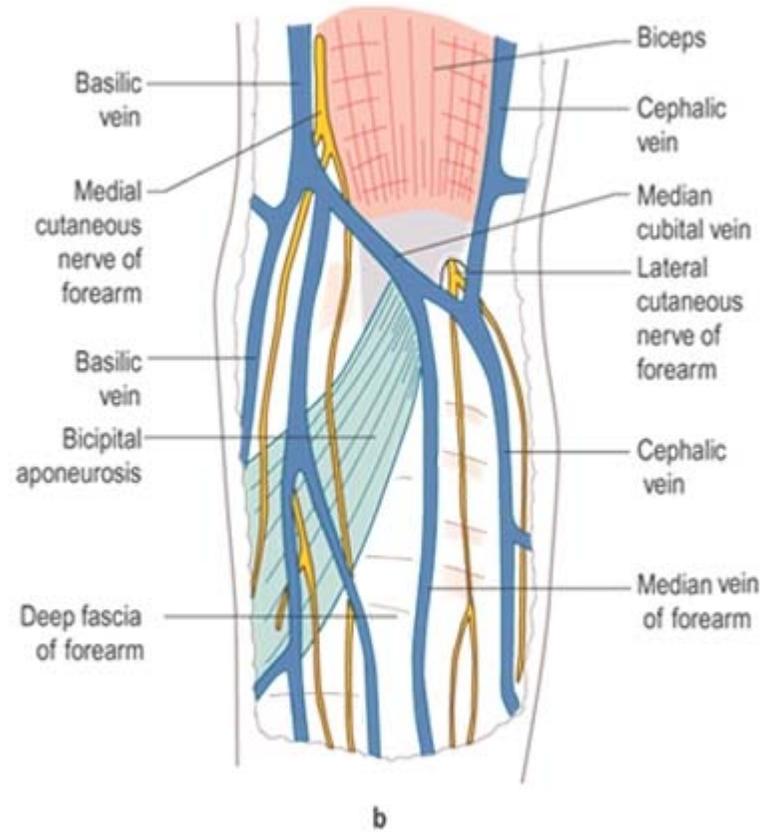
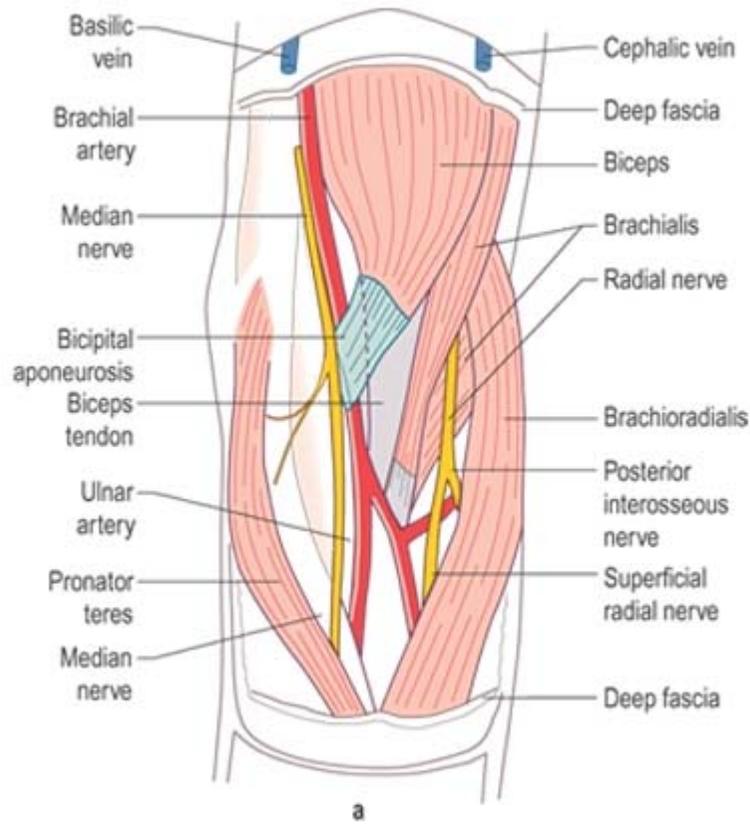


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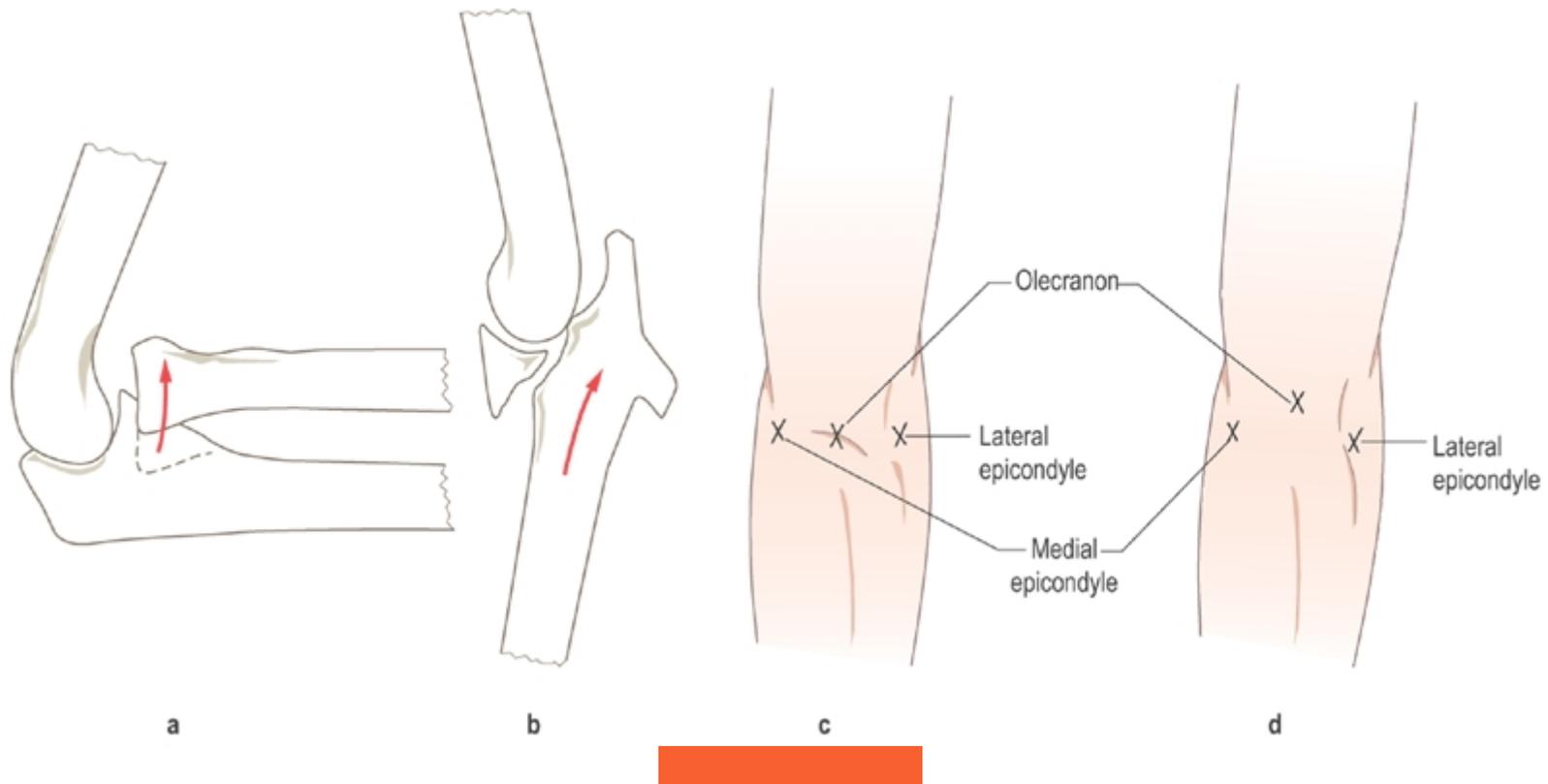




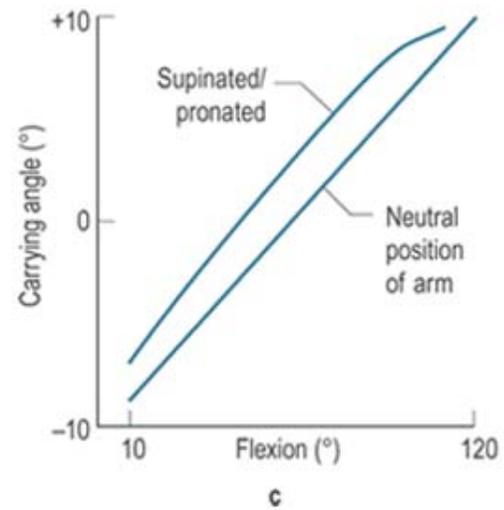
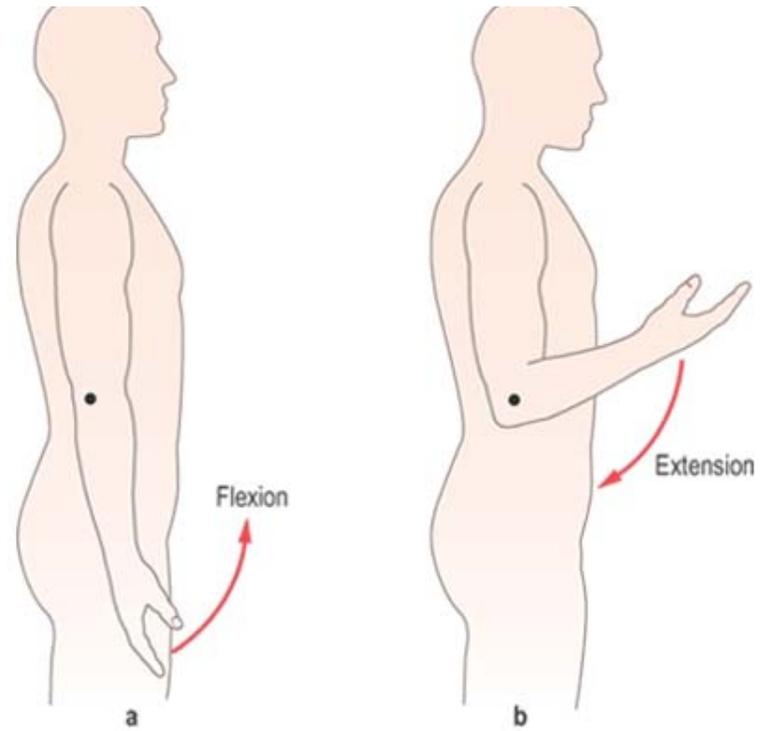




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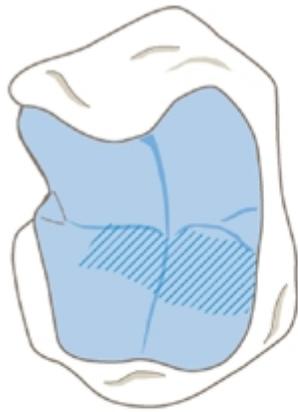


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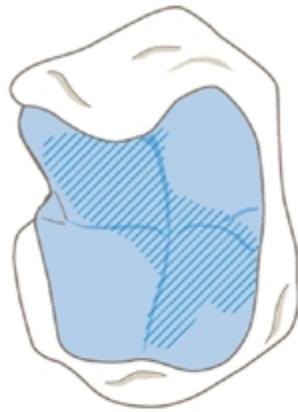


(adapted from Chao EY, Morrey BF (1978) Three-dimensional rotation of the elbow. *Journal of Biomechanics*, 11, 57-74).

Lateral

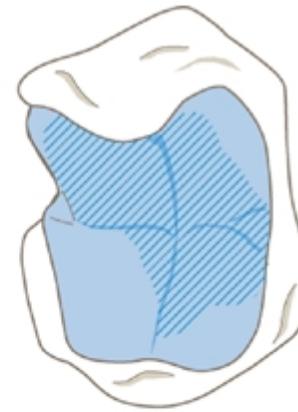


Full extension



90° Flexion

a

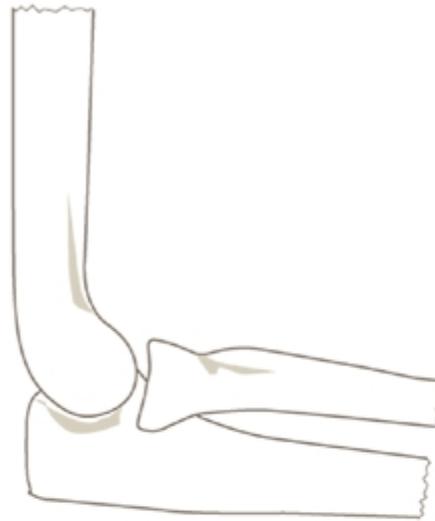


Full flexion

Medial

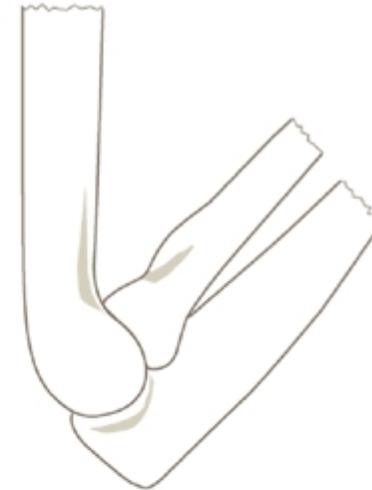


Full extension



90° Flexion

b



Full flexion

Medial
epicondyle



Olecranon
process

Head of
radius

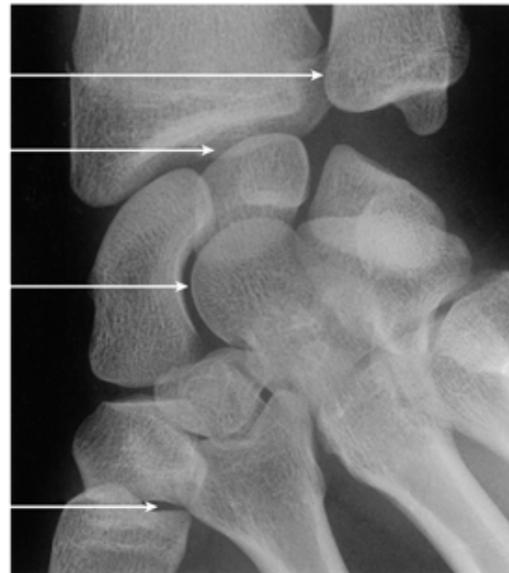
Posterior view
a

Inferior radioulnar joint

Radiocarpal joint

Midcarpal joint

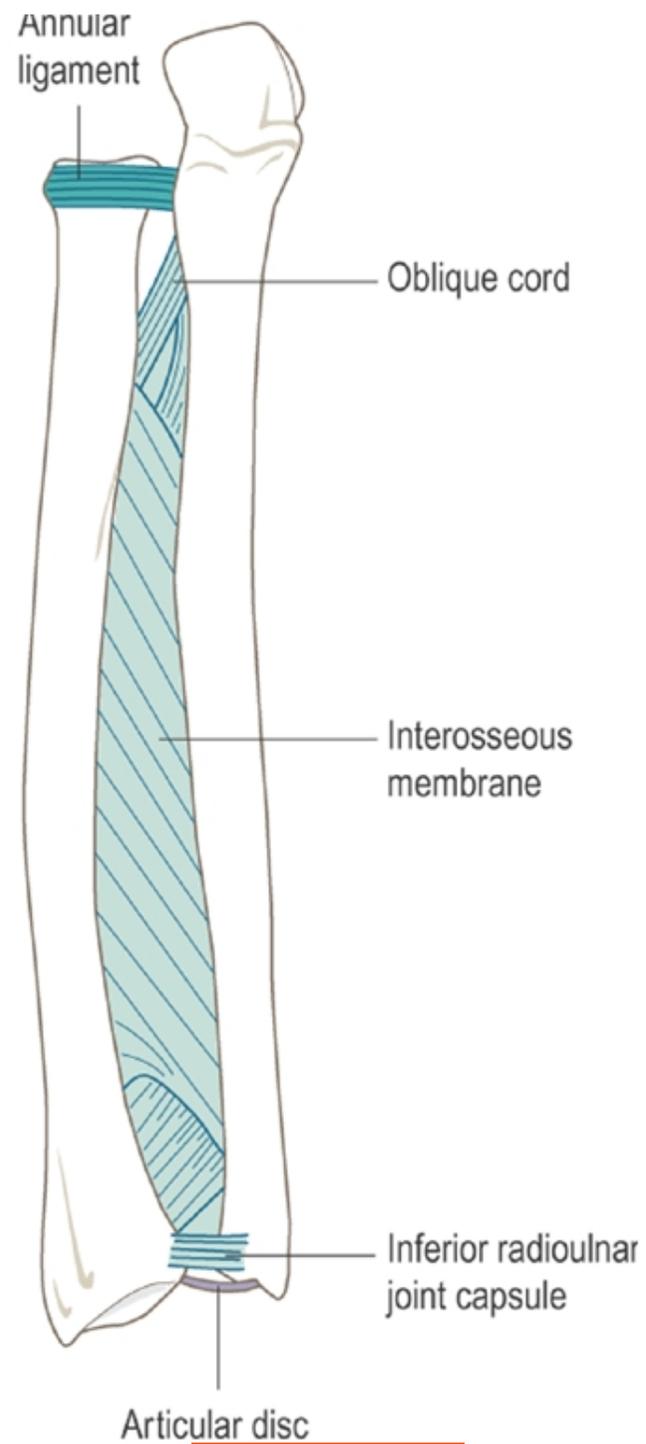
1st Carpometacarpal joint

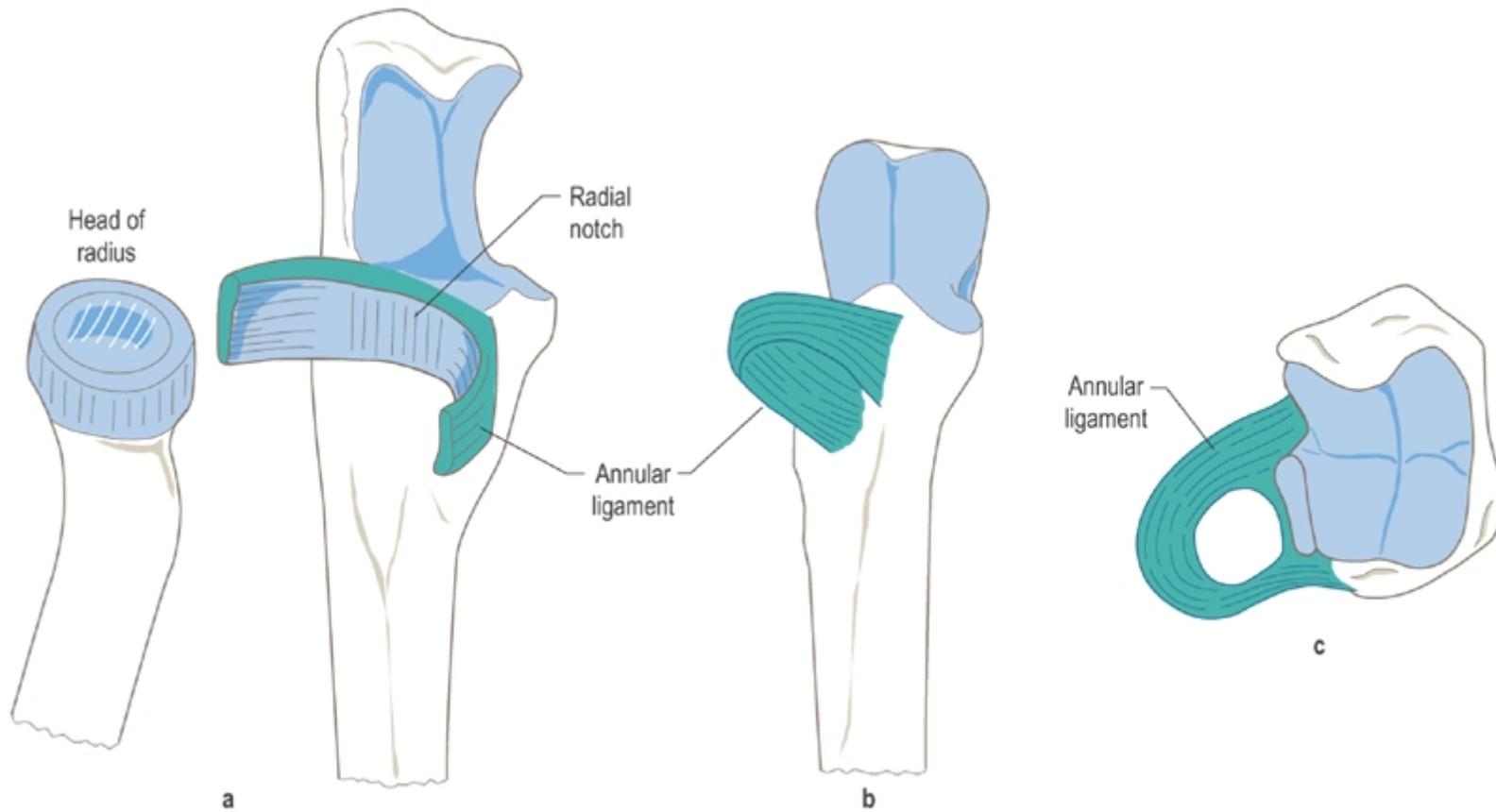


Anterior view in adduction

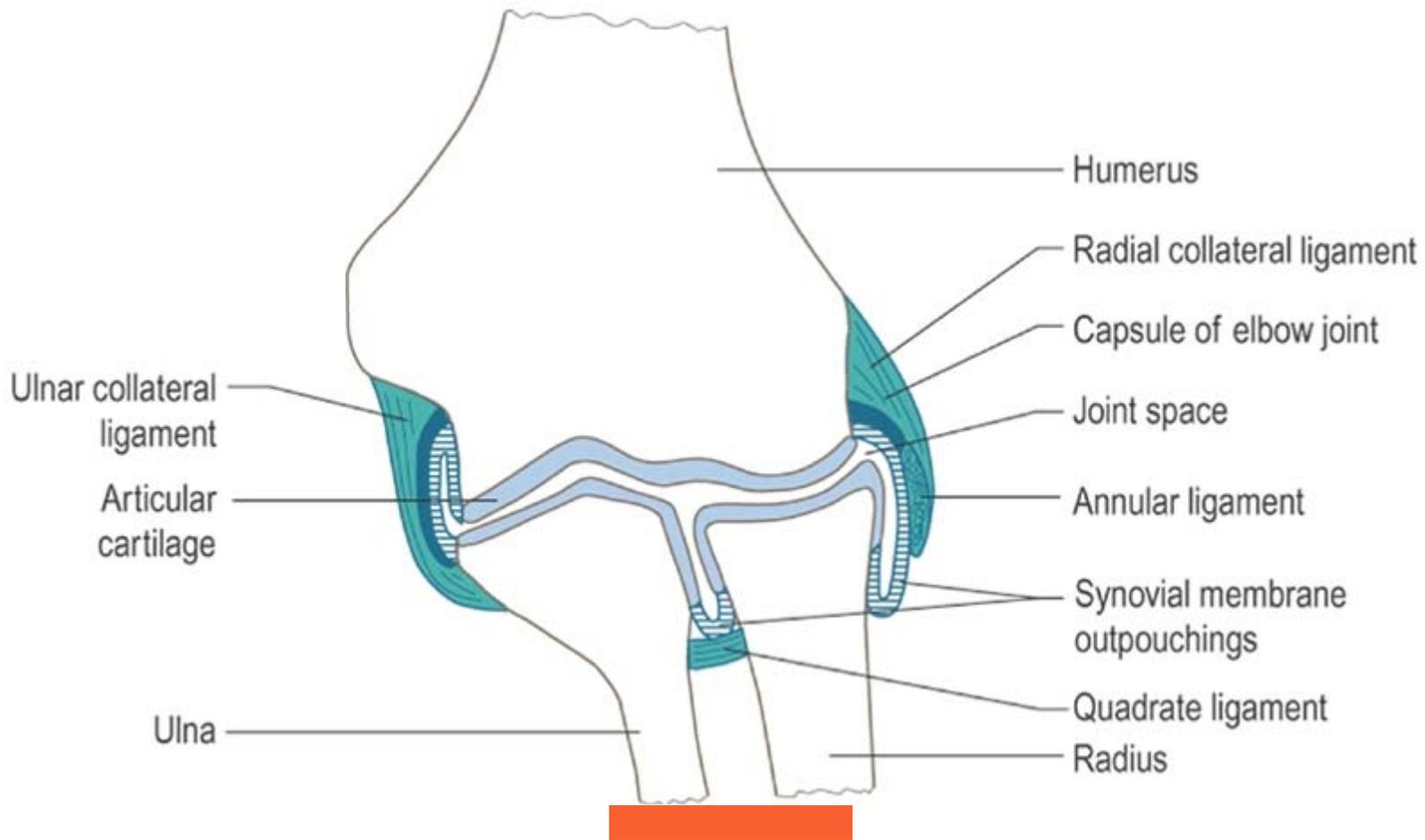
b



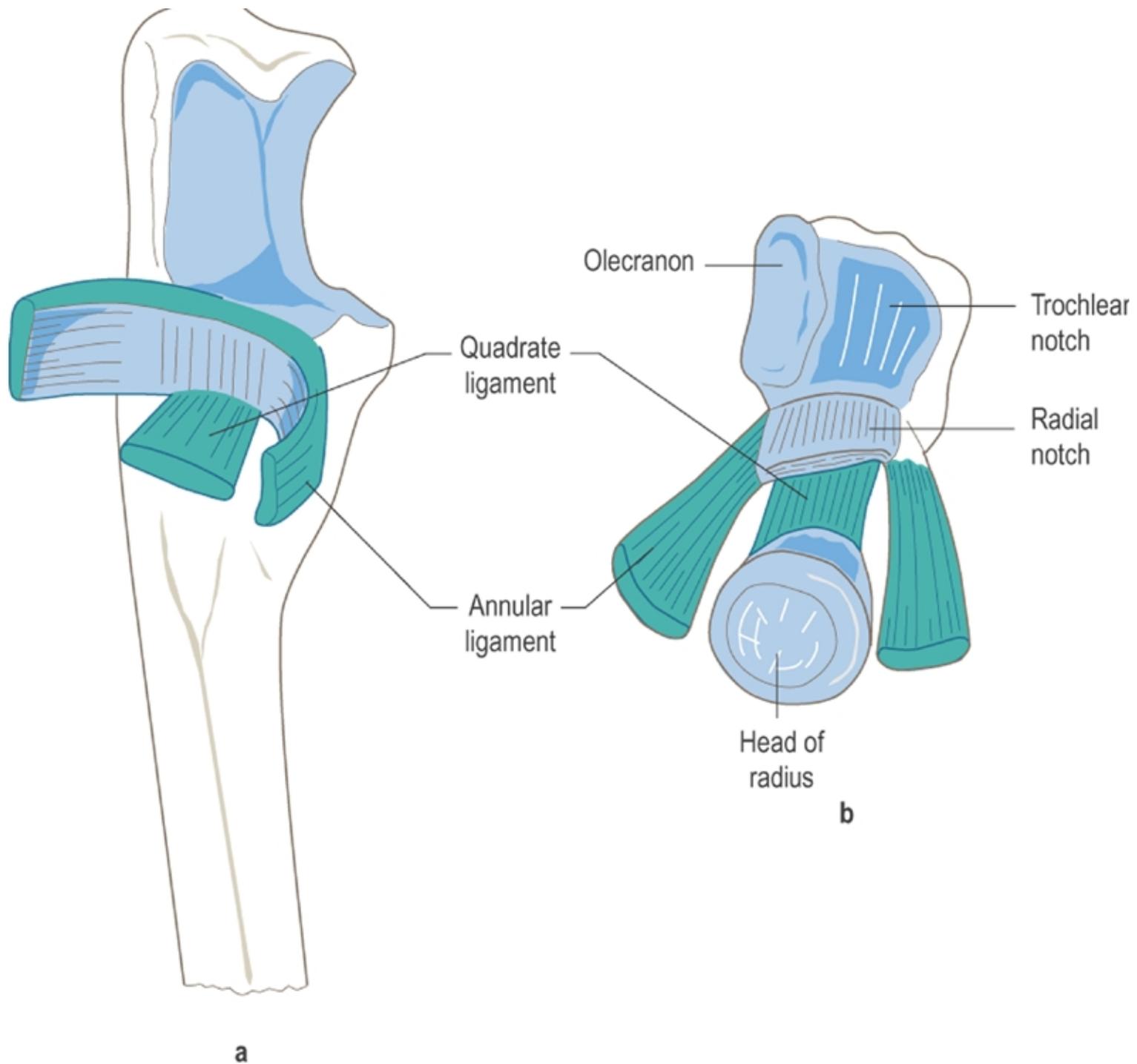


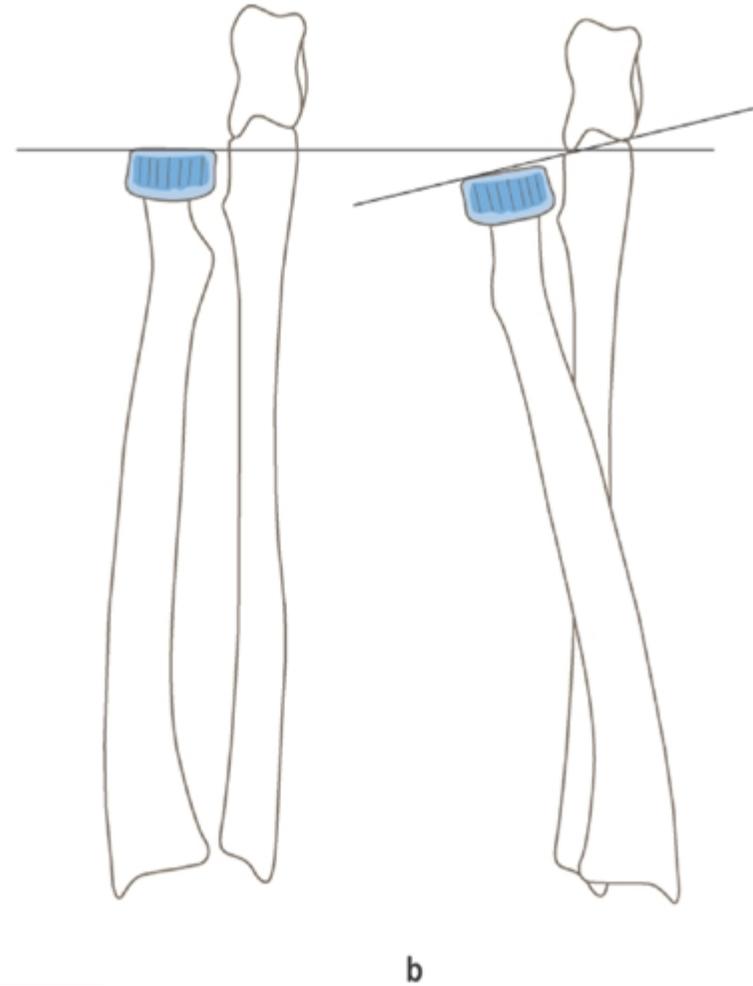
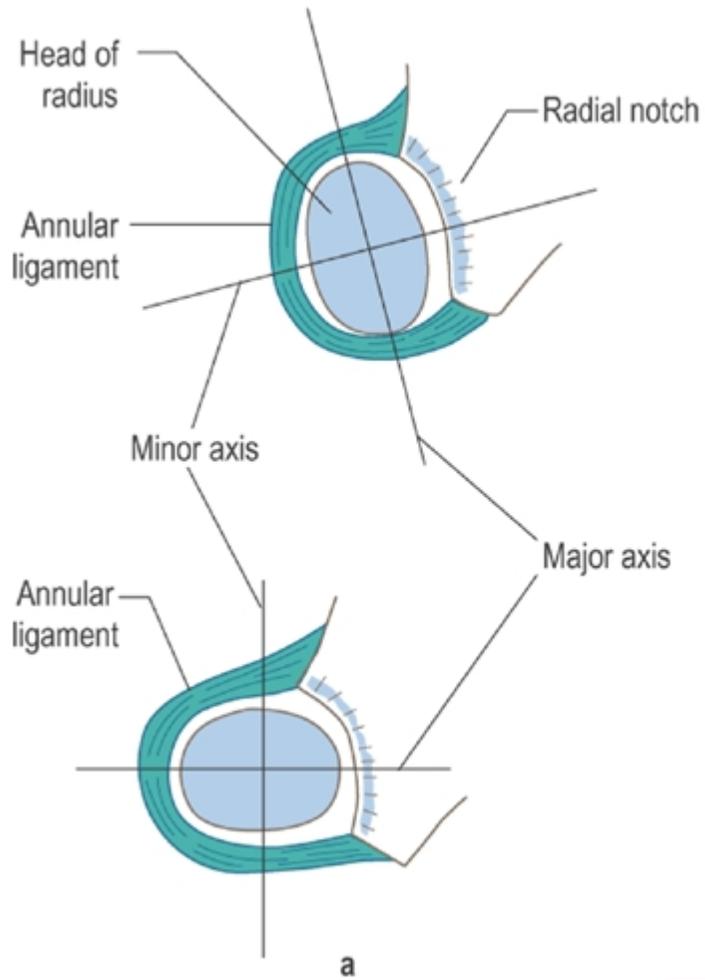


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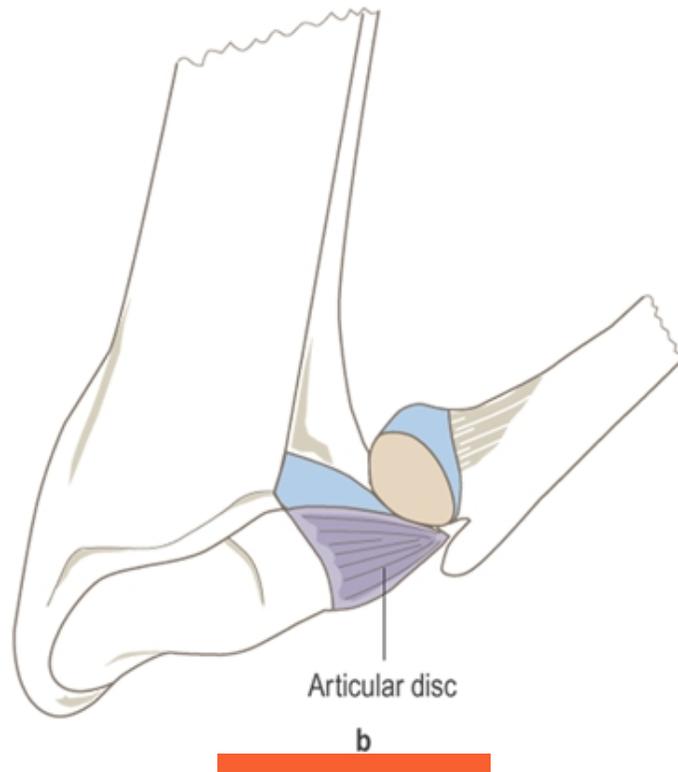
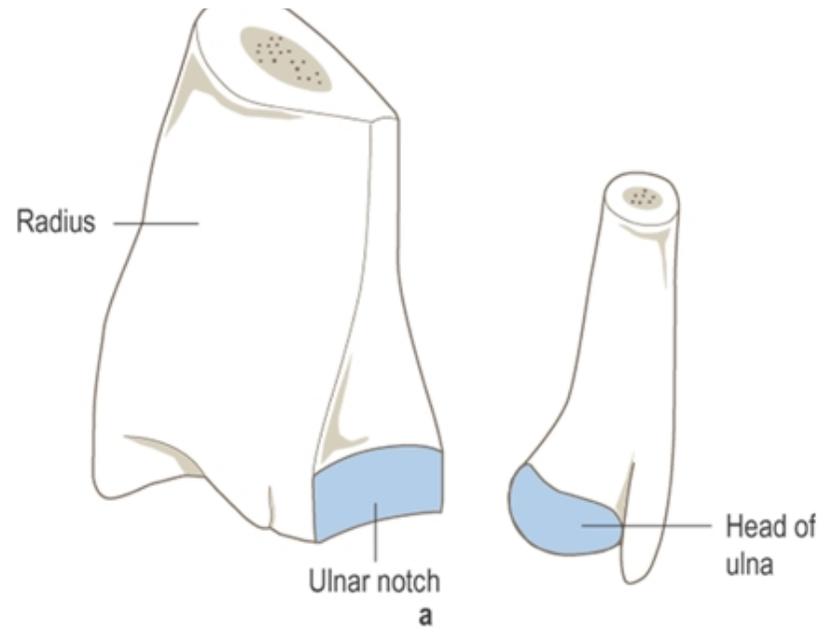


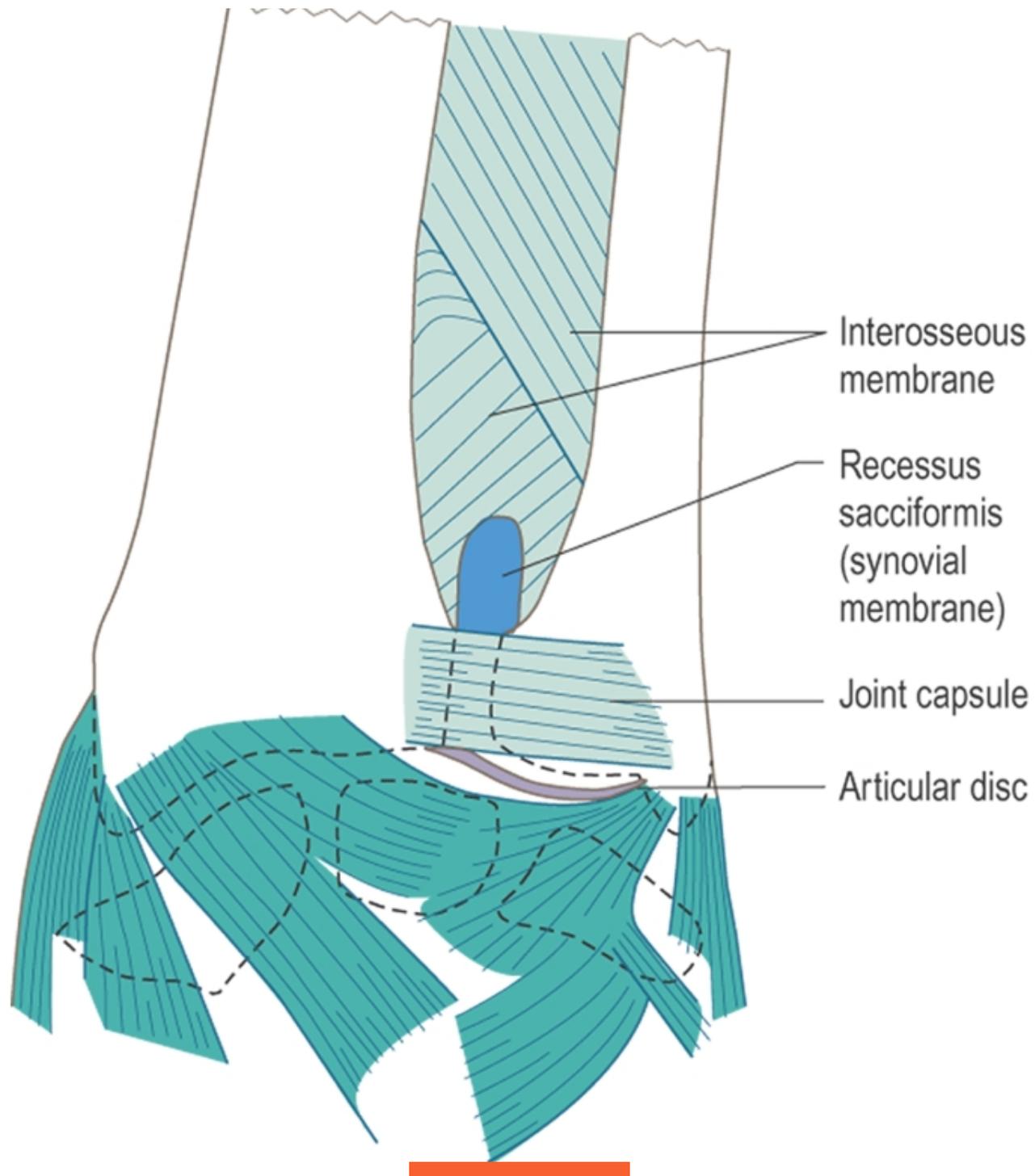
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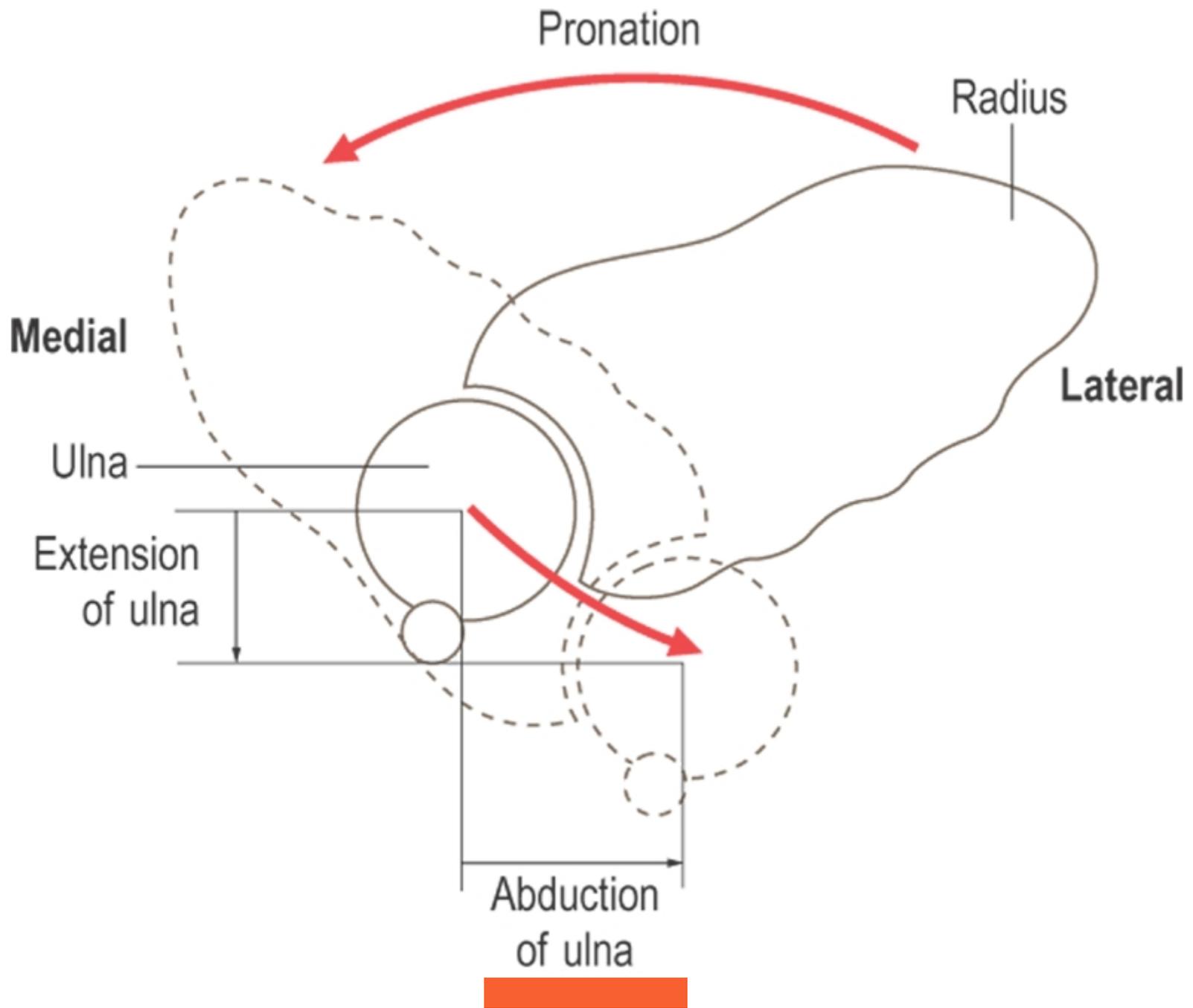


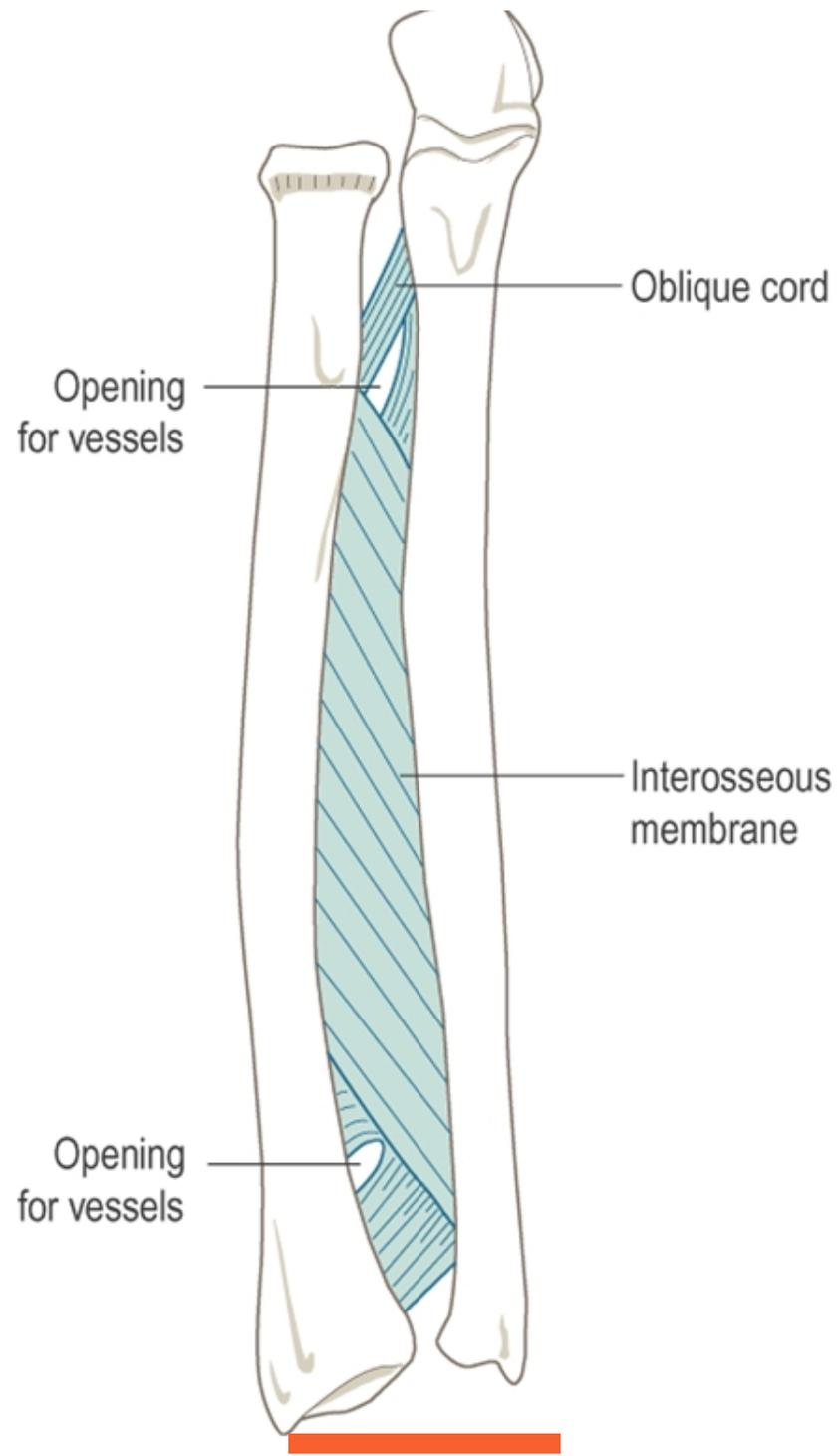


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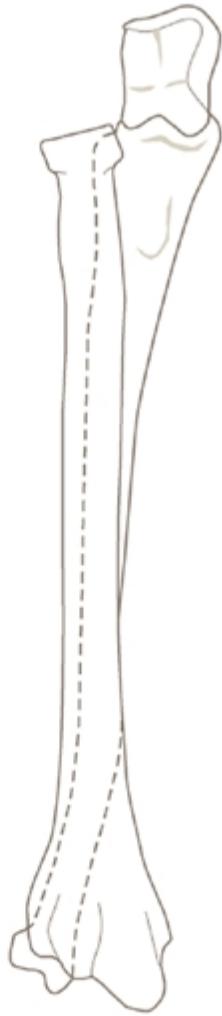








Supination



Pronation

a



Supinated position



Midpronation/supination

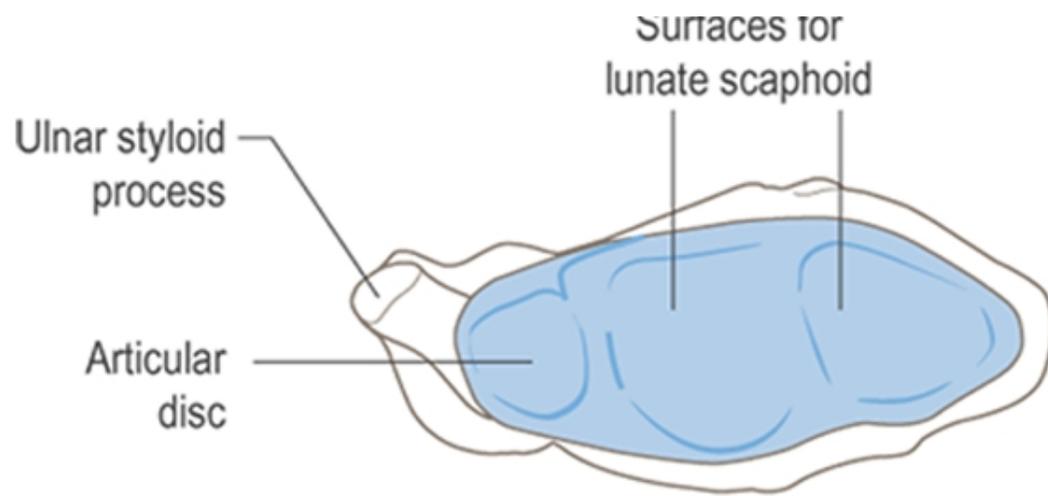


Pronated position

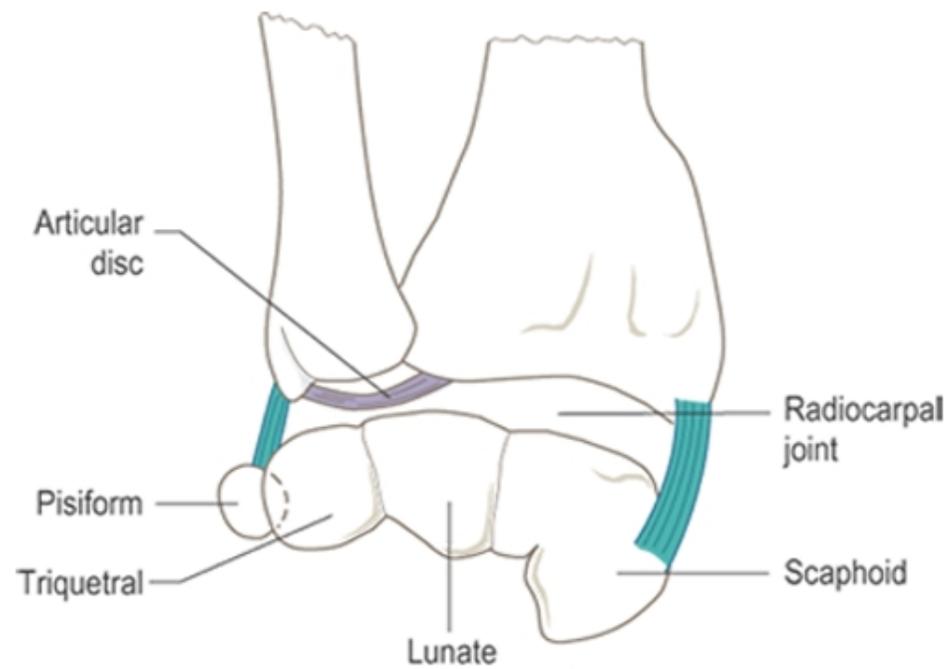
b



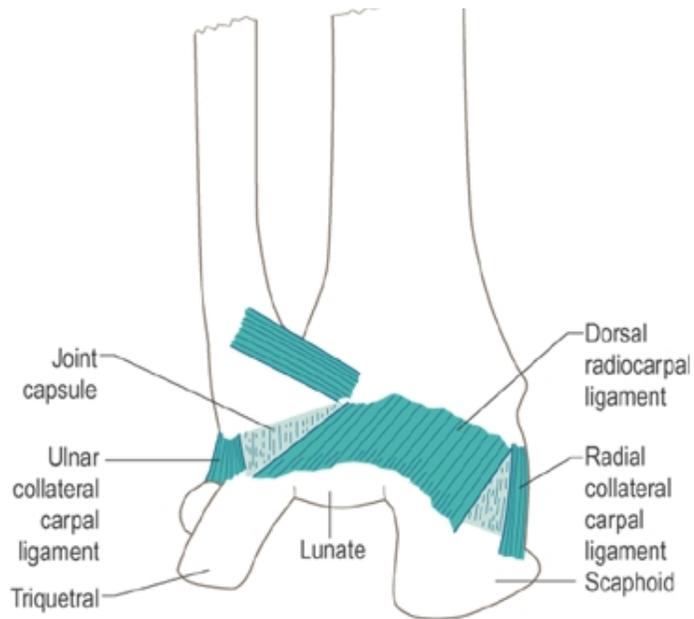




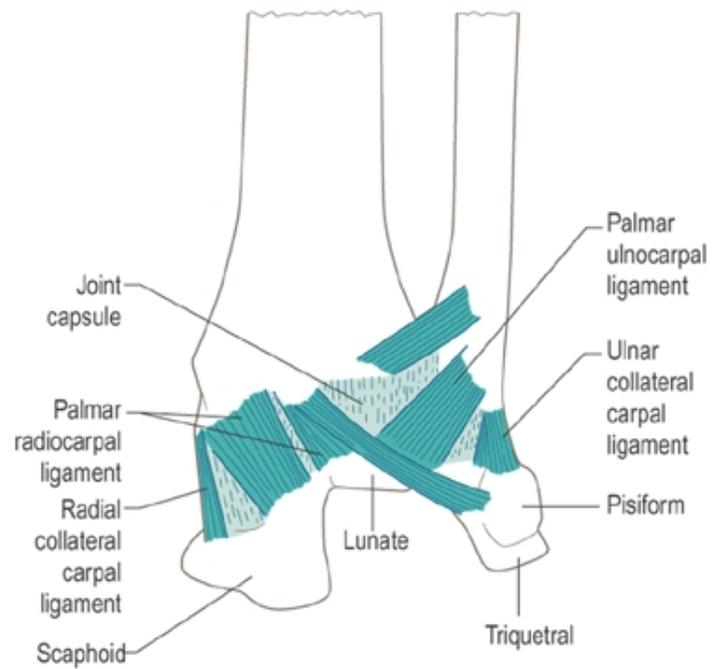
a



b

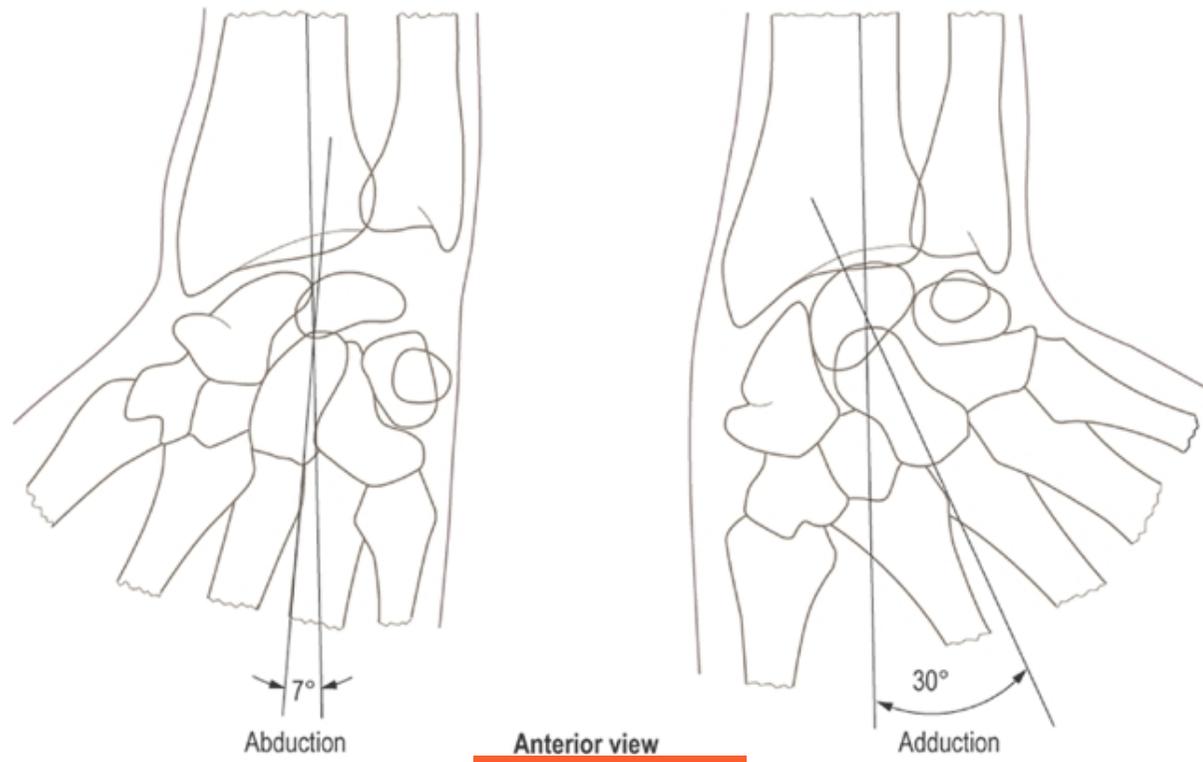
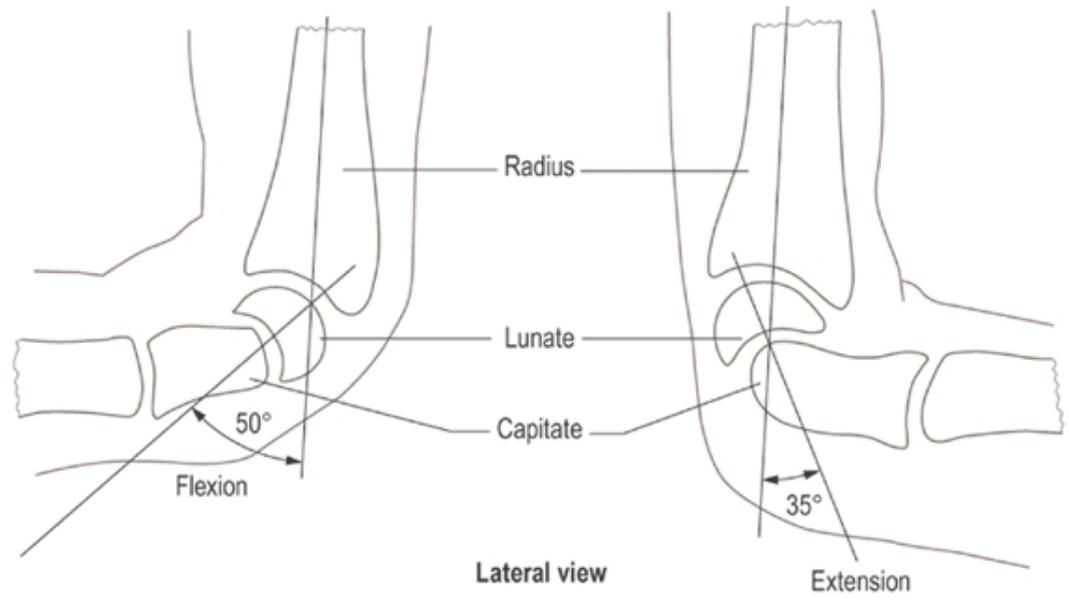


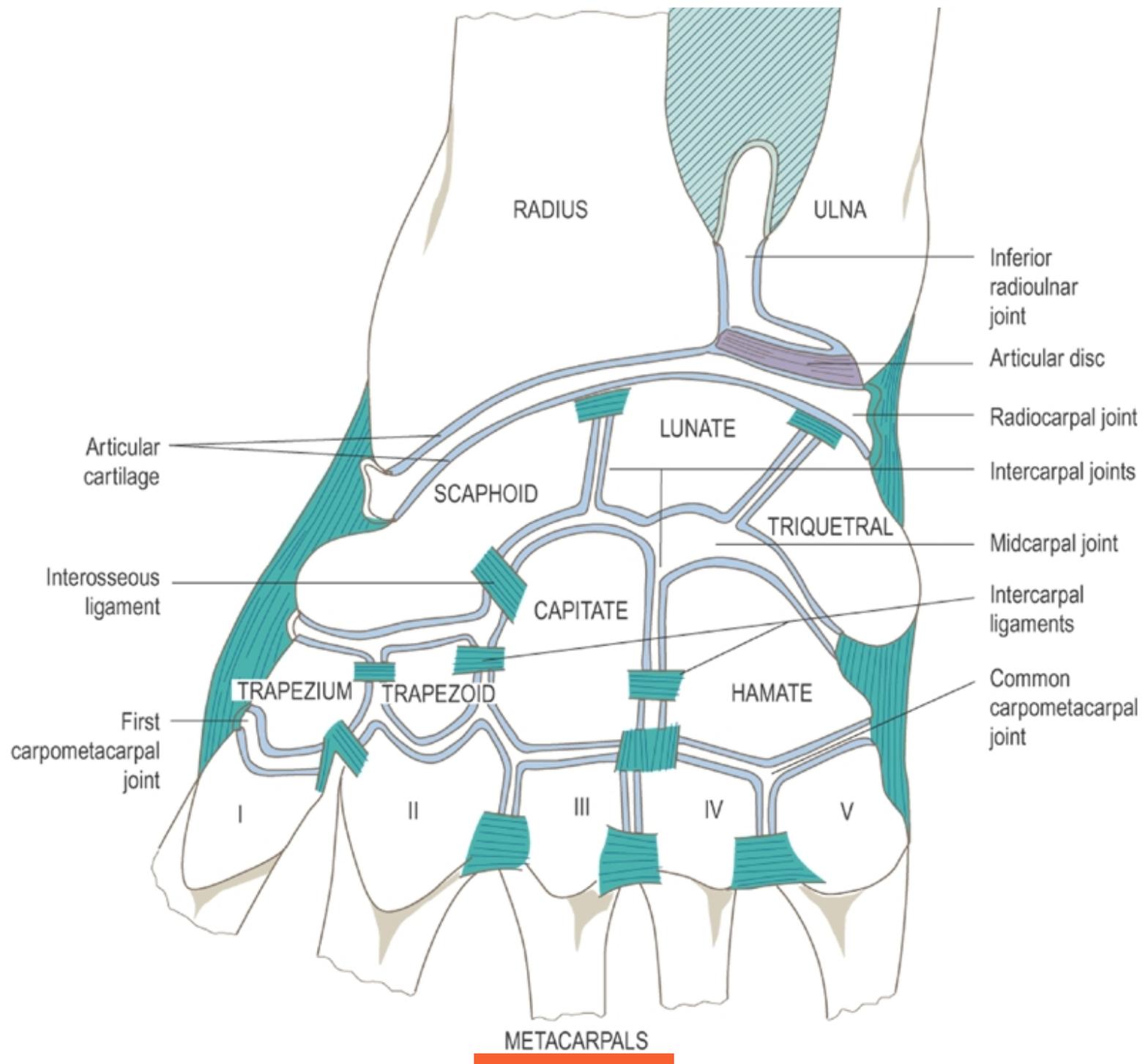
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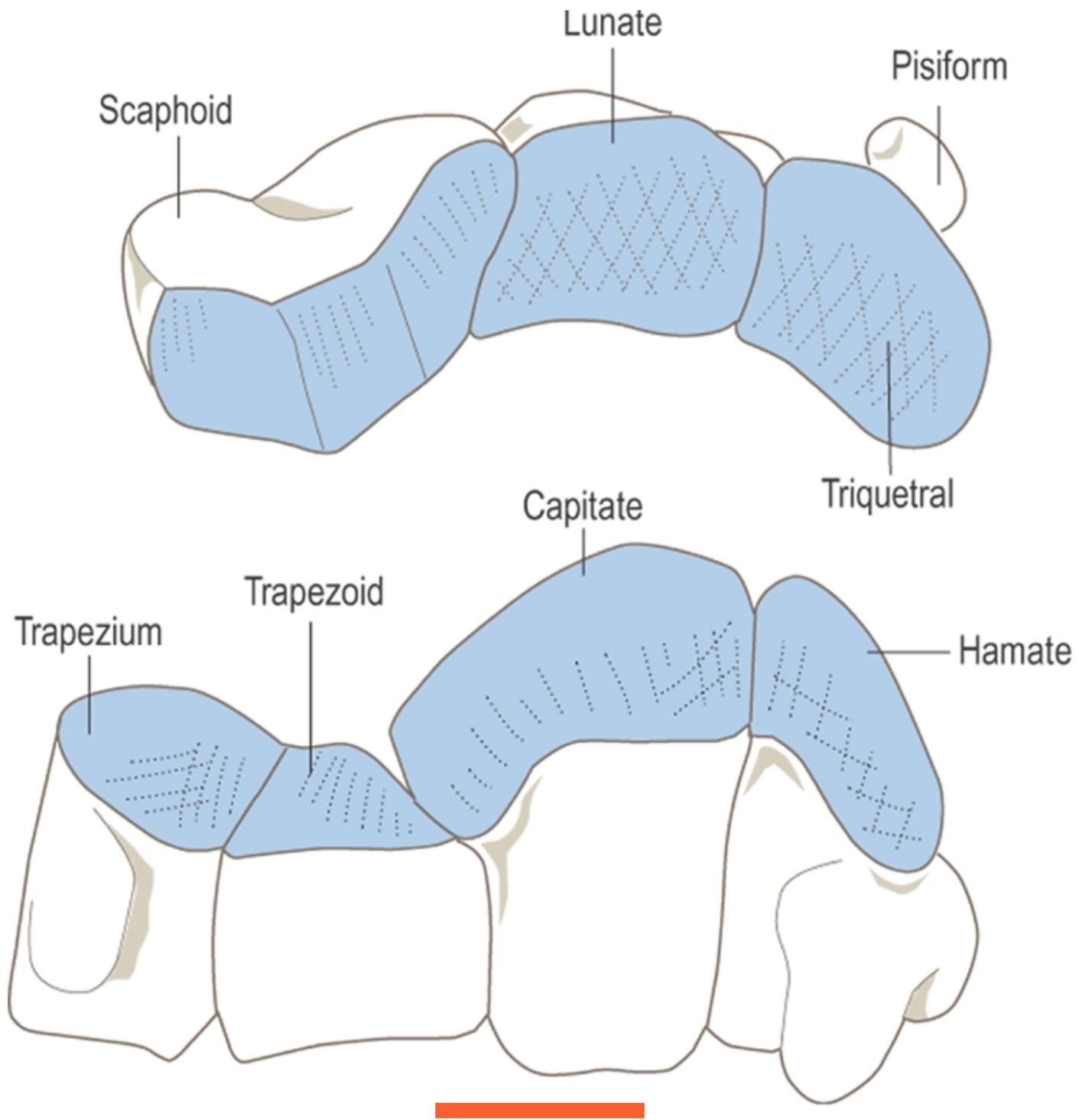


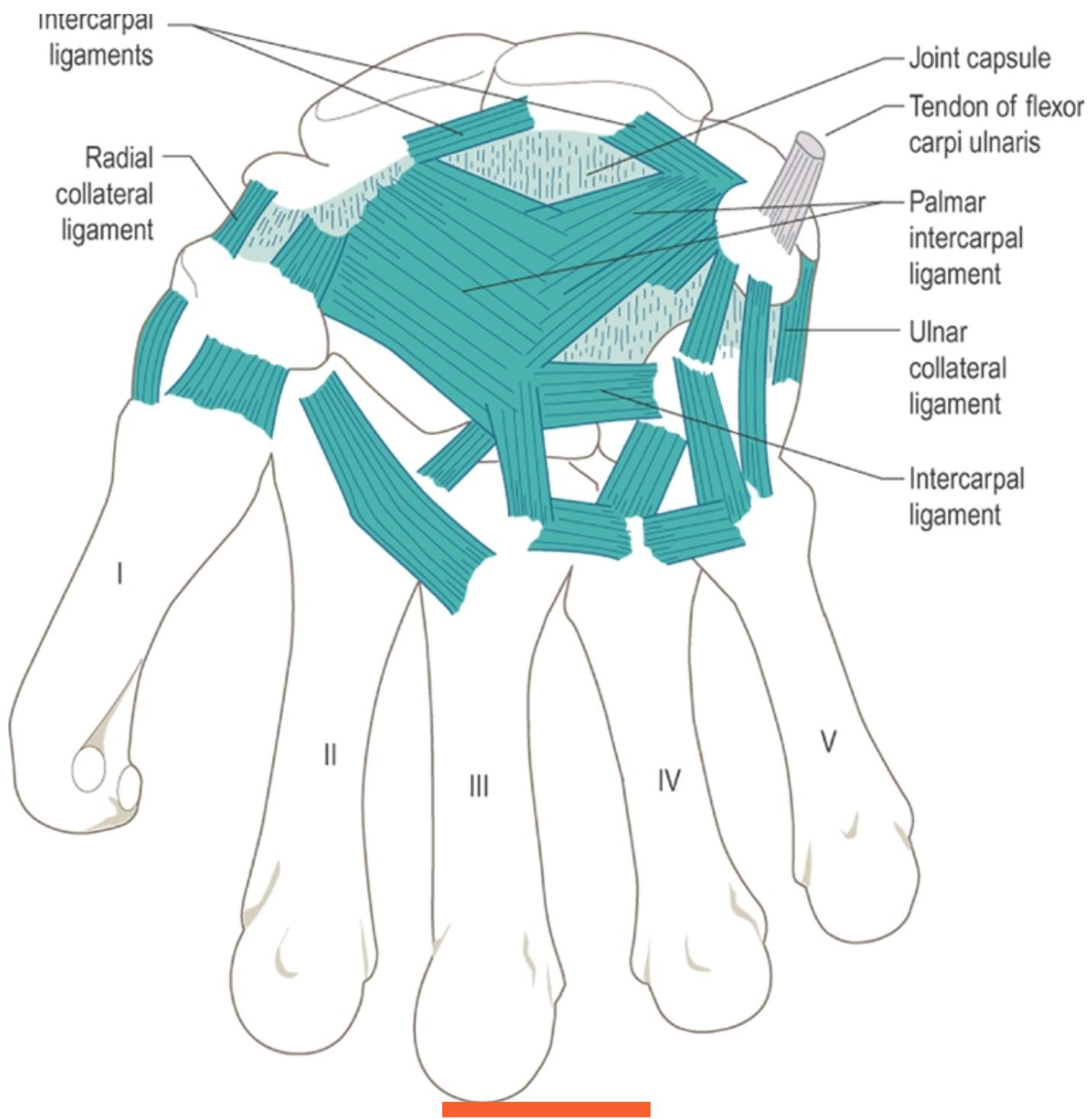
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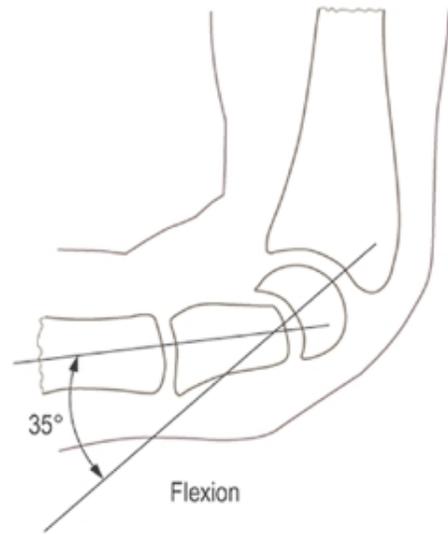




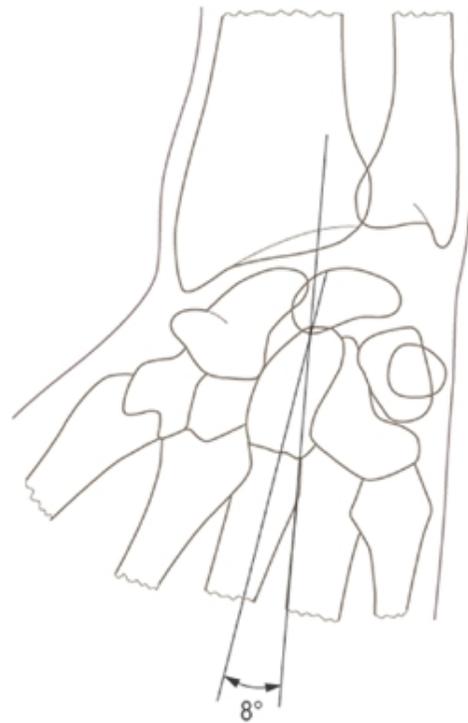
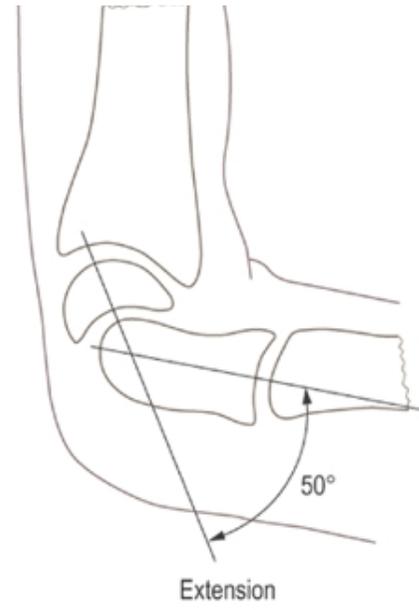






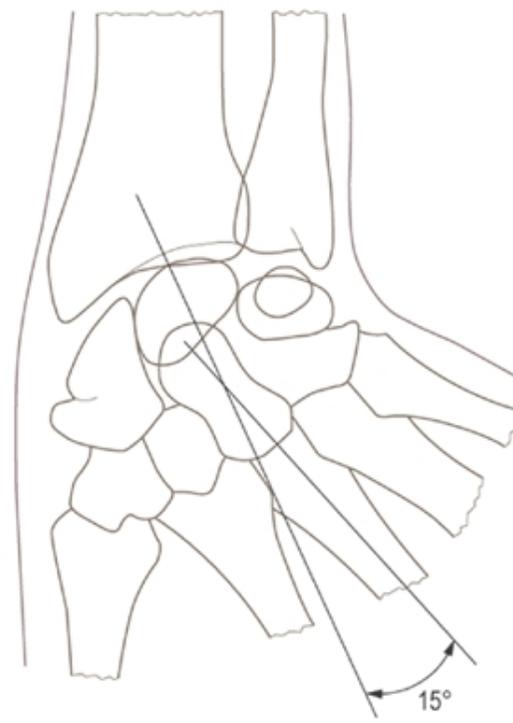


Lateral view



Abduction

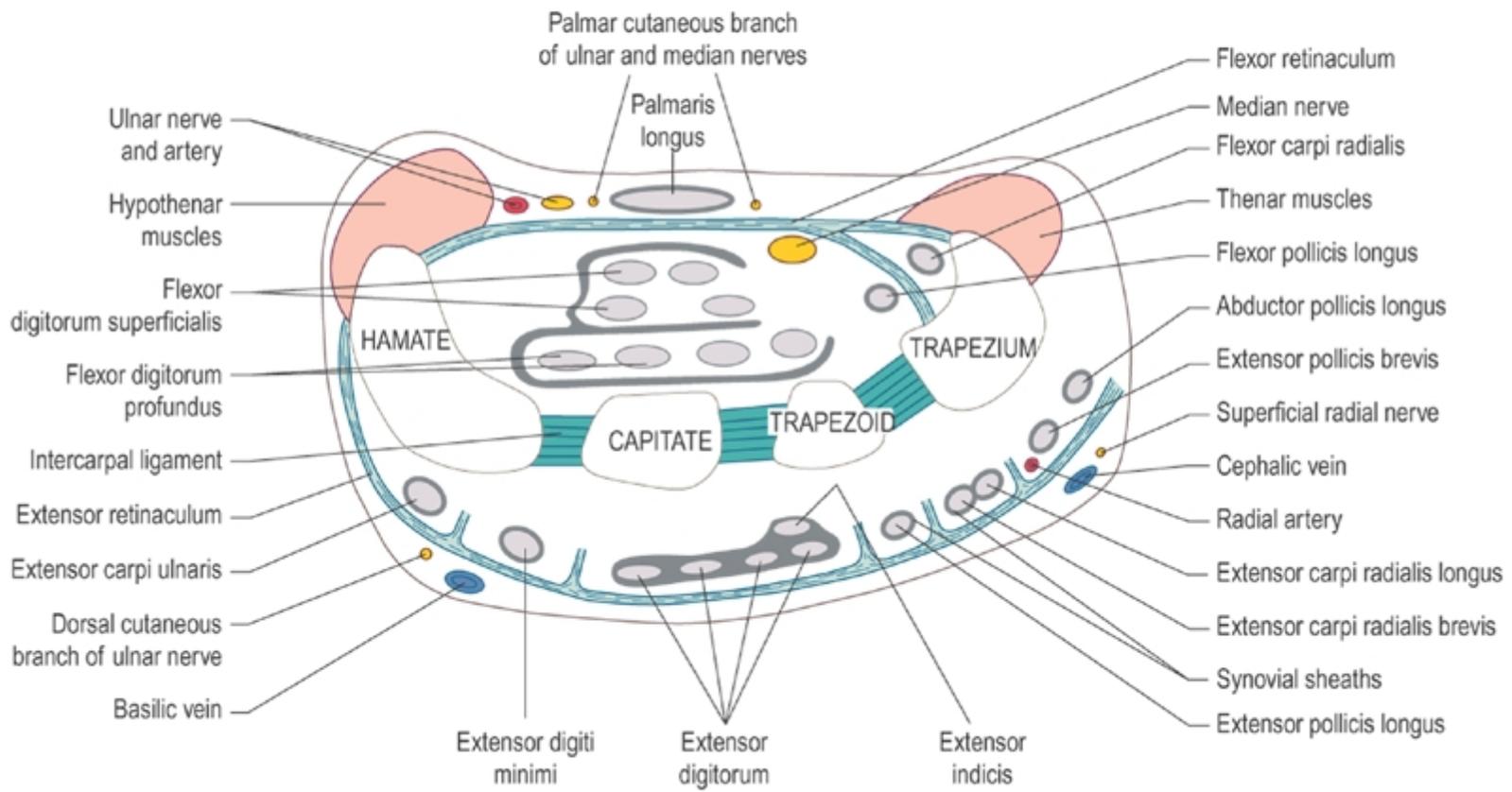
Anterior view



Adduction

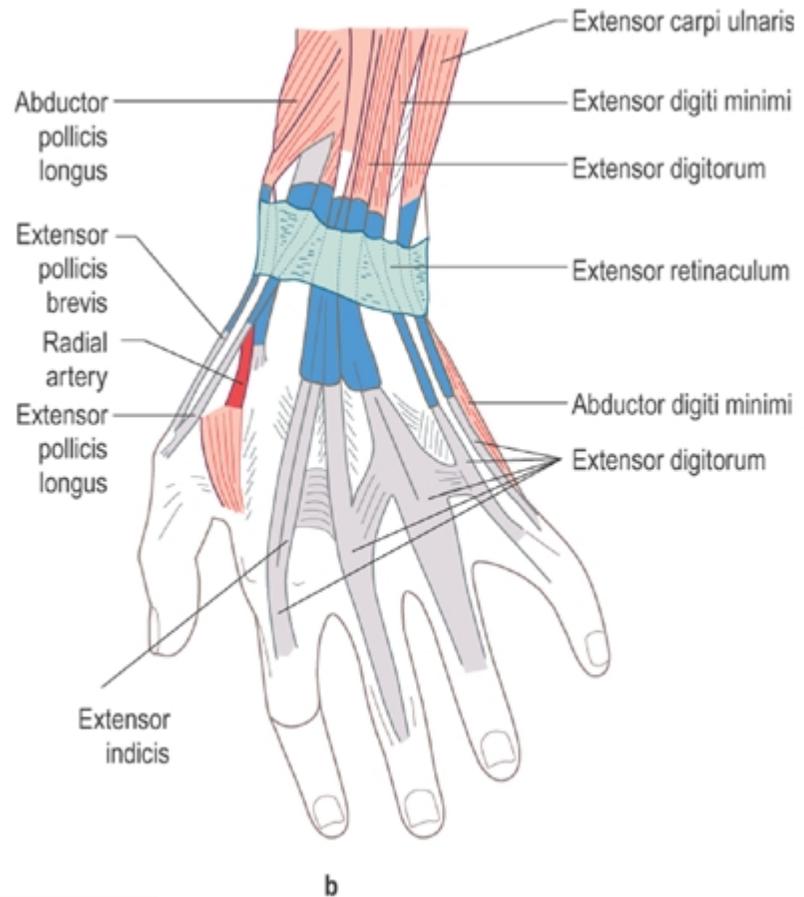
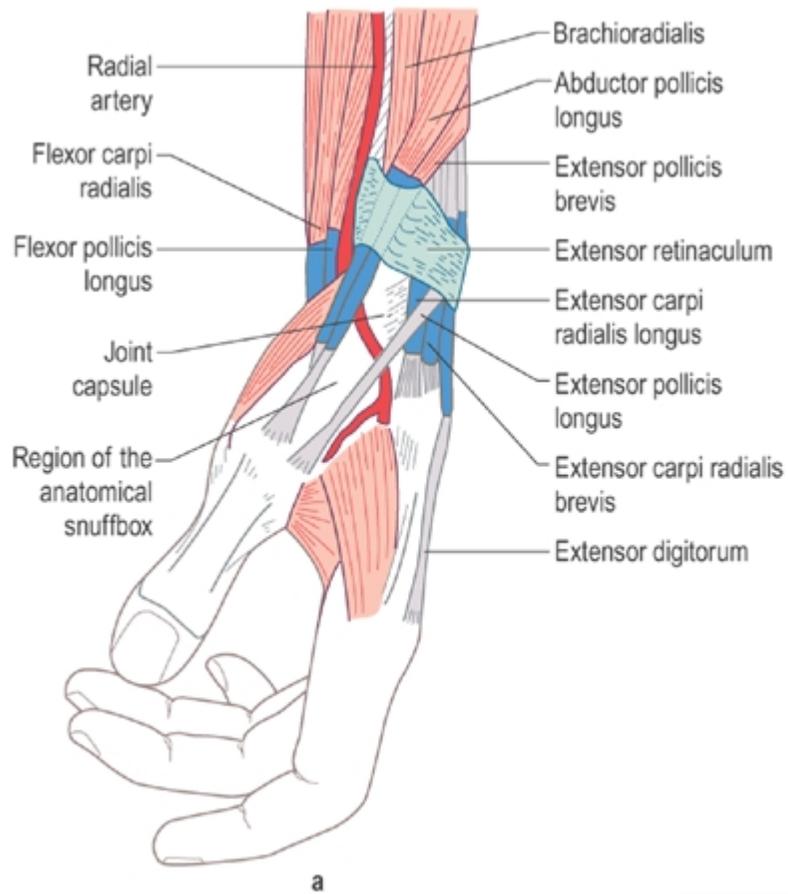


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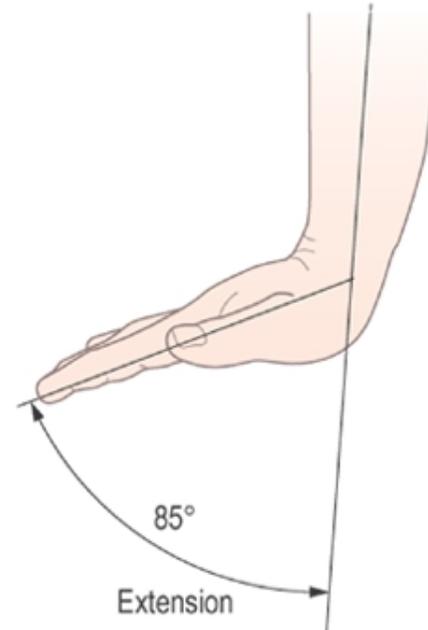
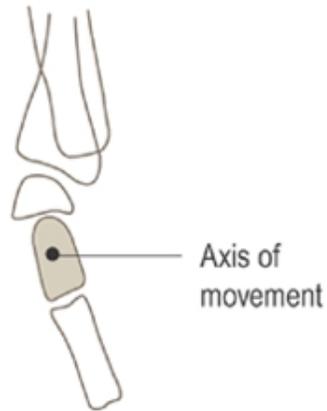
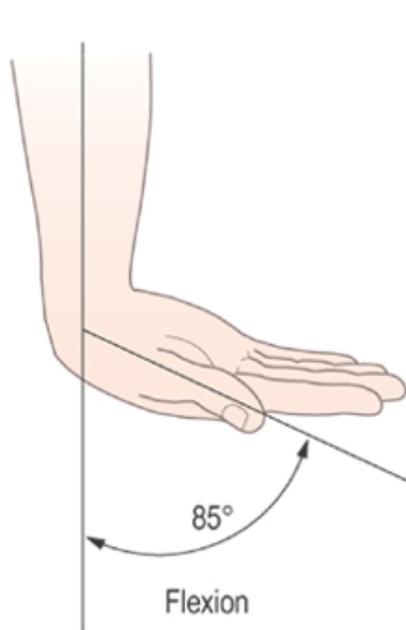
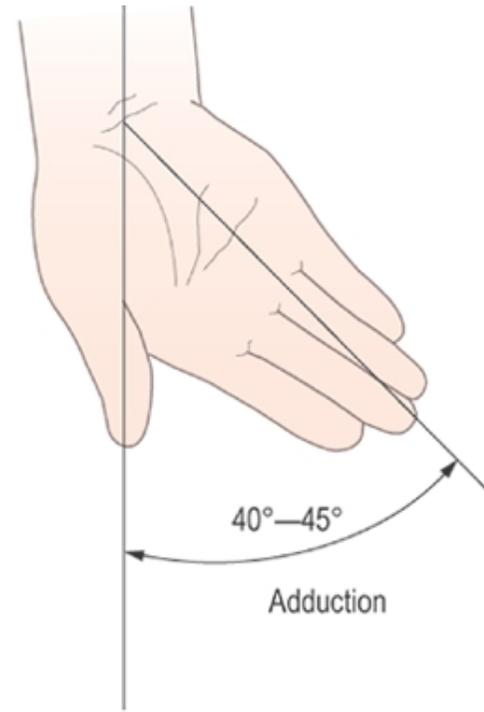
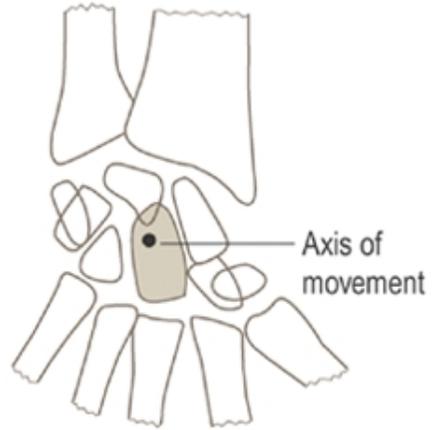
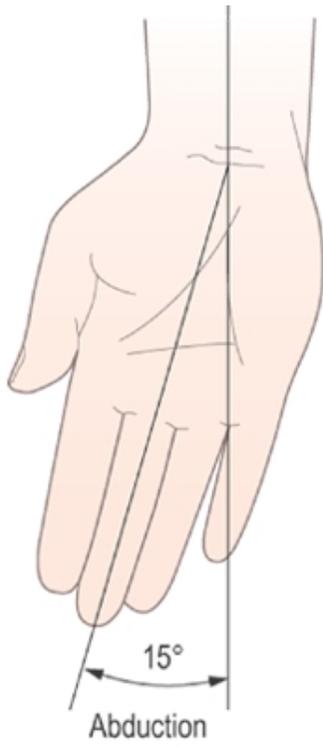


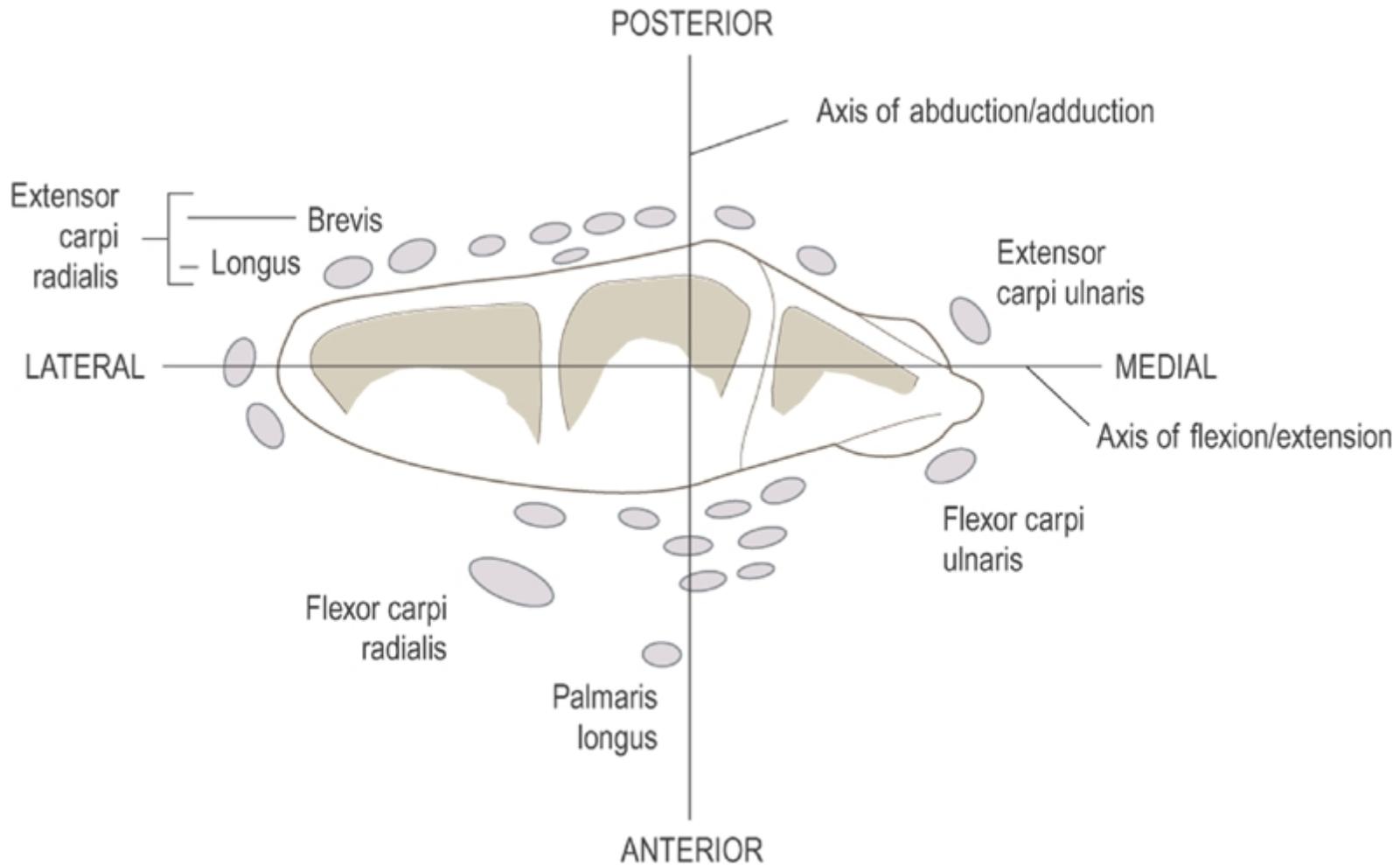
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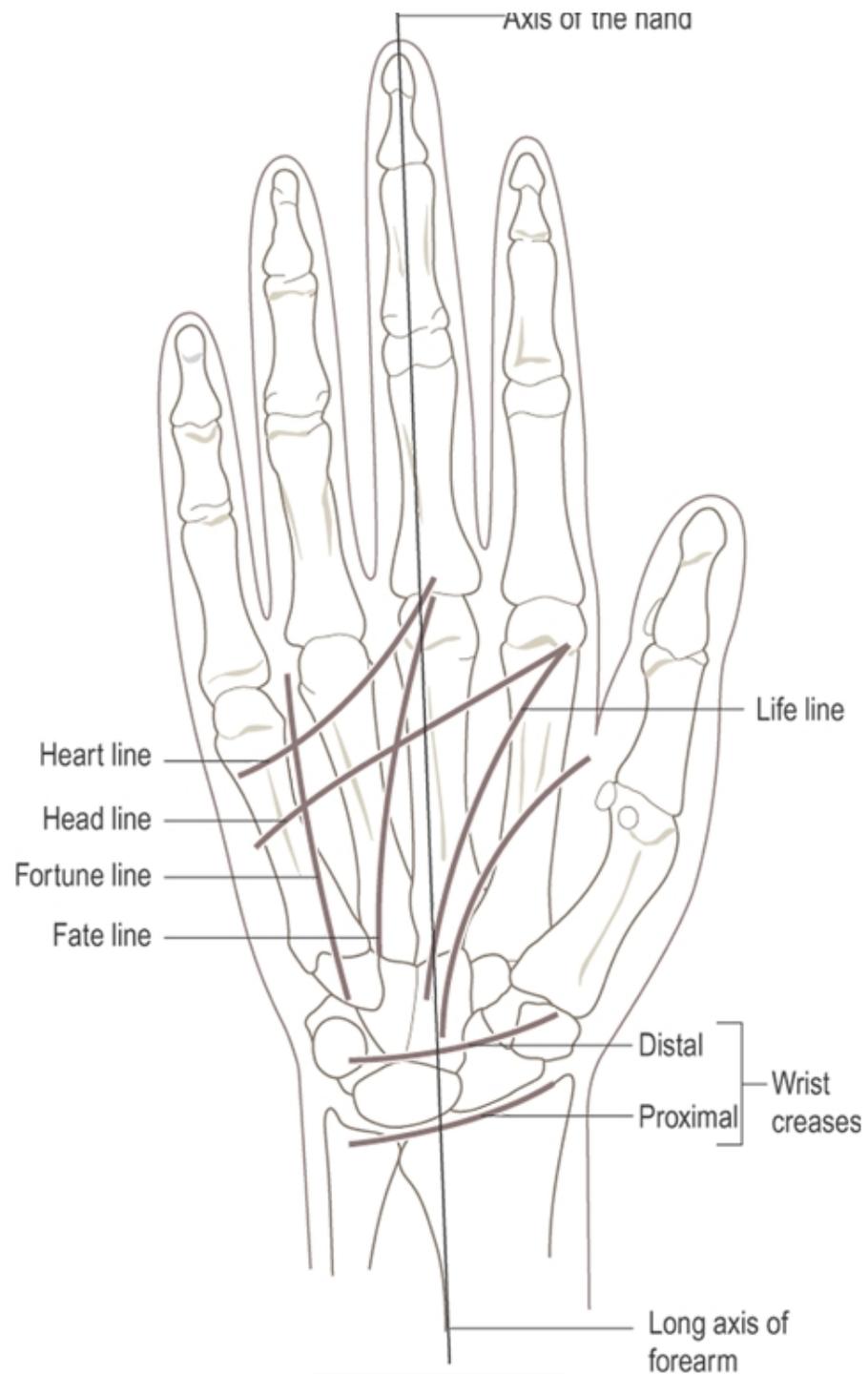
ANTERIOR VIEW

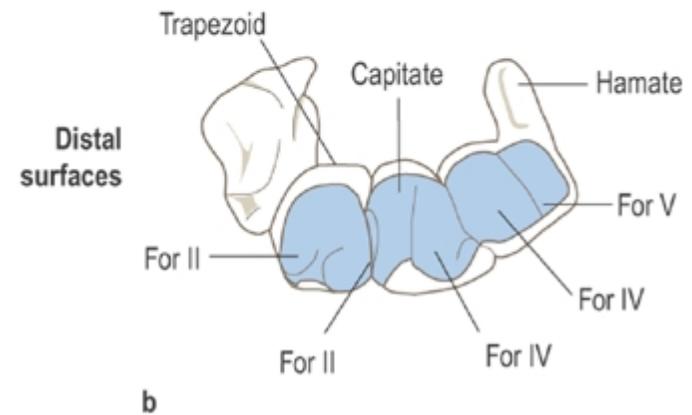
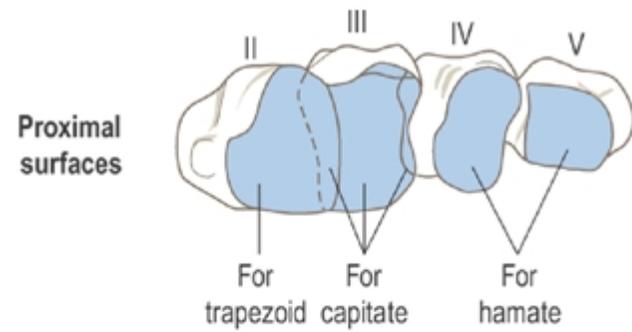
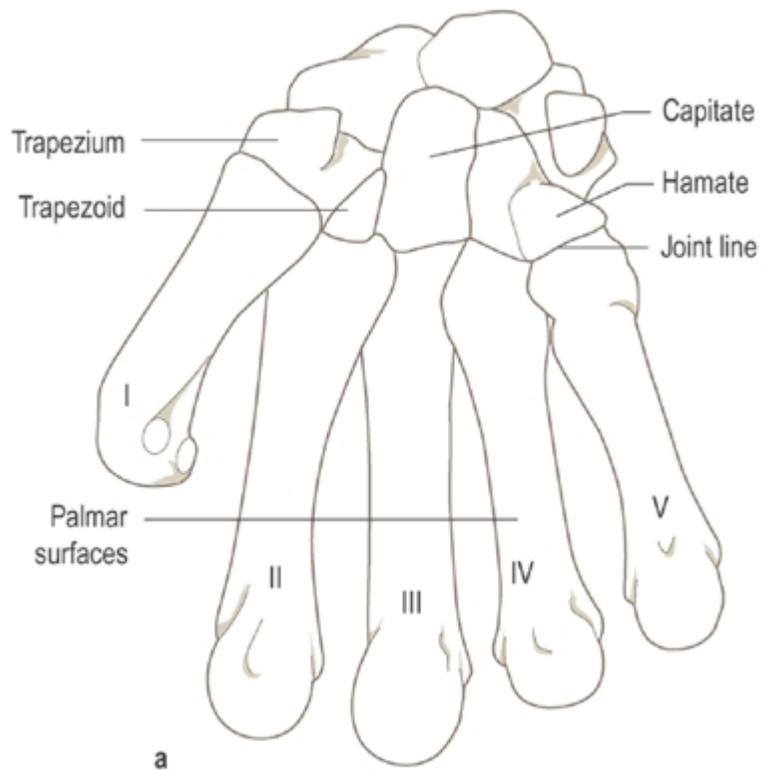
Phalanges
Interphalangeal joint
Metacarpophalangeal joint
Metacarpals
Carpometacarpal joint

Sesamoid bone

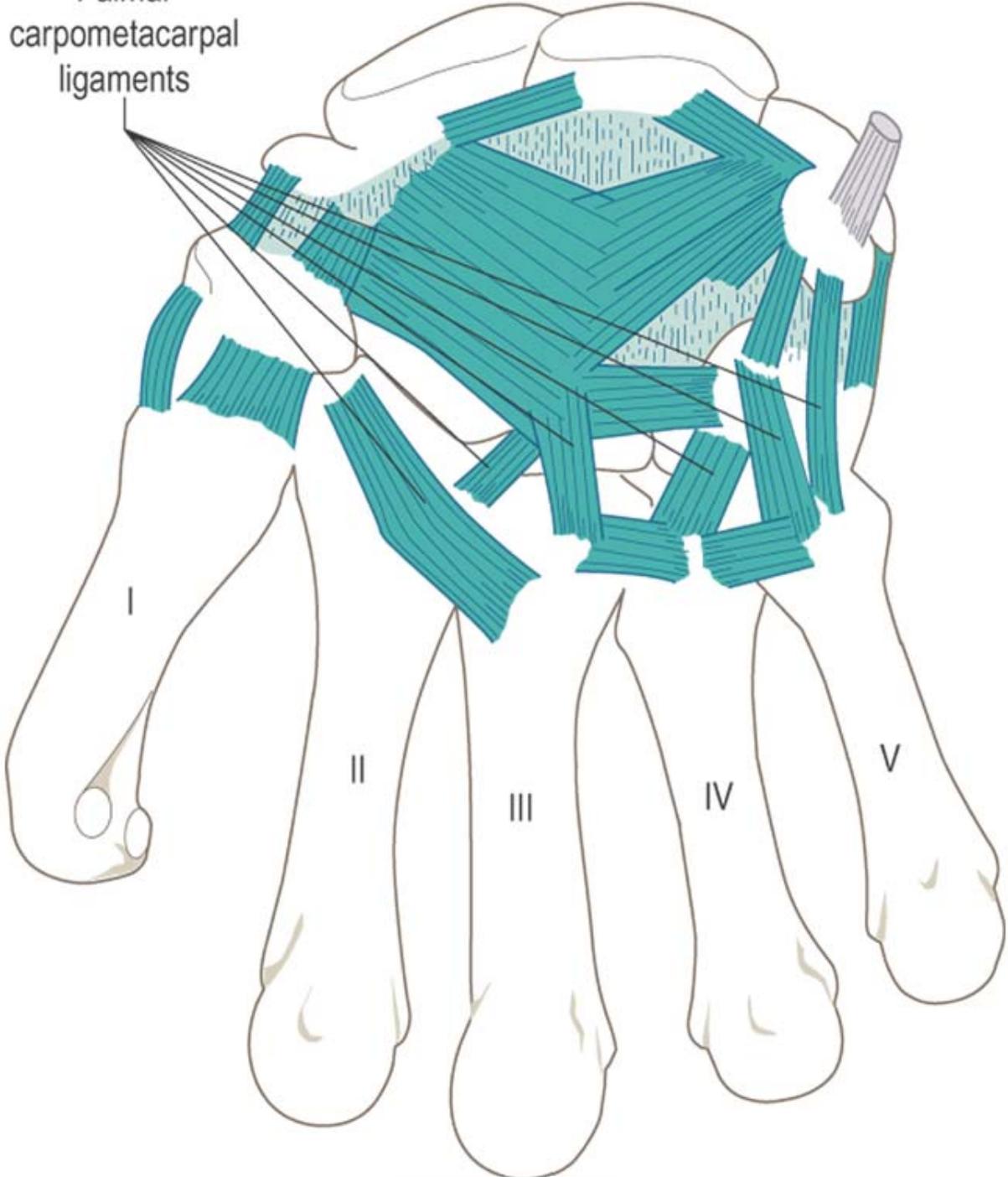


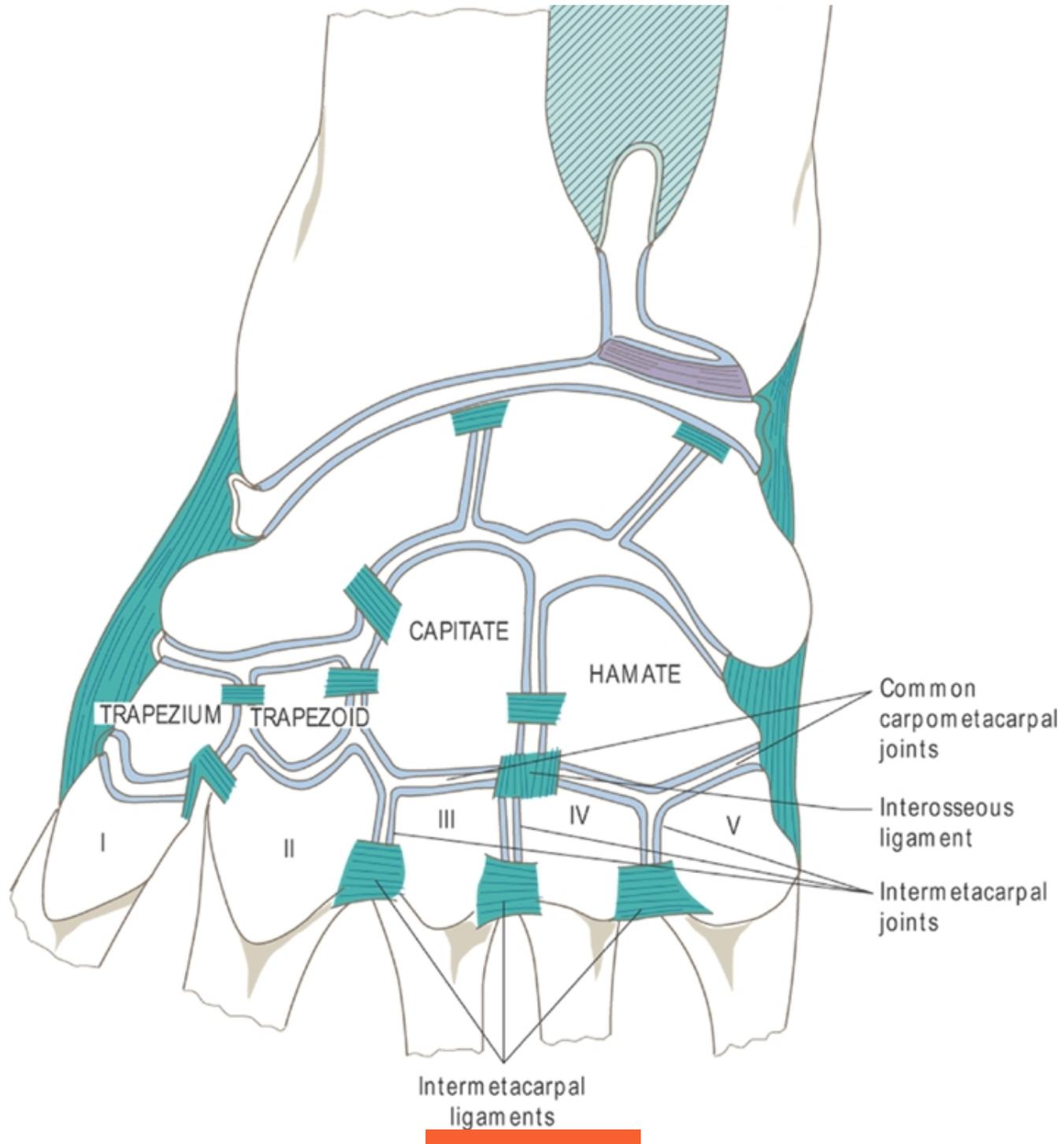
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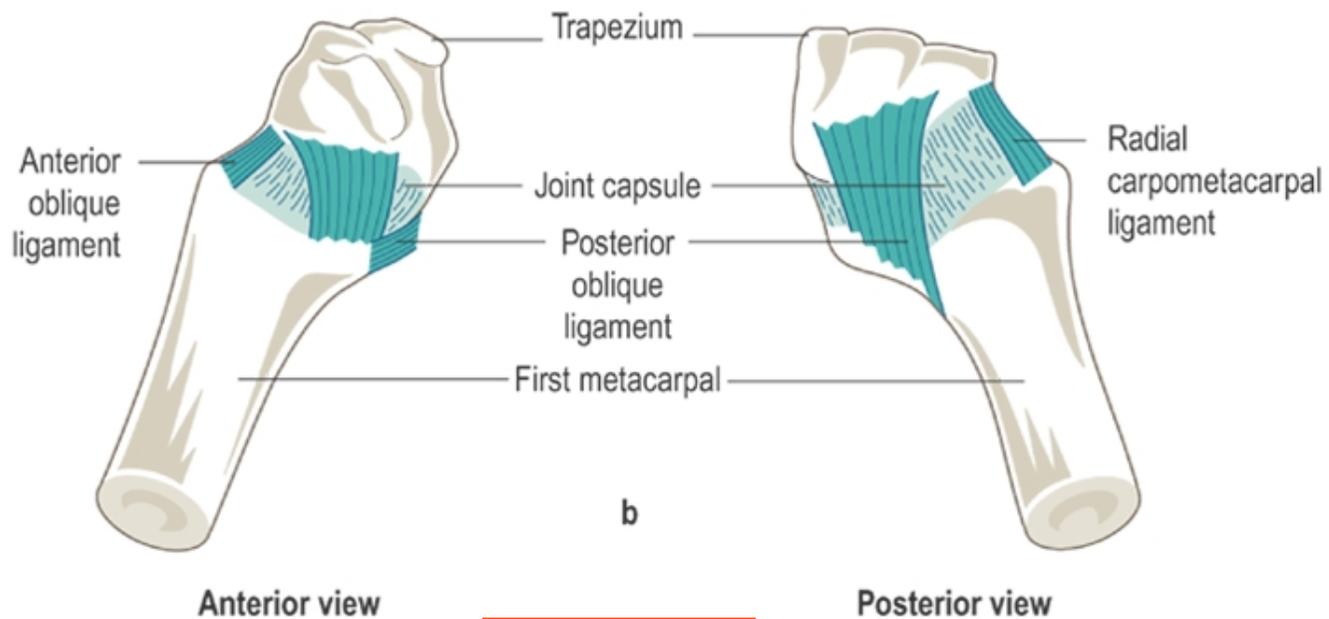
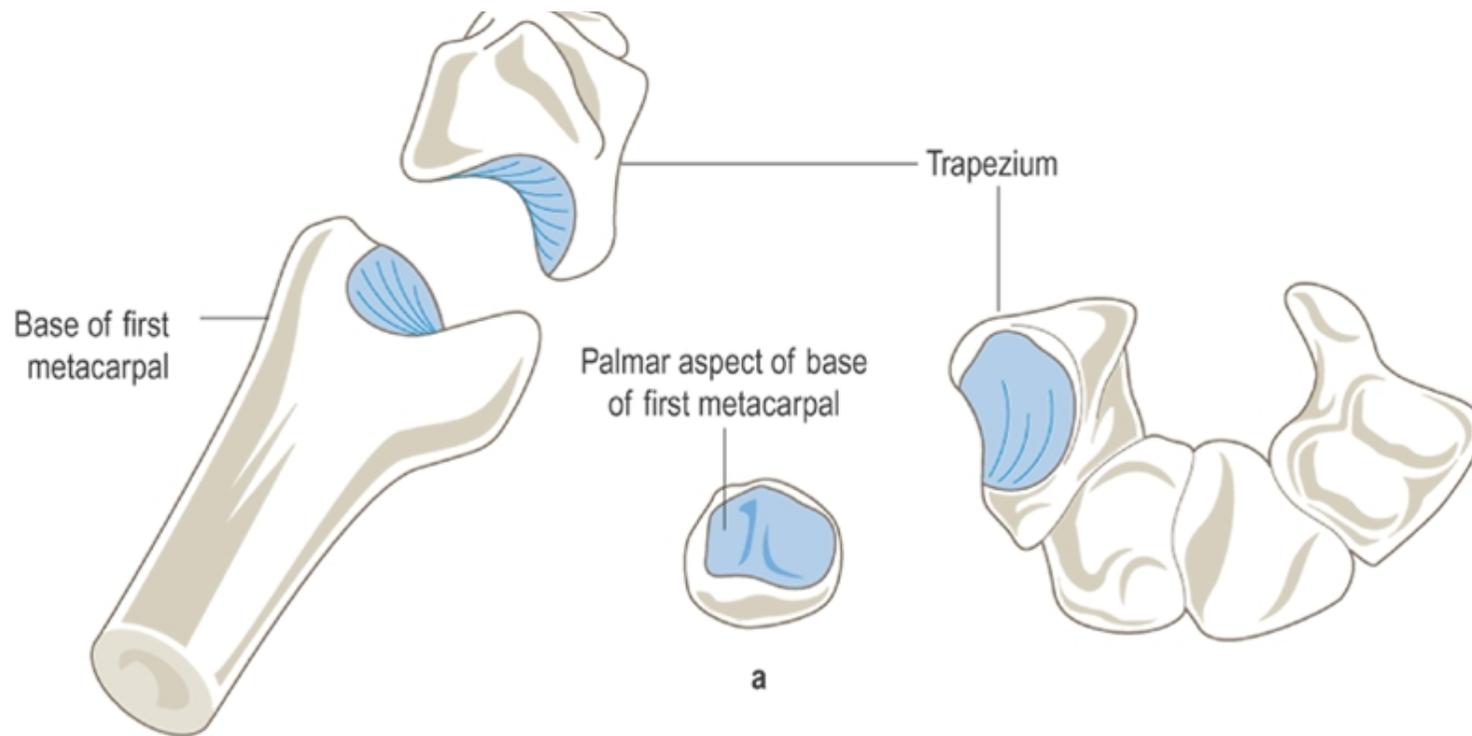


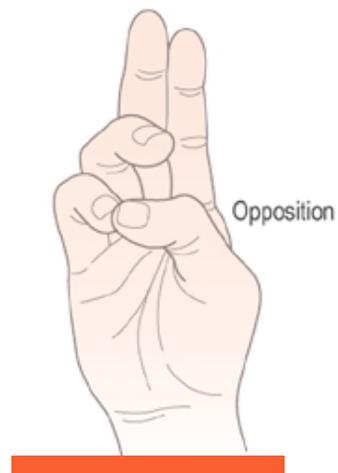
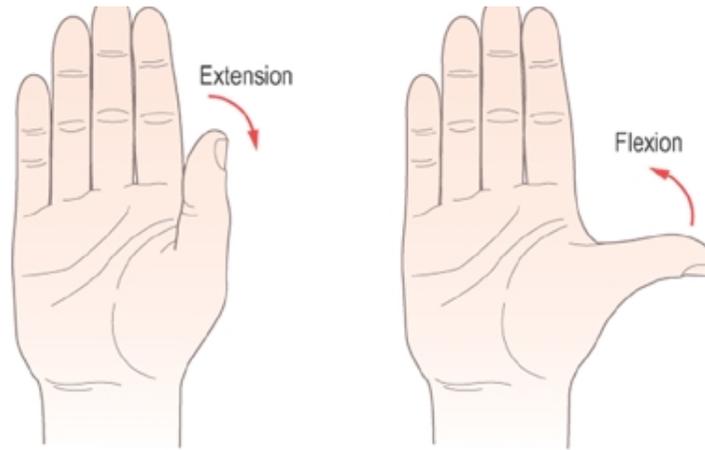


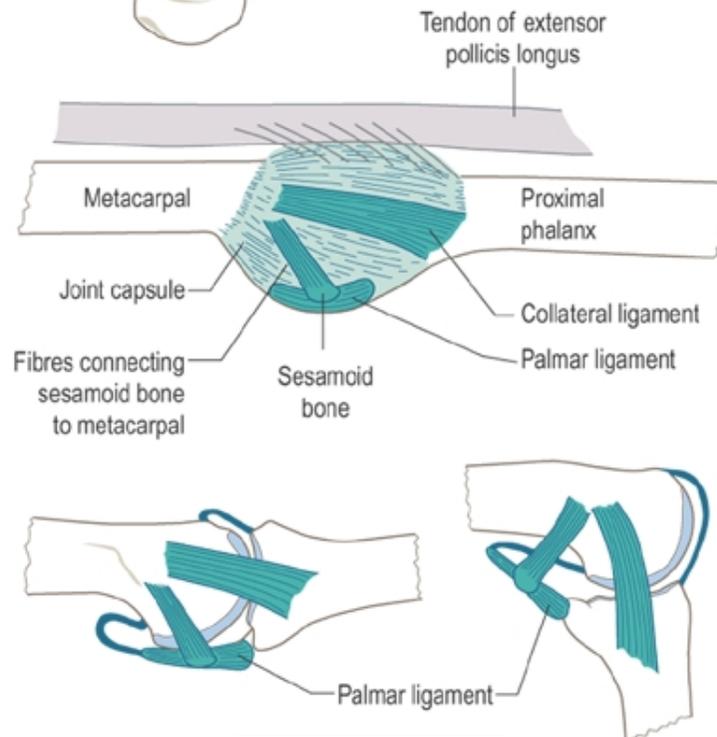
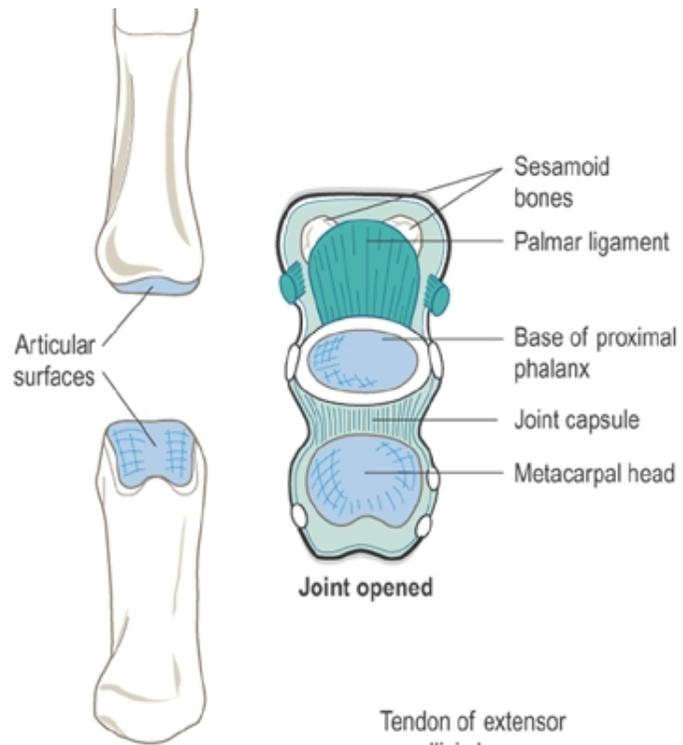
Palmar
carpometacarpal
ligaments

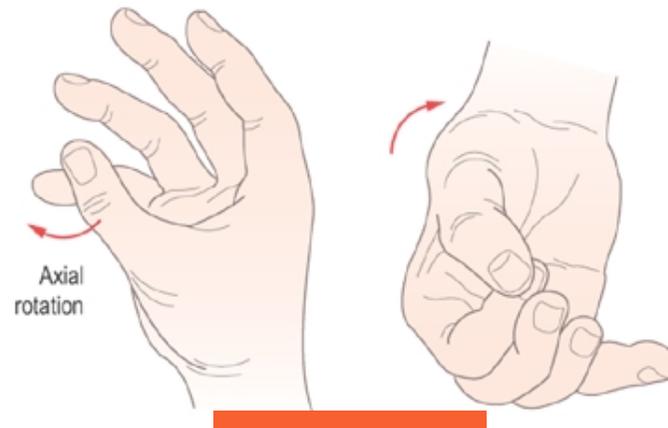
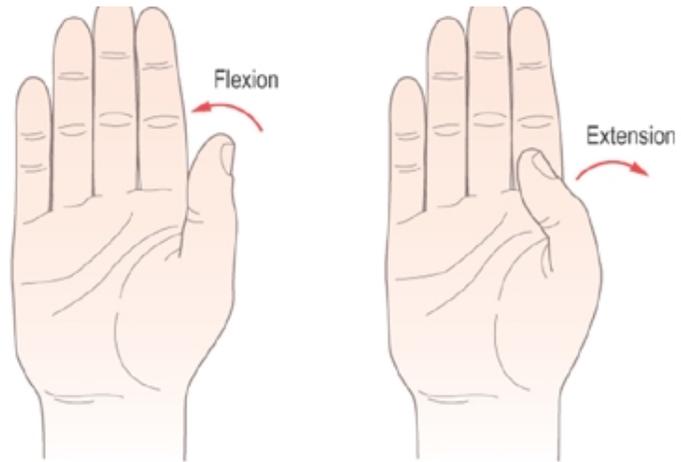


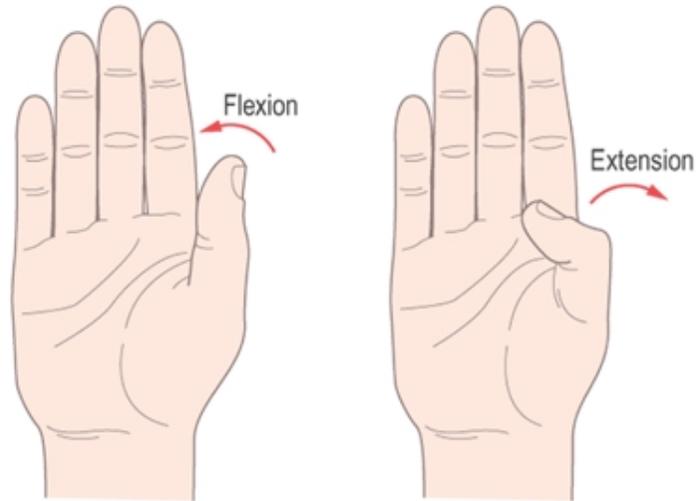
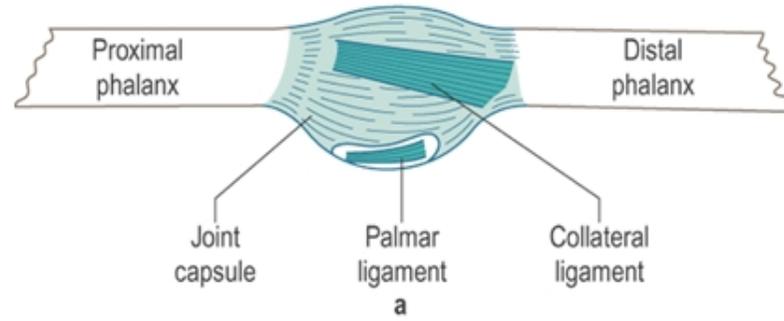
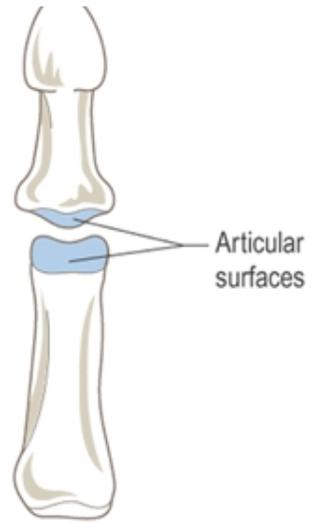


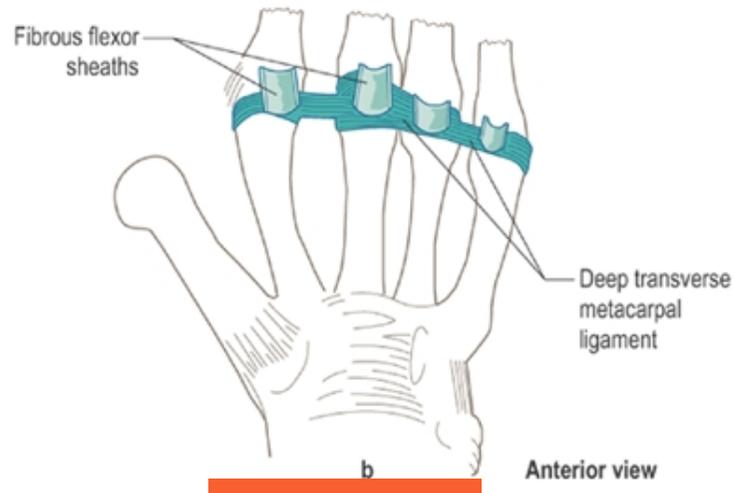
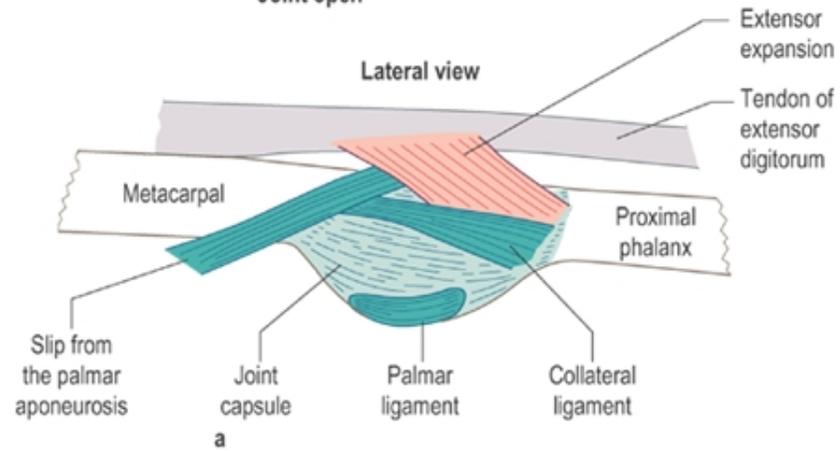
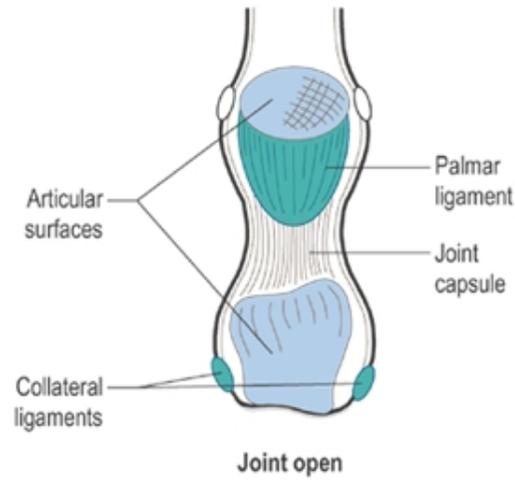
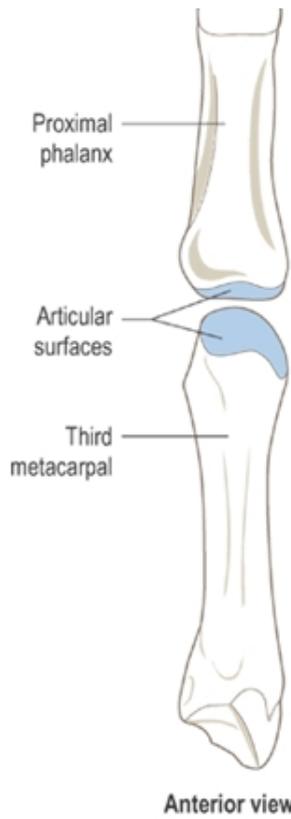


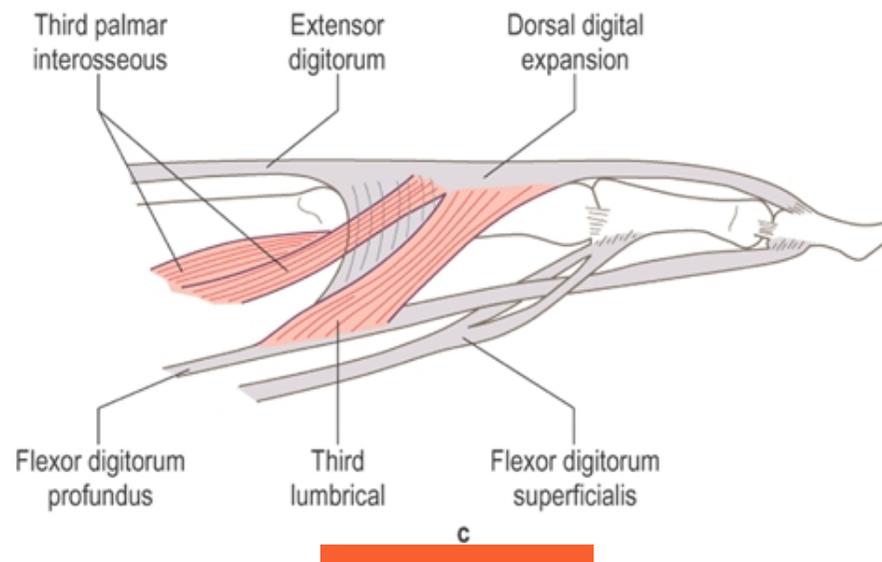
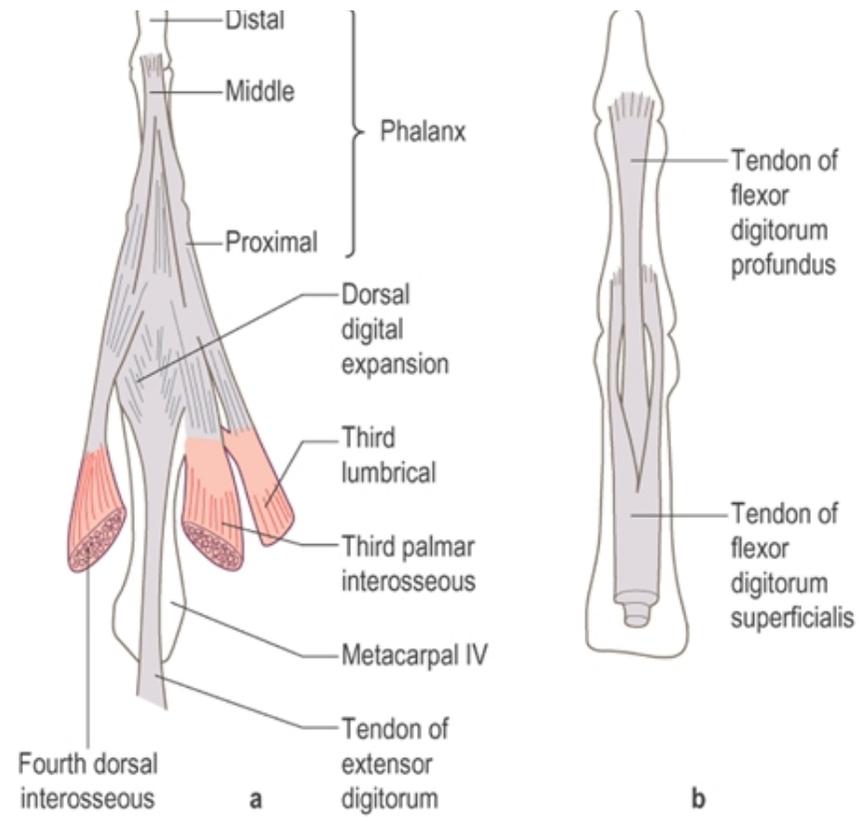


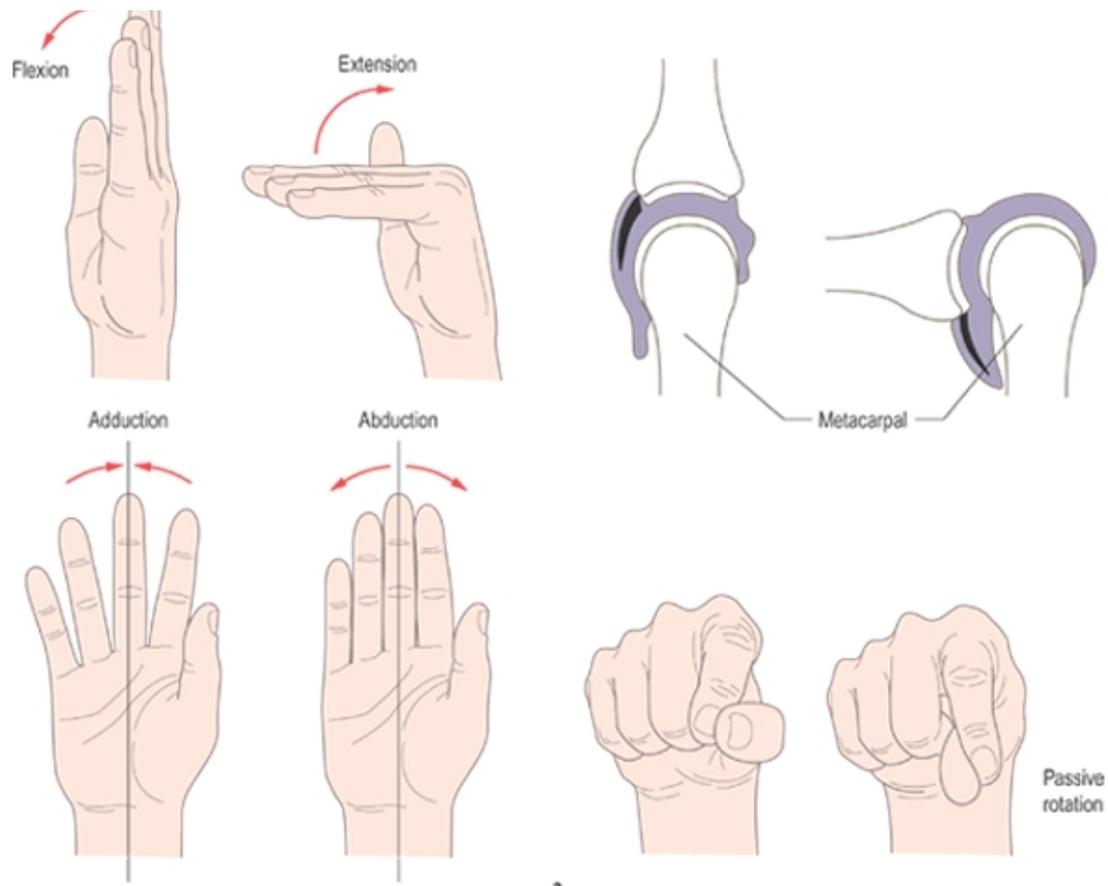




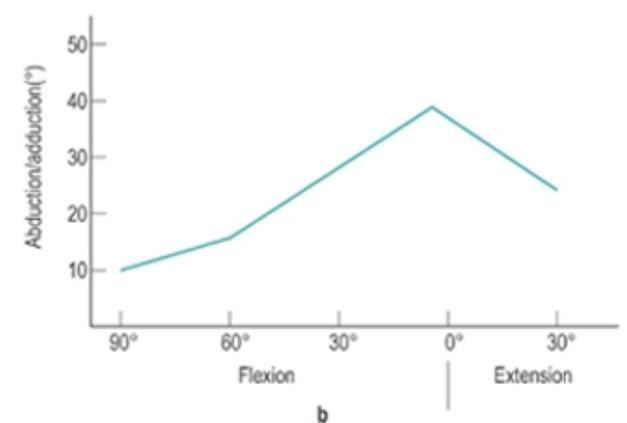






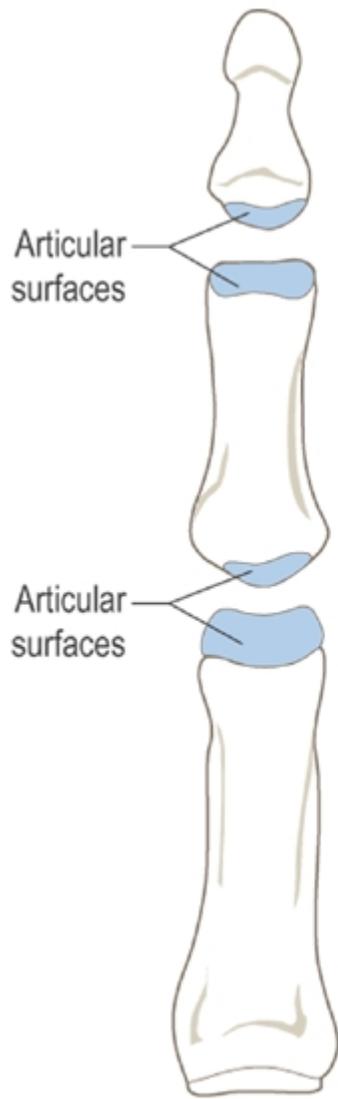


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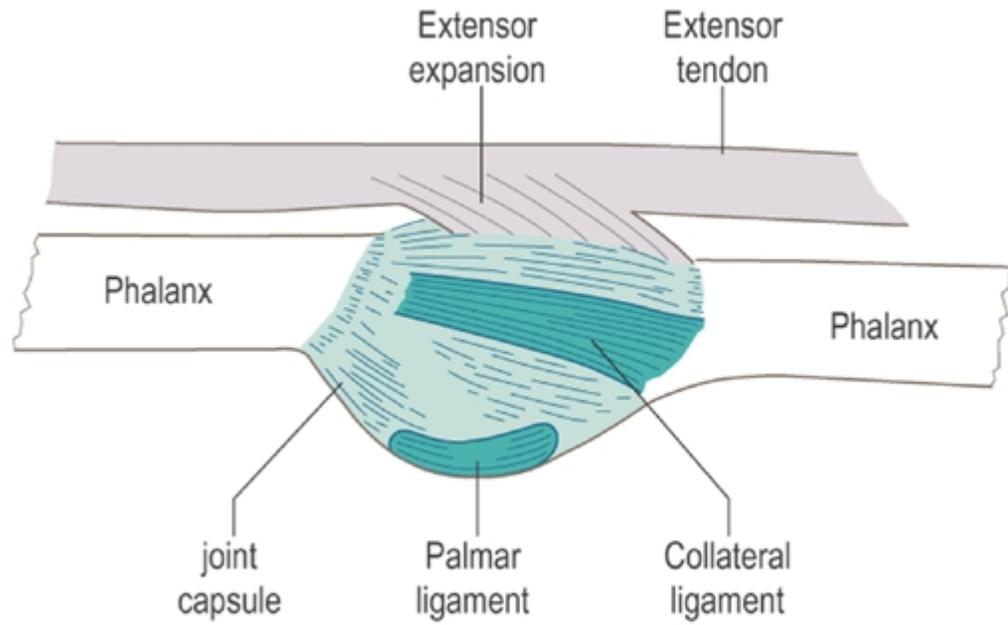


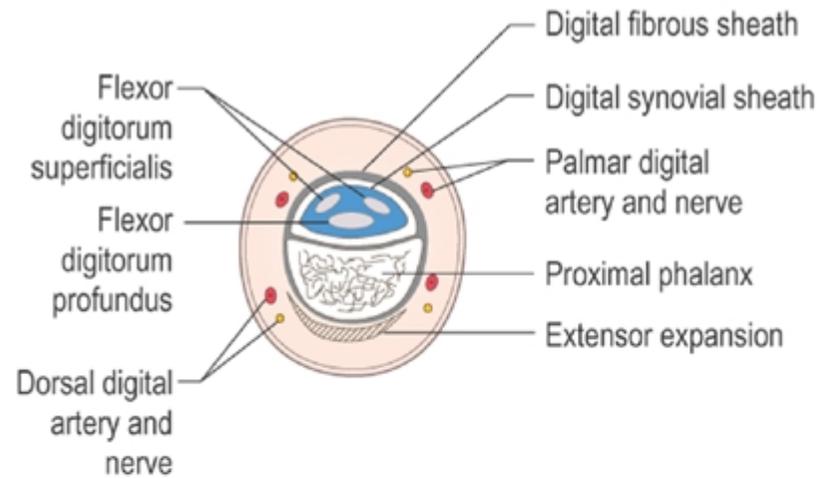
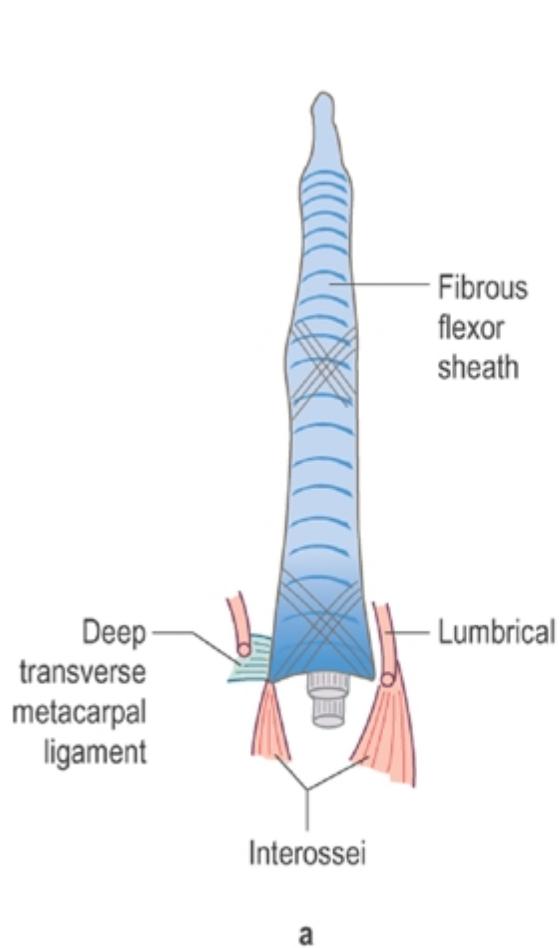
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(adapted from Youm Y, Gillespie TE, FLatt AE, Sprague BL (1978) Kinematic investigation of normal MCP joint. *Journal of Biomechanics*. 11, 109–118).

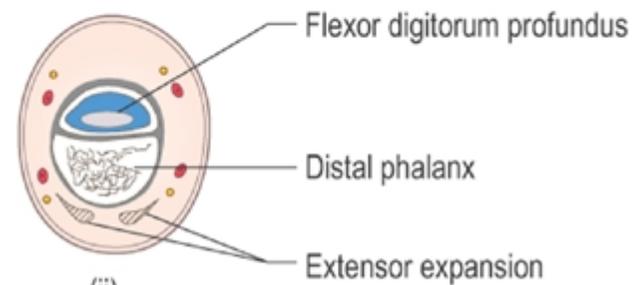


Anterior view





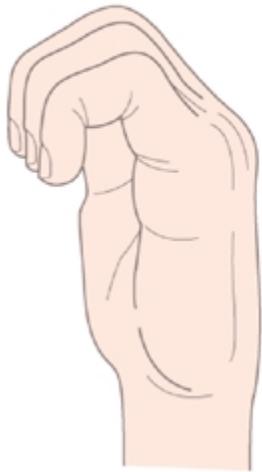
(i)



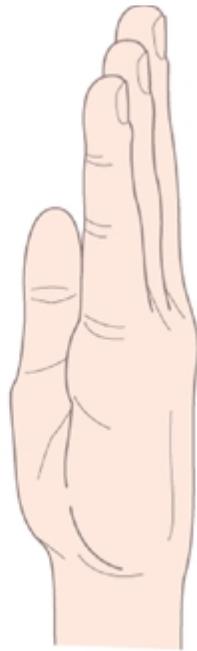
(ii)

b

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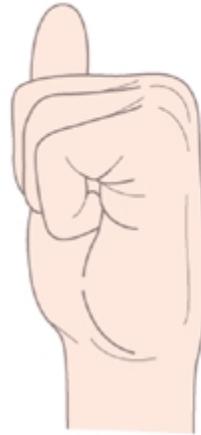


Flexion

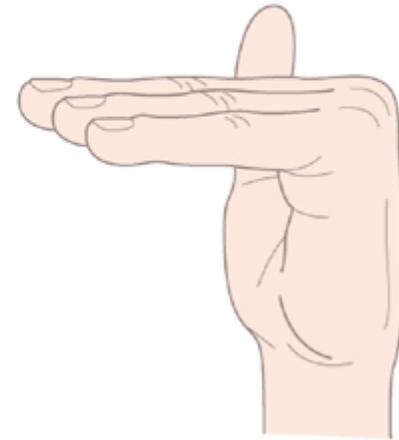


Extension

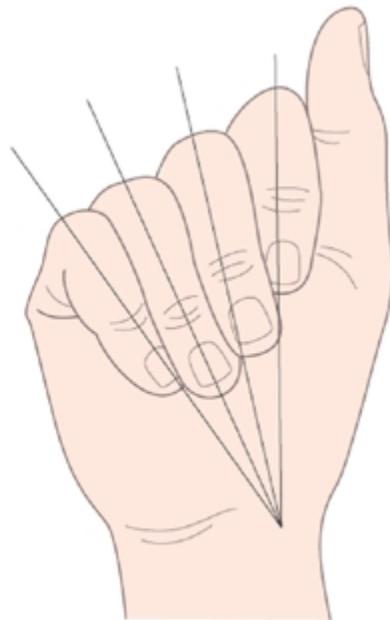
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Flexion

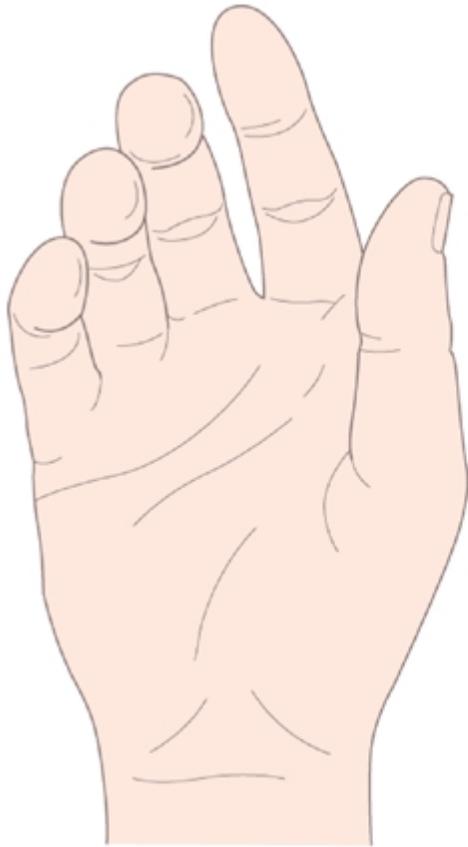


Extension

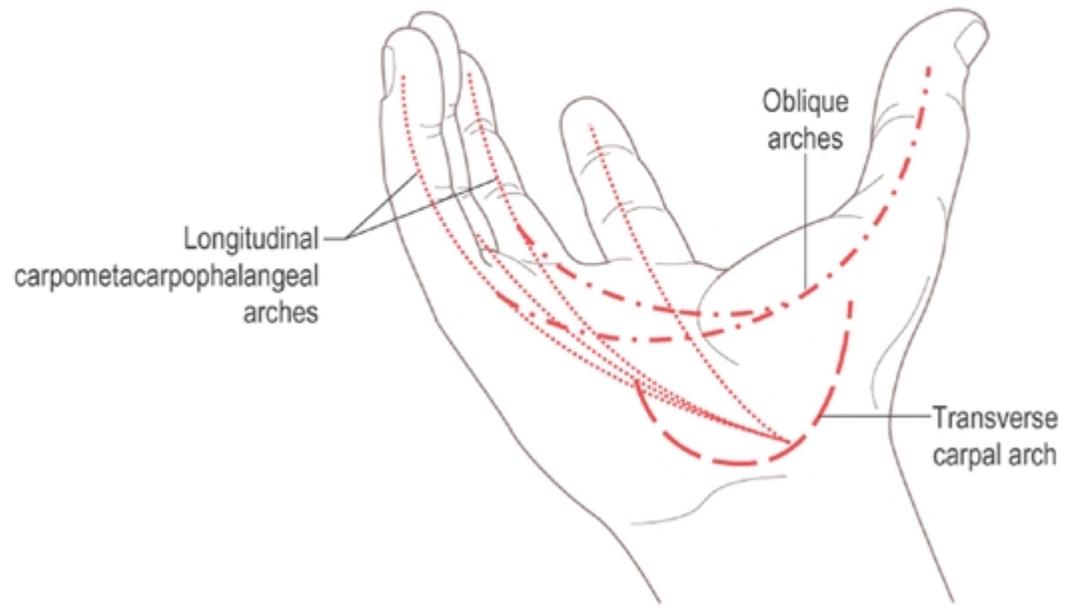


b



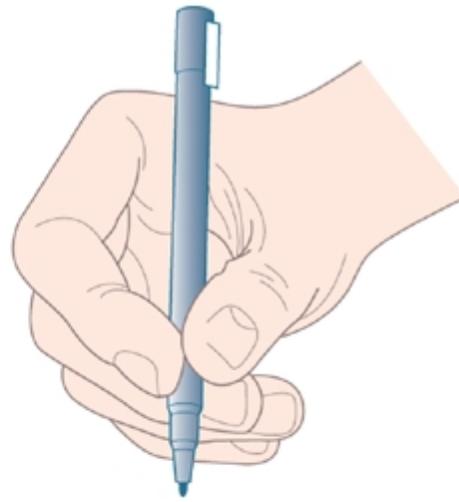
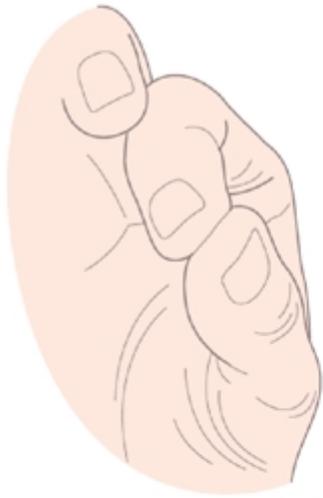


a

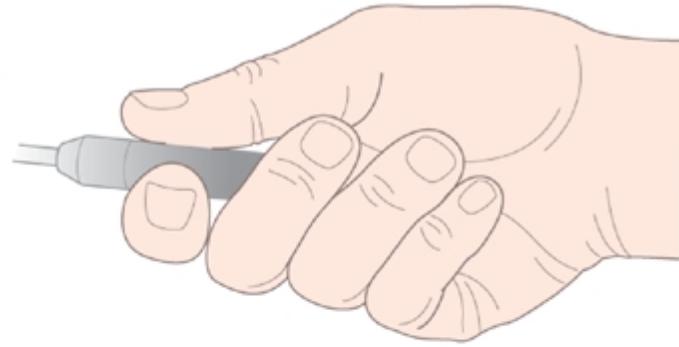


b

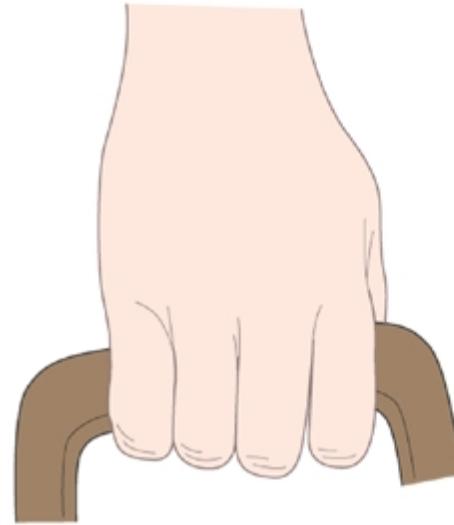
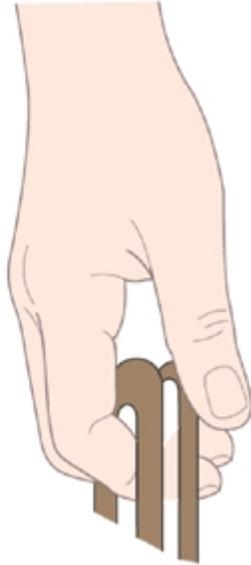




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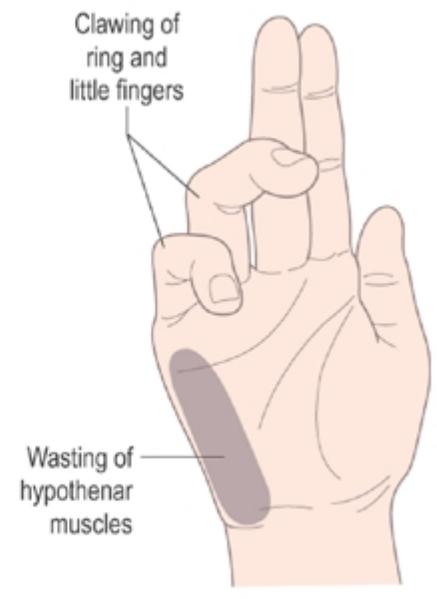
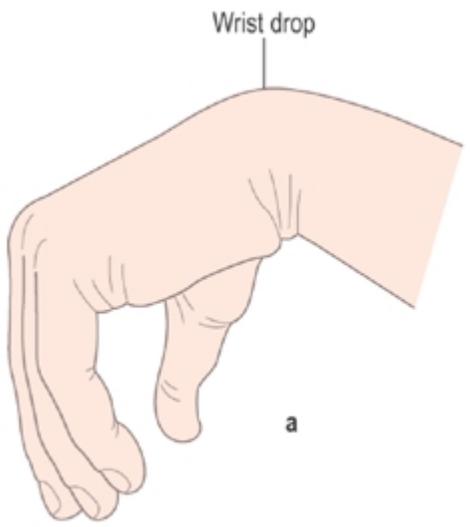


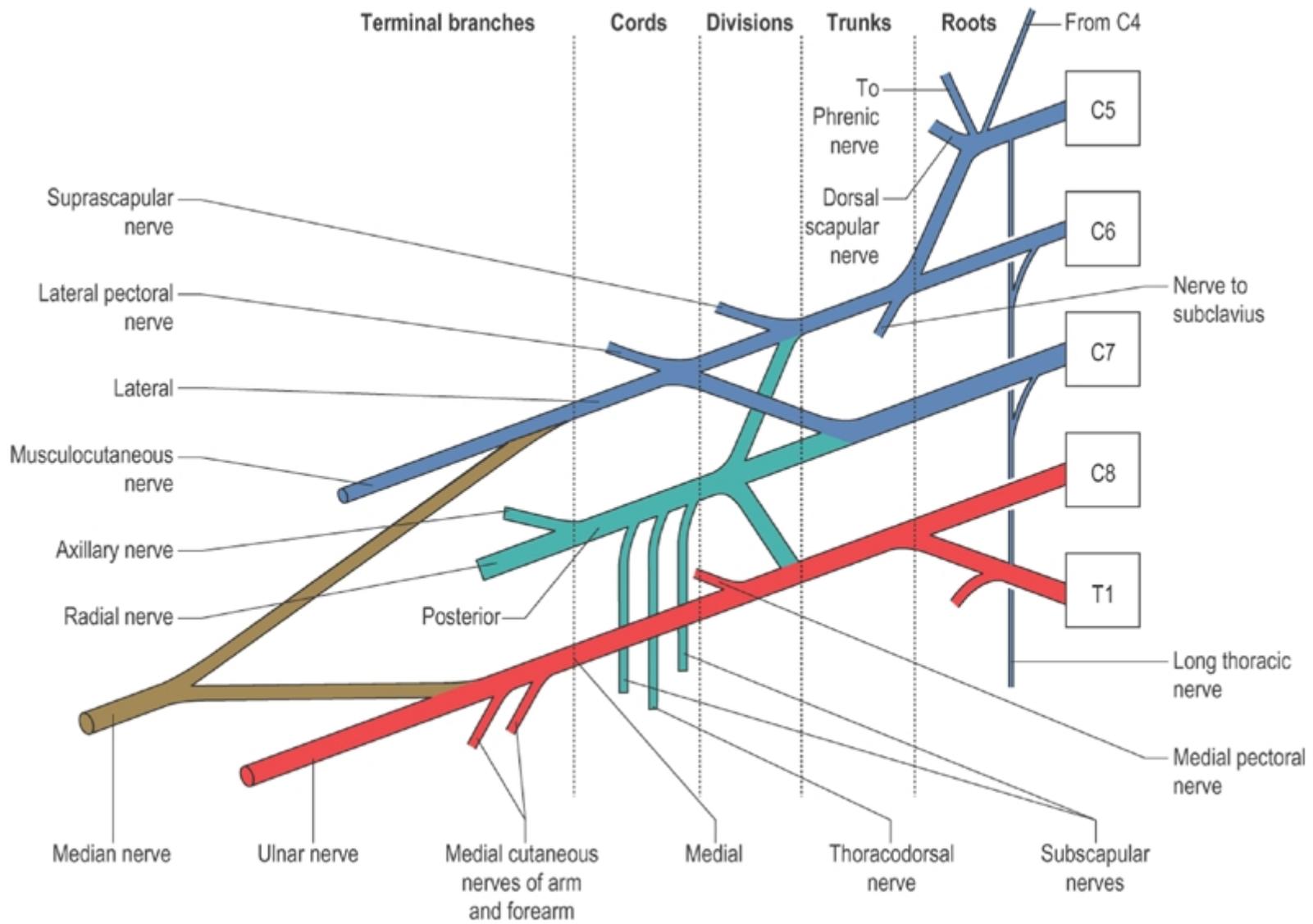
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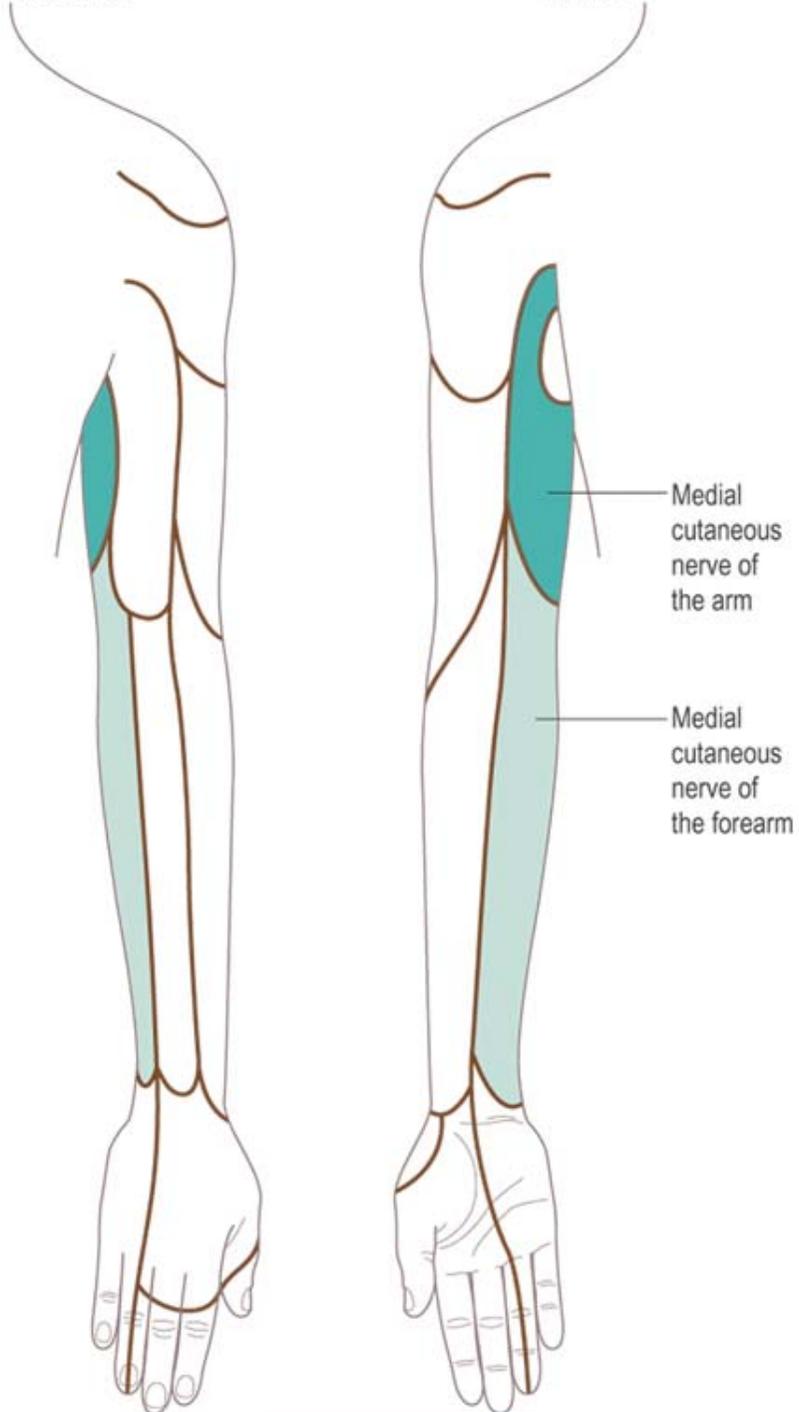


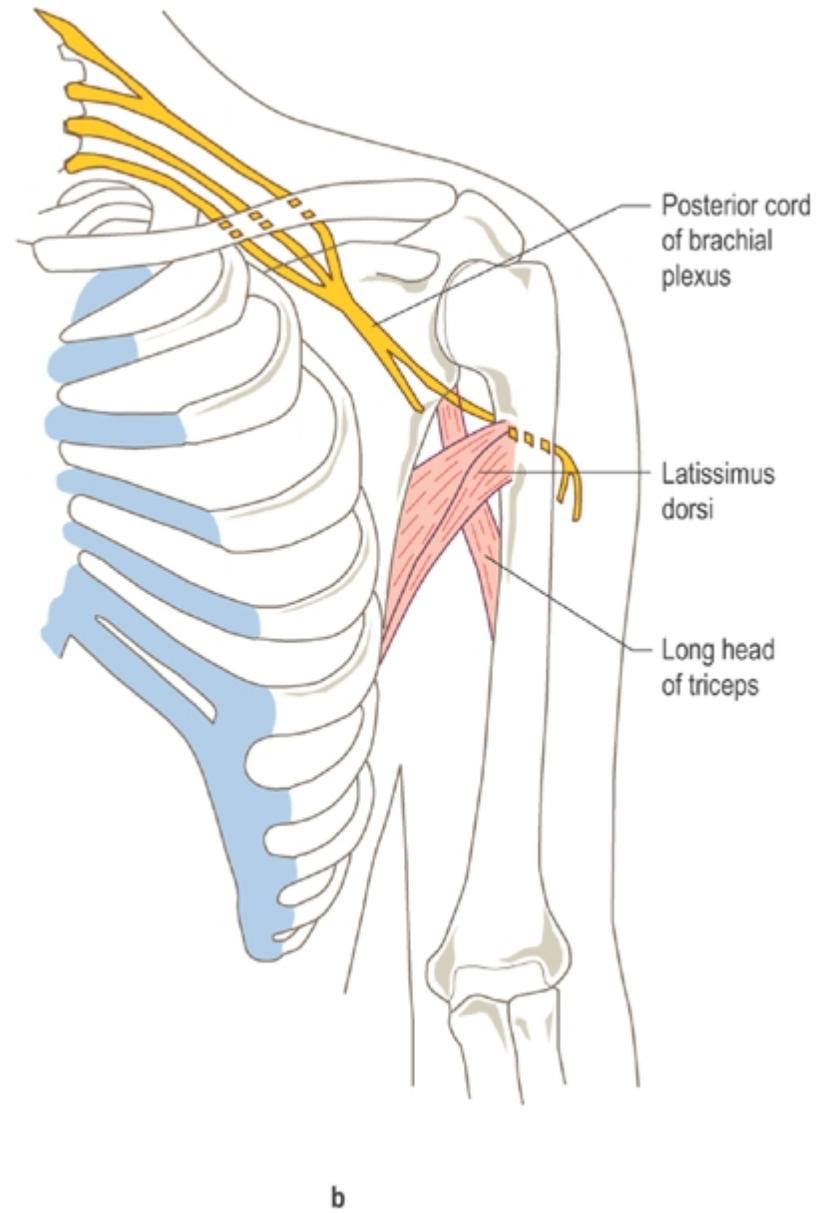
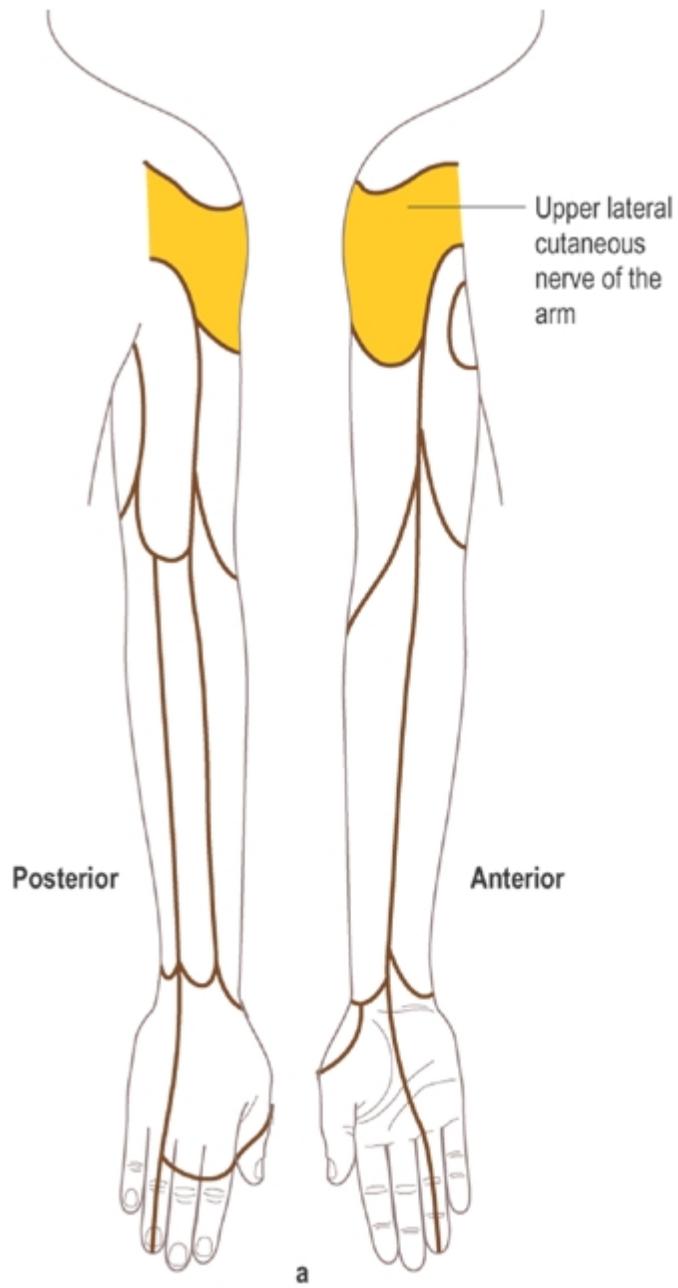


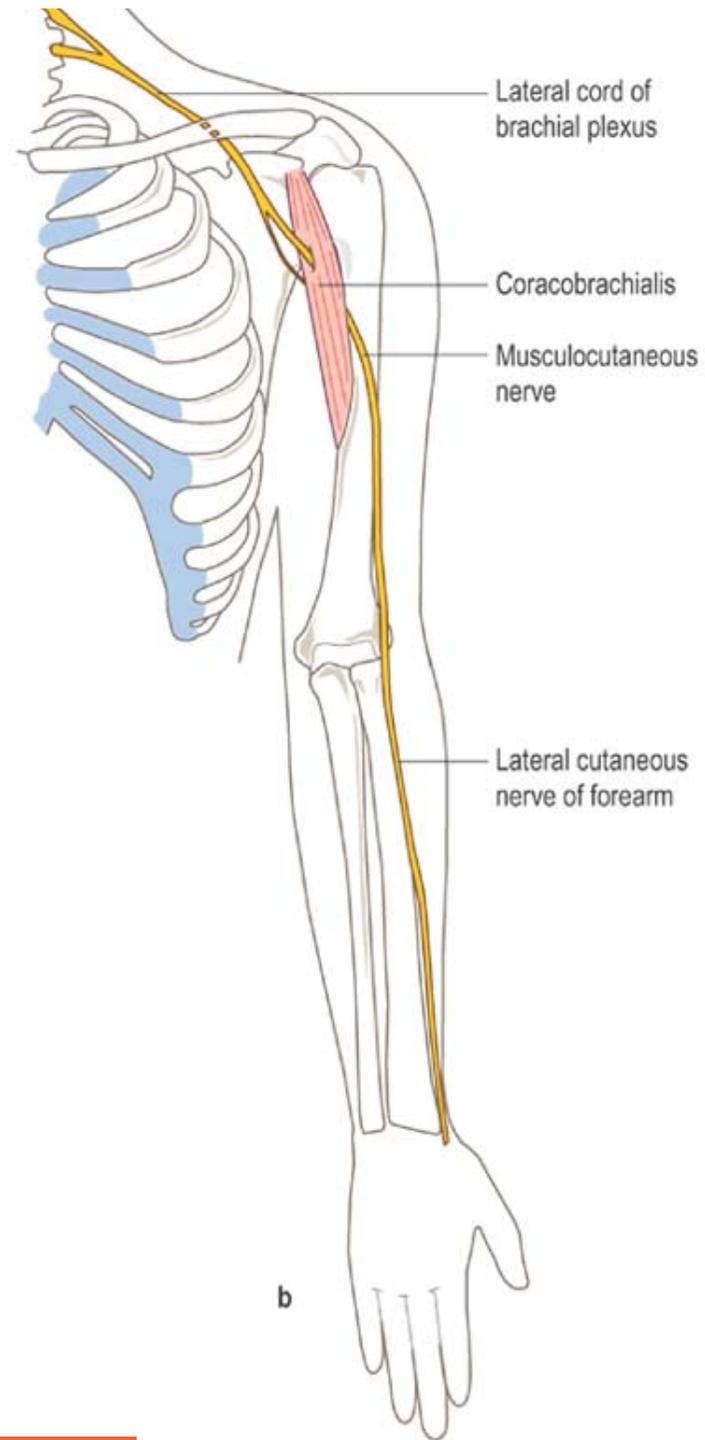
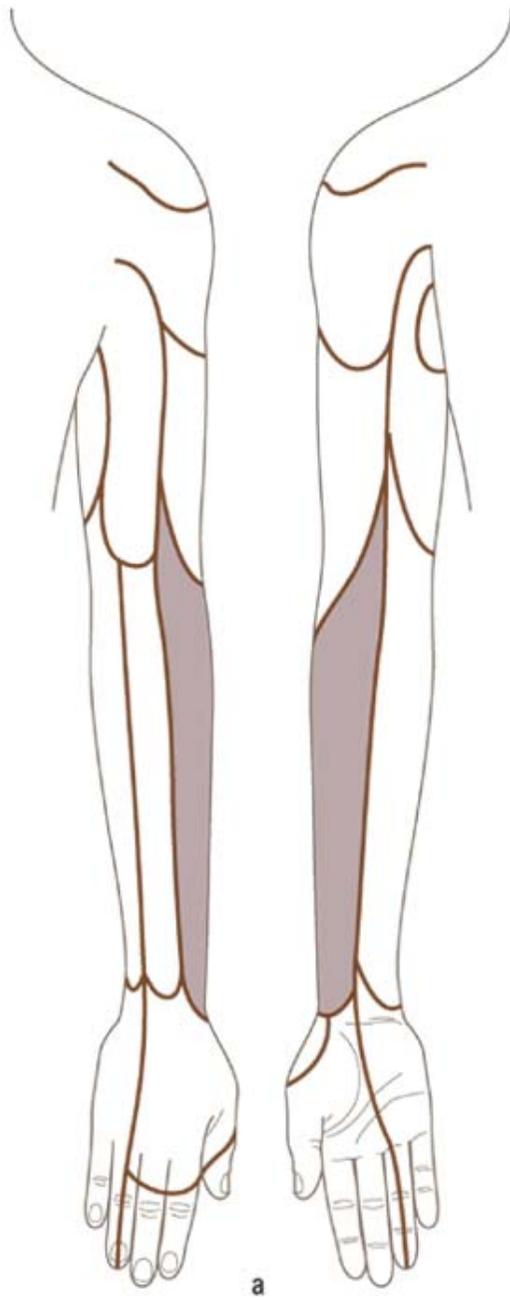


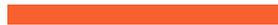
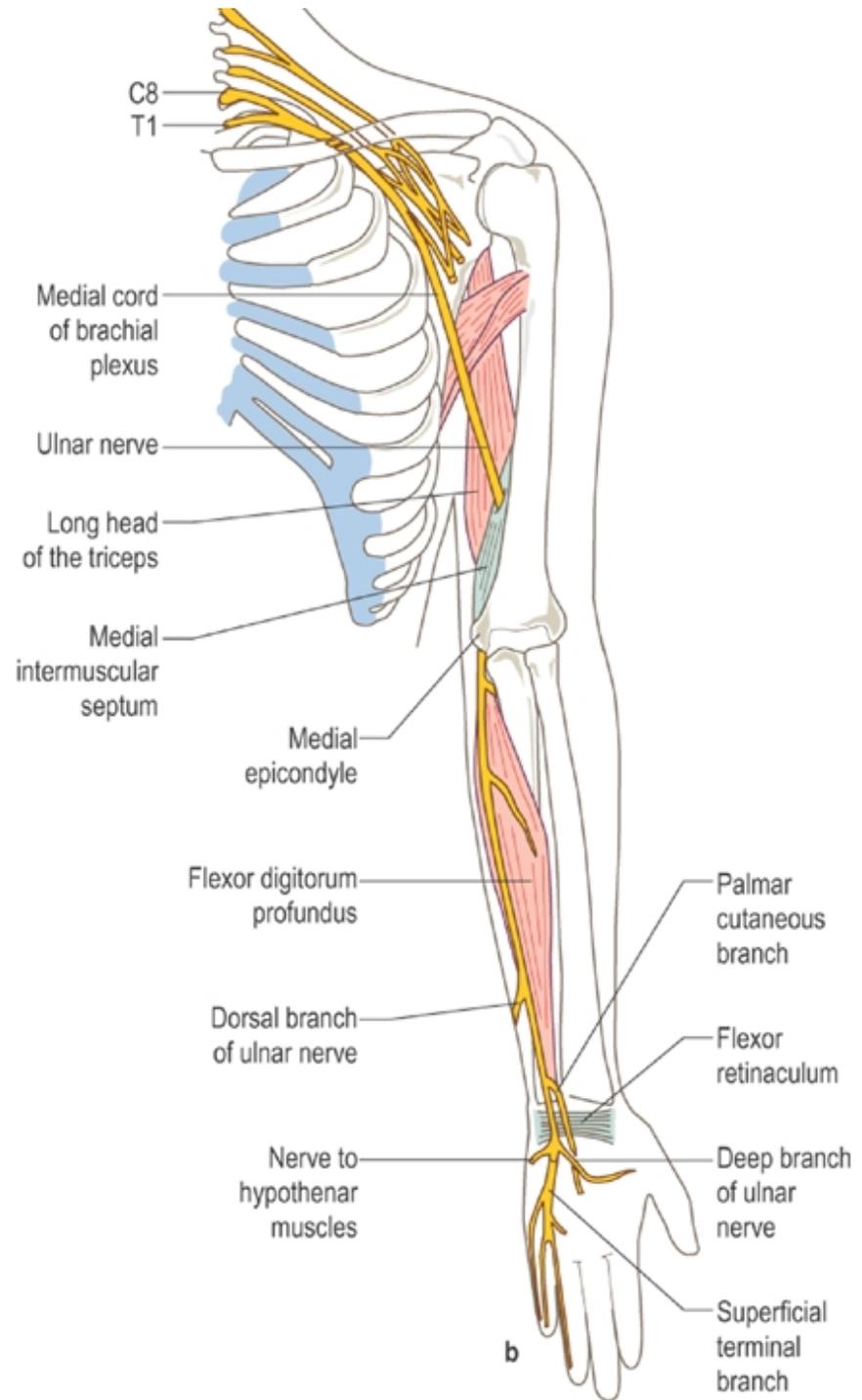
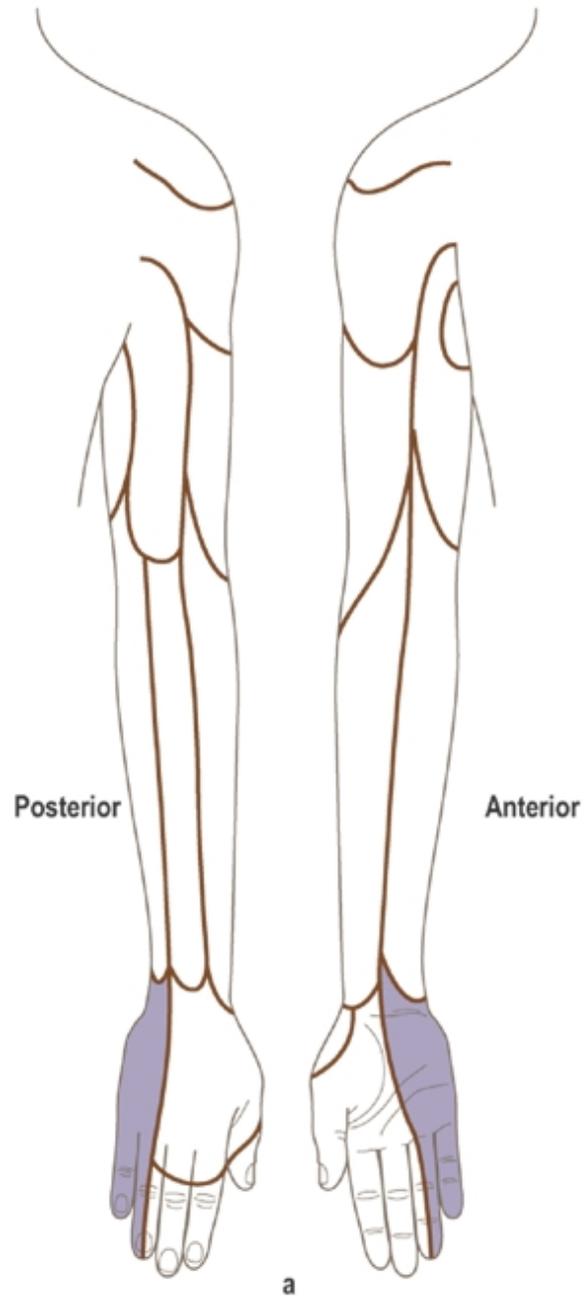
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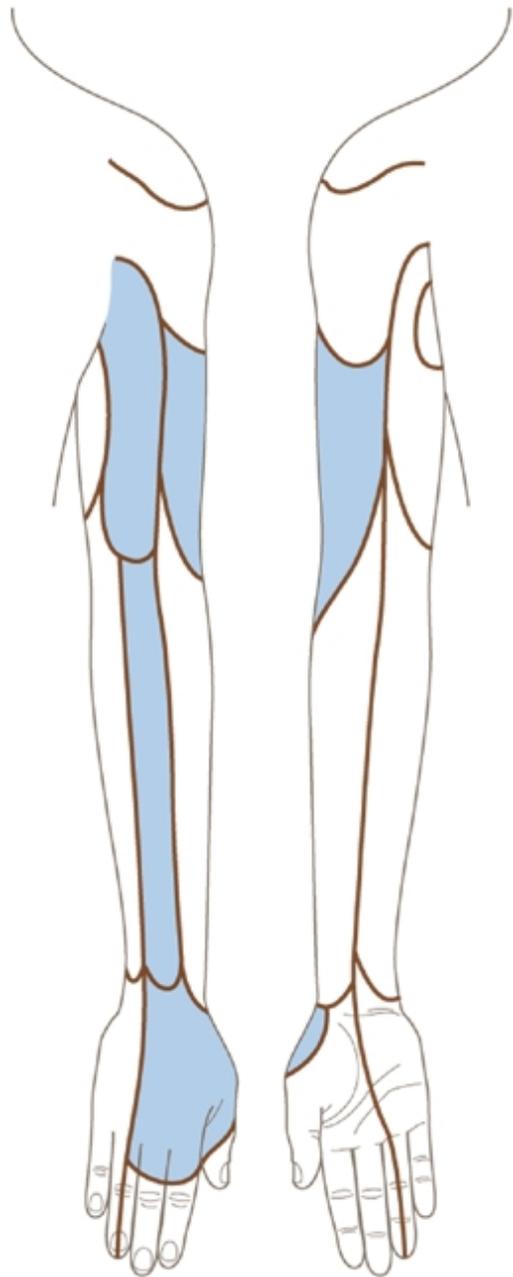
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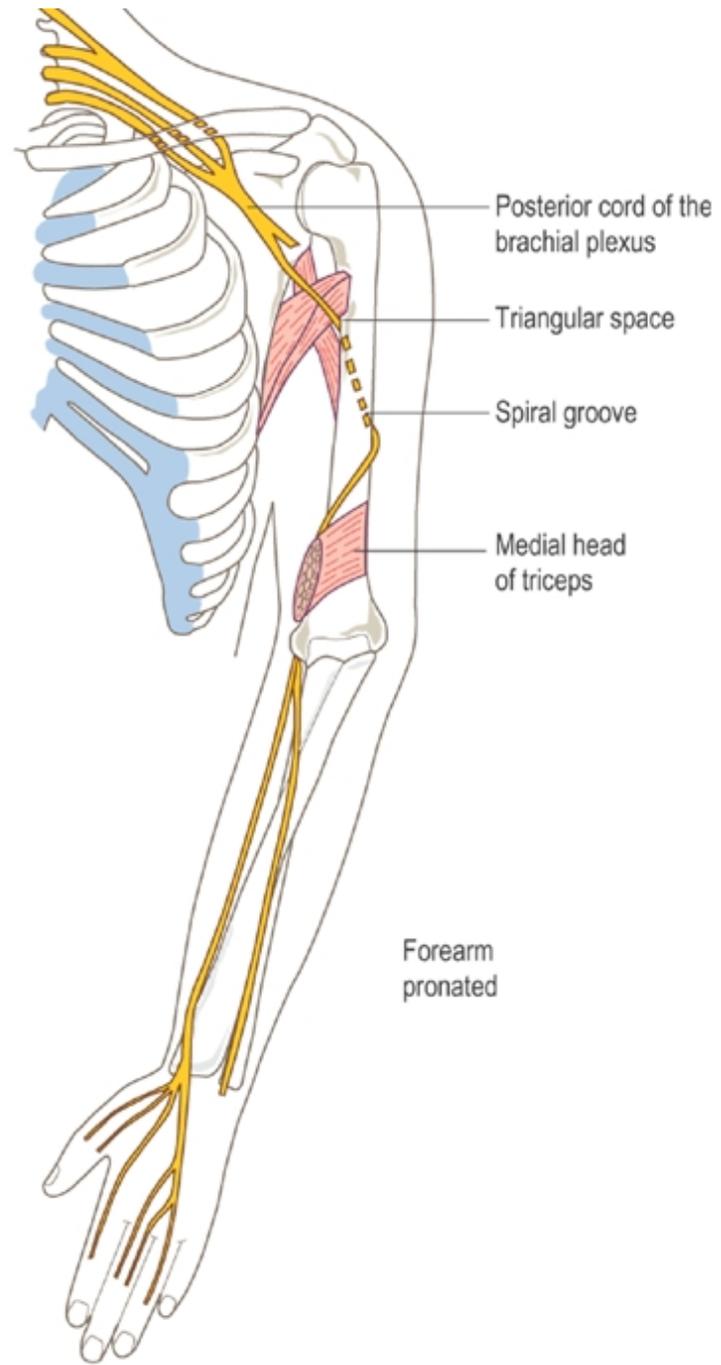




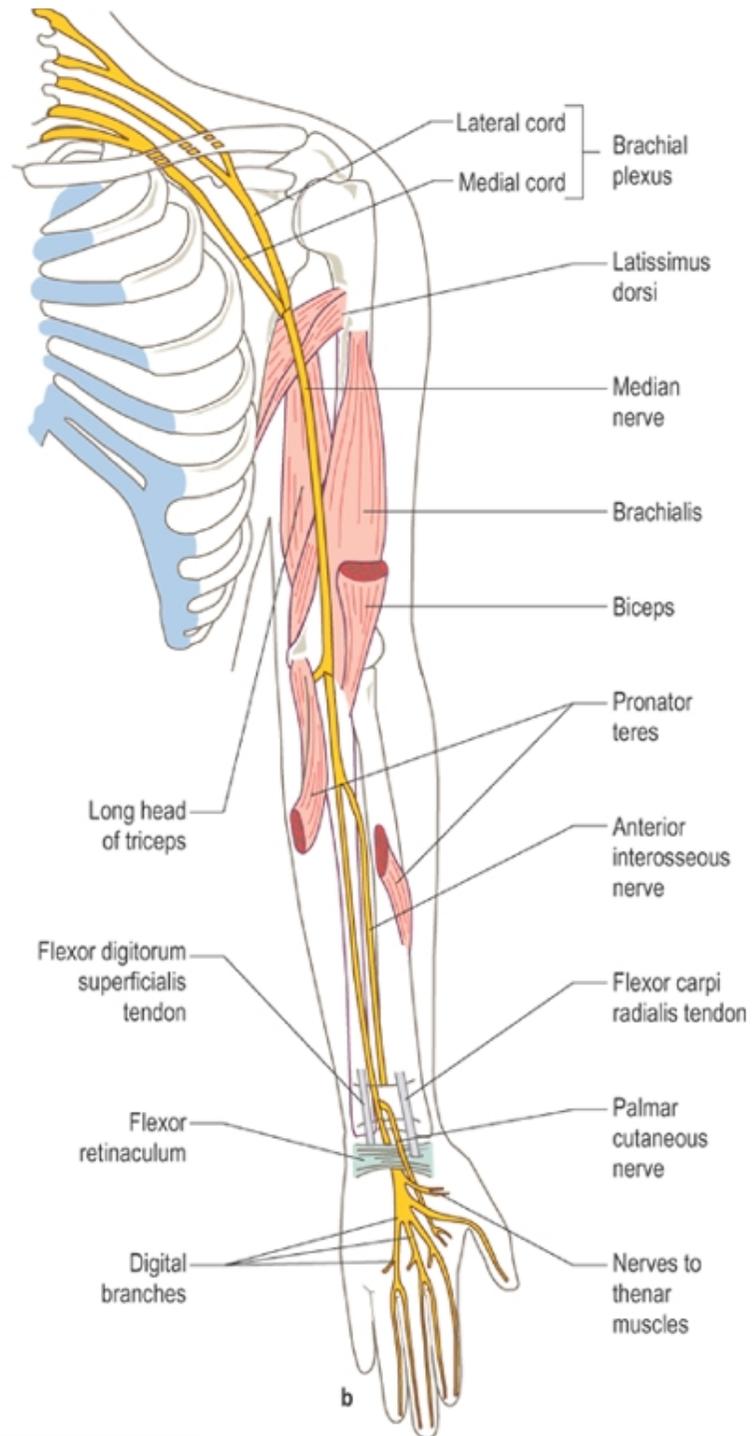


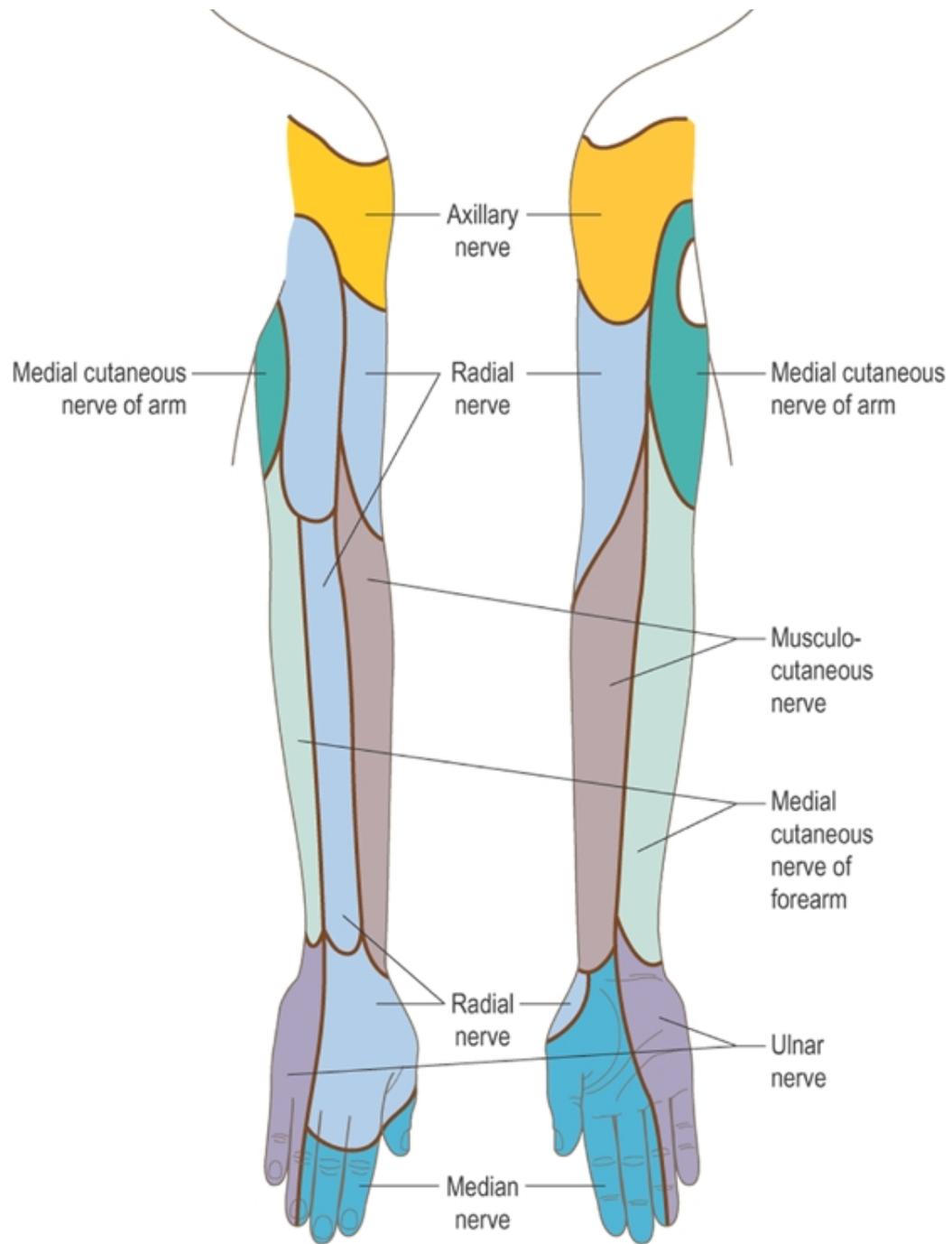


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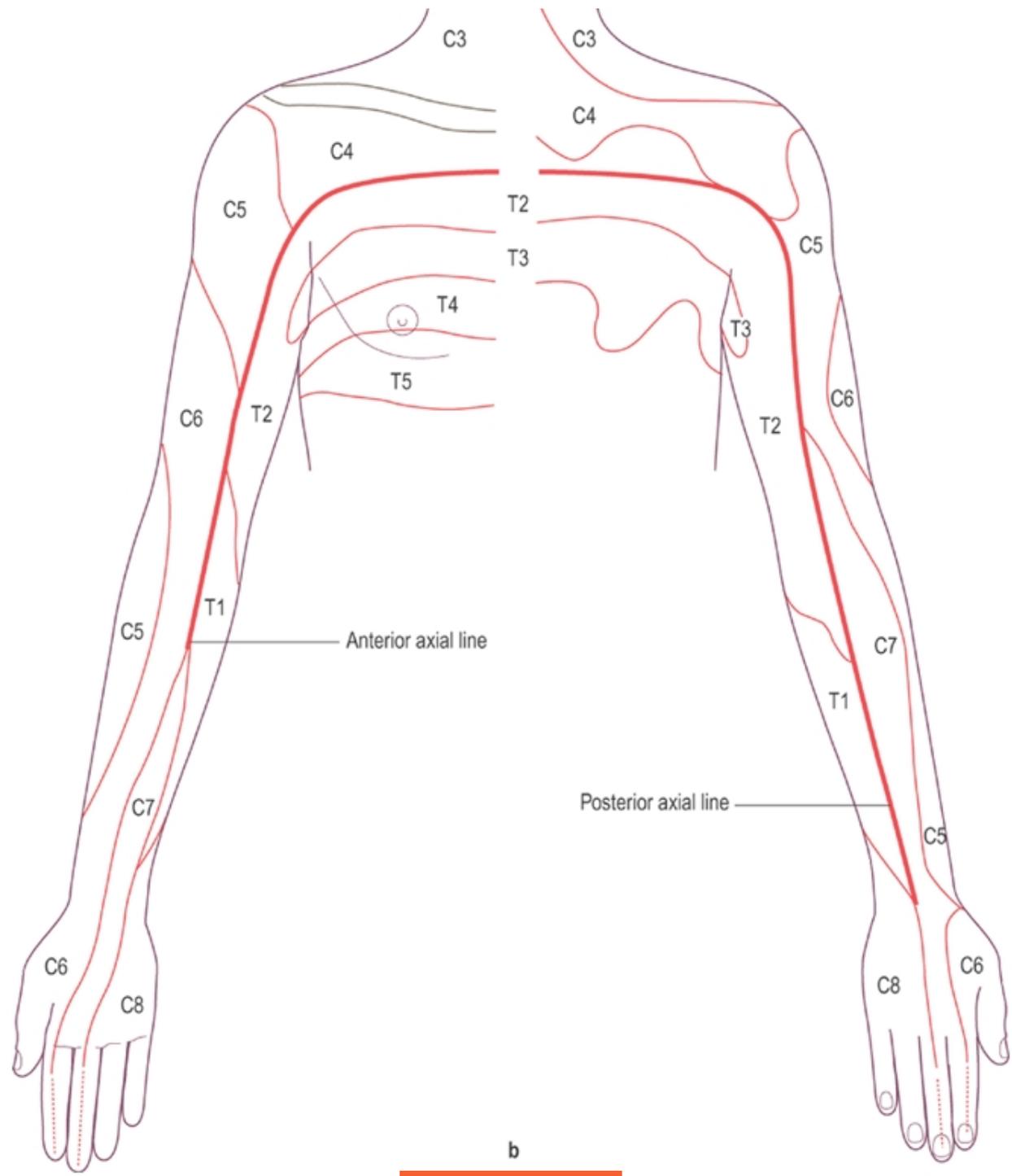


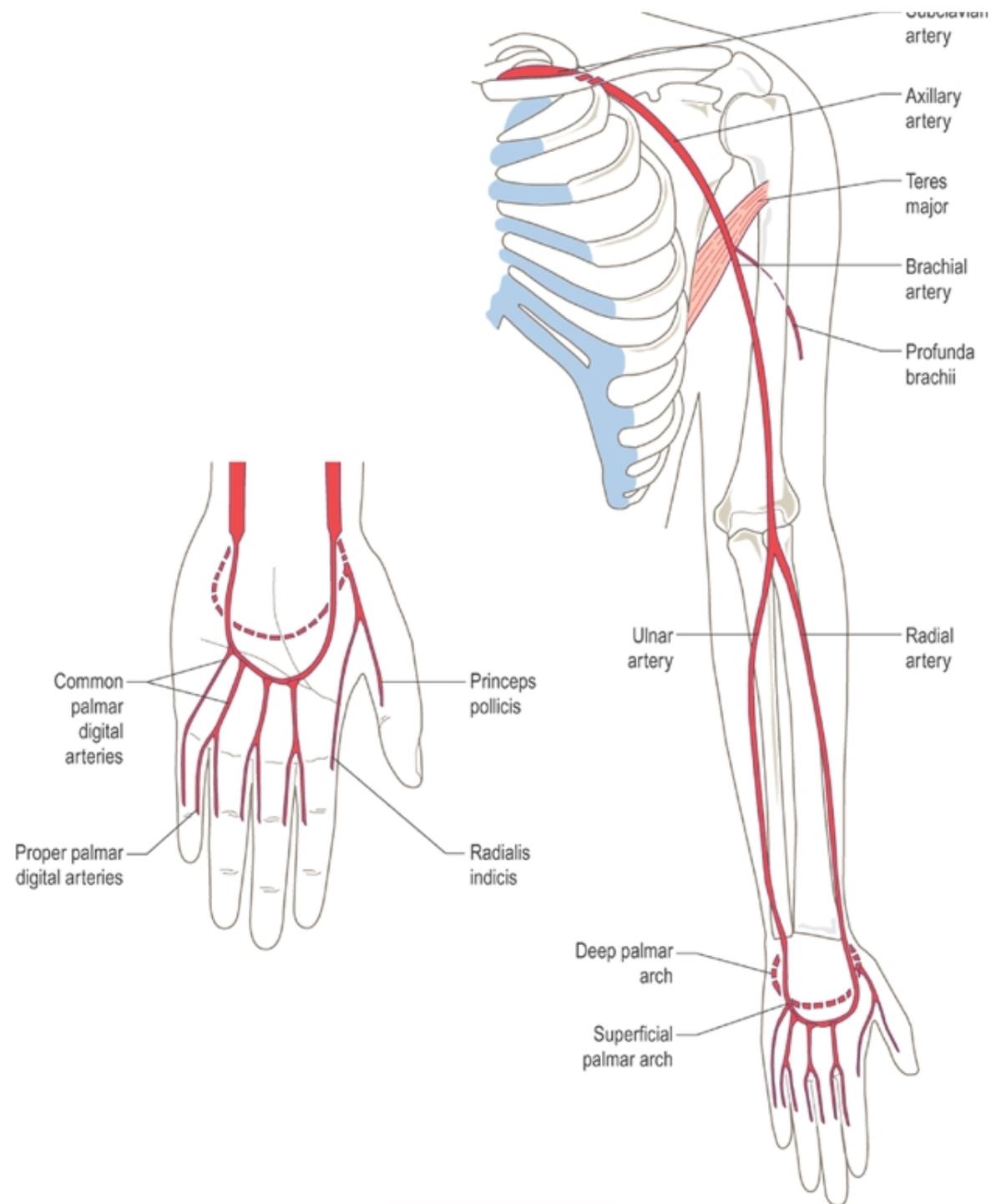
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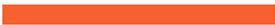
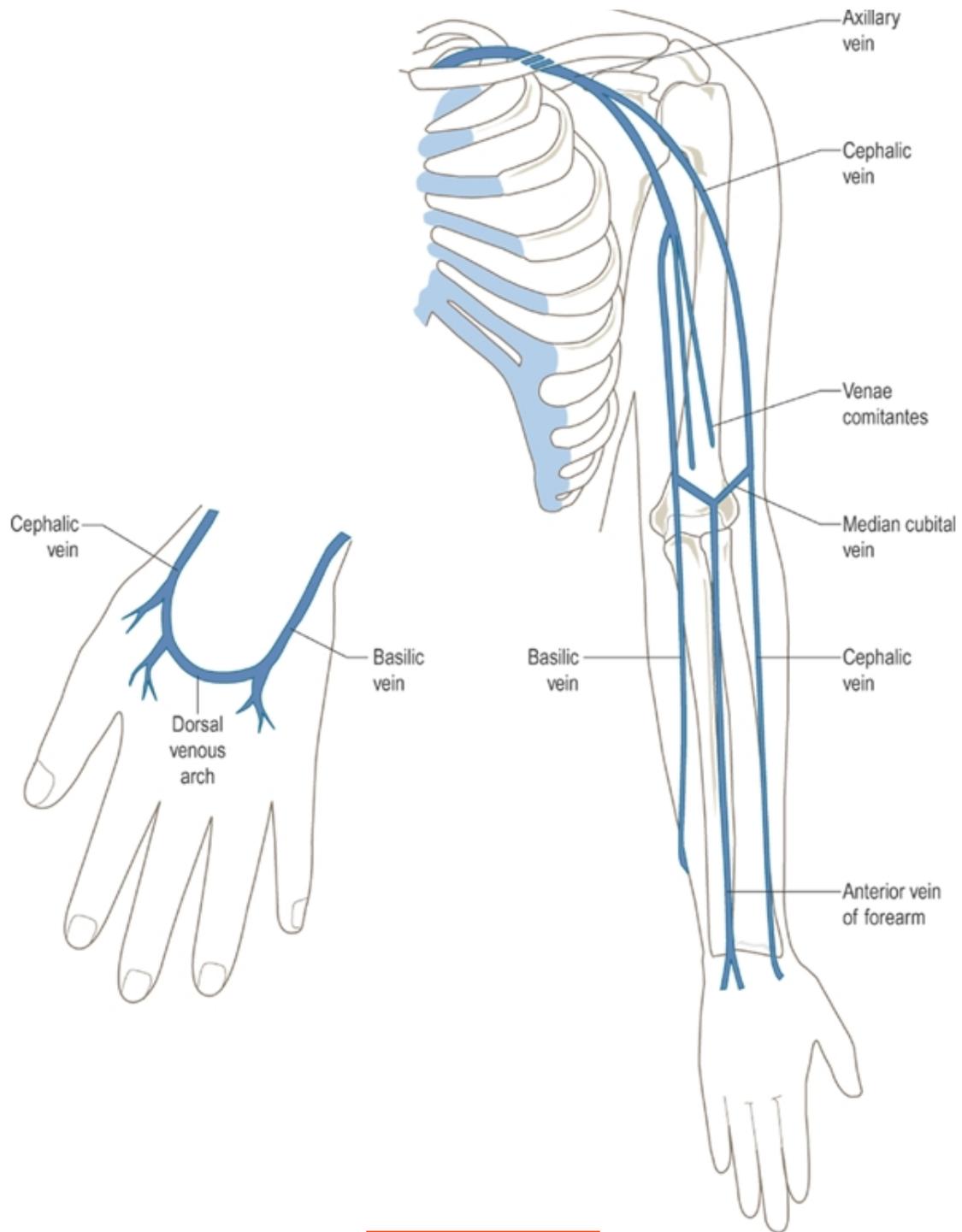


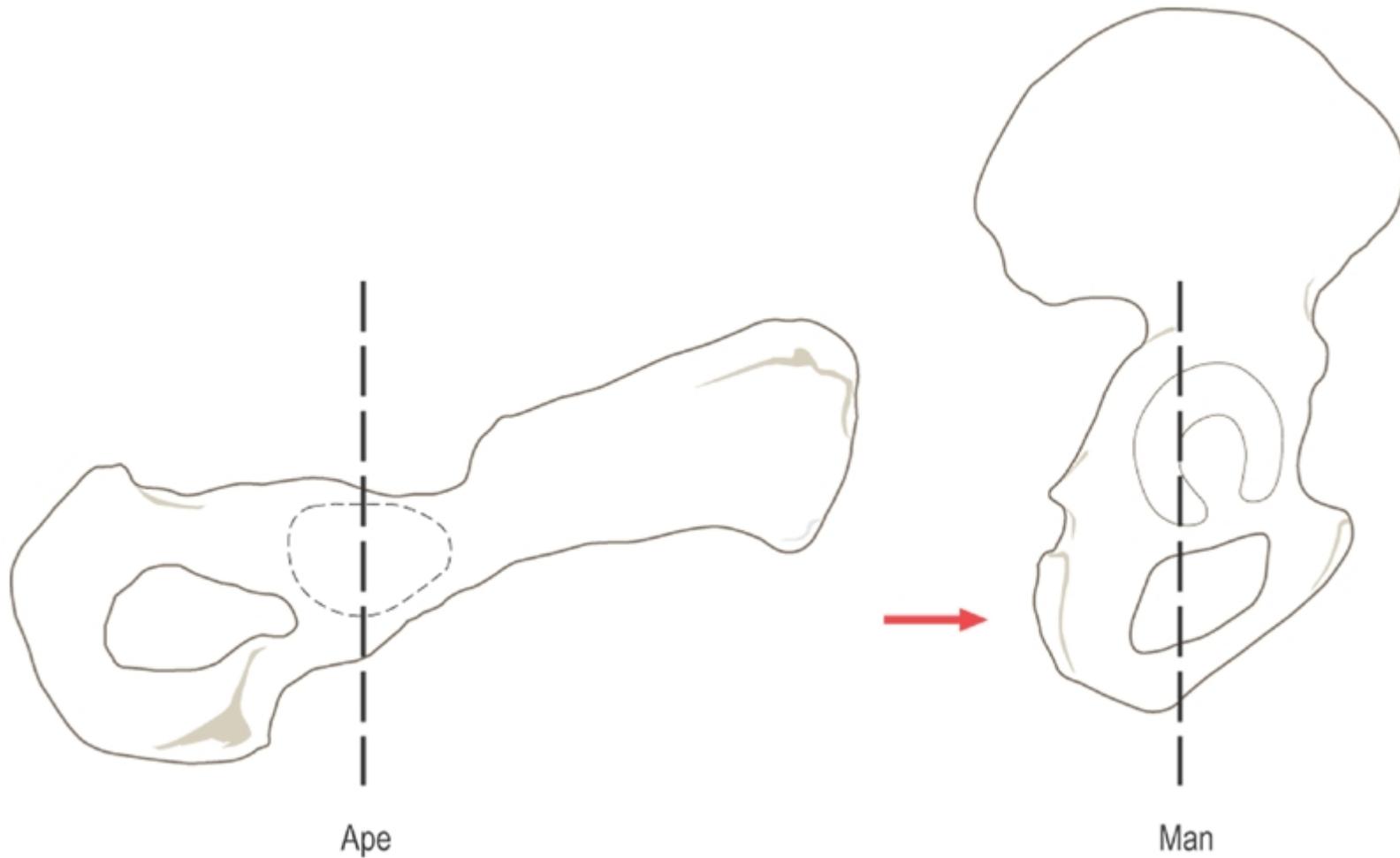


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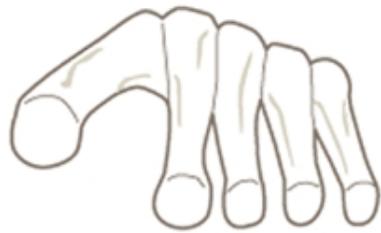
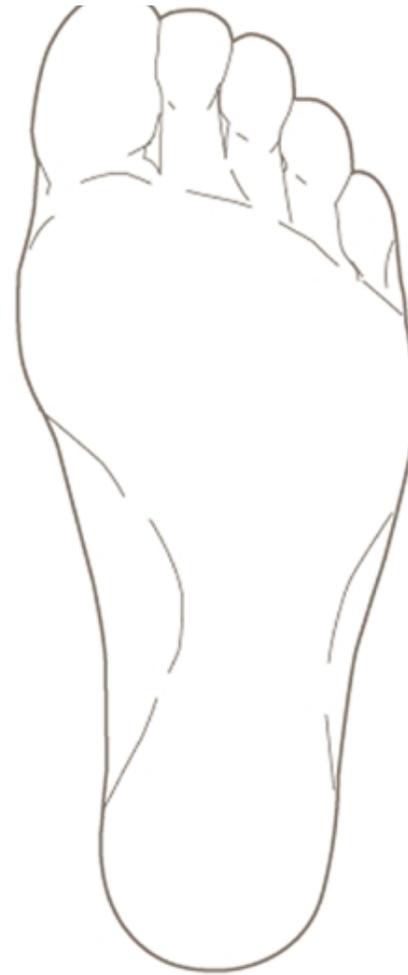
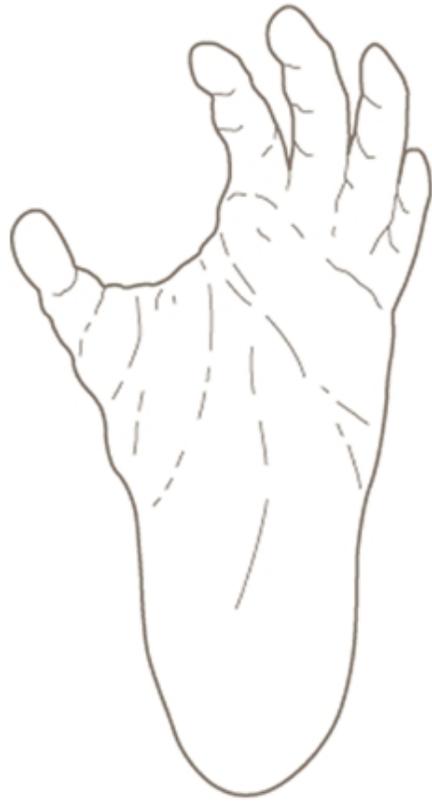






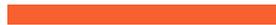


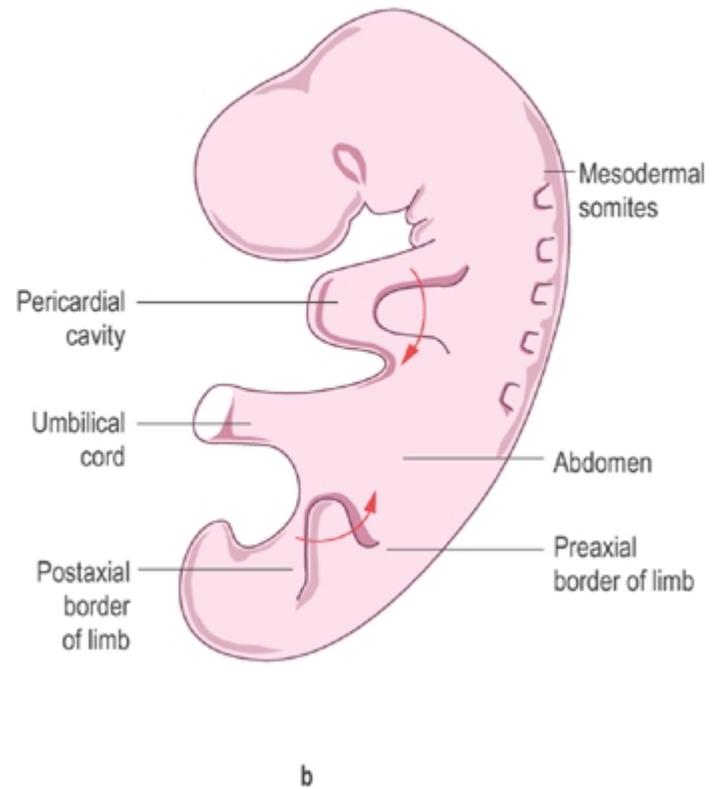
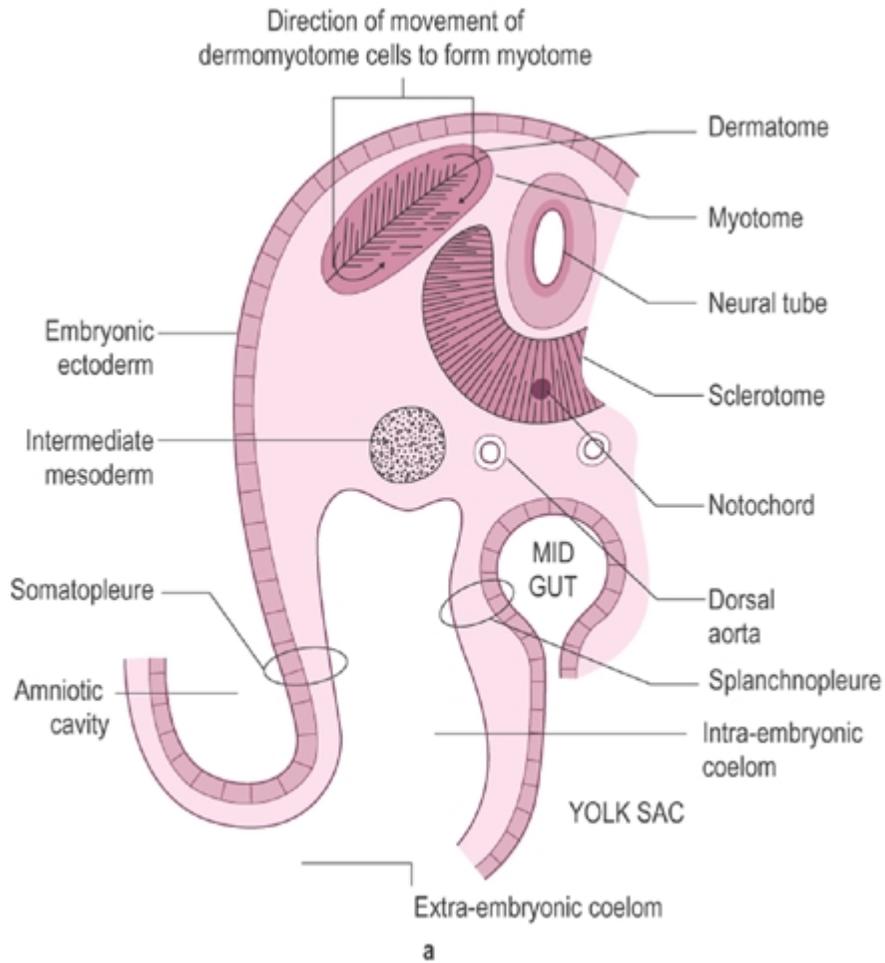
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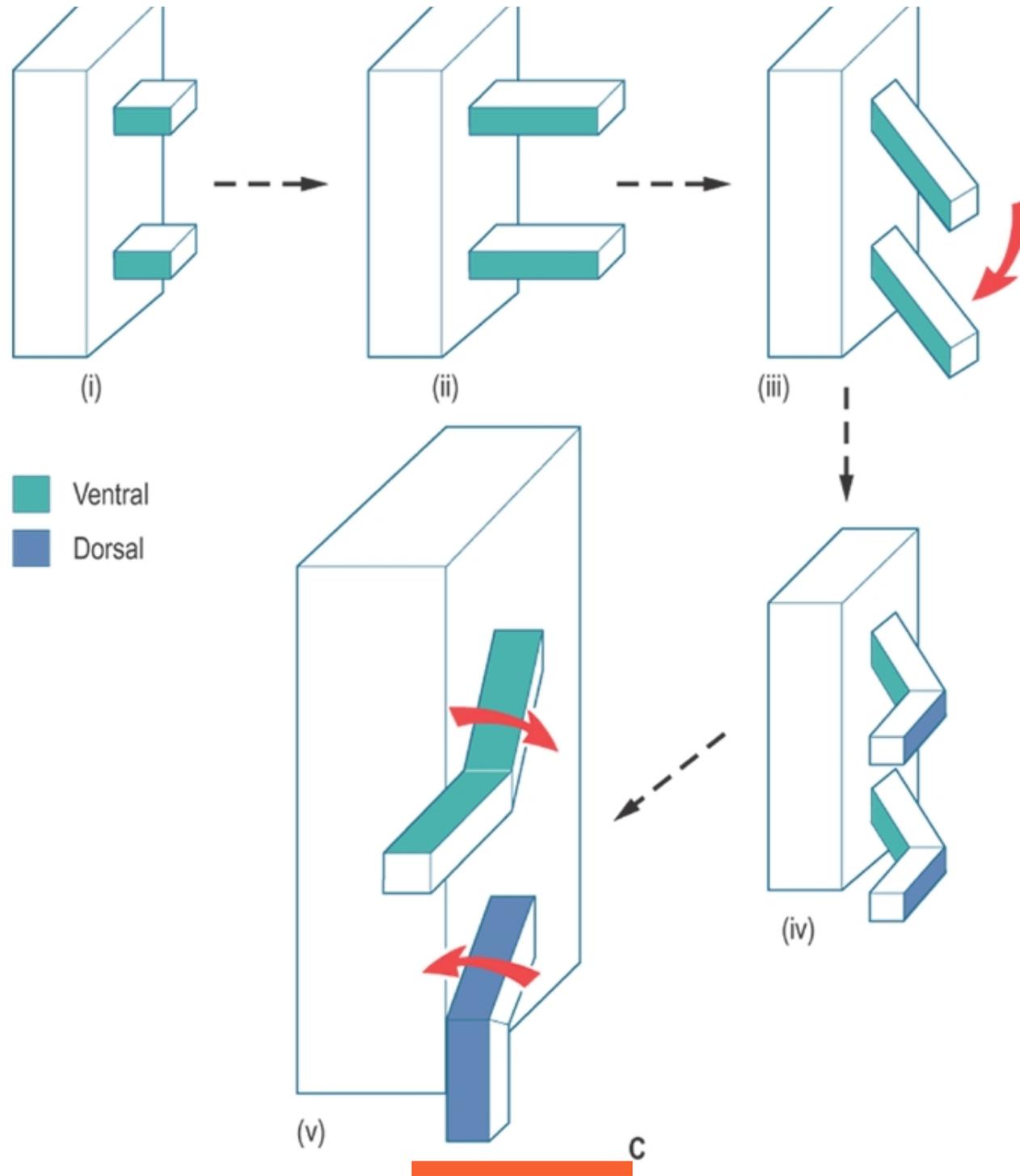


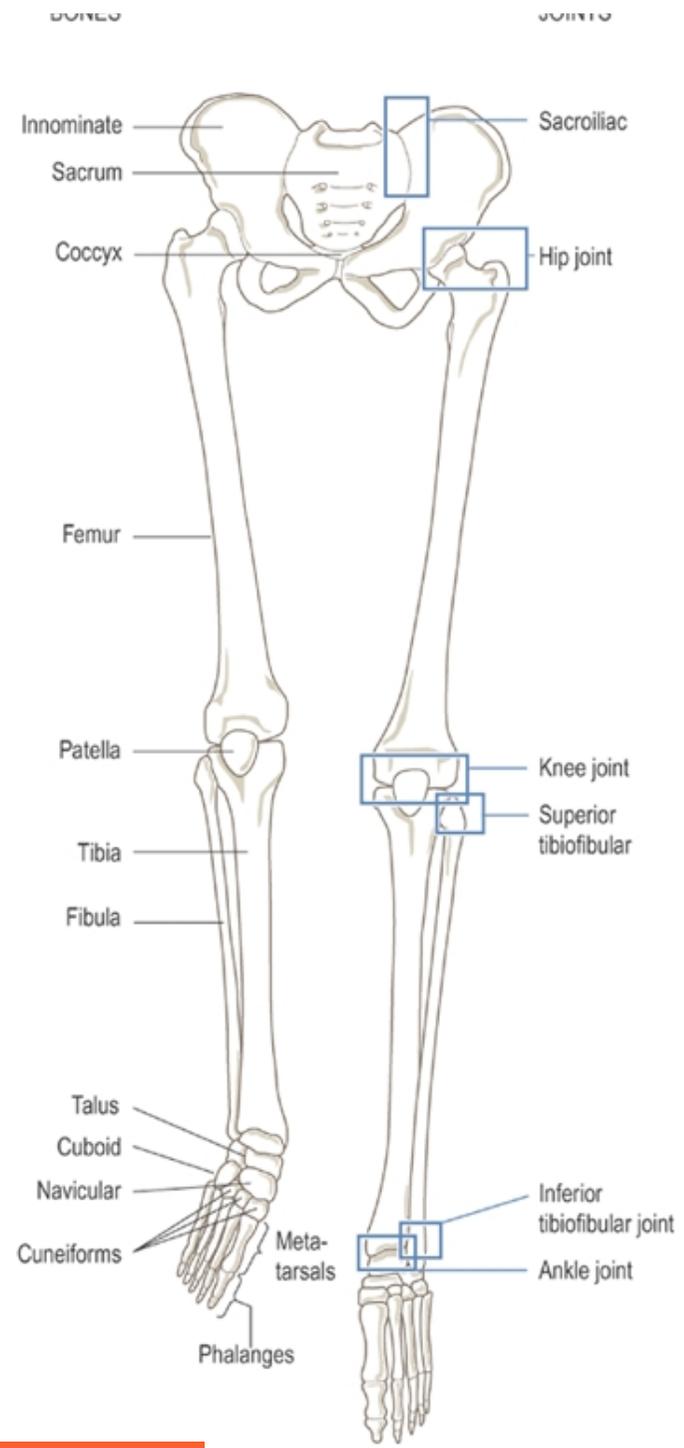
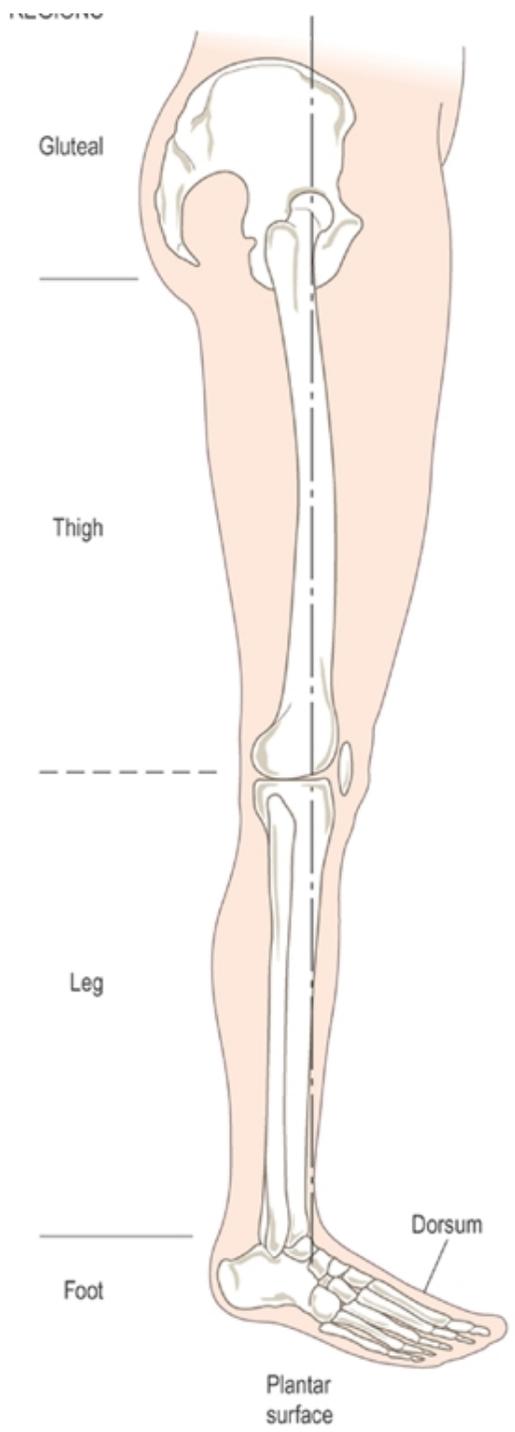
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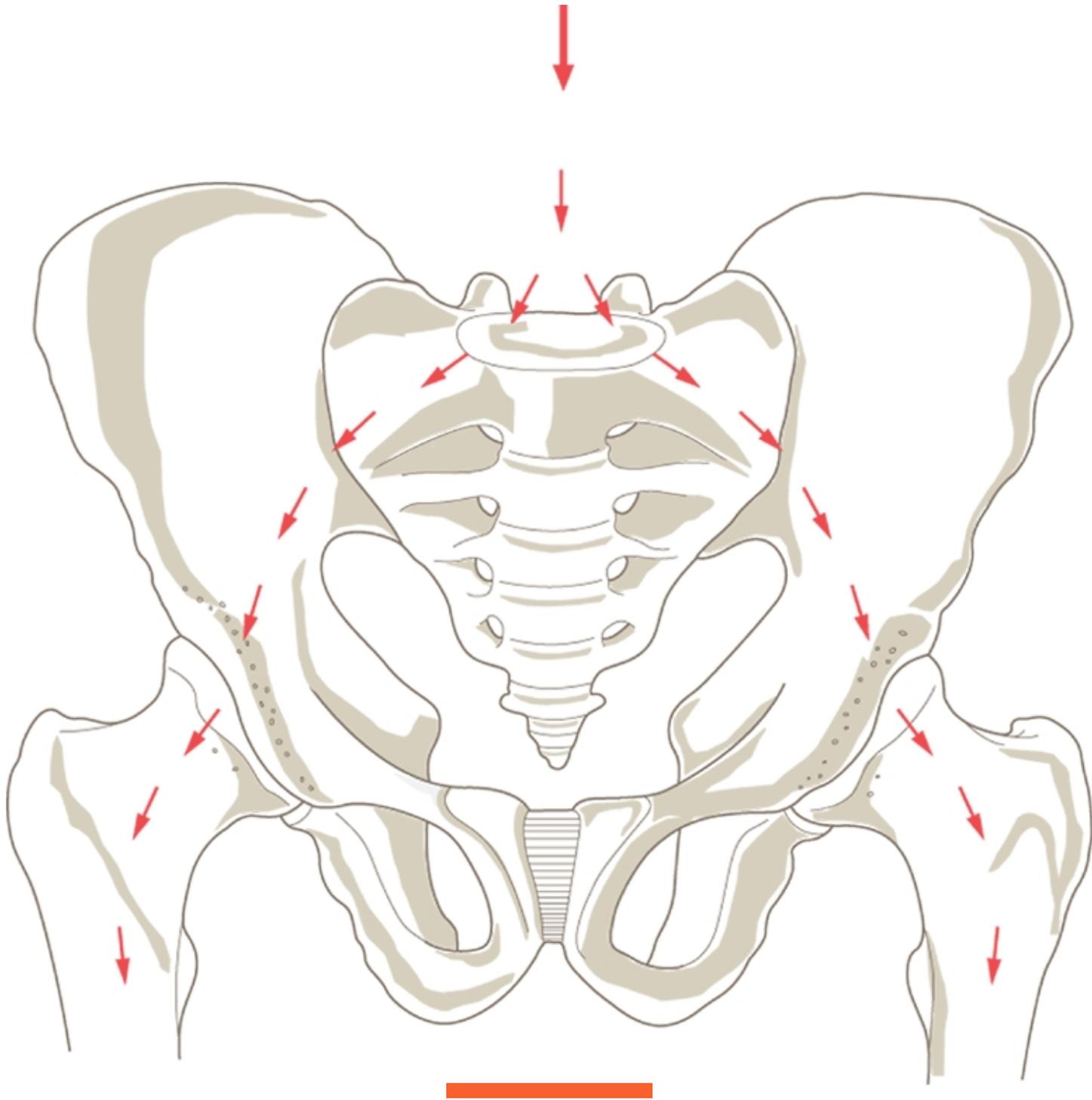
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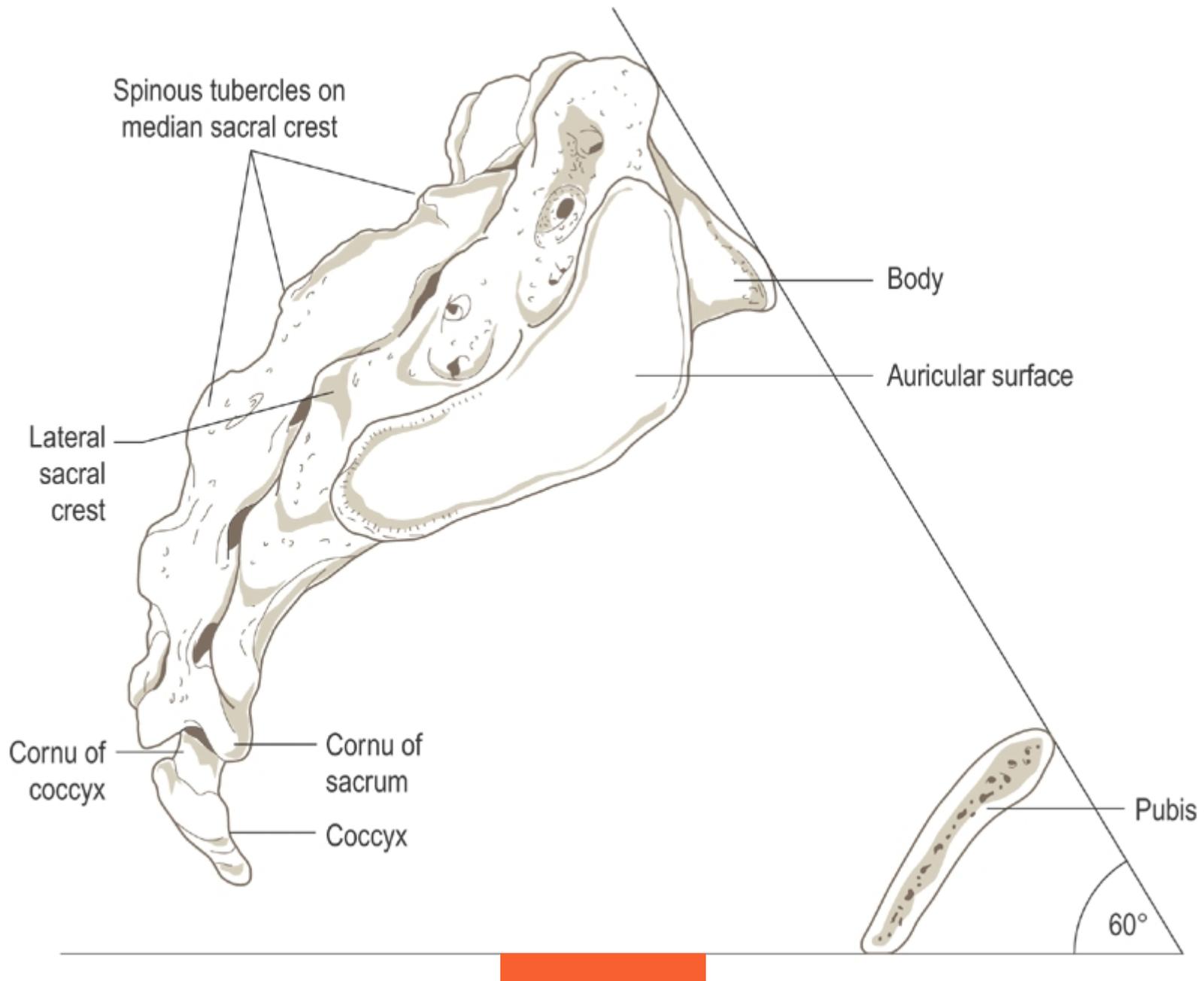


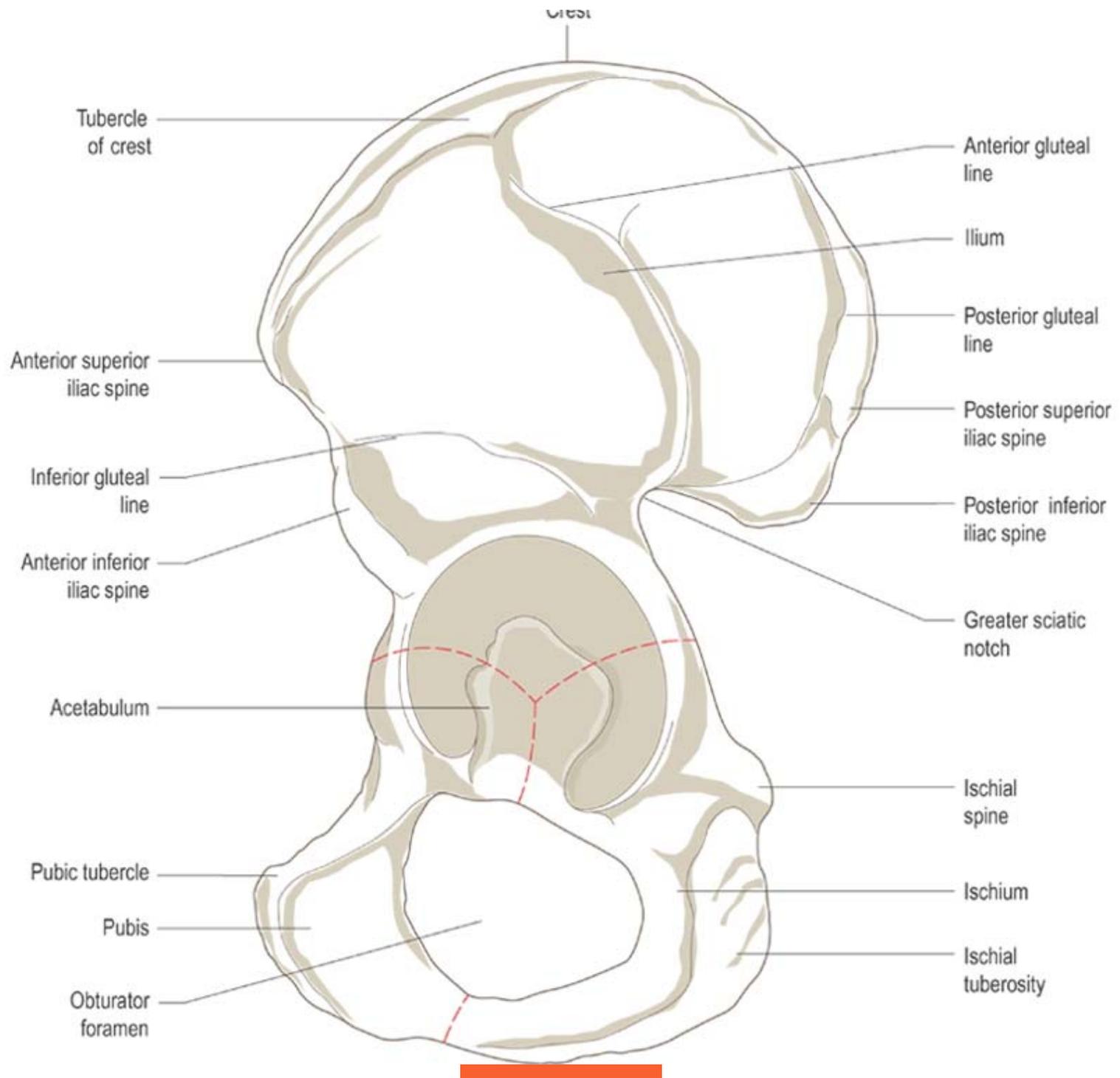


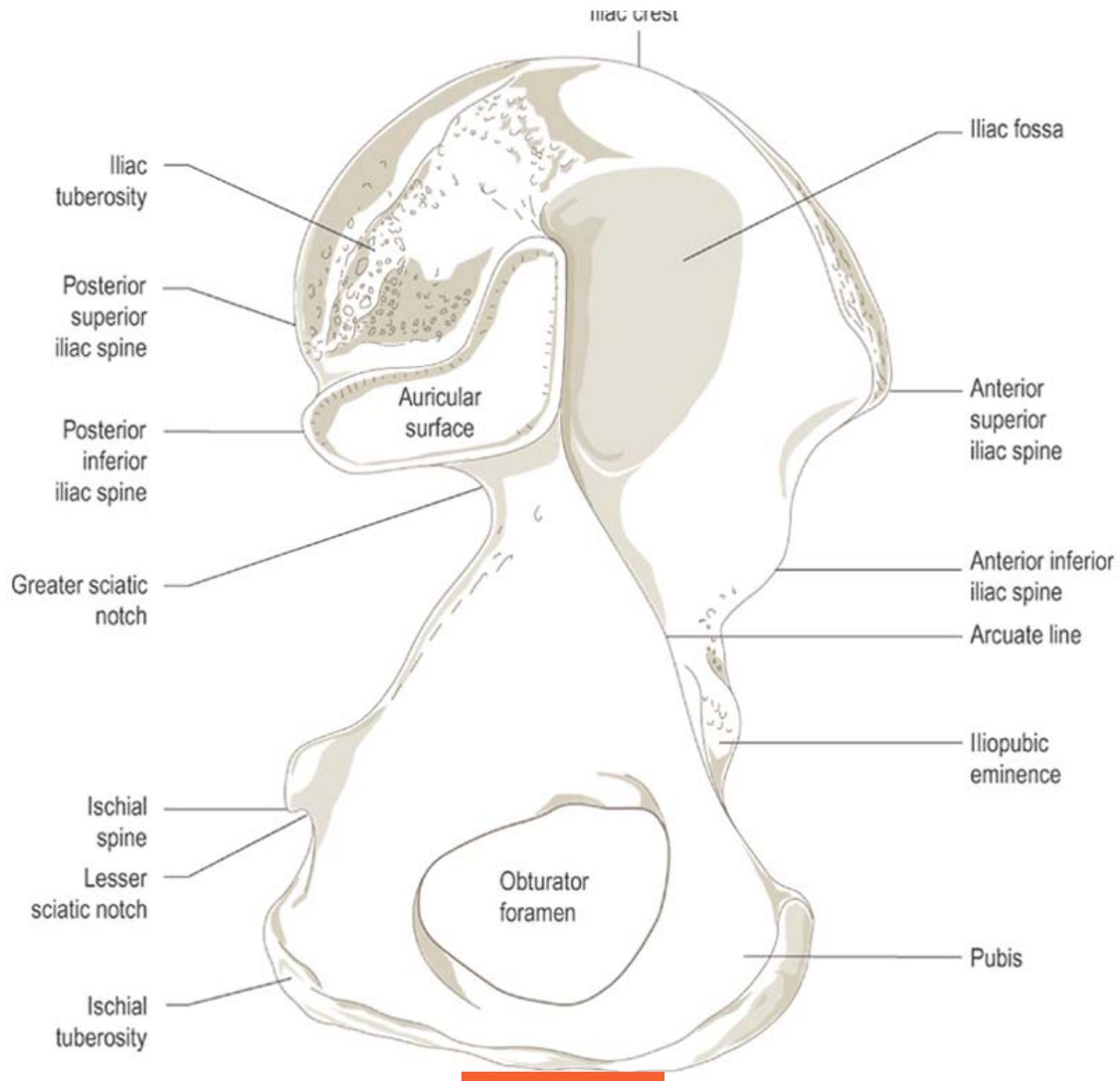


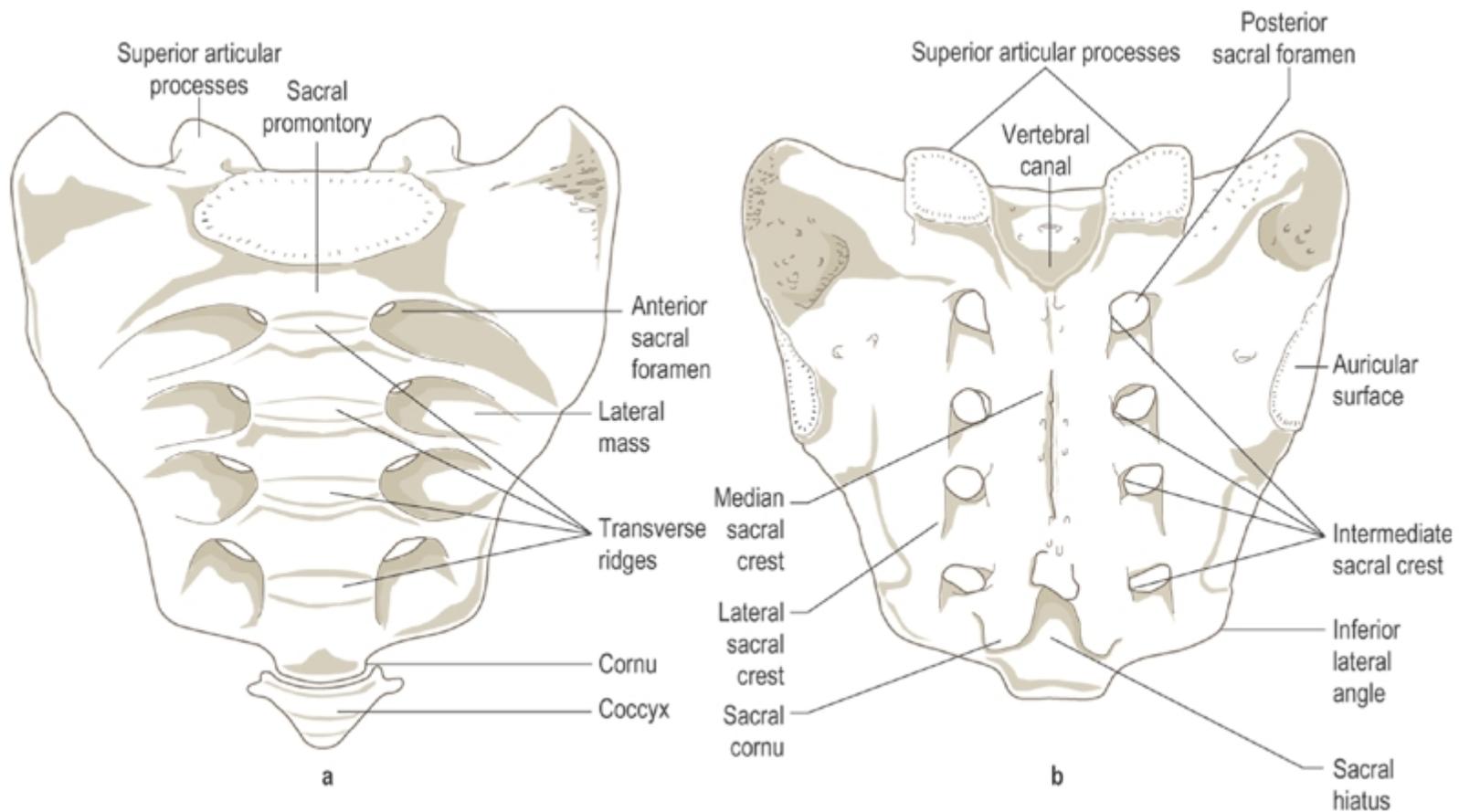




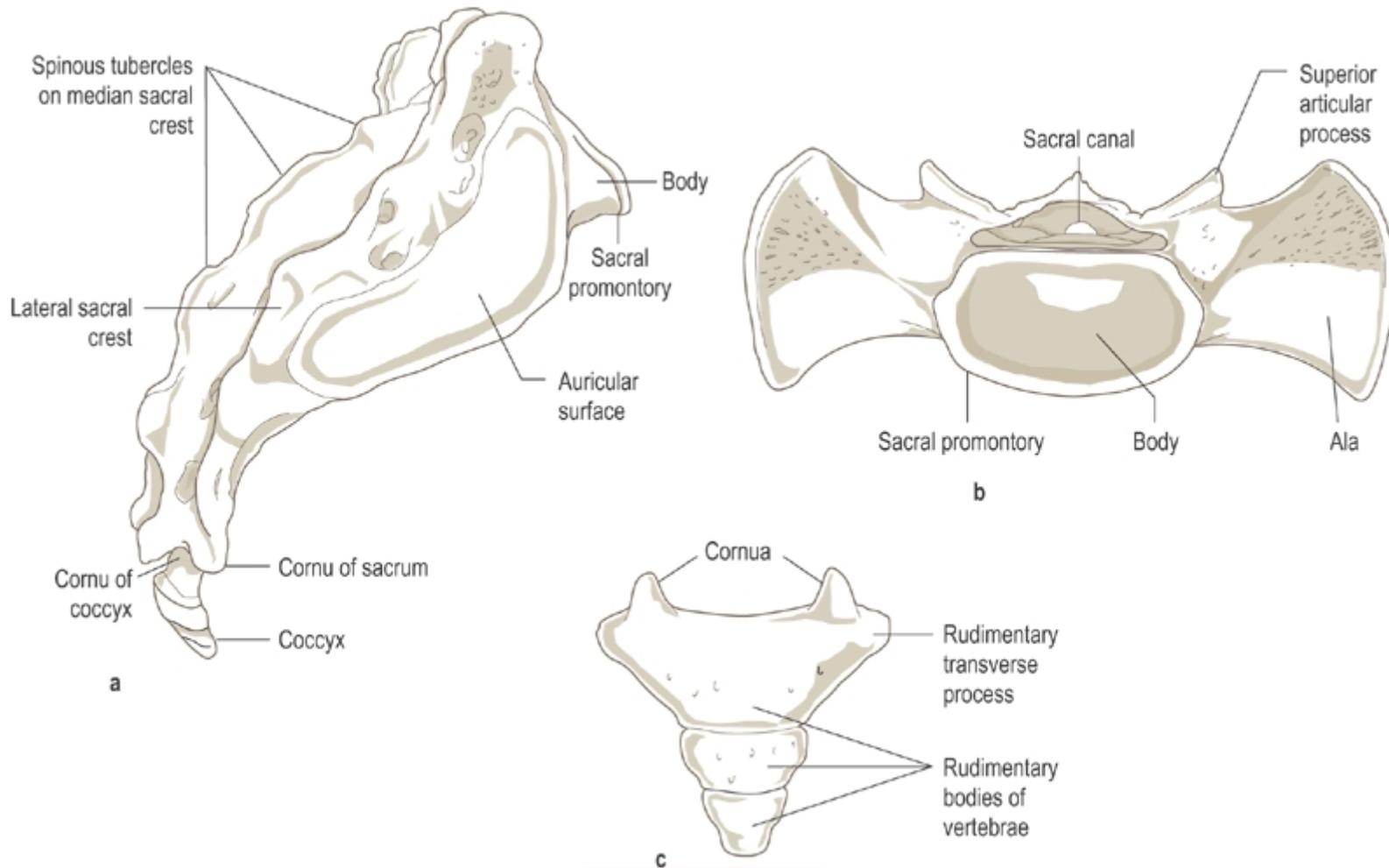




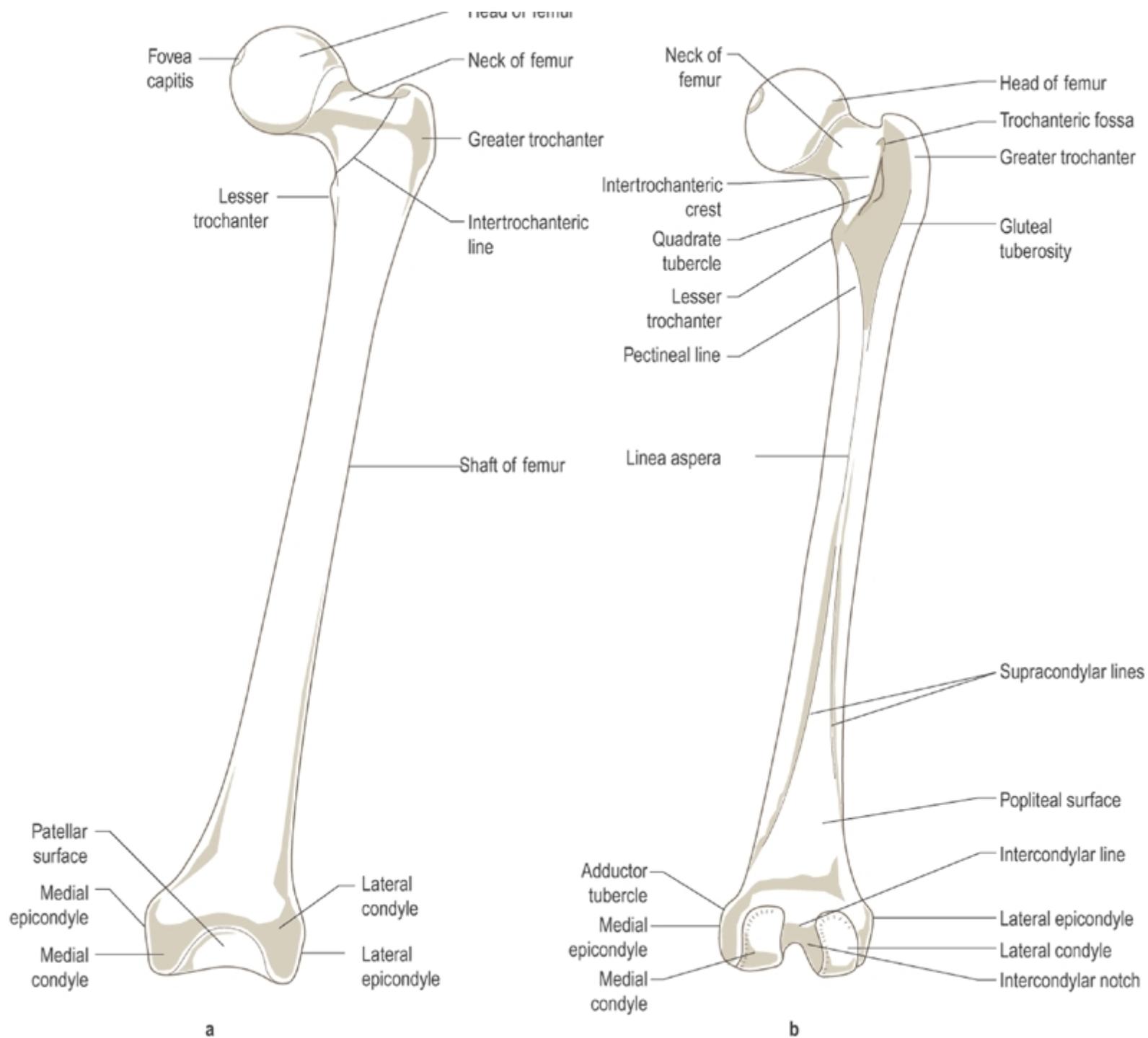


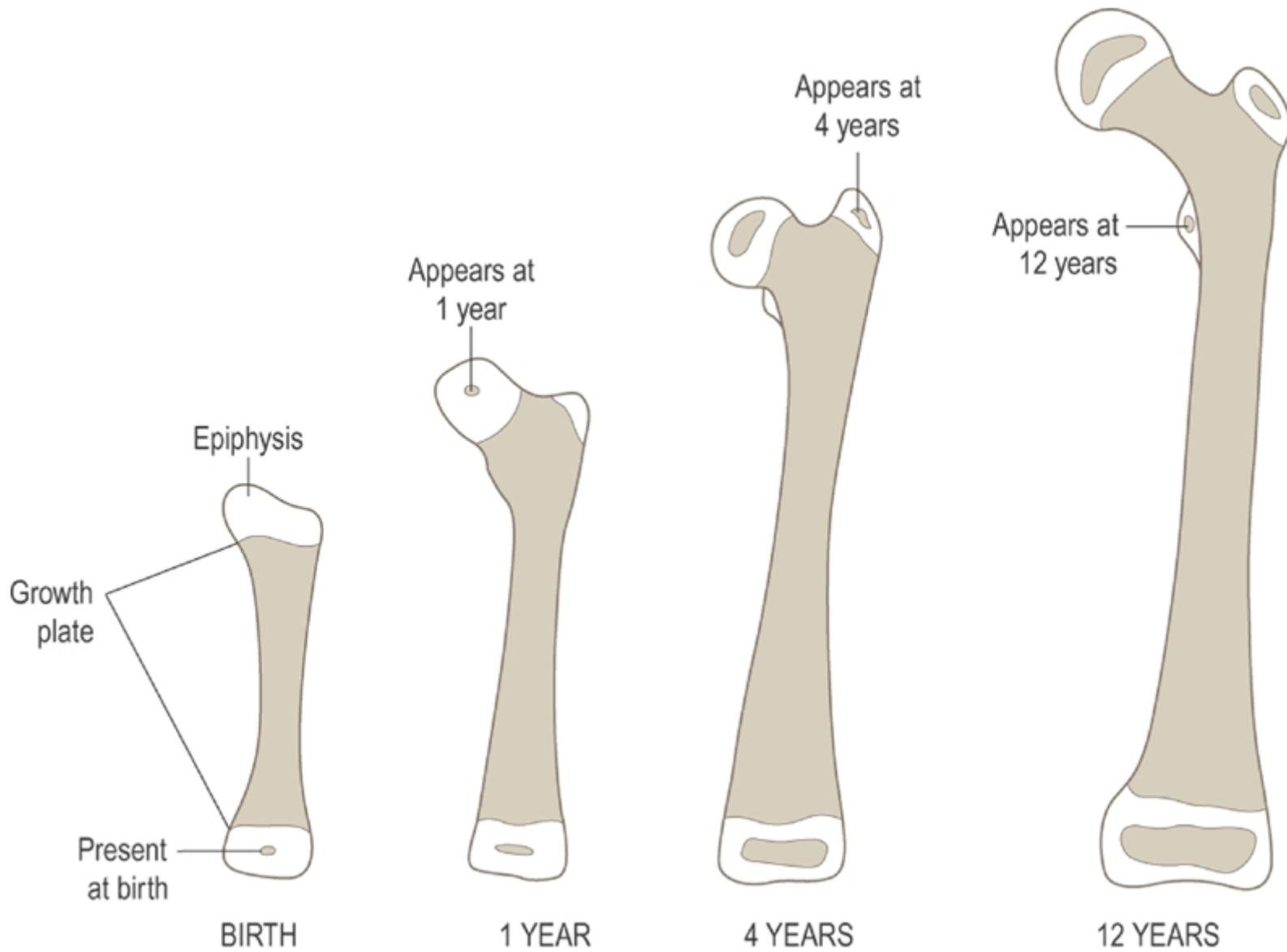


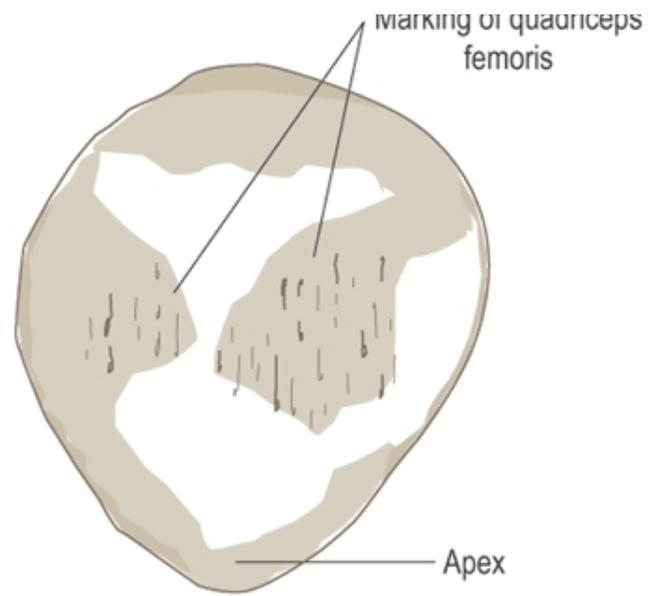
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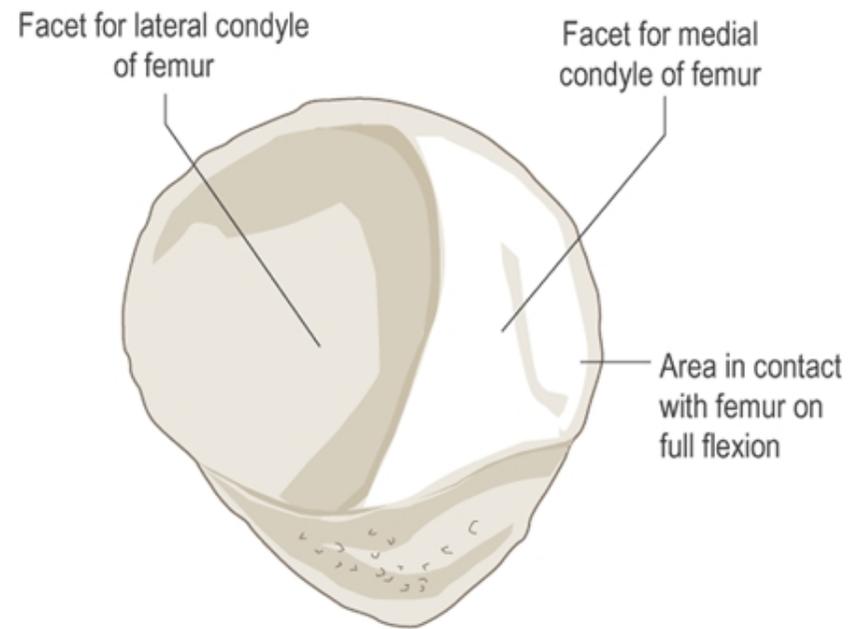
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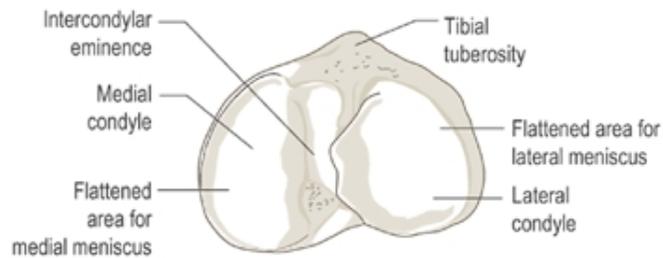
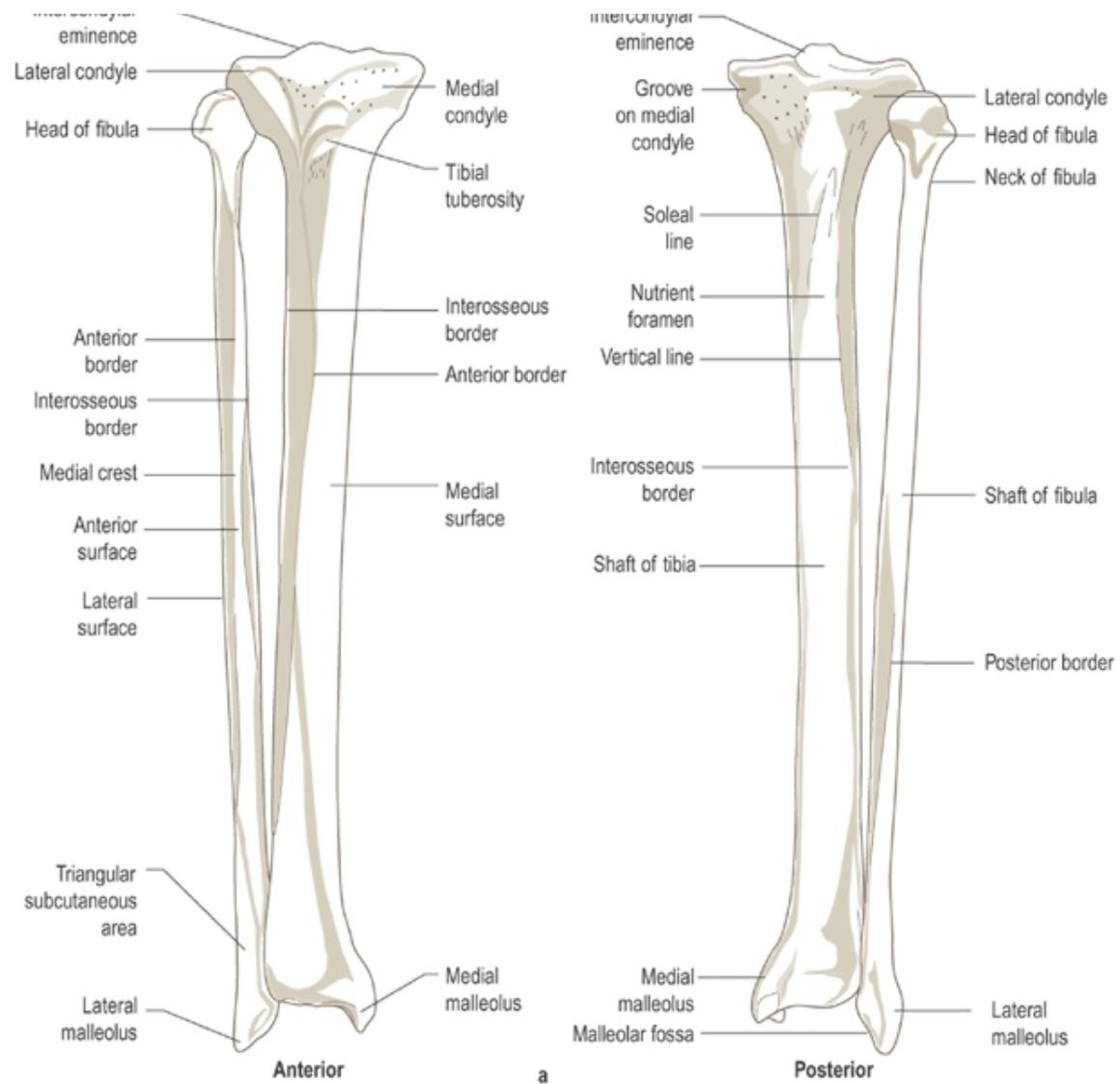


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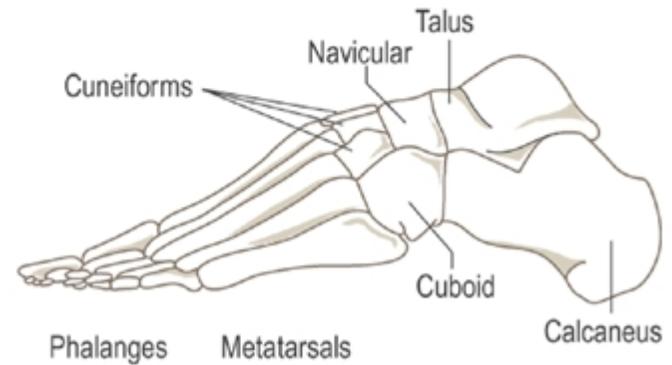
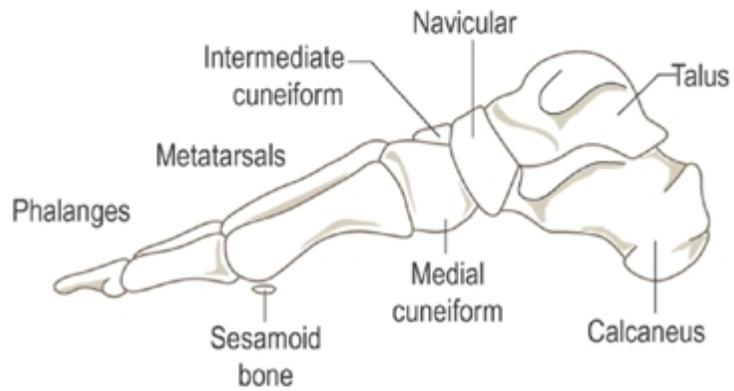
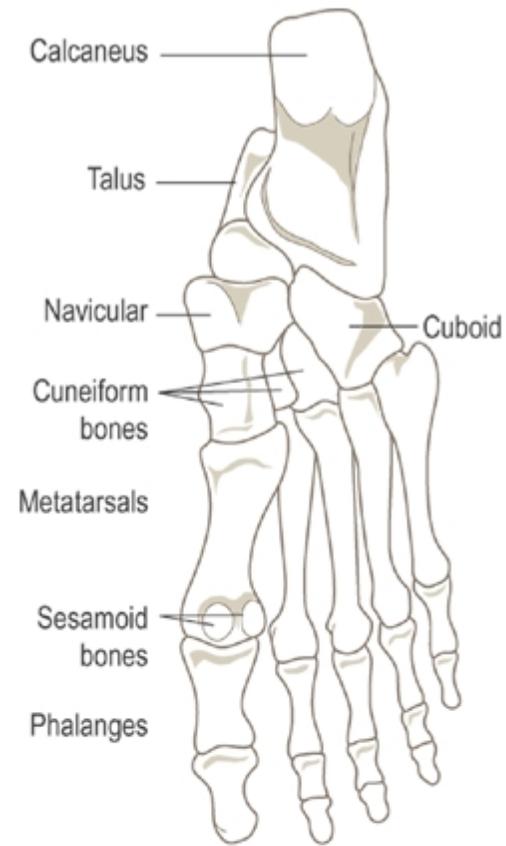
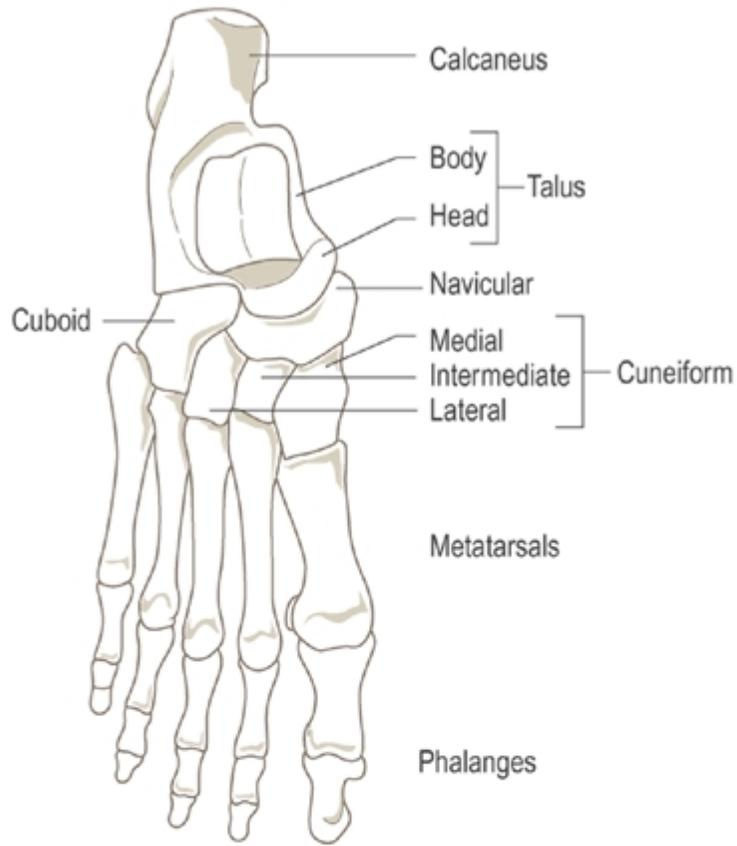
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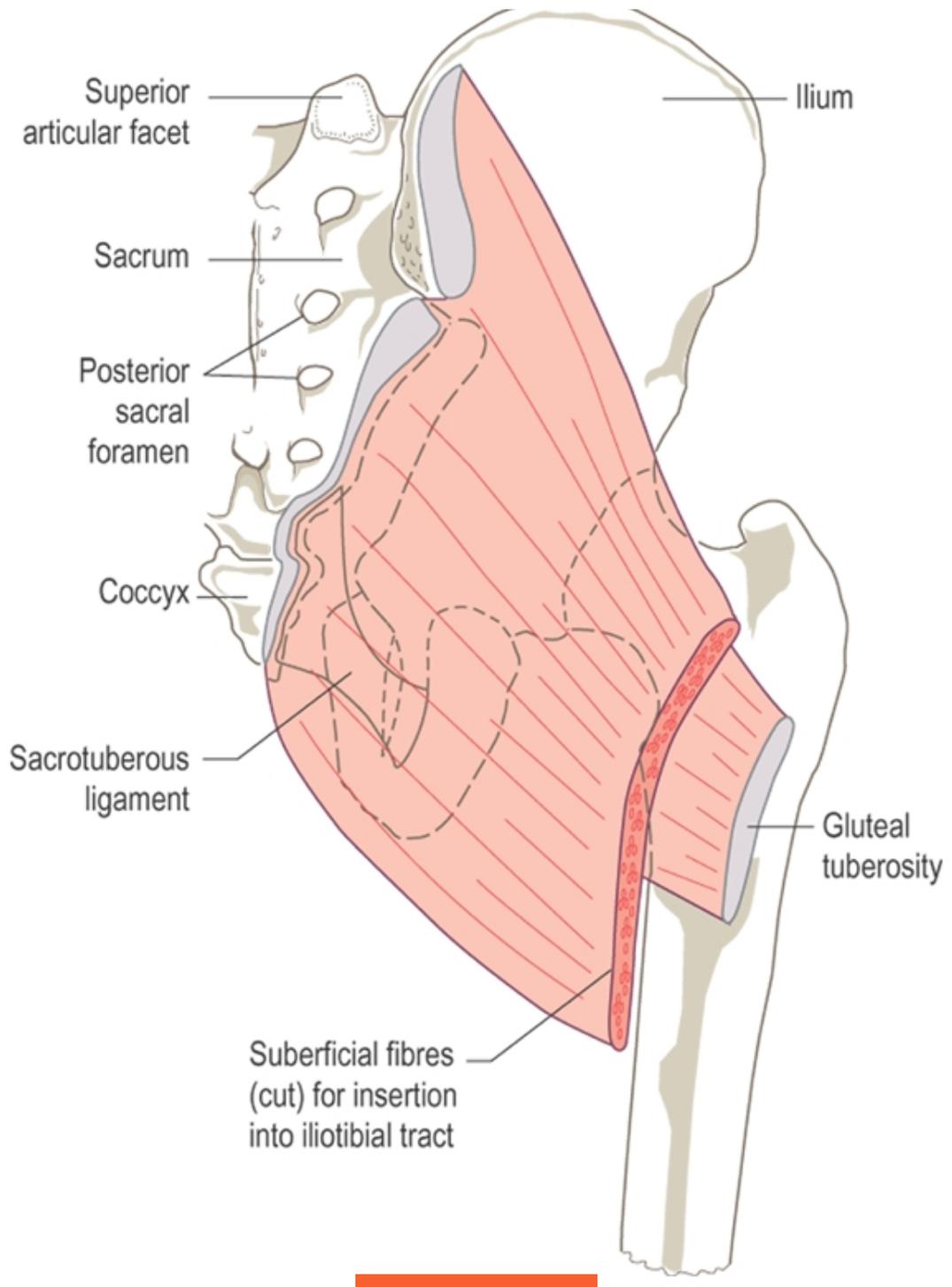


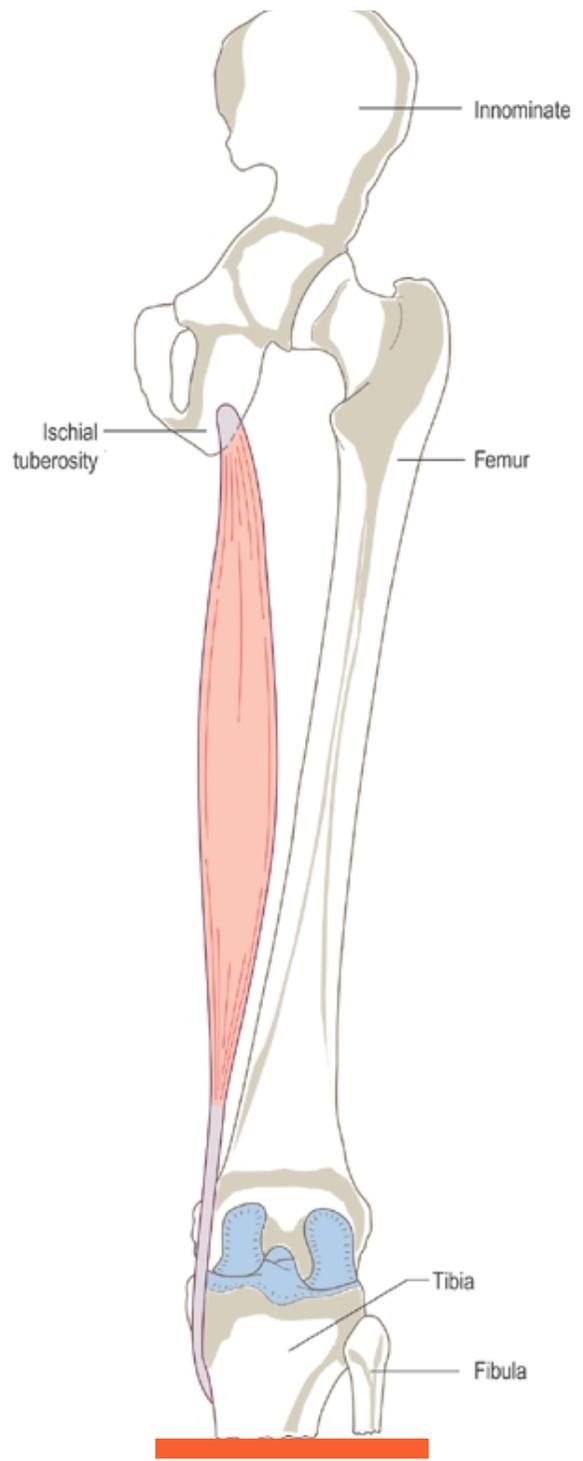


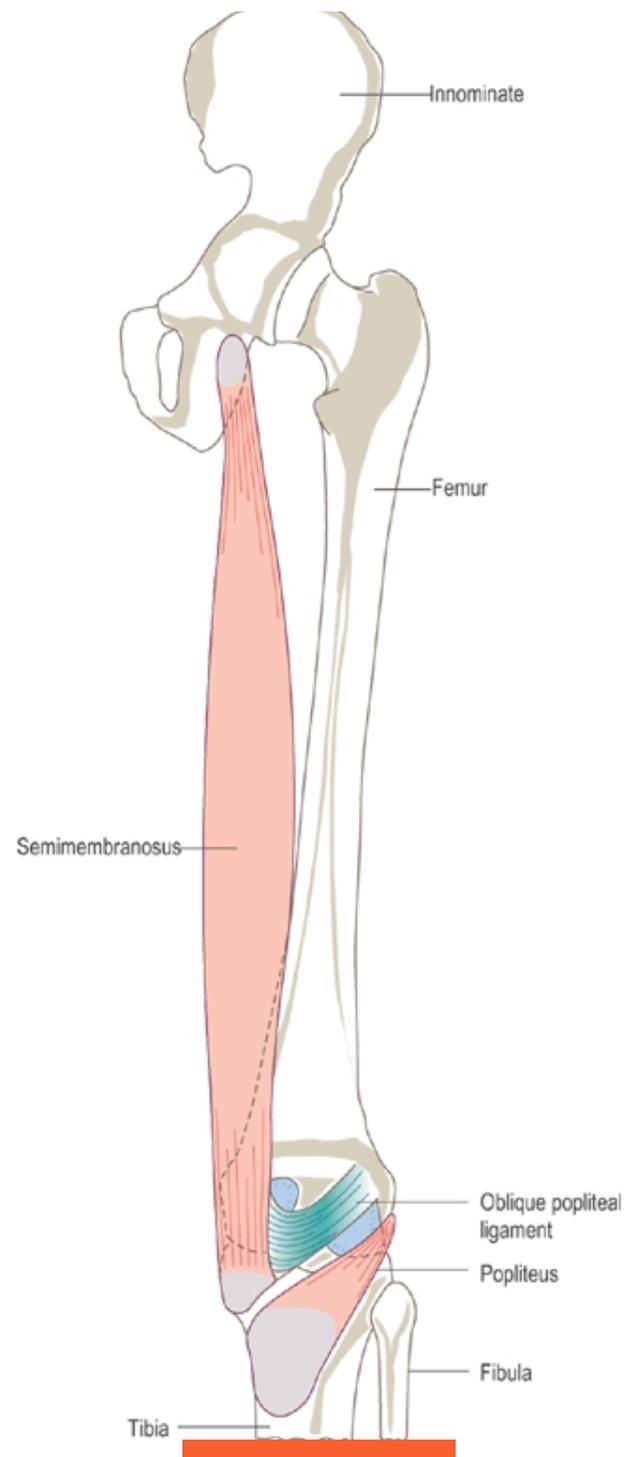
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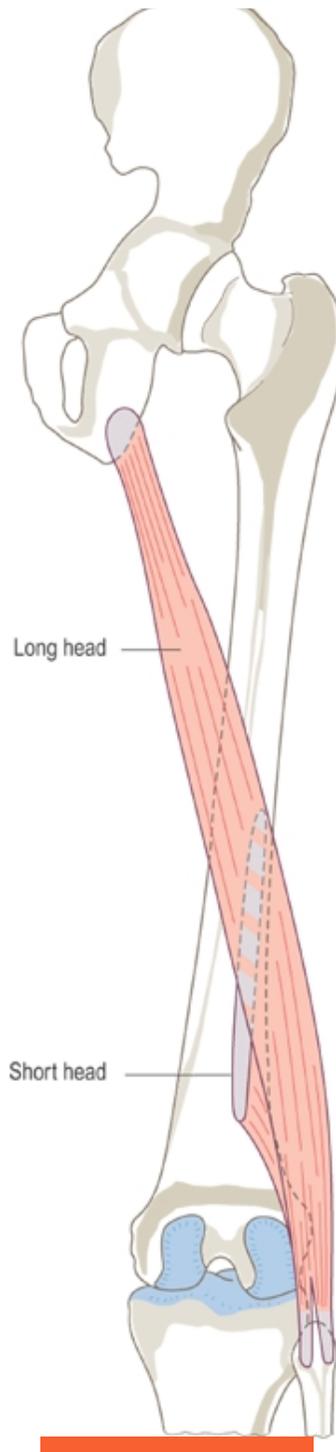


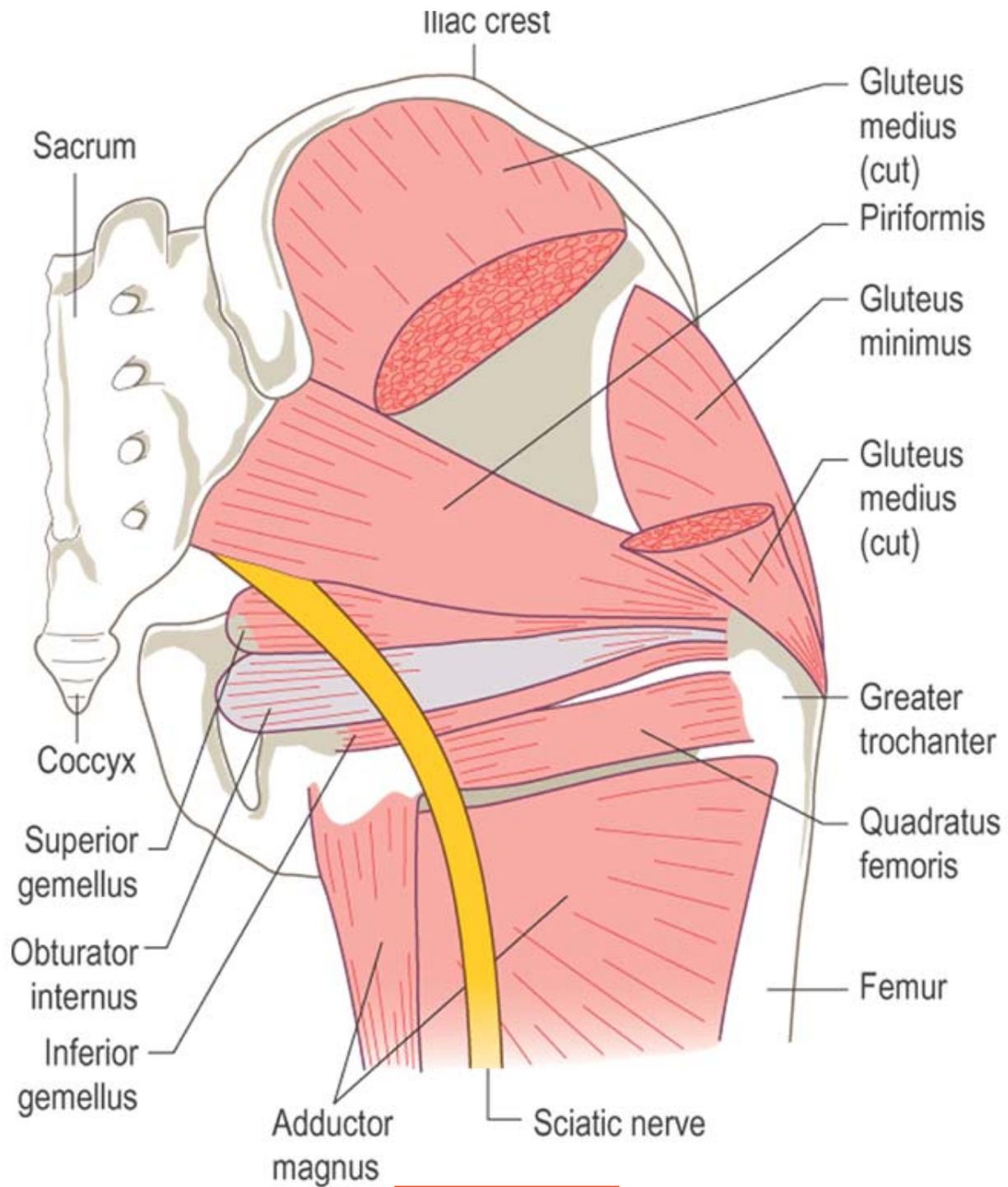


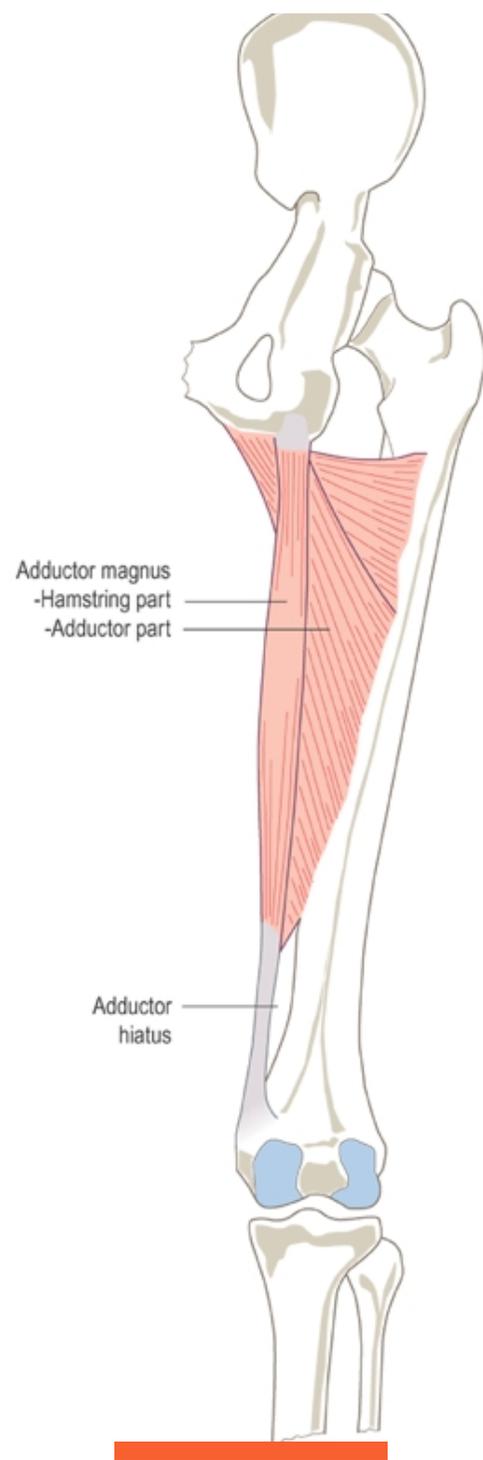


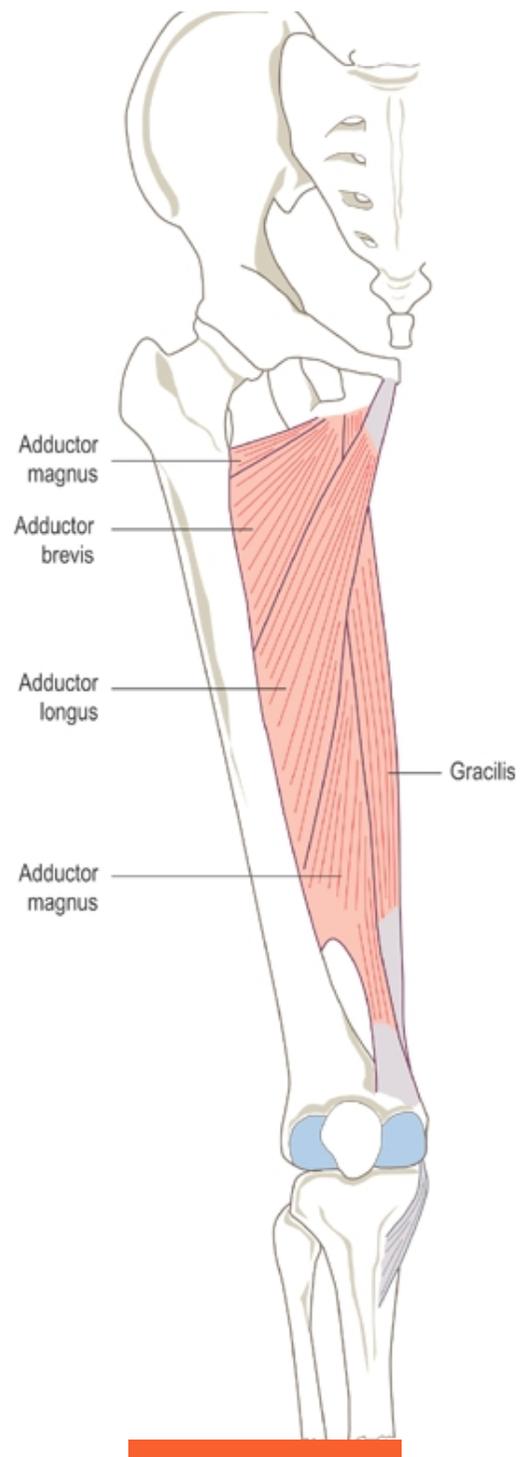


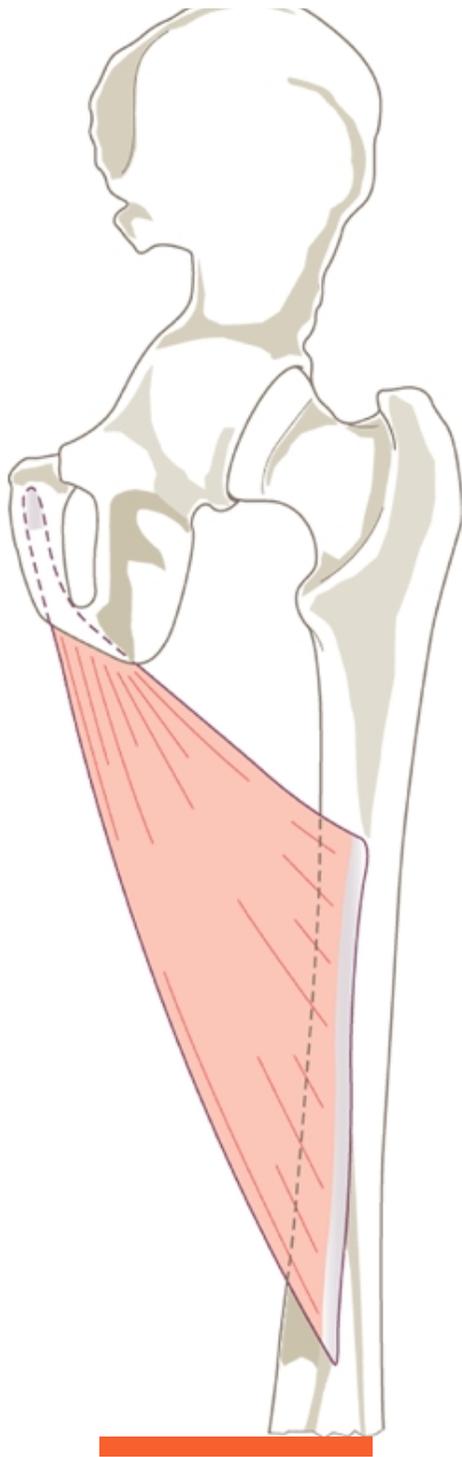


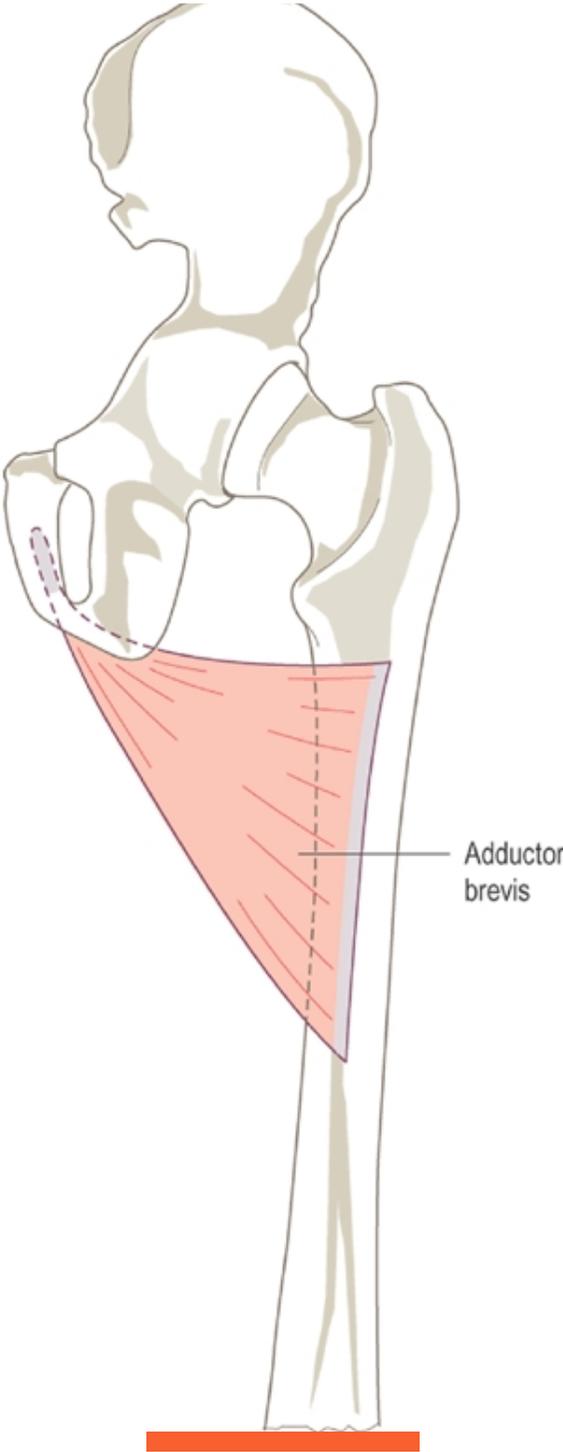


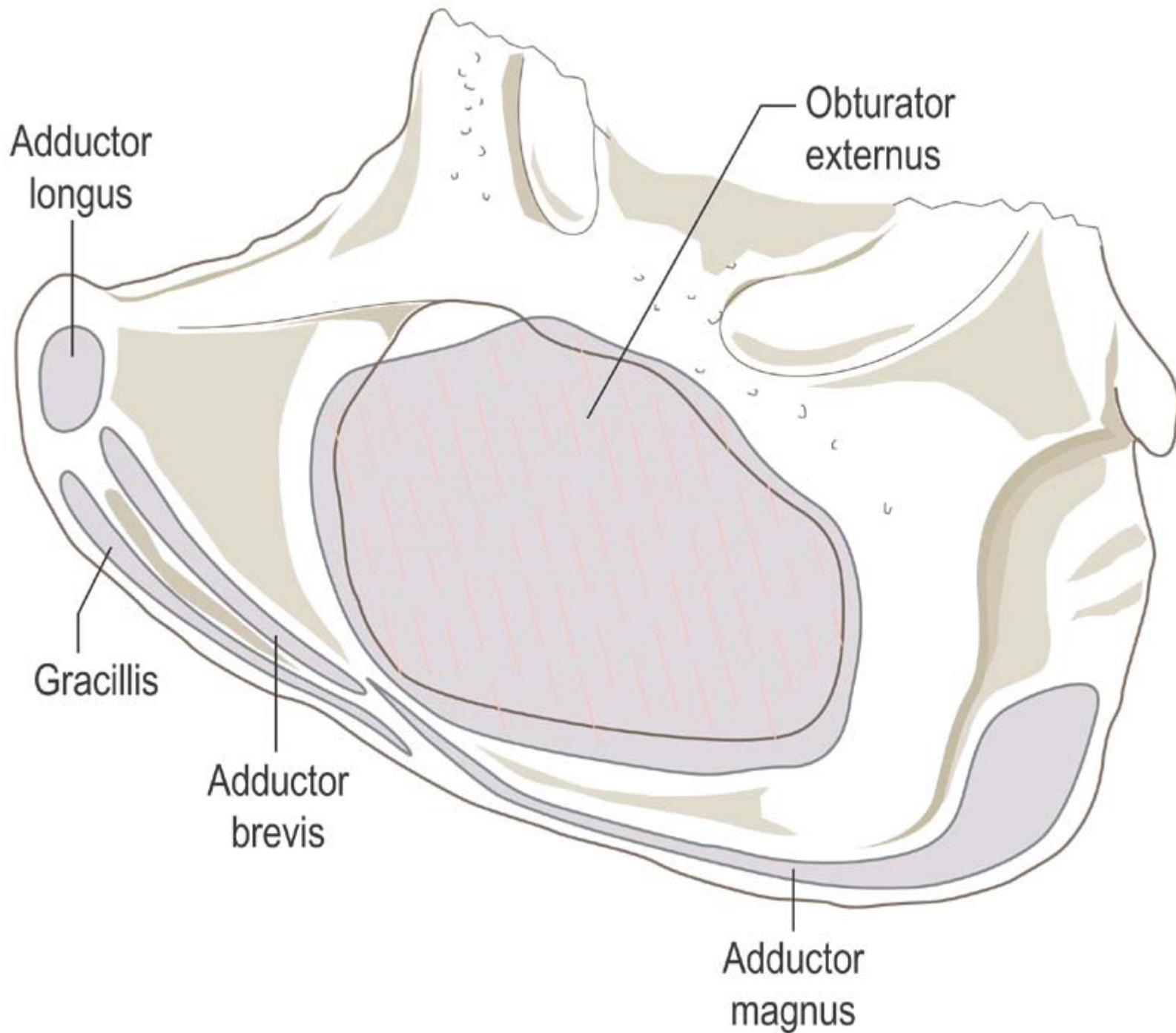












Adductor
longus

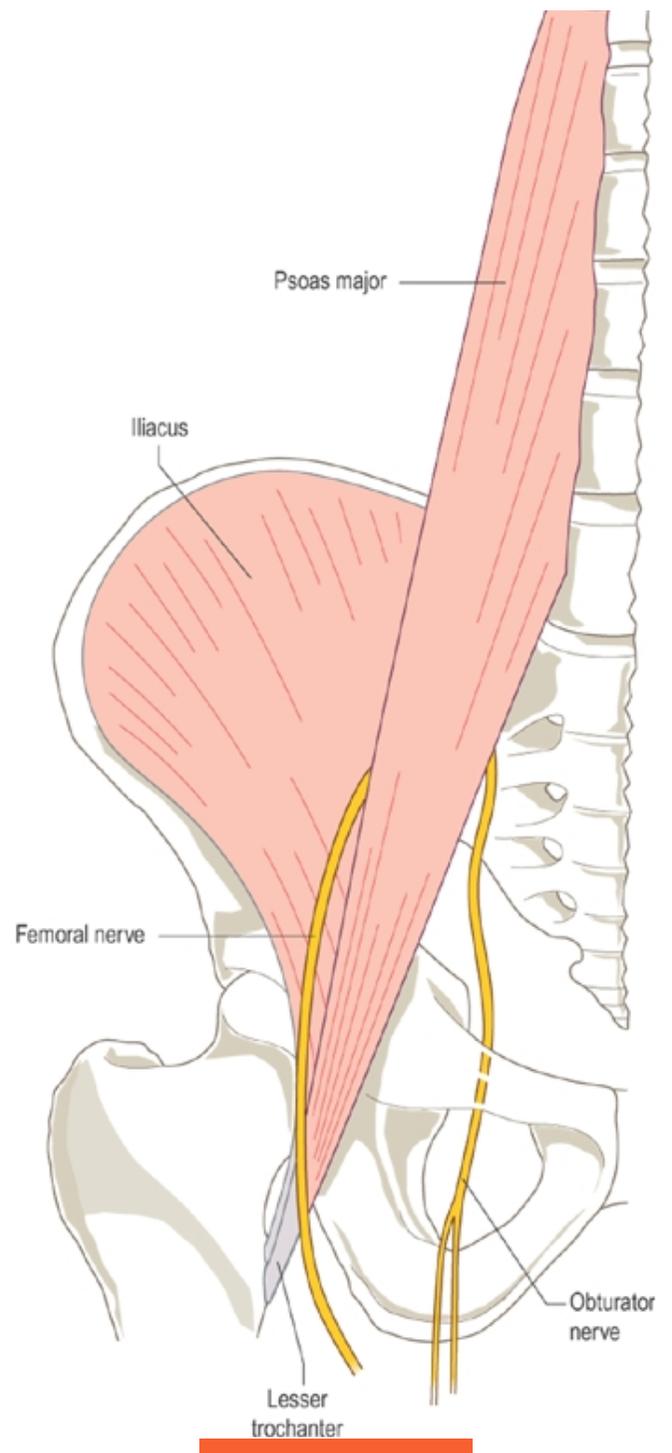
Obturator
externus

Gracilis

Adductor
brevis

Adductor
magnus





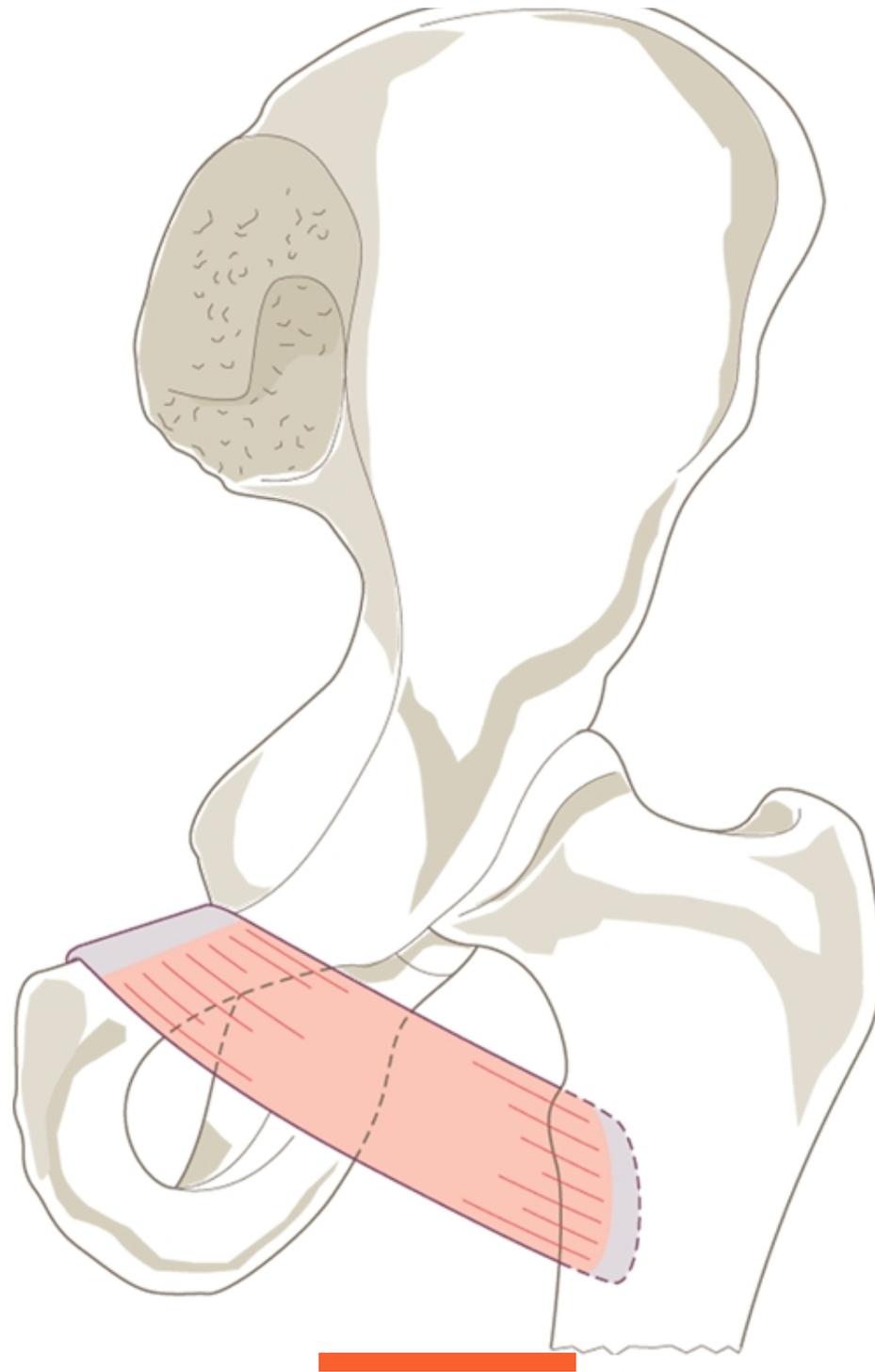
Psoas major

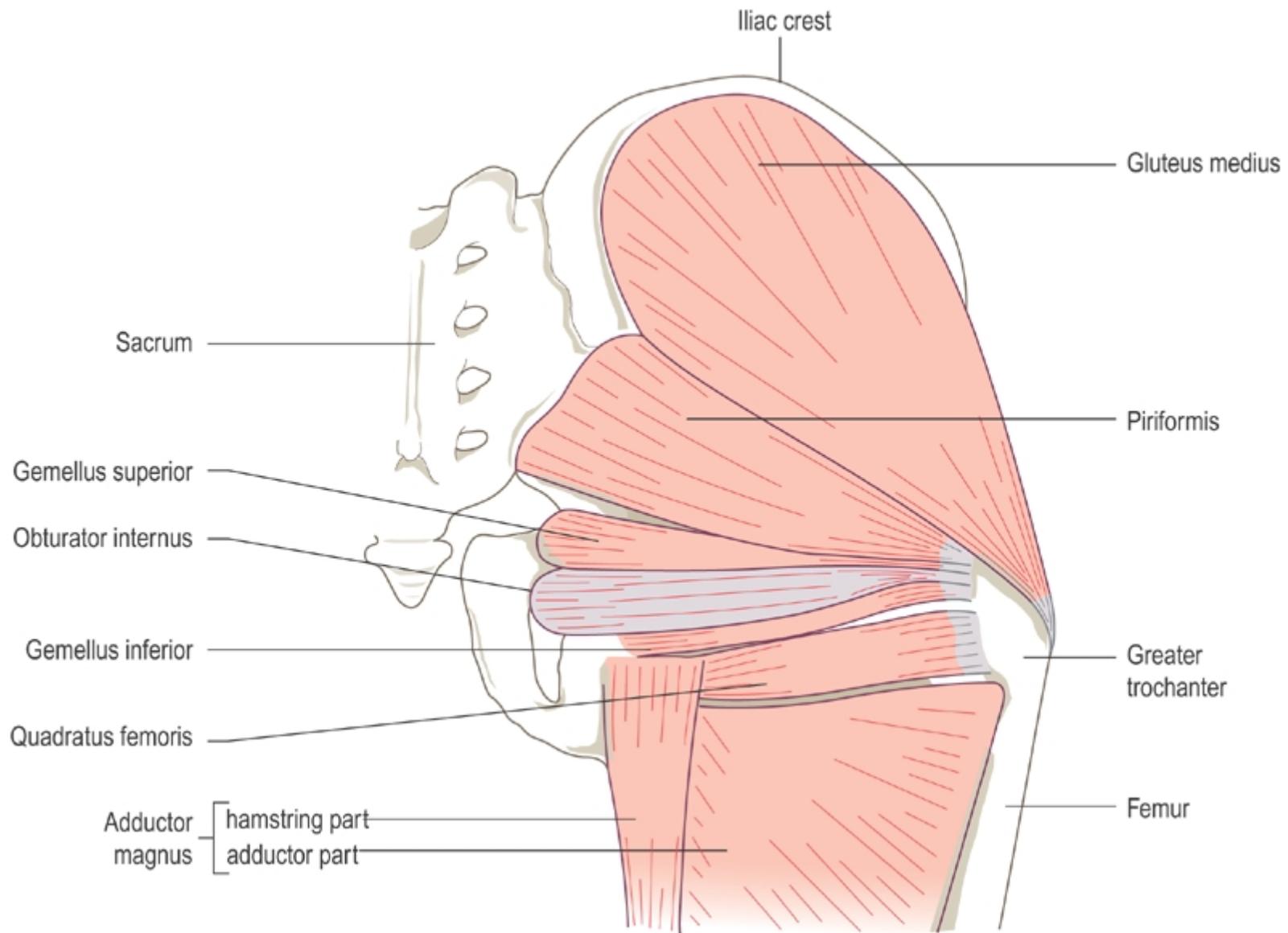
Iliacus

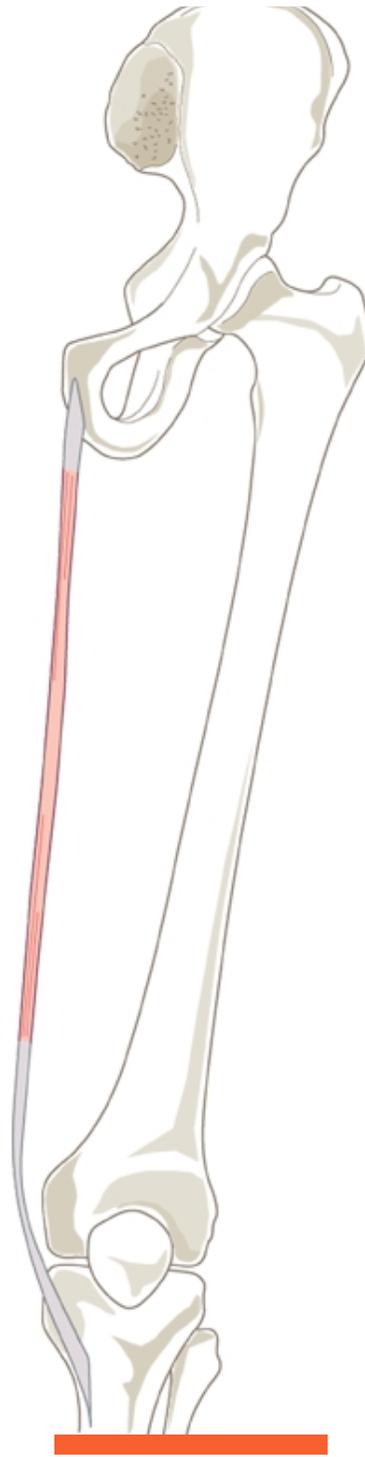
Femoral nerve

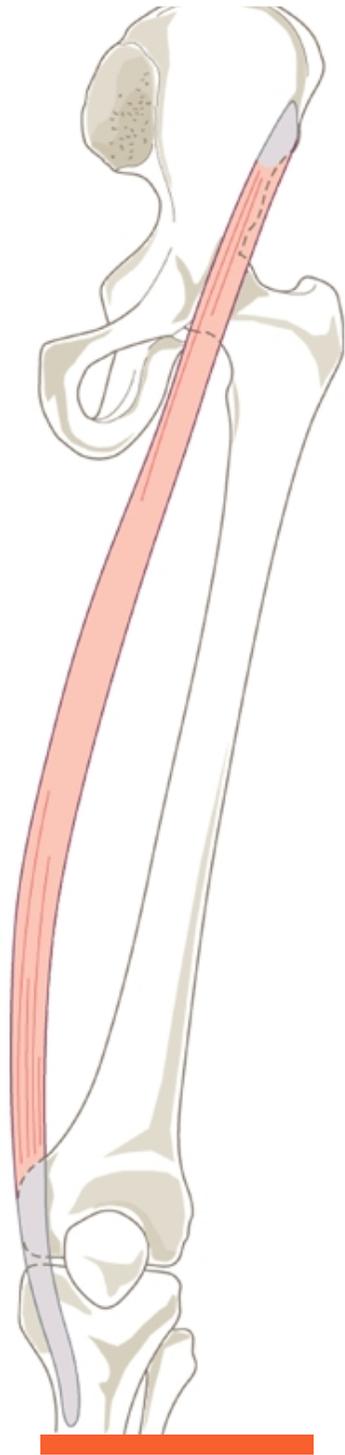
Obturator nerve

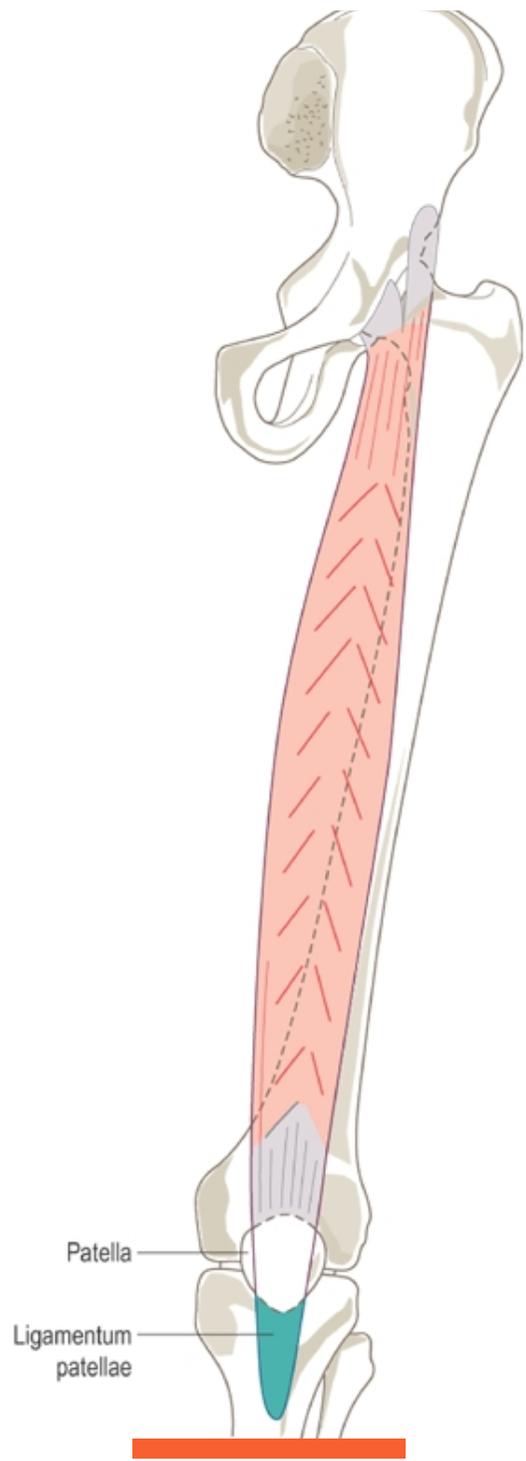
Lesser trochanter

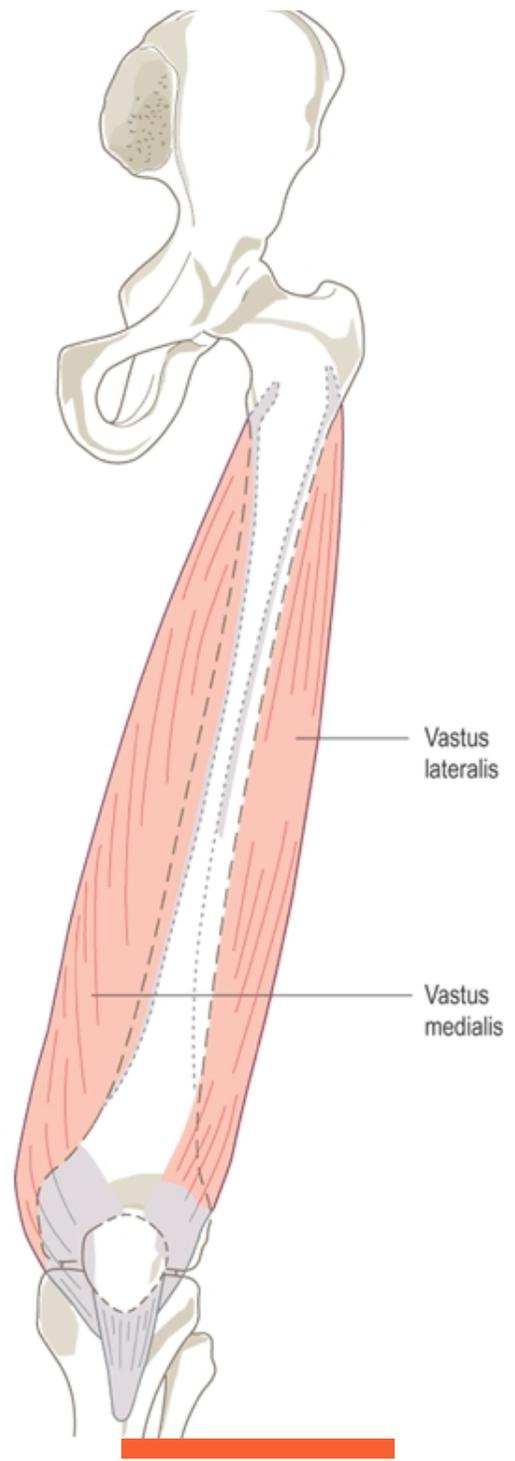


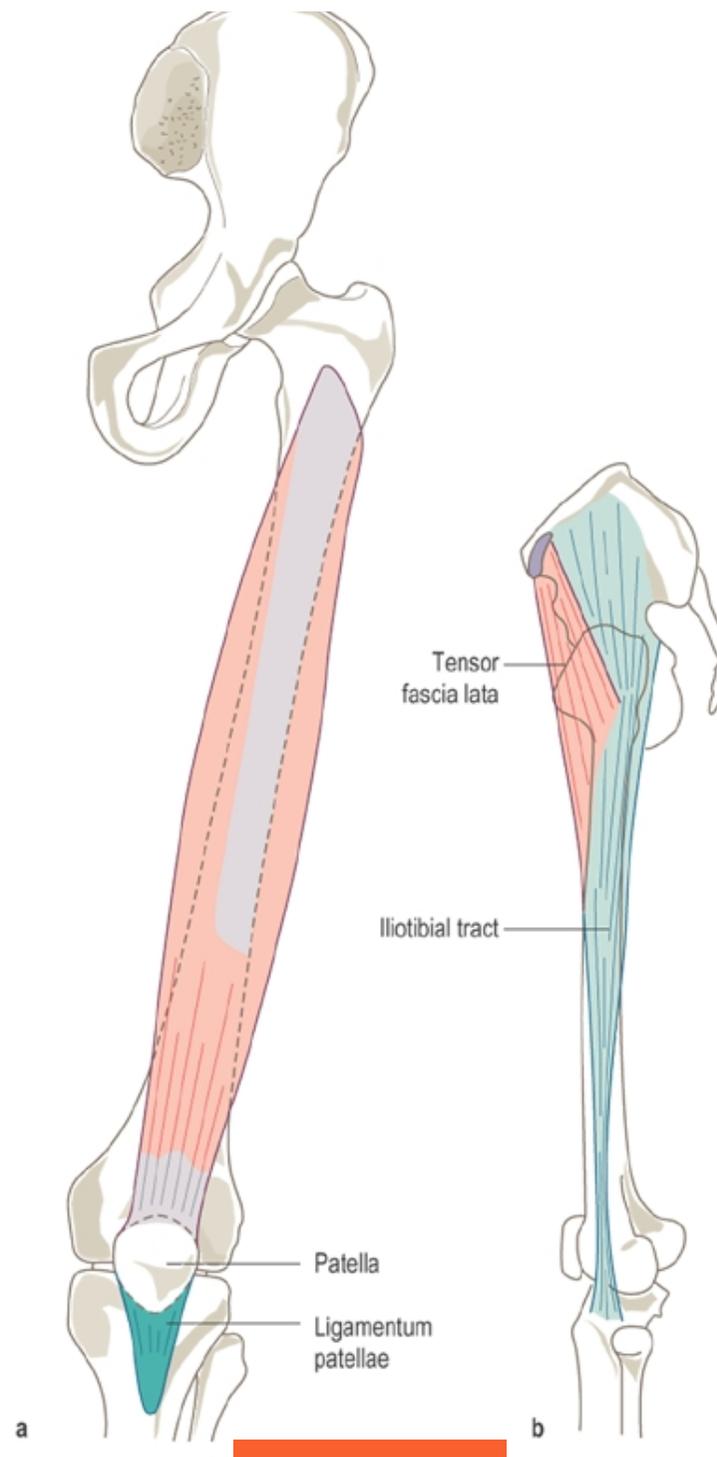


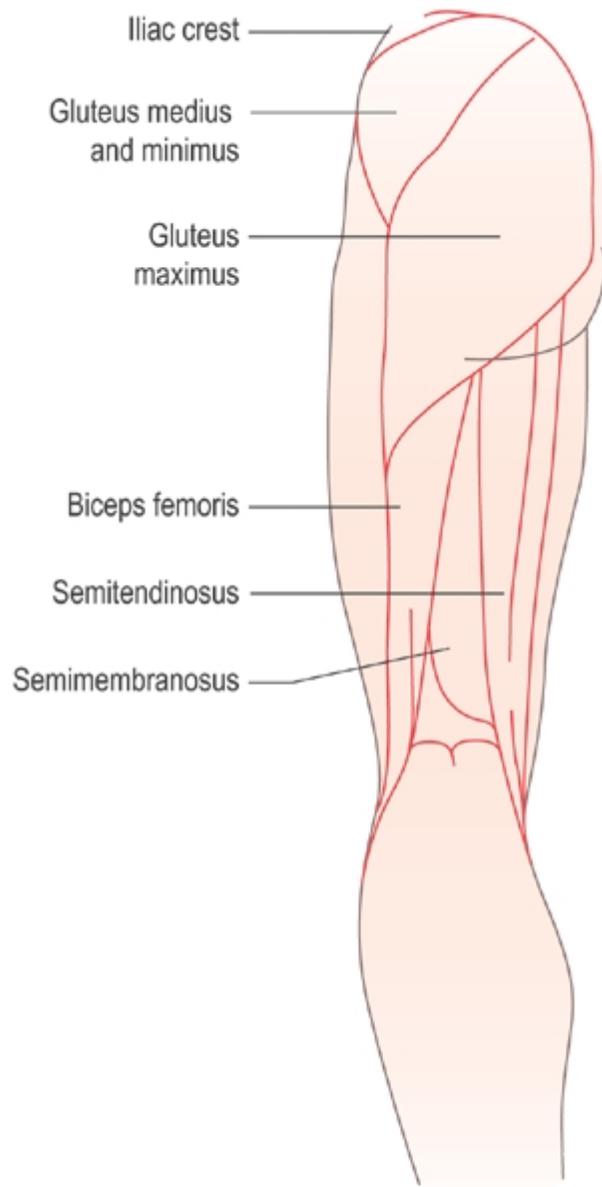




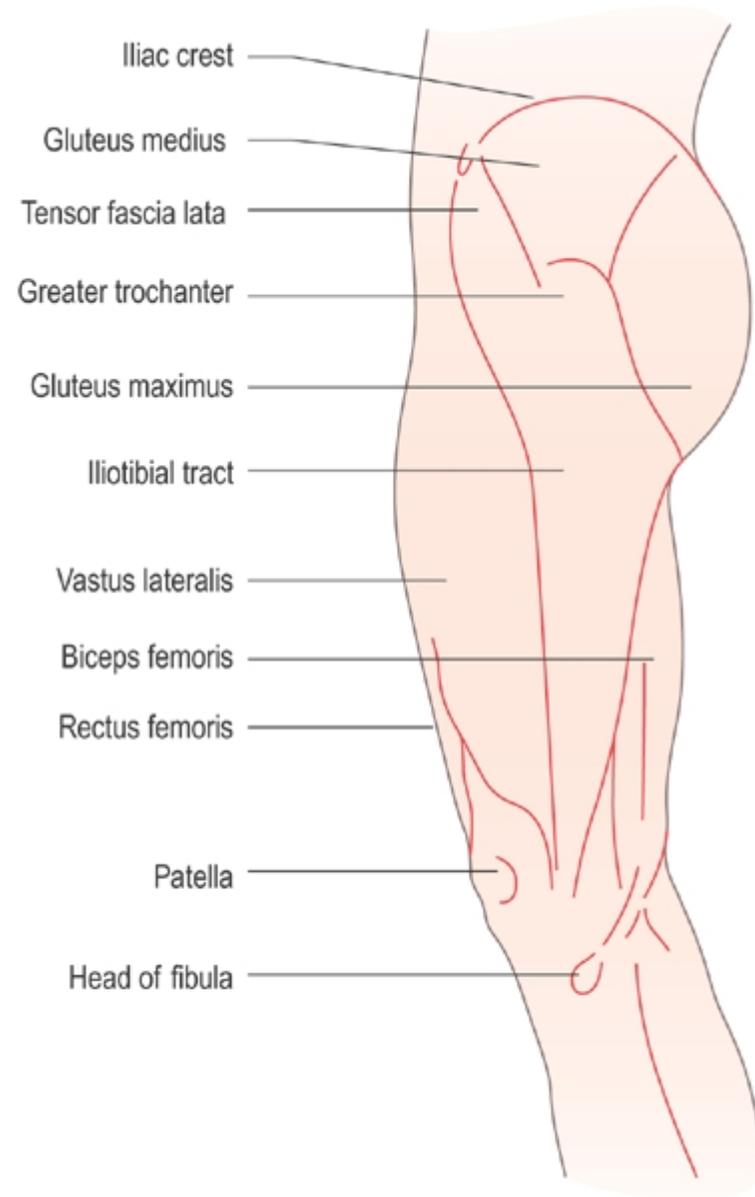




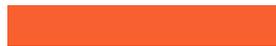


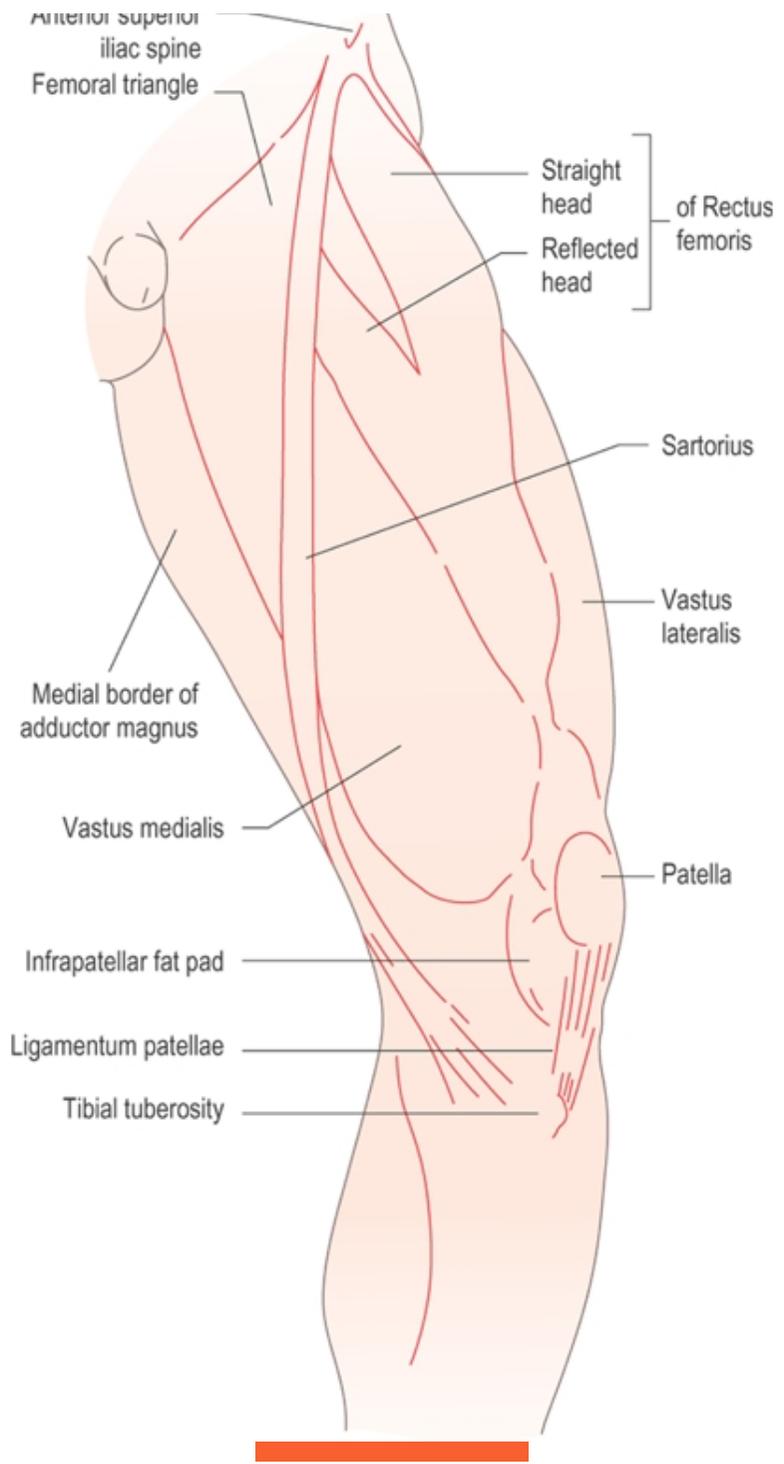


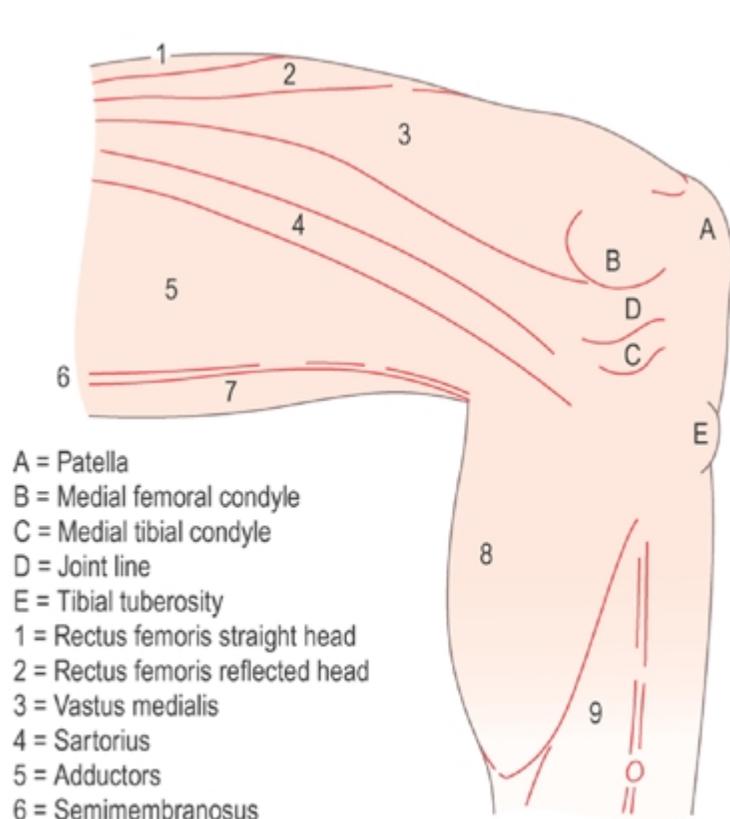
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b

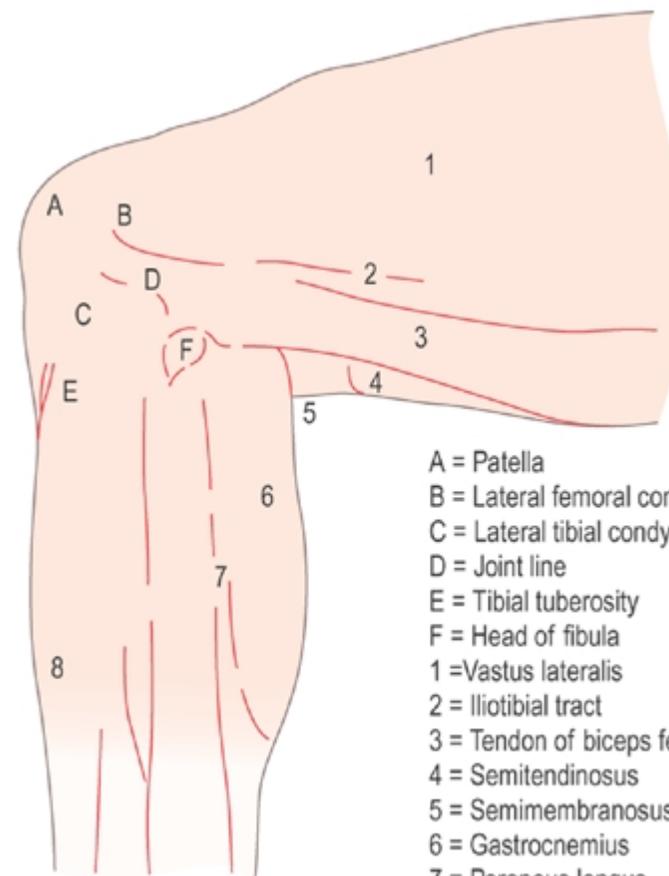






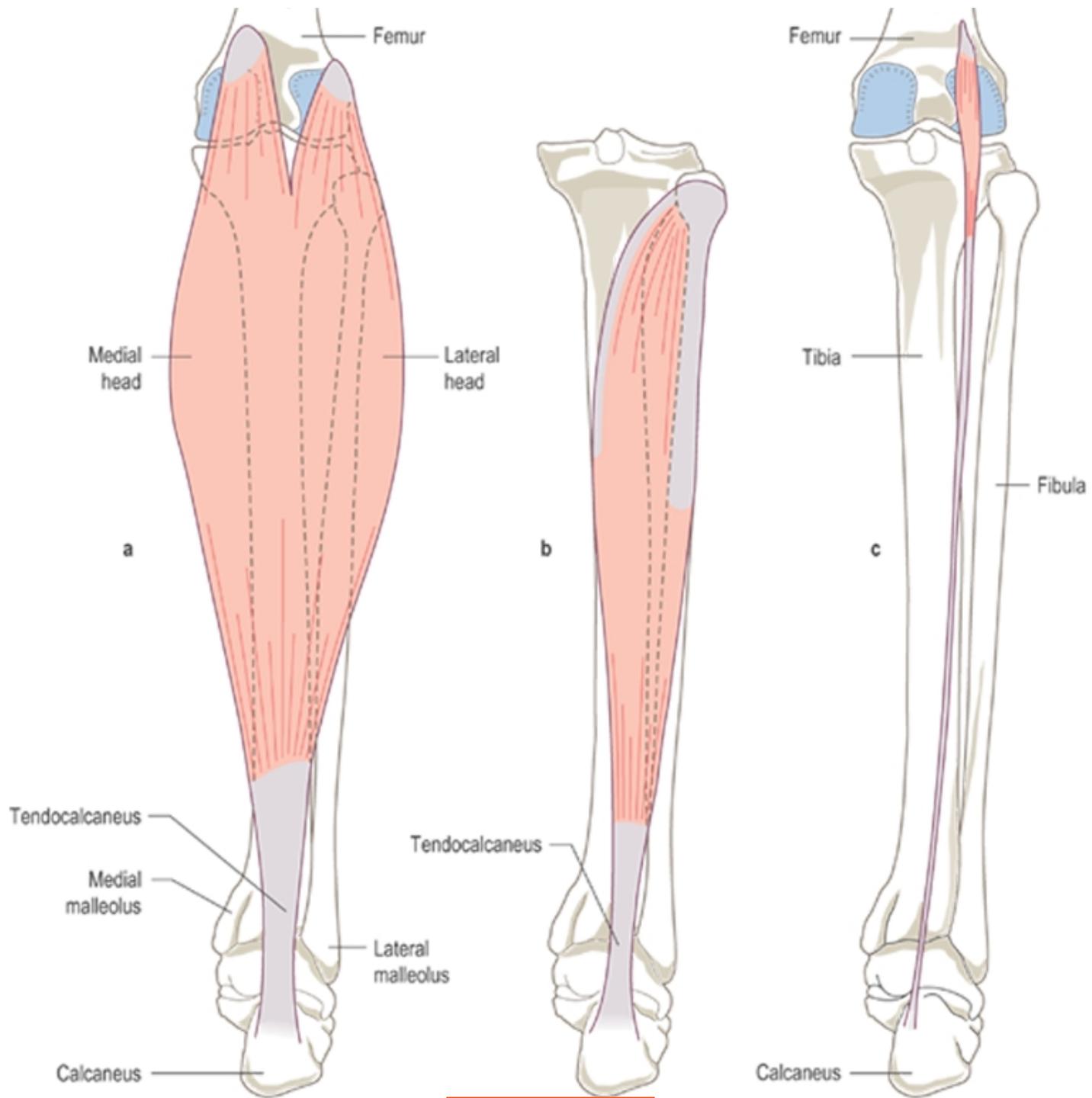
- A = Patella
- B = Medial femoral condyle
- C = Medial tibial condyle
- D = Joint line
- E = Tibial tuberosity
- 1 = Rectus femoris straight head
- 2 = Rectus femoris reflected head
- 3 = Vastus medialis
- 4 = Sartorius
- 5 = Adductors
- 6 = Semimembranosus
- 7 = Semitendinosus
- 8 = Gastrocnemius (medial head)
- 9 = Soleus

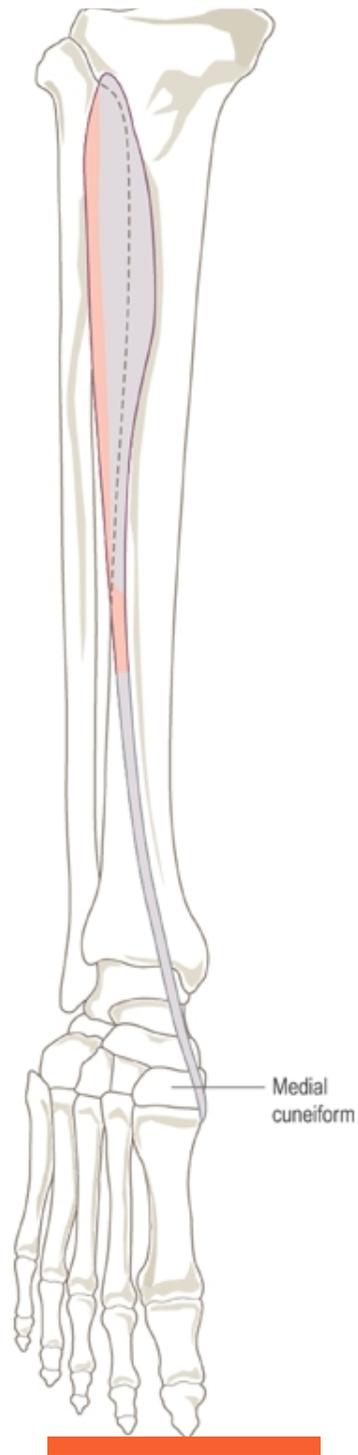
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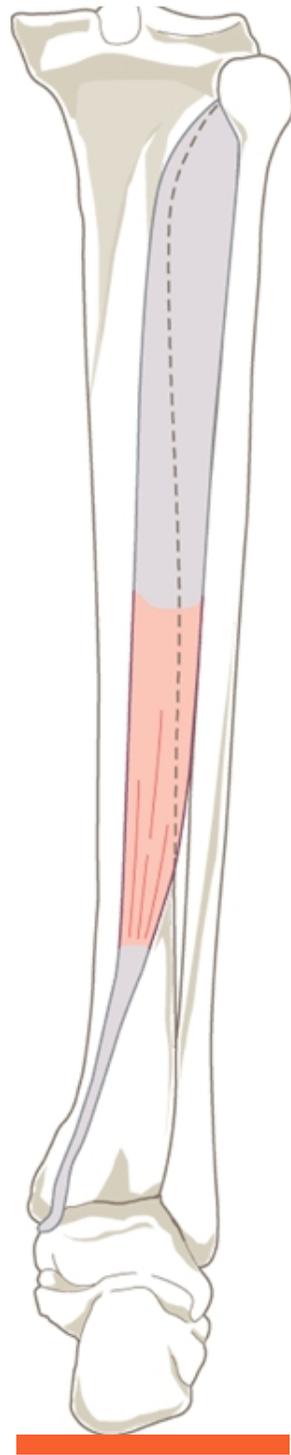


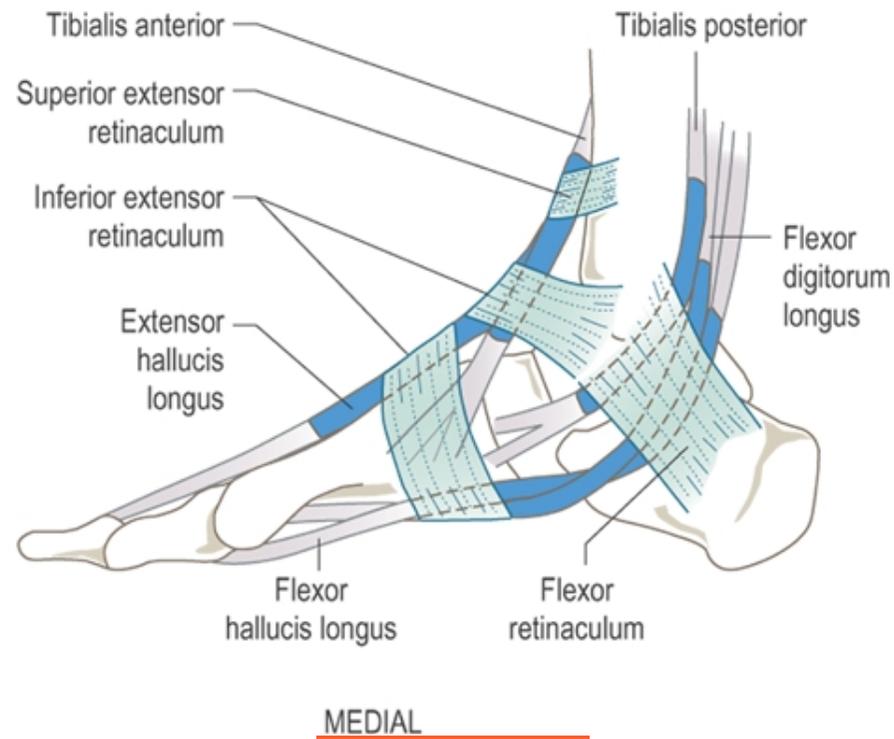
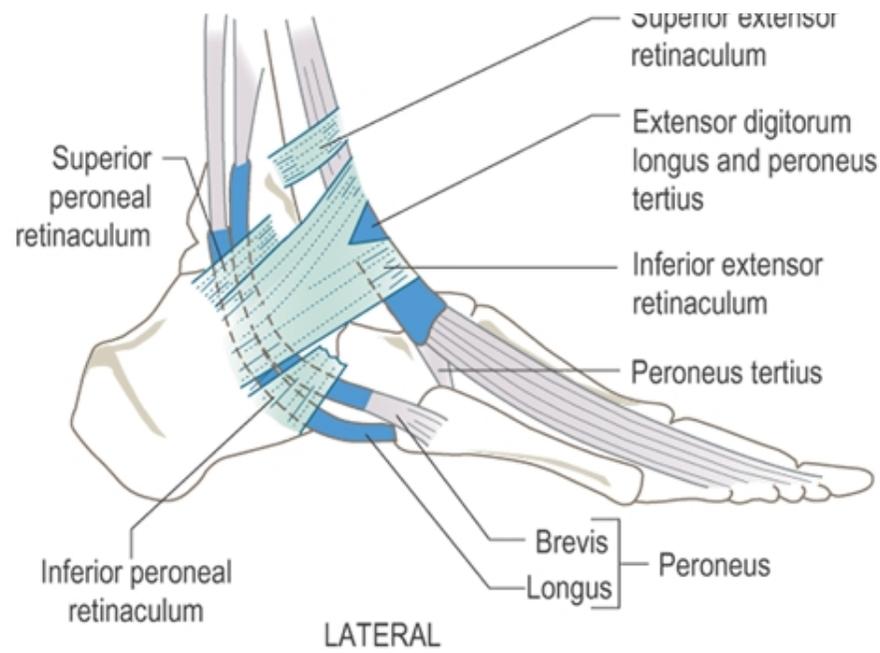
- A = Patella
- B = Lateral femoral condyle
- C = Lateral tibial condyle
- D = Joint line
- E = Tibial tuberosity
- F = Head of fibula
- 1 = Vastus lateralis
- 2 = Iliotibial tract
- 3 = Tendon of biceps femoris
- 4 = Semitendinosus
- 5 = Semimembranosus
- 6 = Gastrocnemius
- 7 = Peroneus longus
- 8 = Tibialis anterior

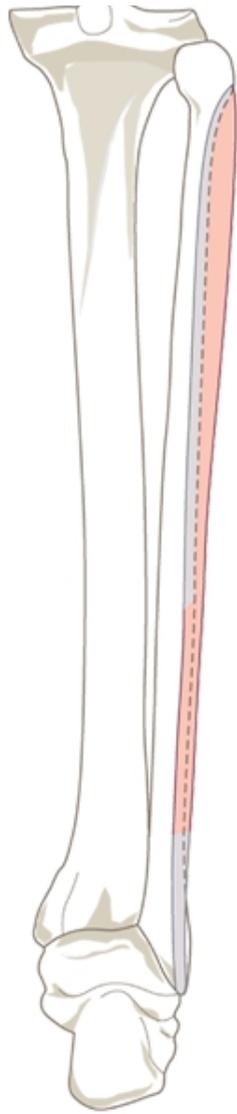
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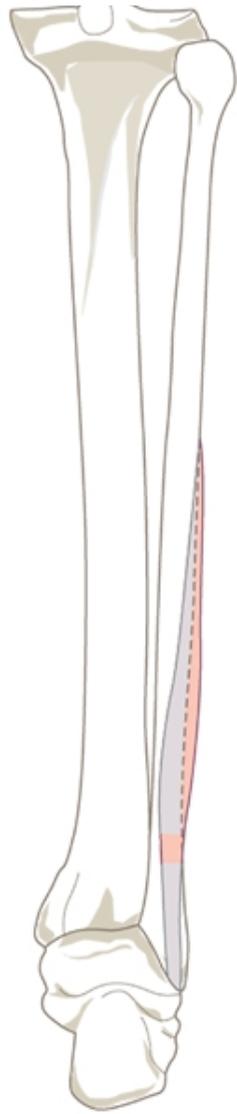








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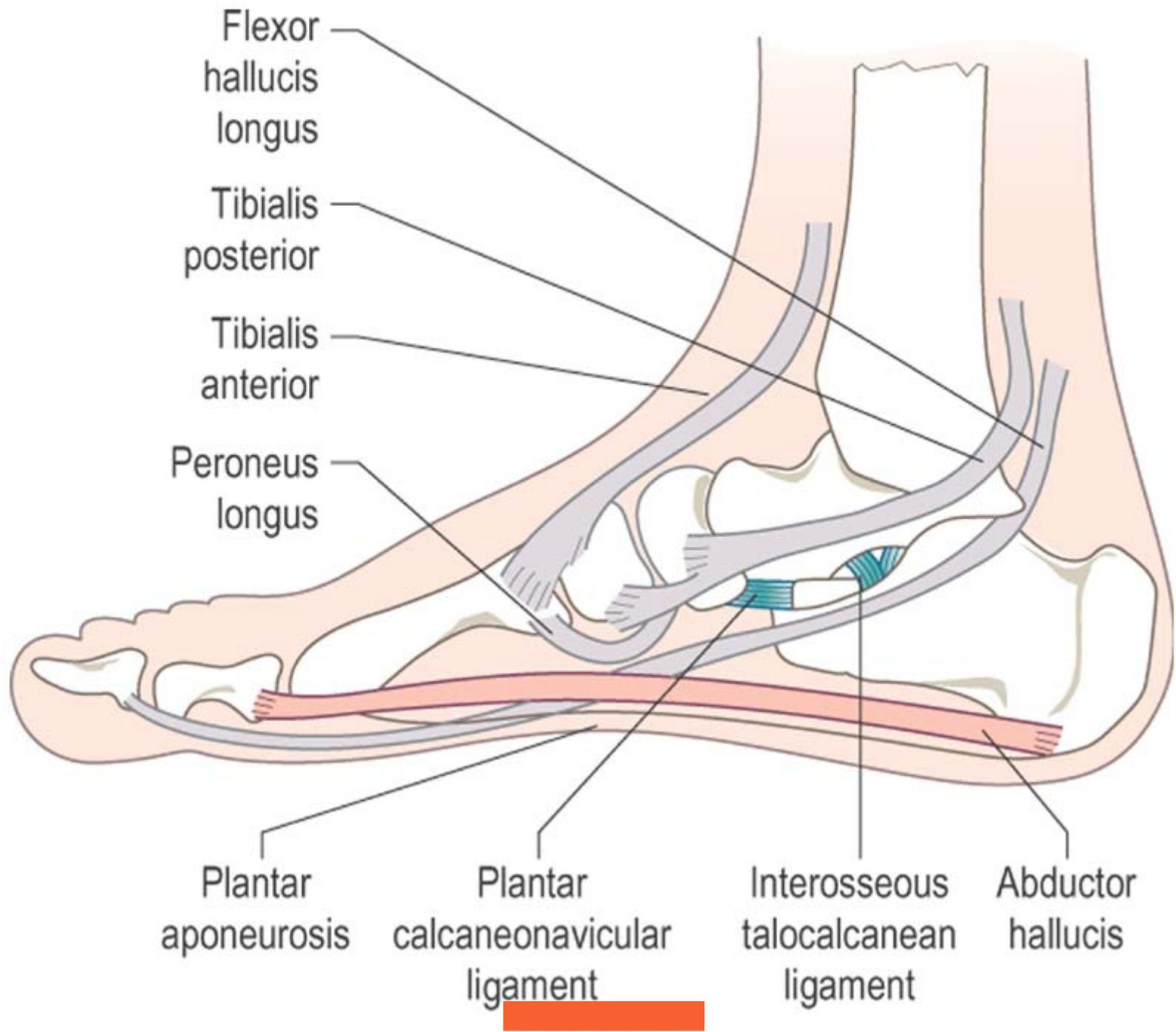


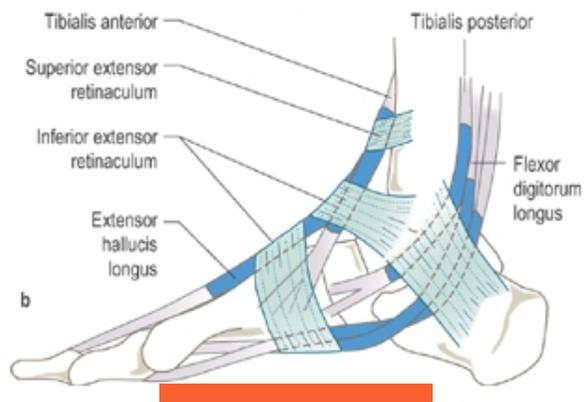
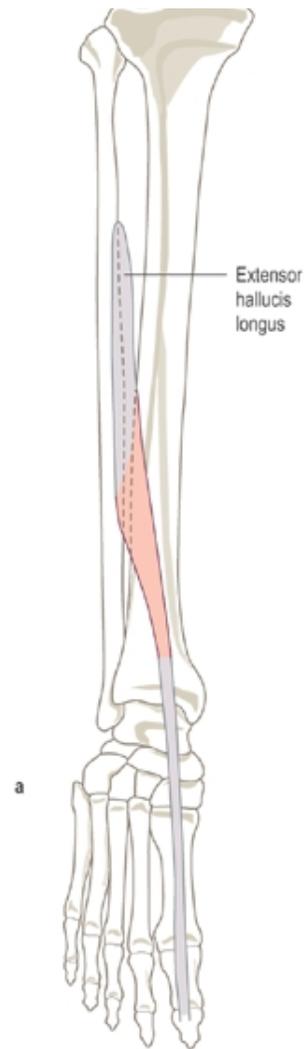
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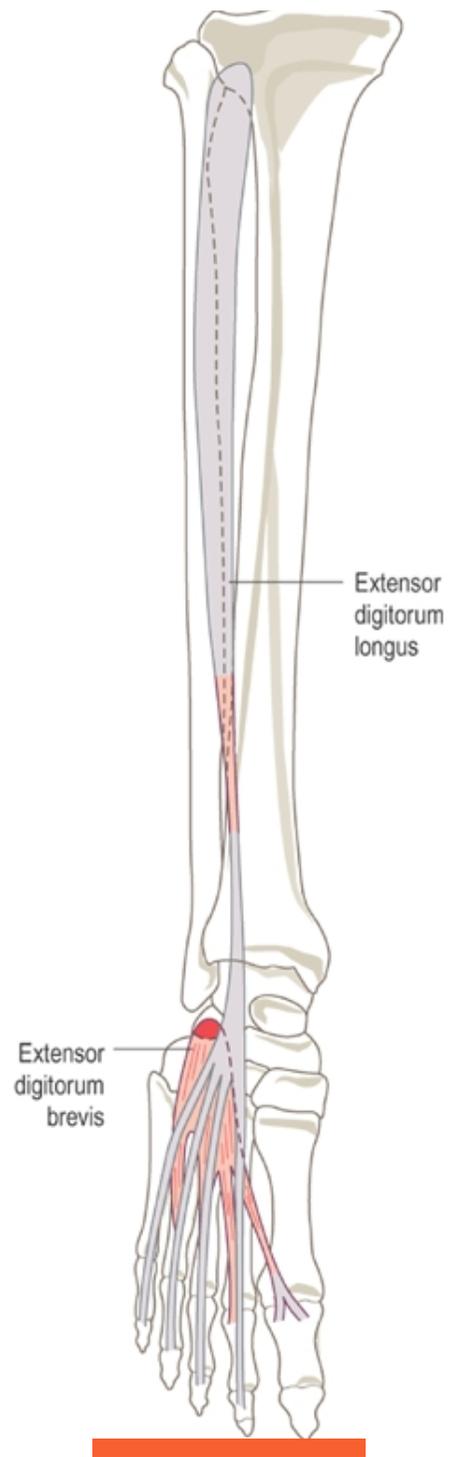


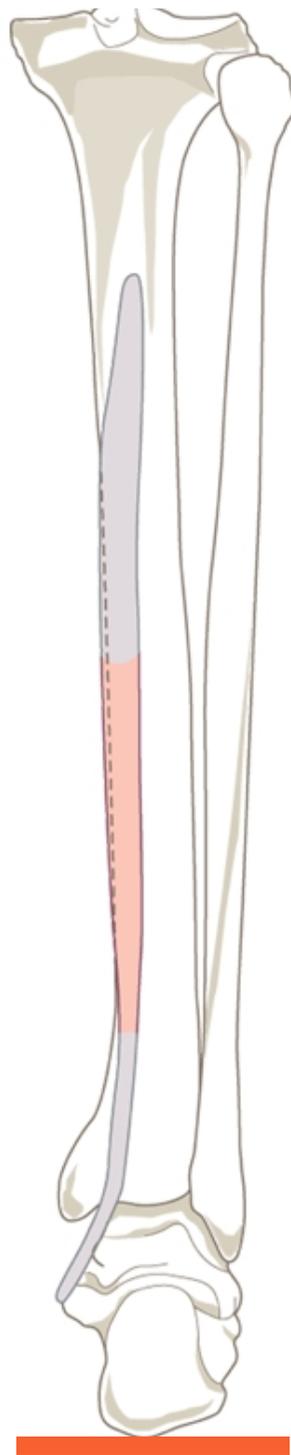
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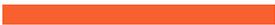
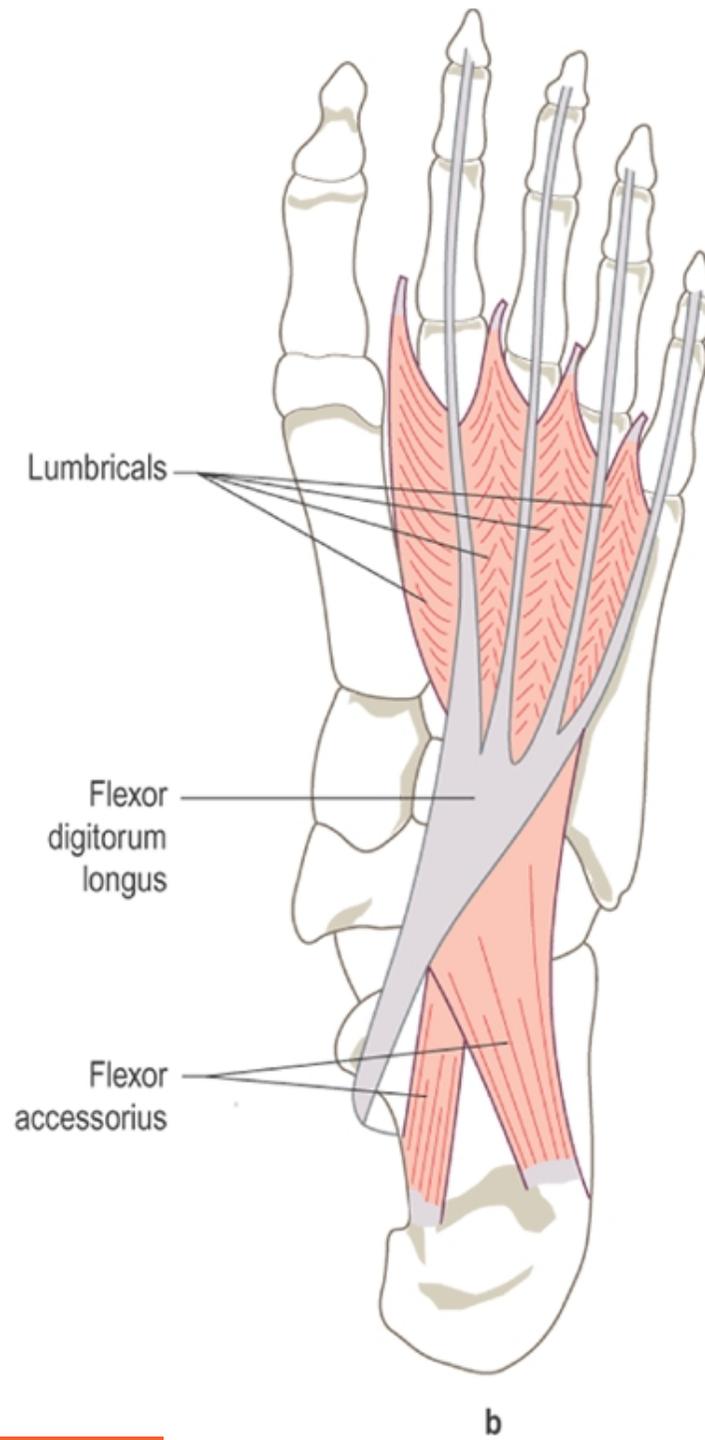
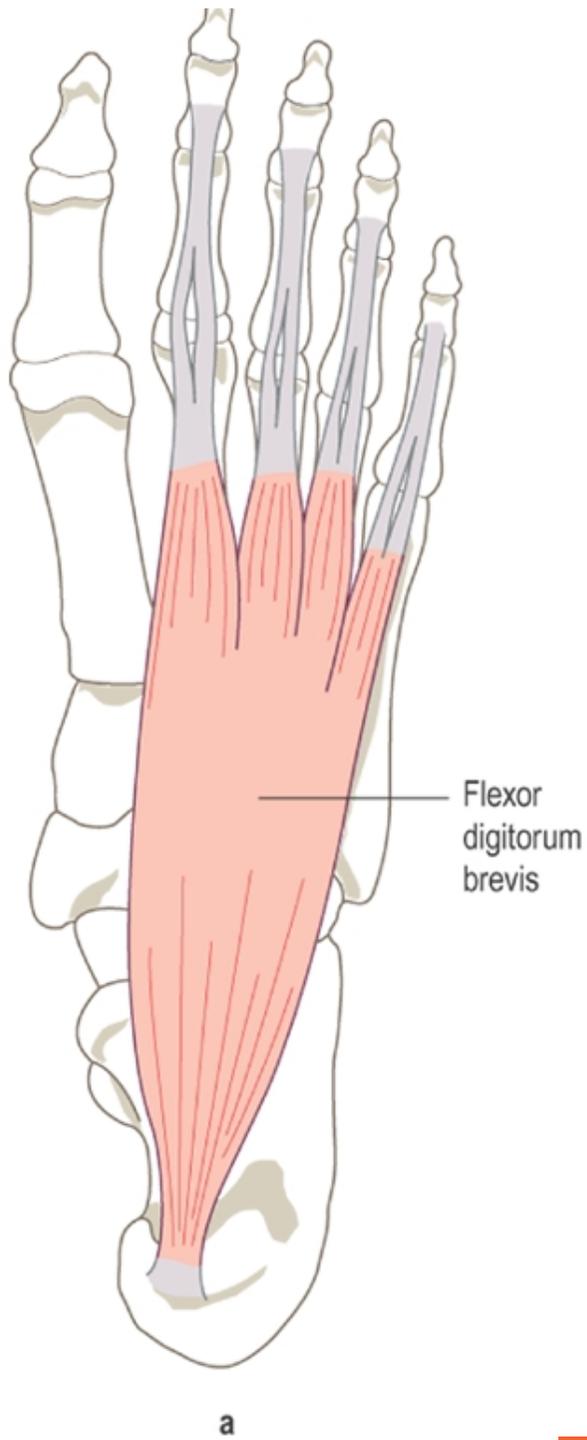


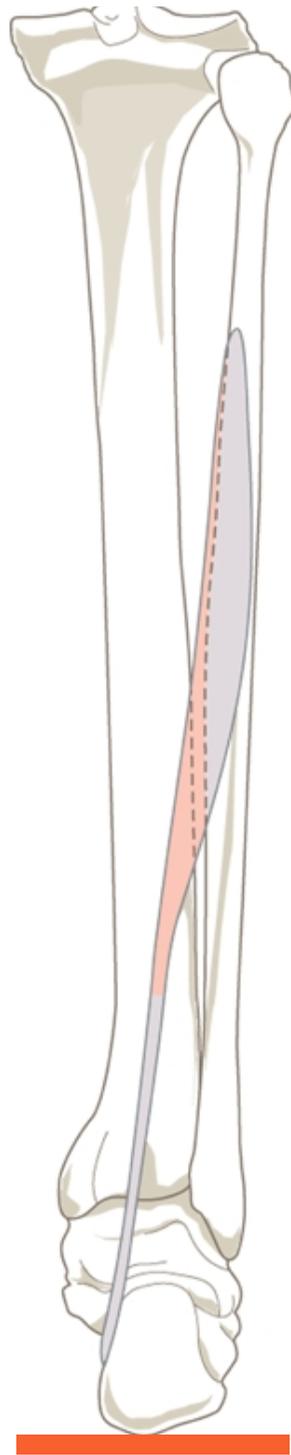


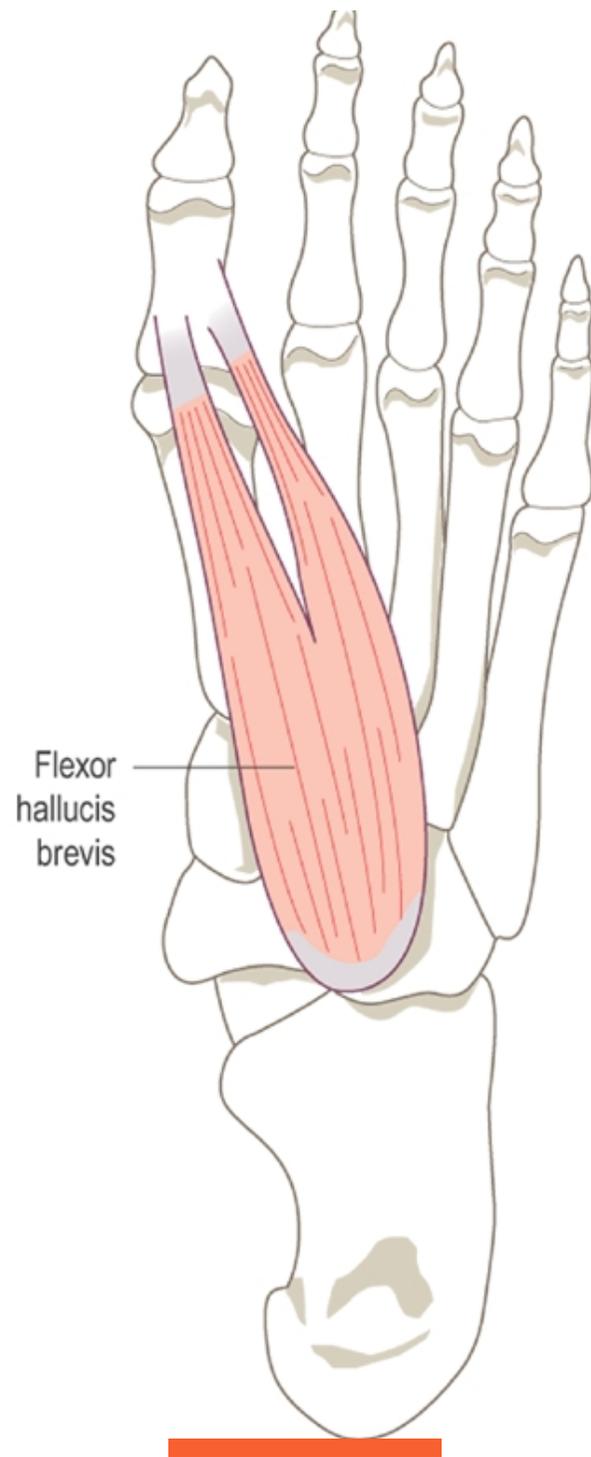


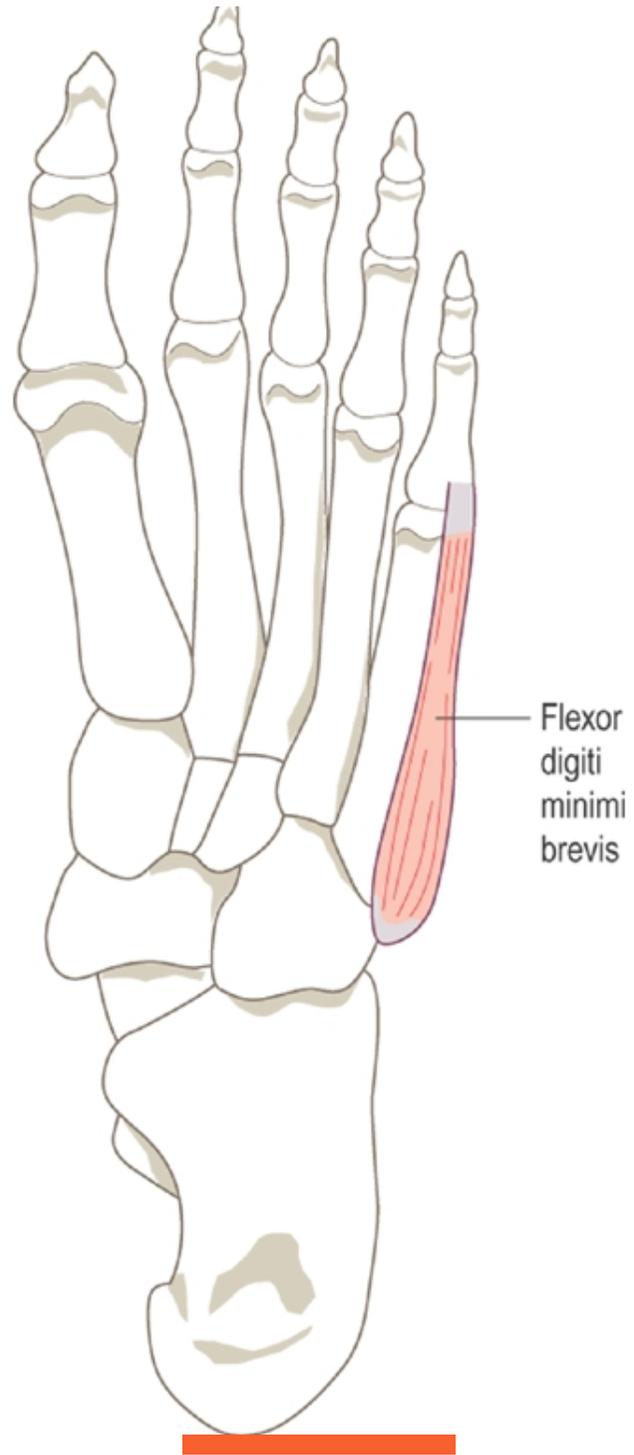


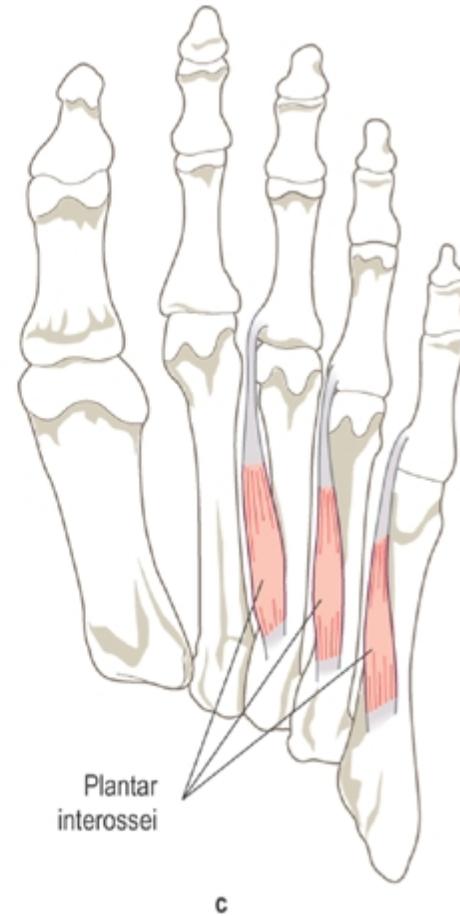
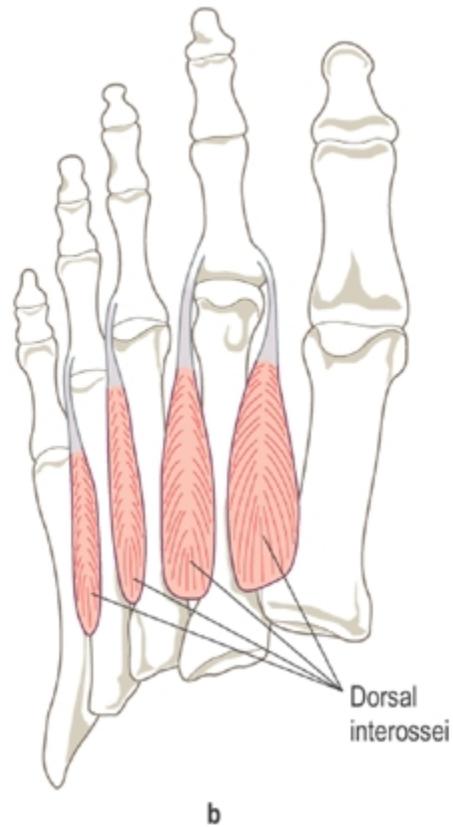
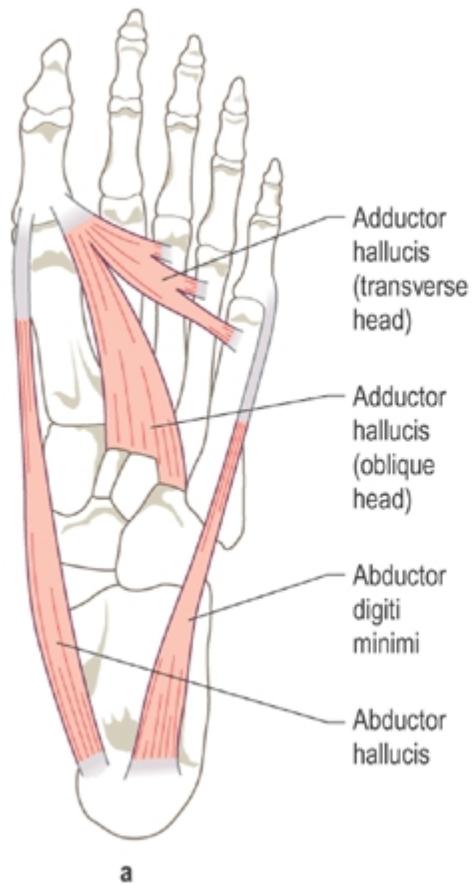




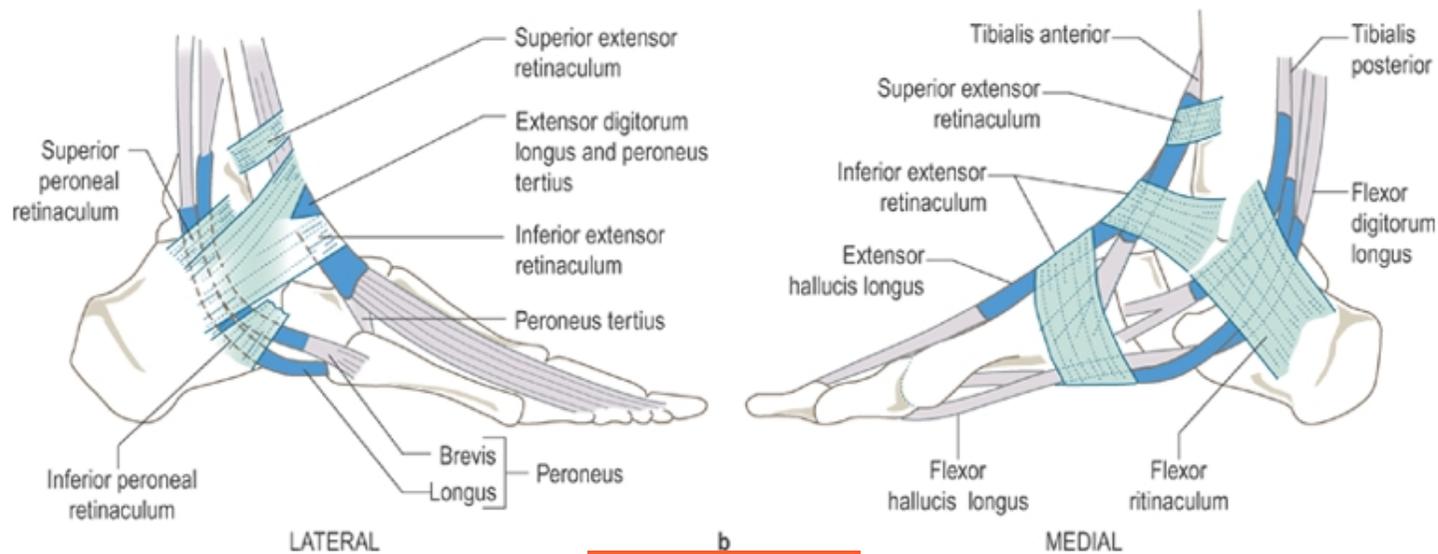
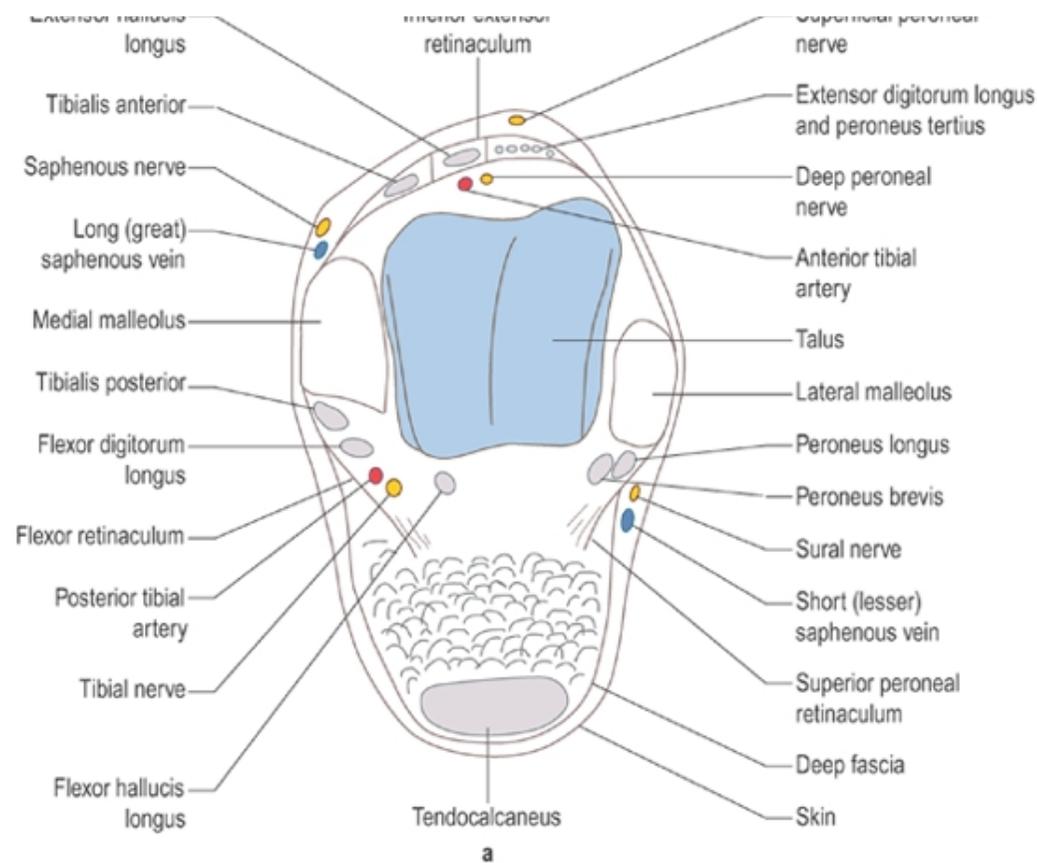






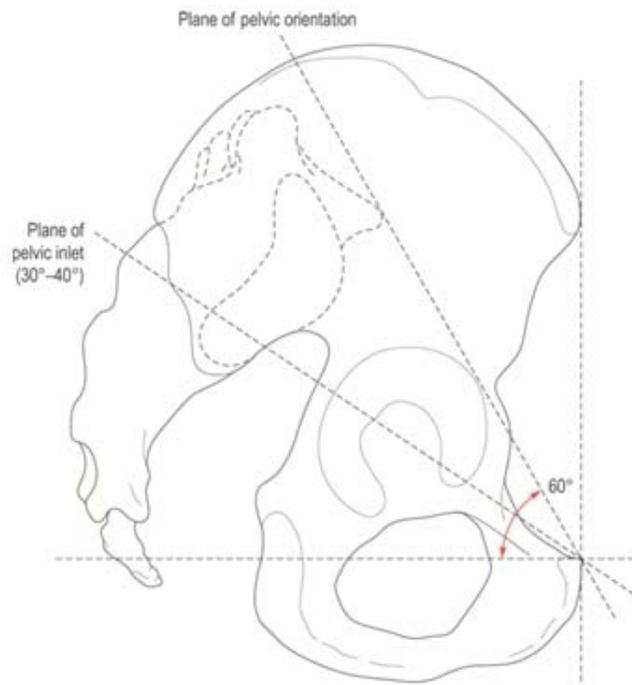


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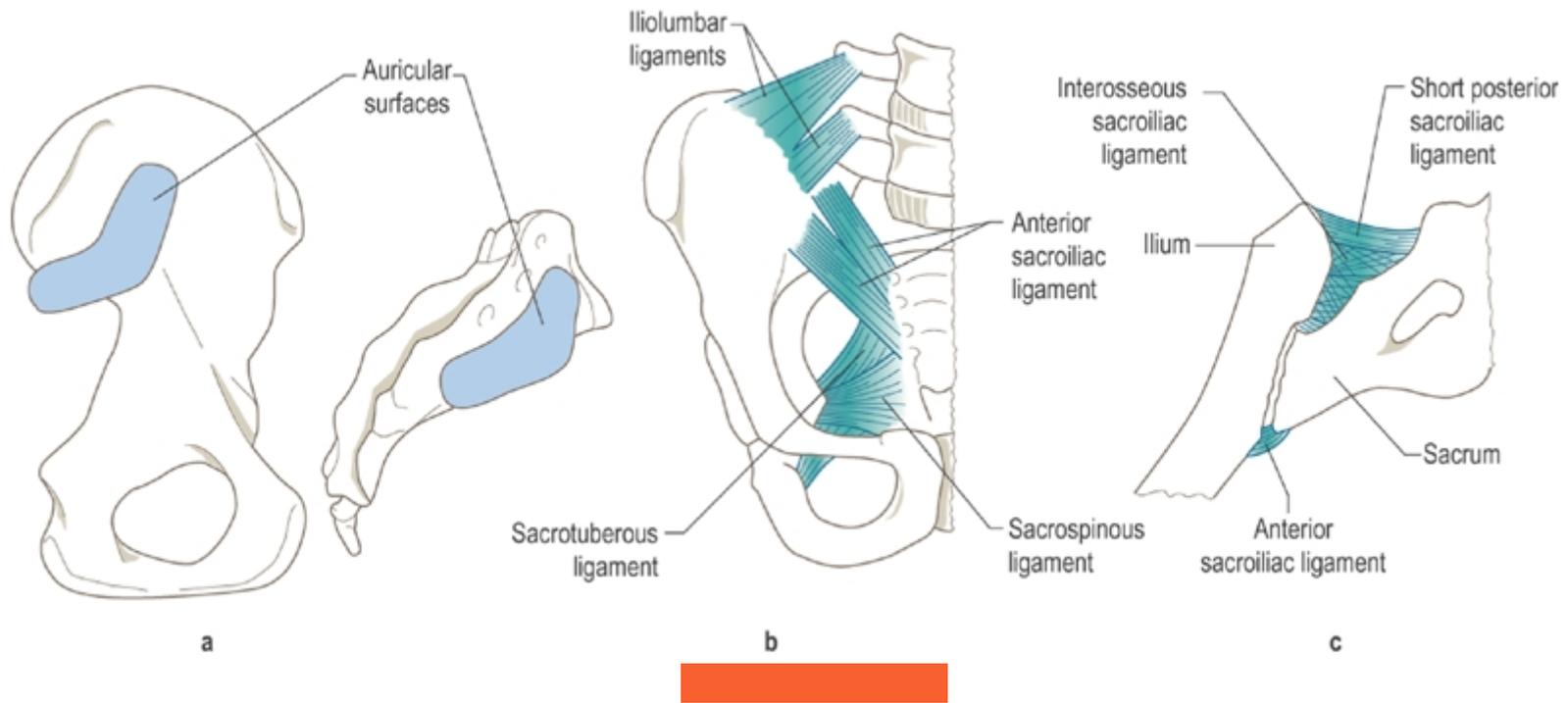


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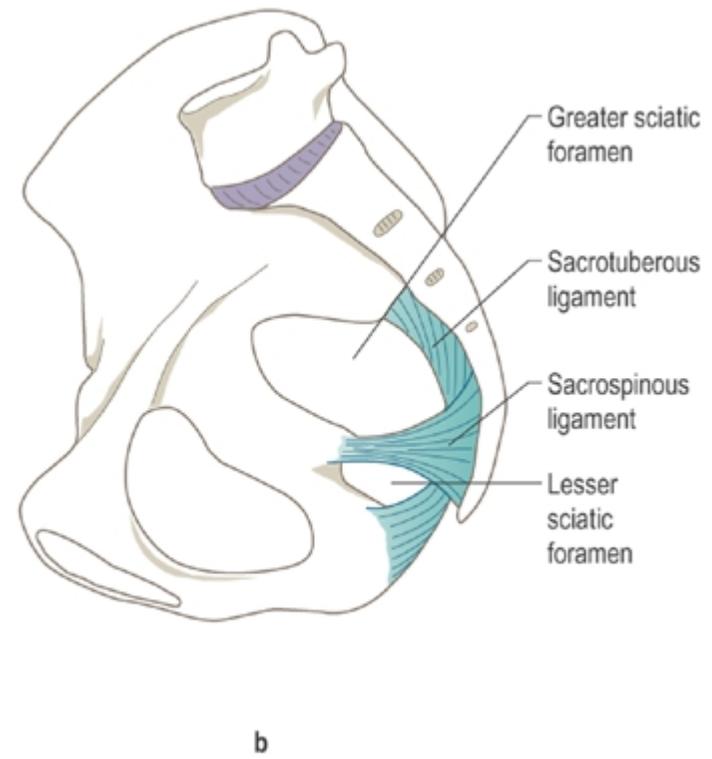
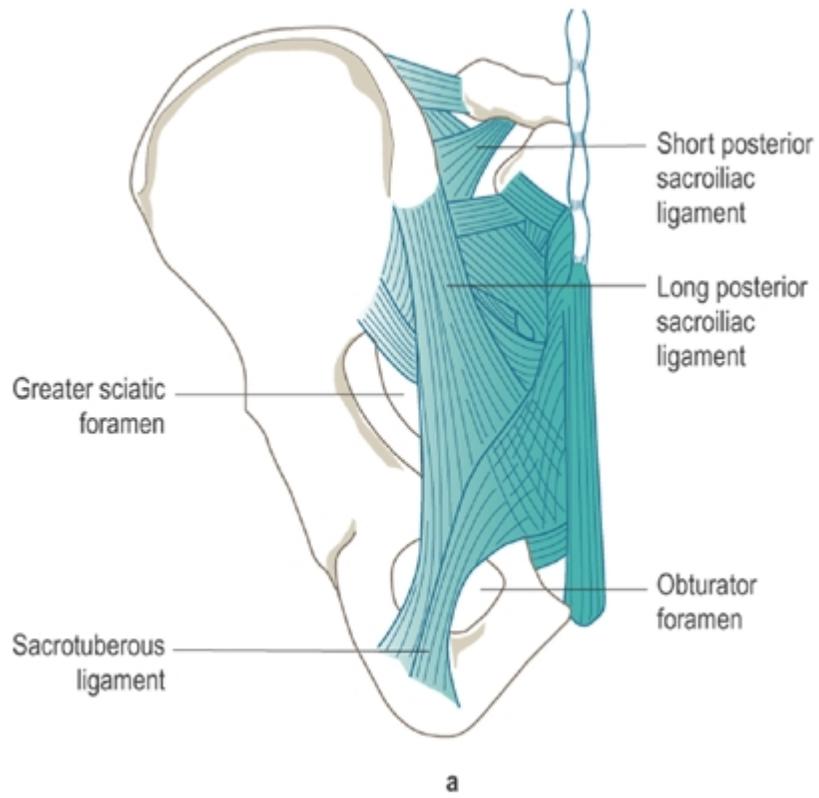


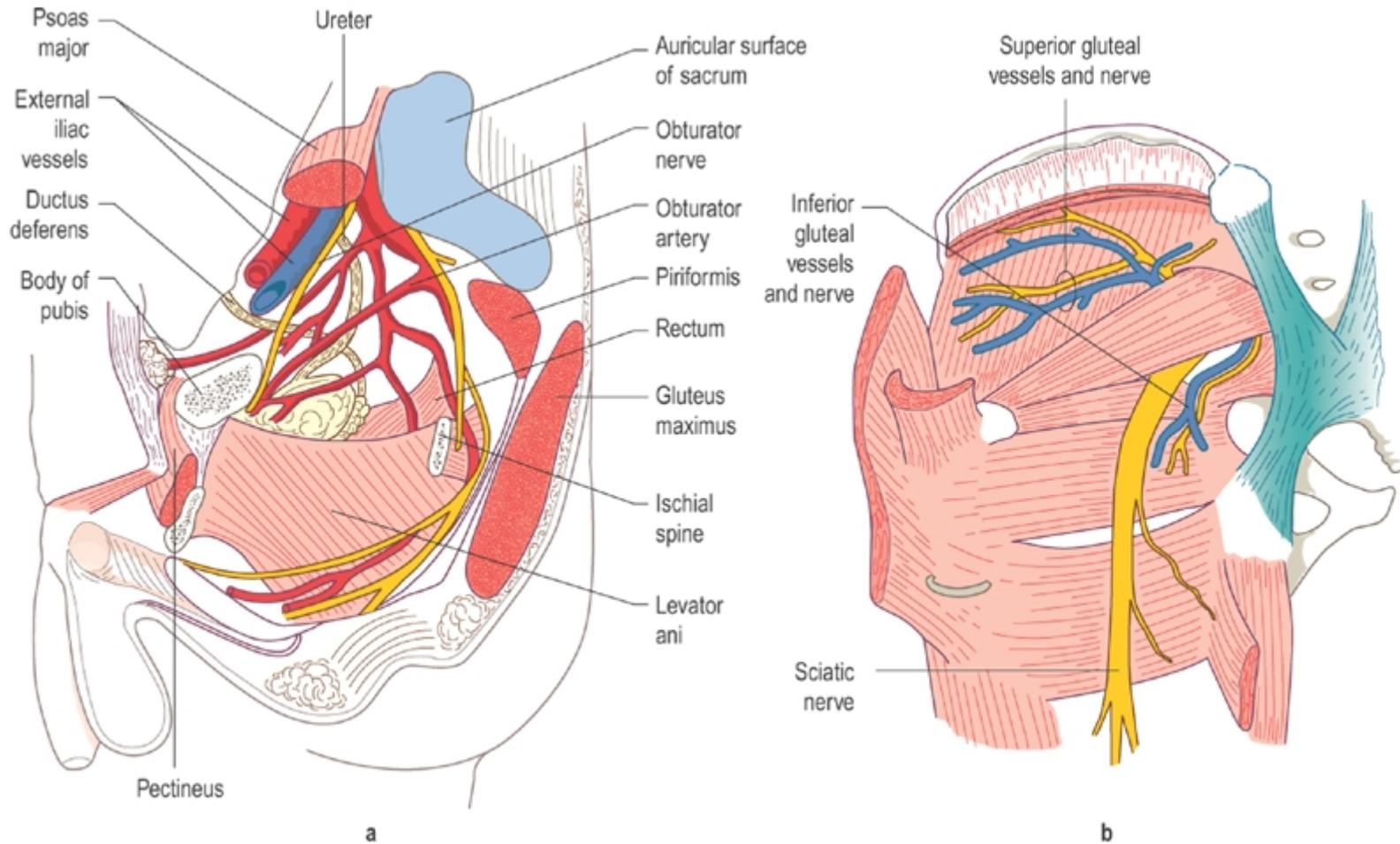
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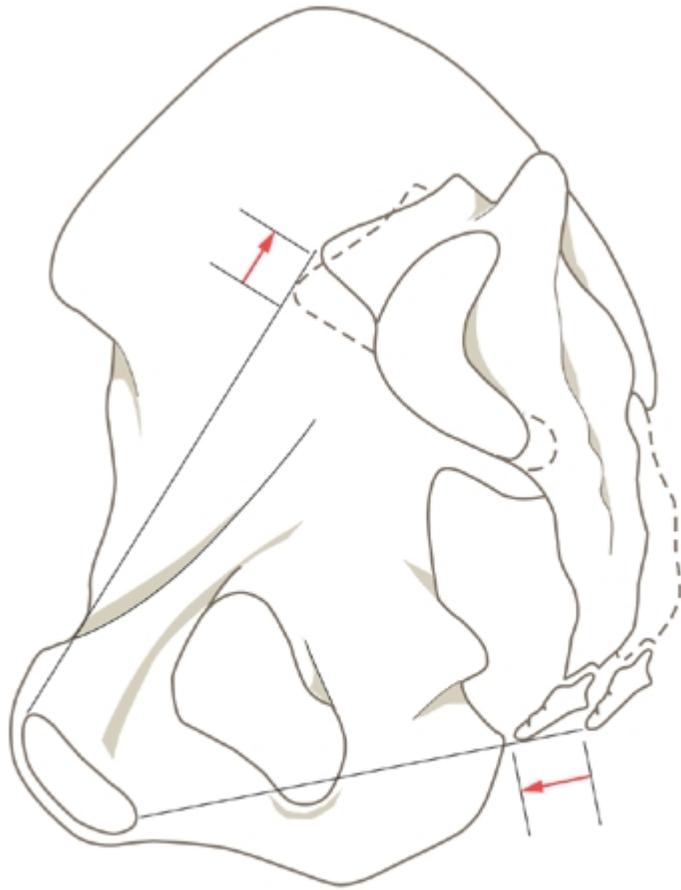


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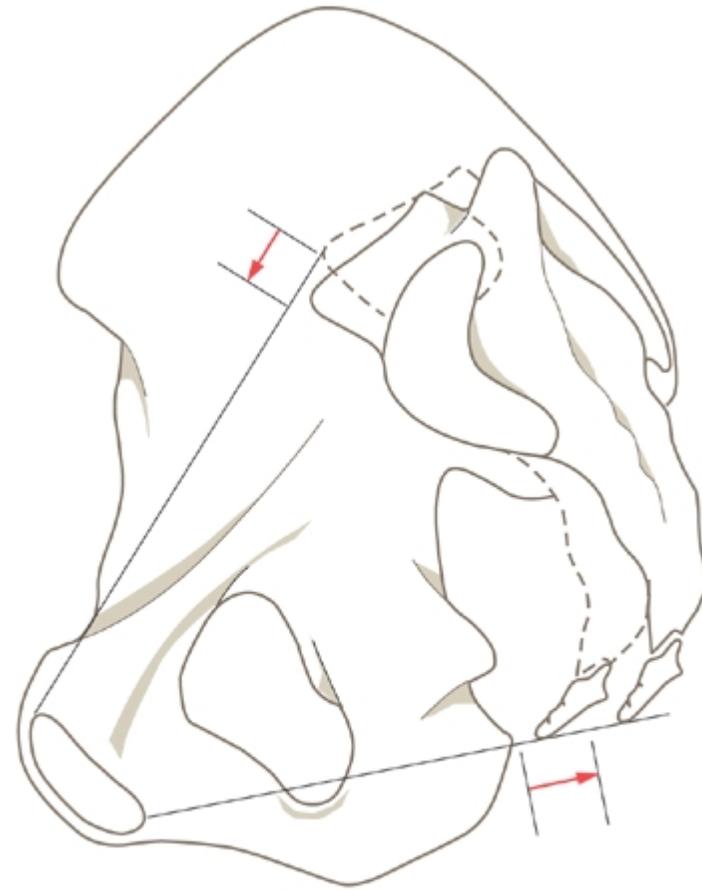




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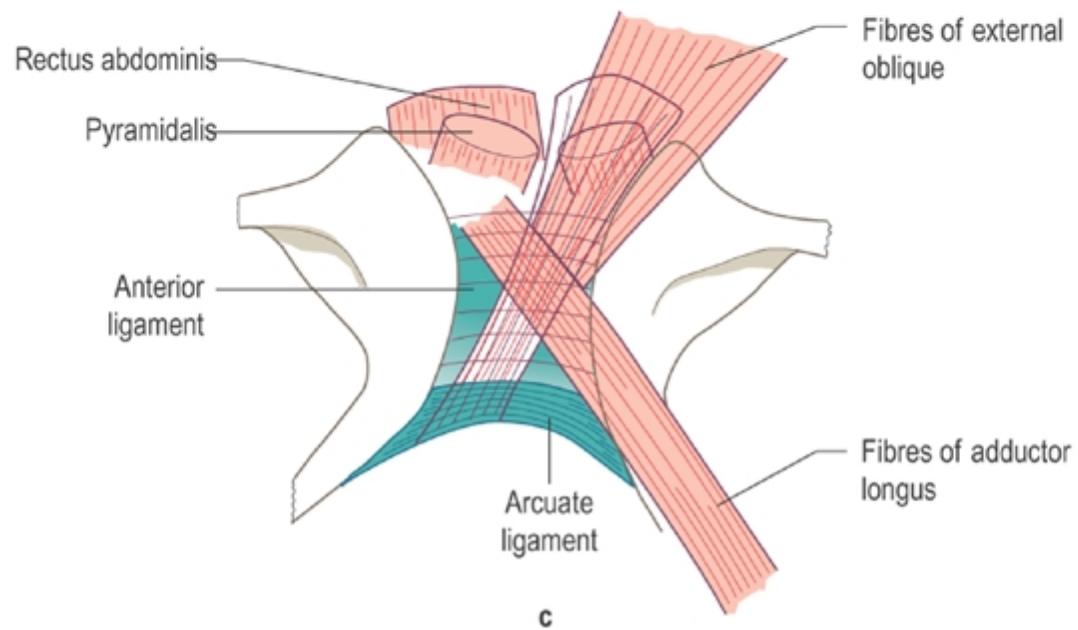
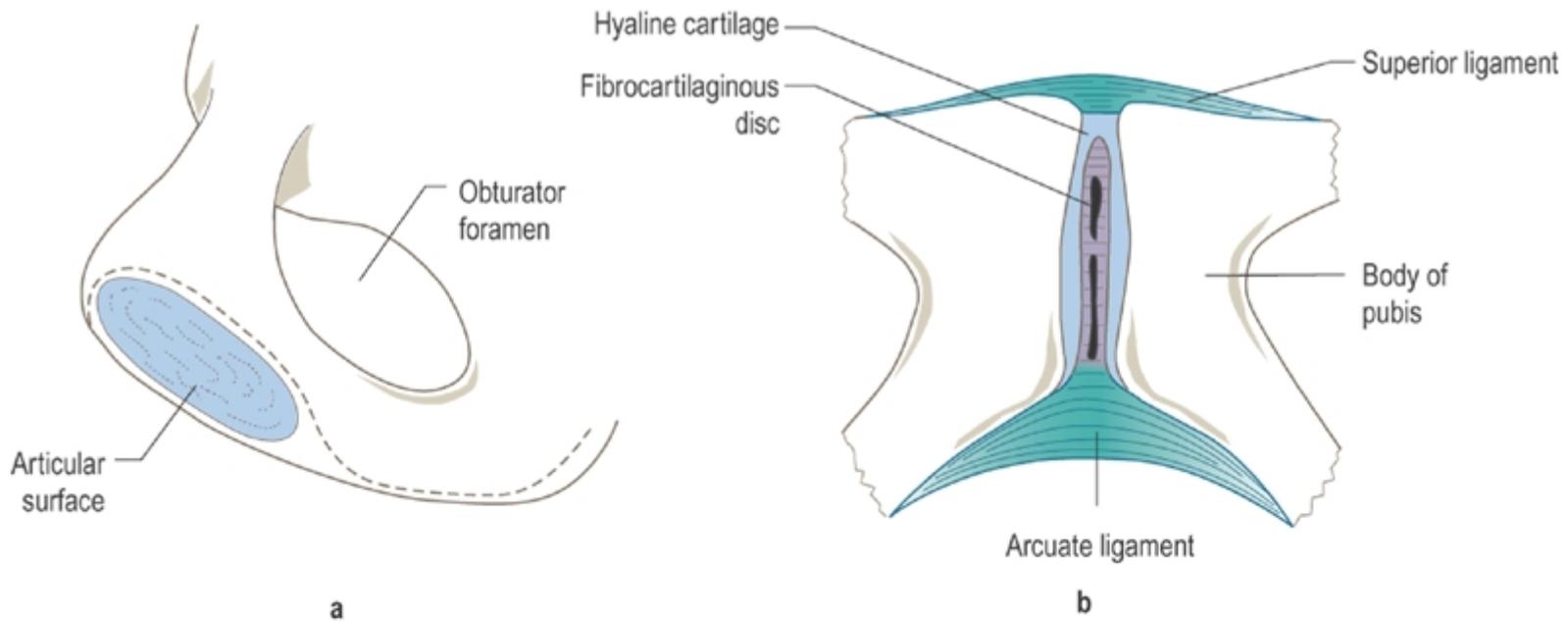
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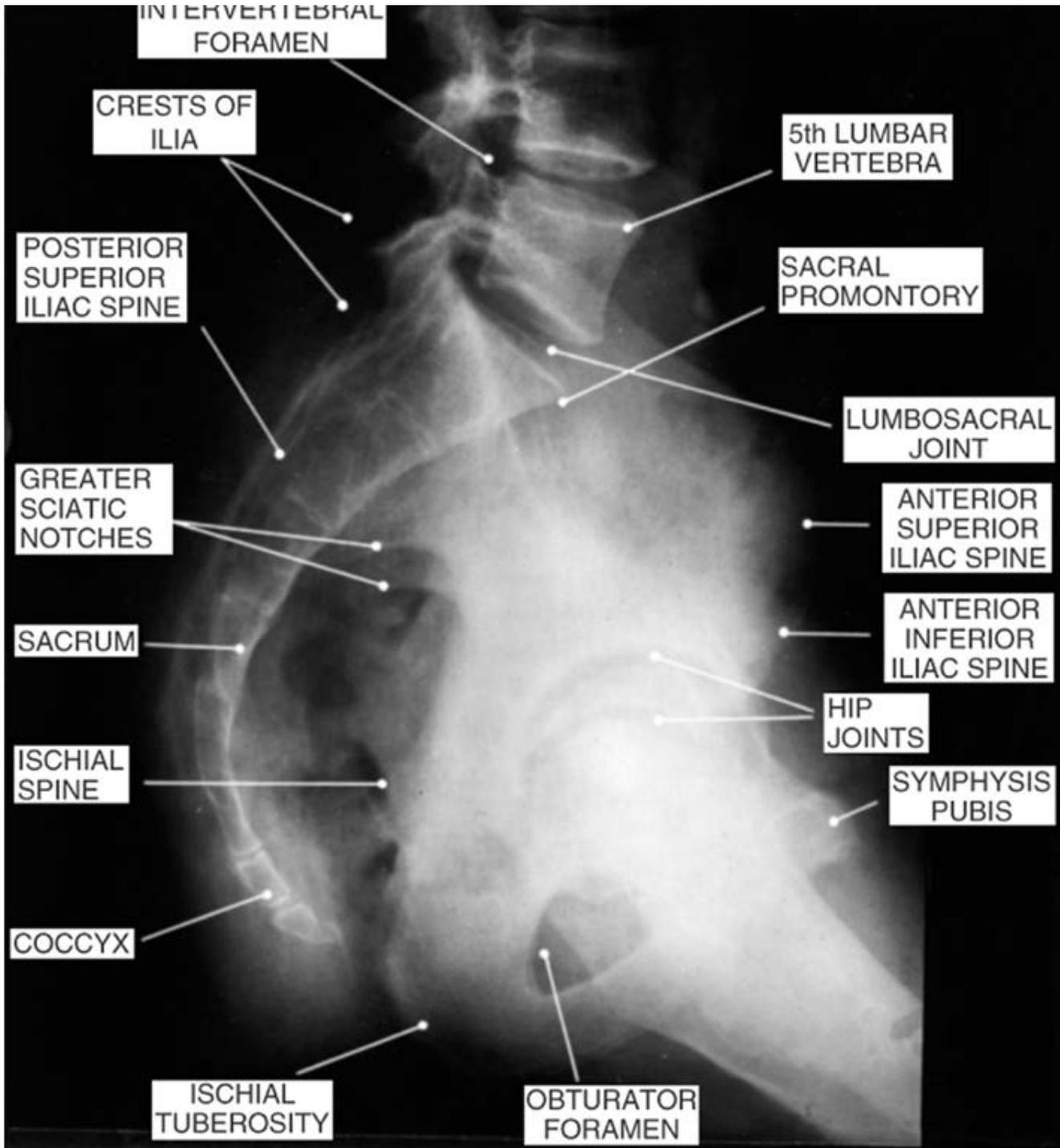


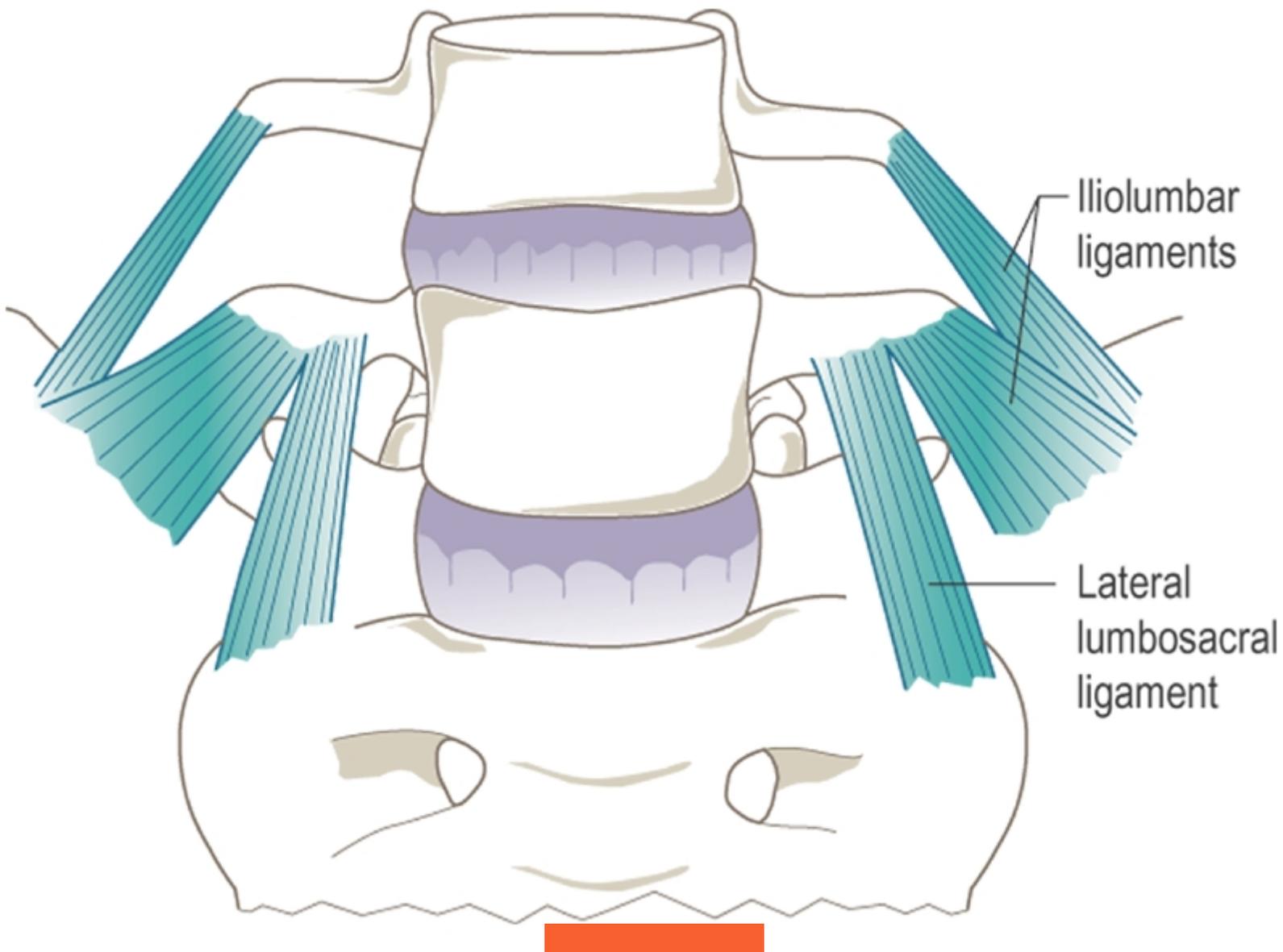
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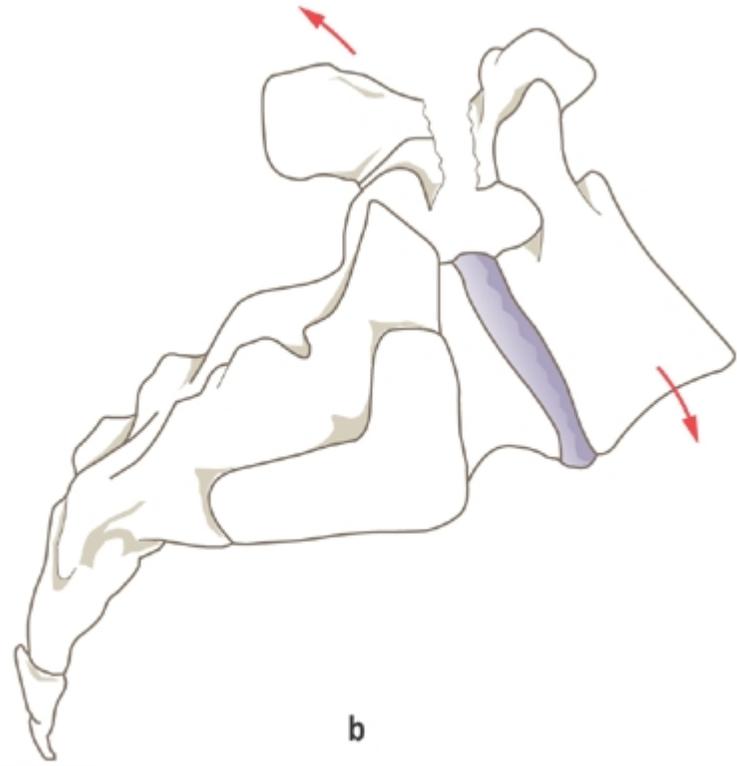
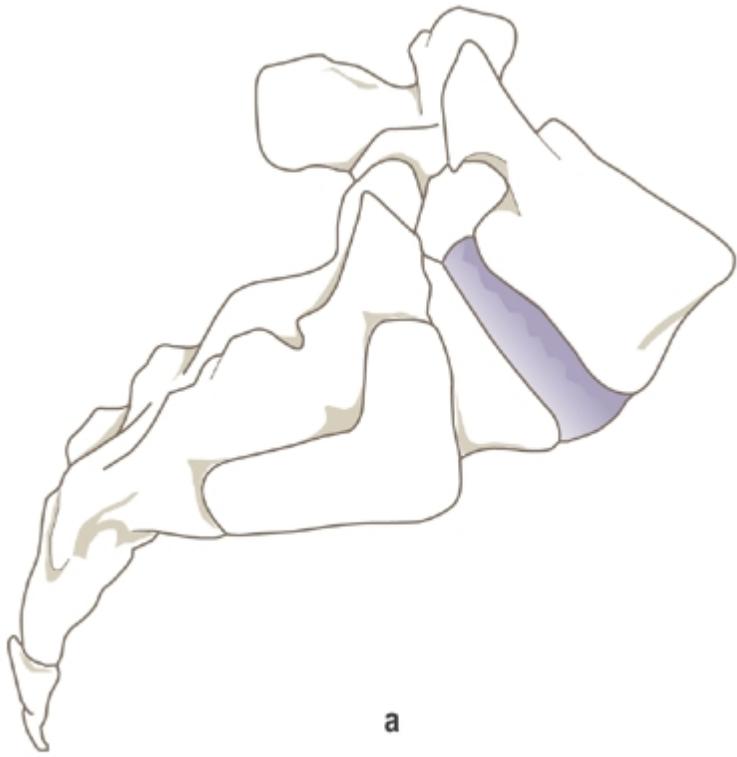
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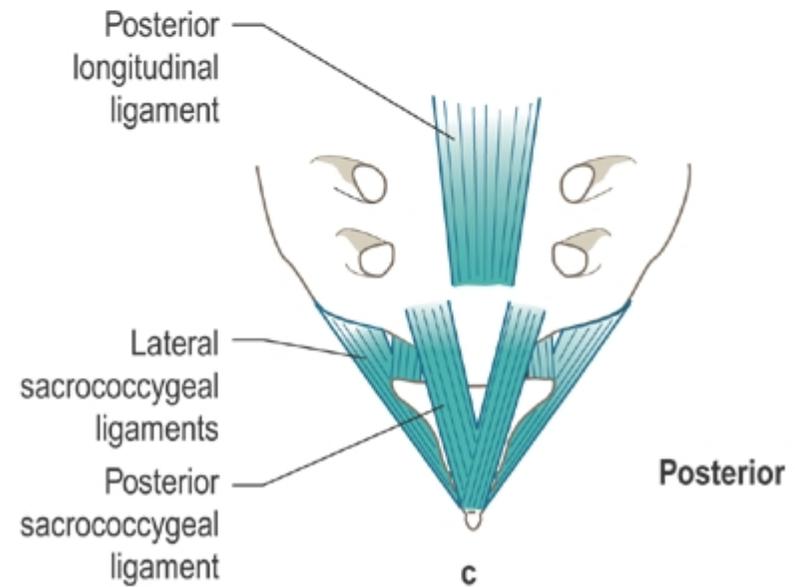
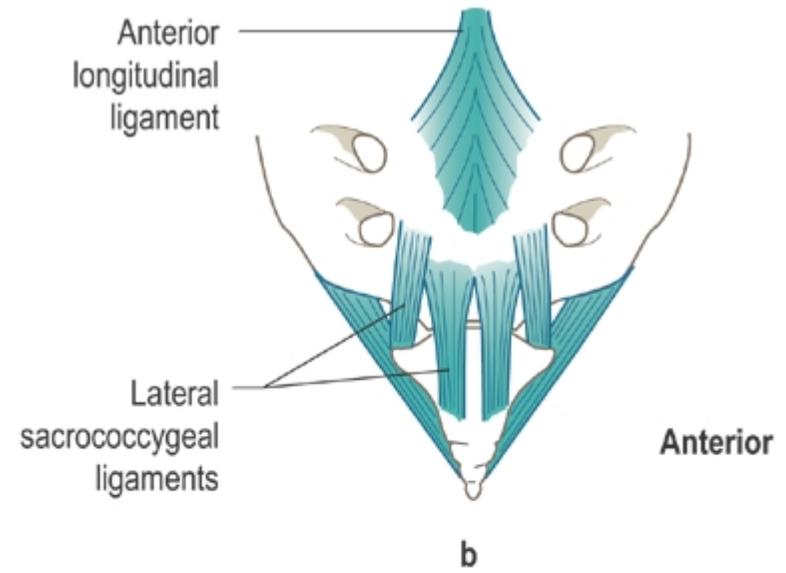
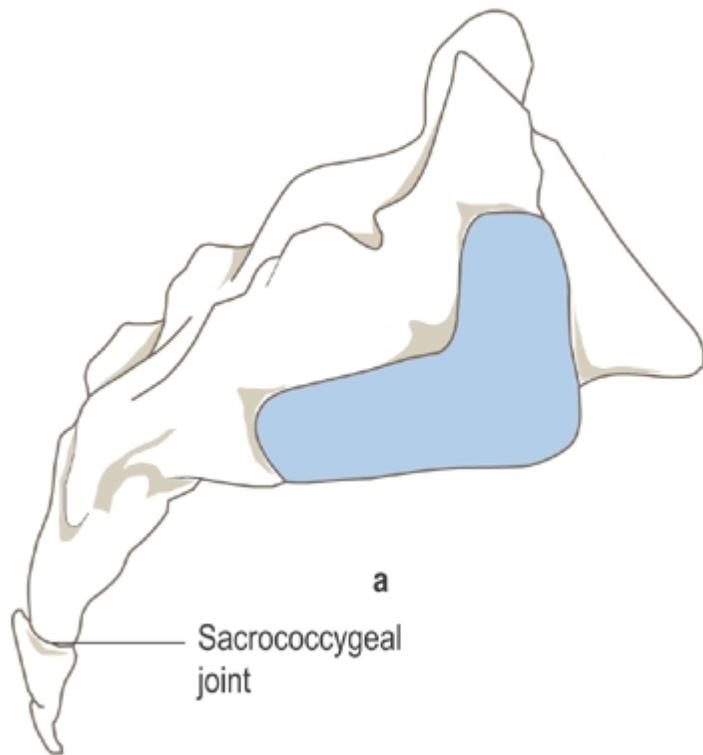










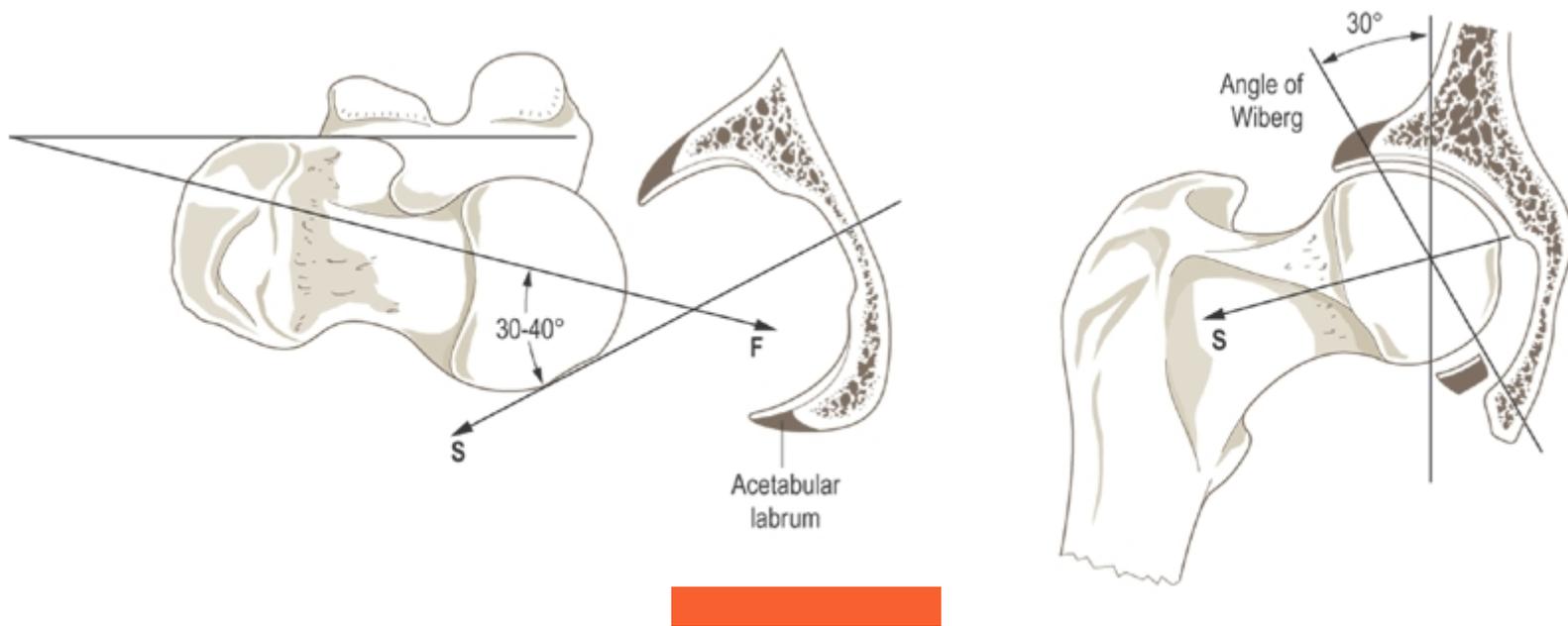




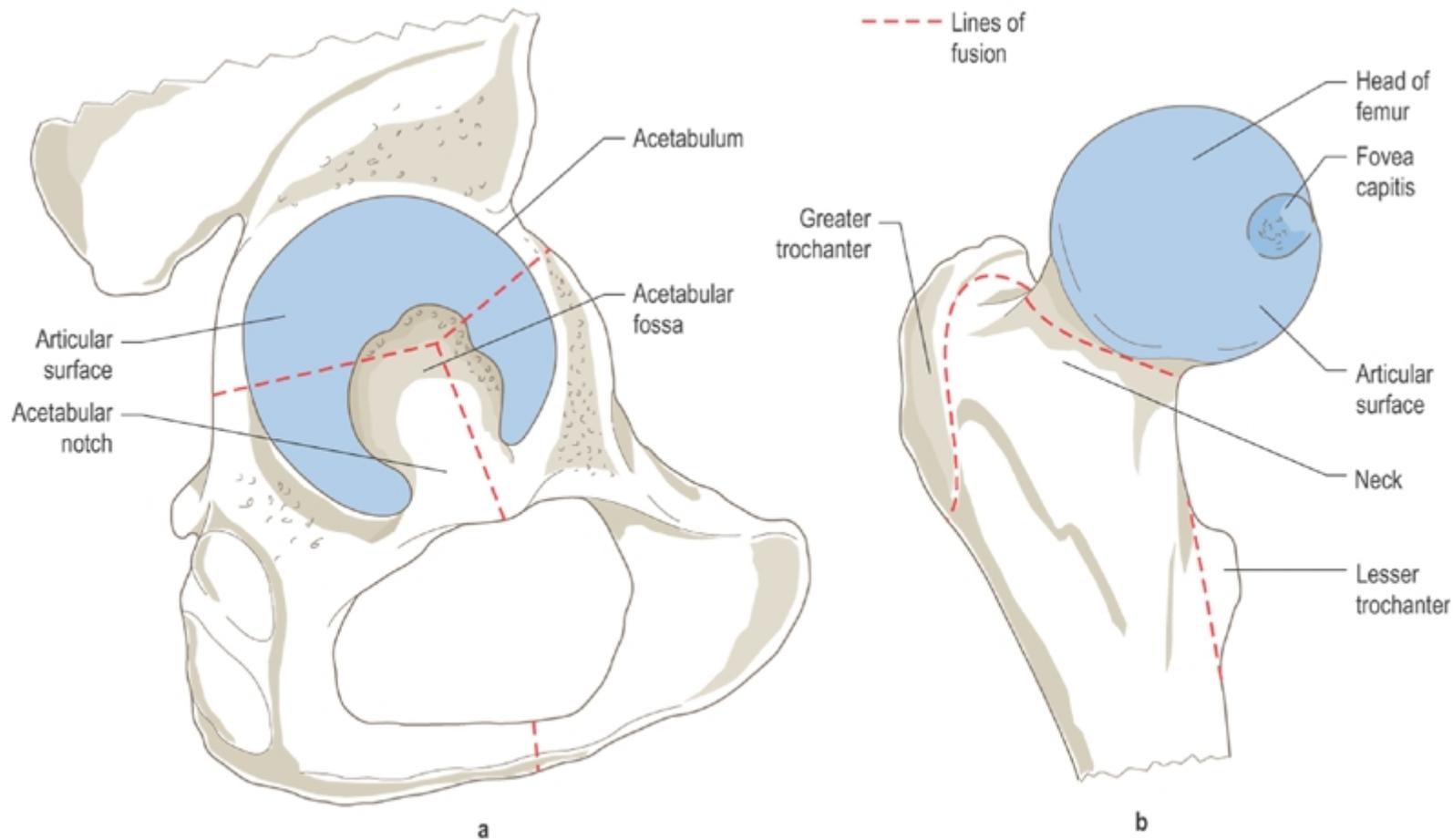
Acetabulum

Head of femur

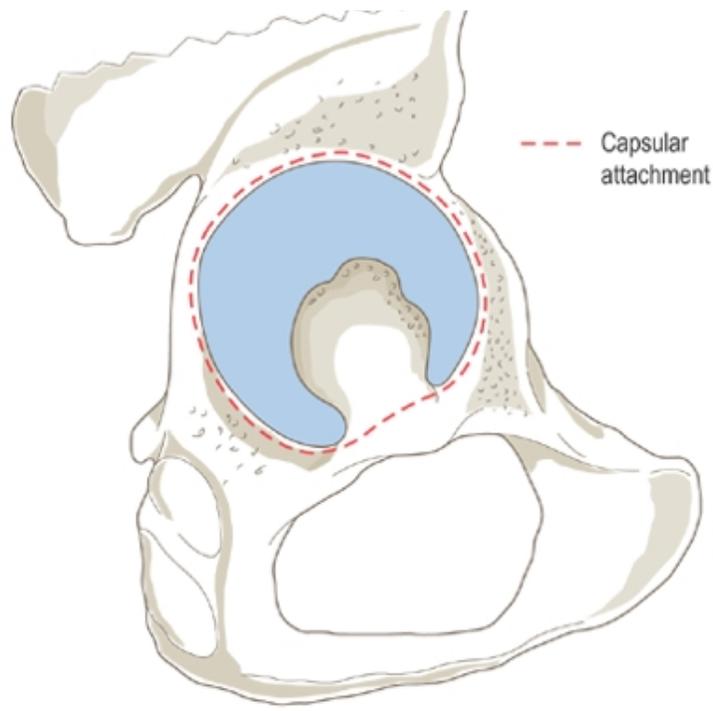
Shenton's line



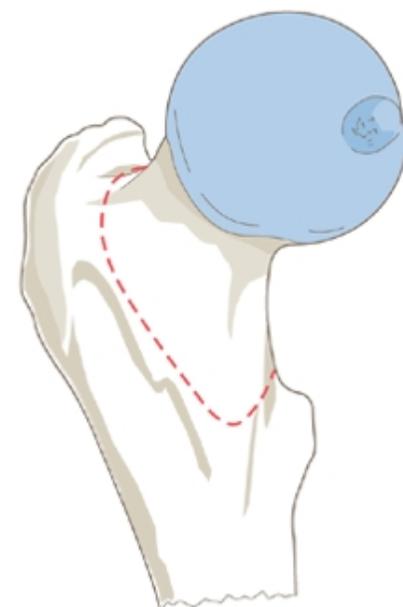
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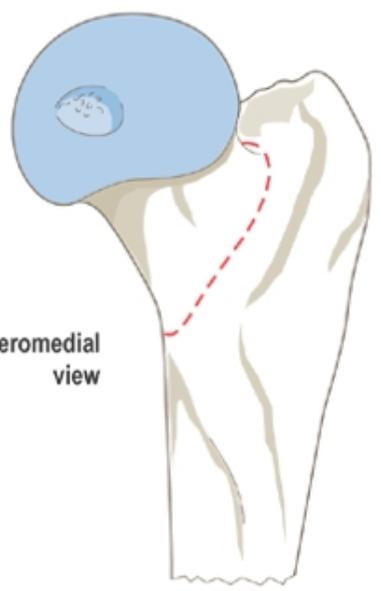


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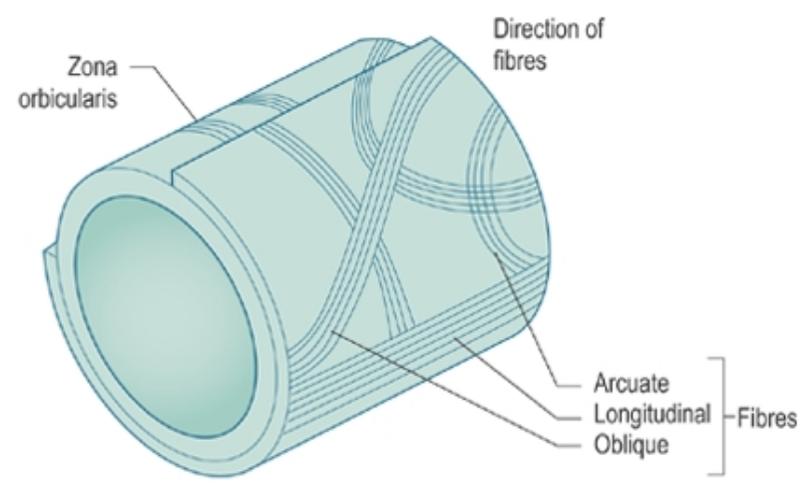
Anteromedial view

b



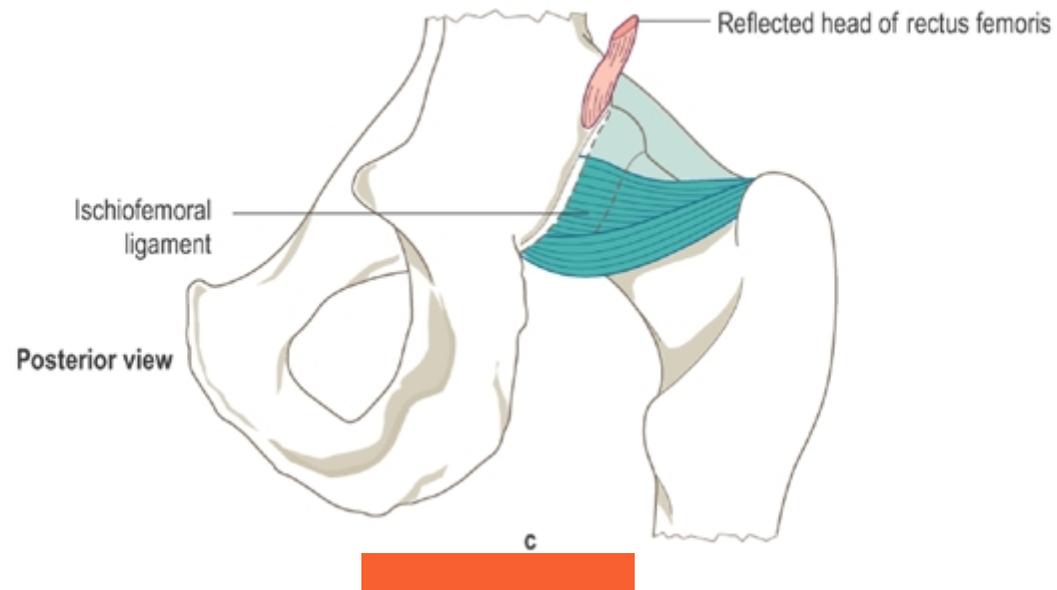
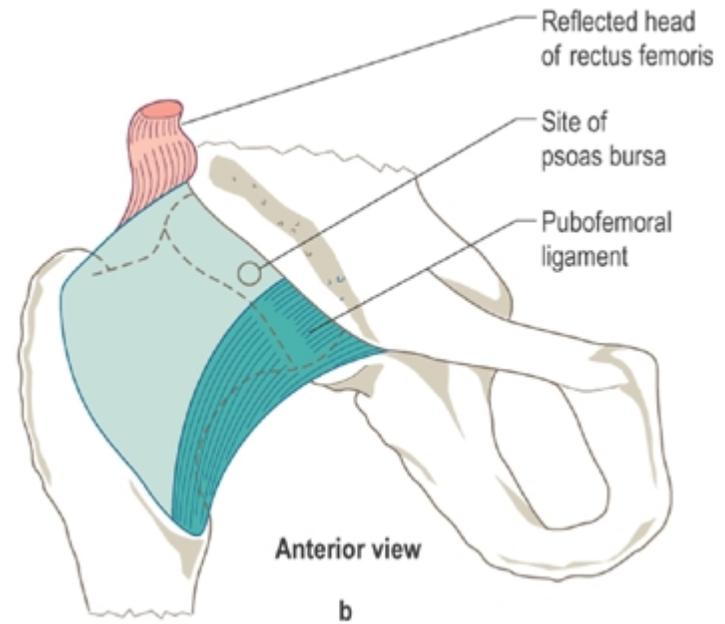
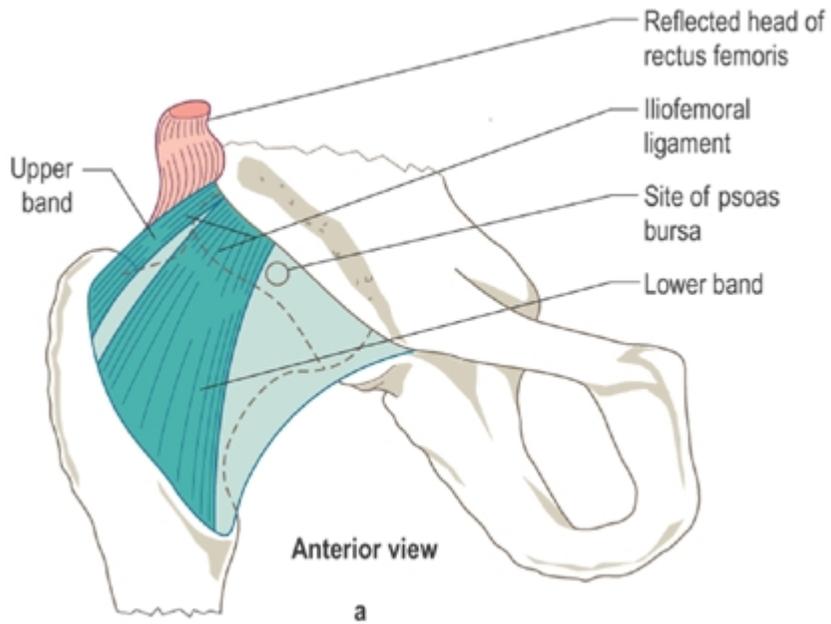
Posteromedial view

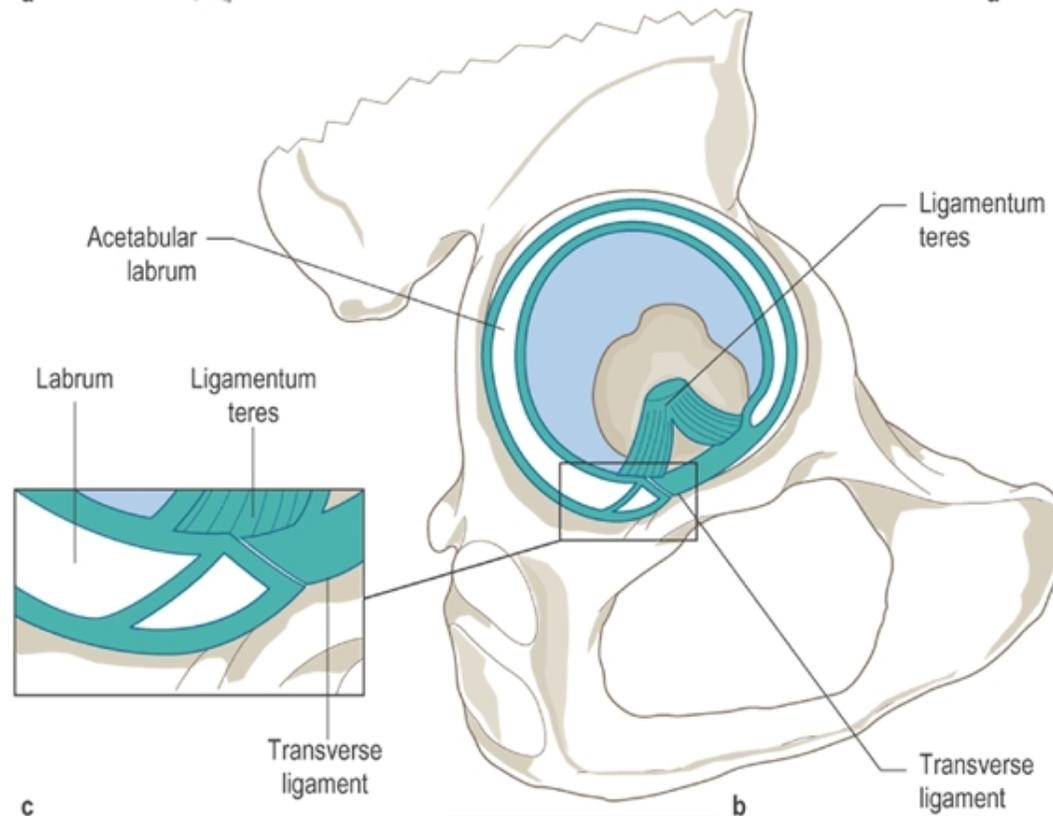
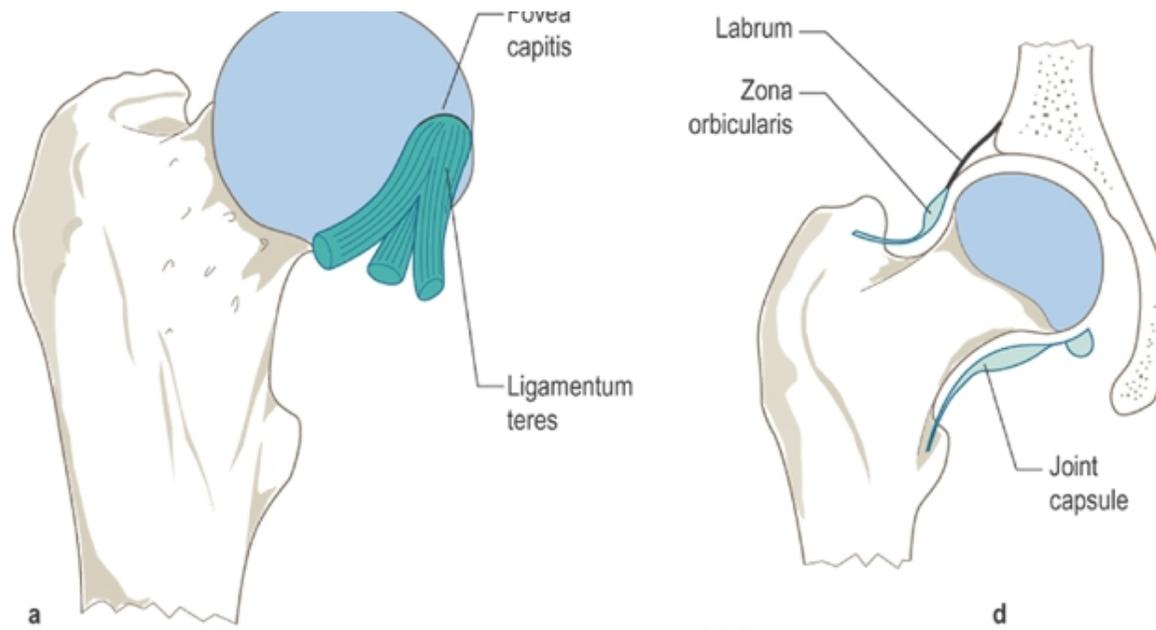
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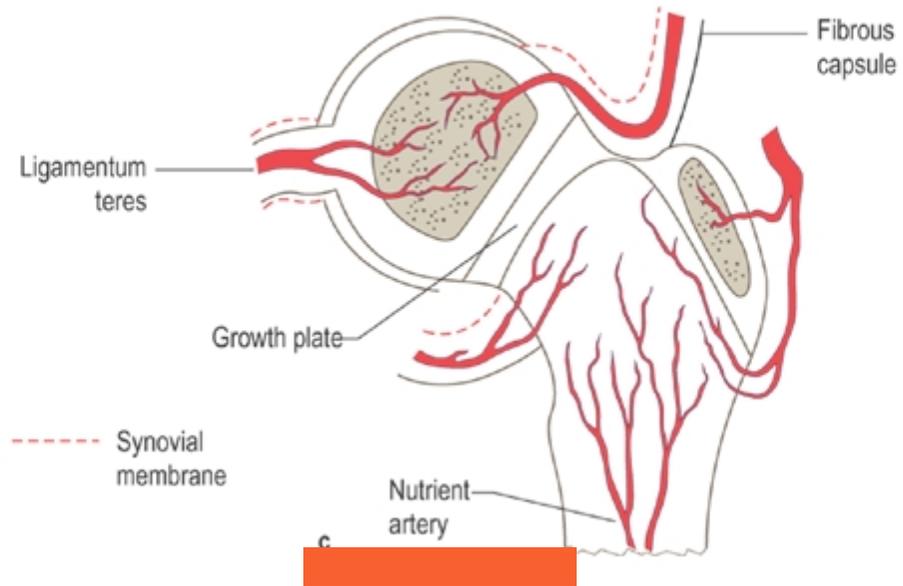
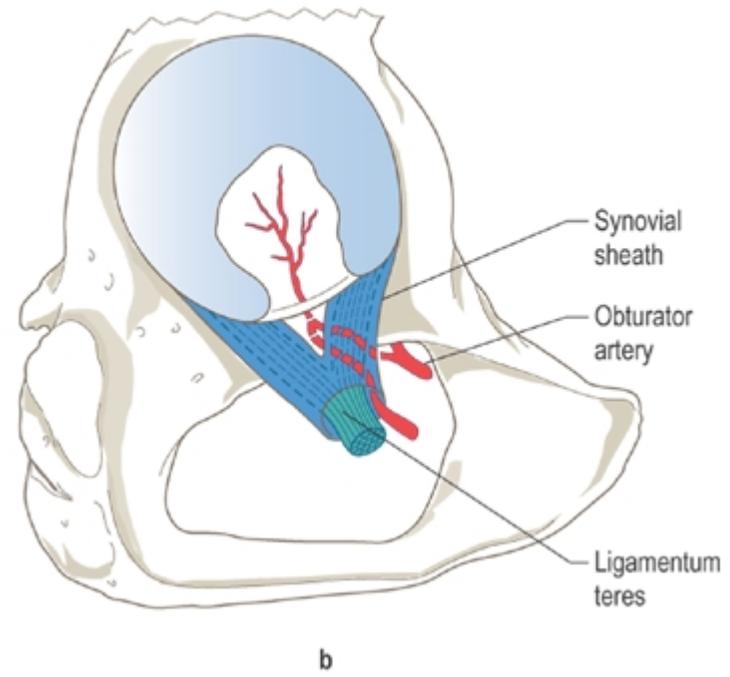
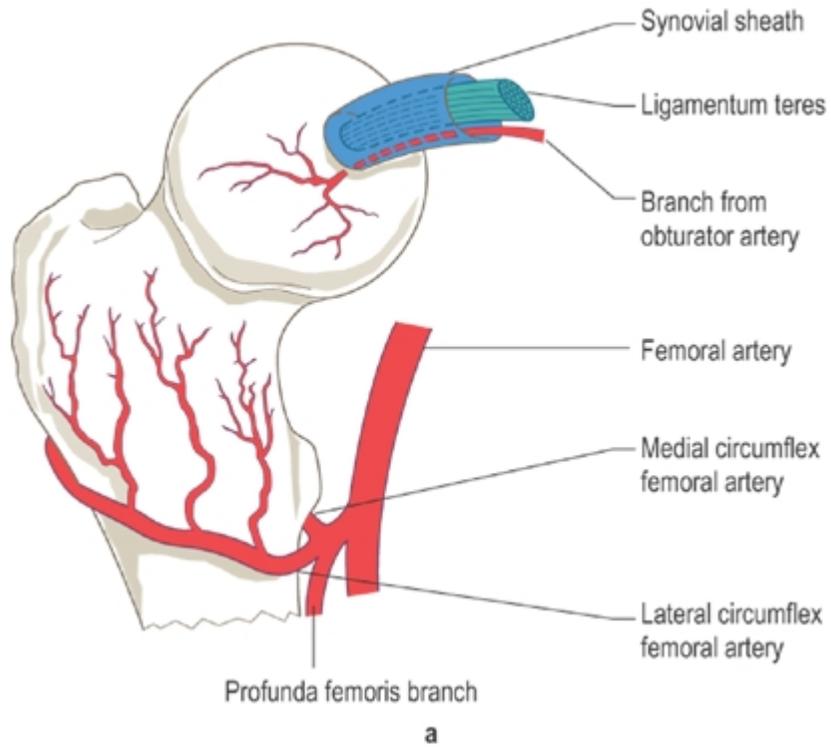


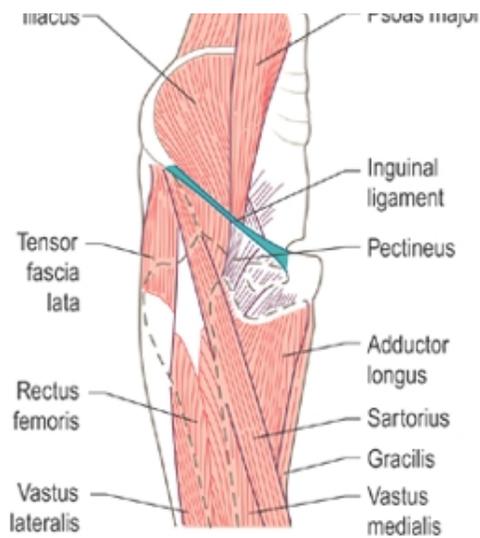
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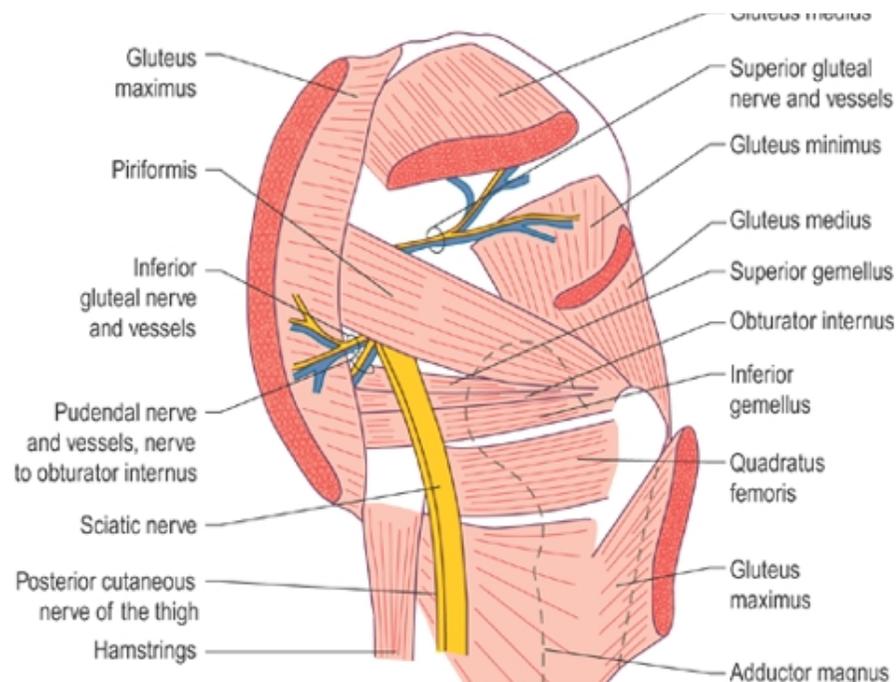




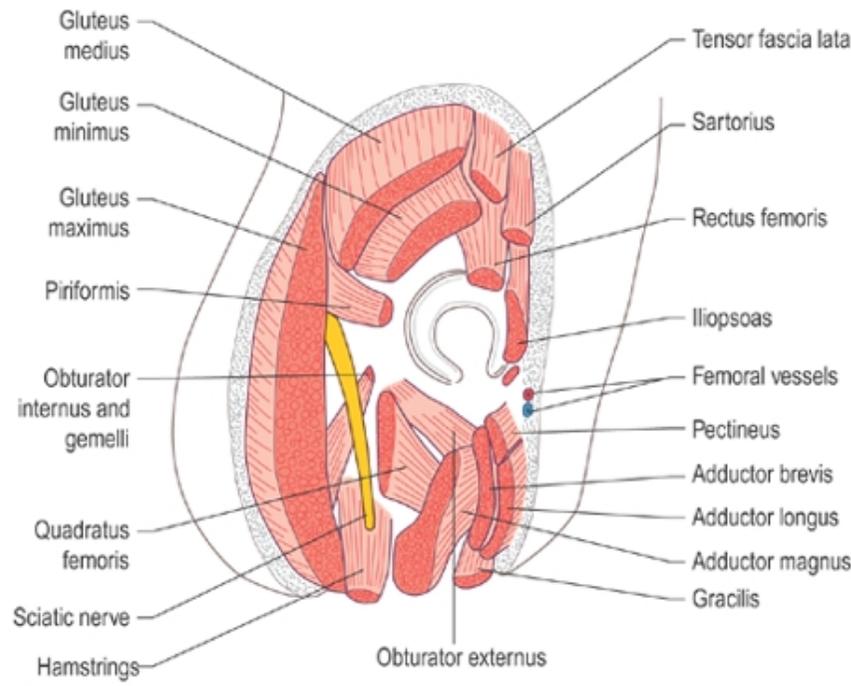




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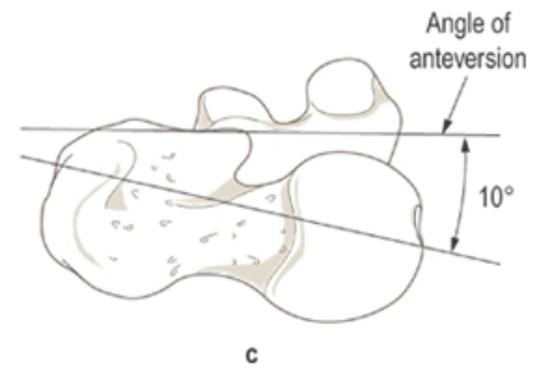
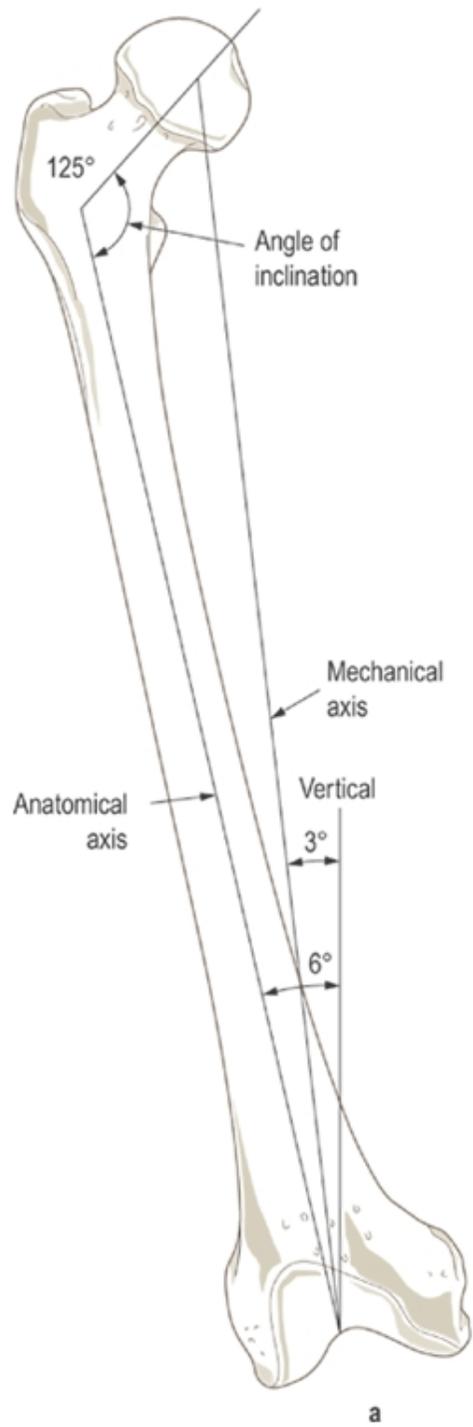


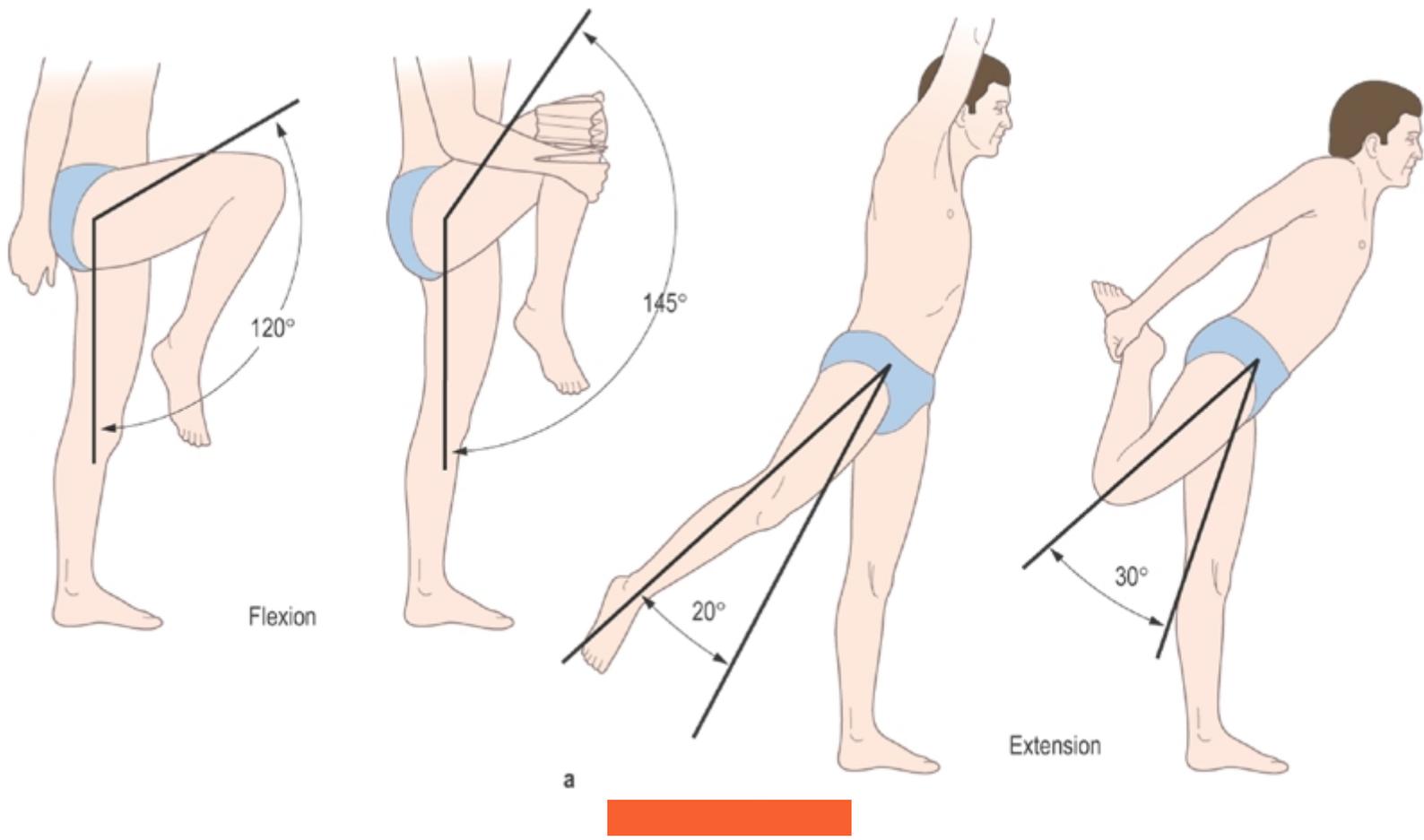
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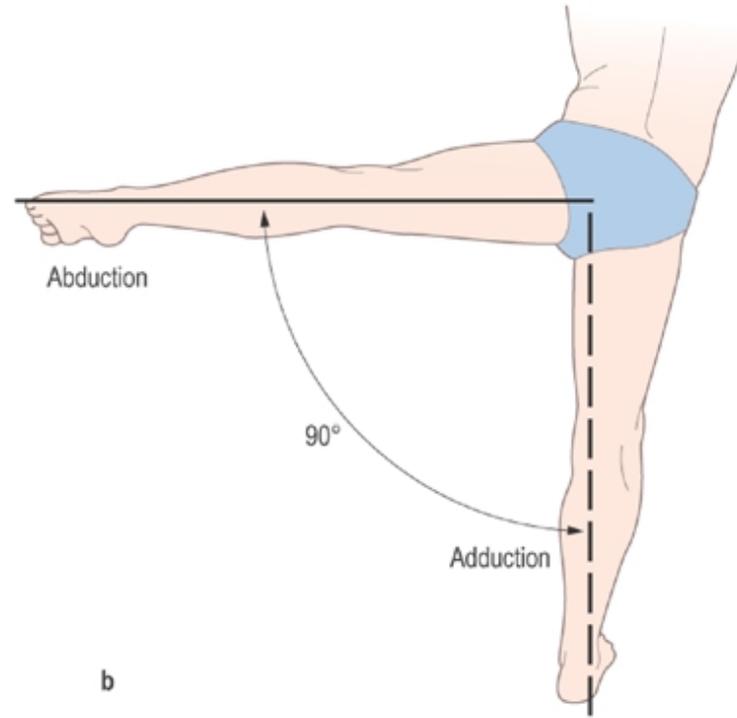
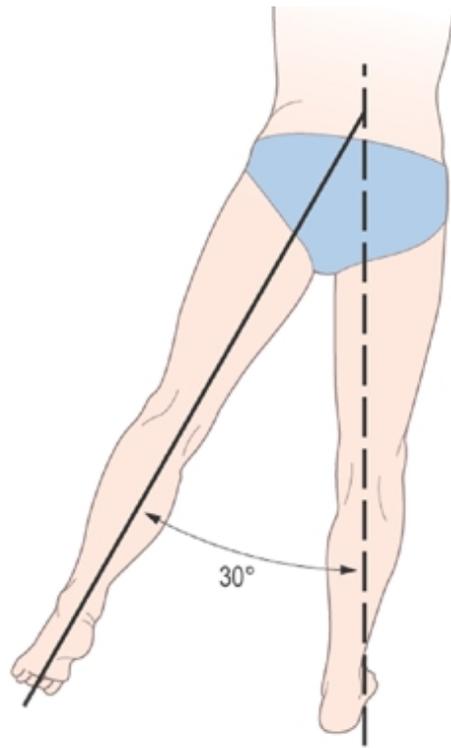


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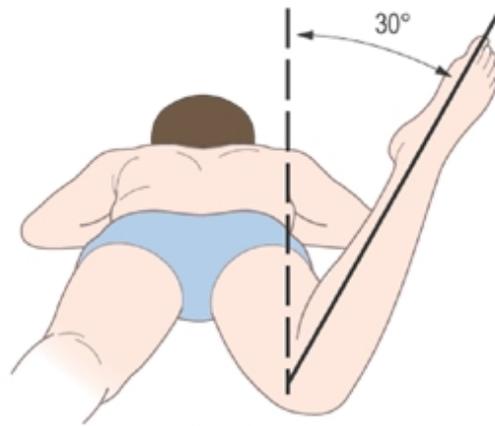




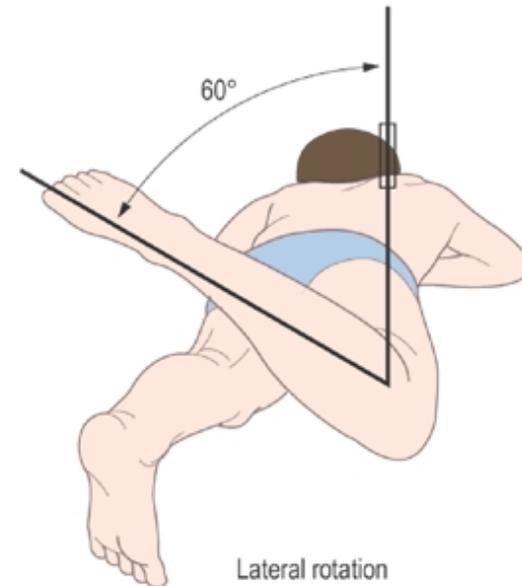




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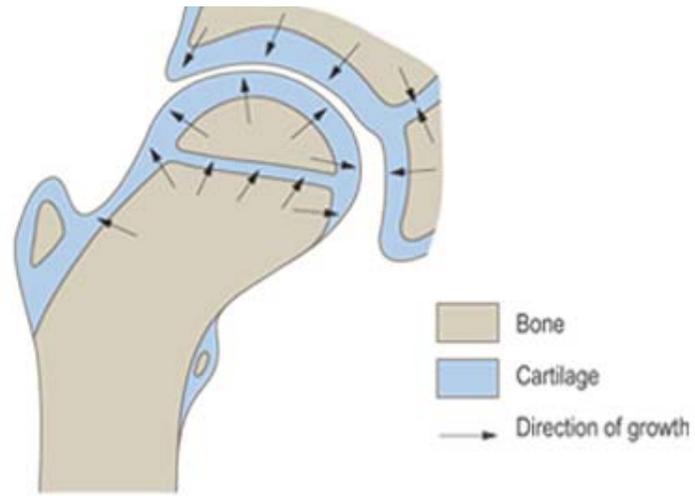
Medial rotation



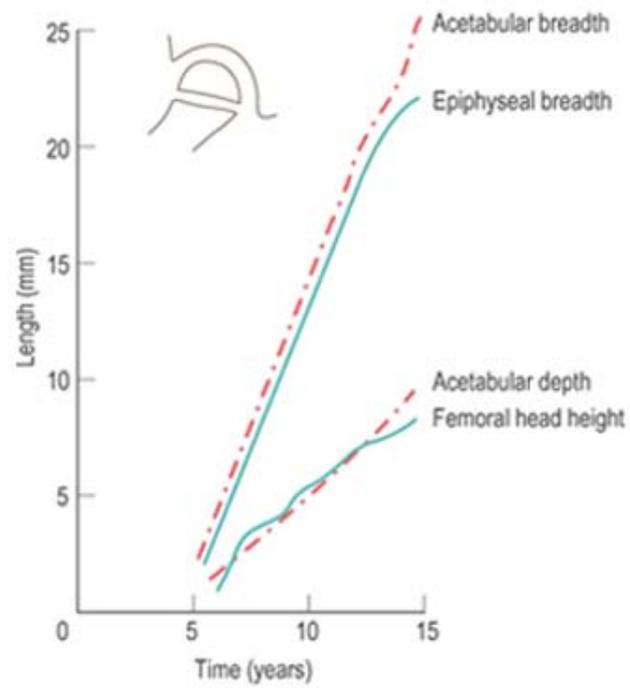
Lateral rotation

c



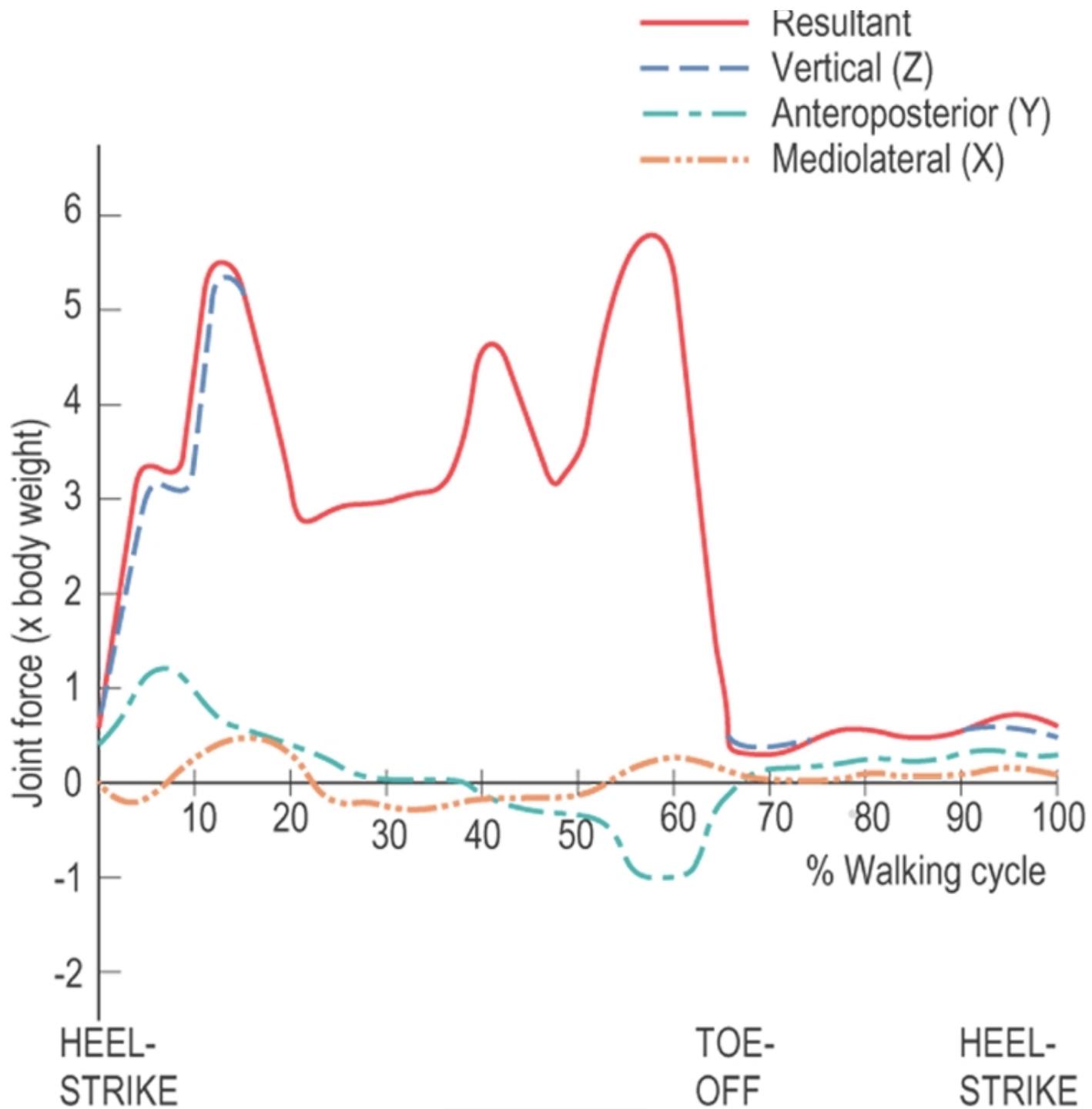


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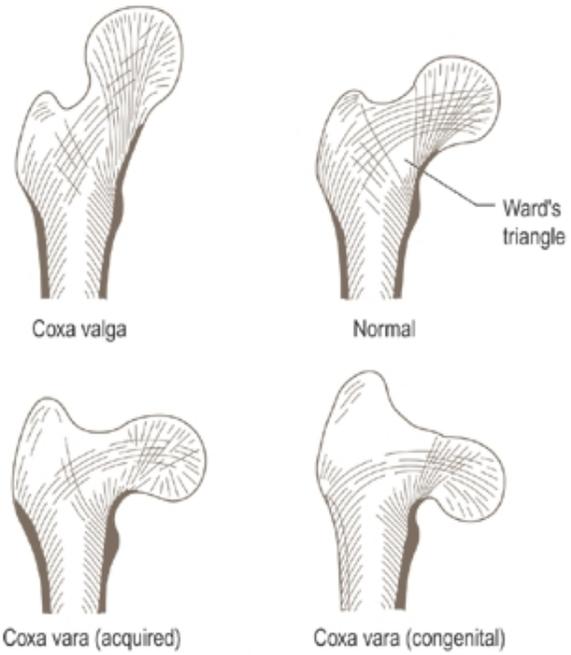
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(Adapted from Meszaros T, Kery L (1980) Quantitative analysis of growth of the hip. A radiological study. *Acta Orthopaedica Scandinavica*, 51, 275-284.)



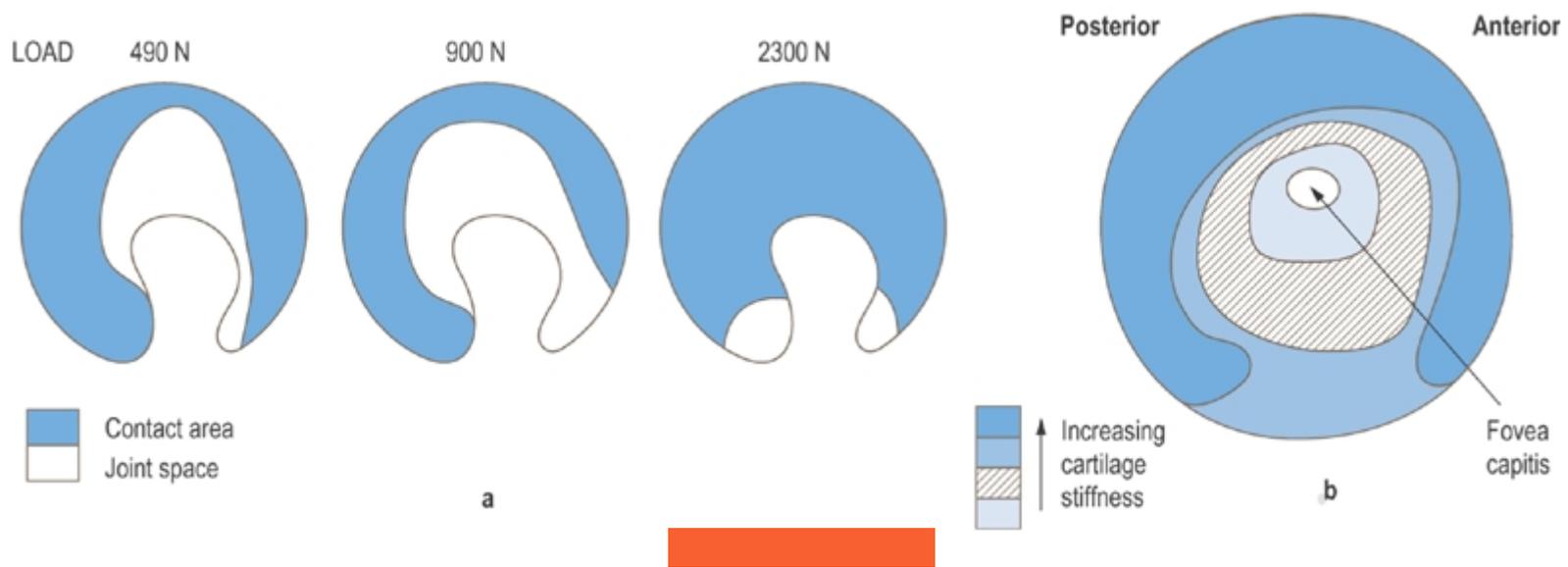


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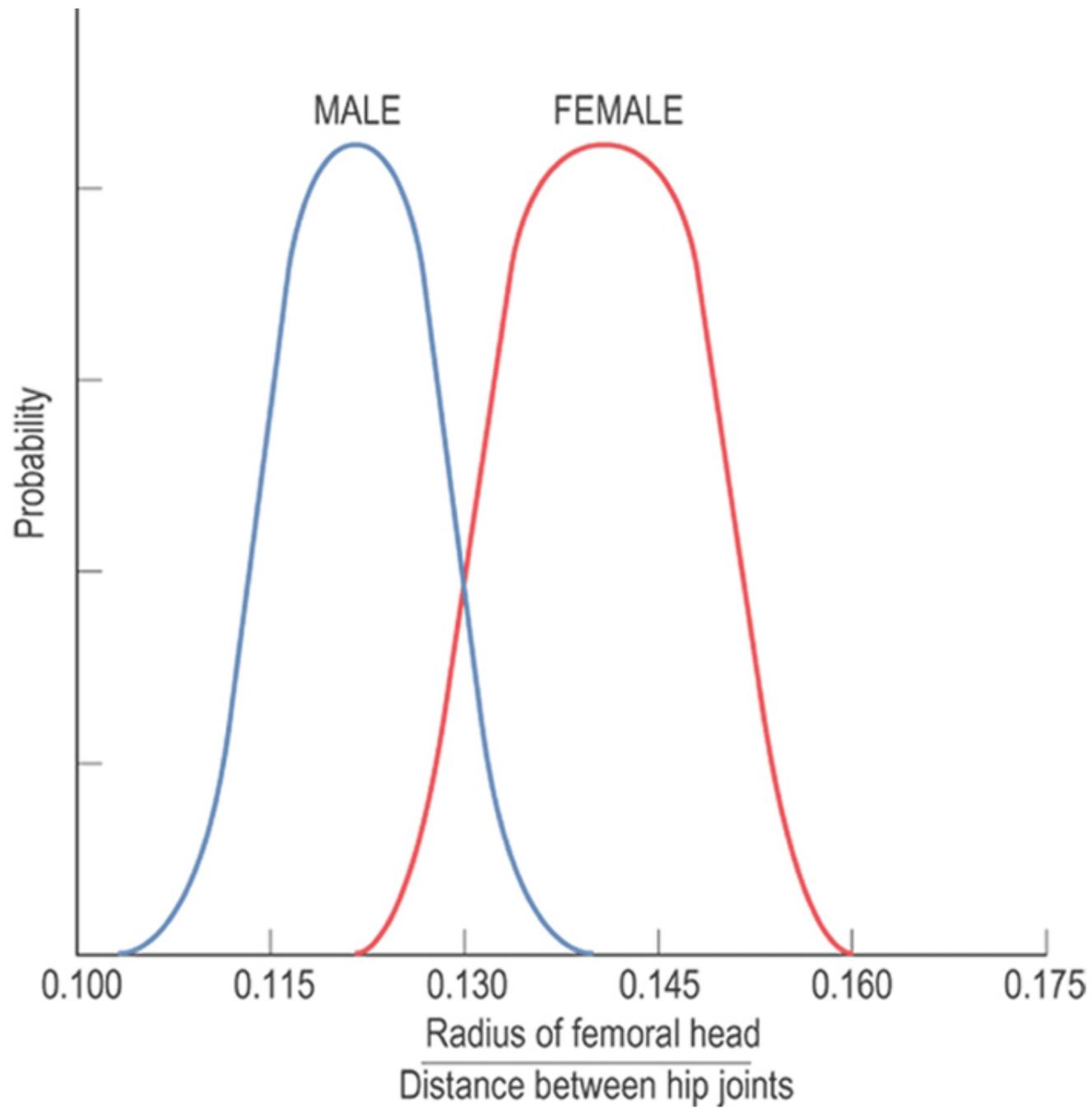


b





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(Adapted from Brinckman P, Hoefert H and Jongen HT (1981) Sex differences in the skeletal geometry of the human pelvis and hip joint. *Journal of Biomechanics*, 14, 427-430.)



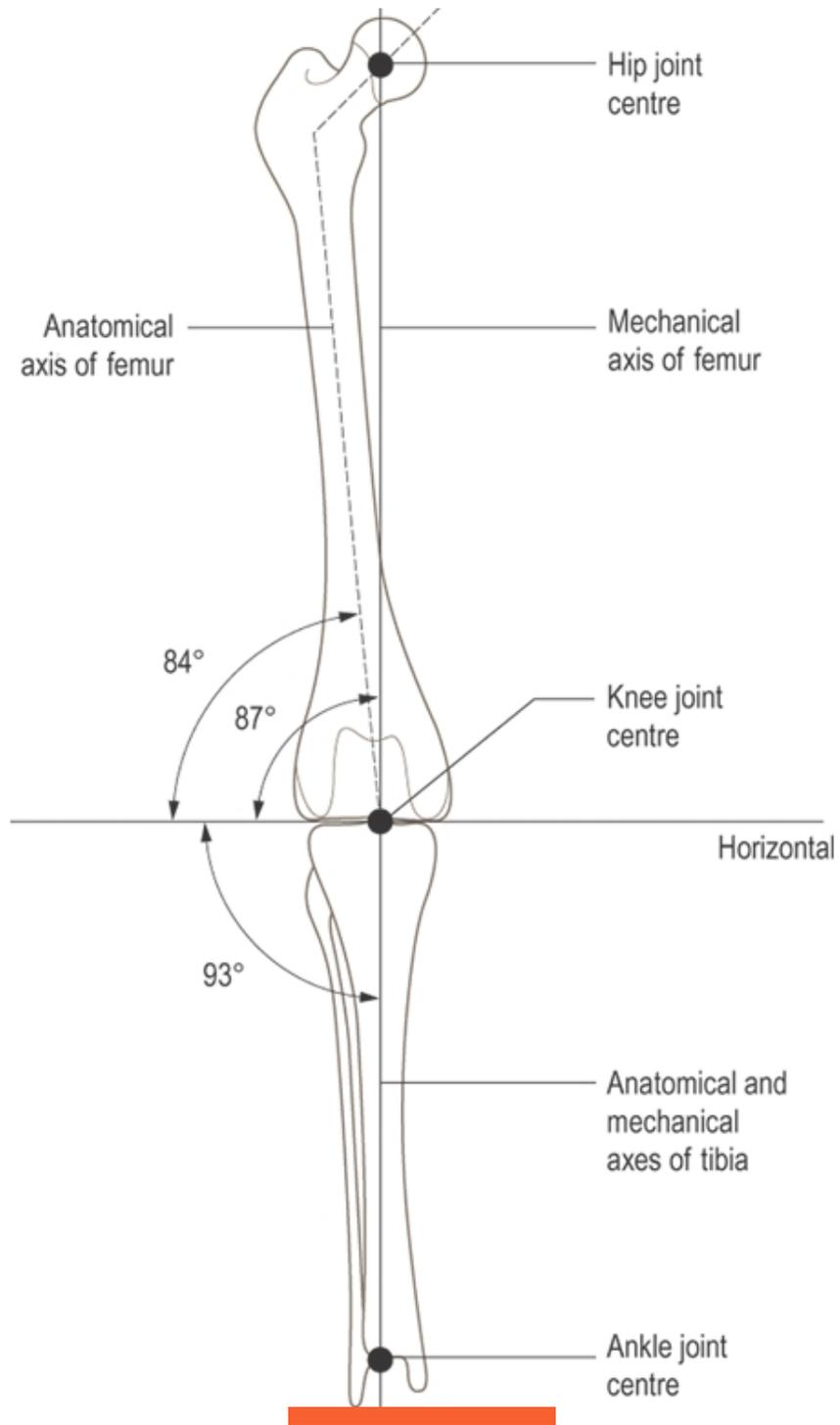
Male

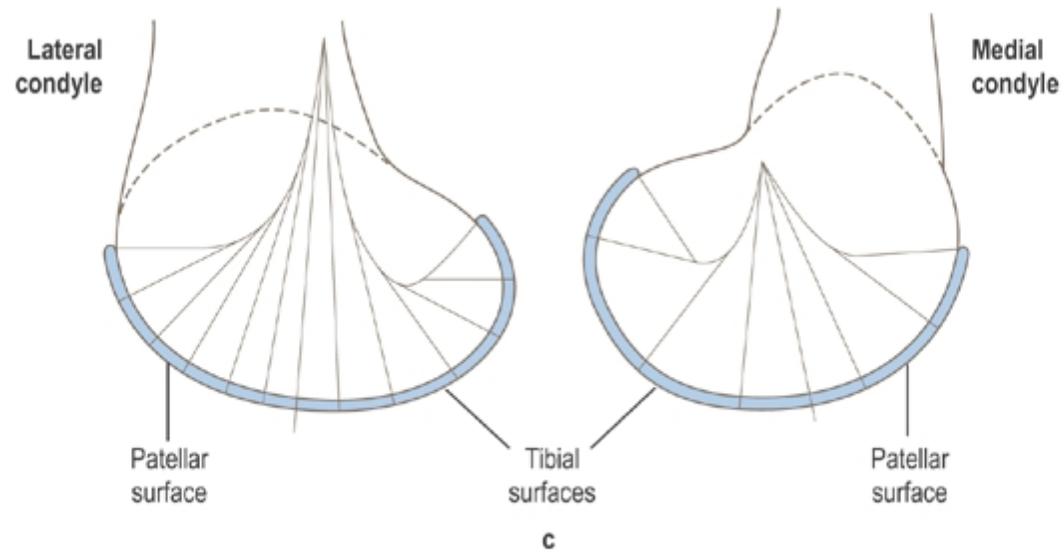
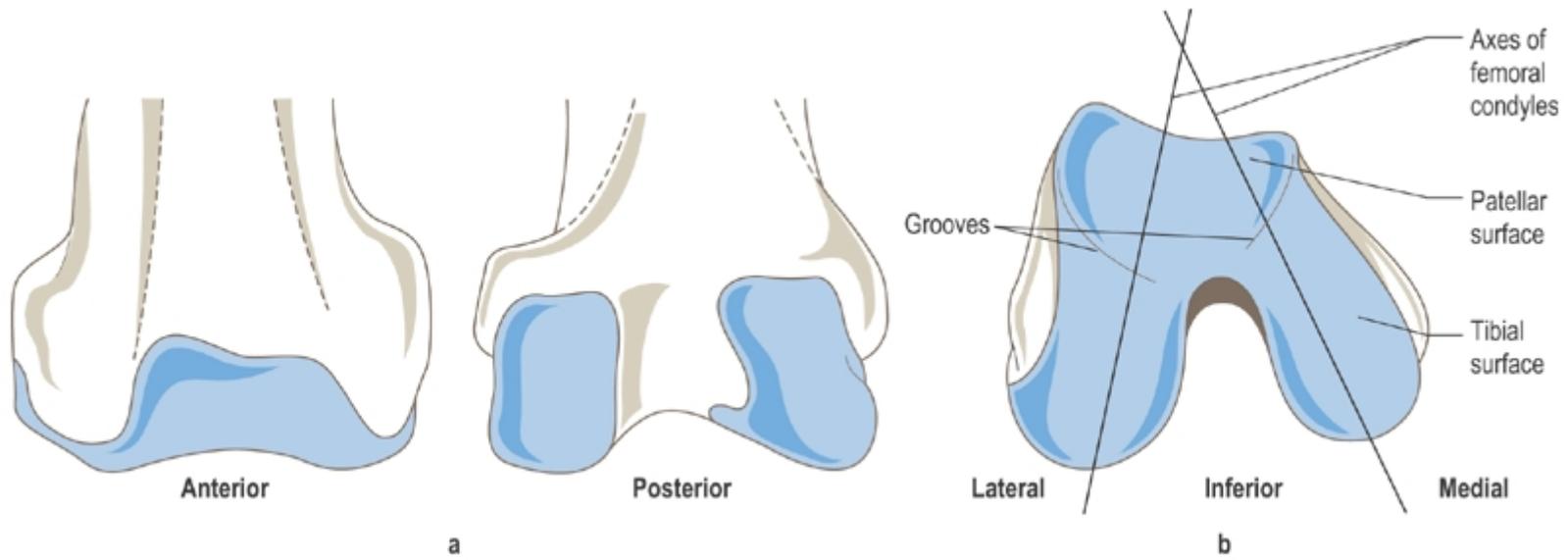


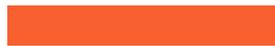
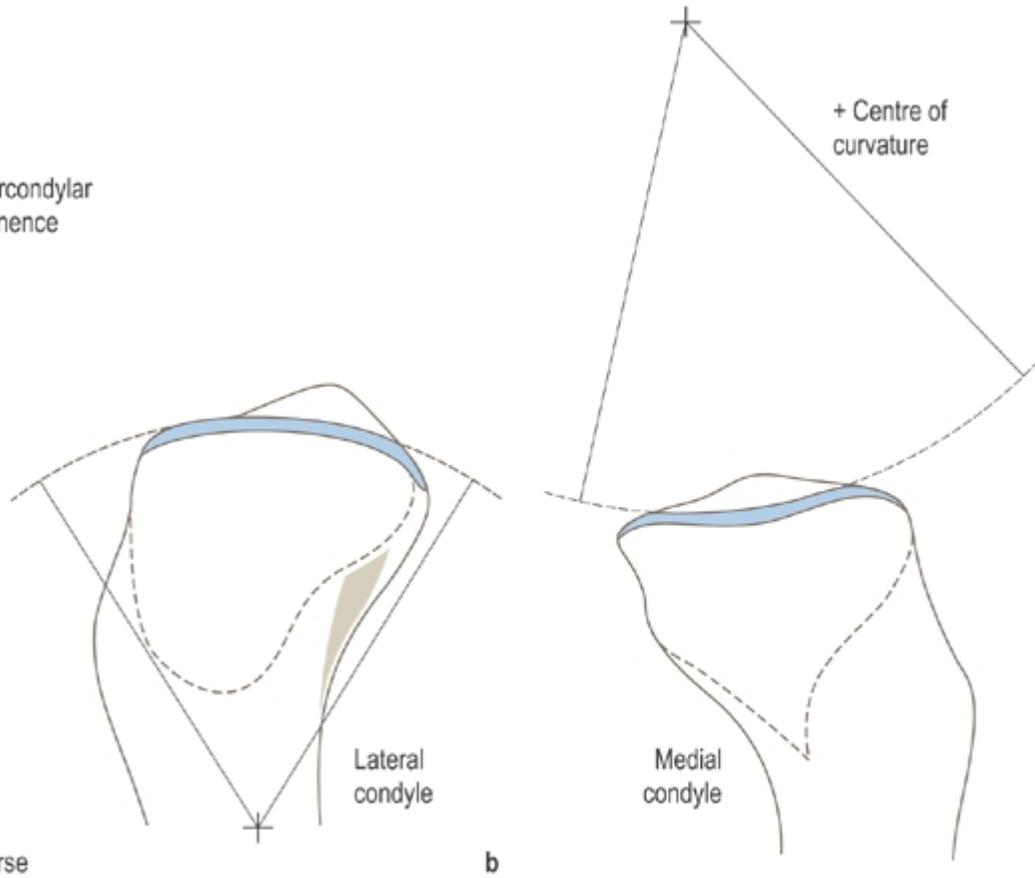
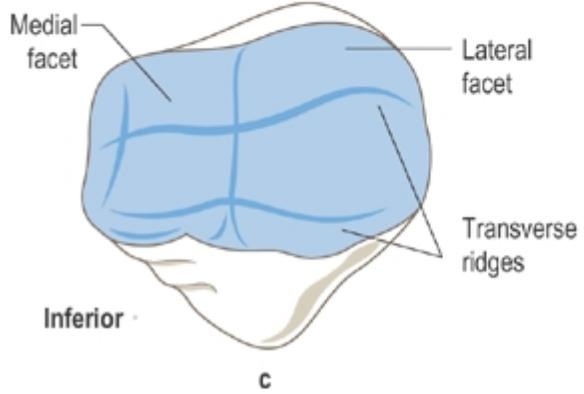
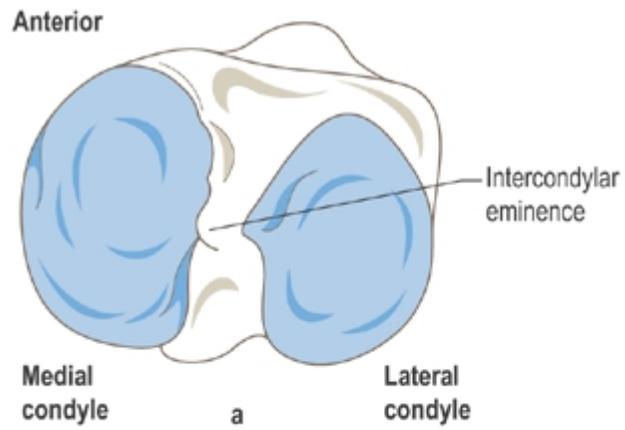
Female

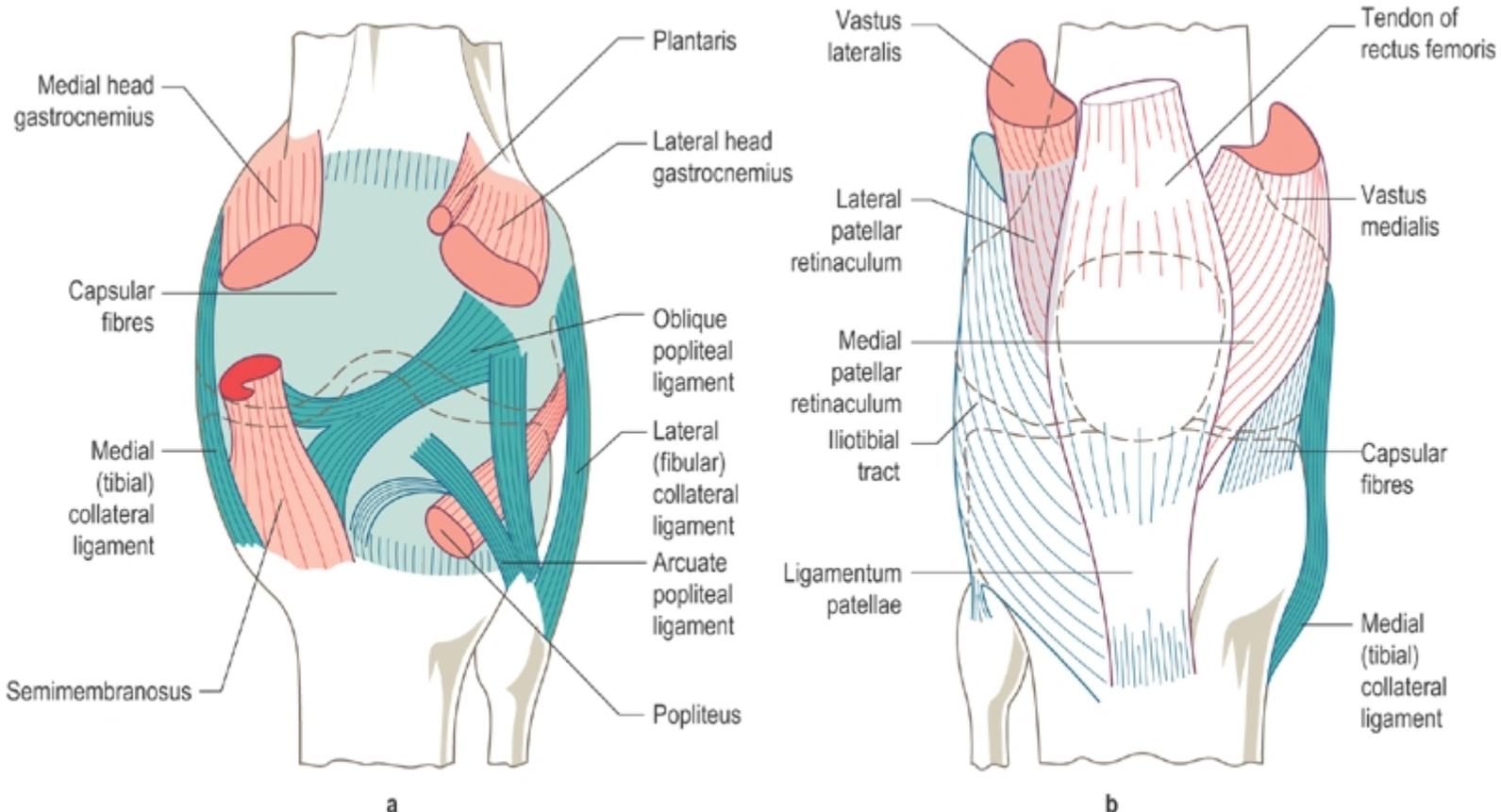




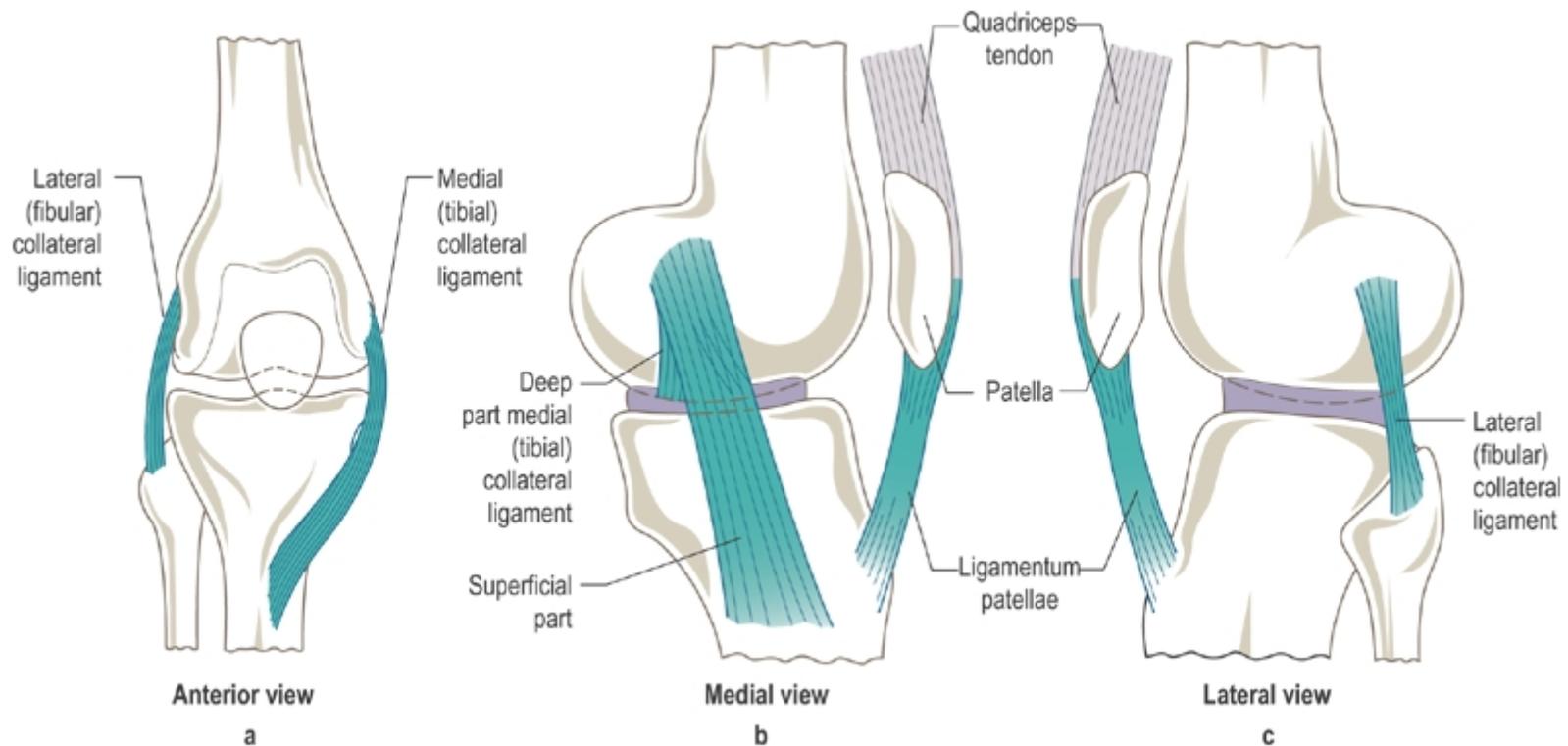




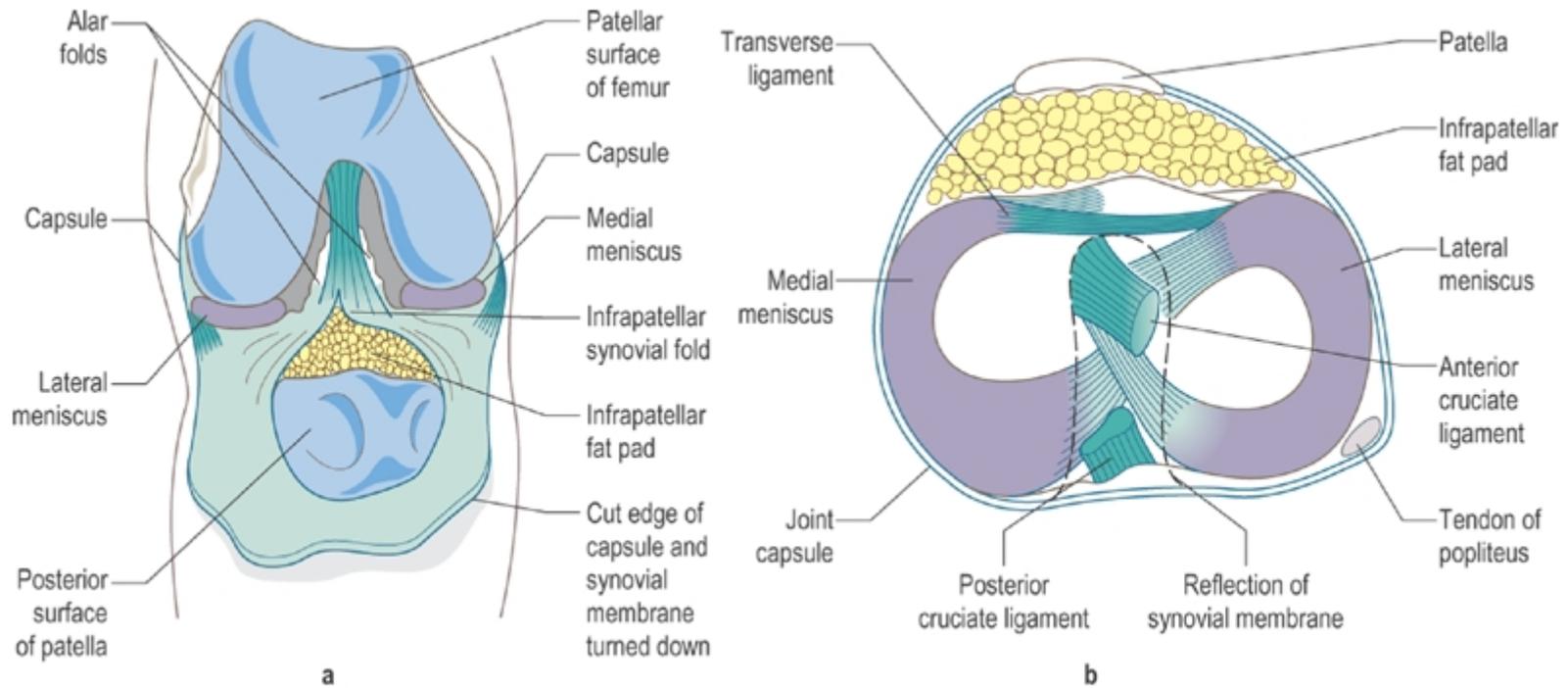


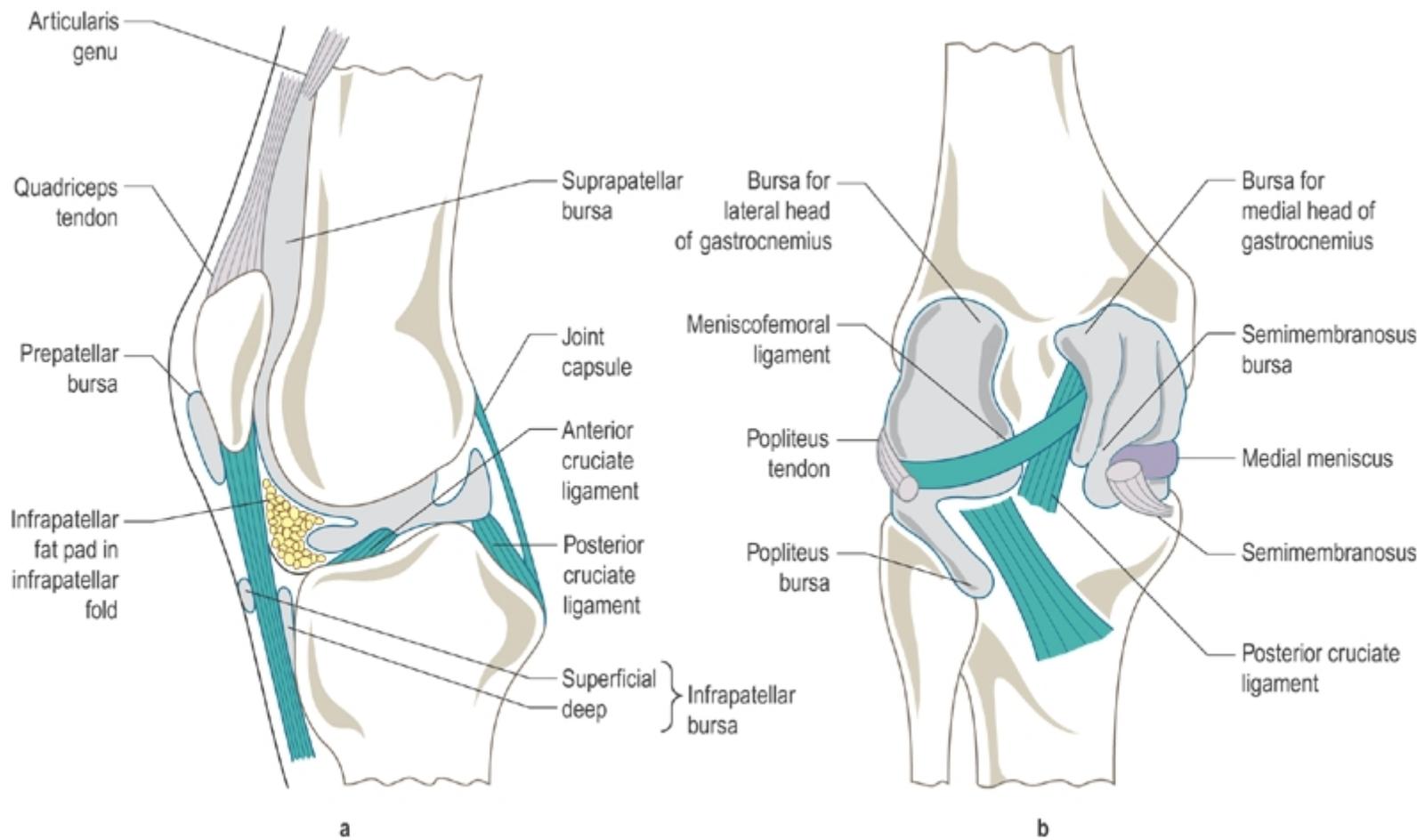


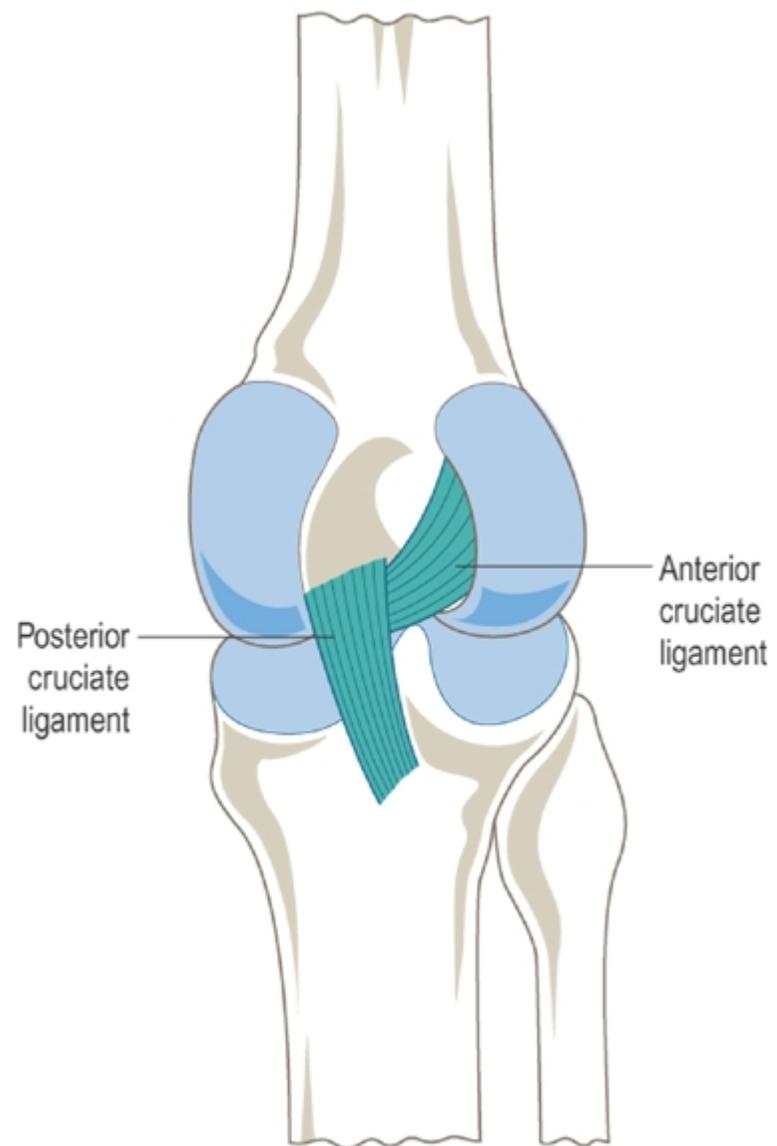
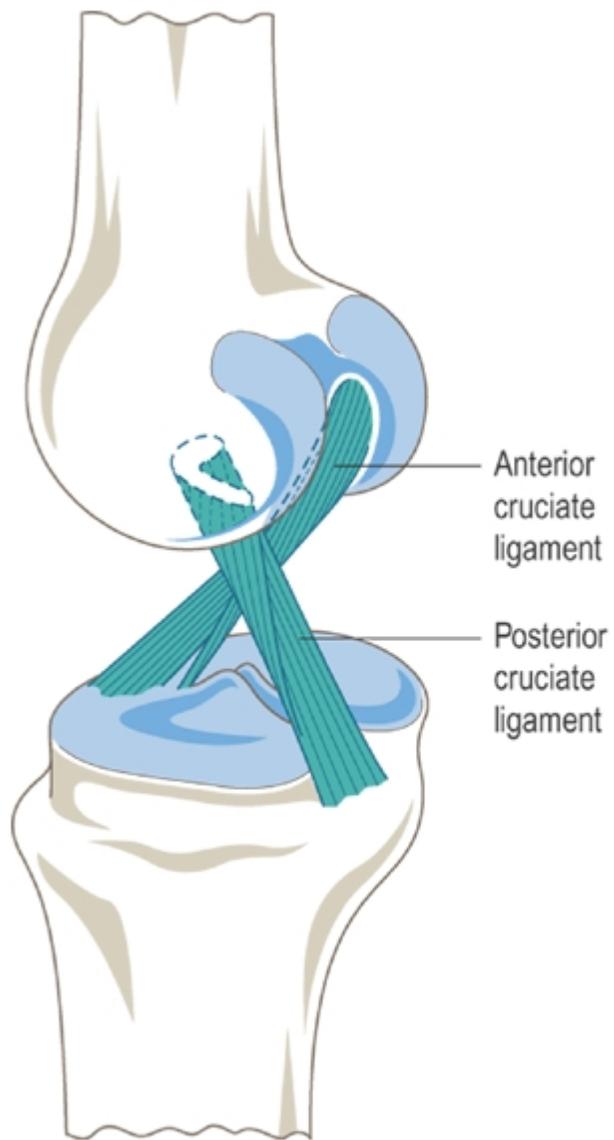
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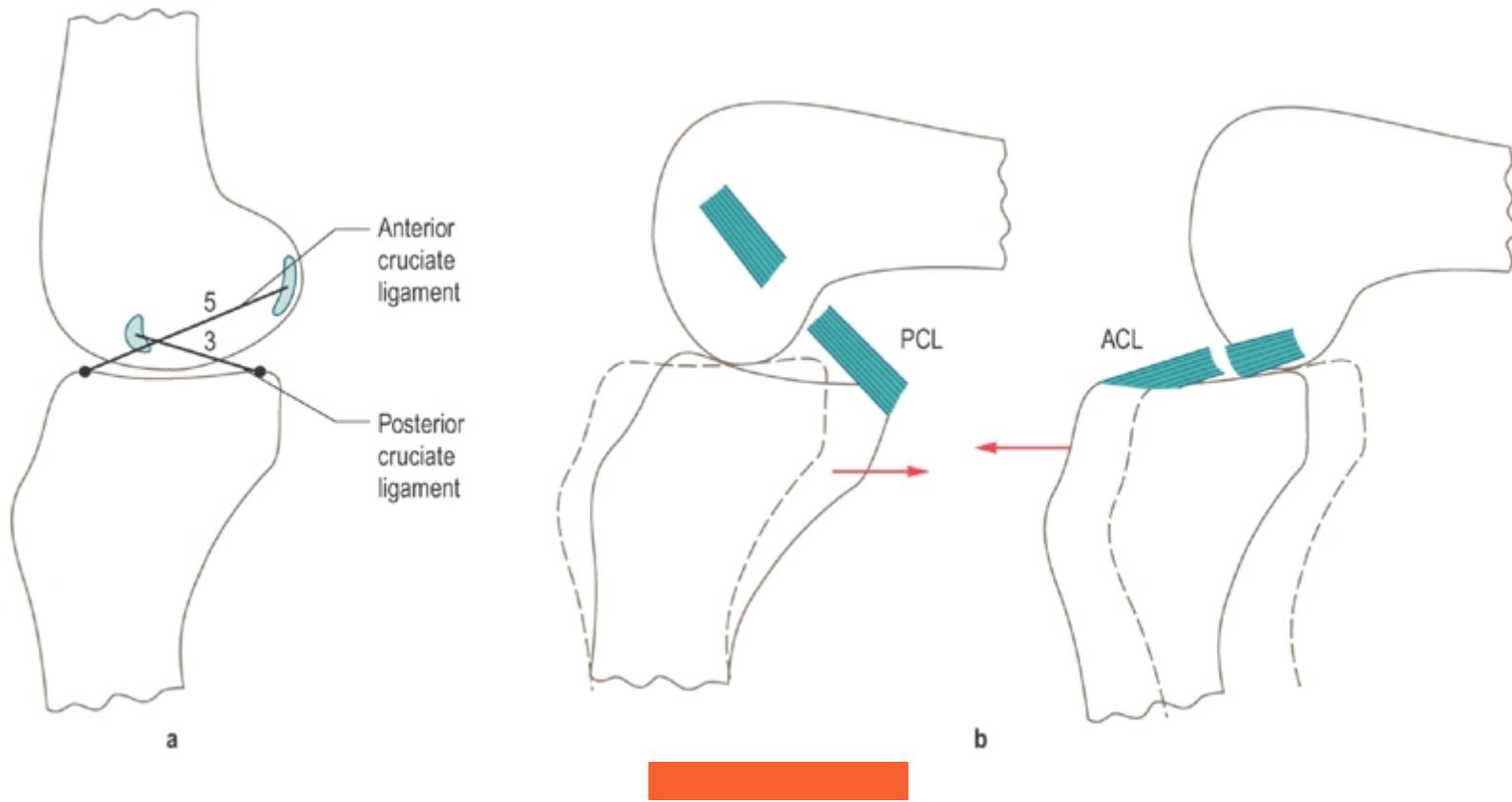
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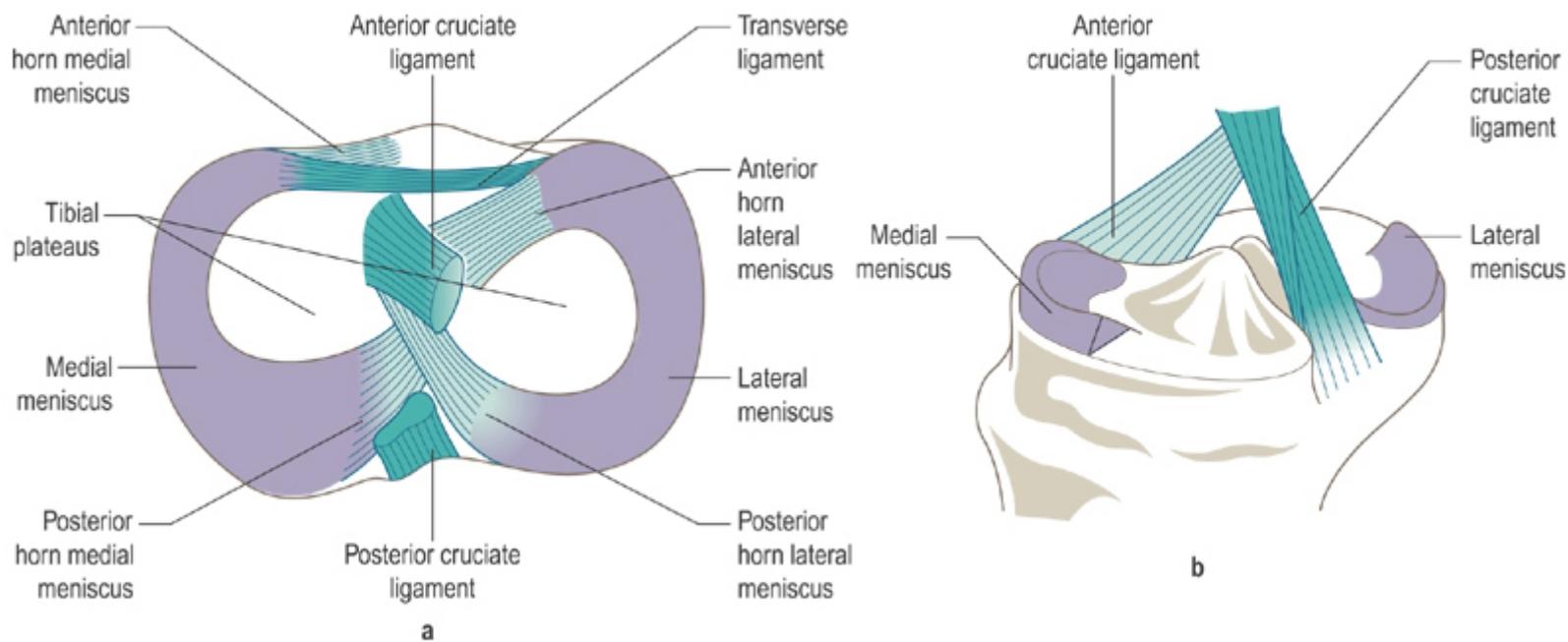




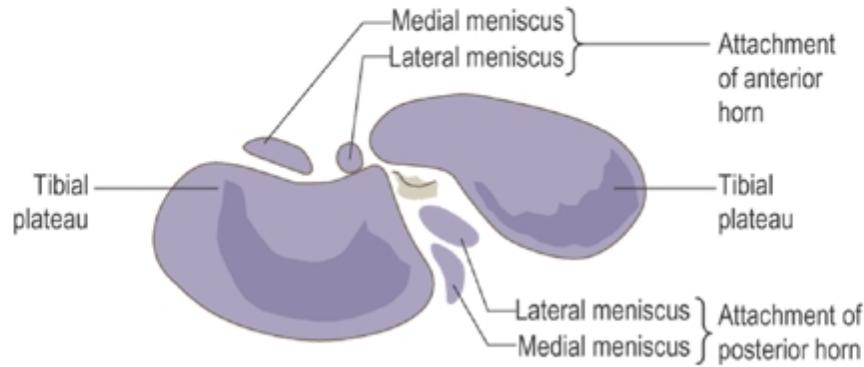
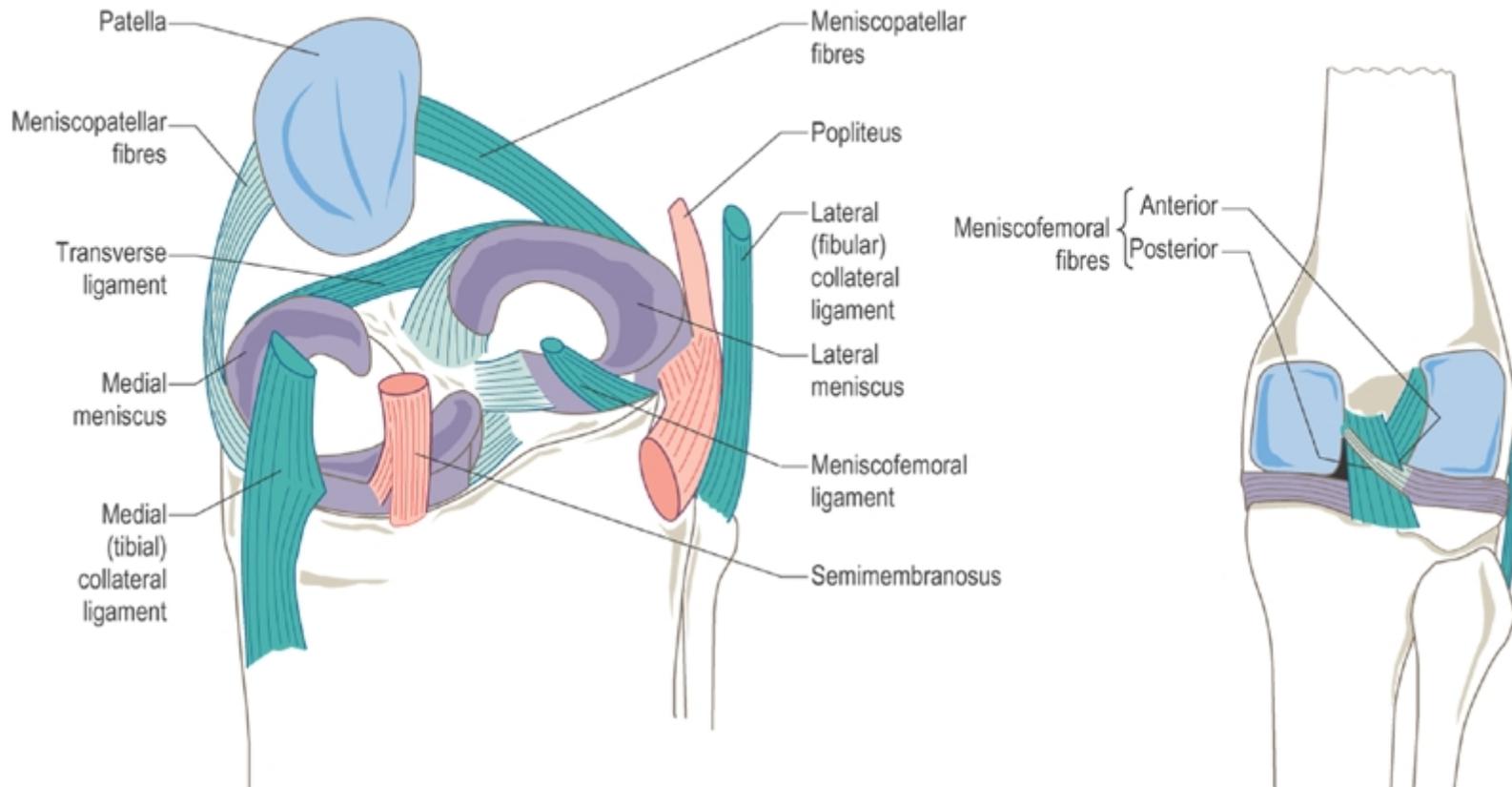
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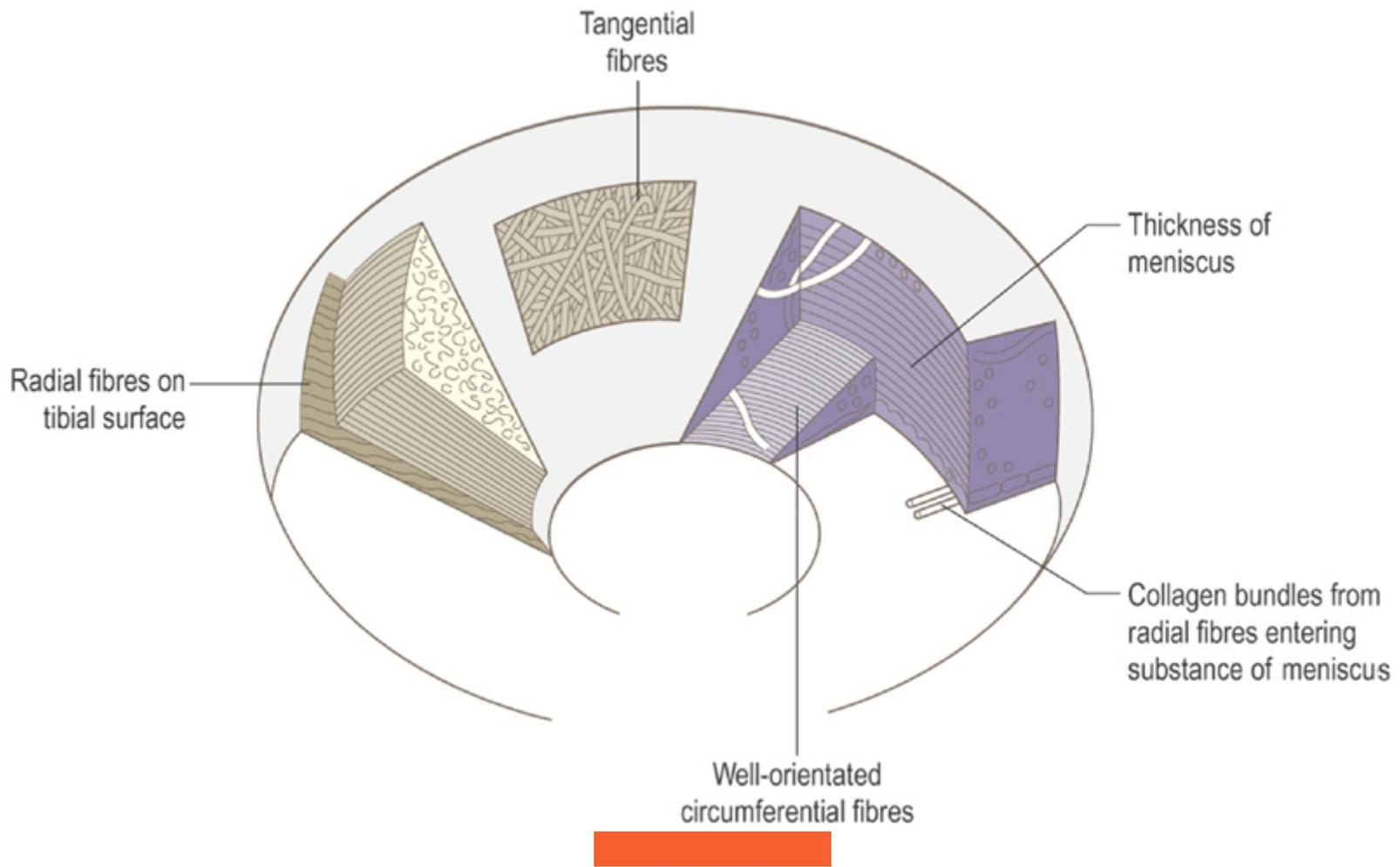


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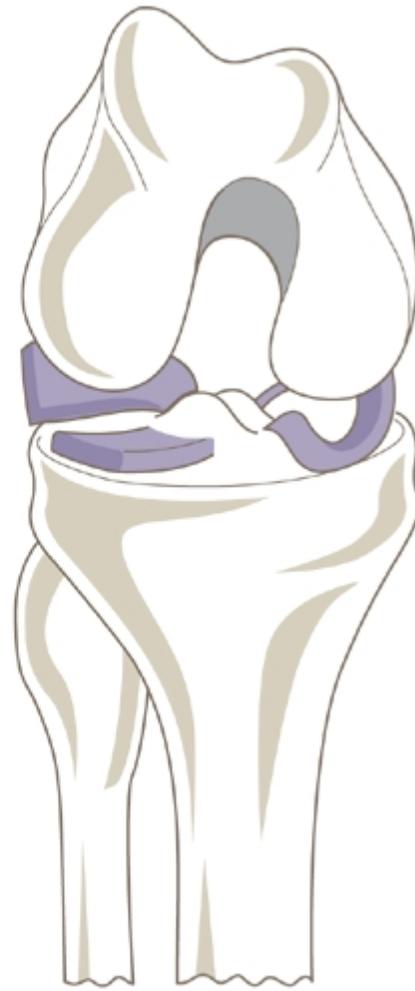




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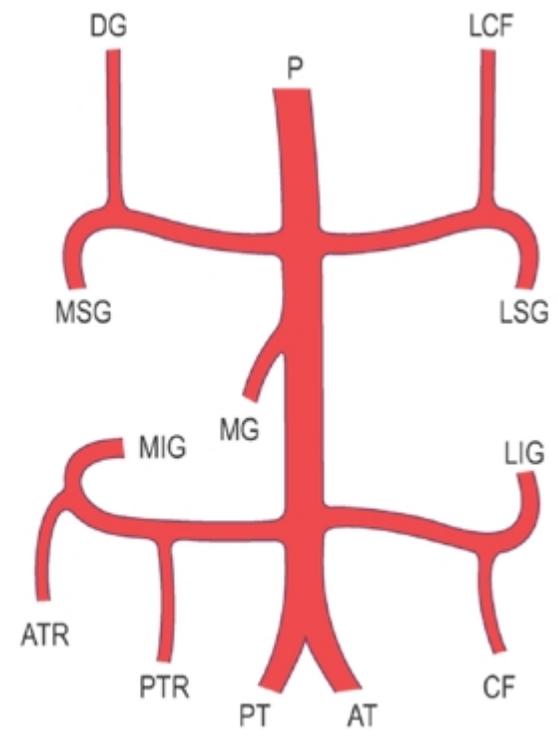
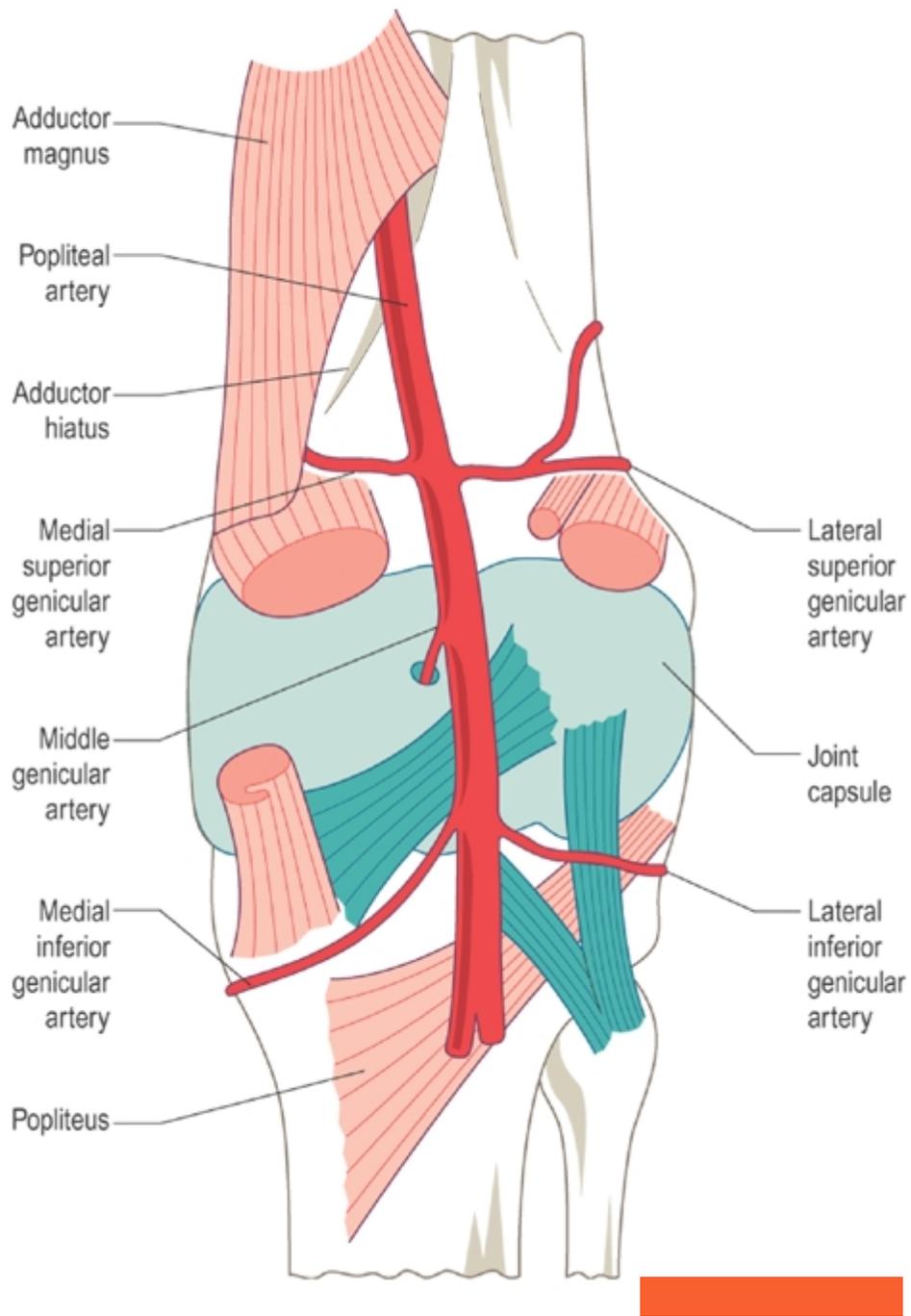


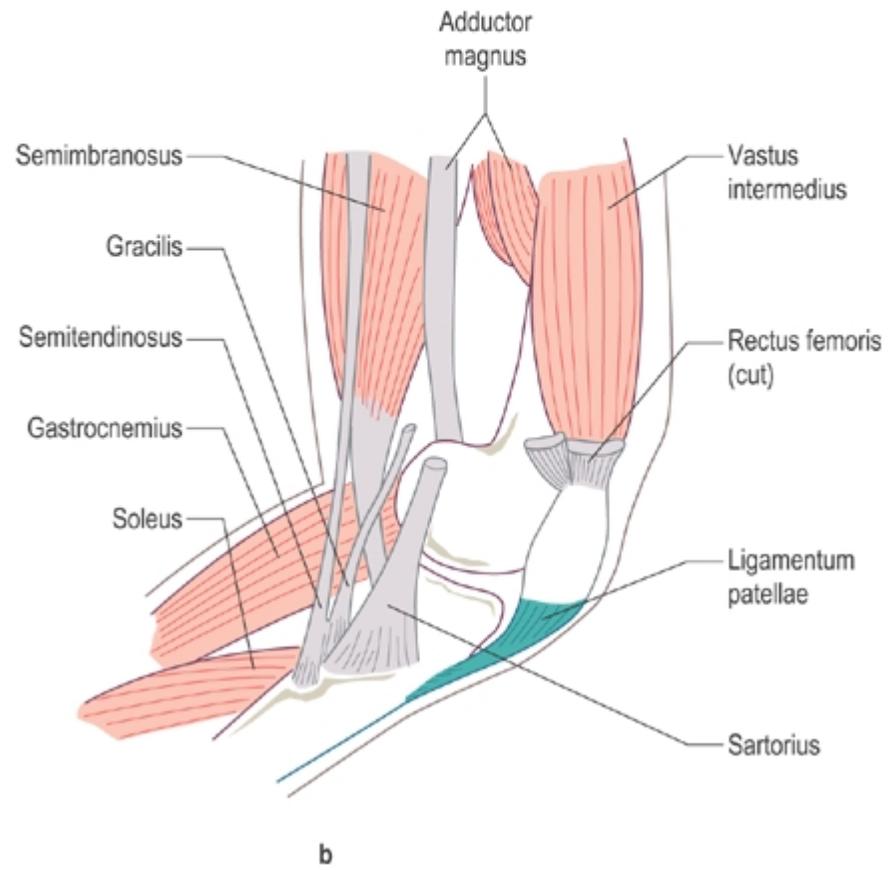
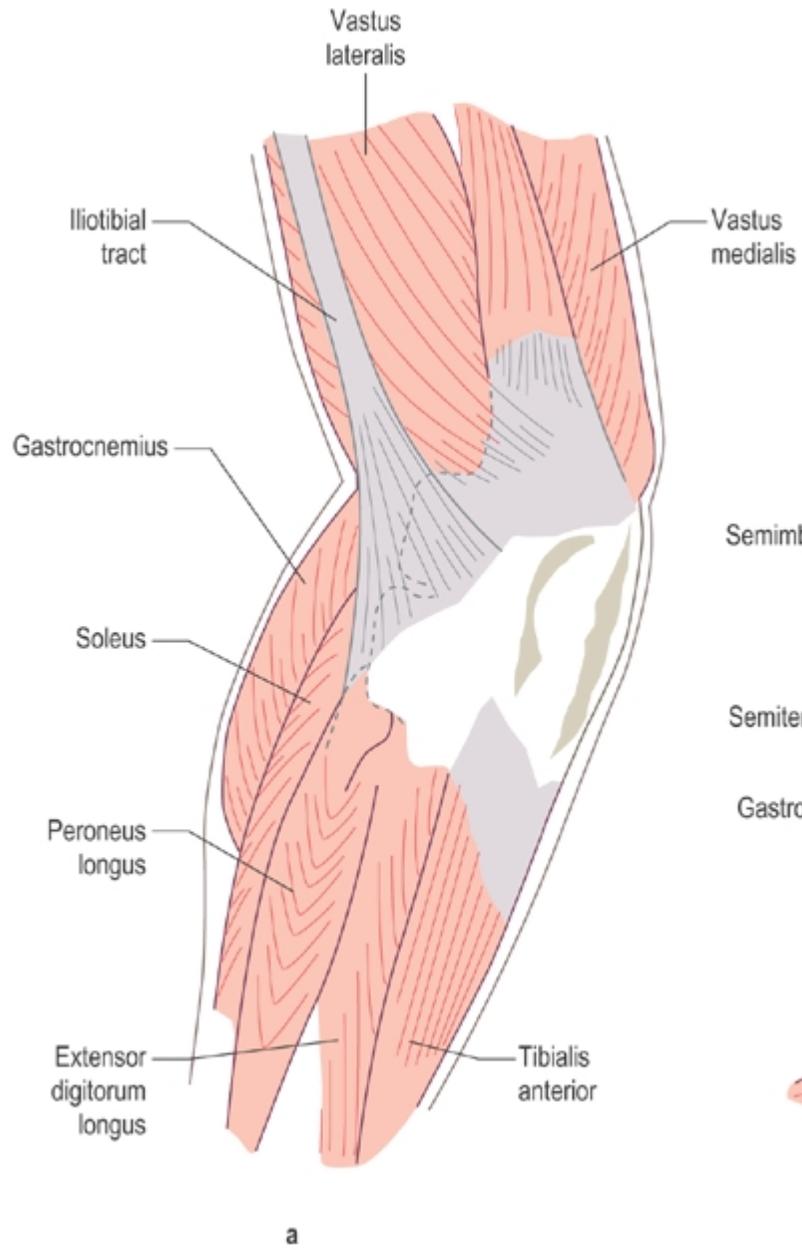
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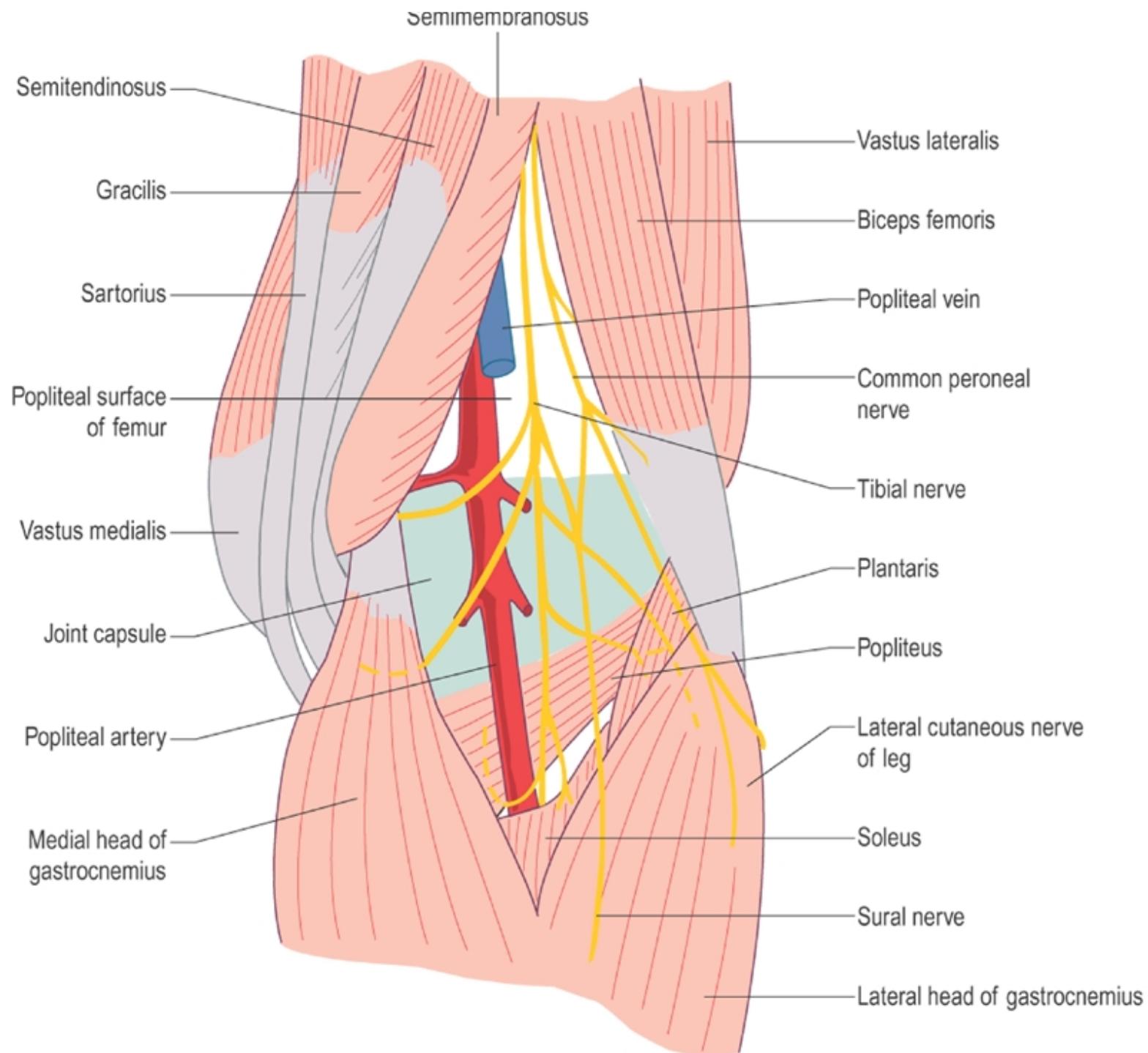


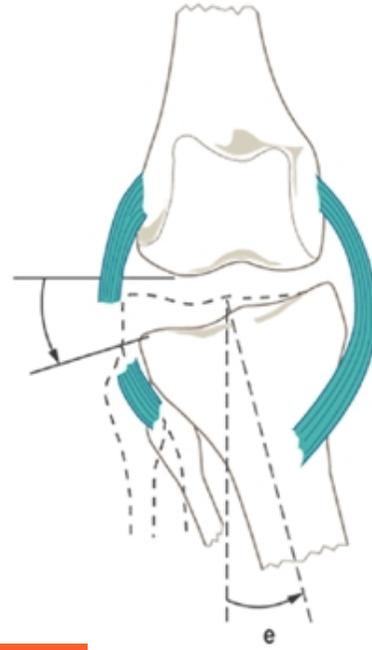
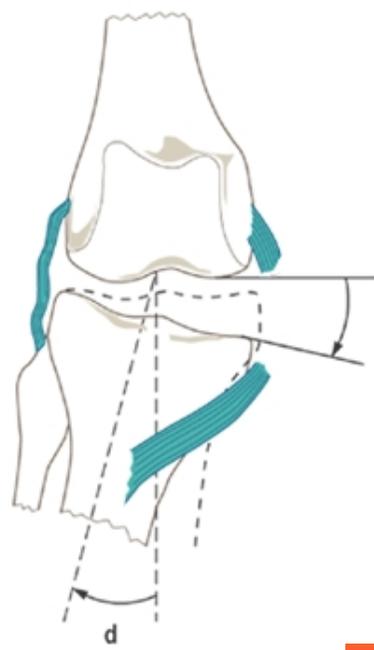
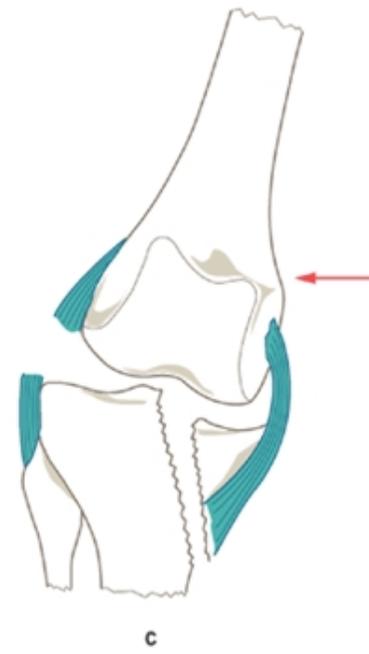
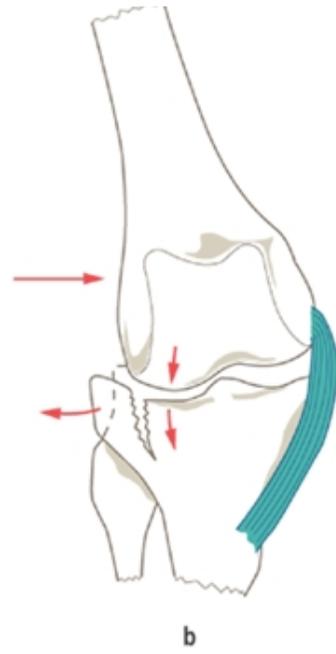
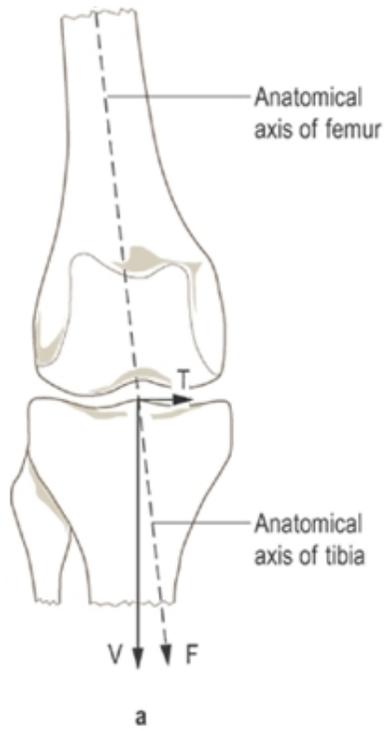
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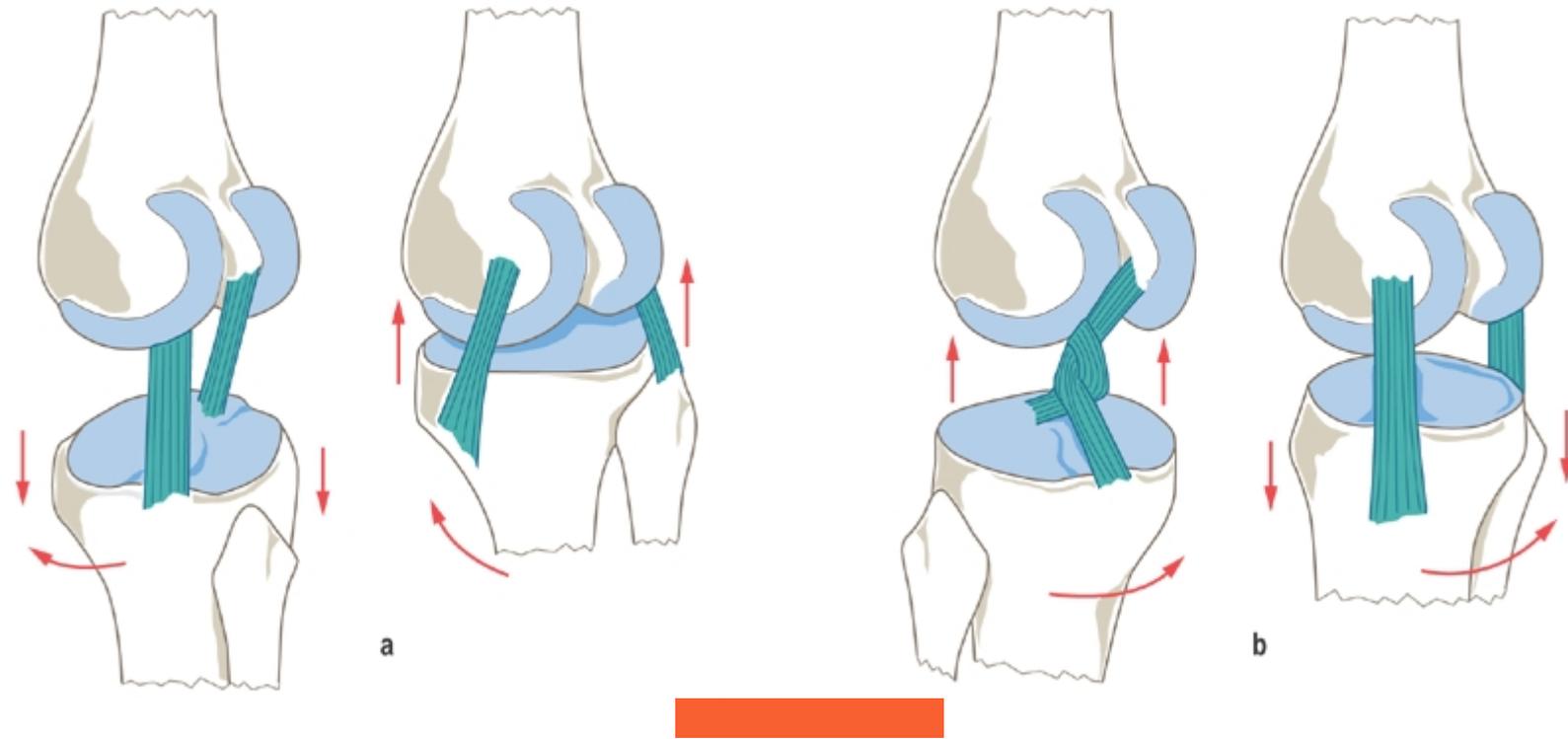
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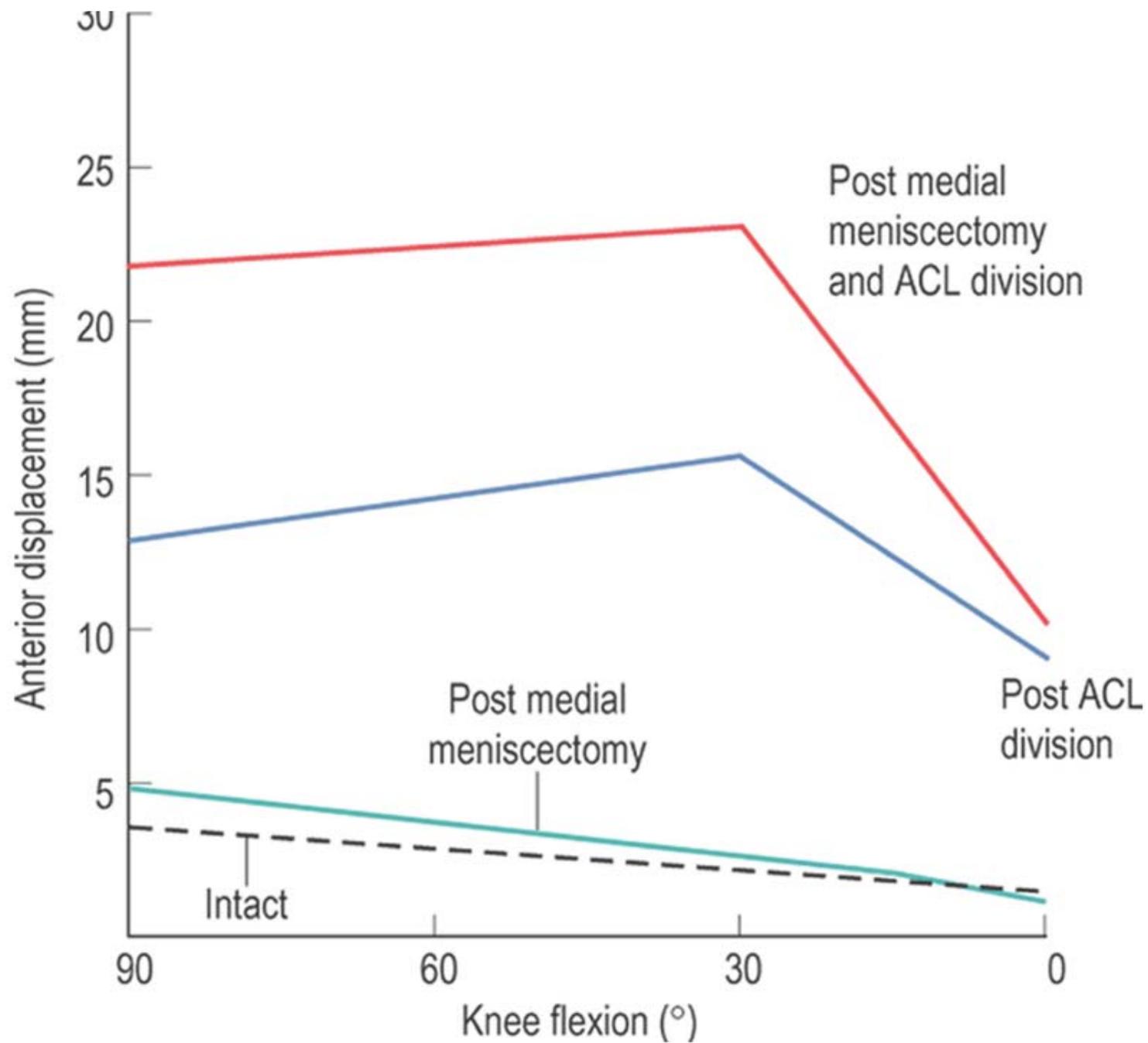




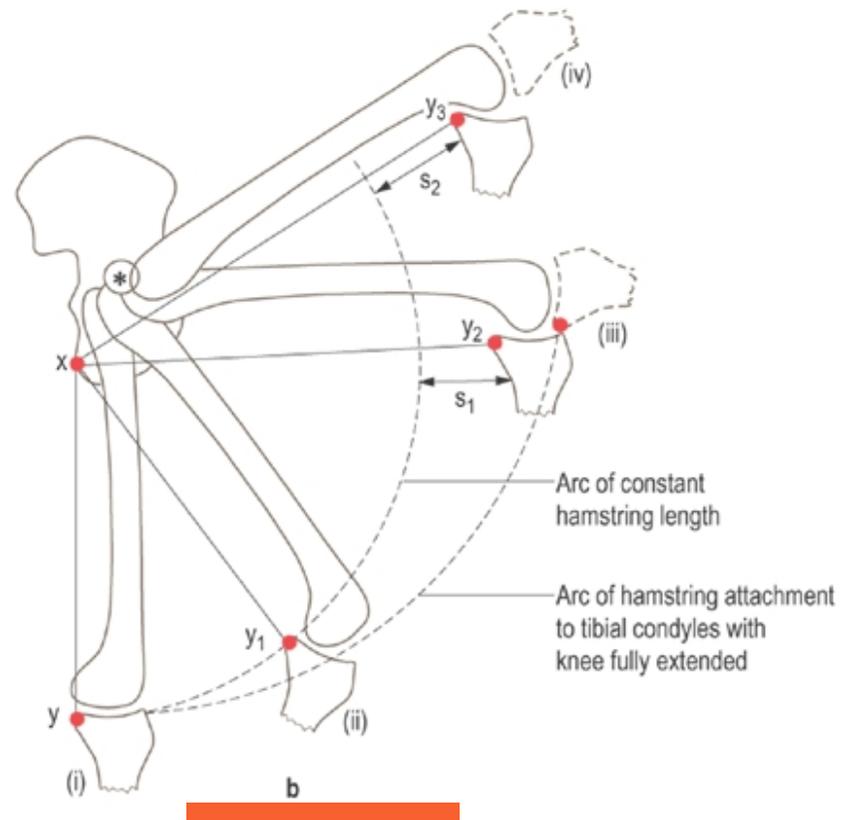
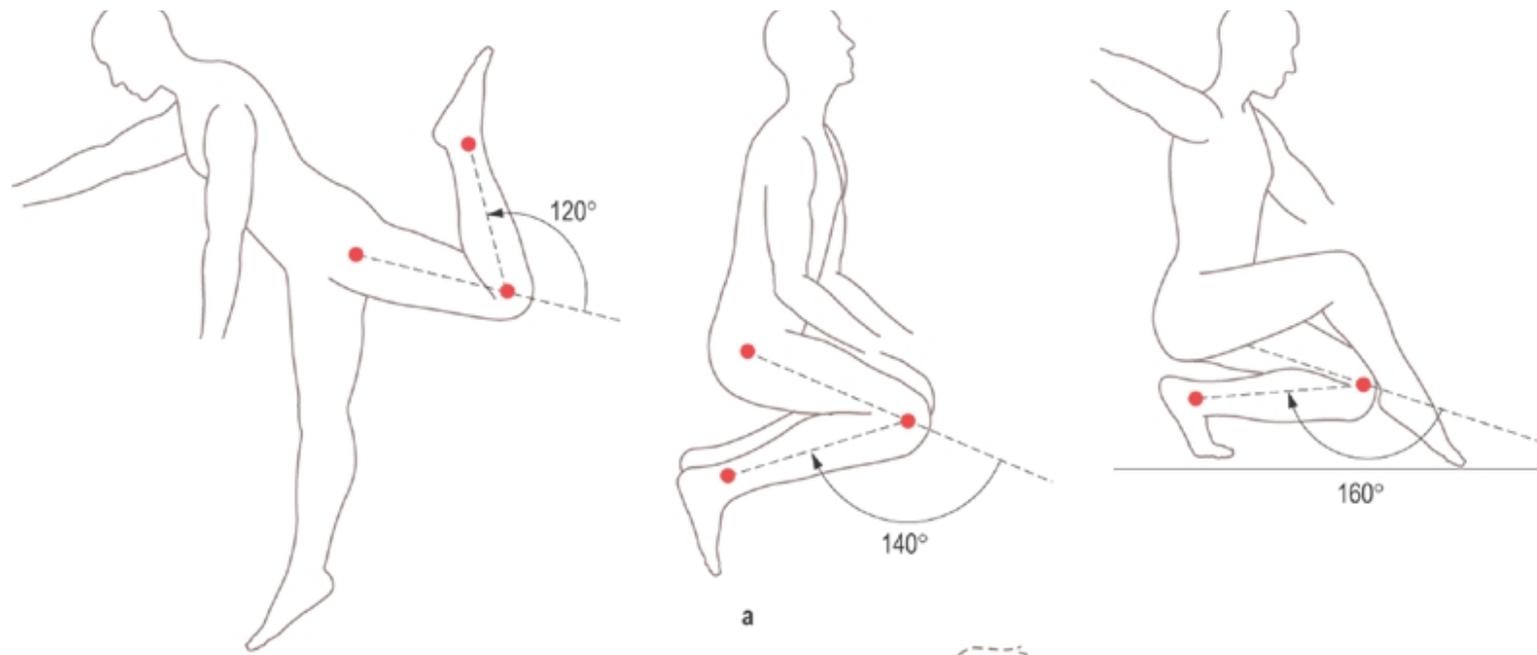


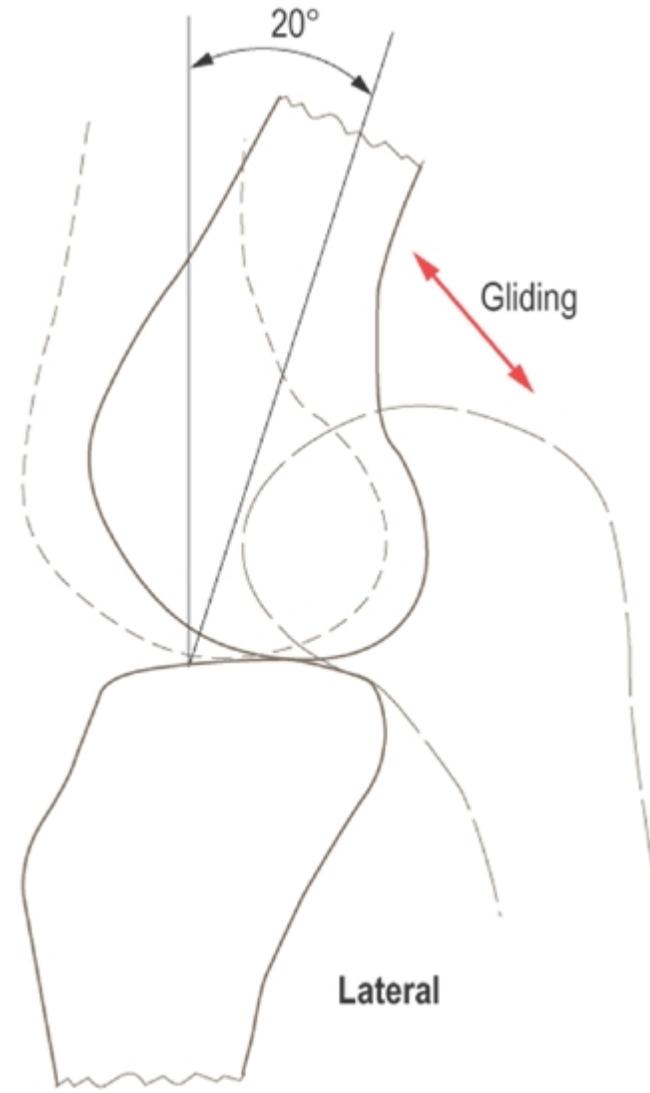
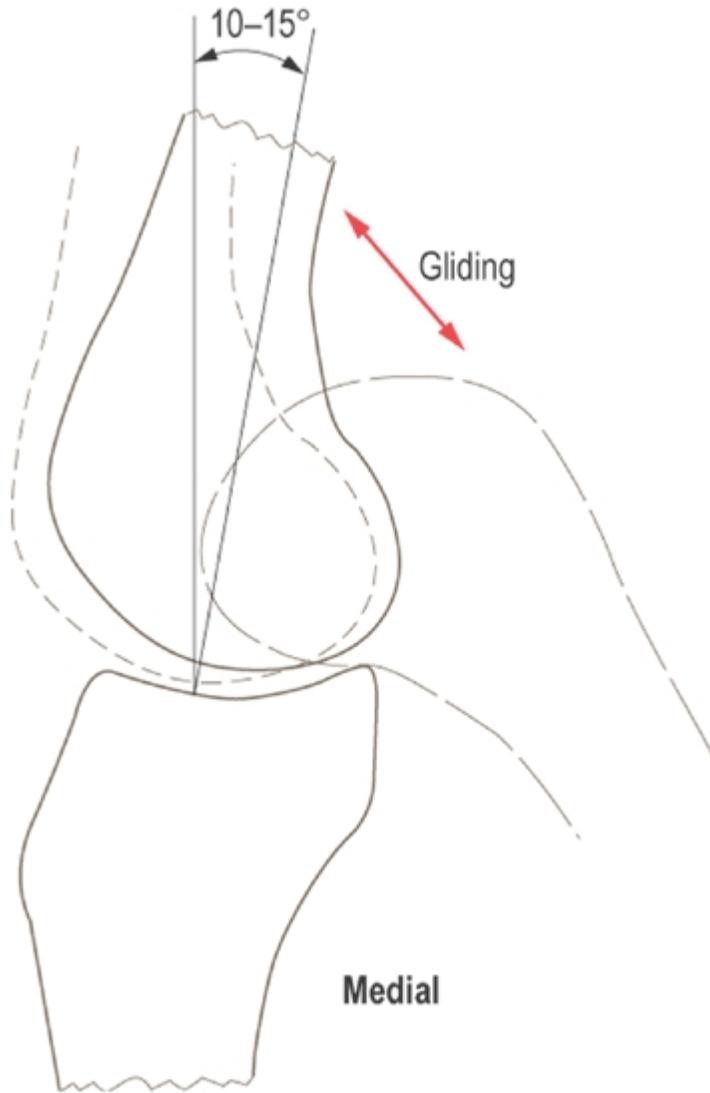


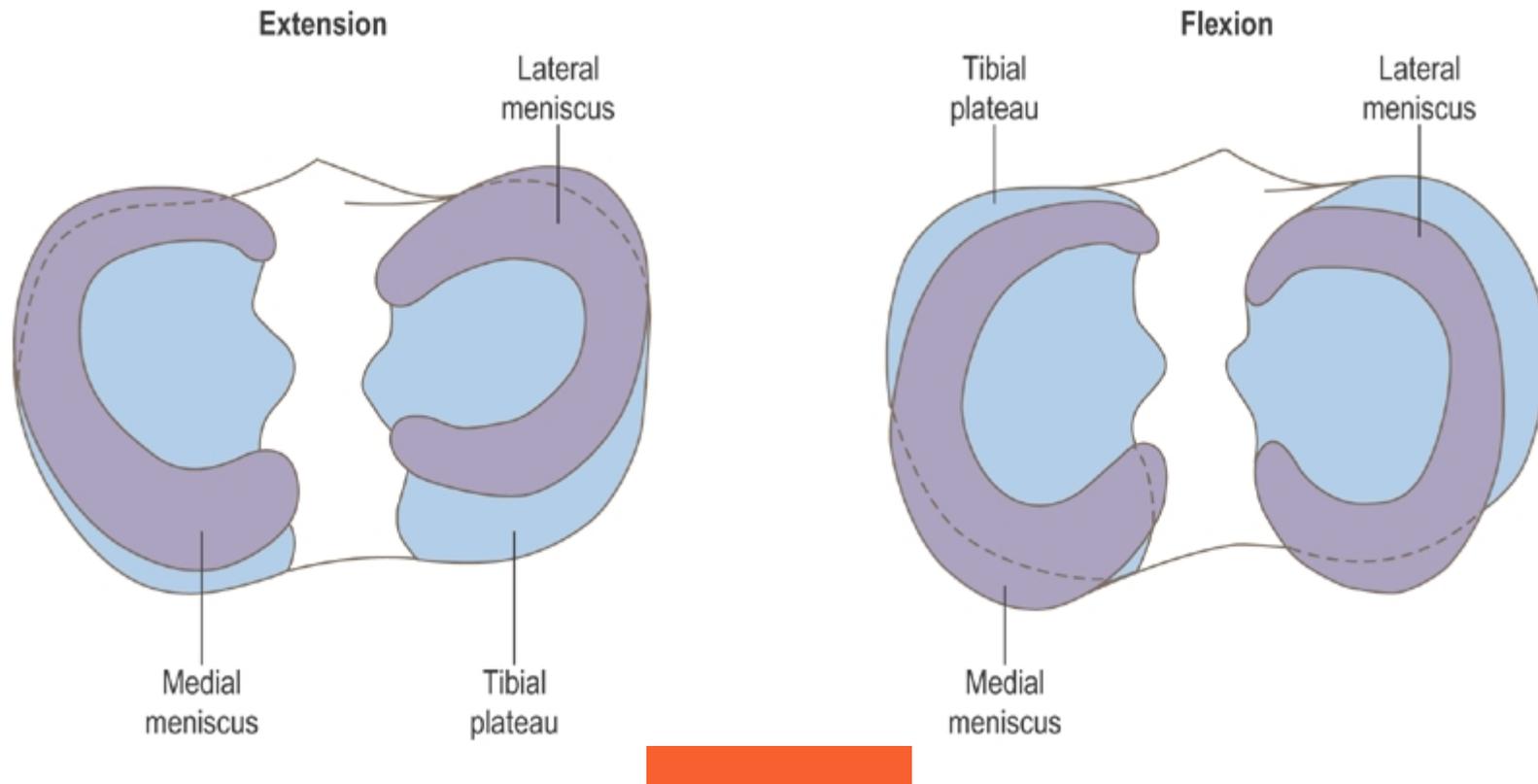
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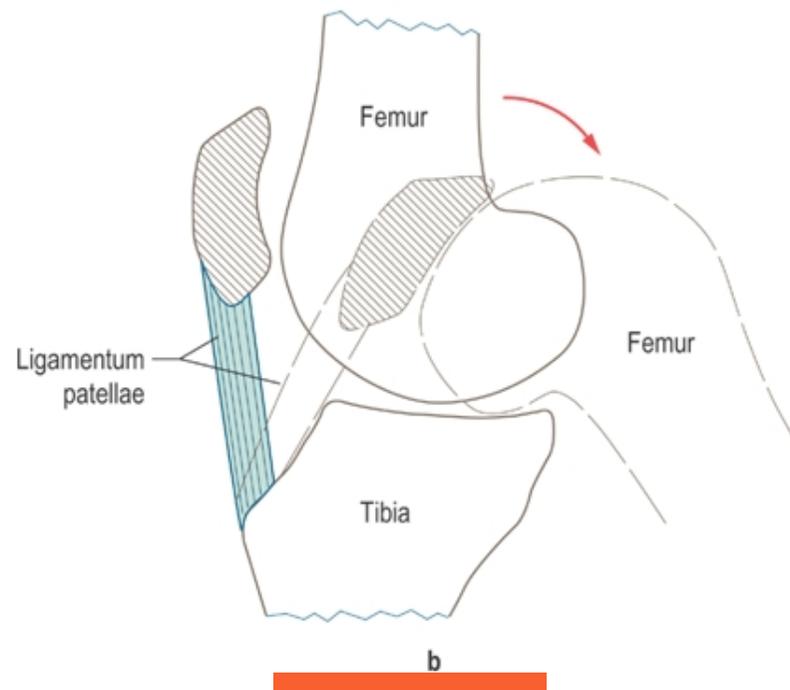
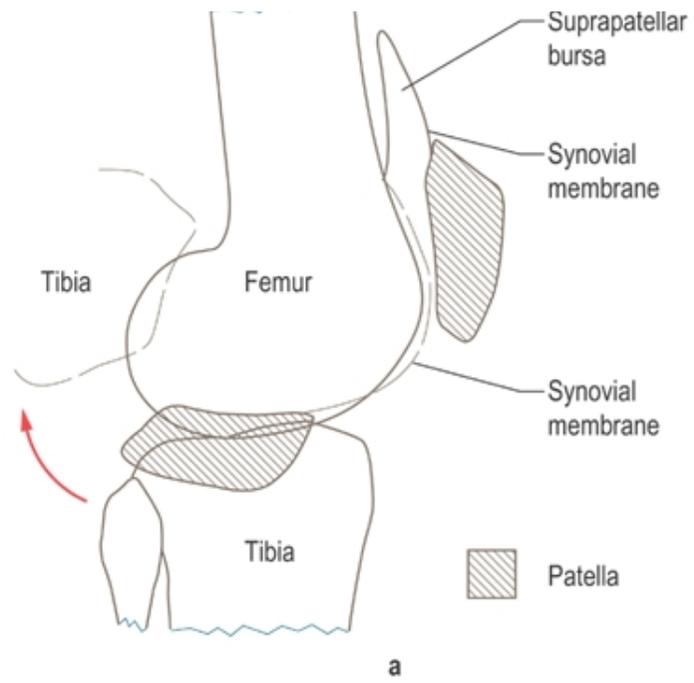
(Adapted from Levy IM, Torzilli PA and Warren RF (1982) The effect of medial meniscectomy on anterior-posterior motion of the knee. *Journal of Bone and Joint Surgery*, 64A, 883-887.)

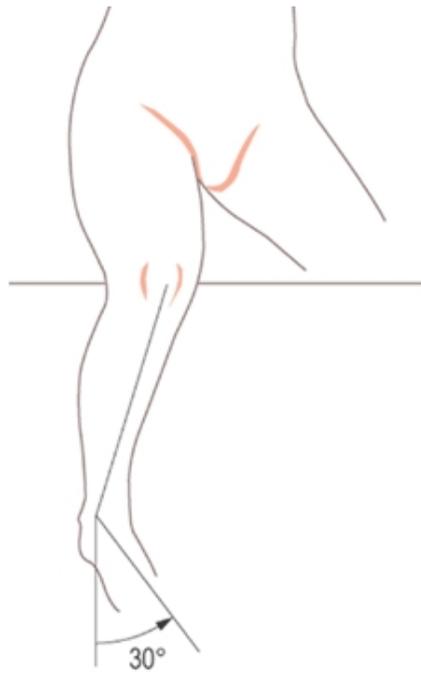






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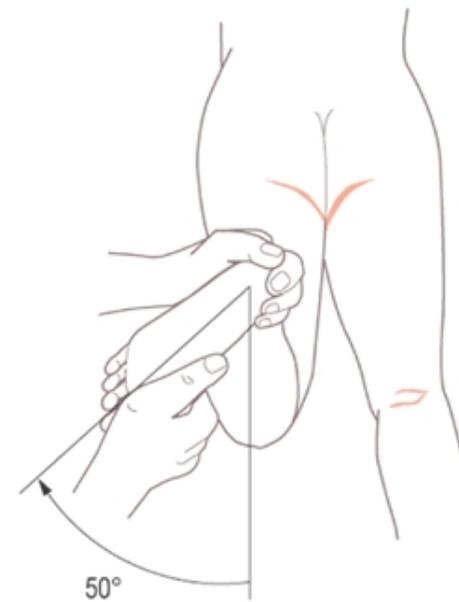


Medial rotation



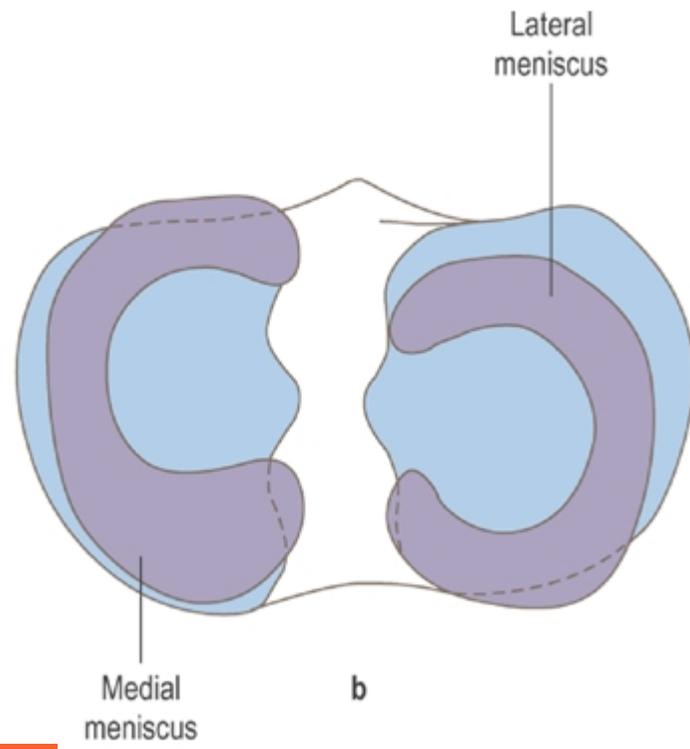
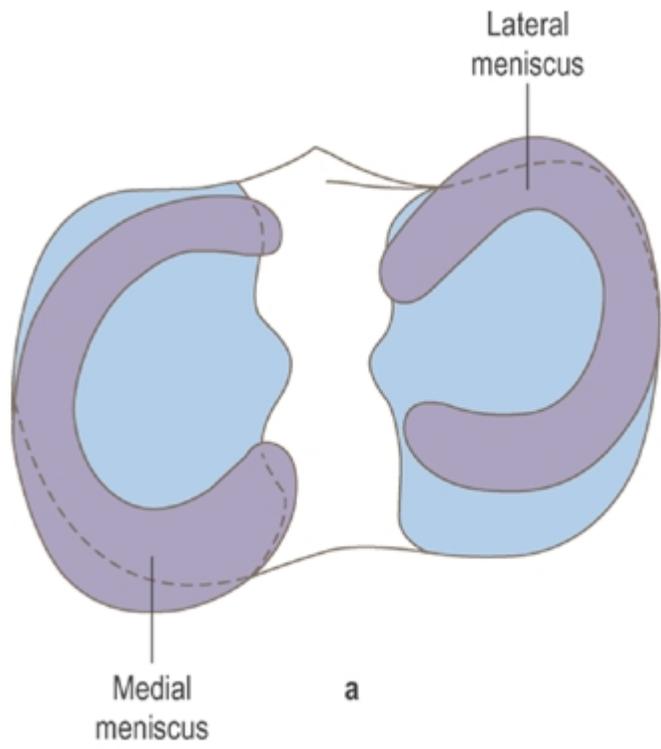
Lateral rotation

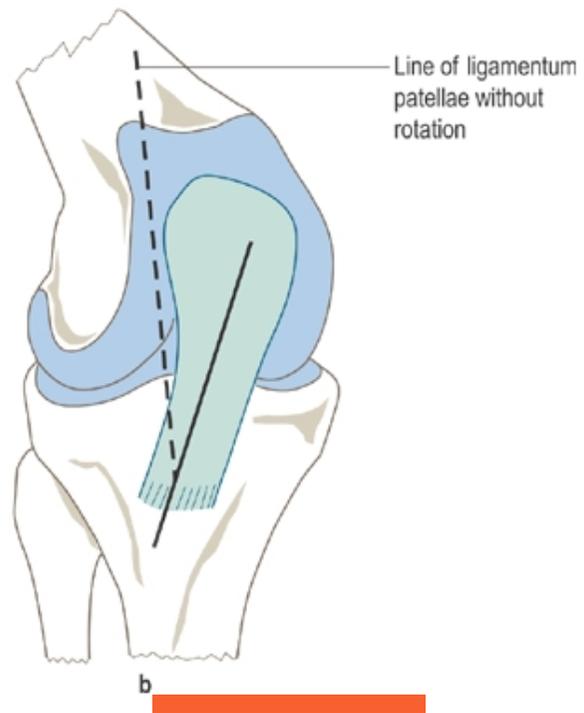
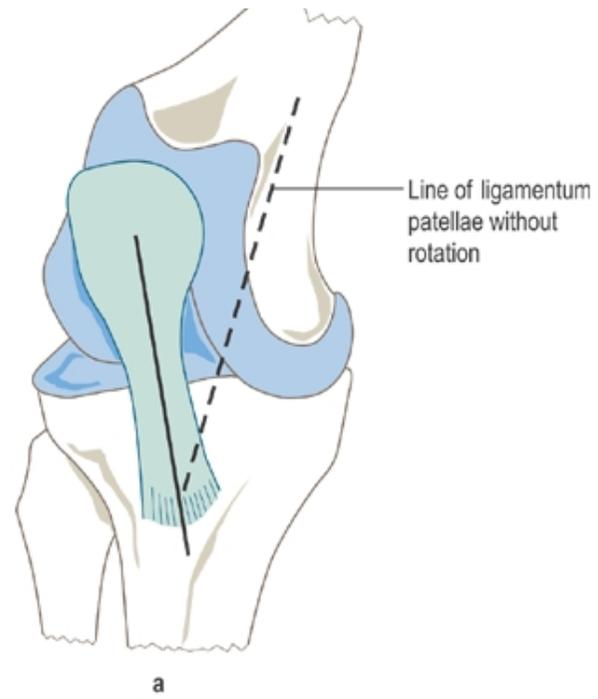
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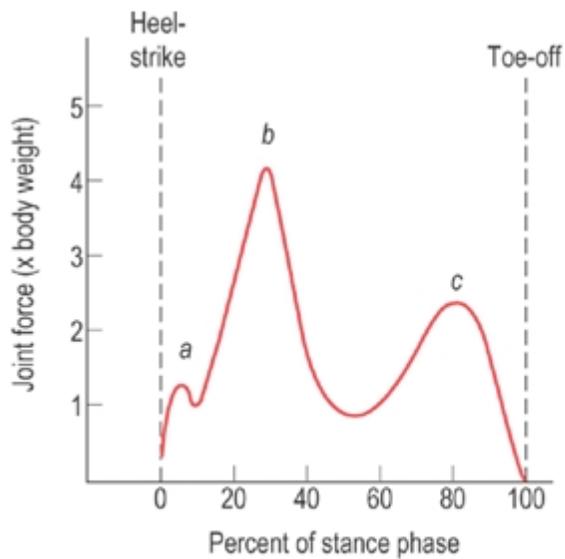


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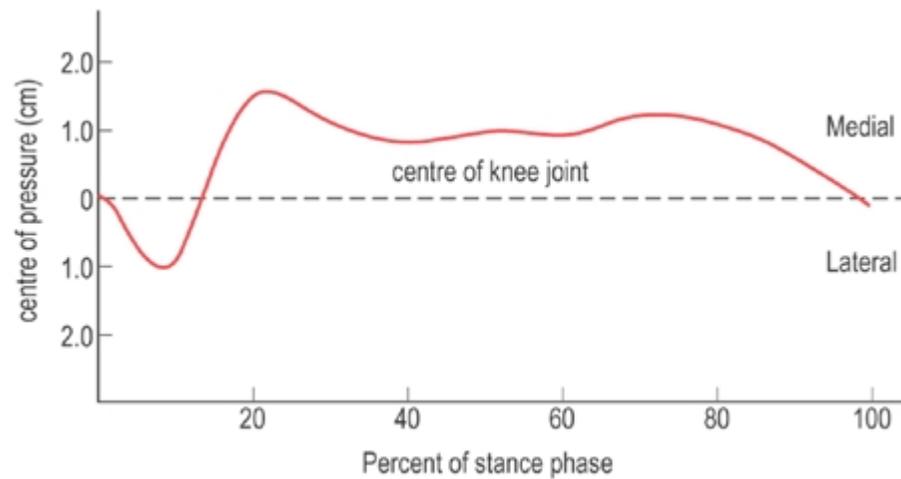








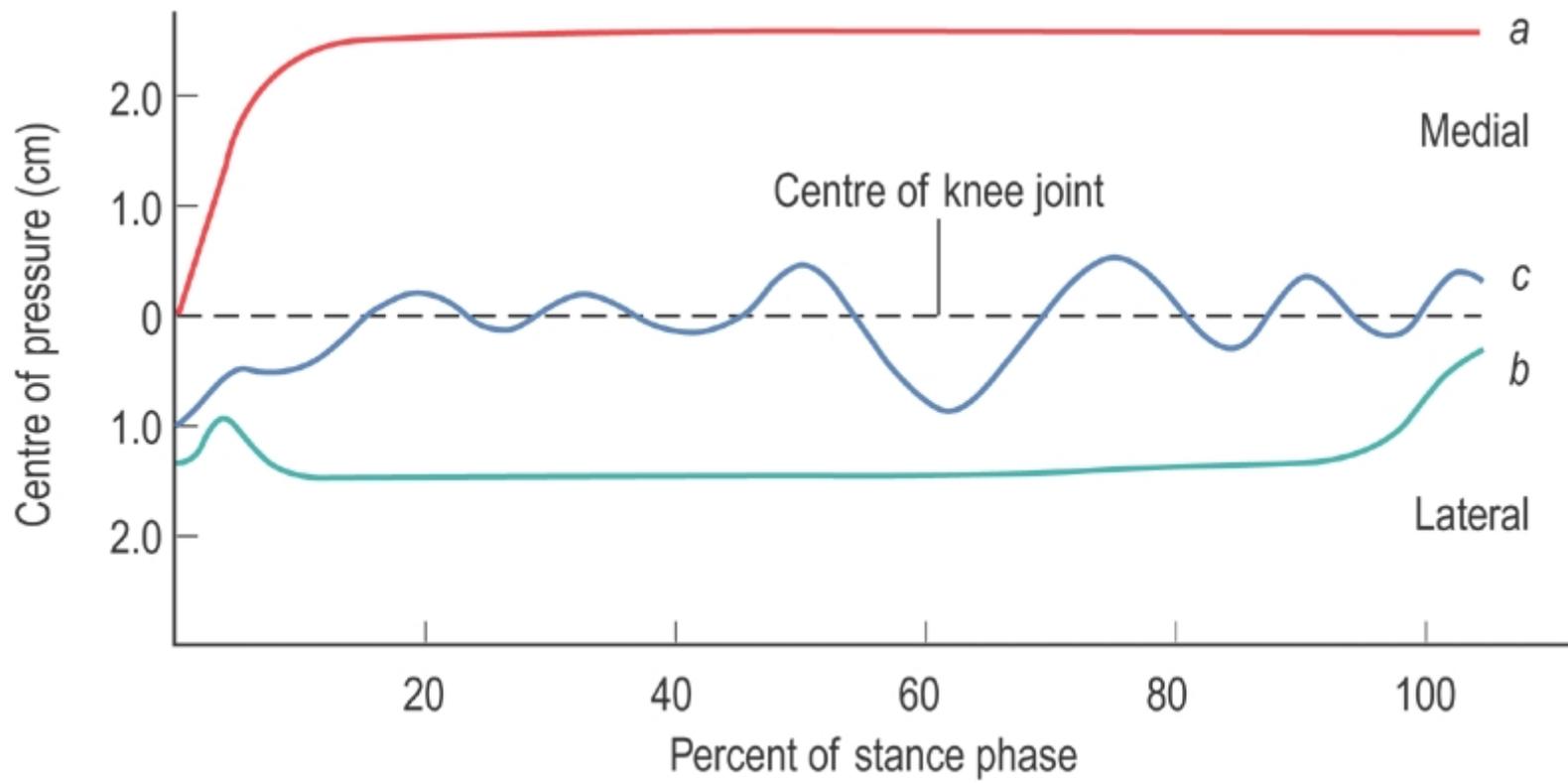
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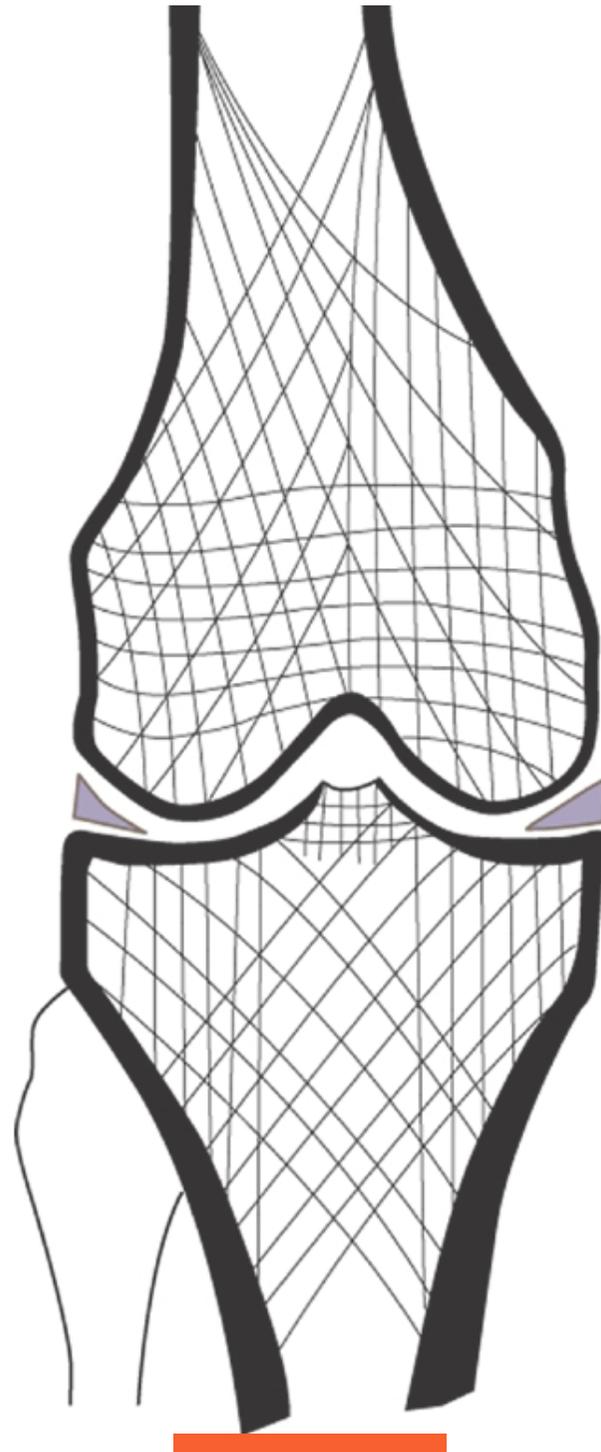


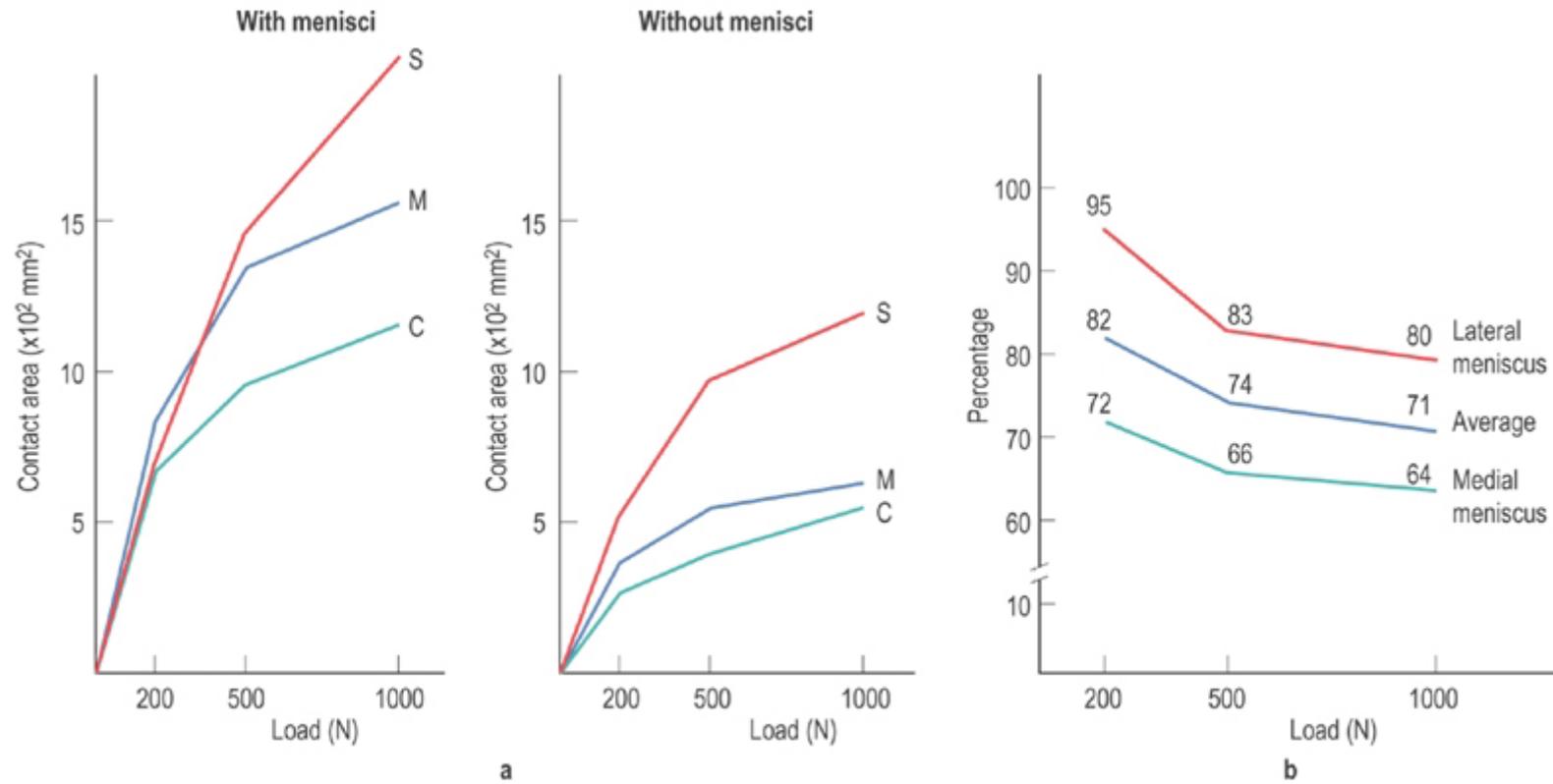
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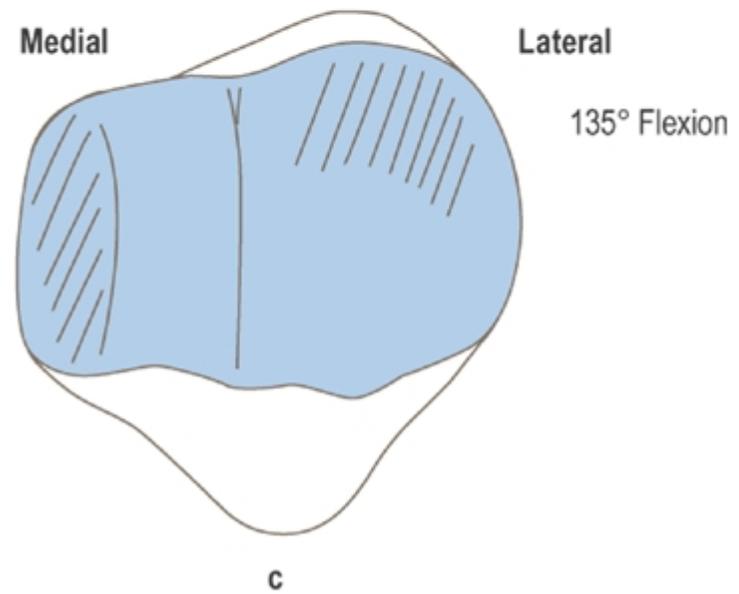
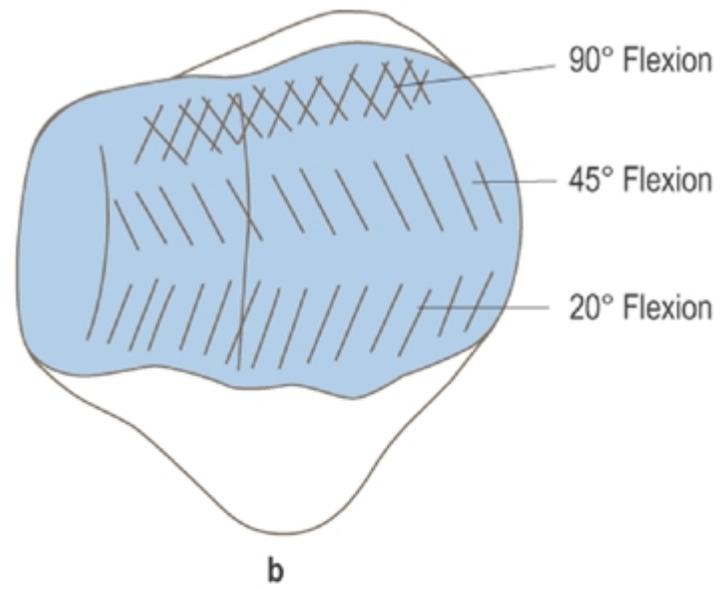
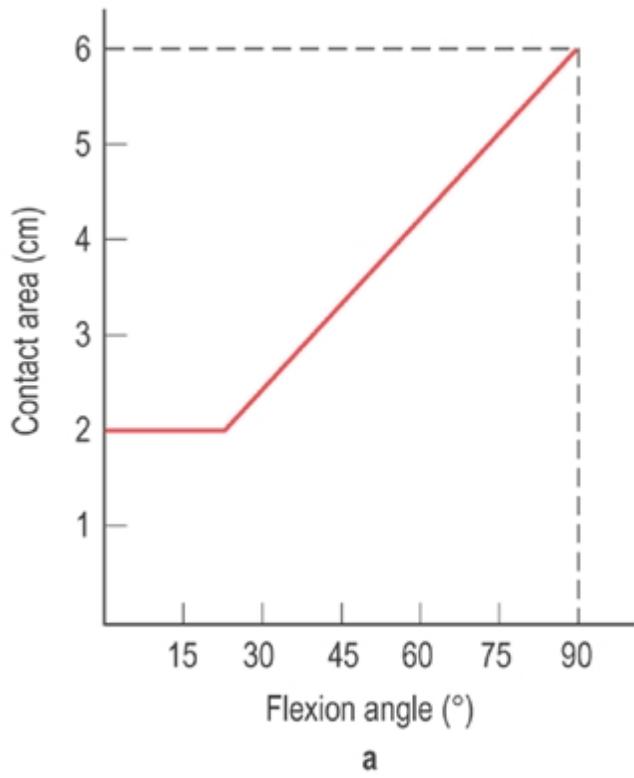




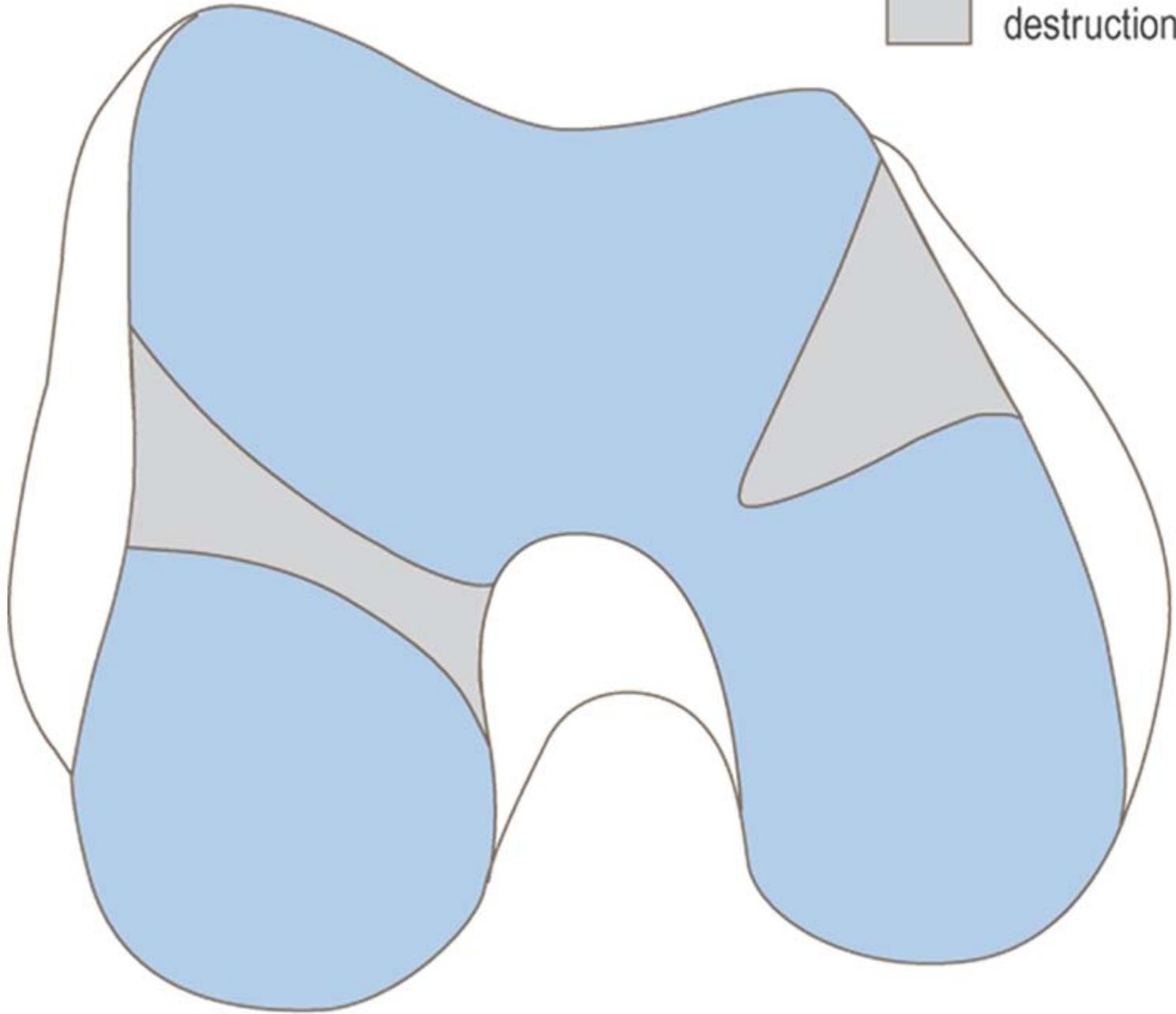


(Adapted from Fukubayashi T and Kurosawa H (1980) The contact area and pressure distribution pattern of the knee. A study of normal and osteoarthritic knee joints. *Acta Orthopaedica Scandinavica*, 51, 871-880.)

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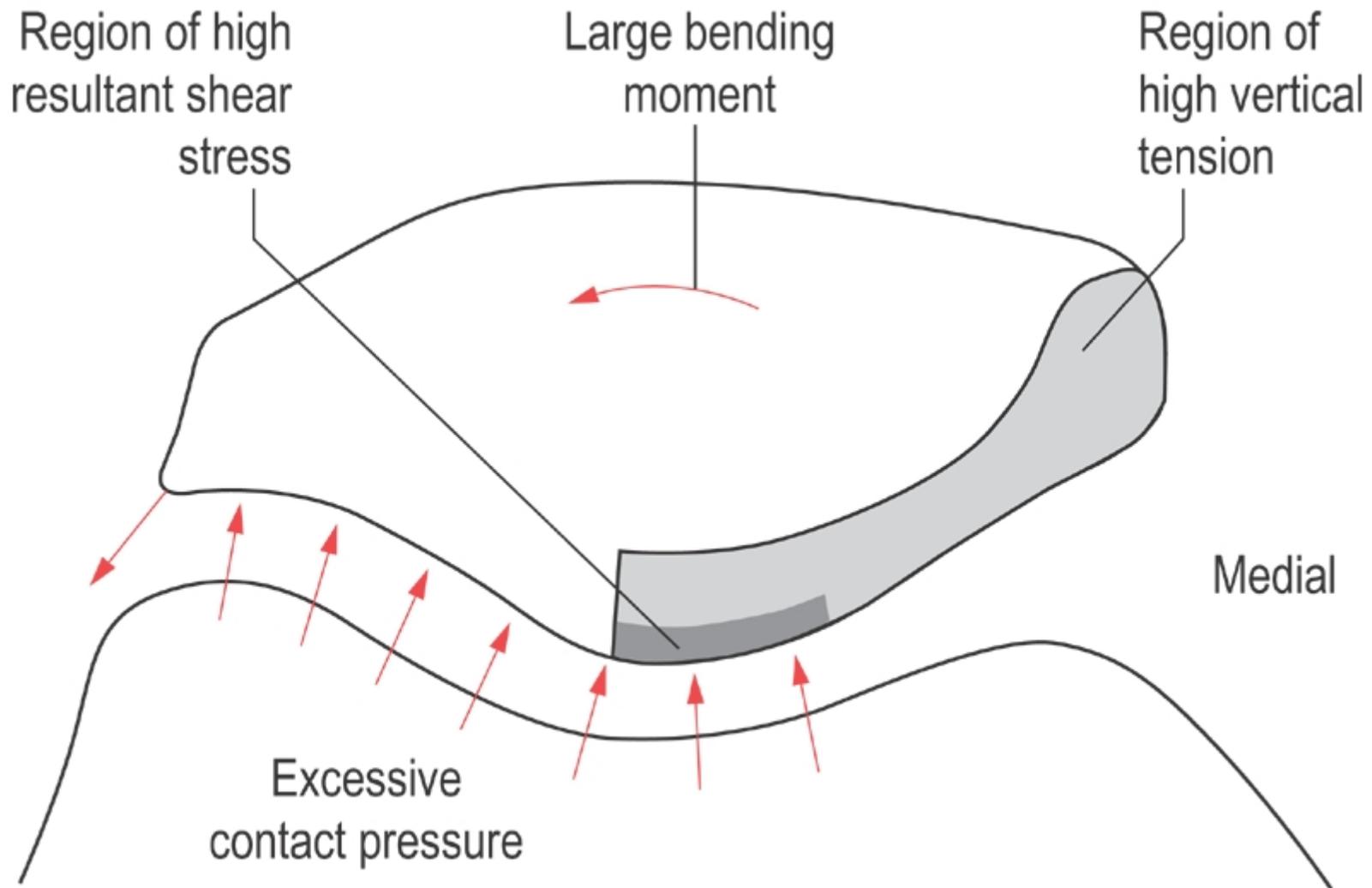
Area of destruction



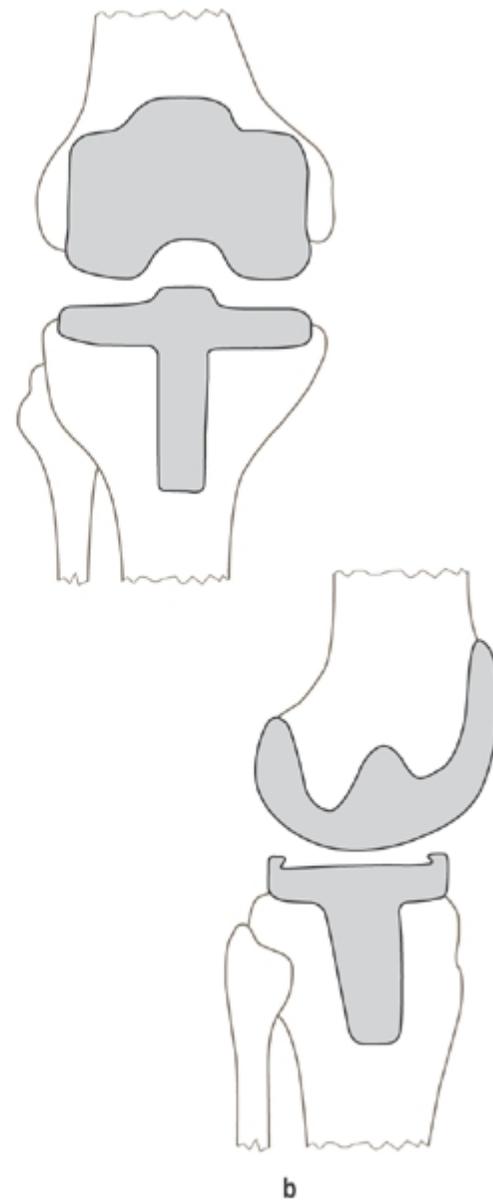
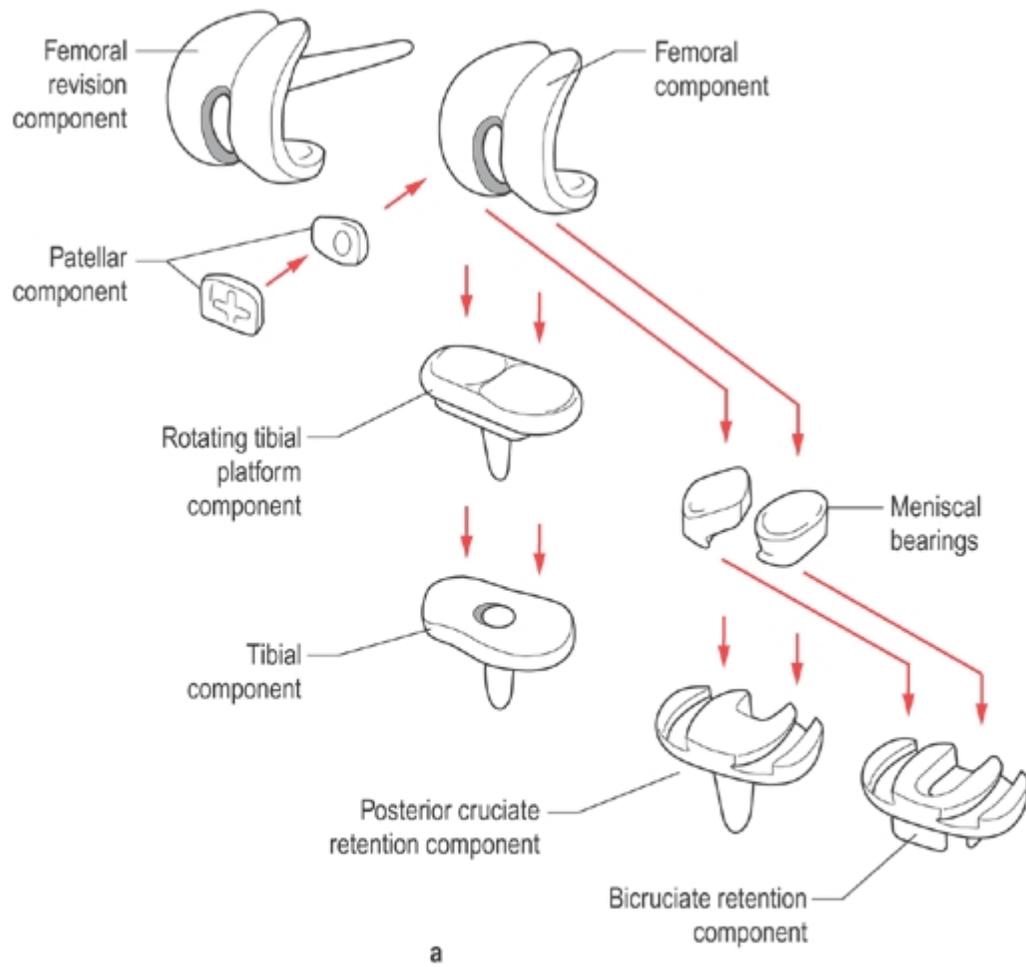
Lateral

Medial



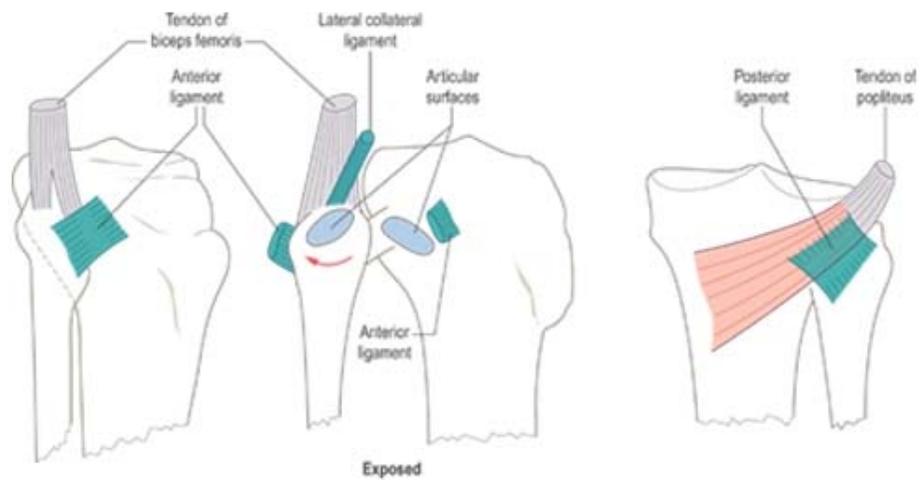


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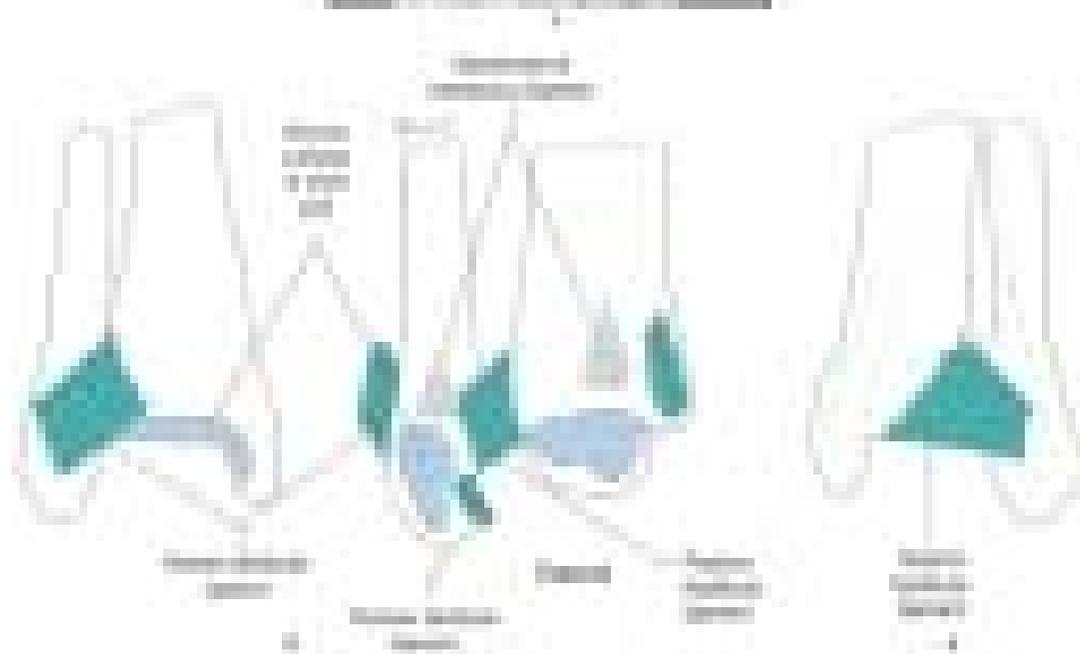


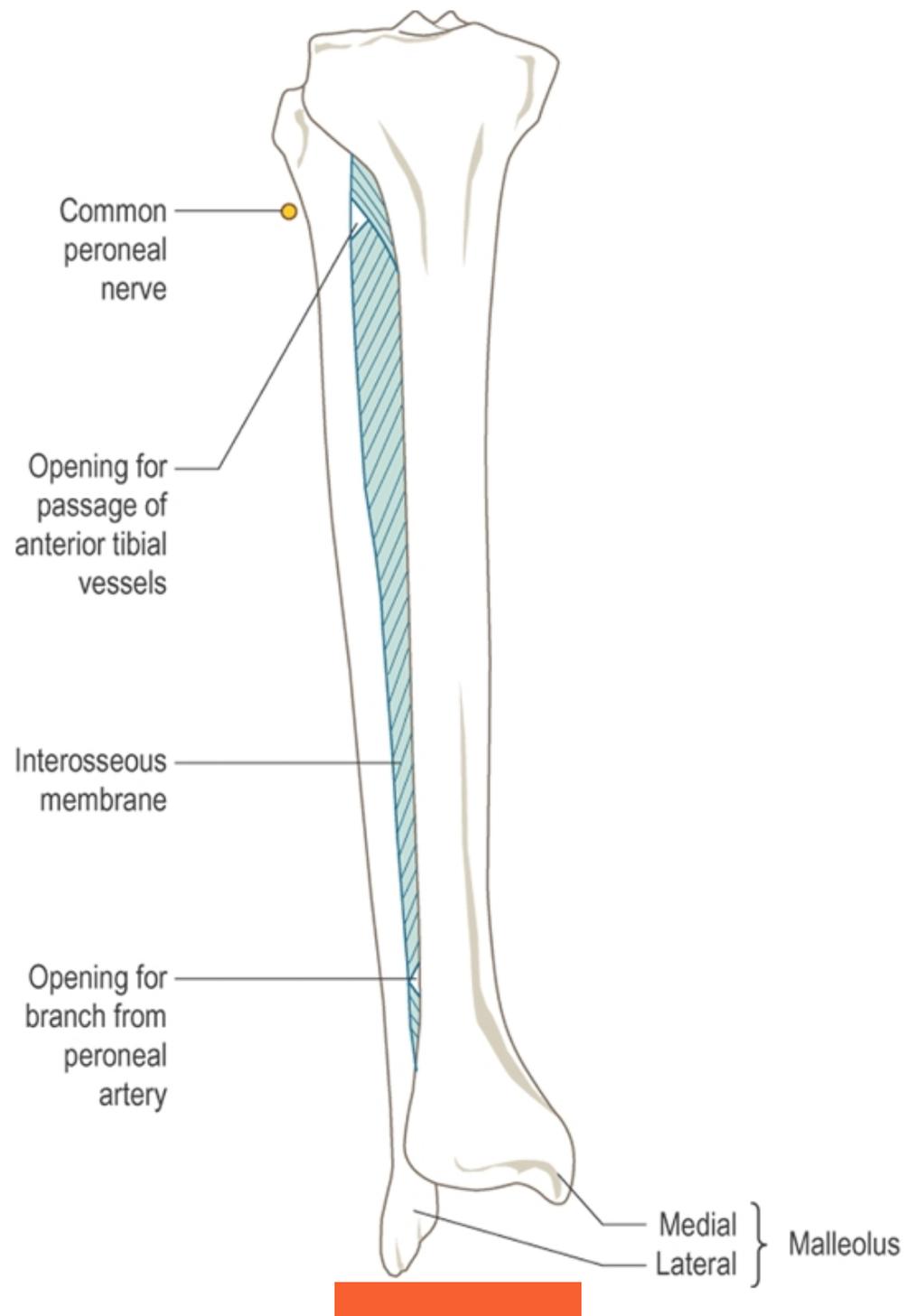
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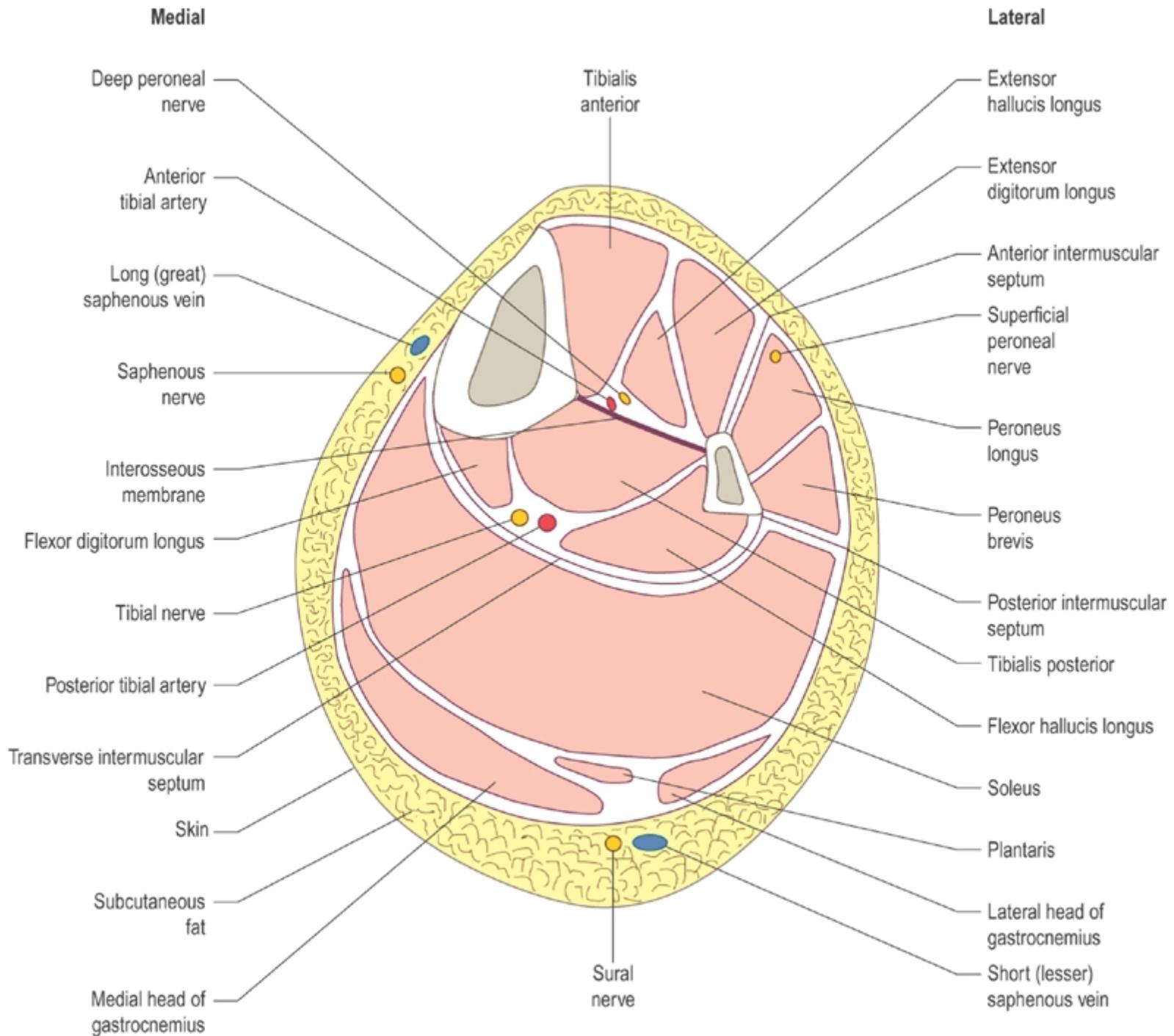


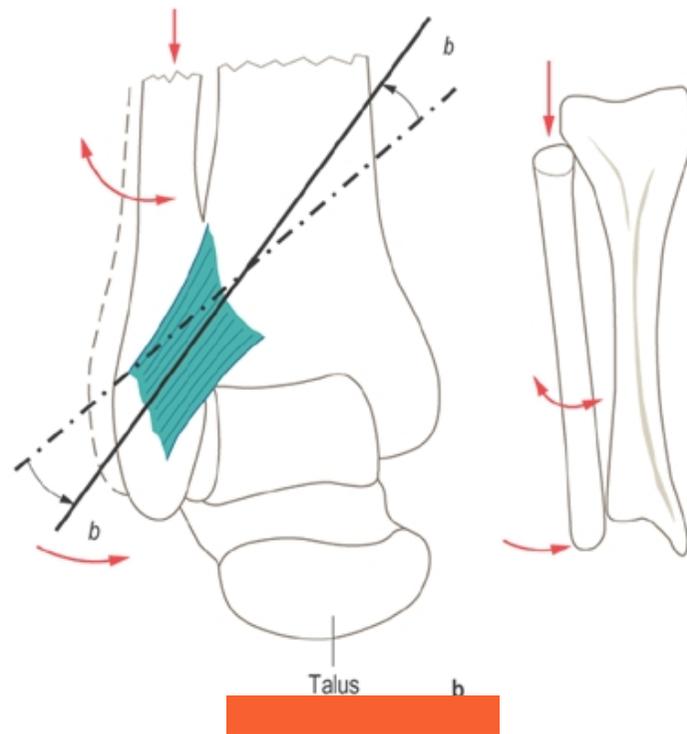
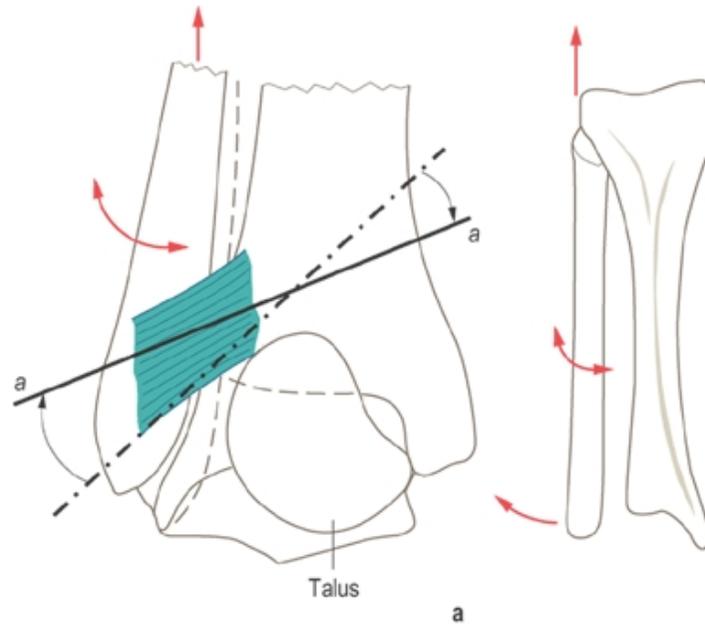
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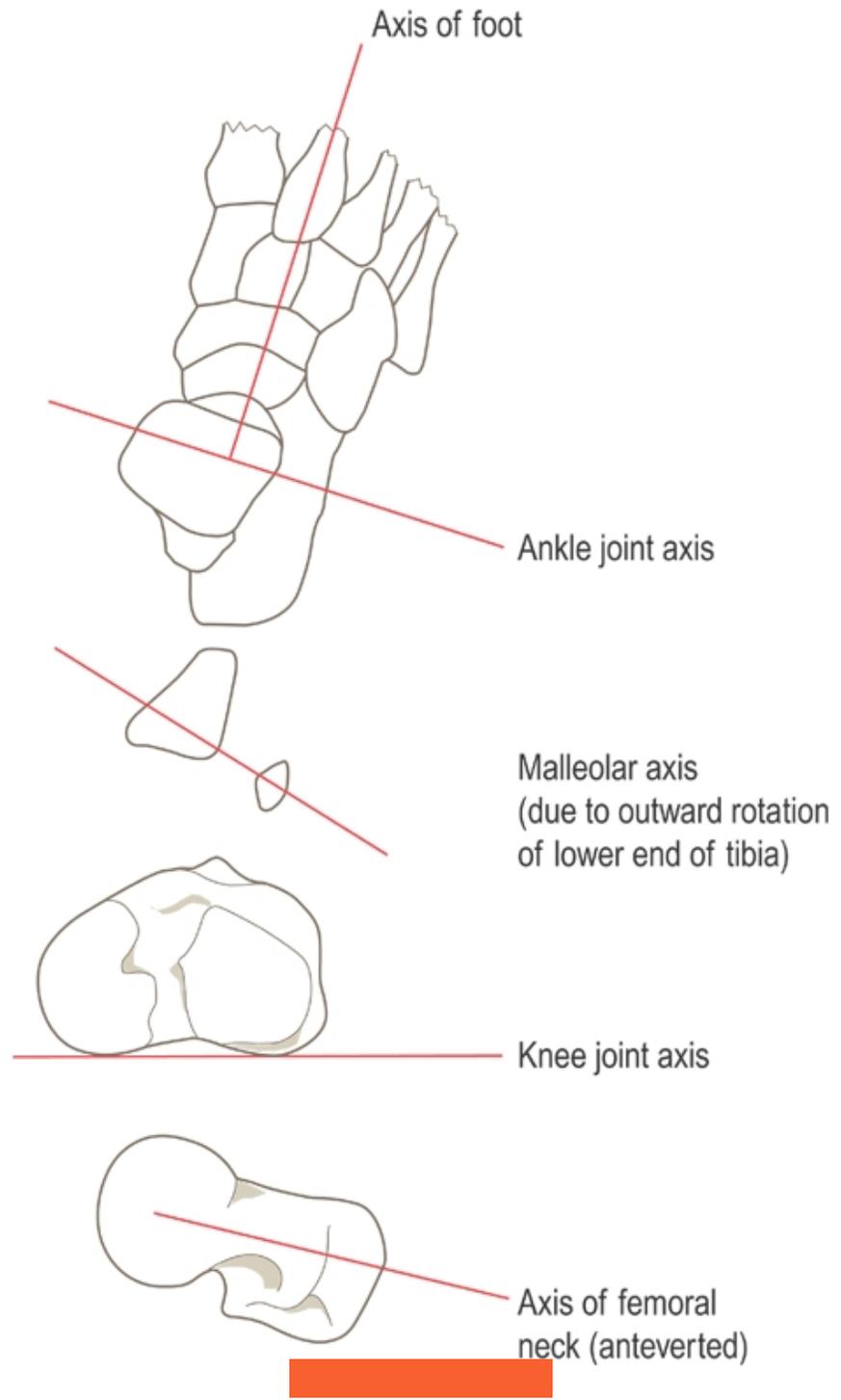


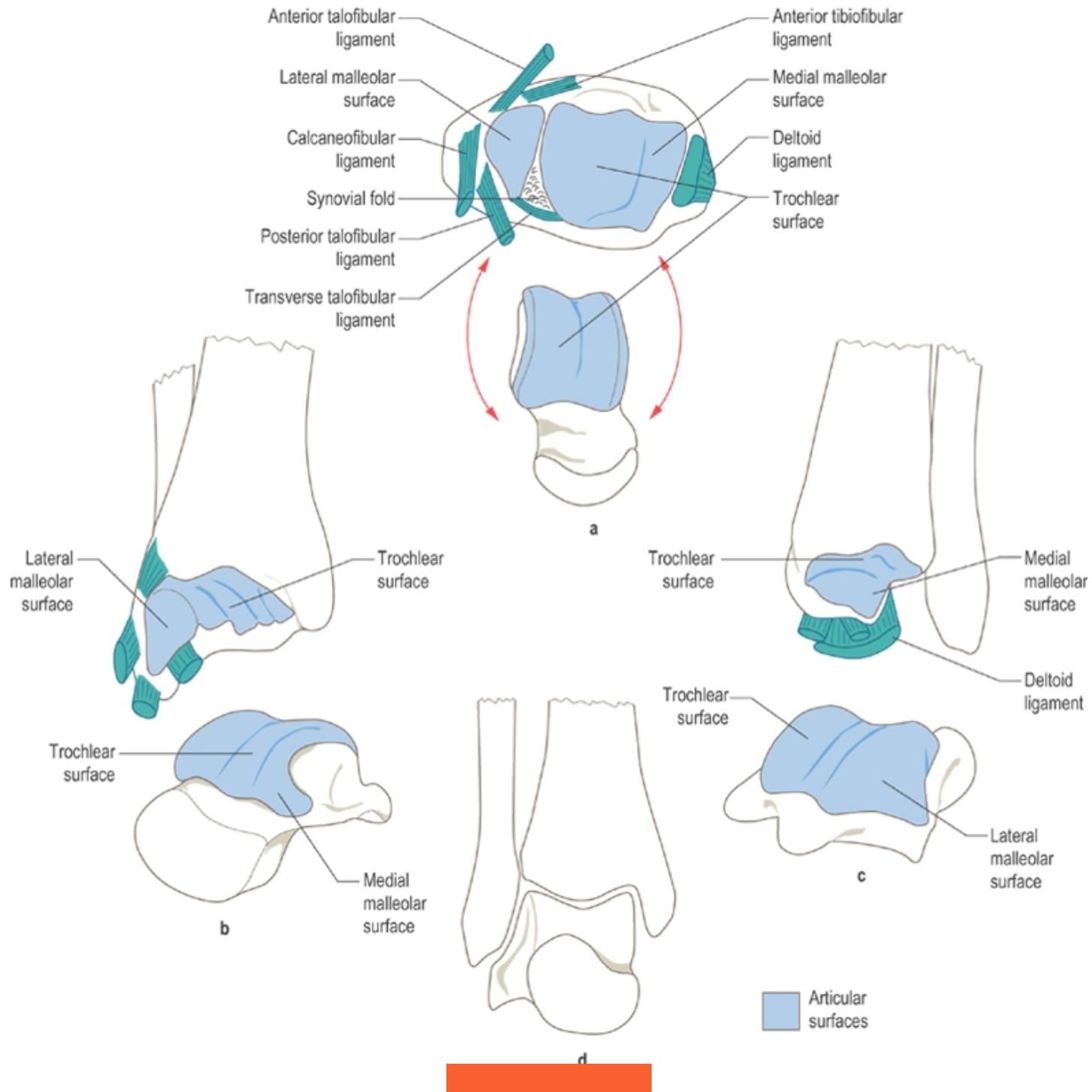


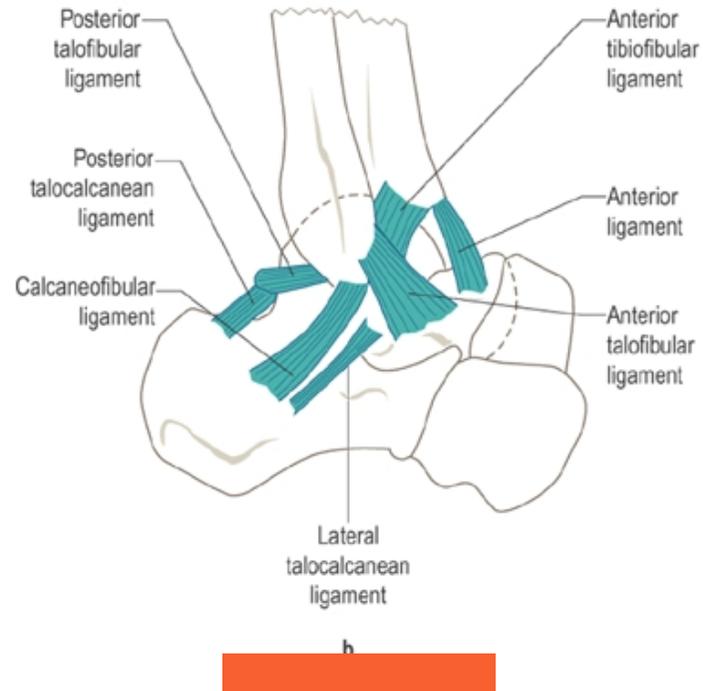
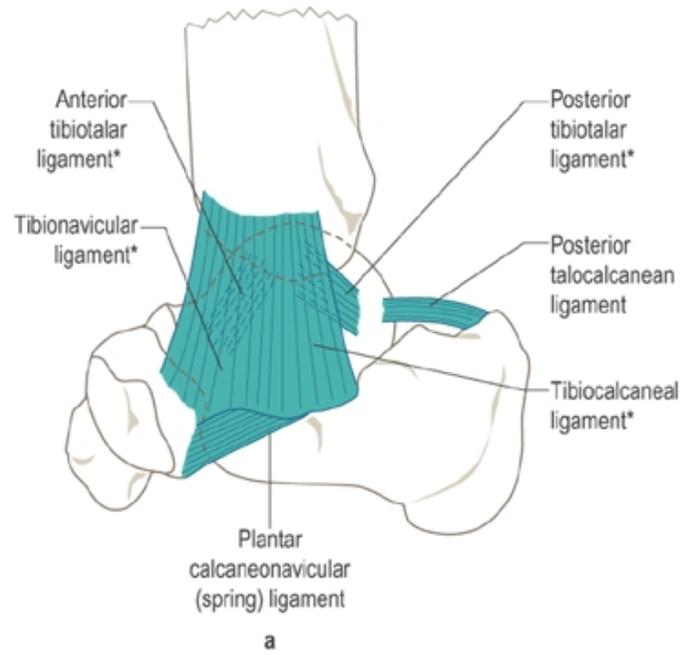


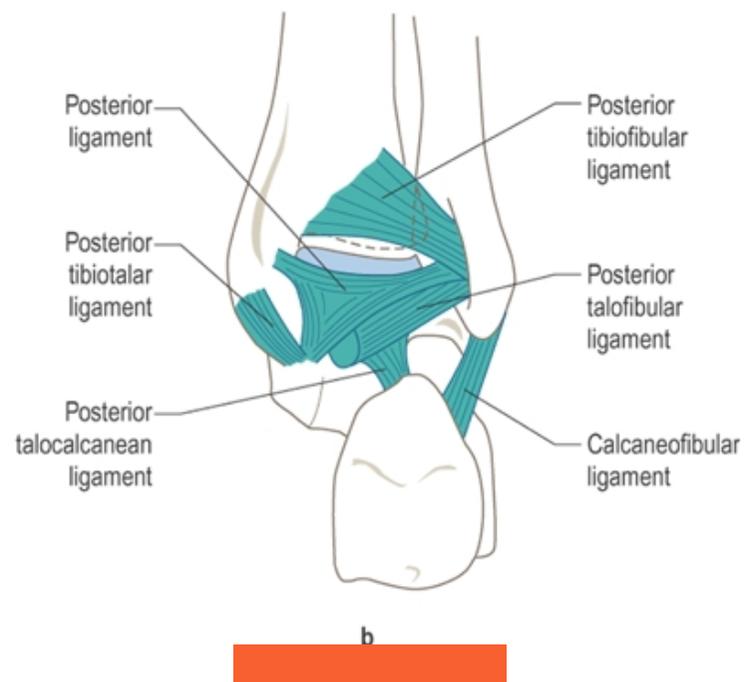
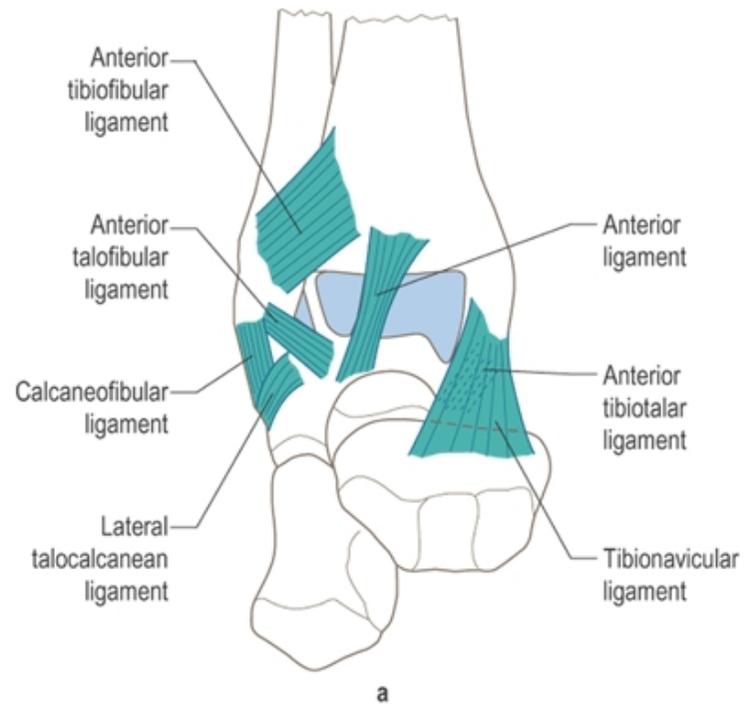


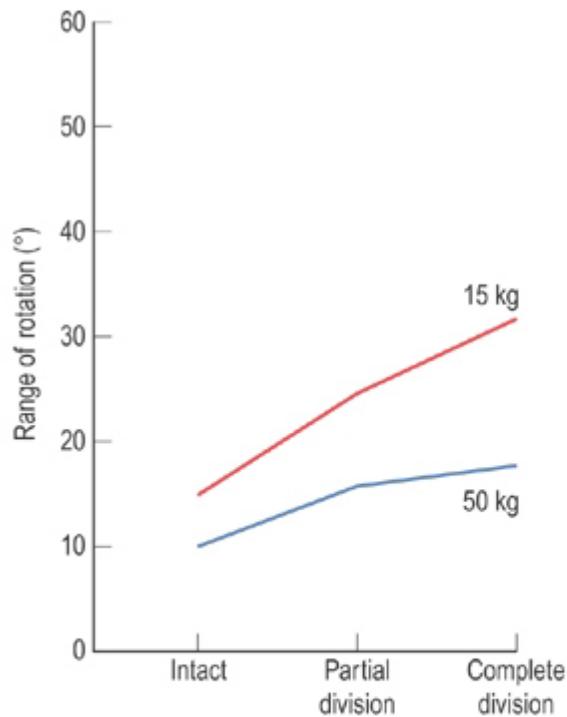




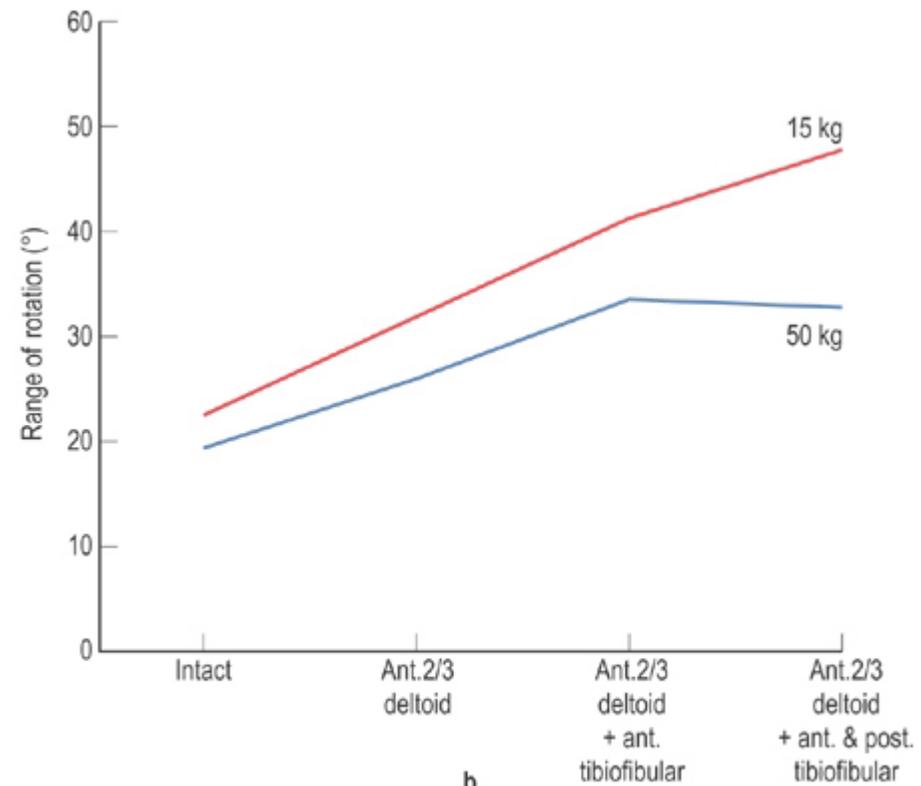








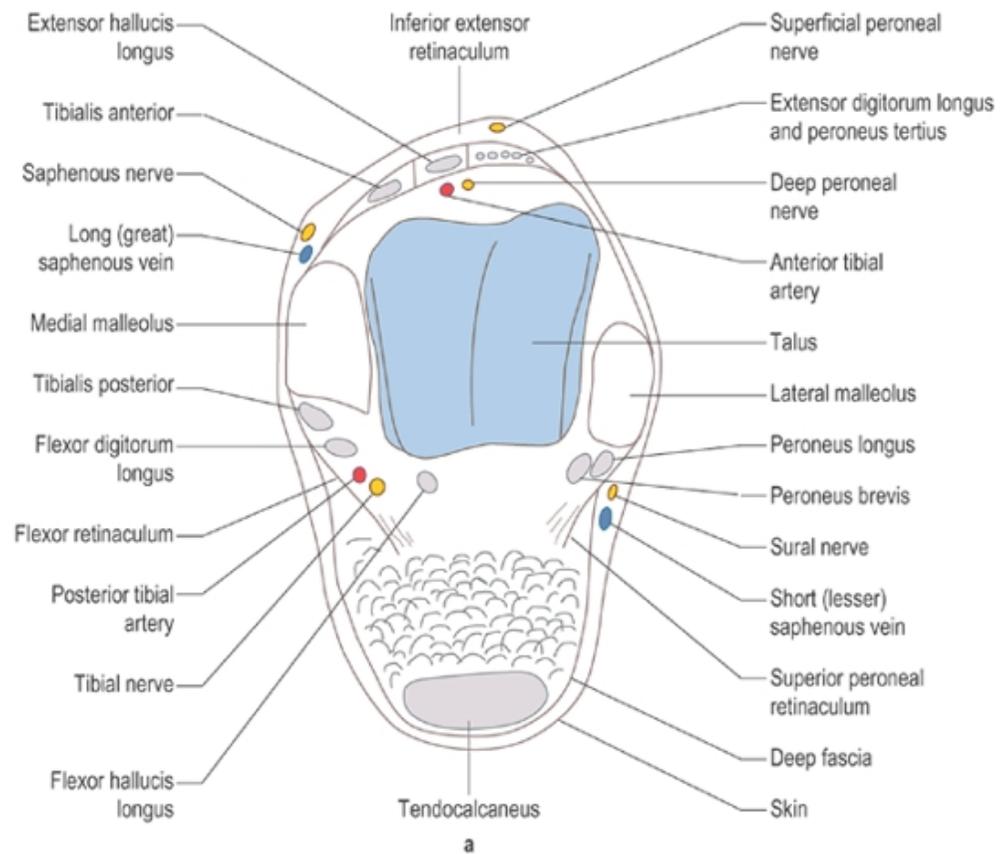
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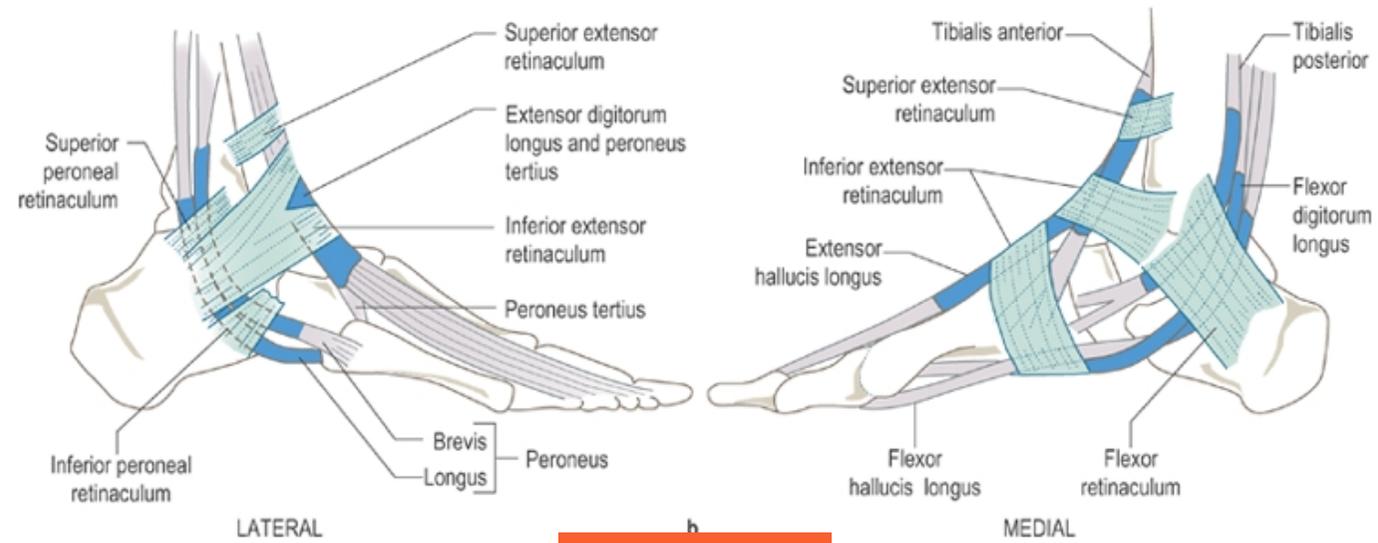
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(Adapted from McCullough CJ, Burge PD (1980) Rotatory stability of the load-bearing ankle – an experimental study. *Journal of Bone and Joint Surgery*, 62B, 460-464.)

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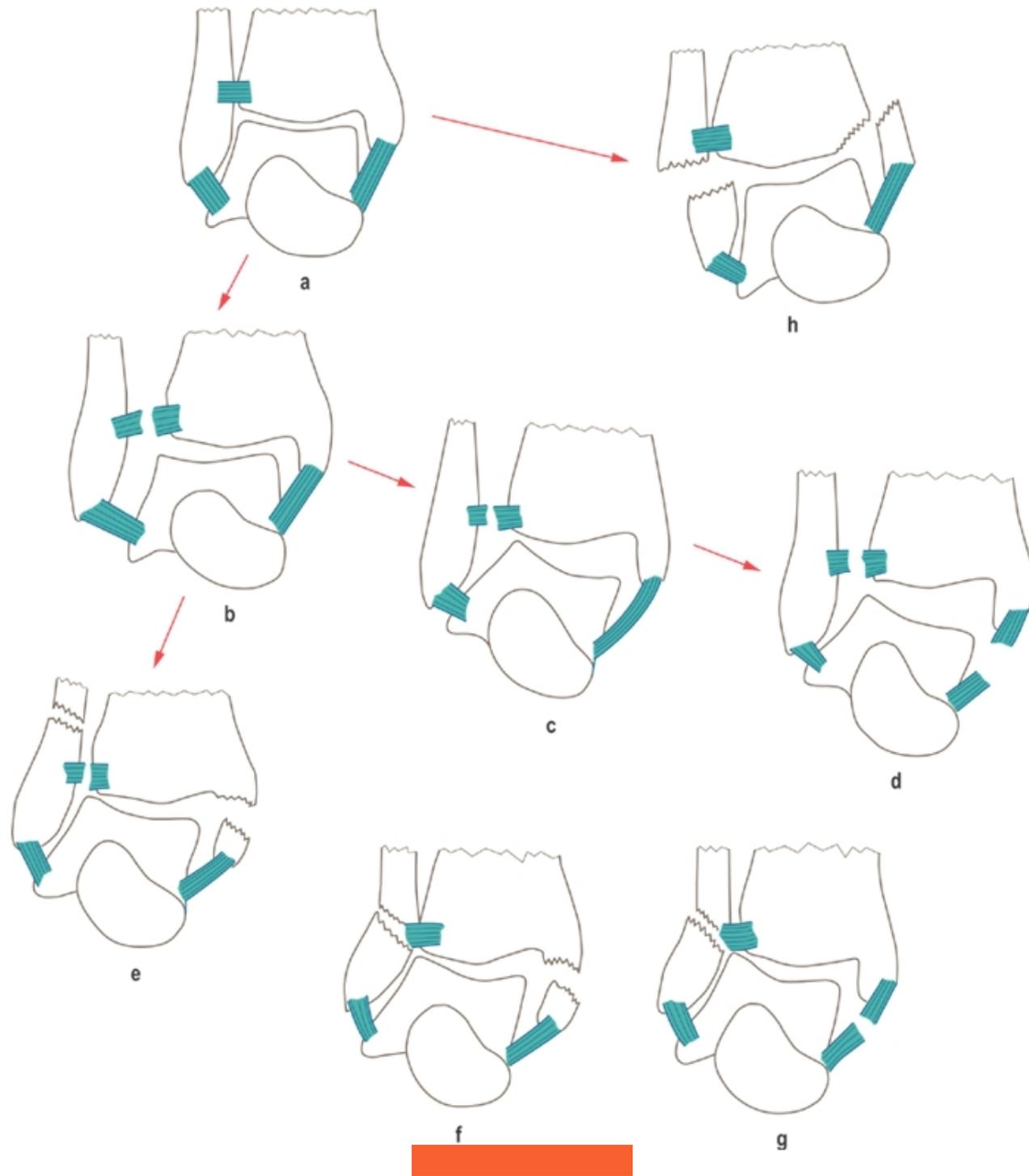


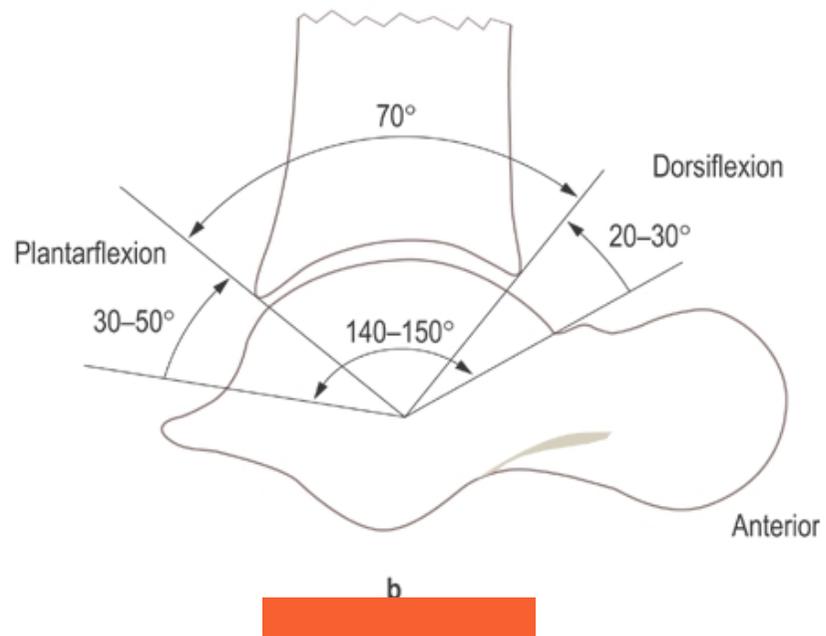
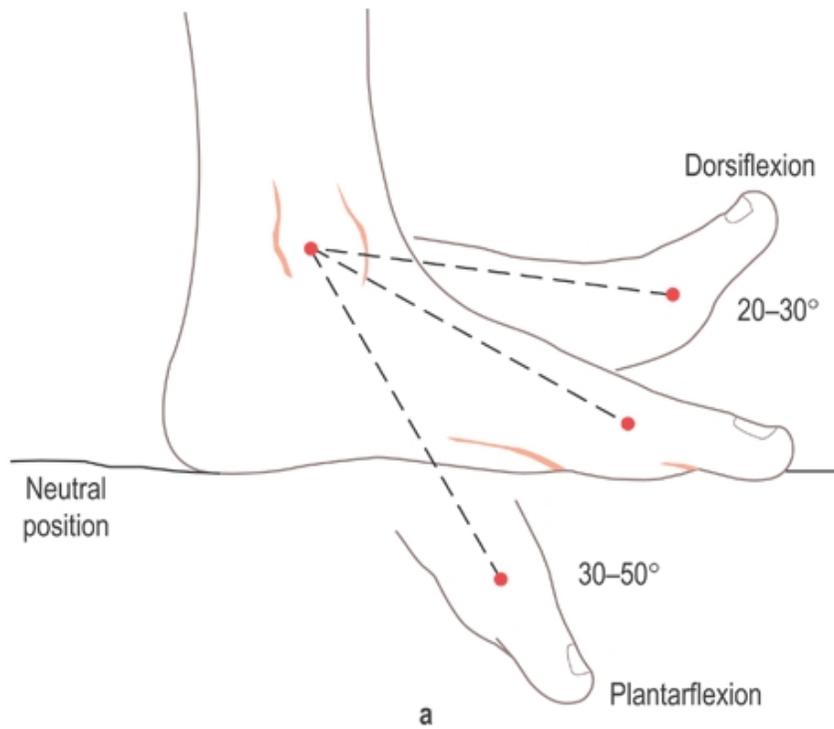
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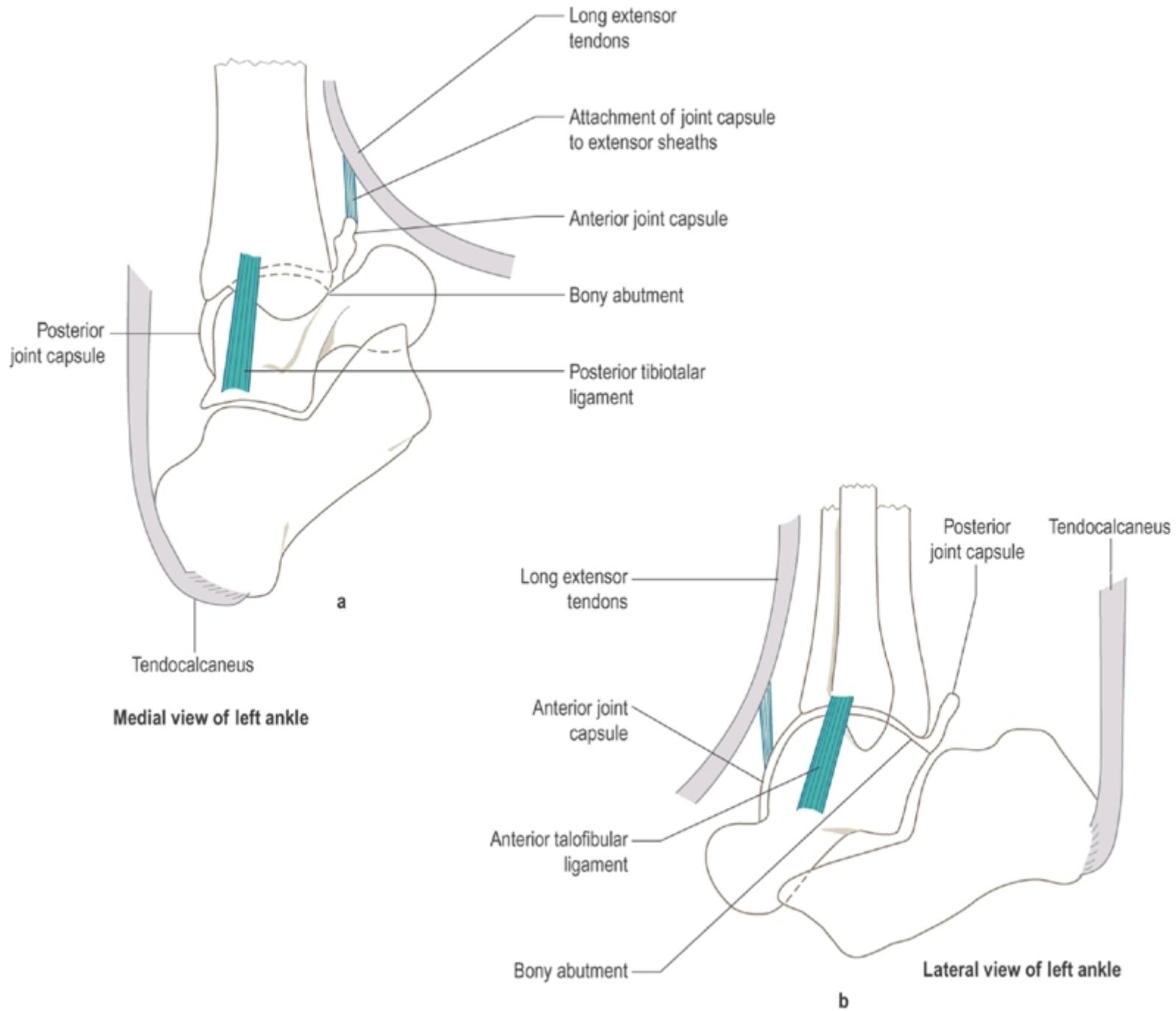


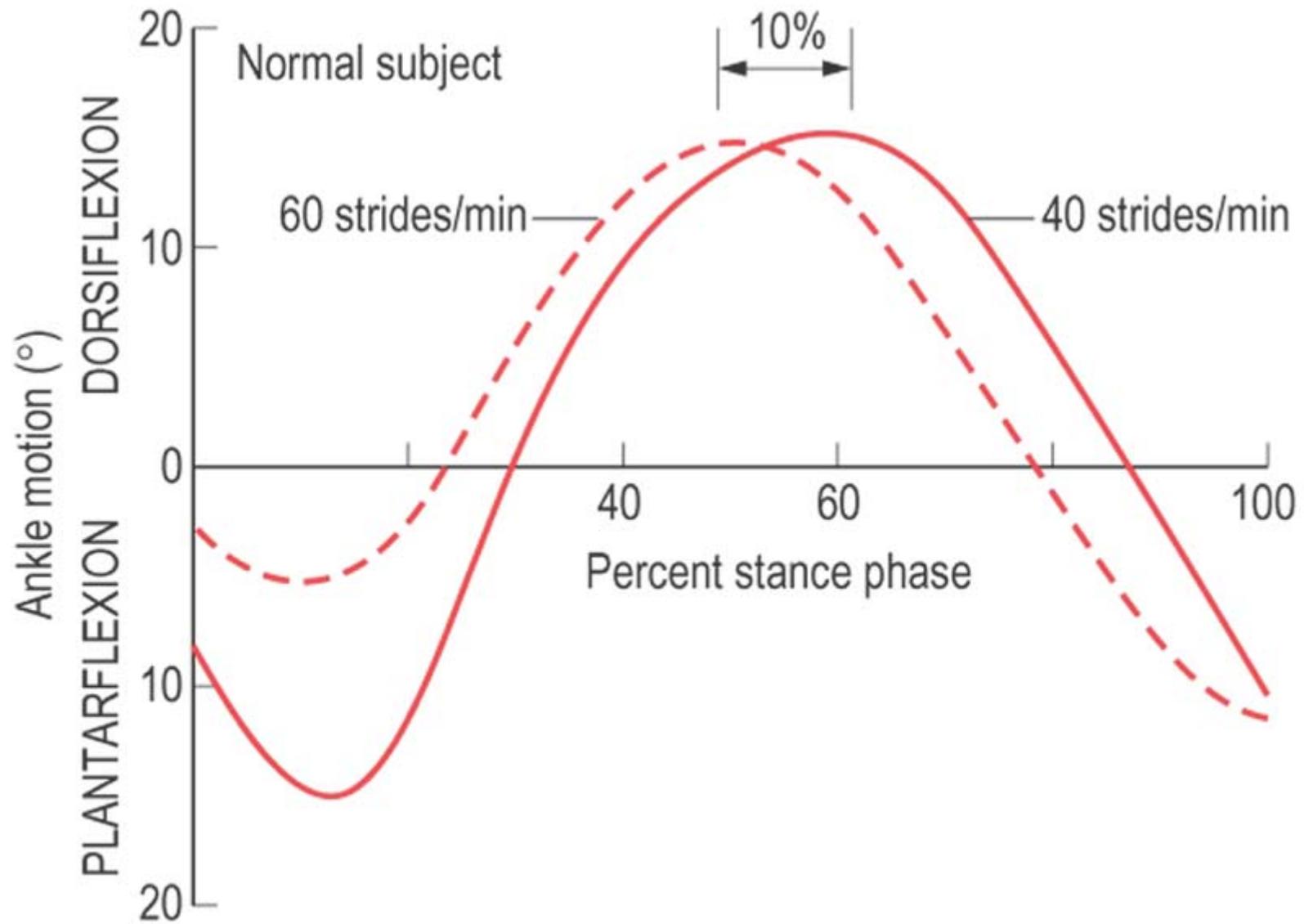
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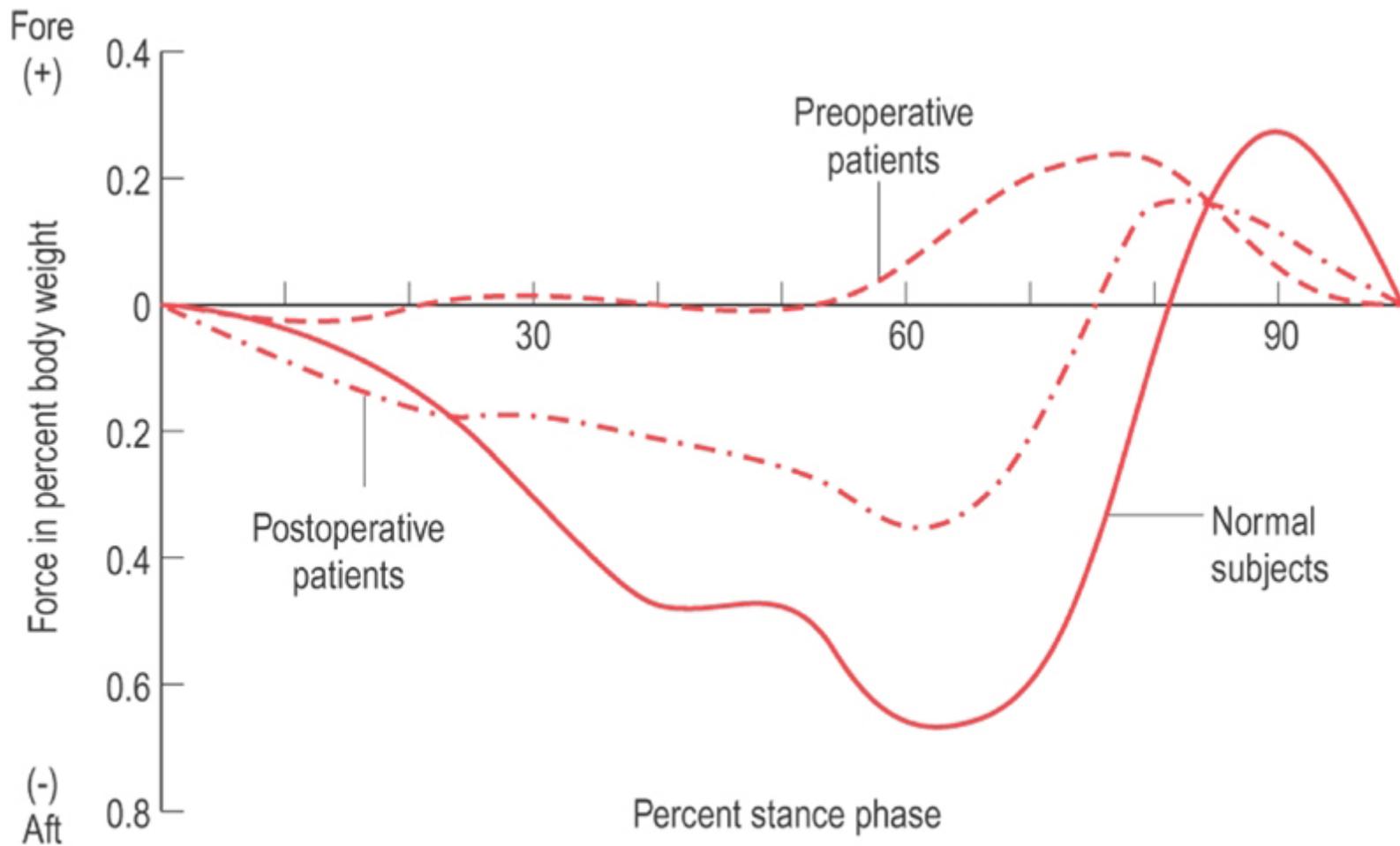






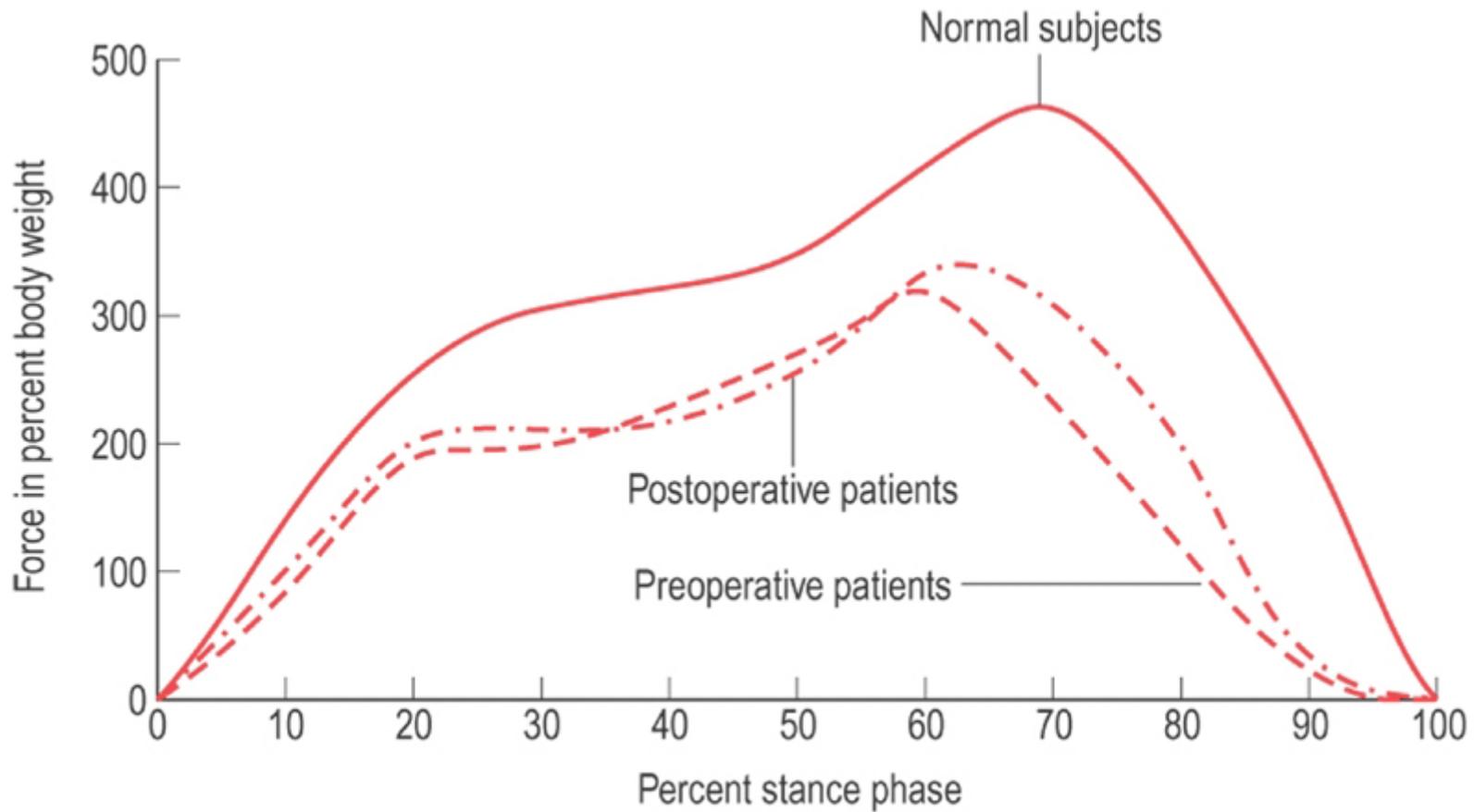


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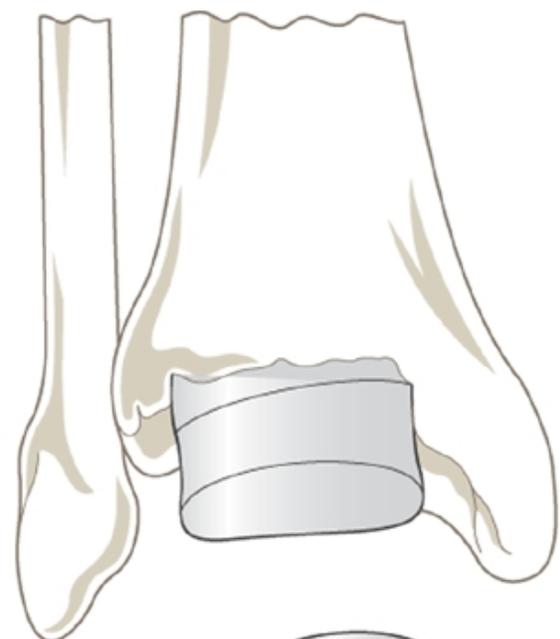


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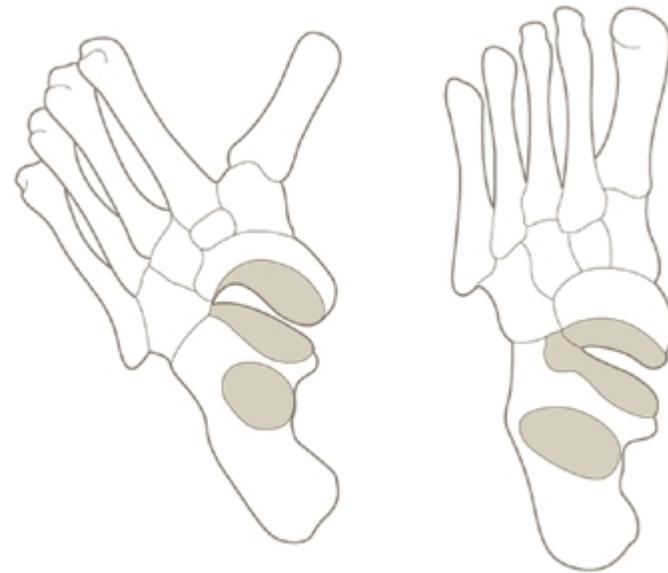


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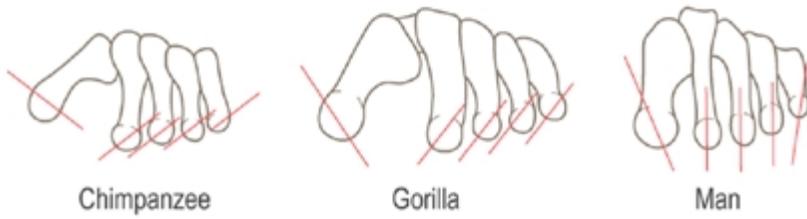




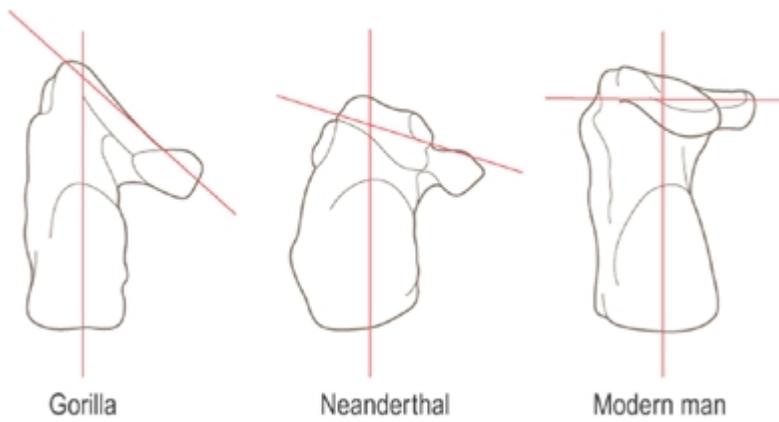
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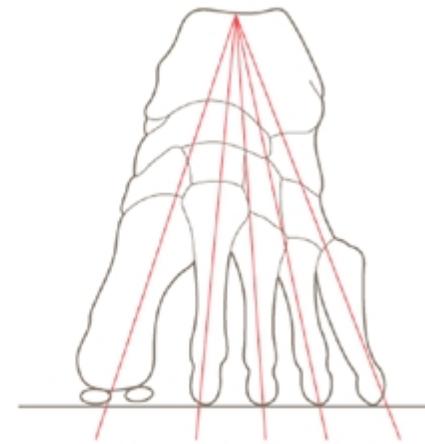
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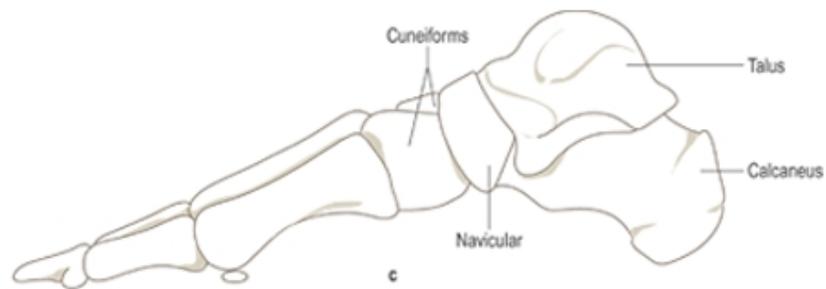




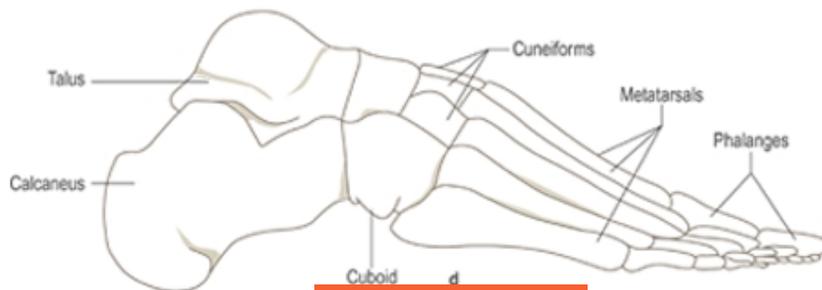
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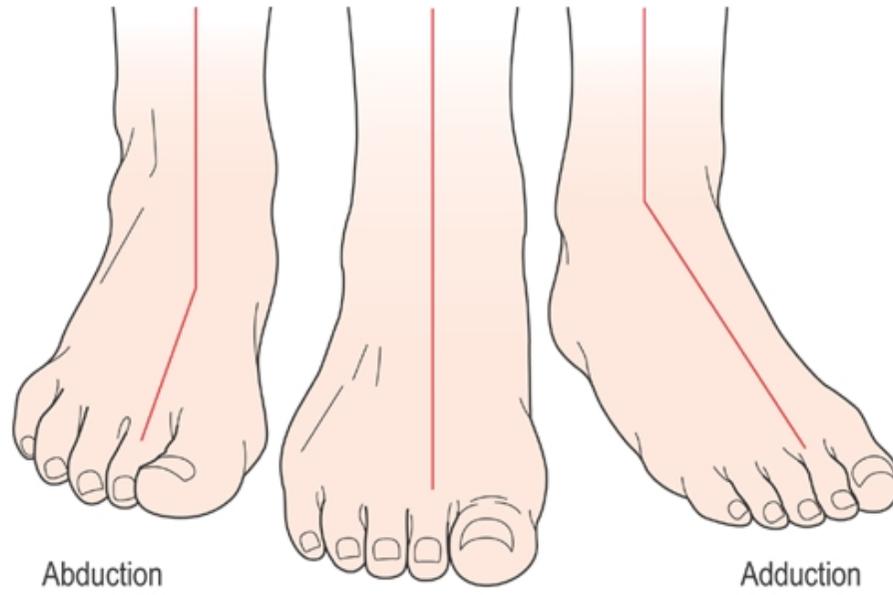


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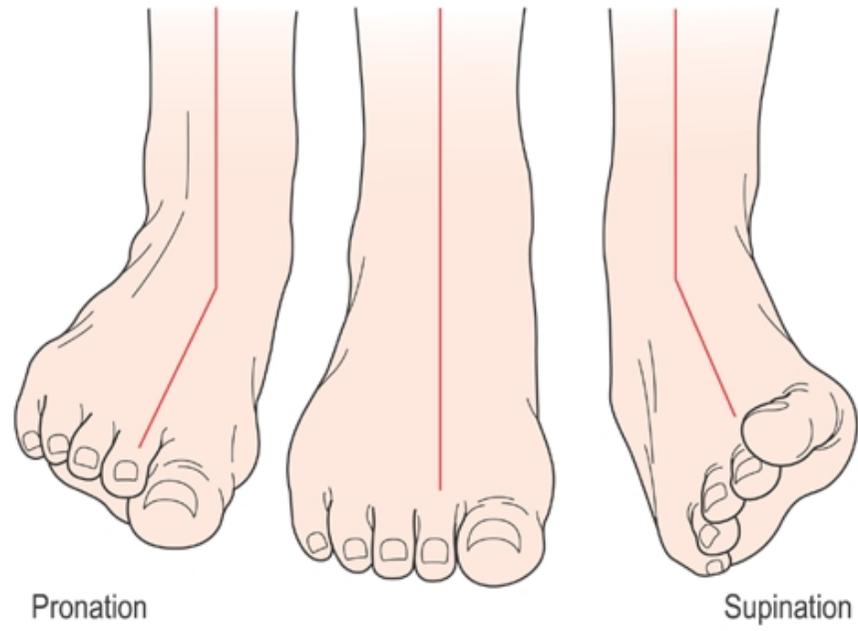


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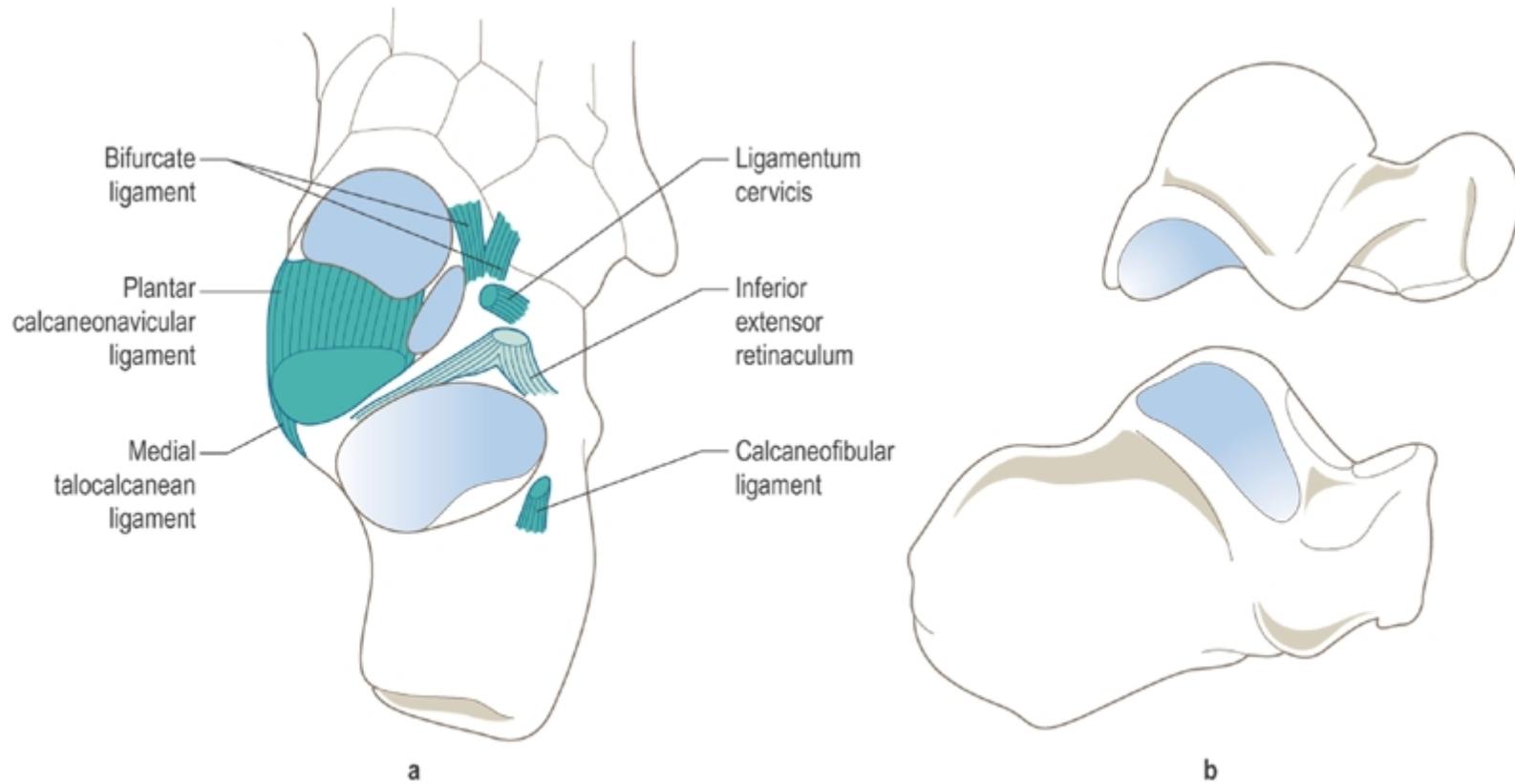


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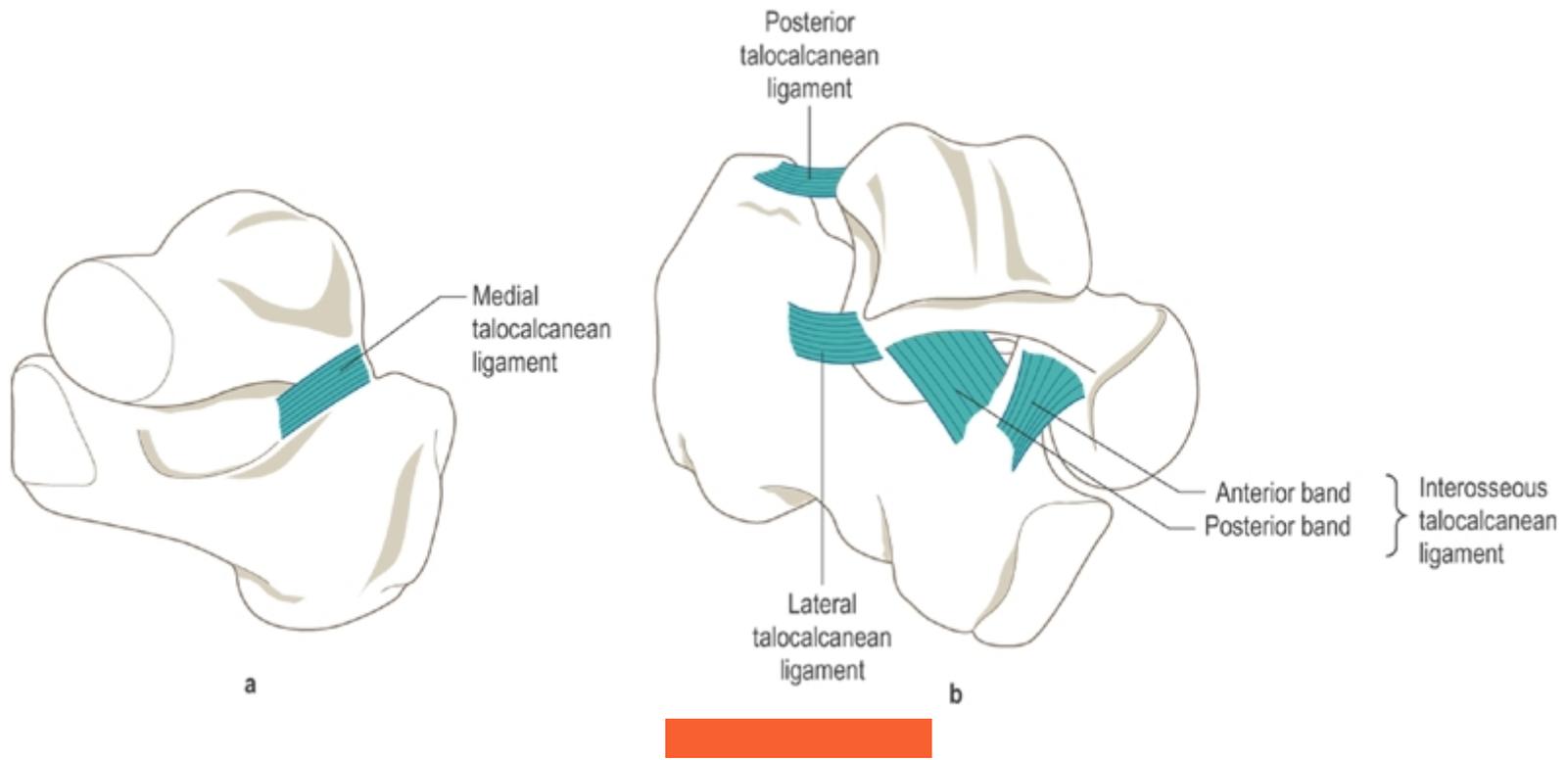


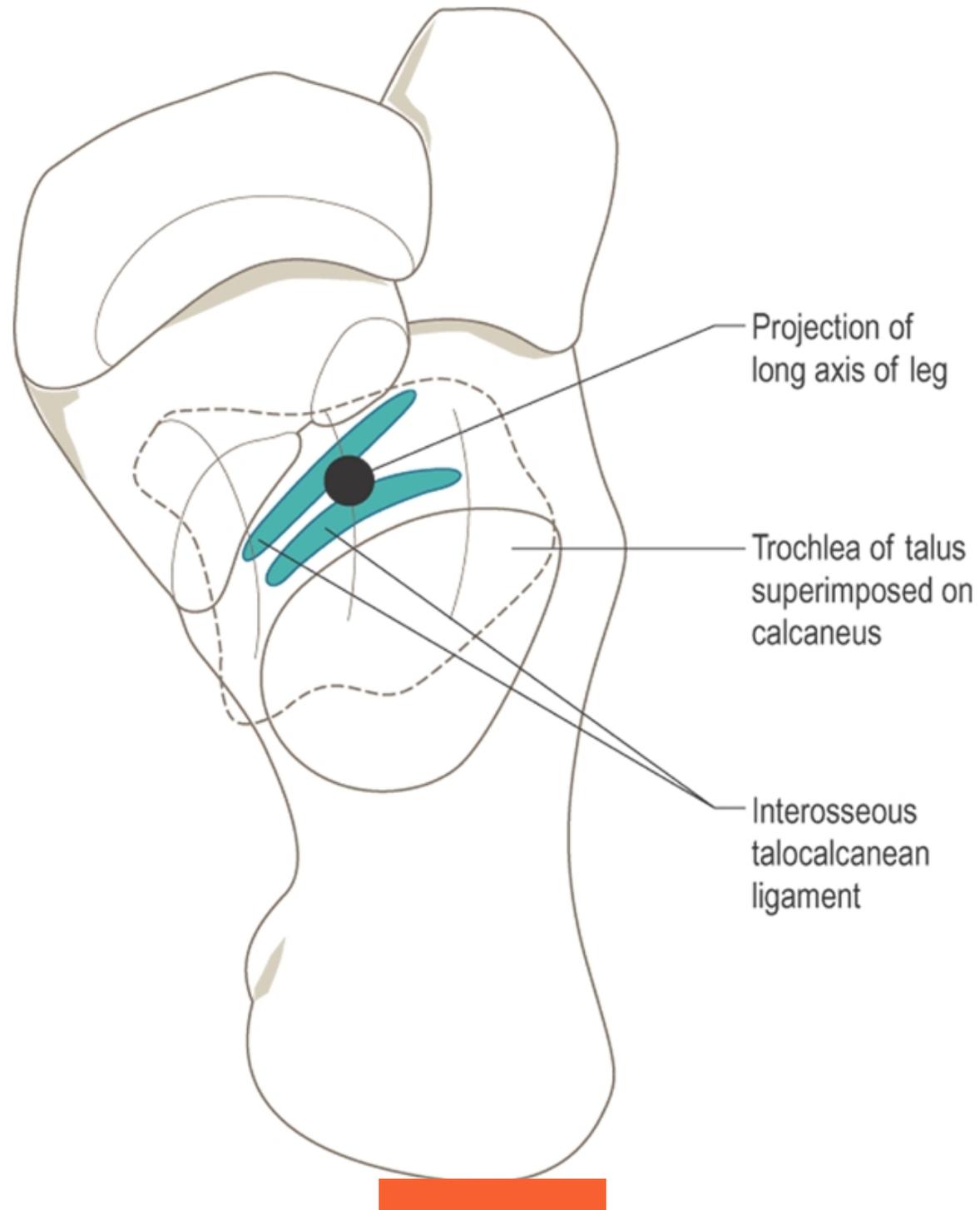
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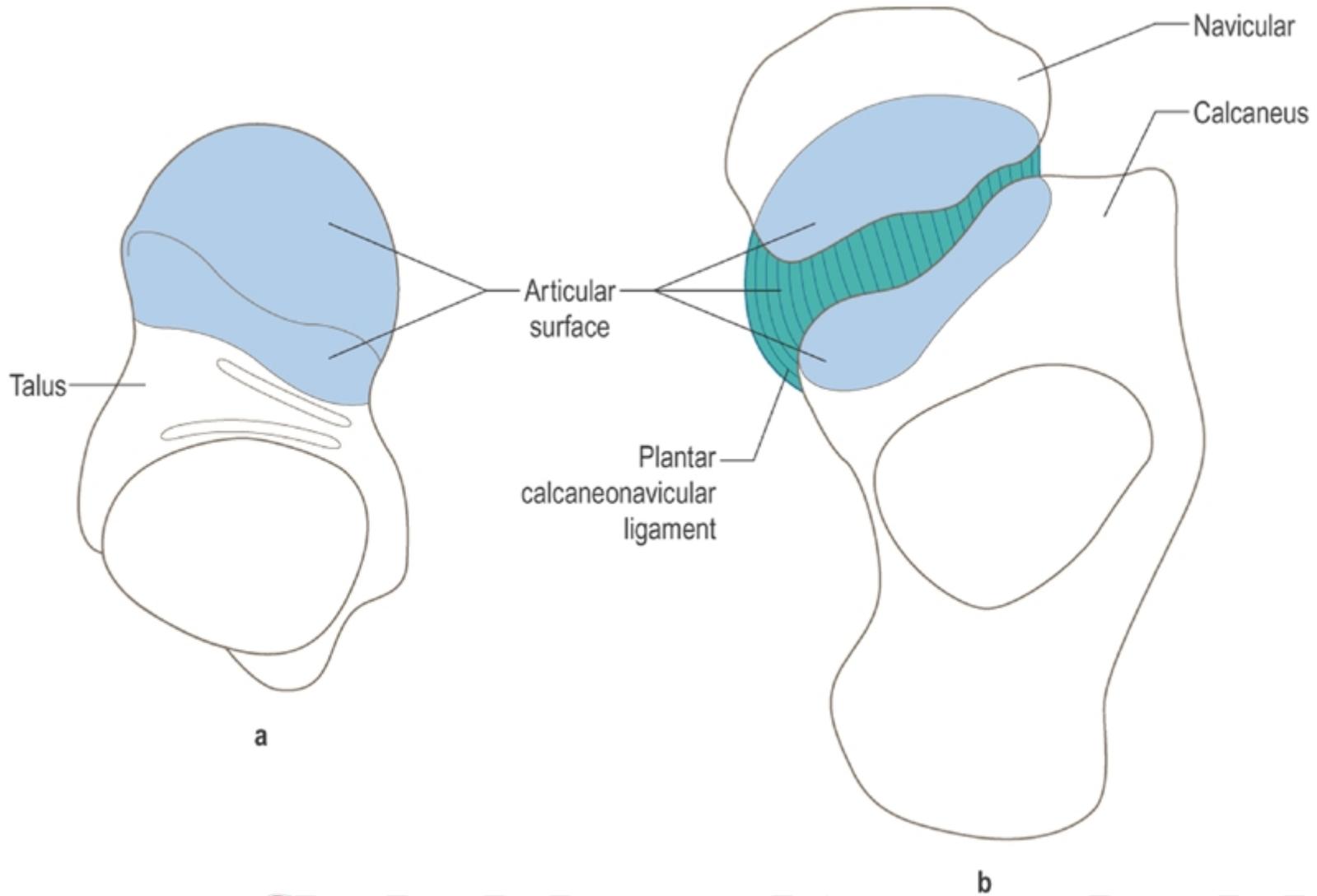




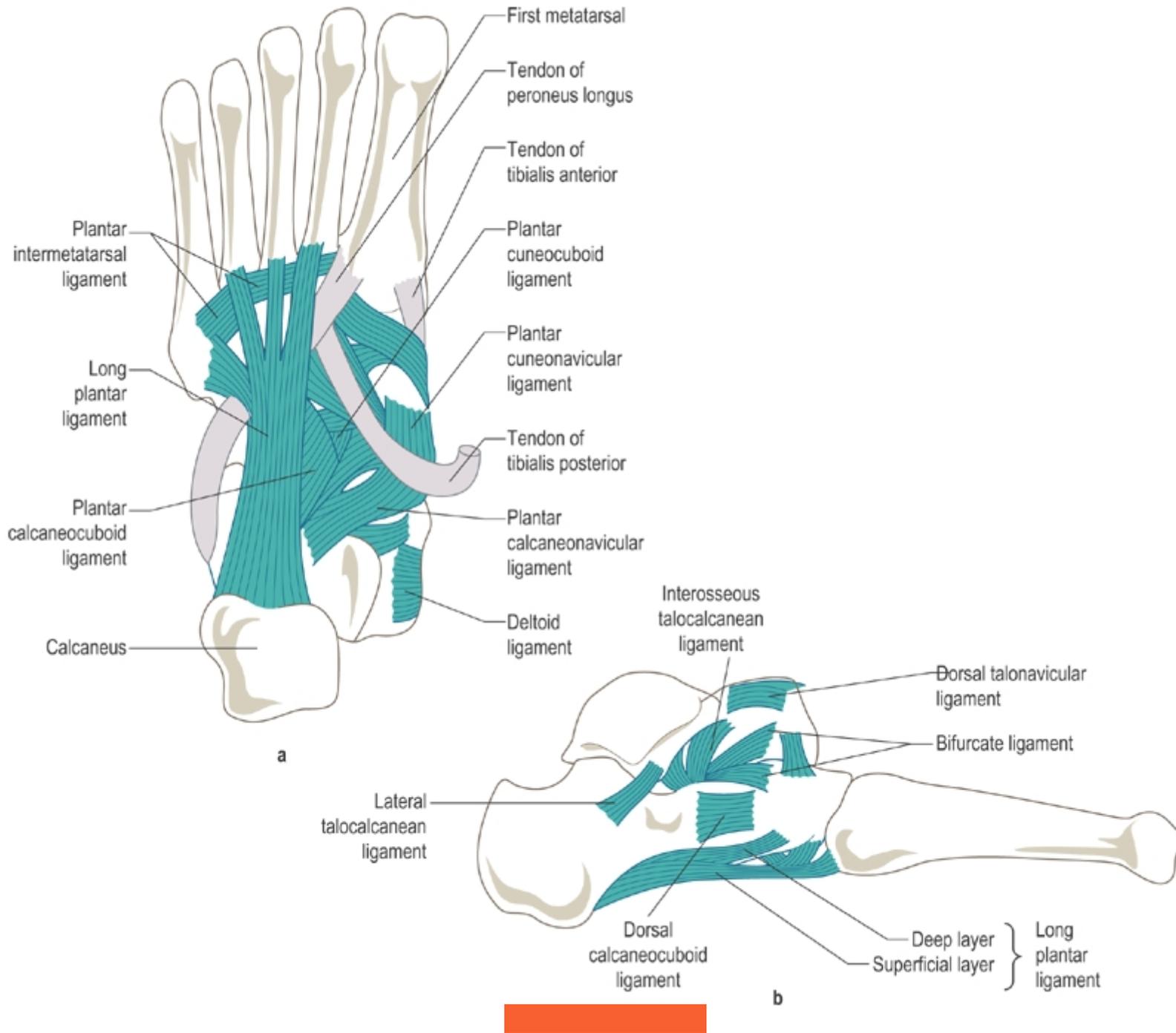
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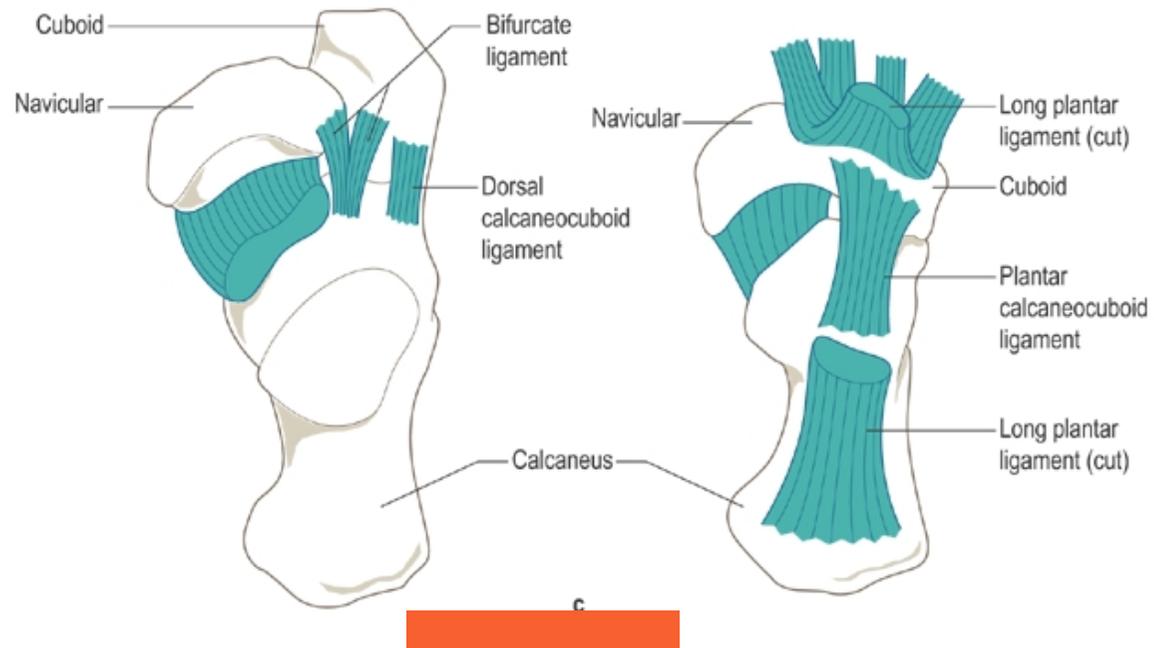
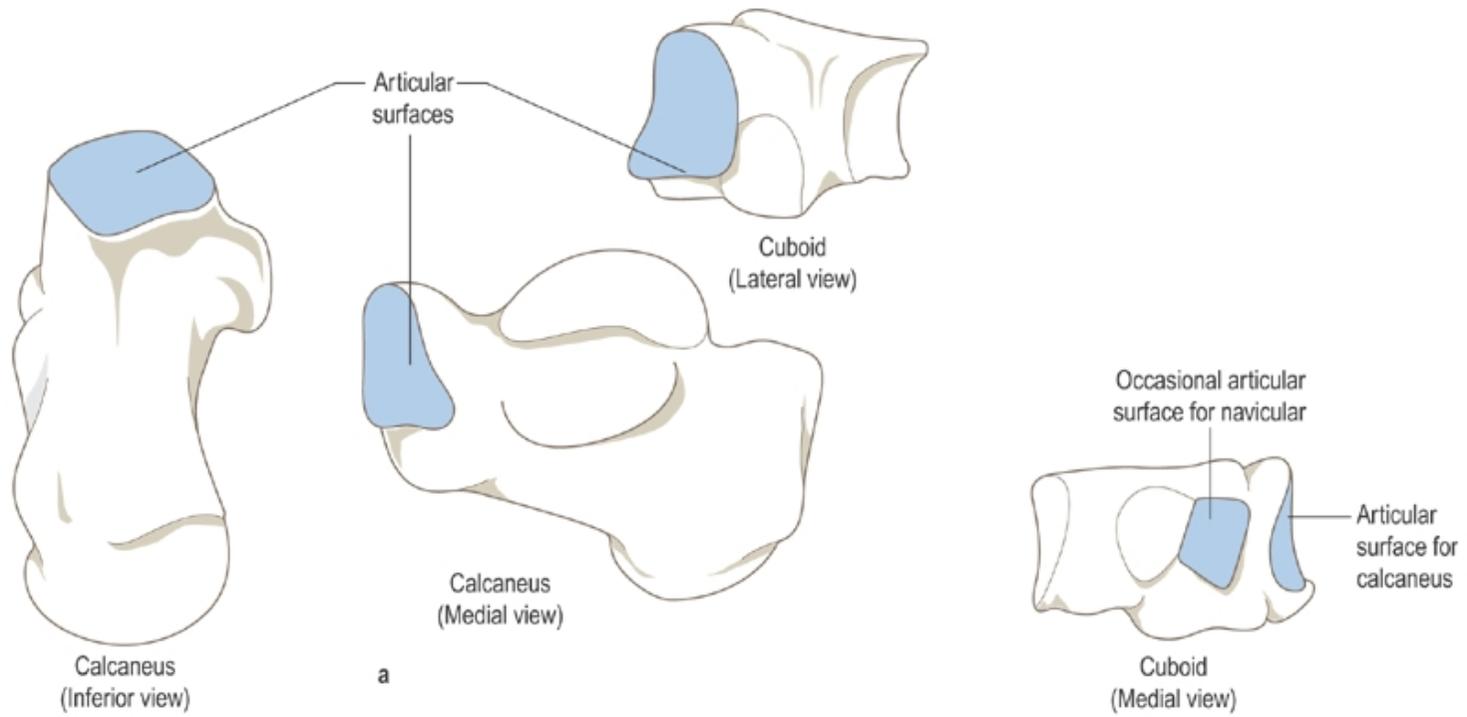


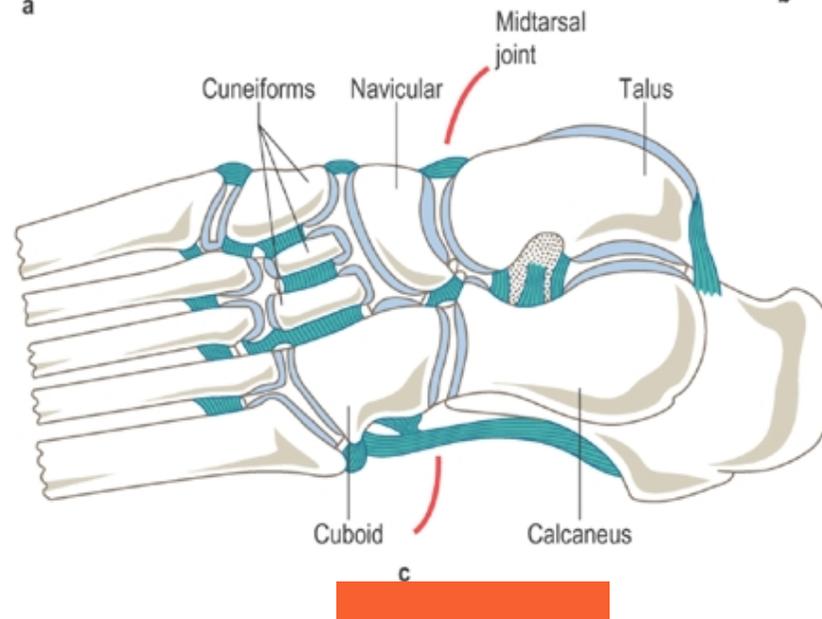
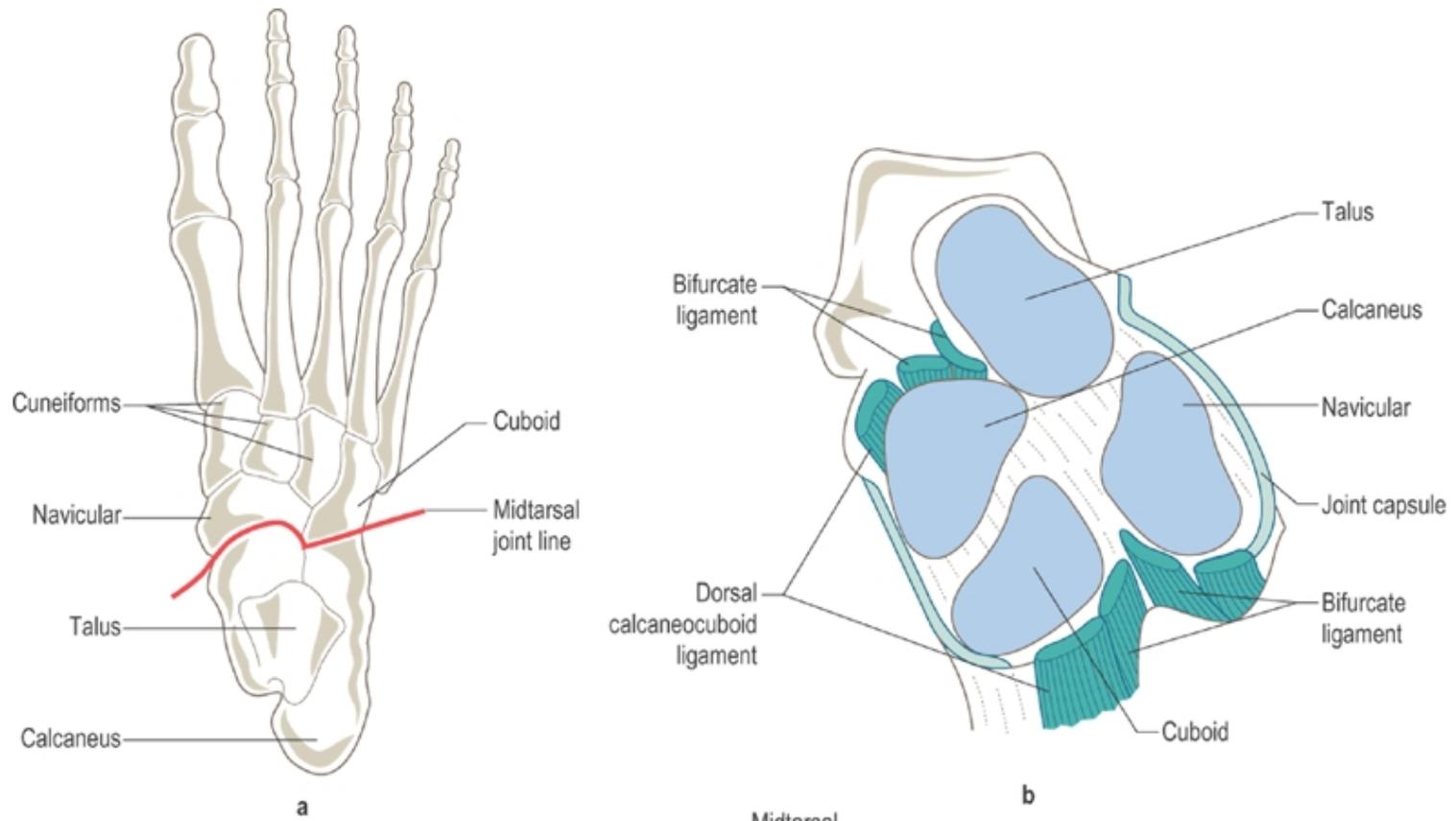


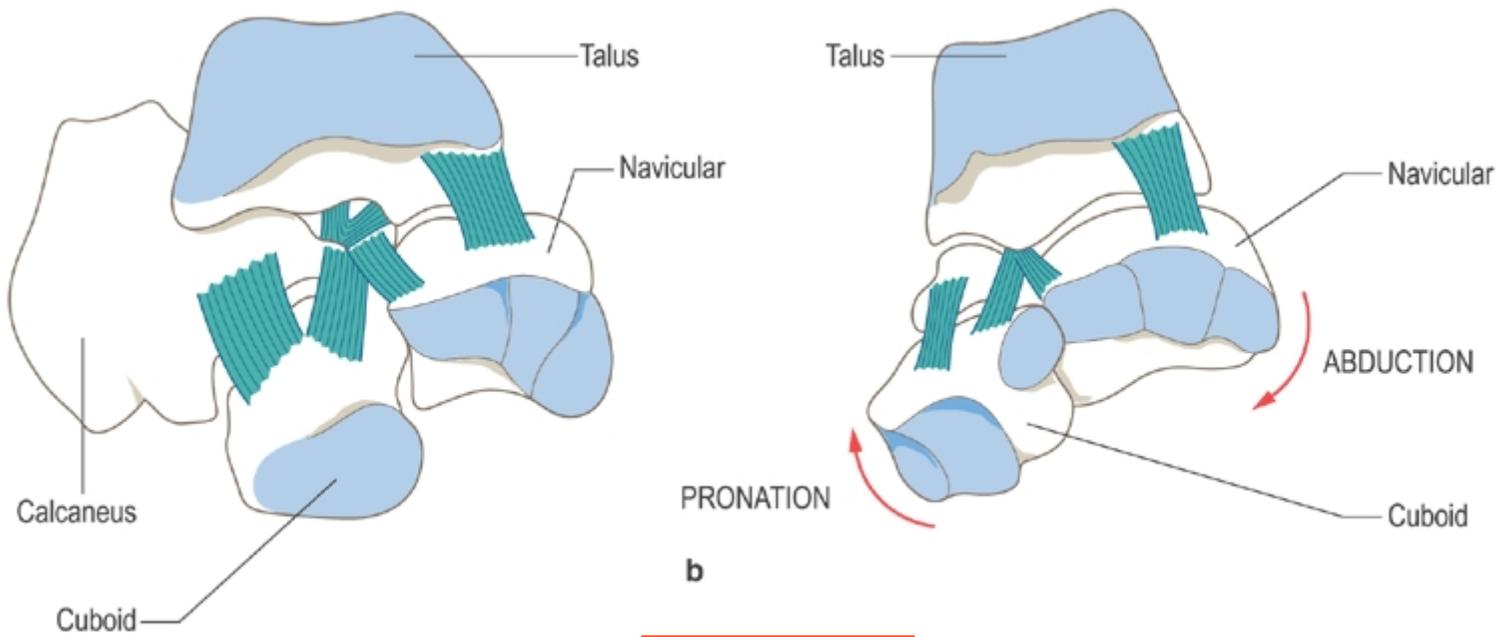
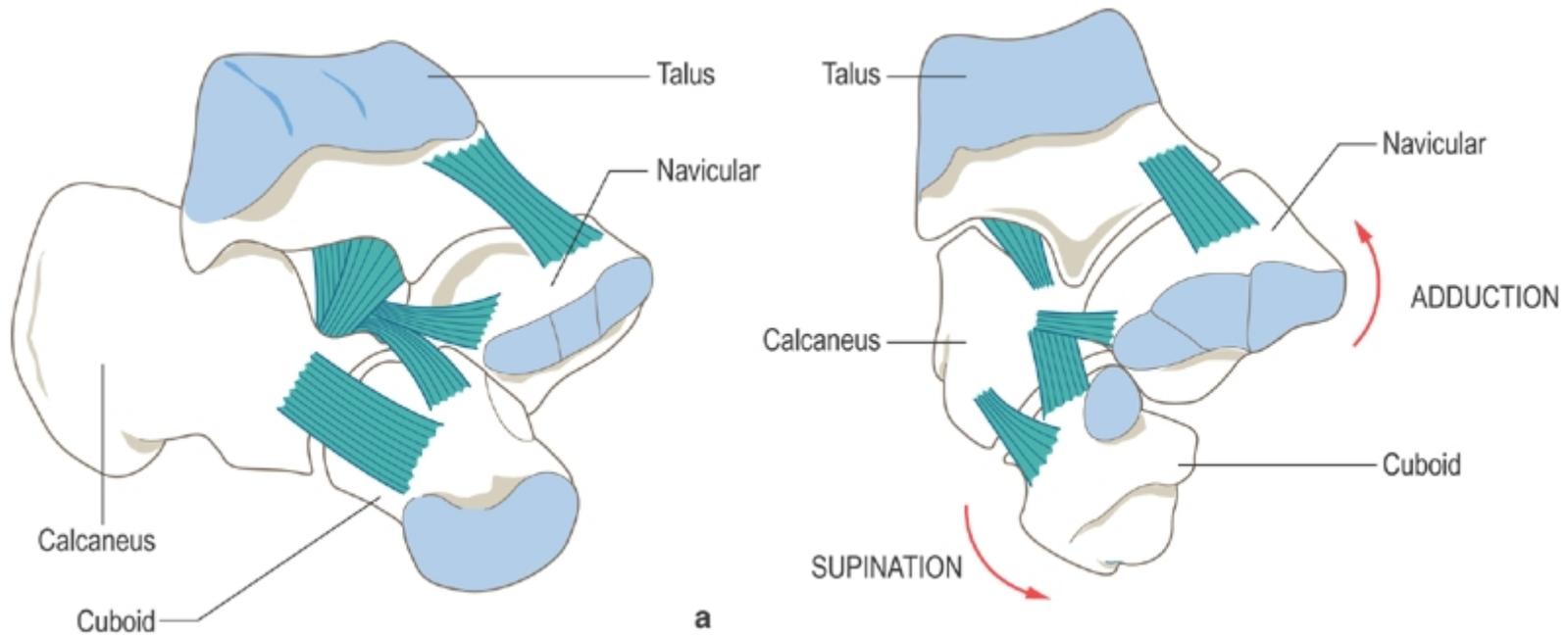


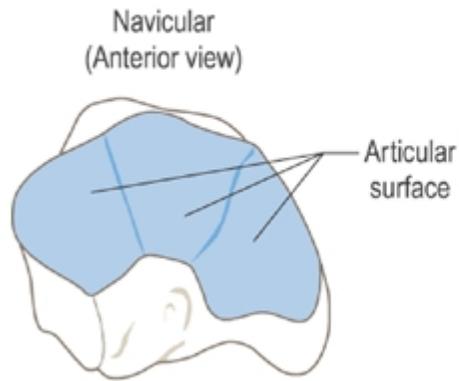
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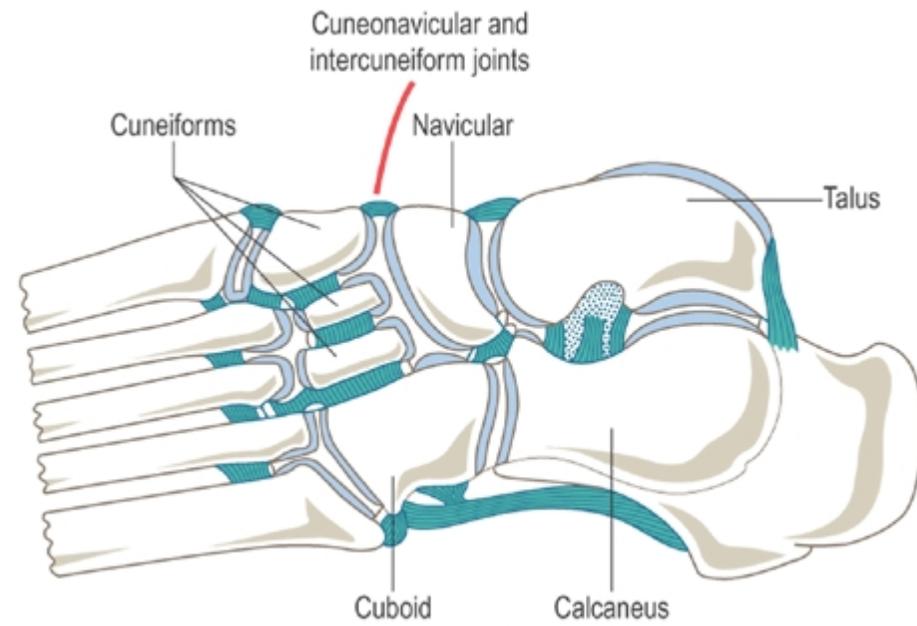




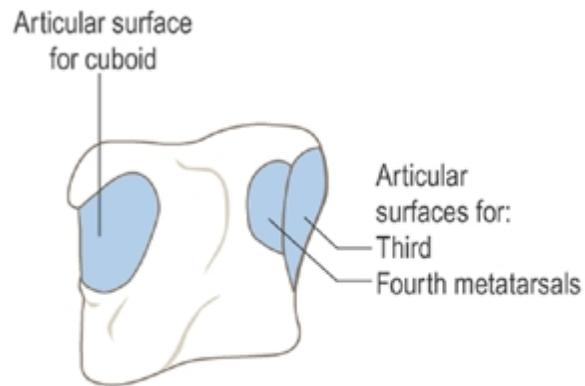




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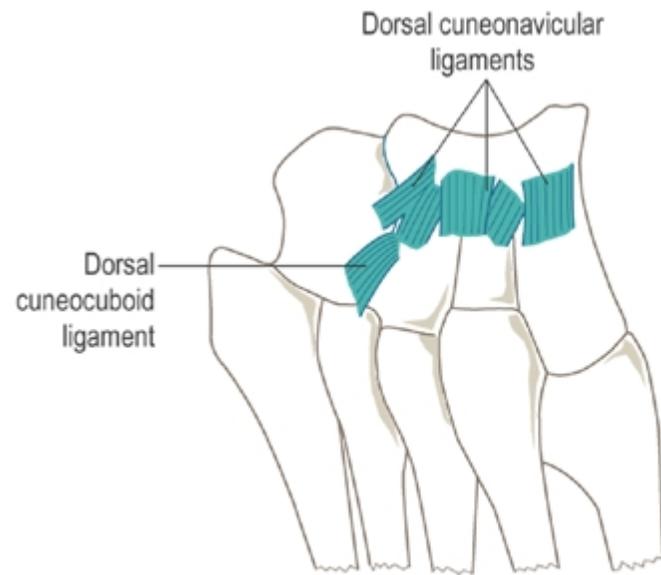


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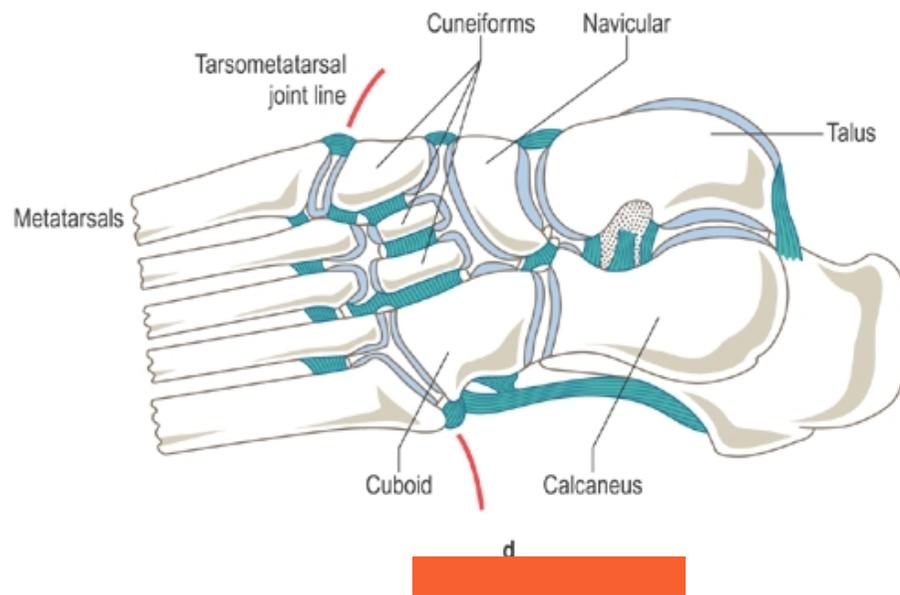
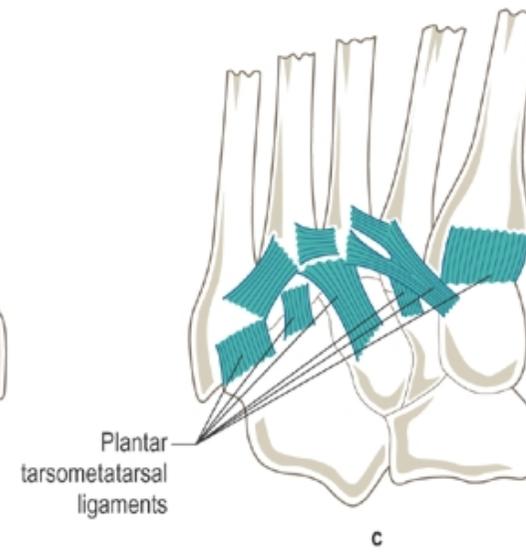
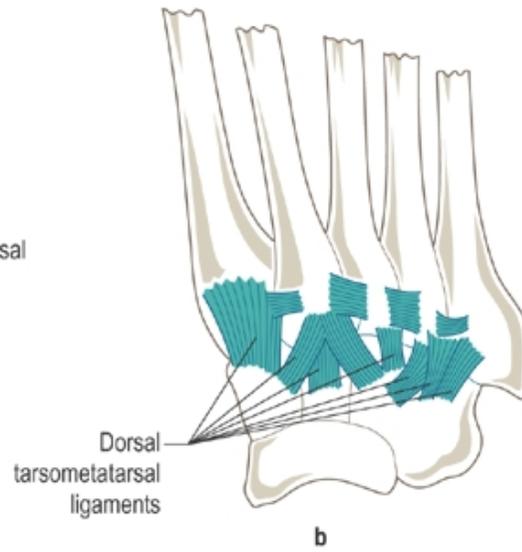
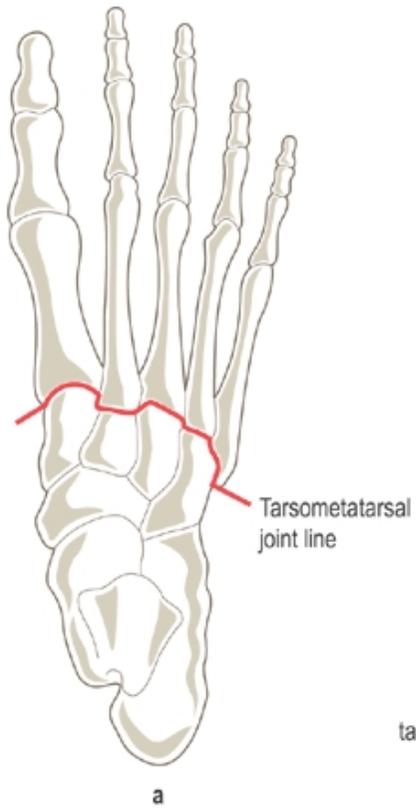
Right lateral cuneiform
(Lateral side)

c

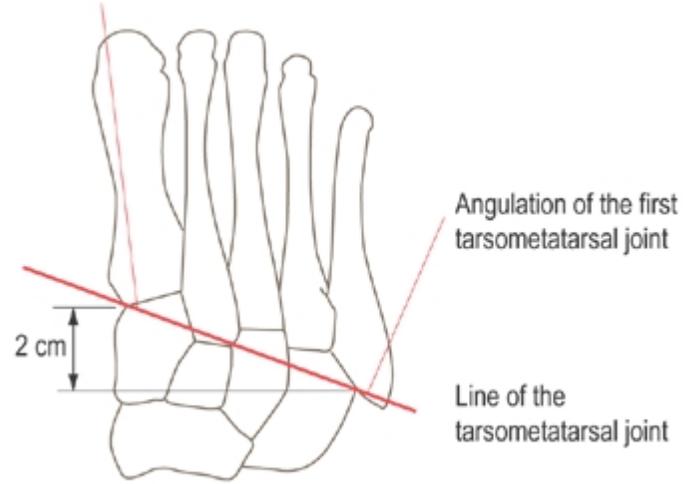


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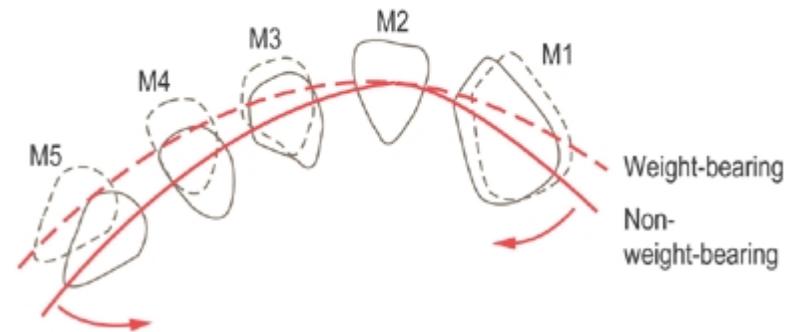




Angulation of the fifth tarsometatarsal joint



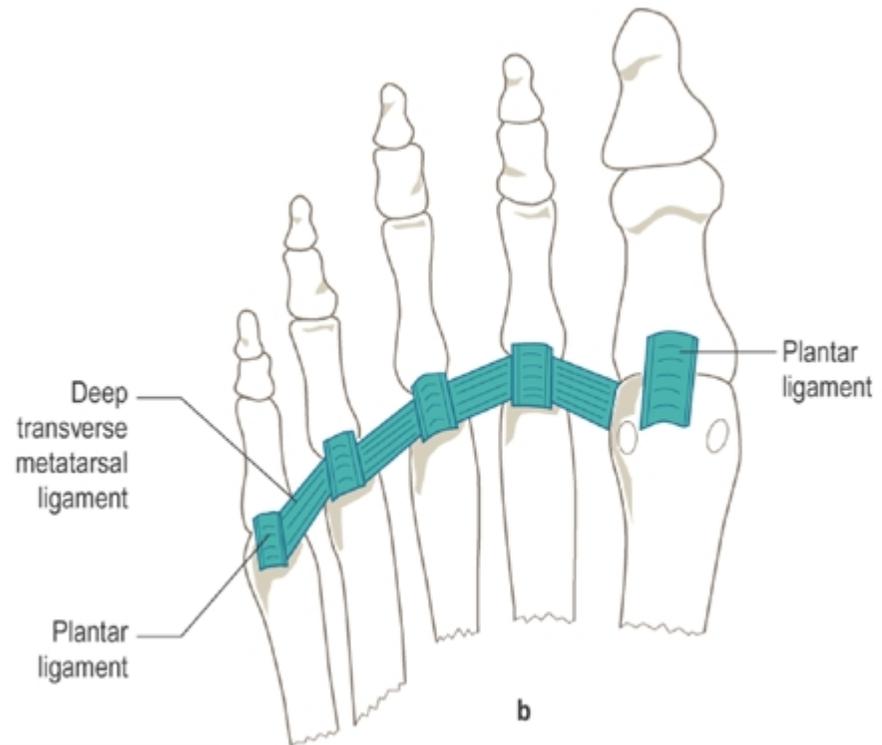
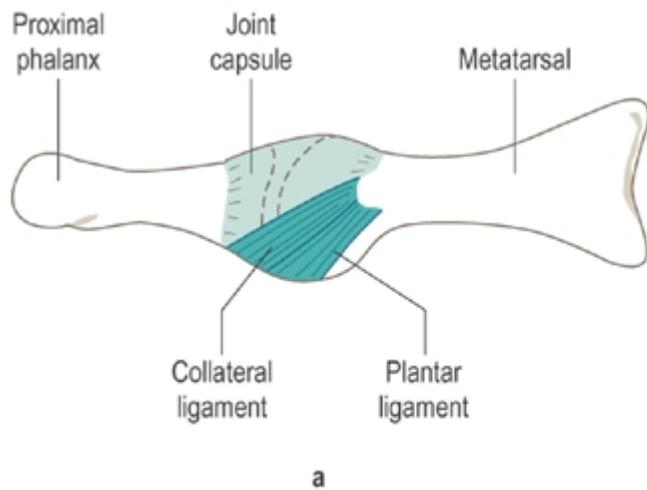
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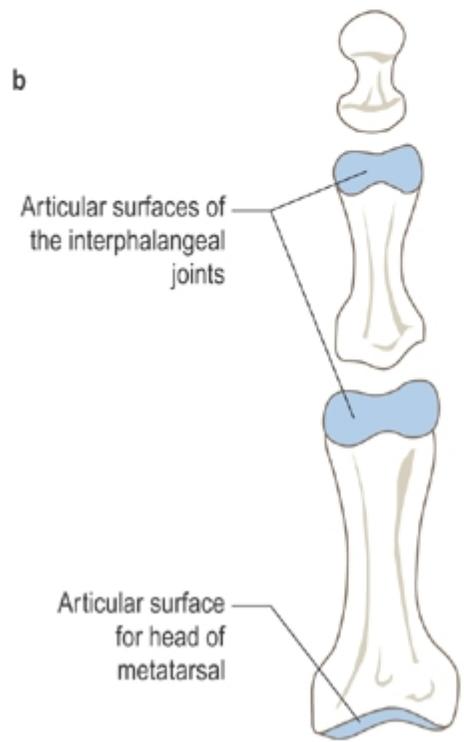
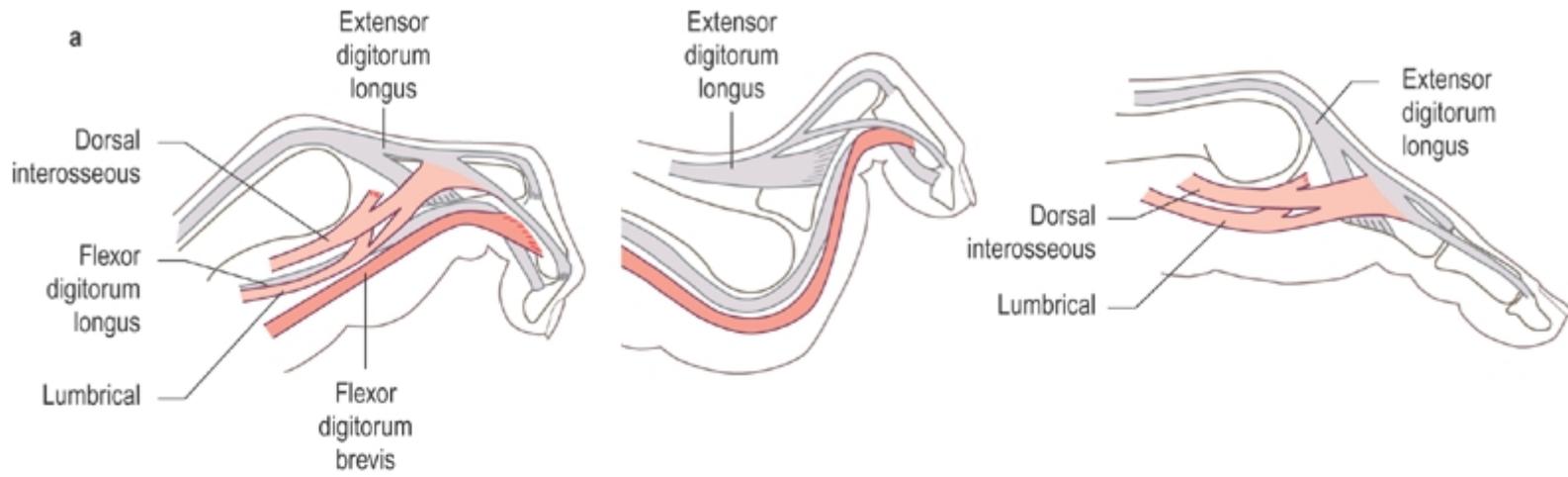
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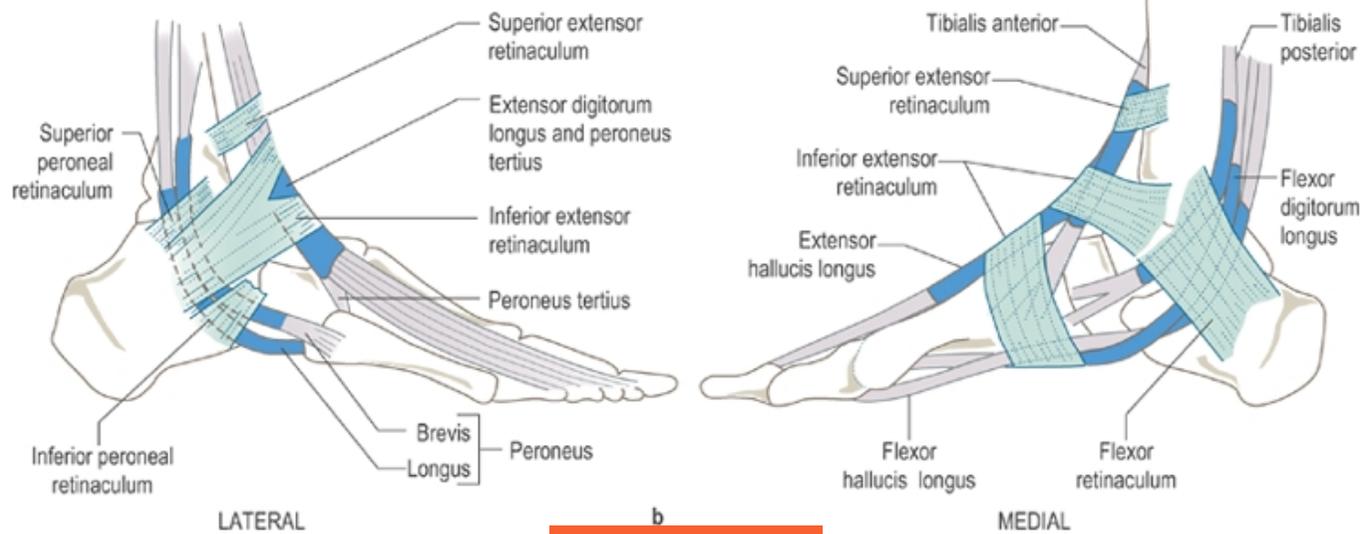
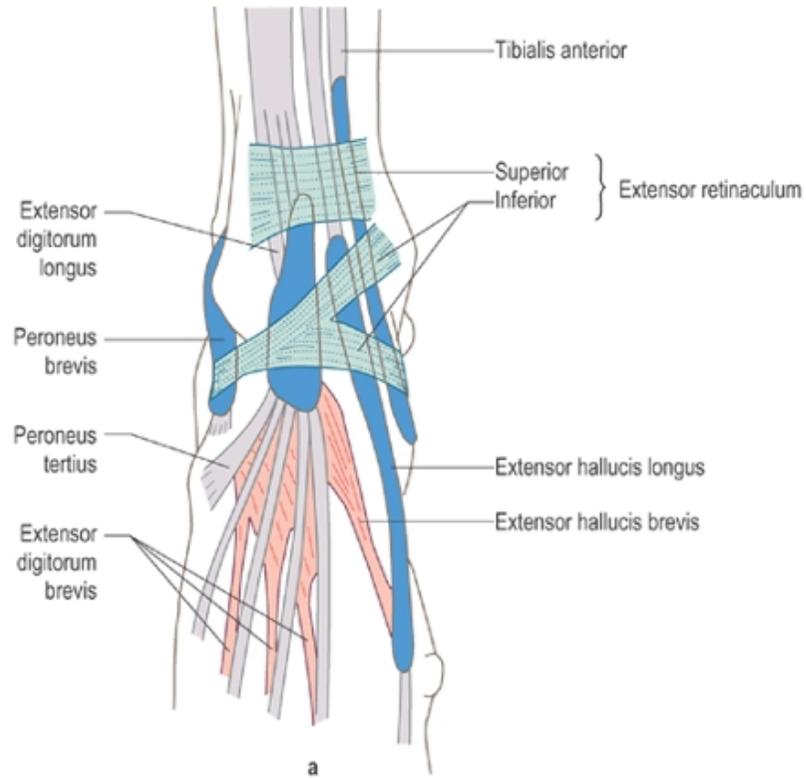
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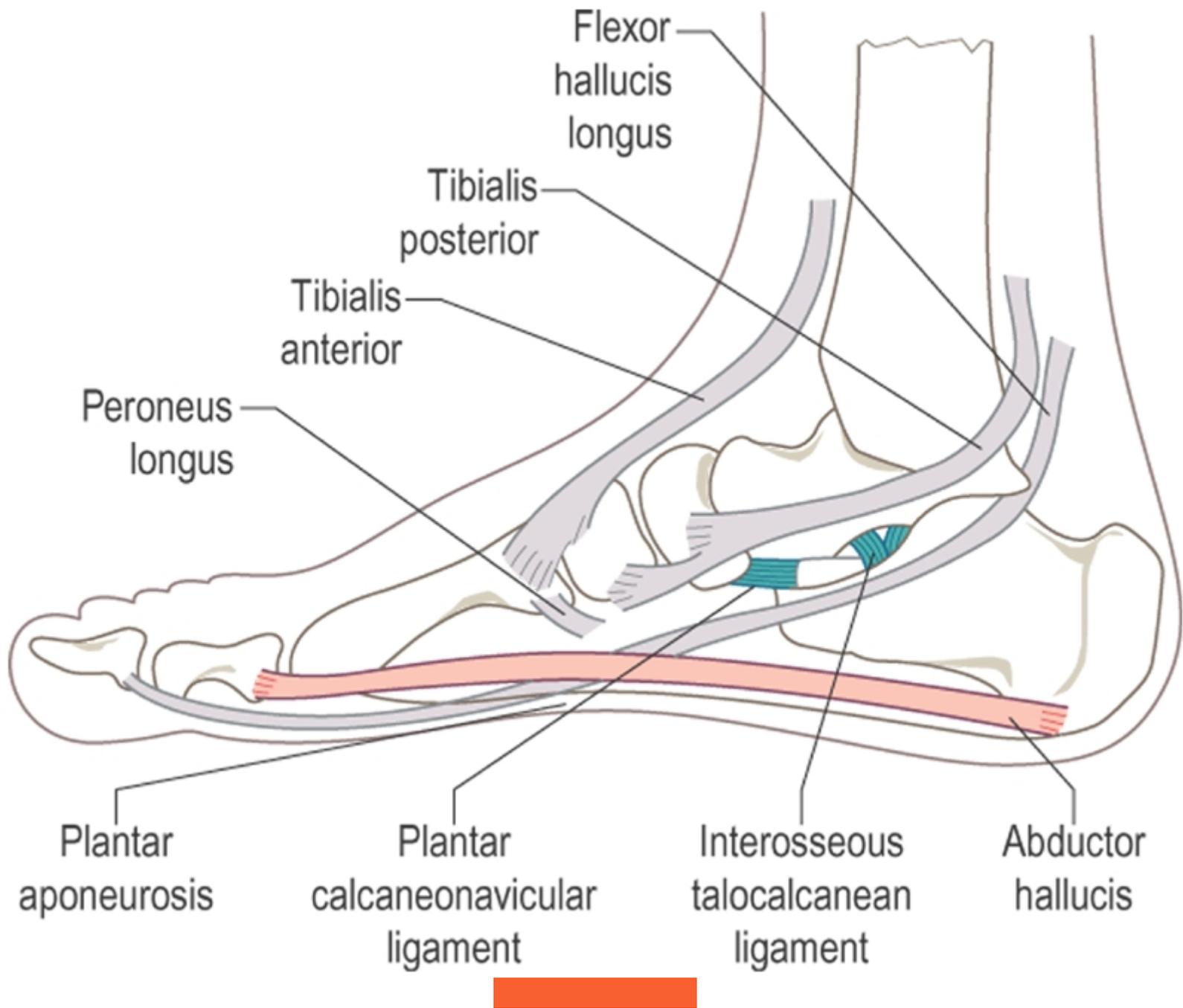


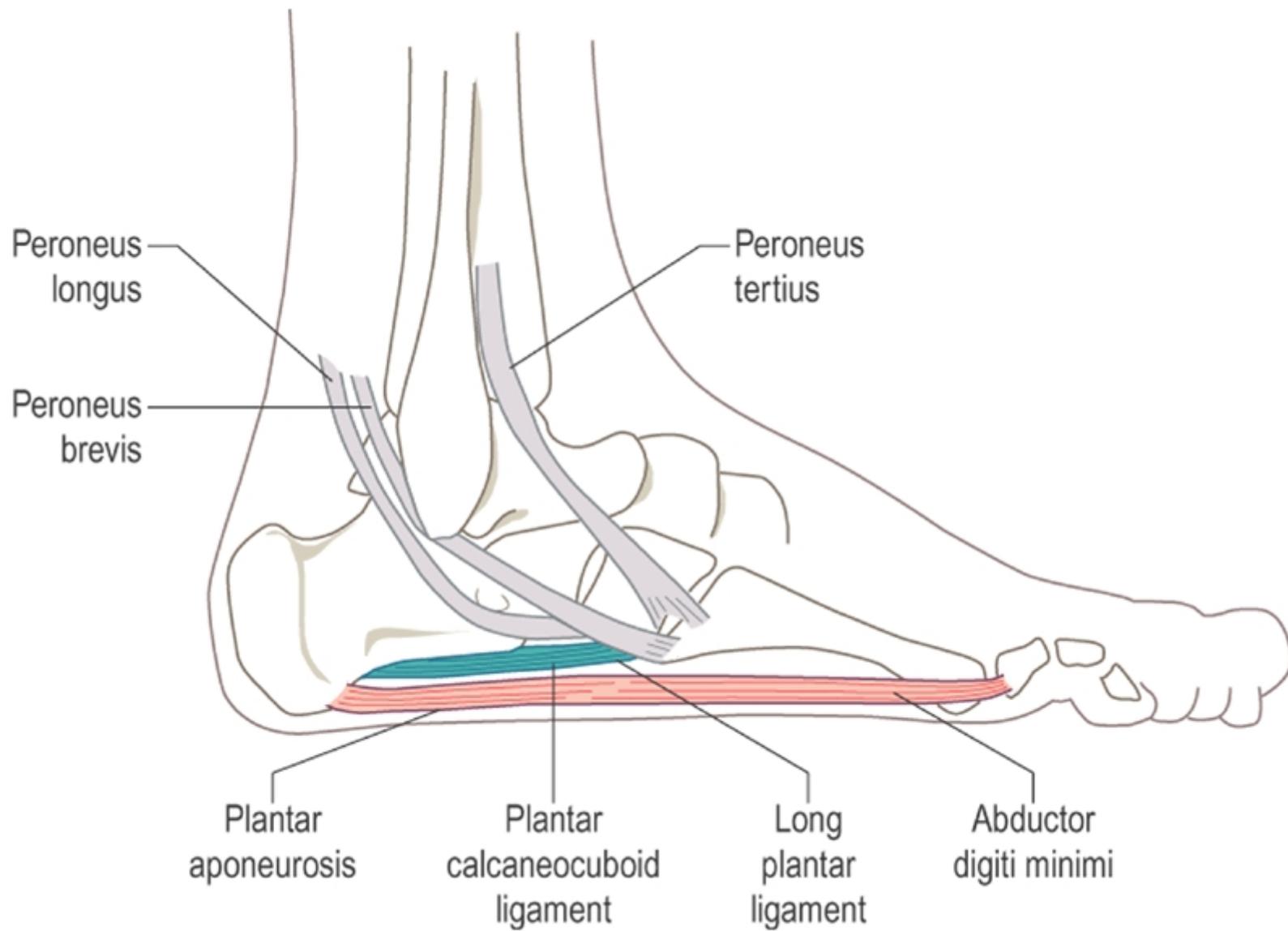


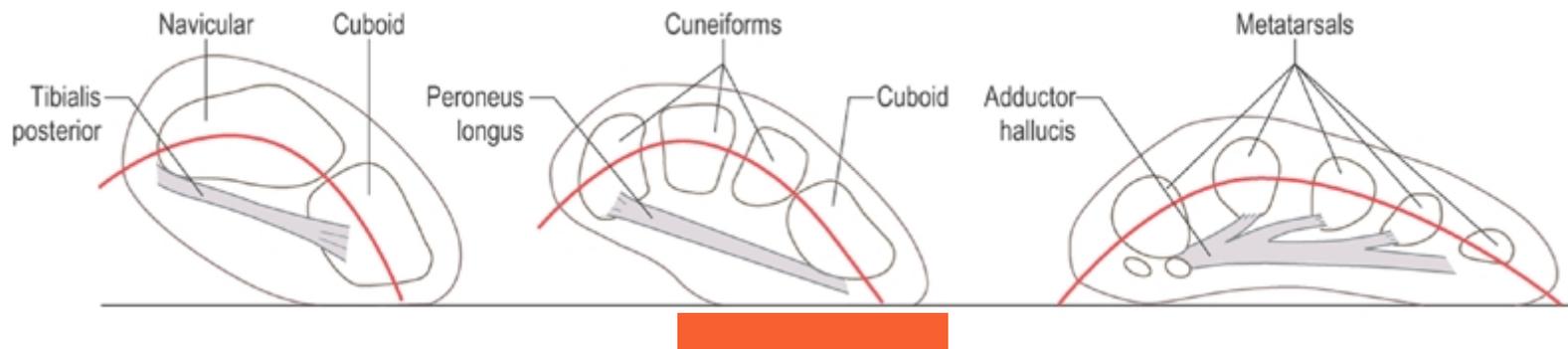
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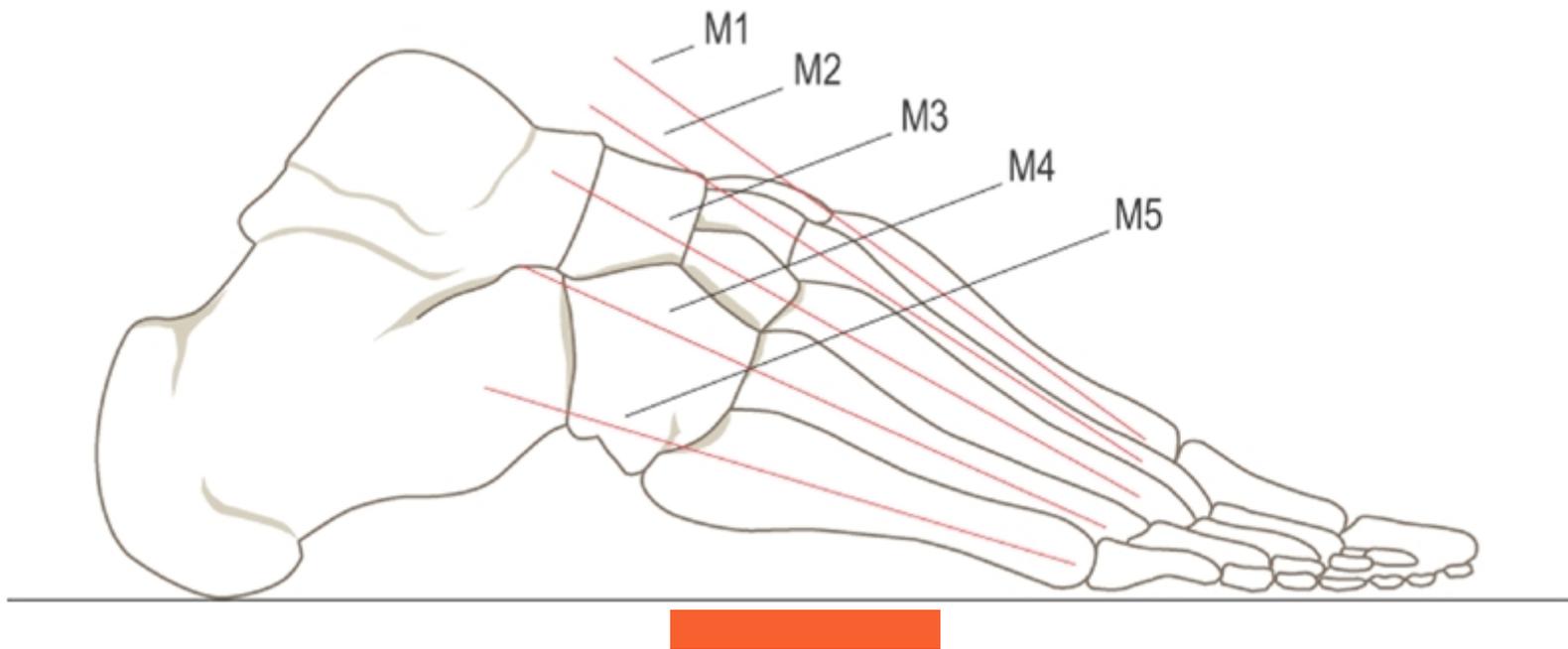




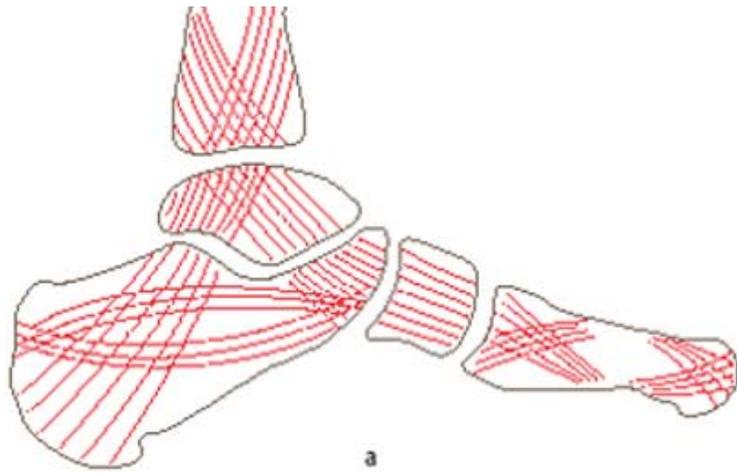




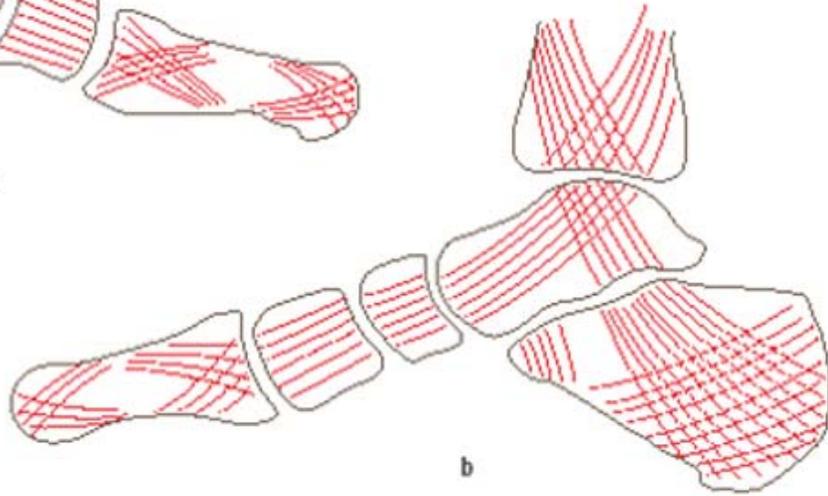




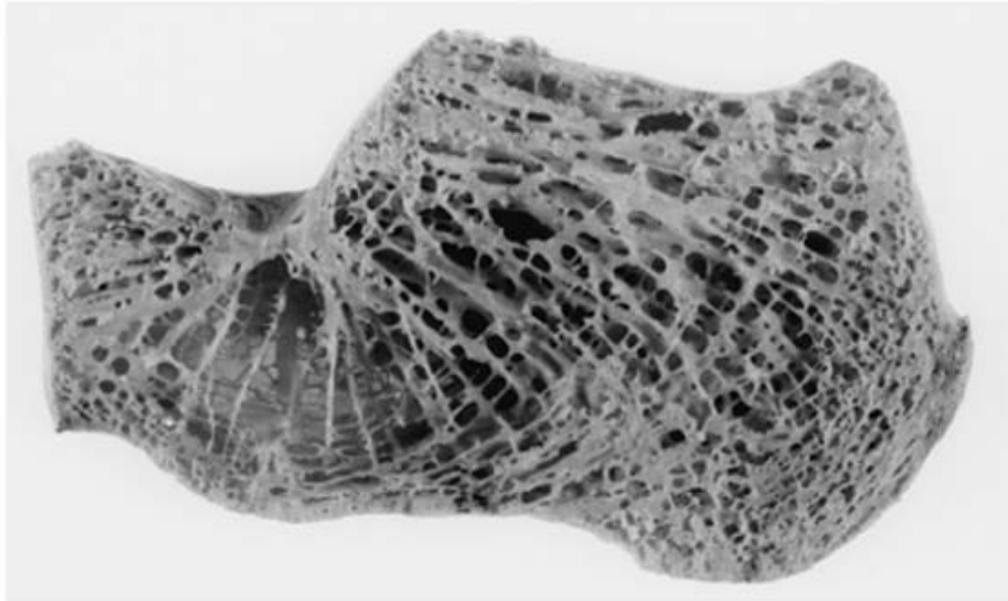
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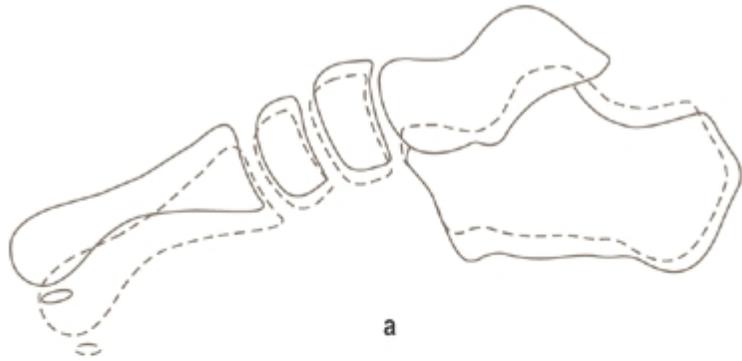


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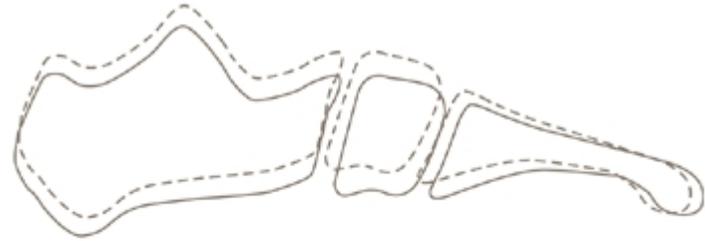


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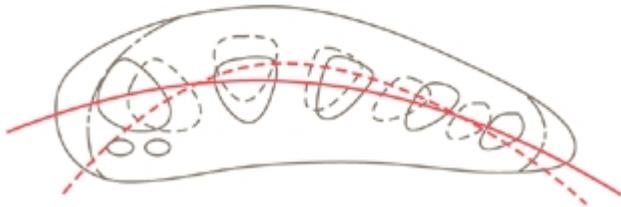




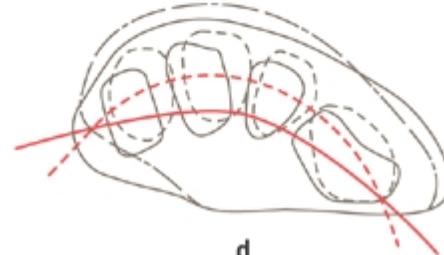
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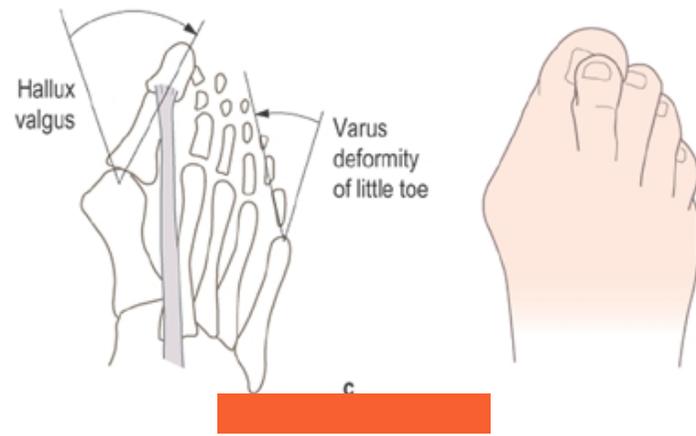
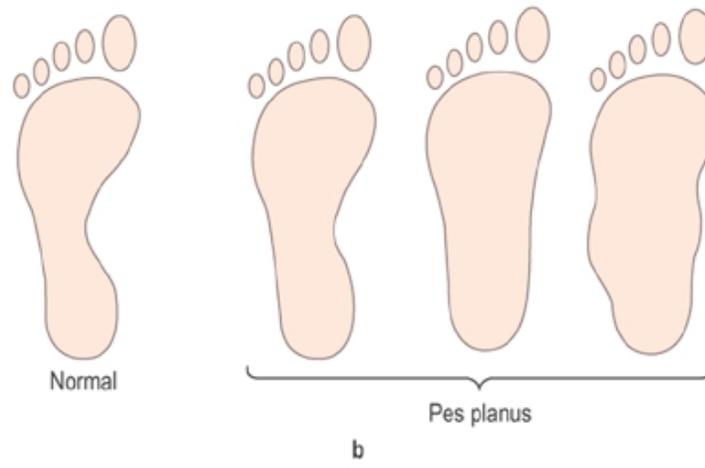
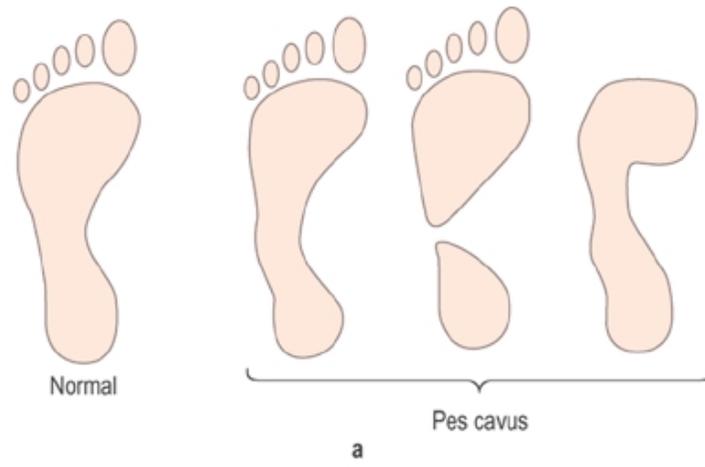


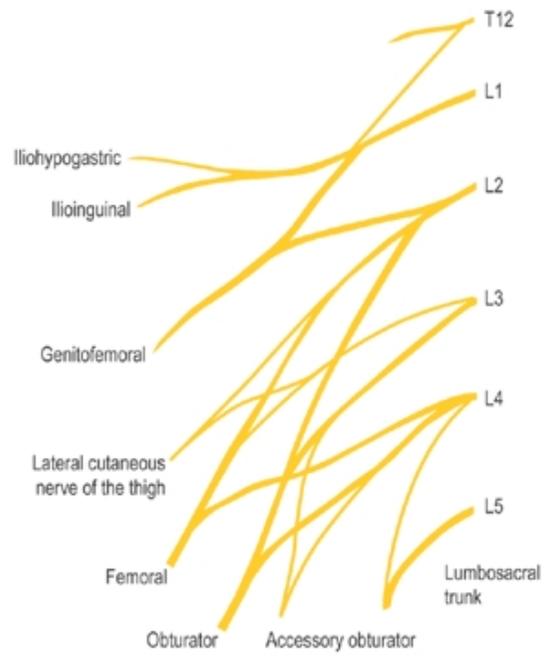
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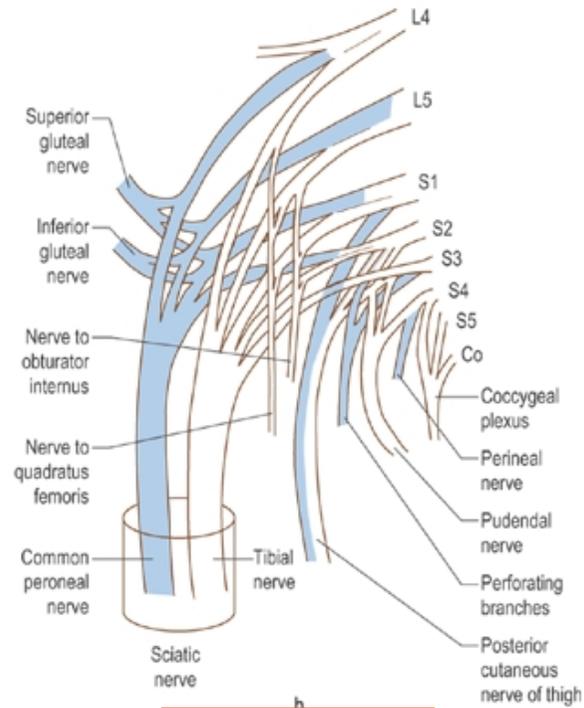
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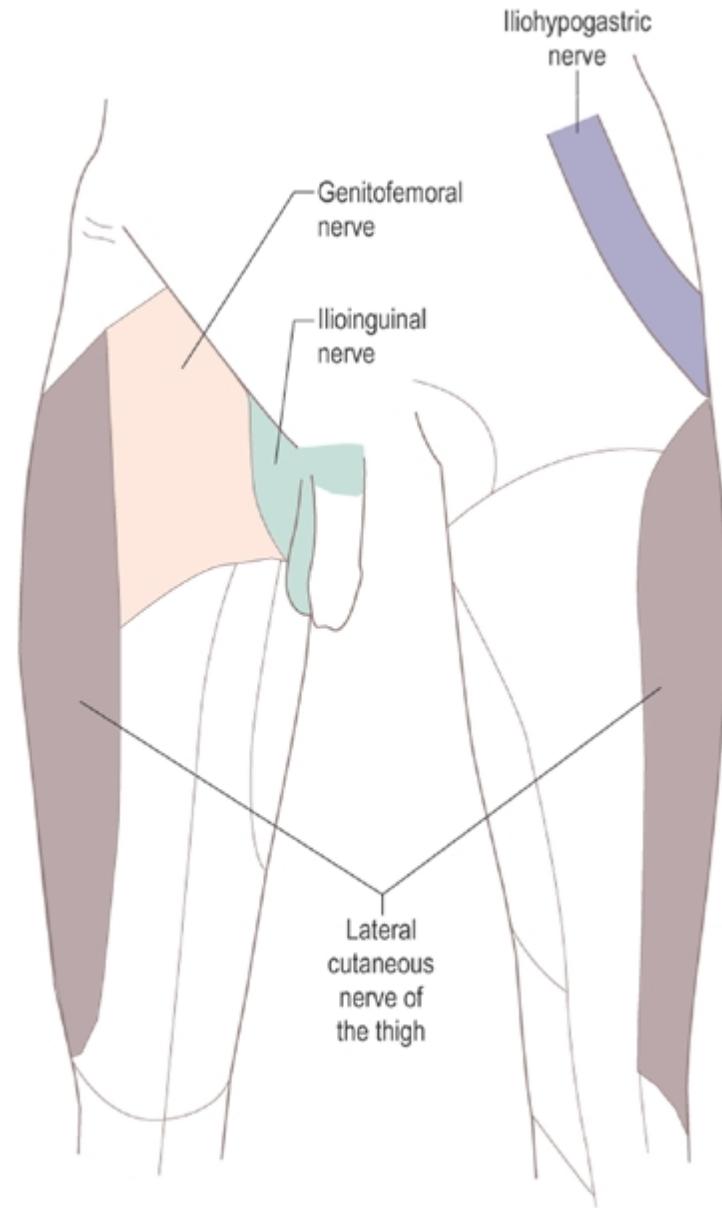
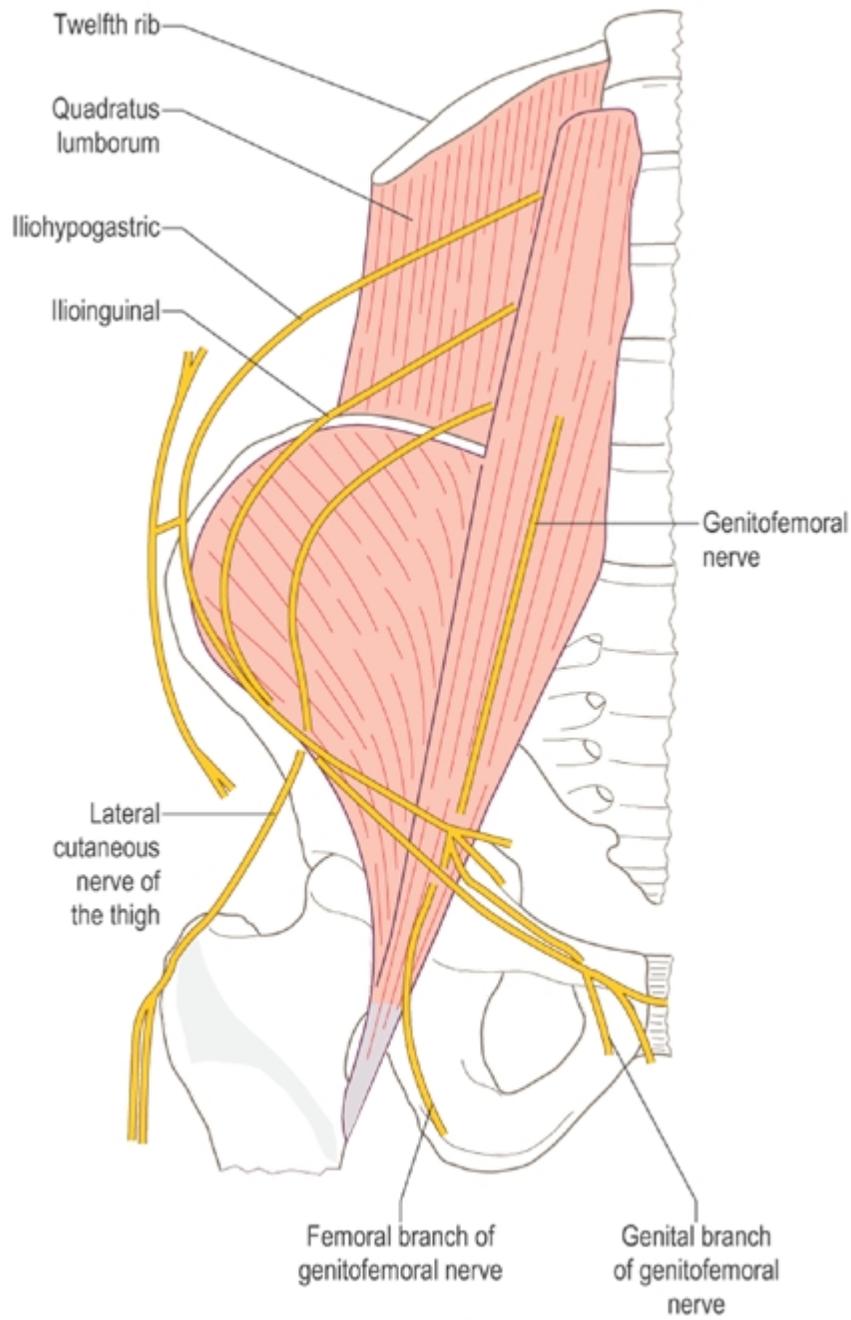


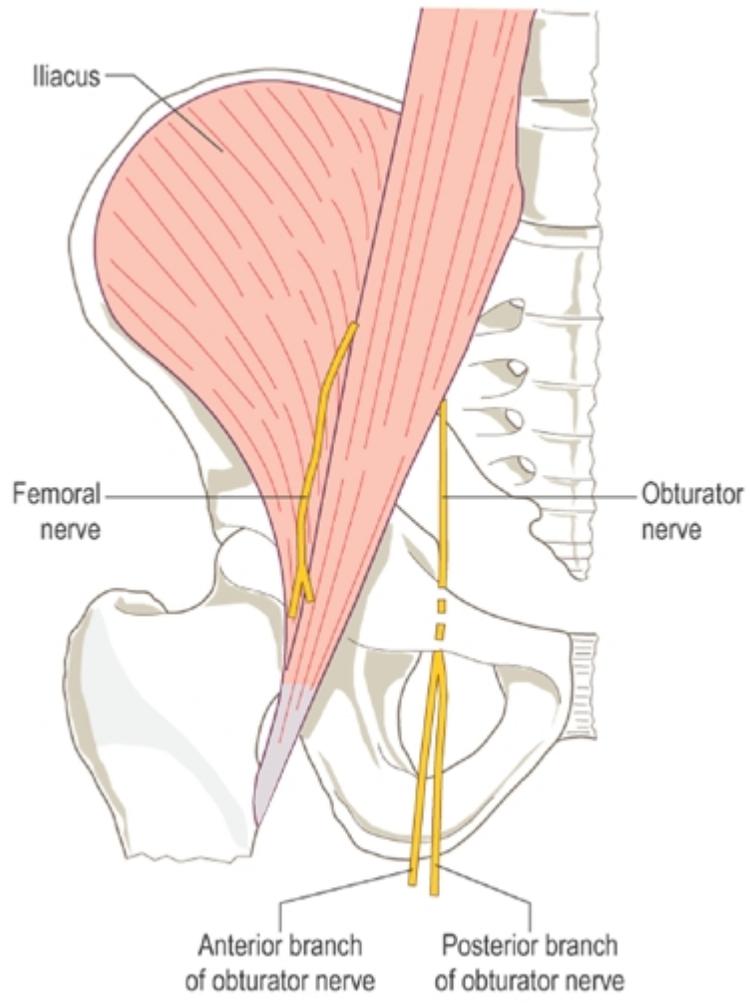
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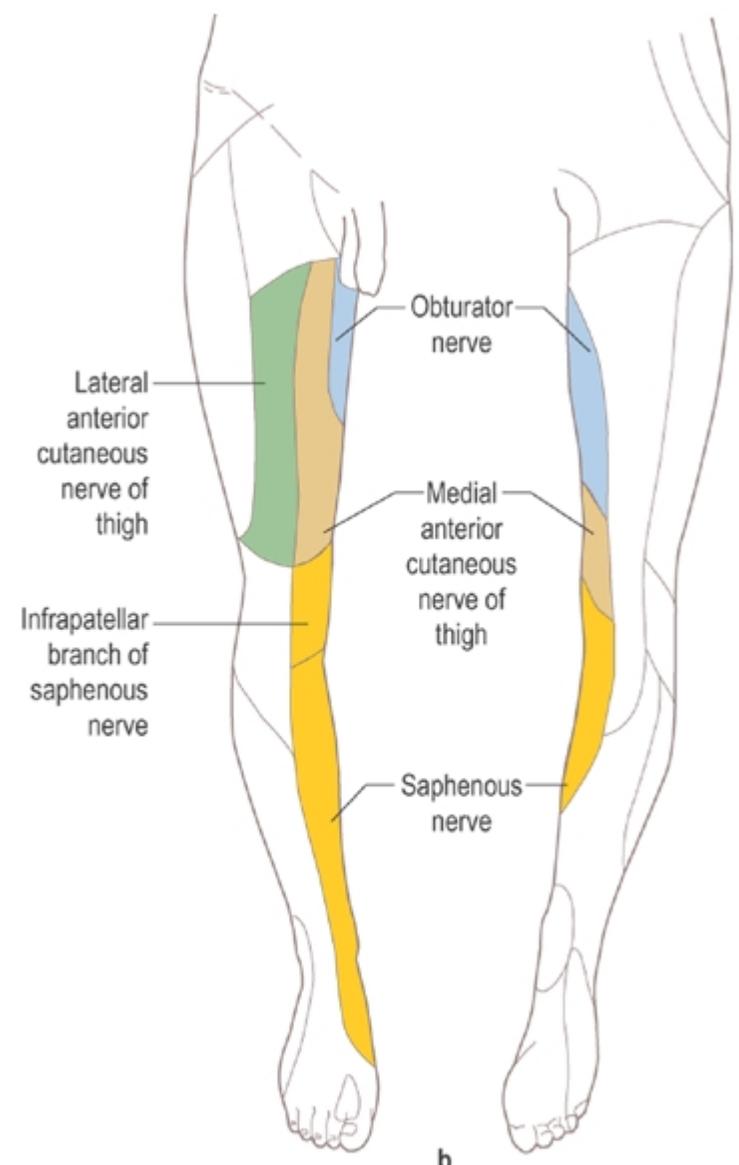
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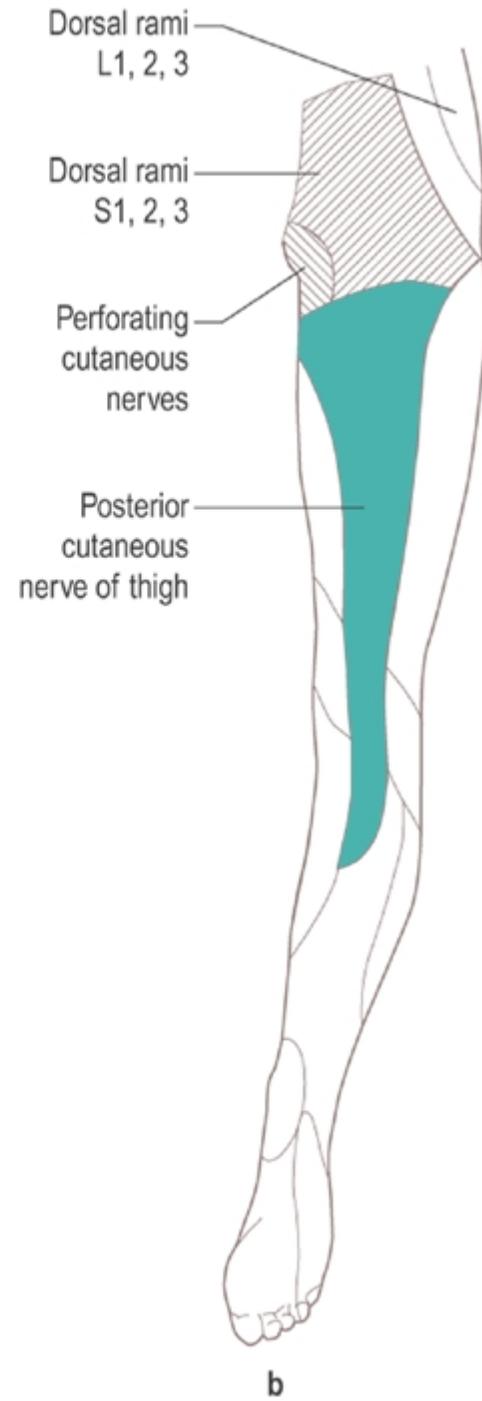
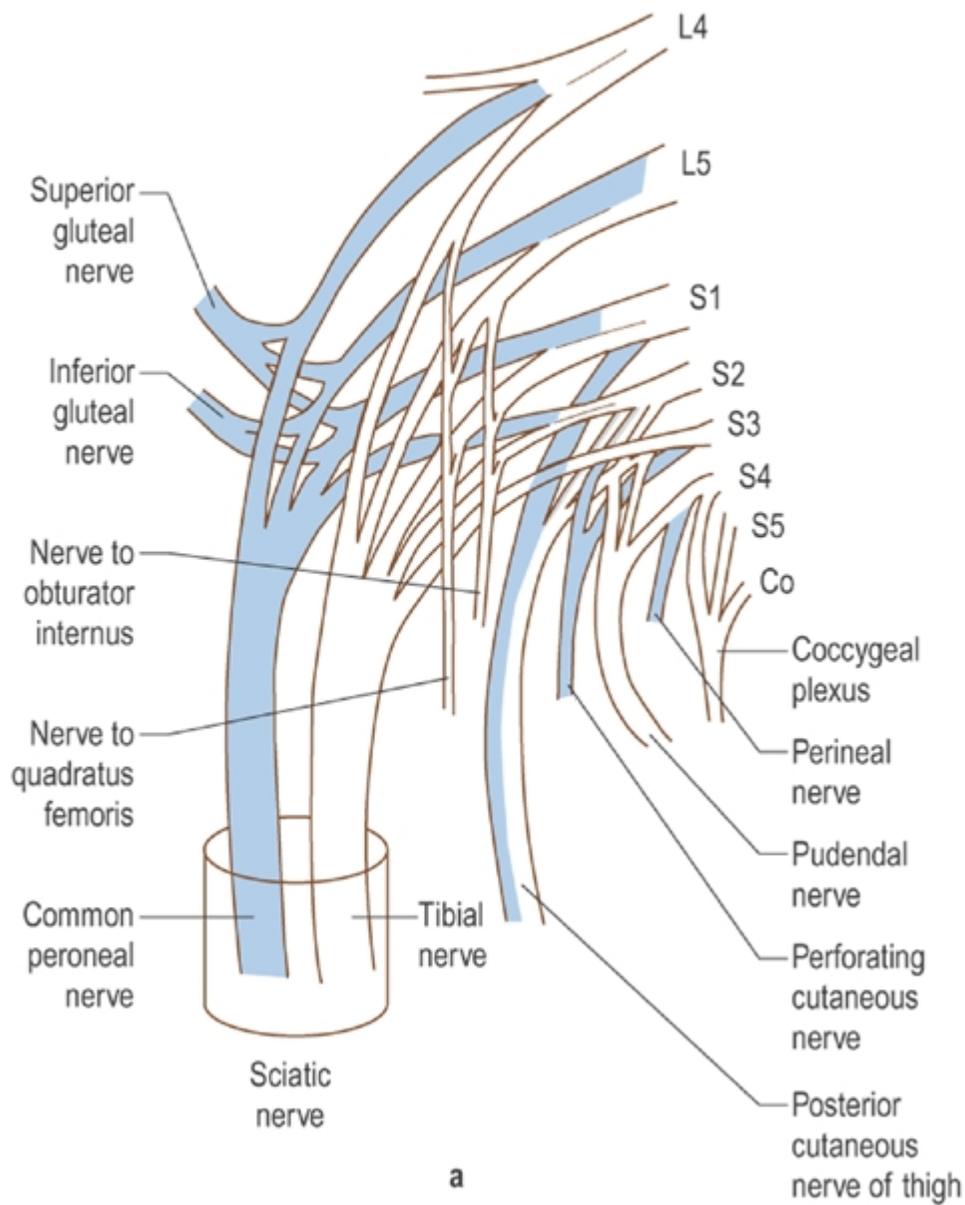


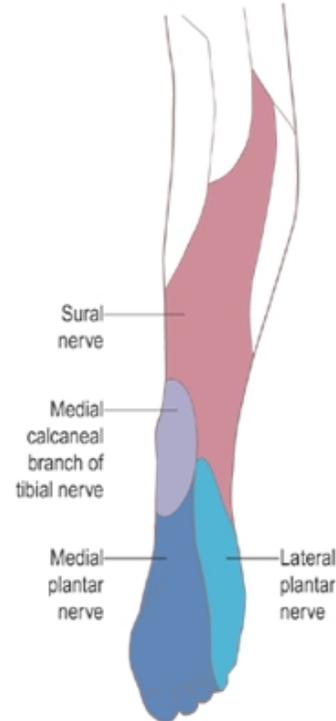
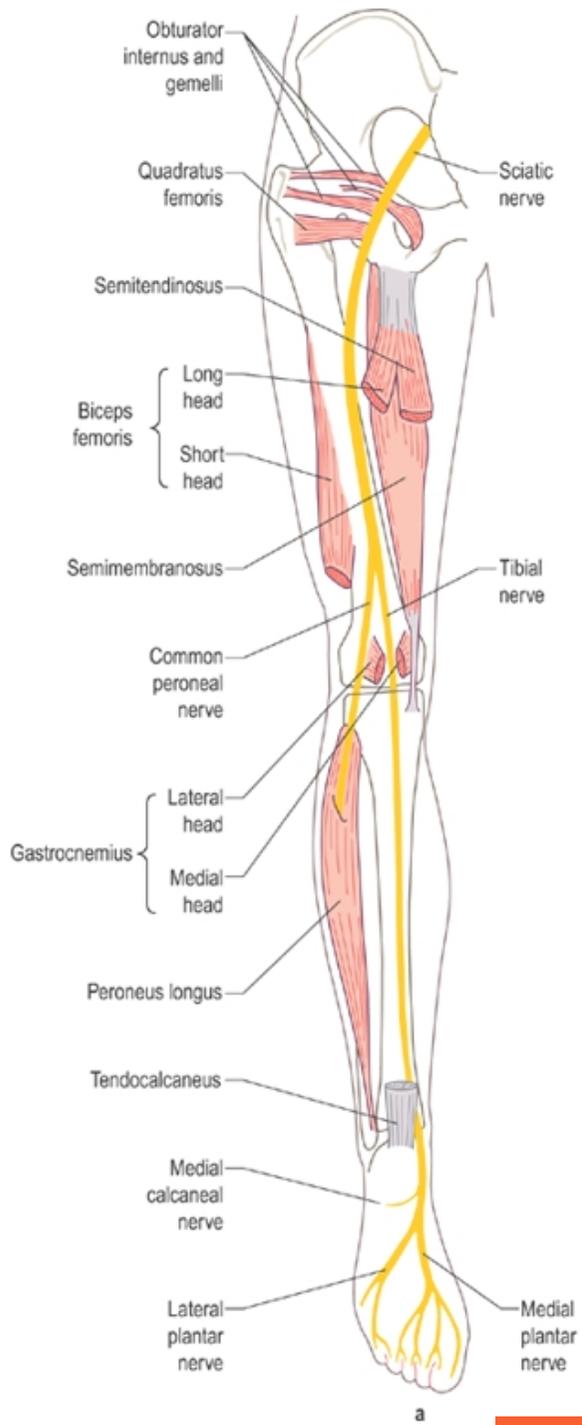
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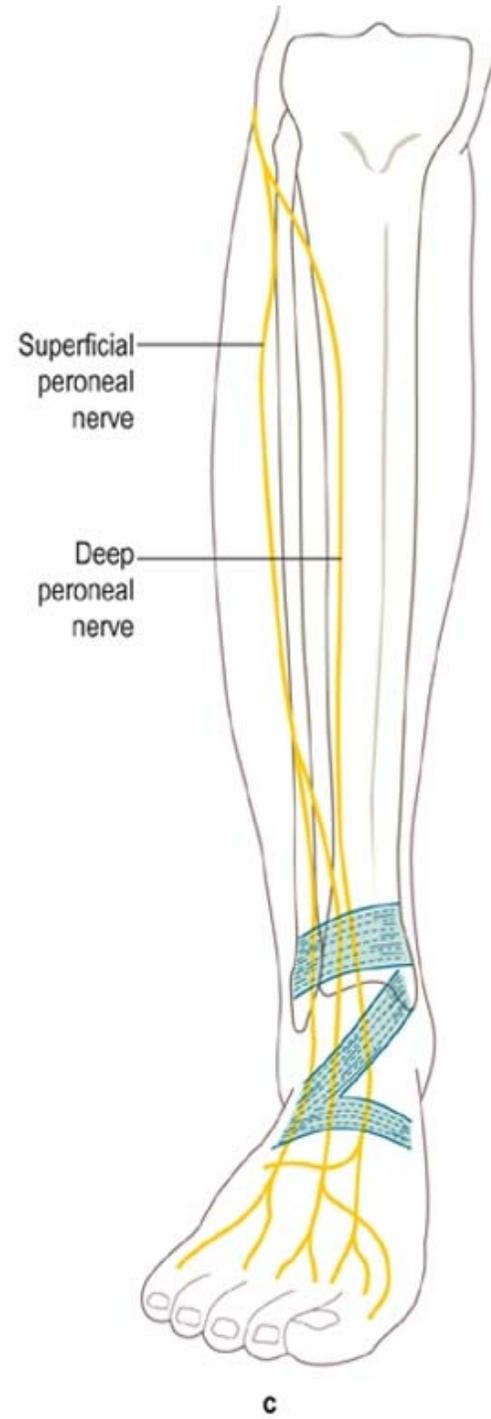
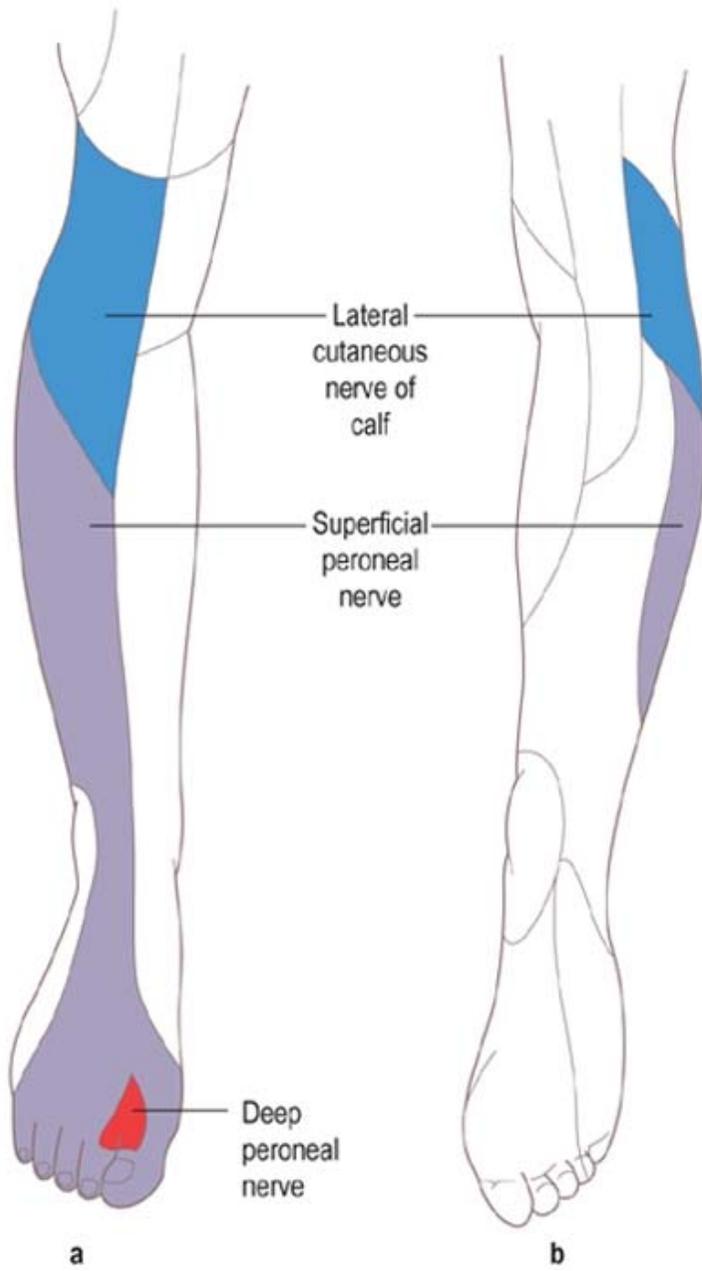


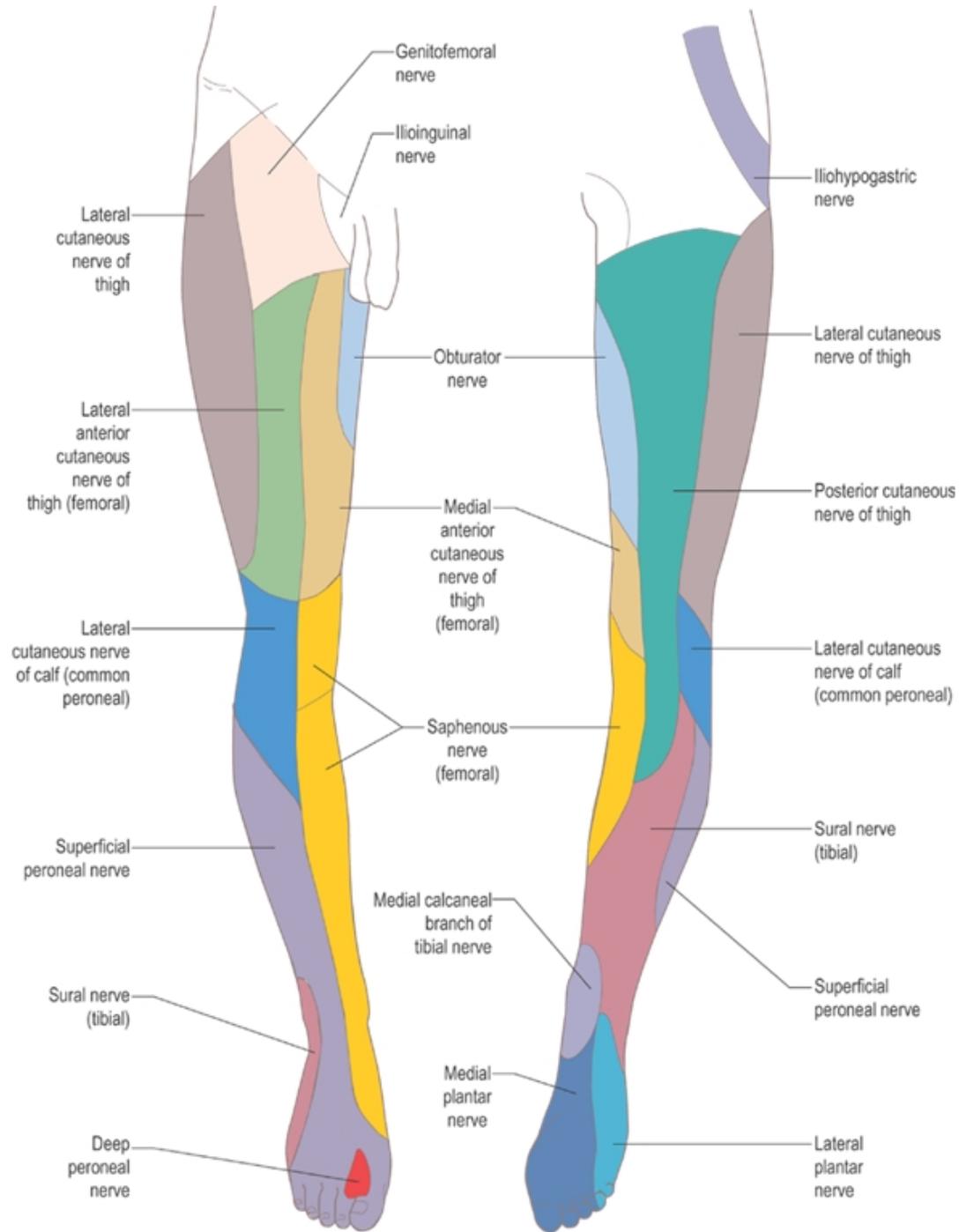


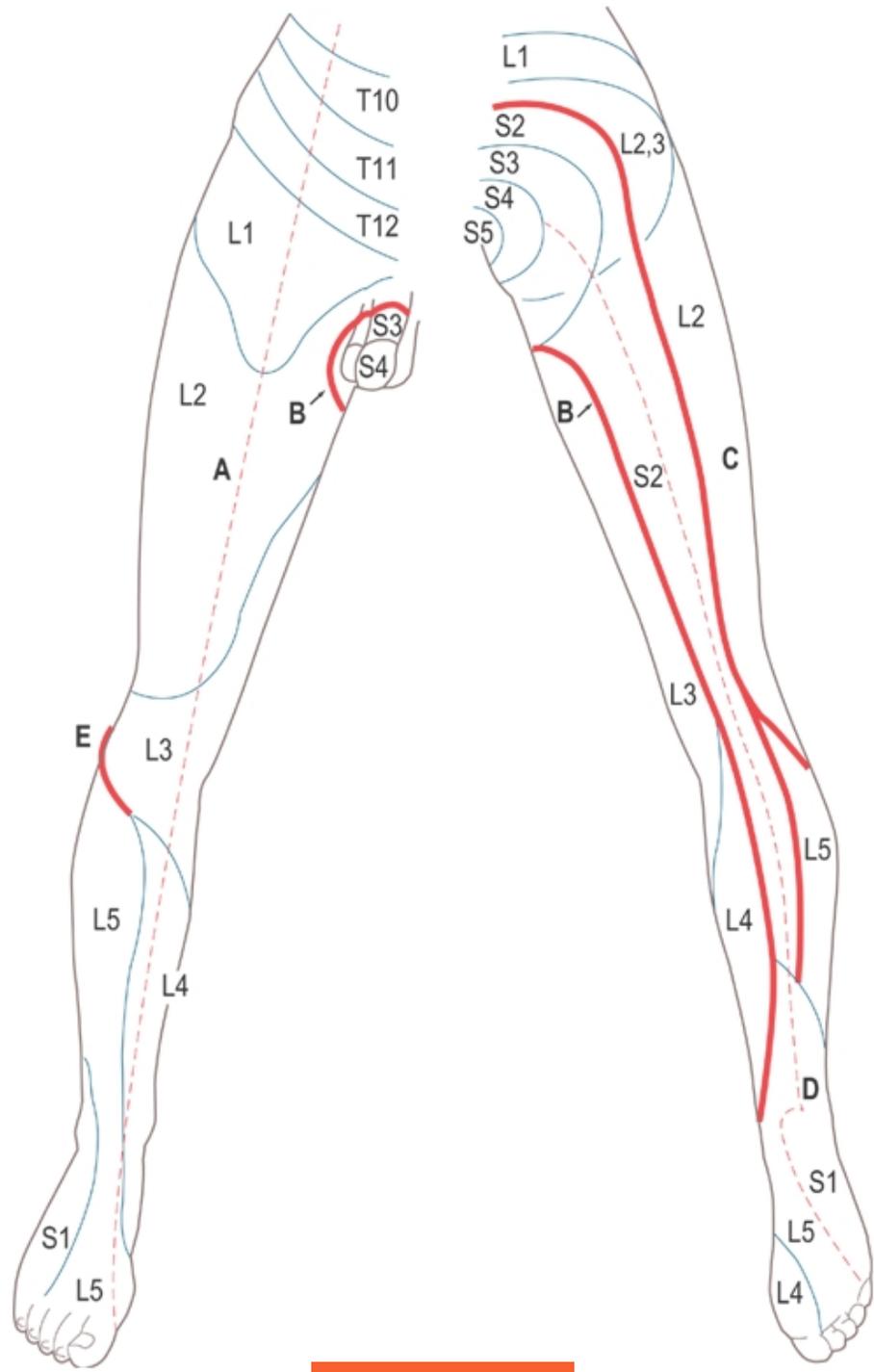


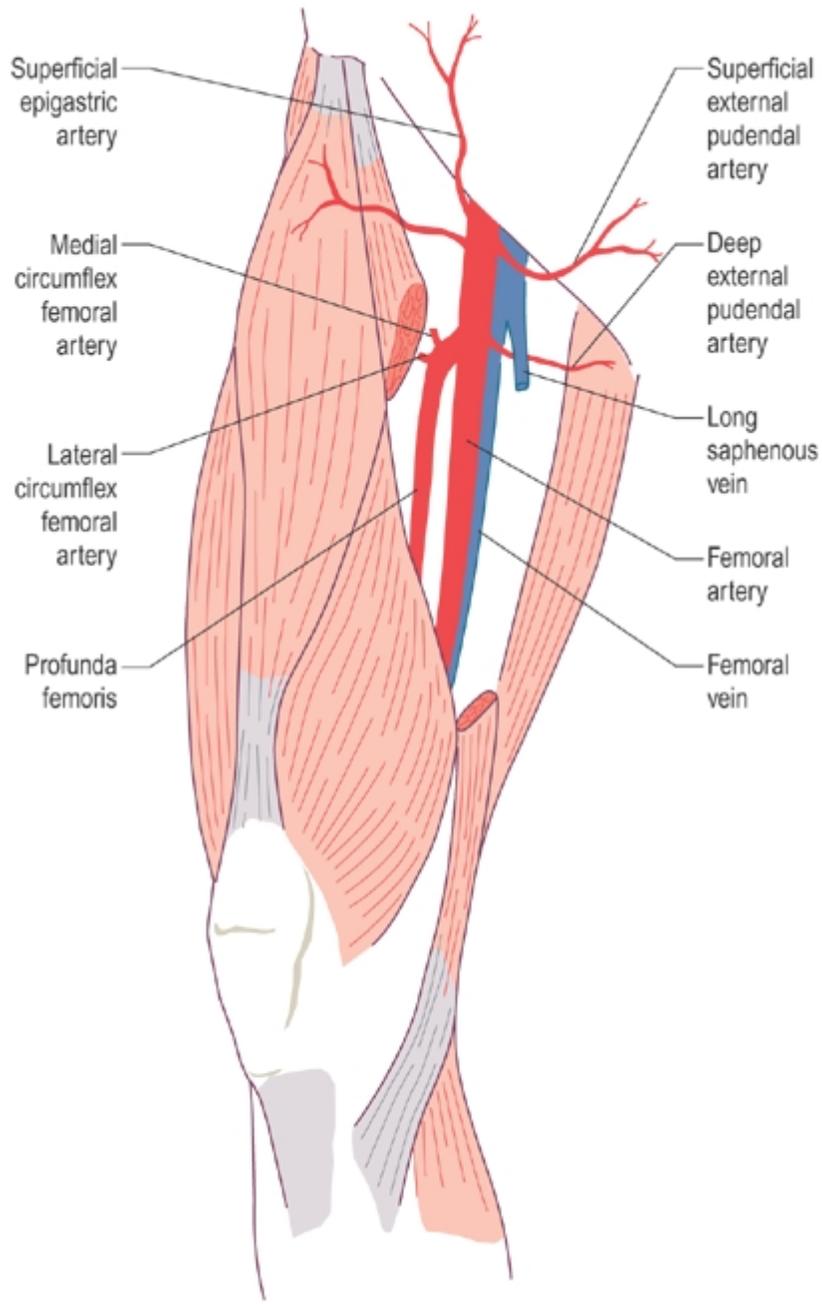
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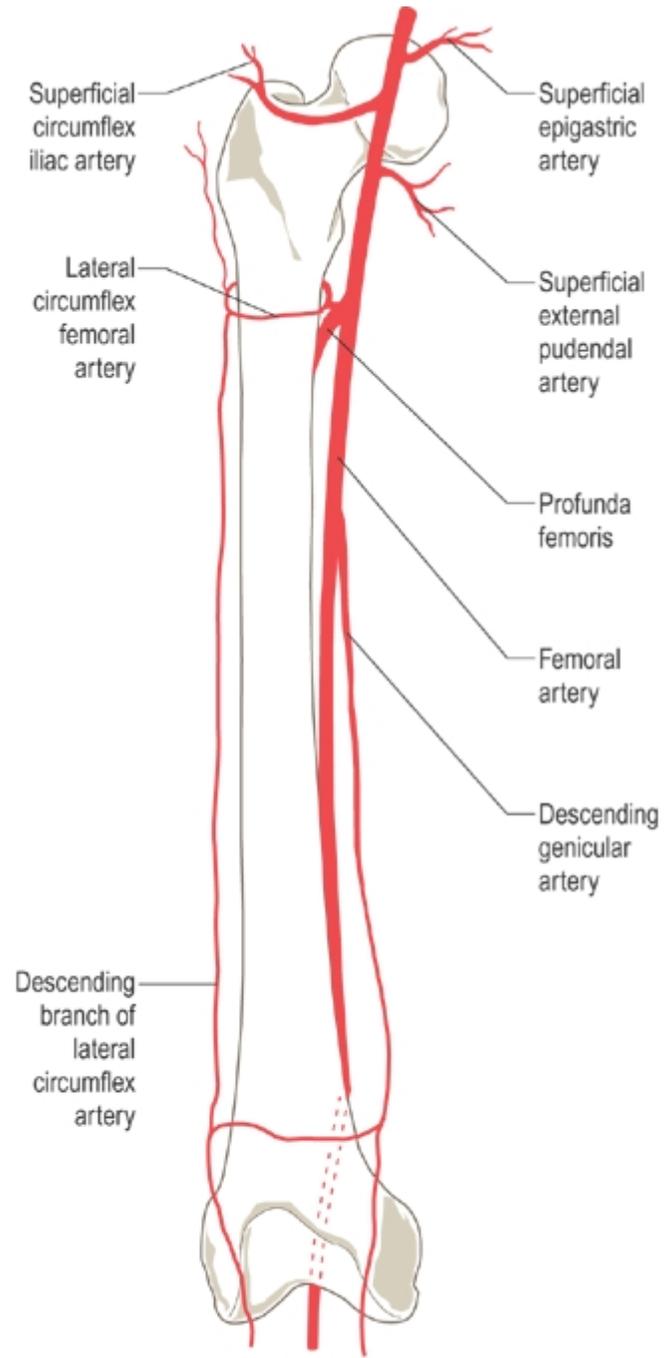






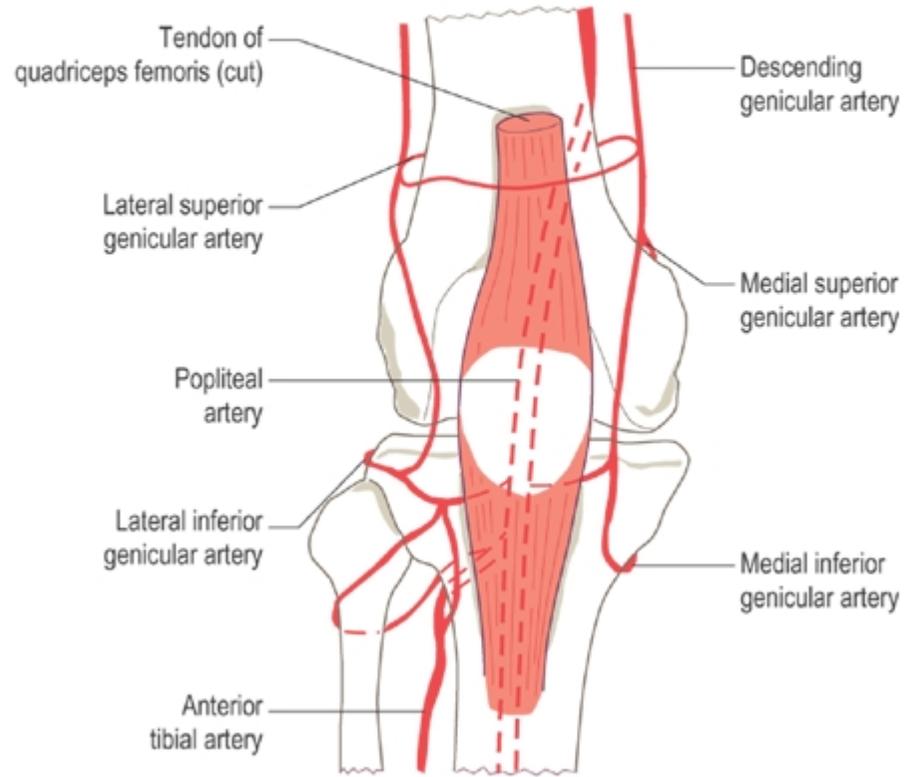
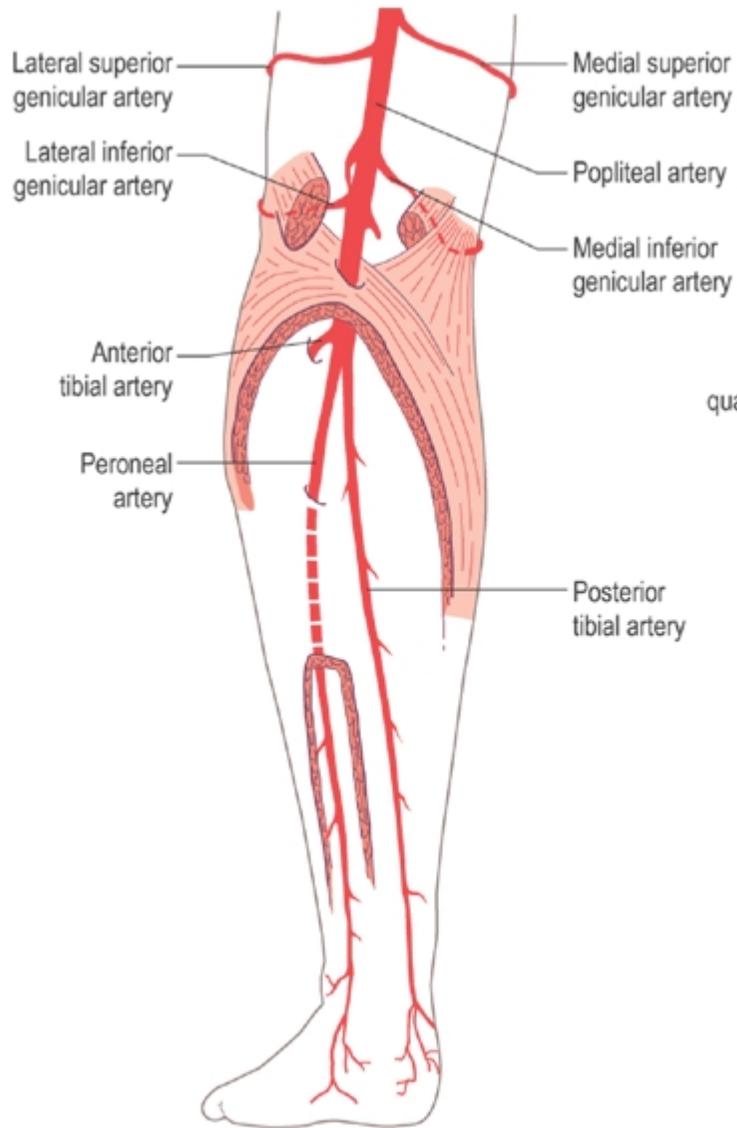


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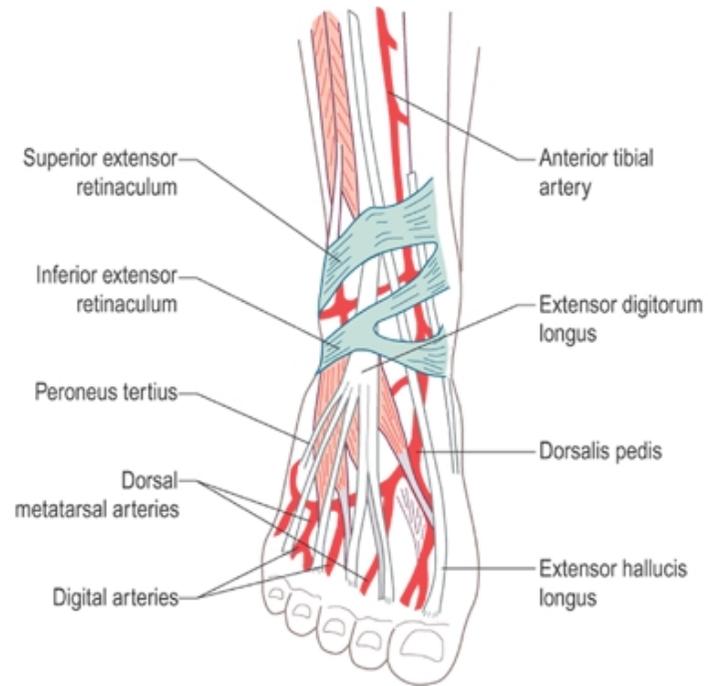


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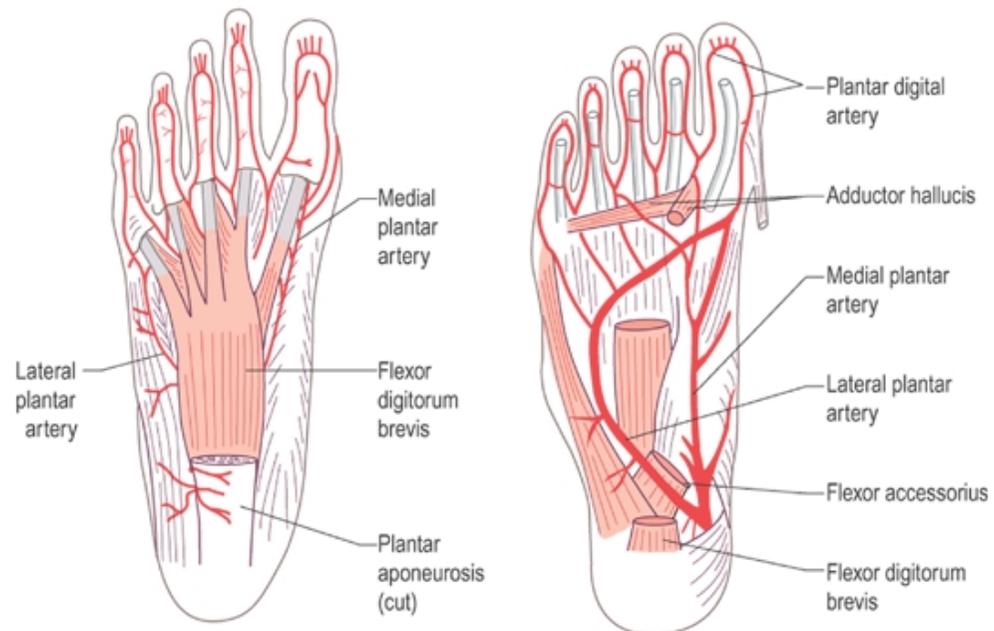




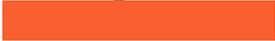
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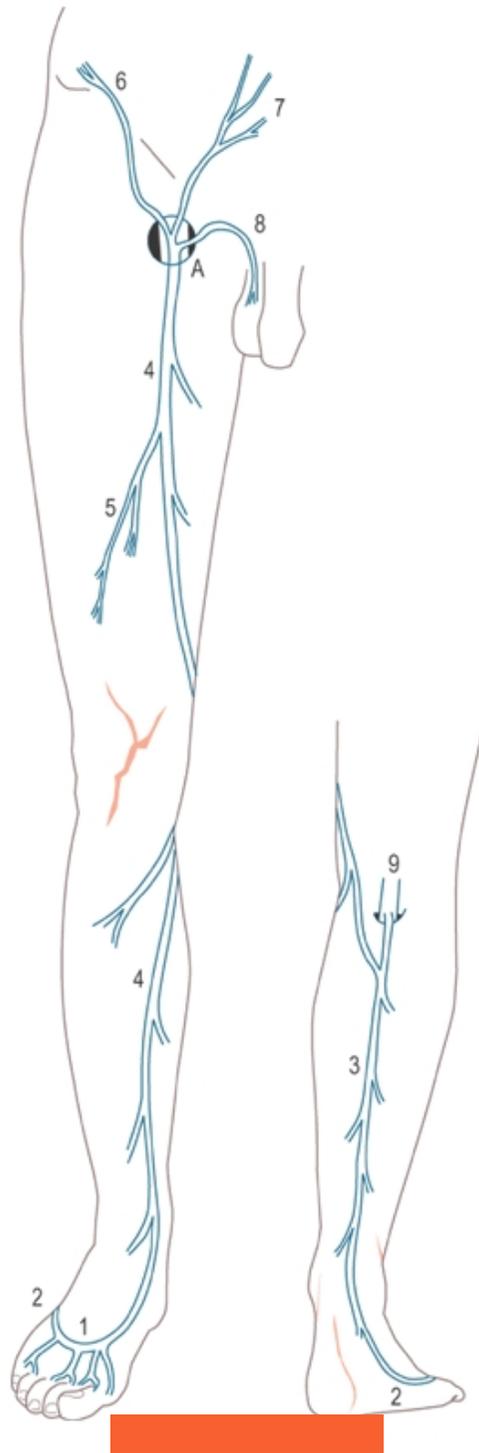


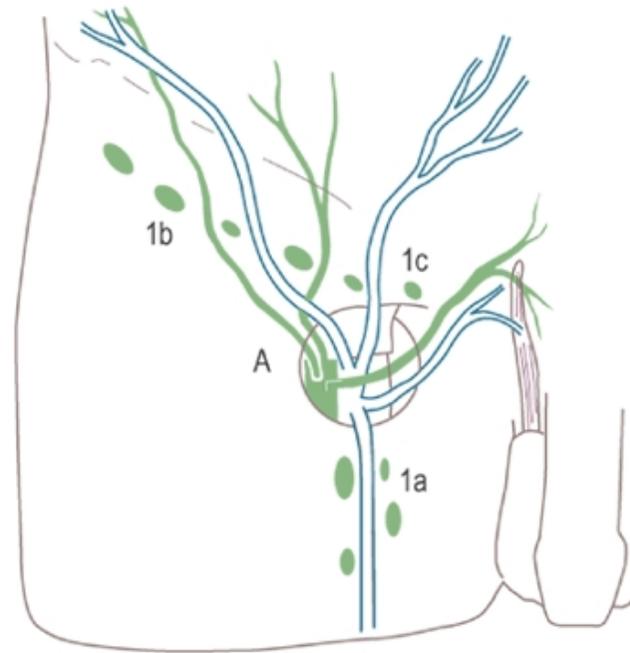
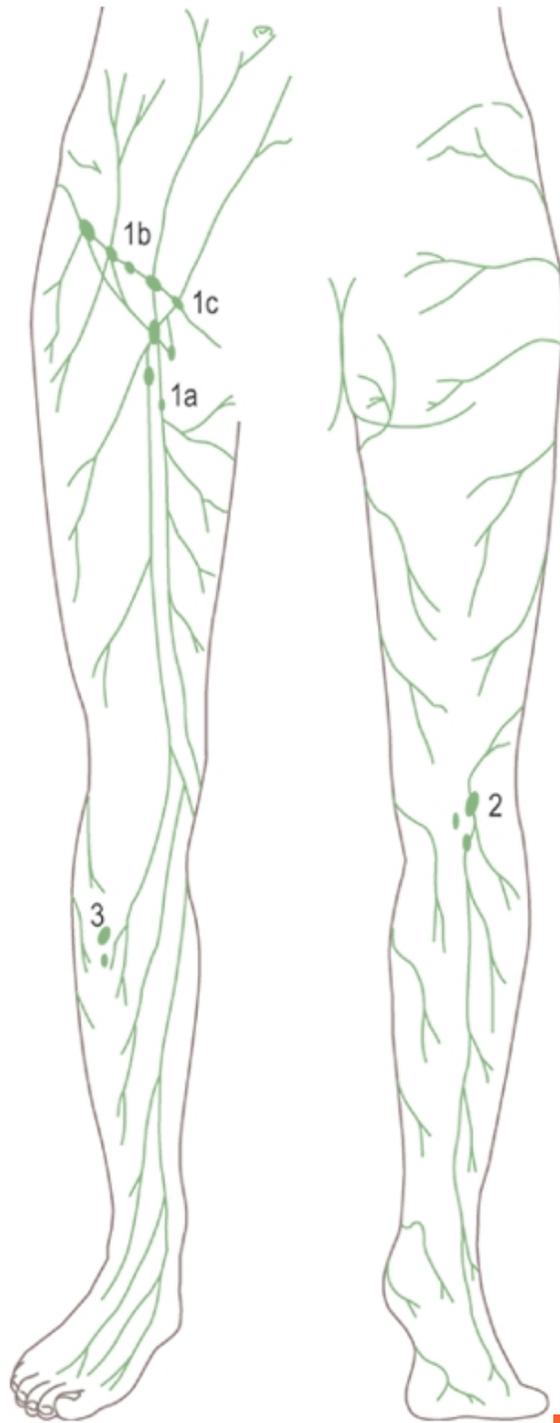
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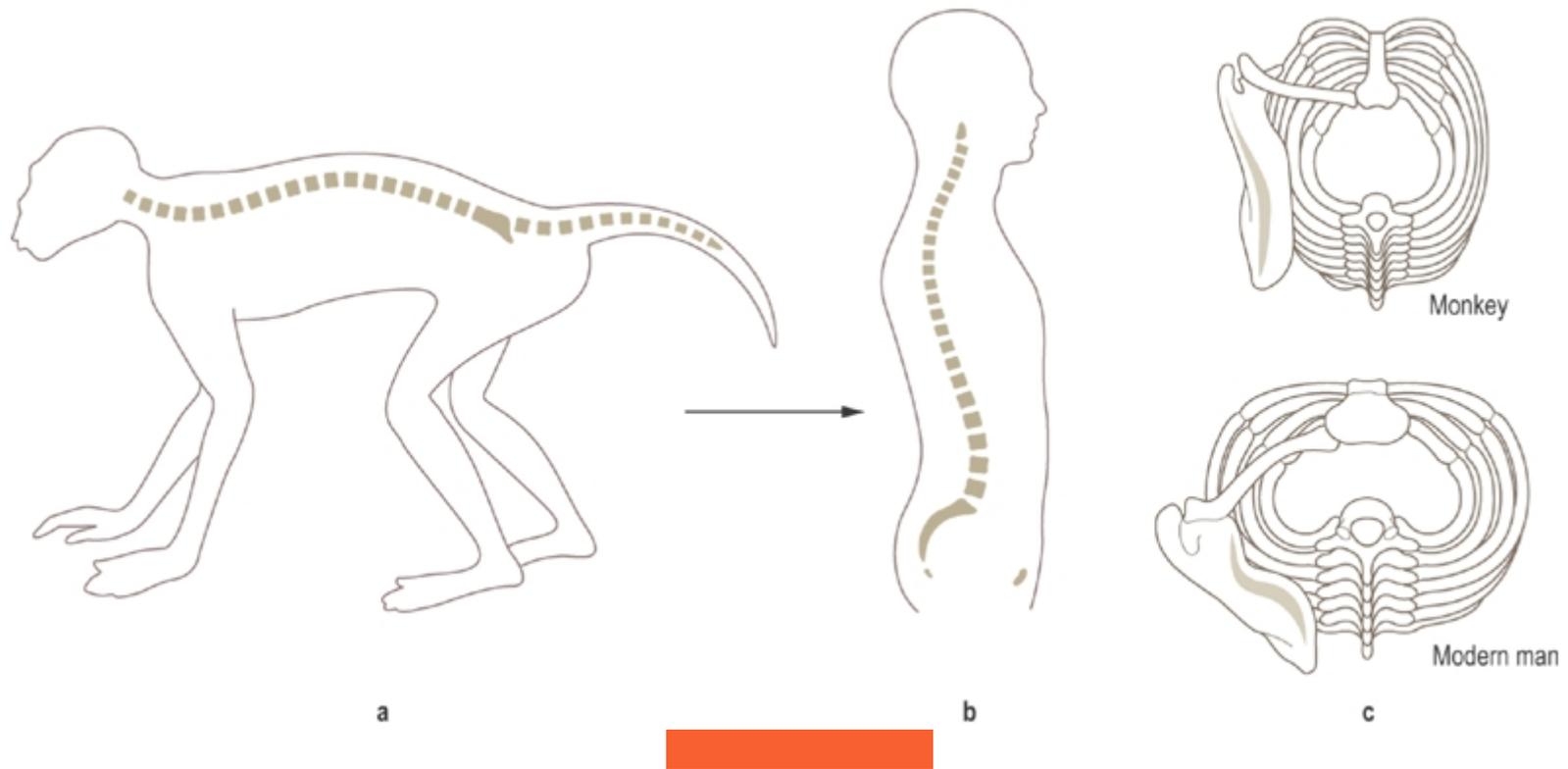


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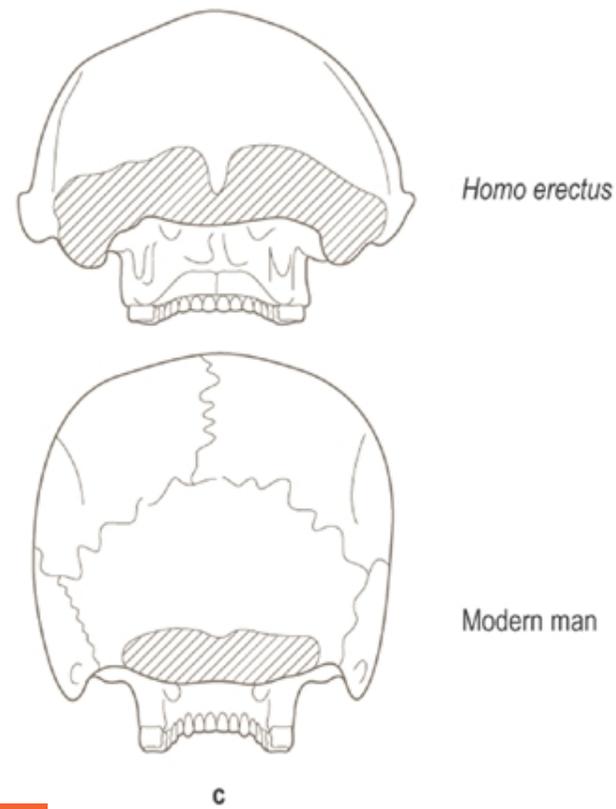
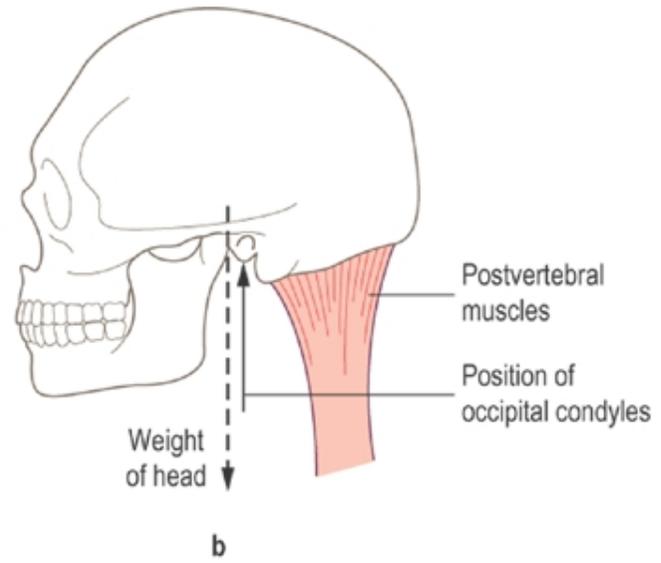
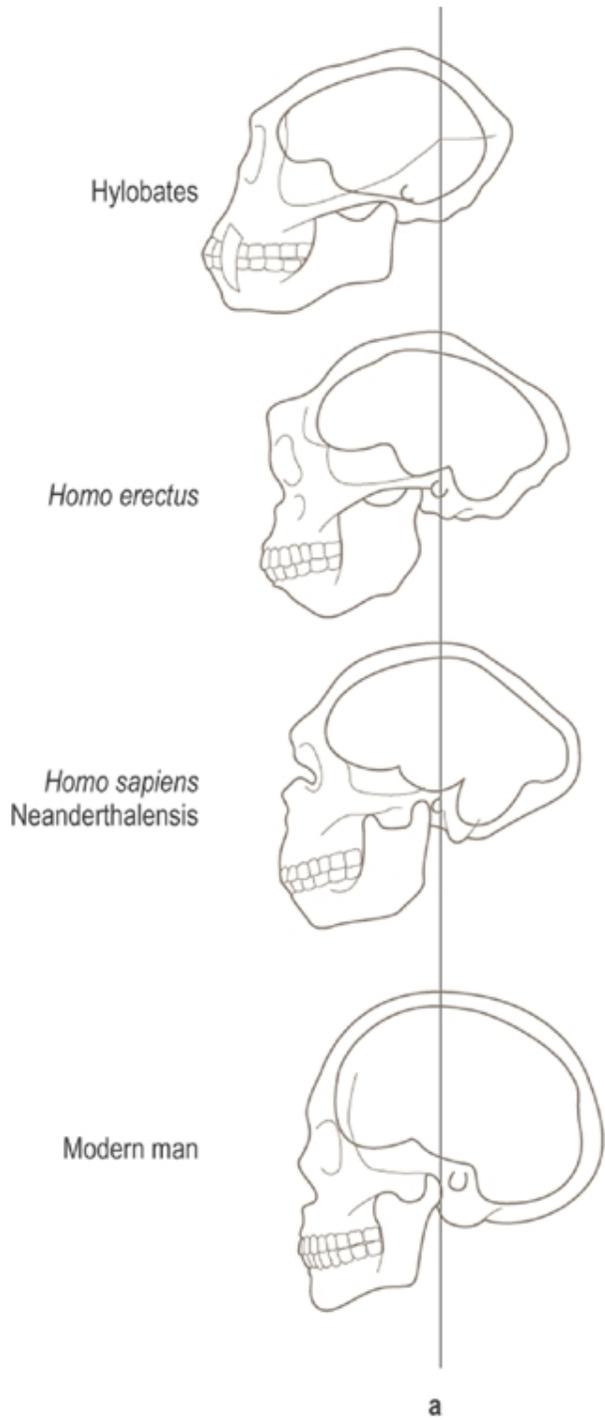


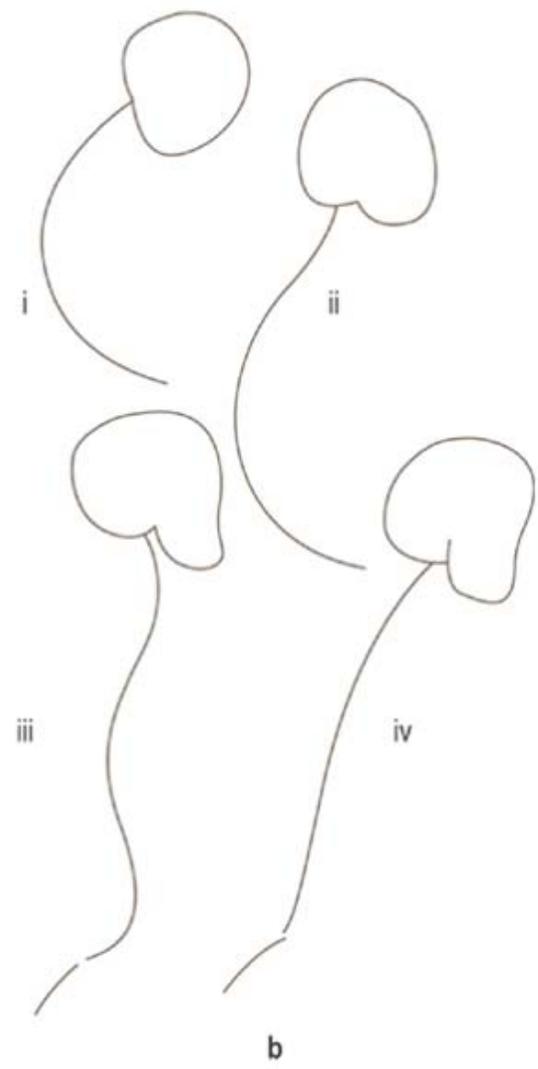
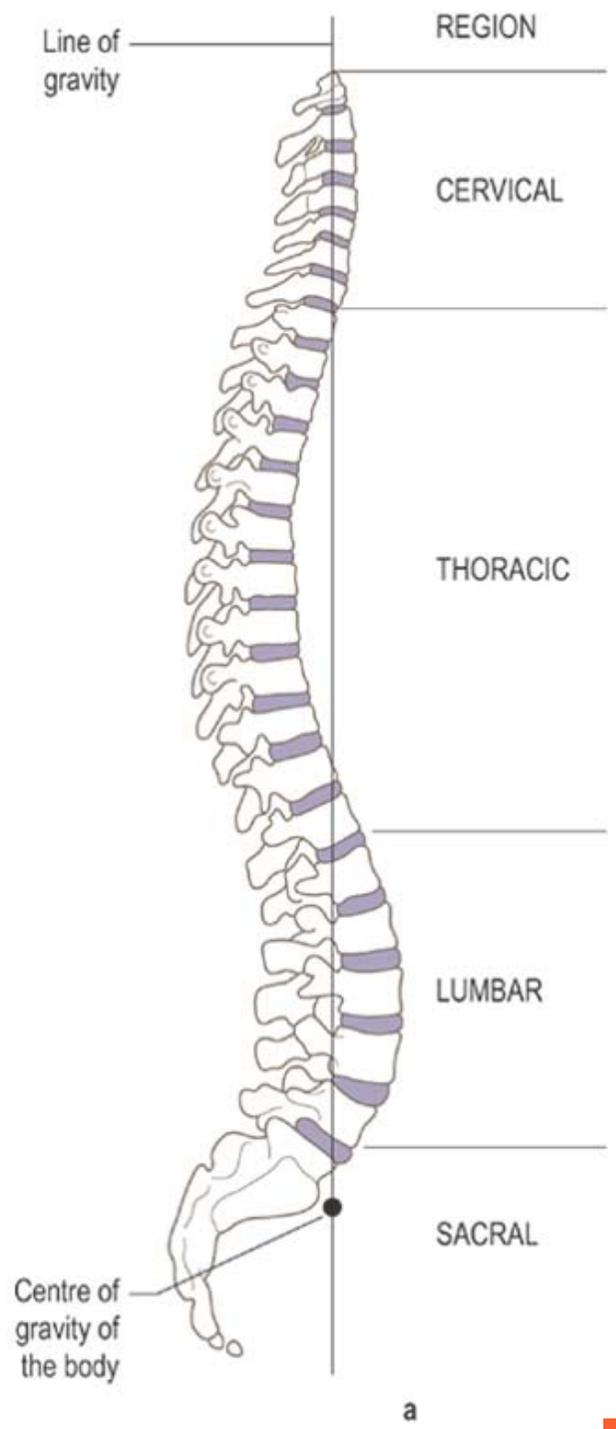


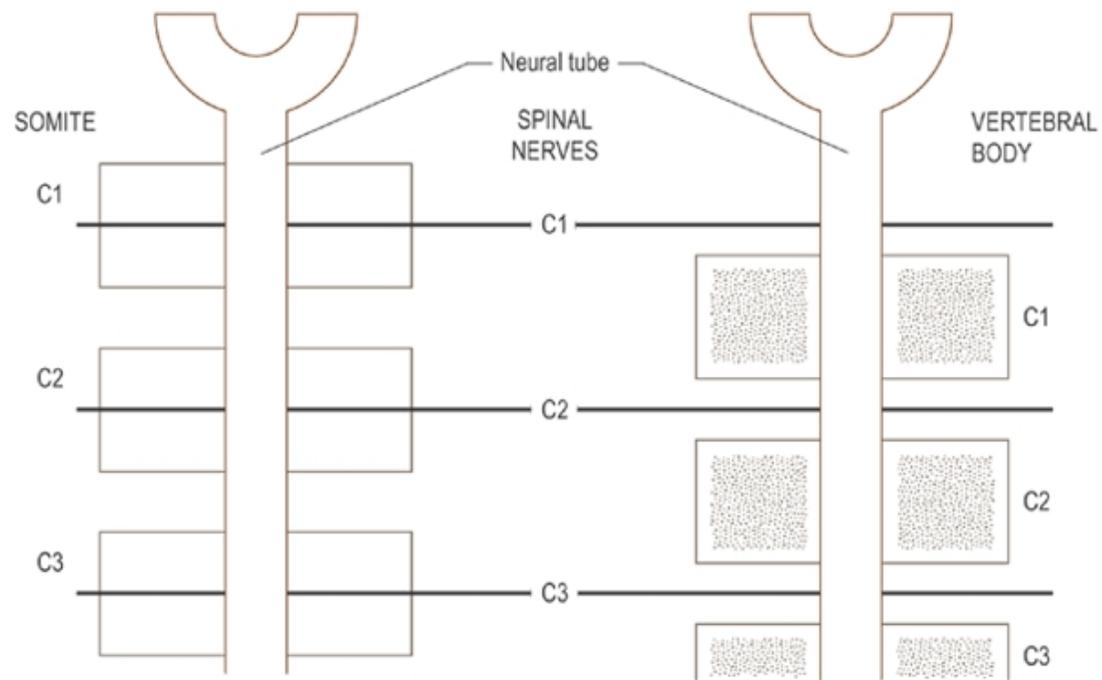
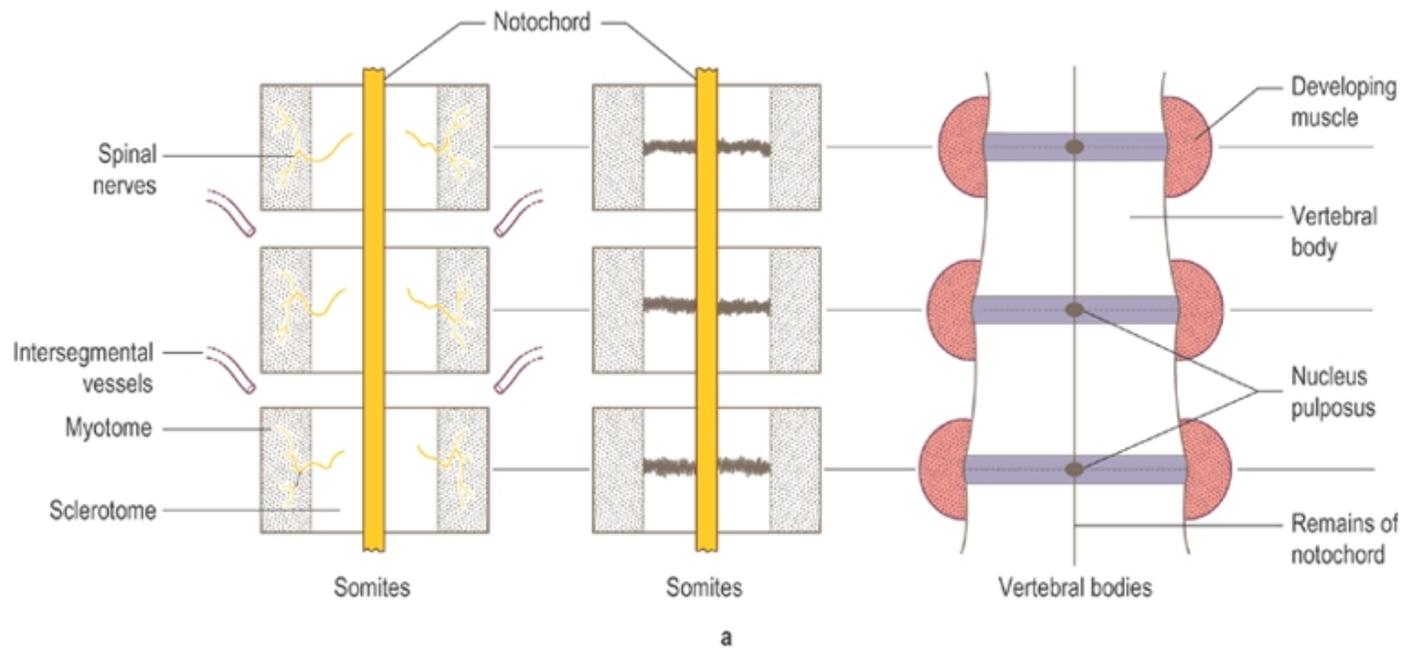


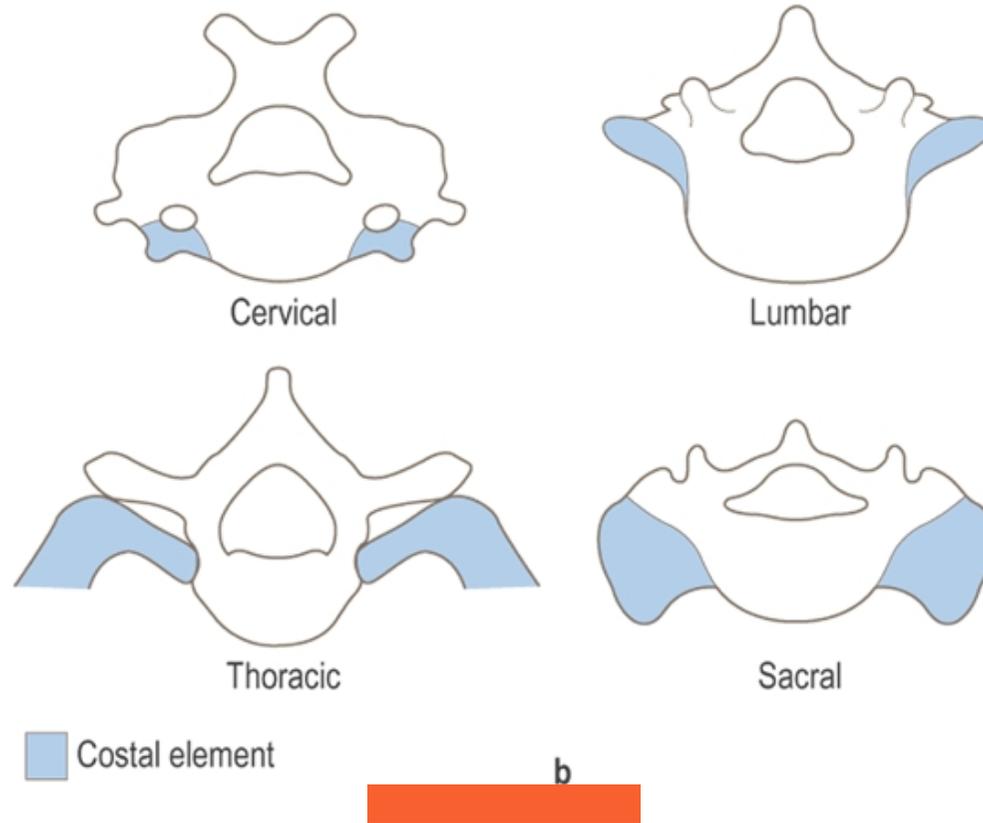
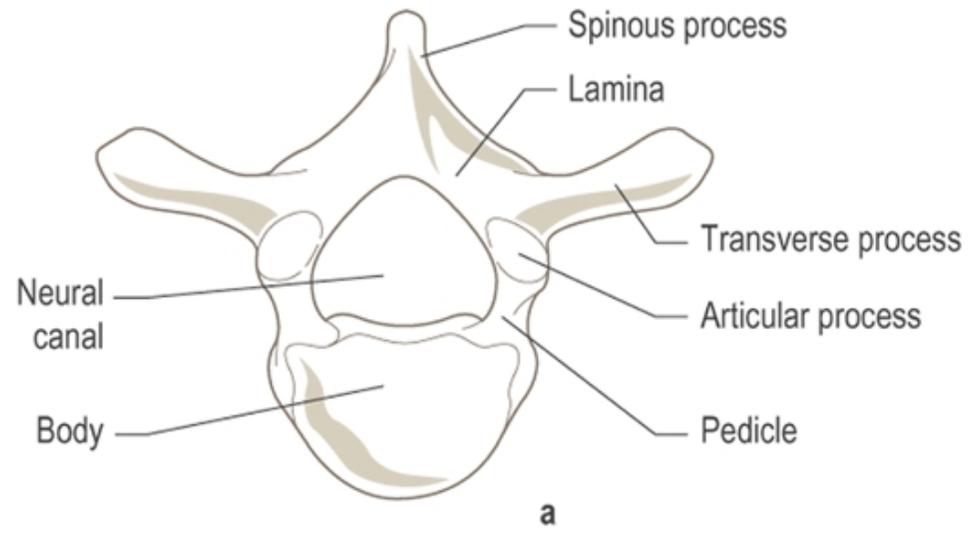


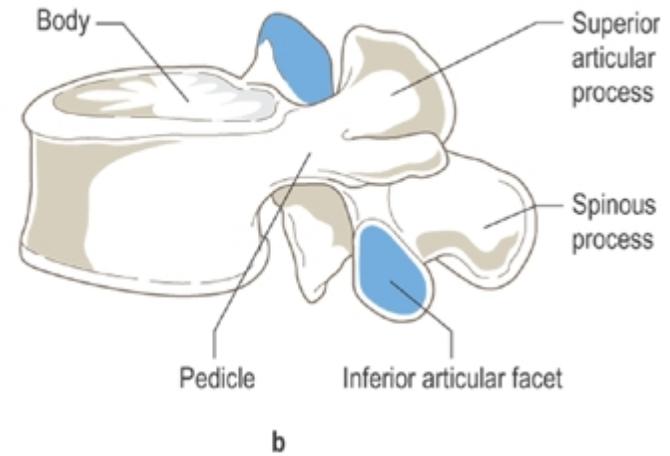
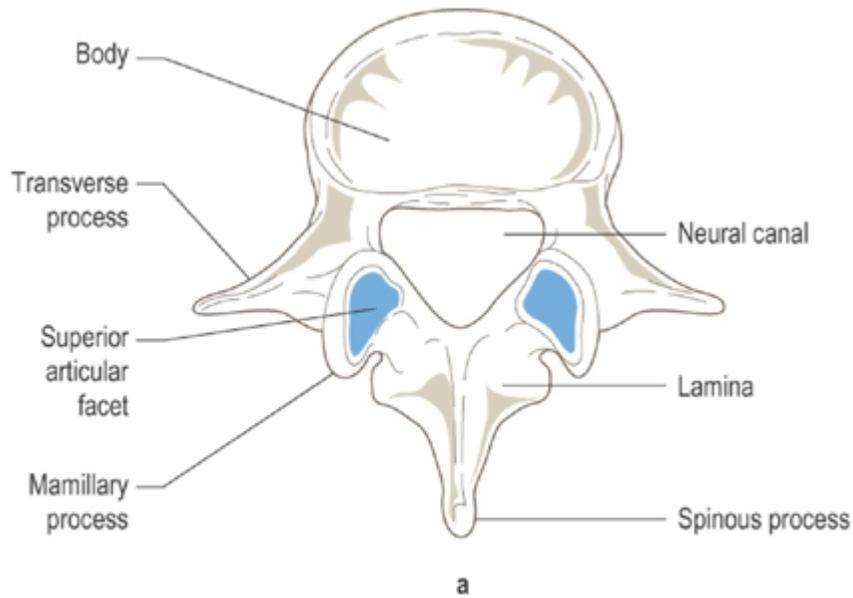
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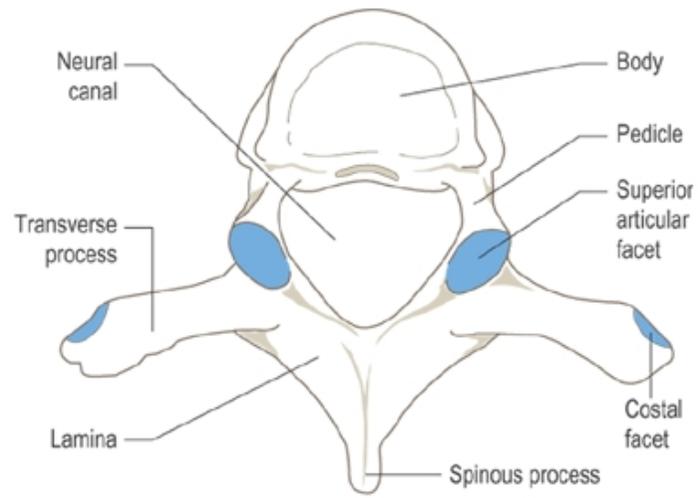




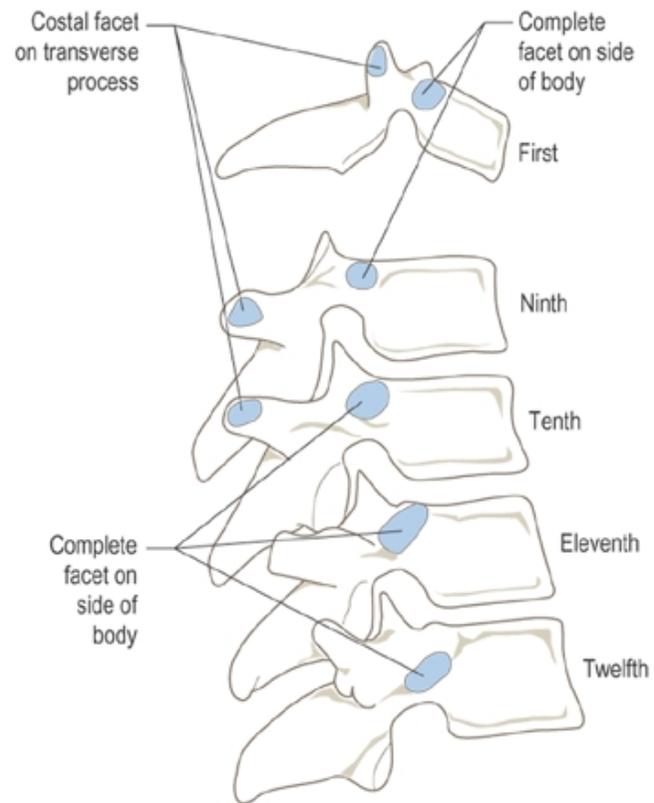




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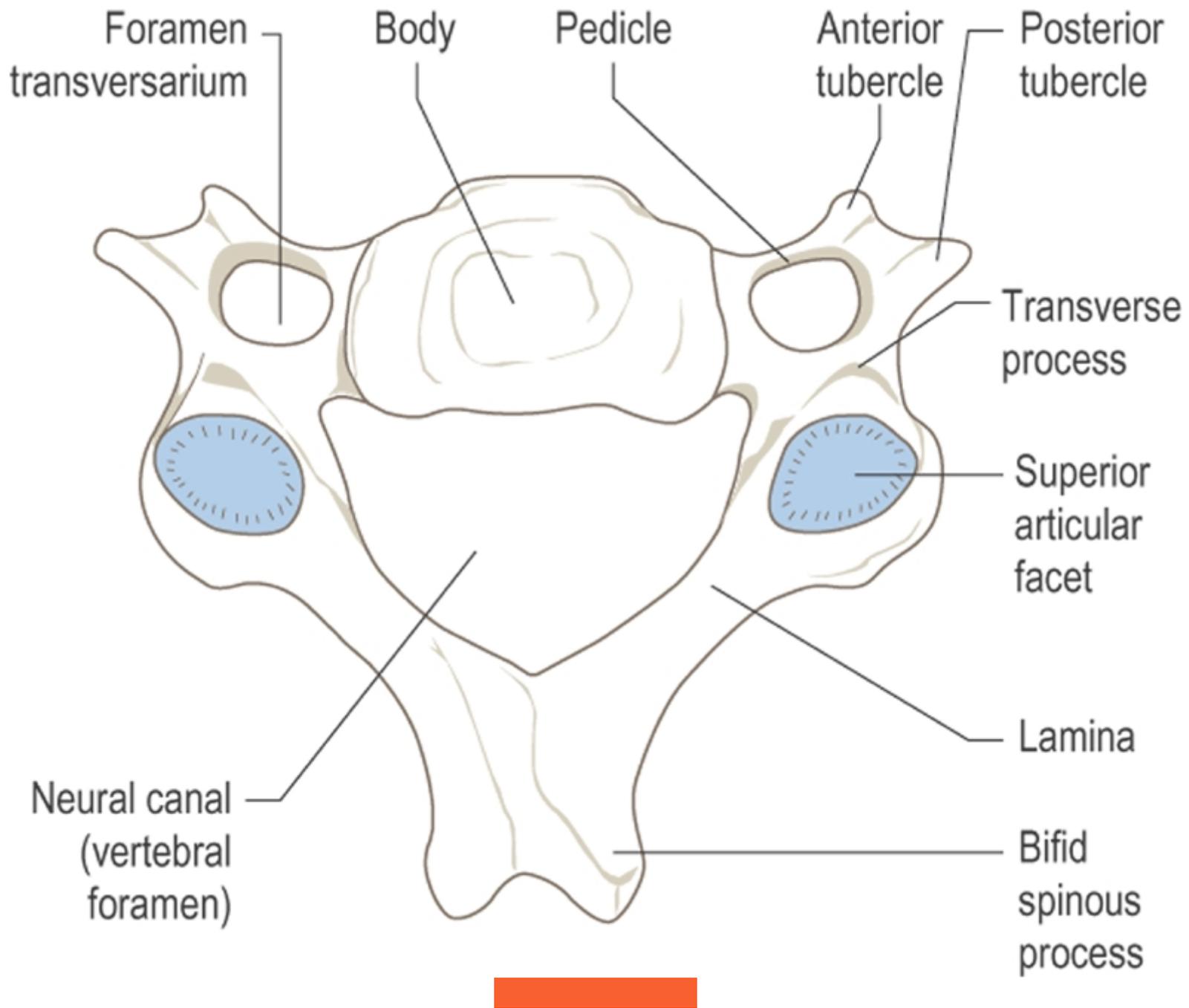


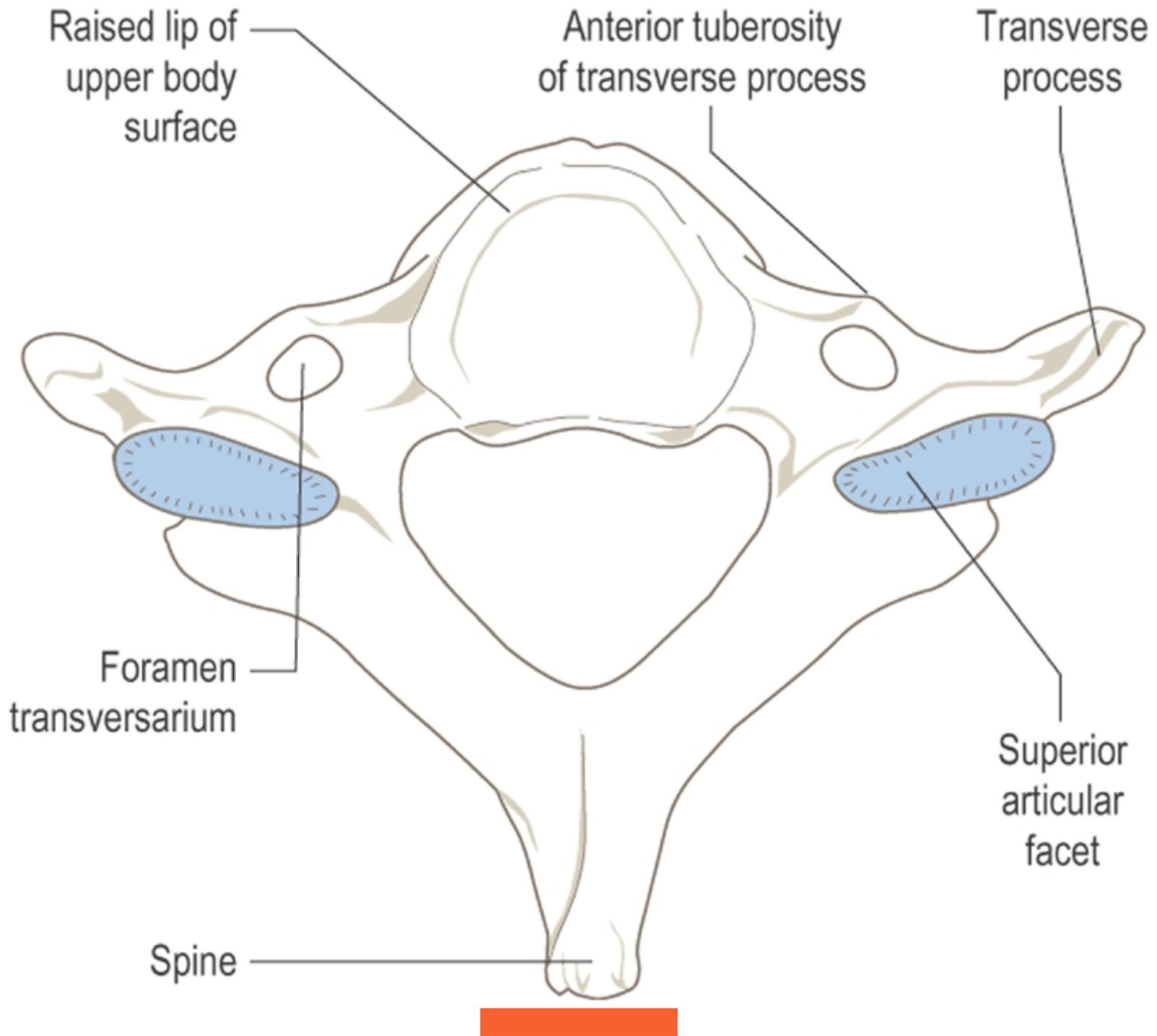
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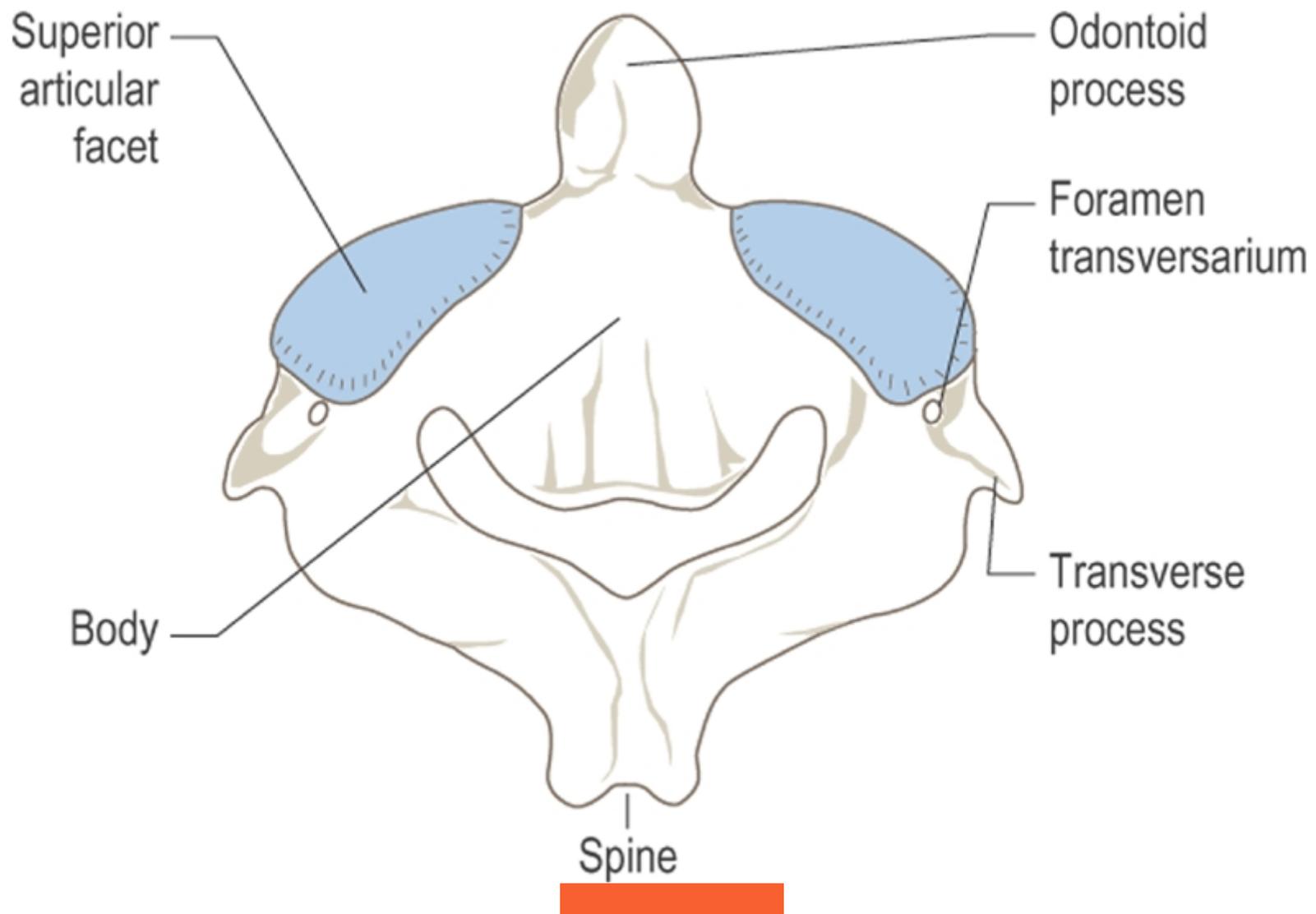


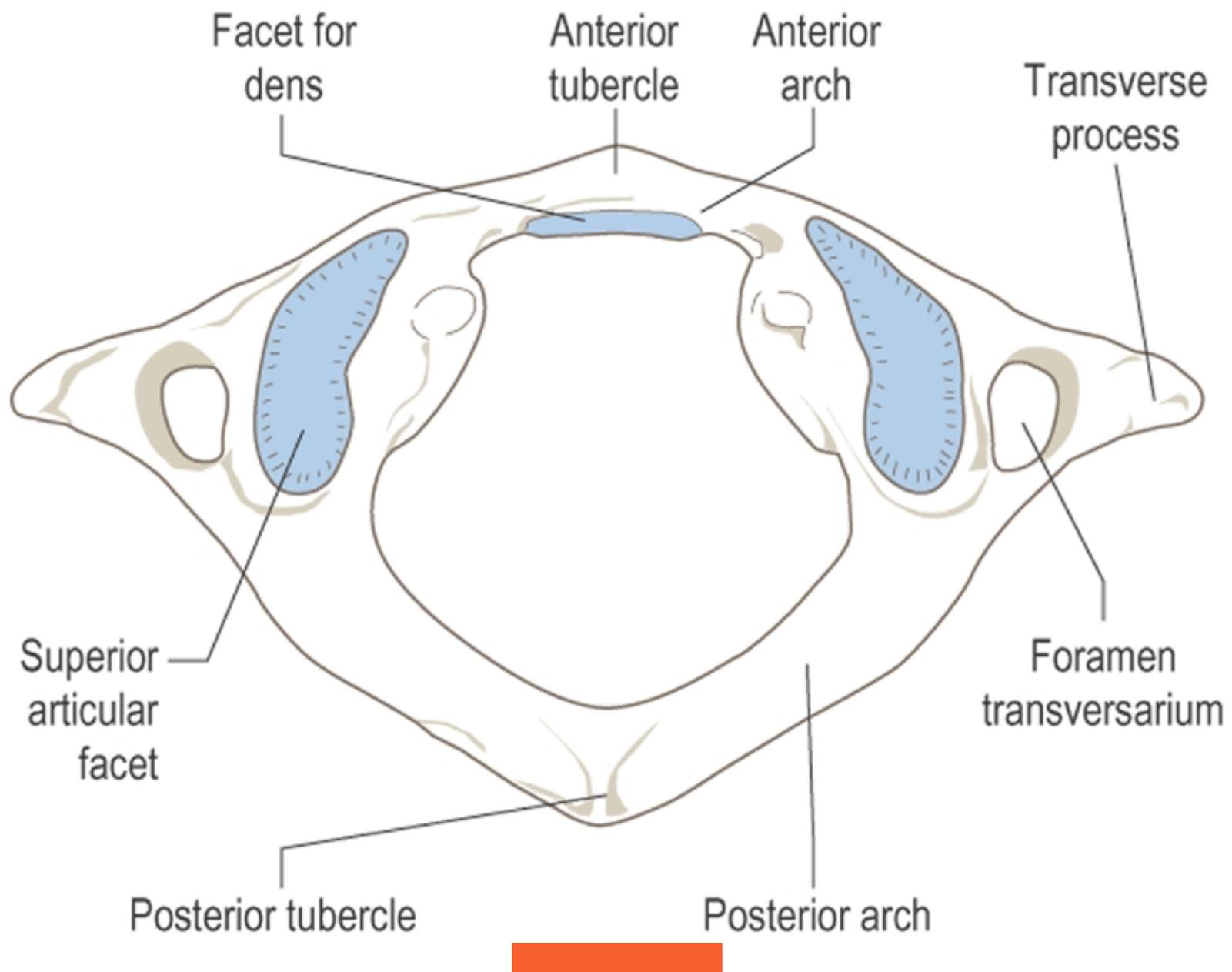
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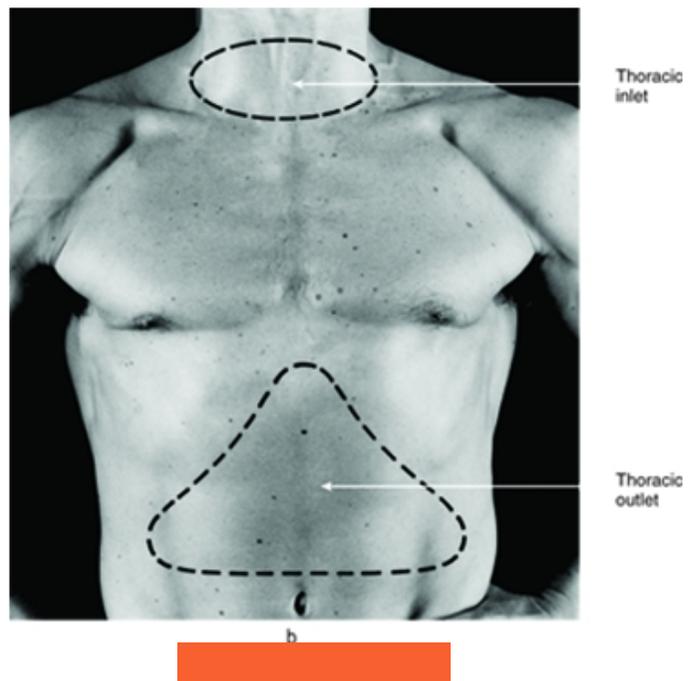
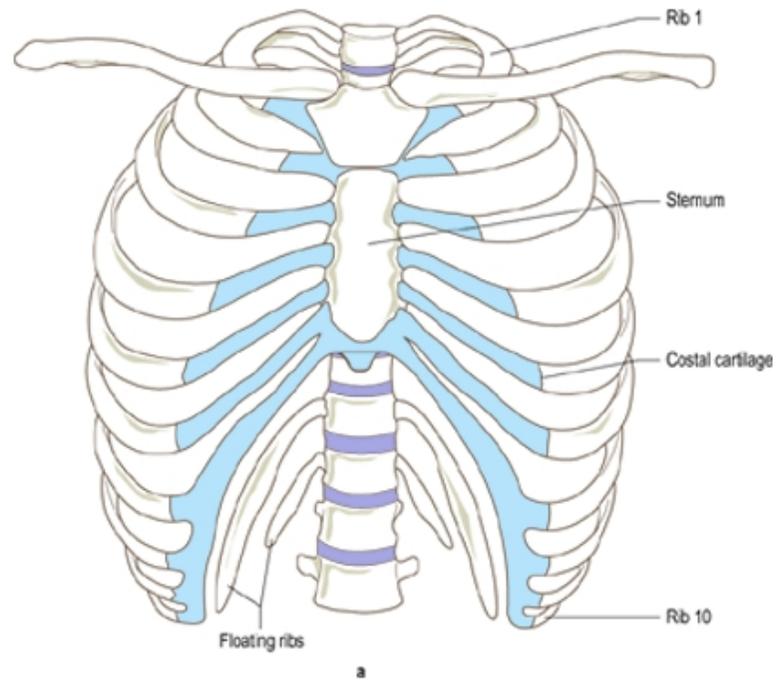


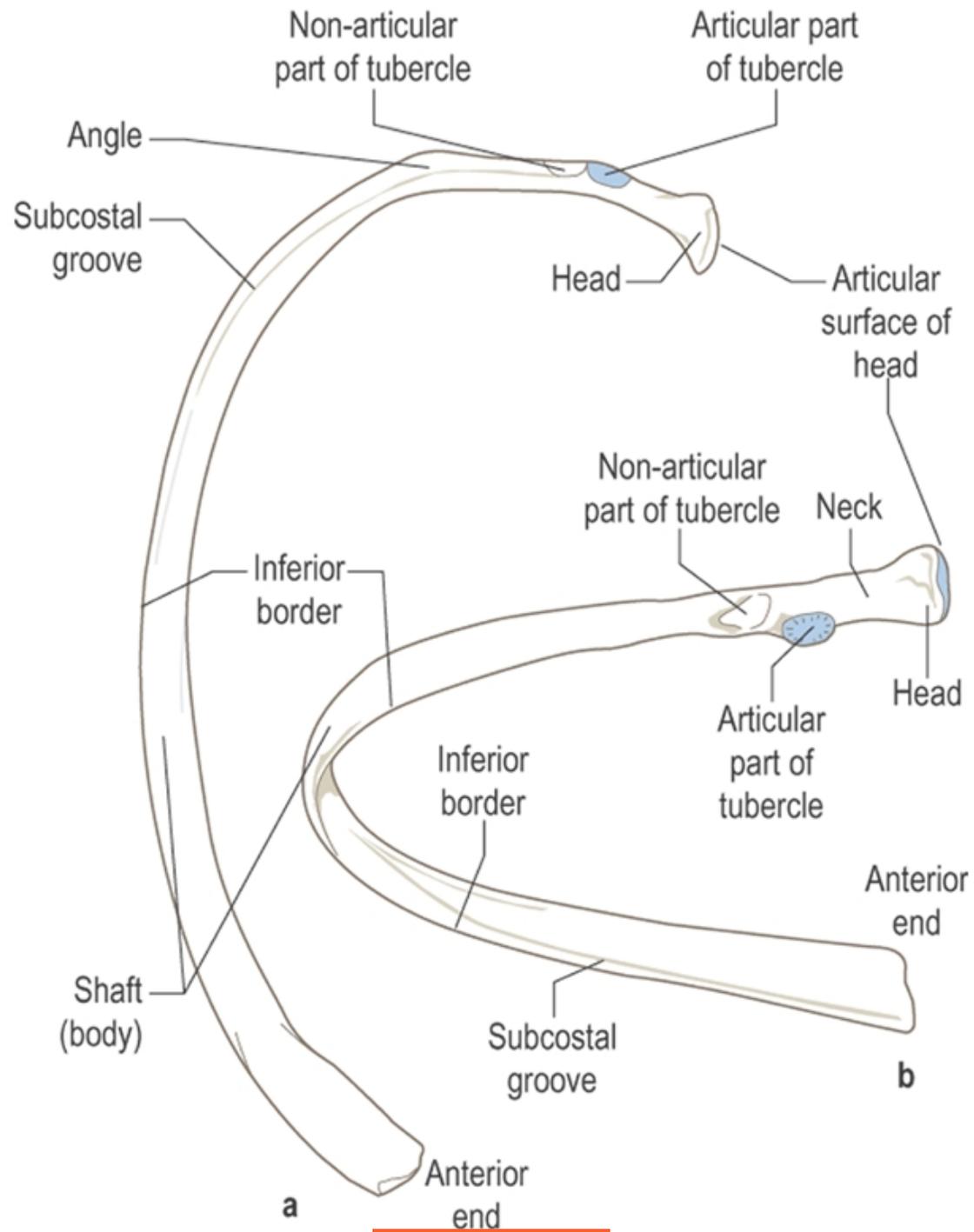


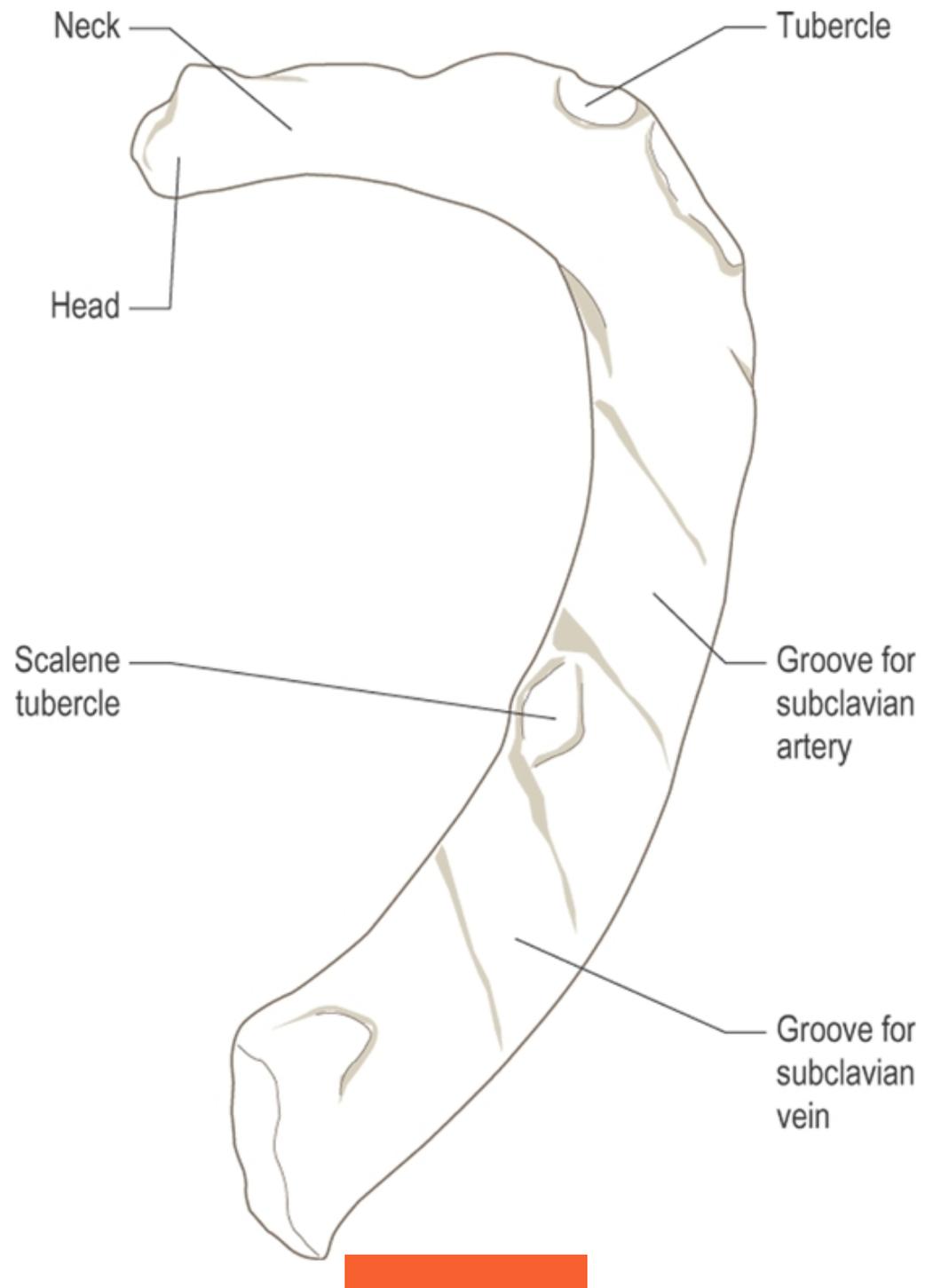


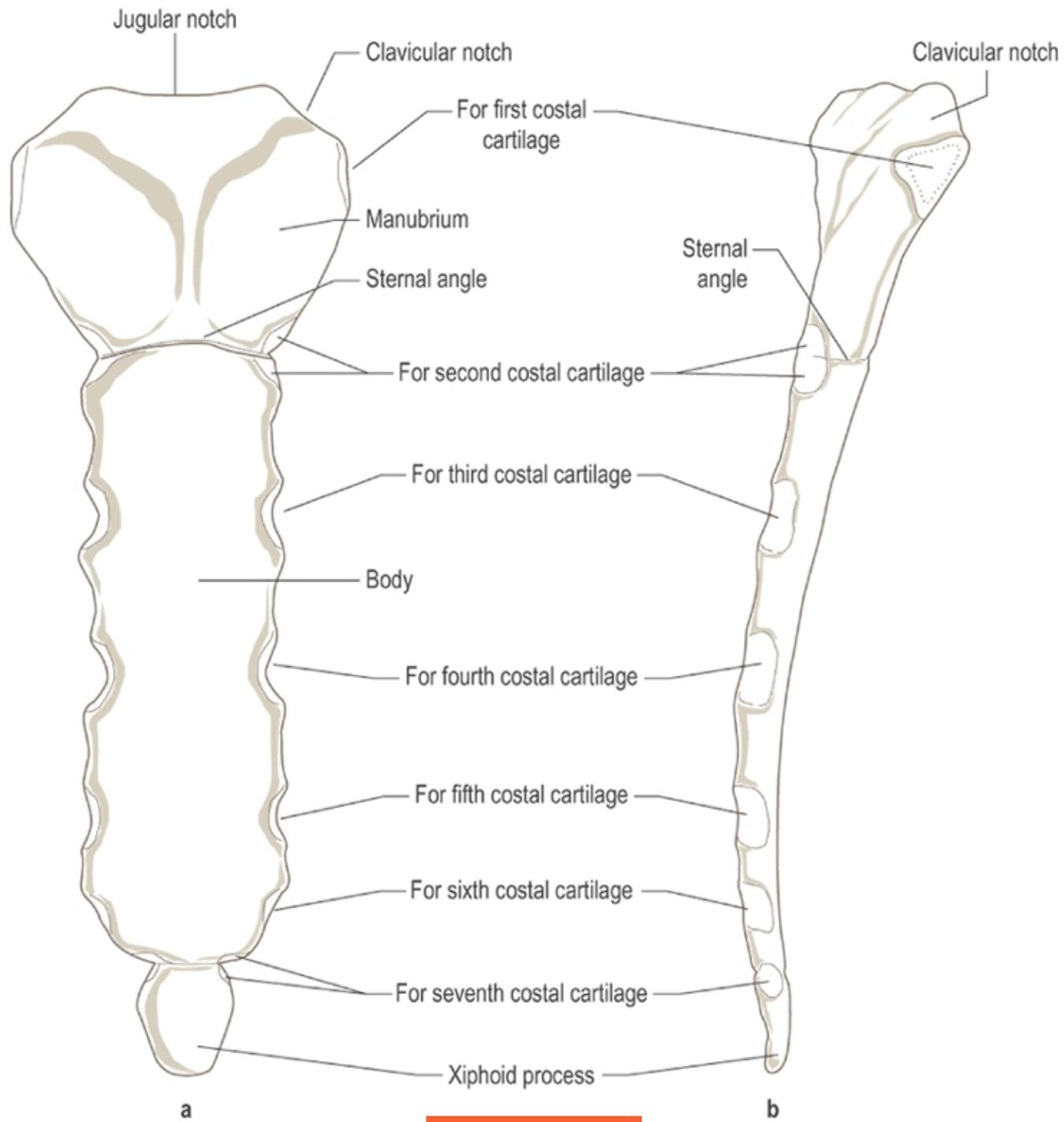


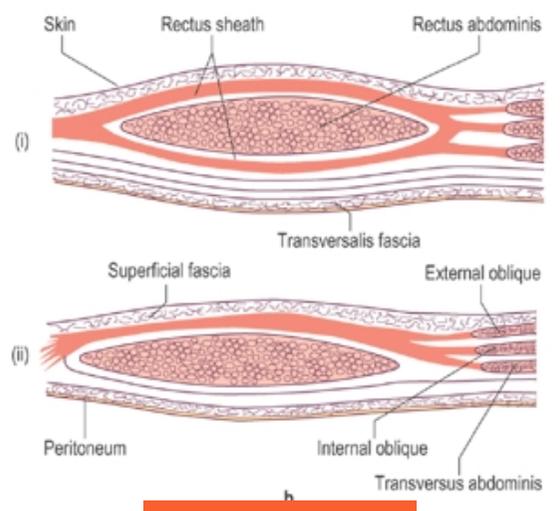
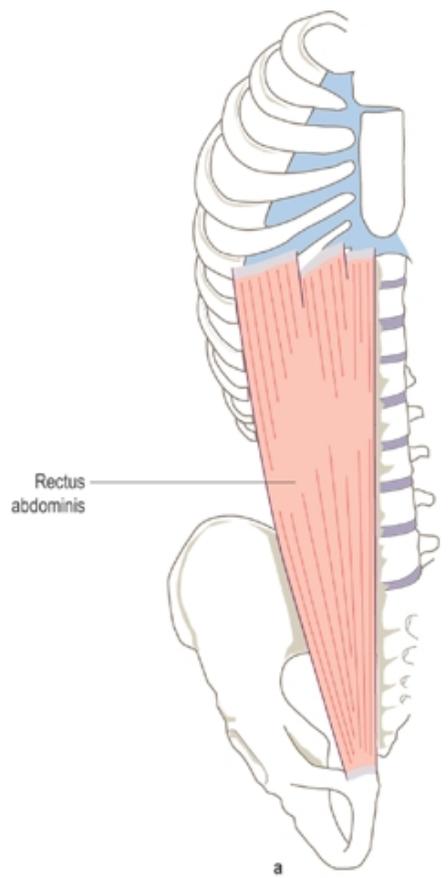


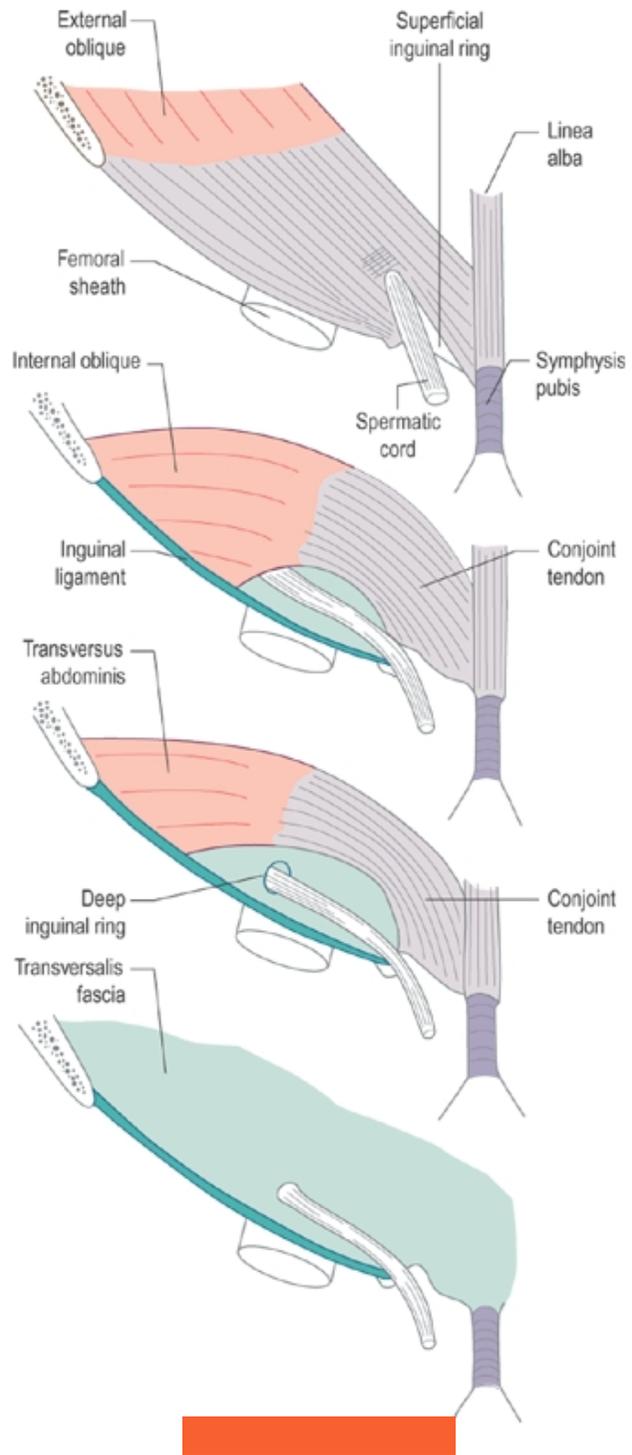


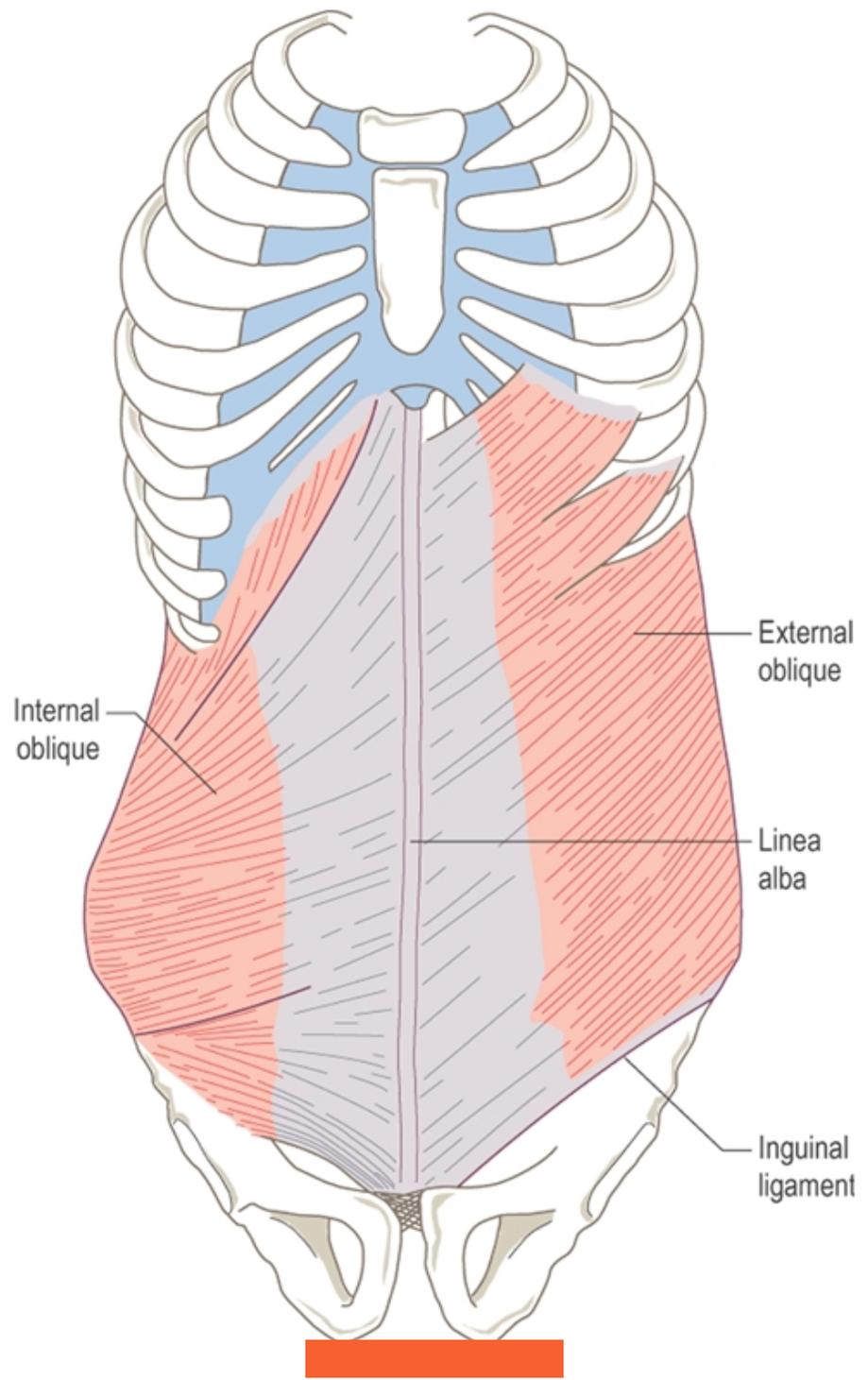


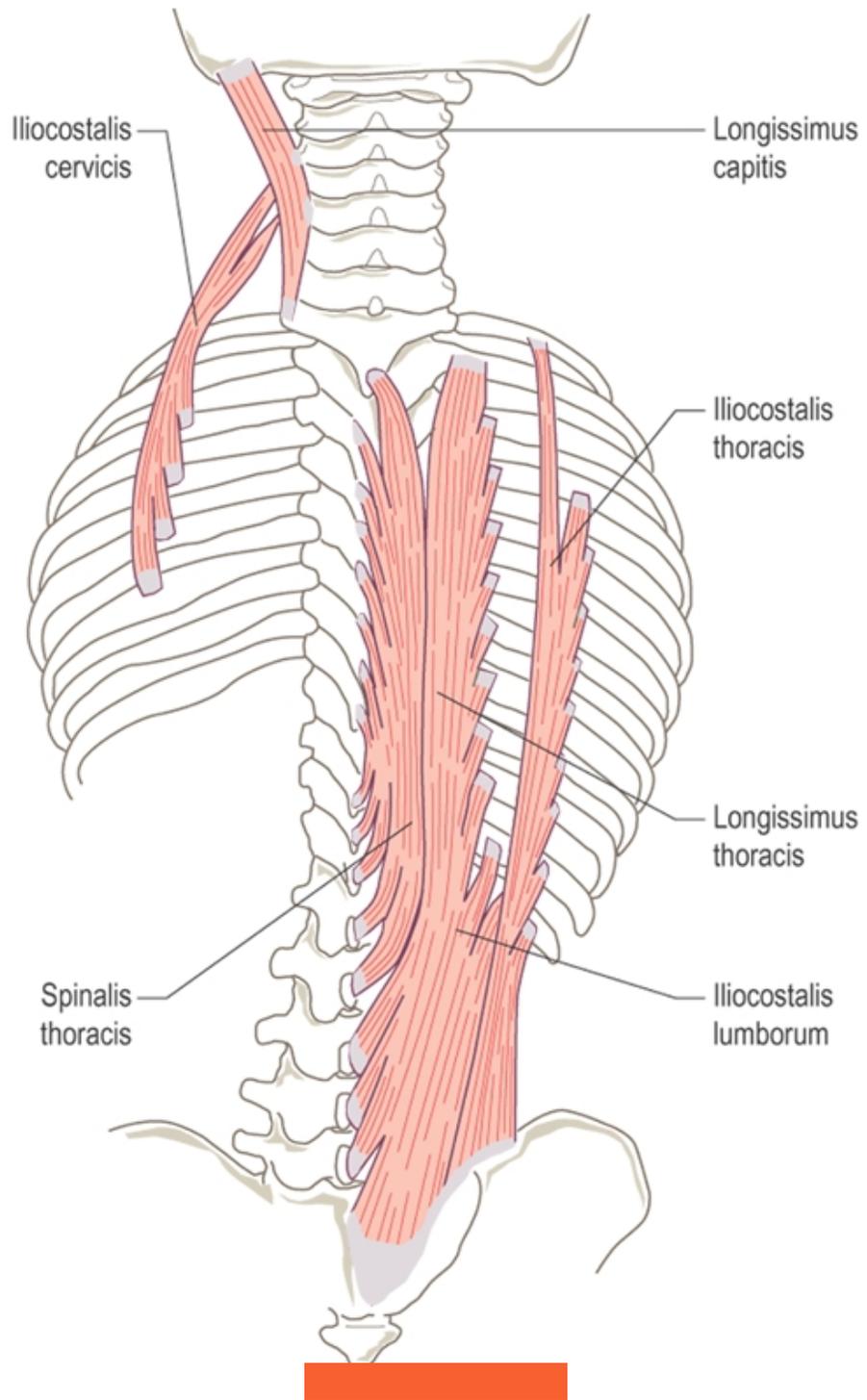


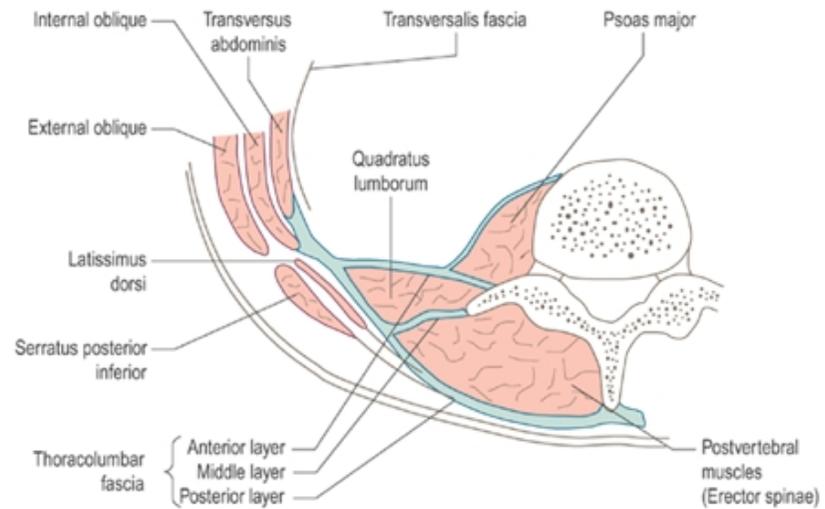
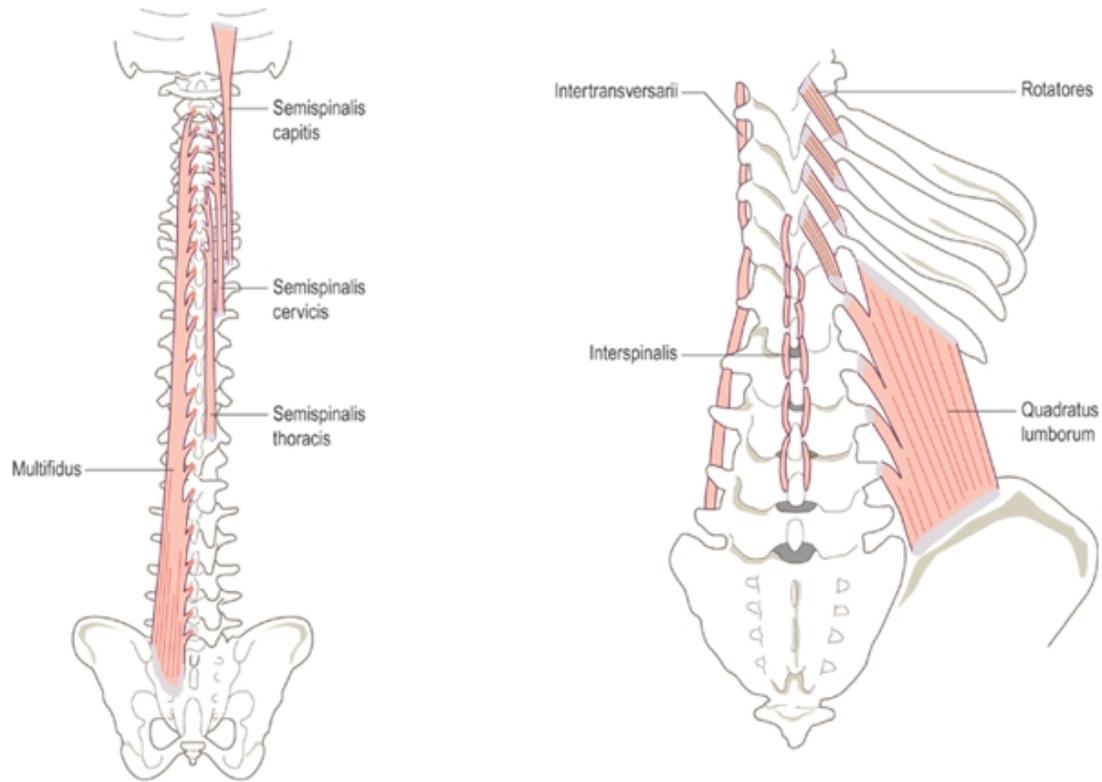


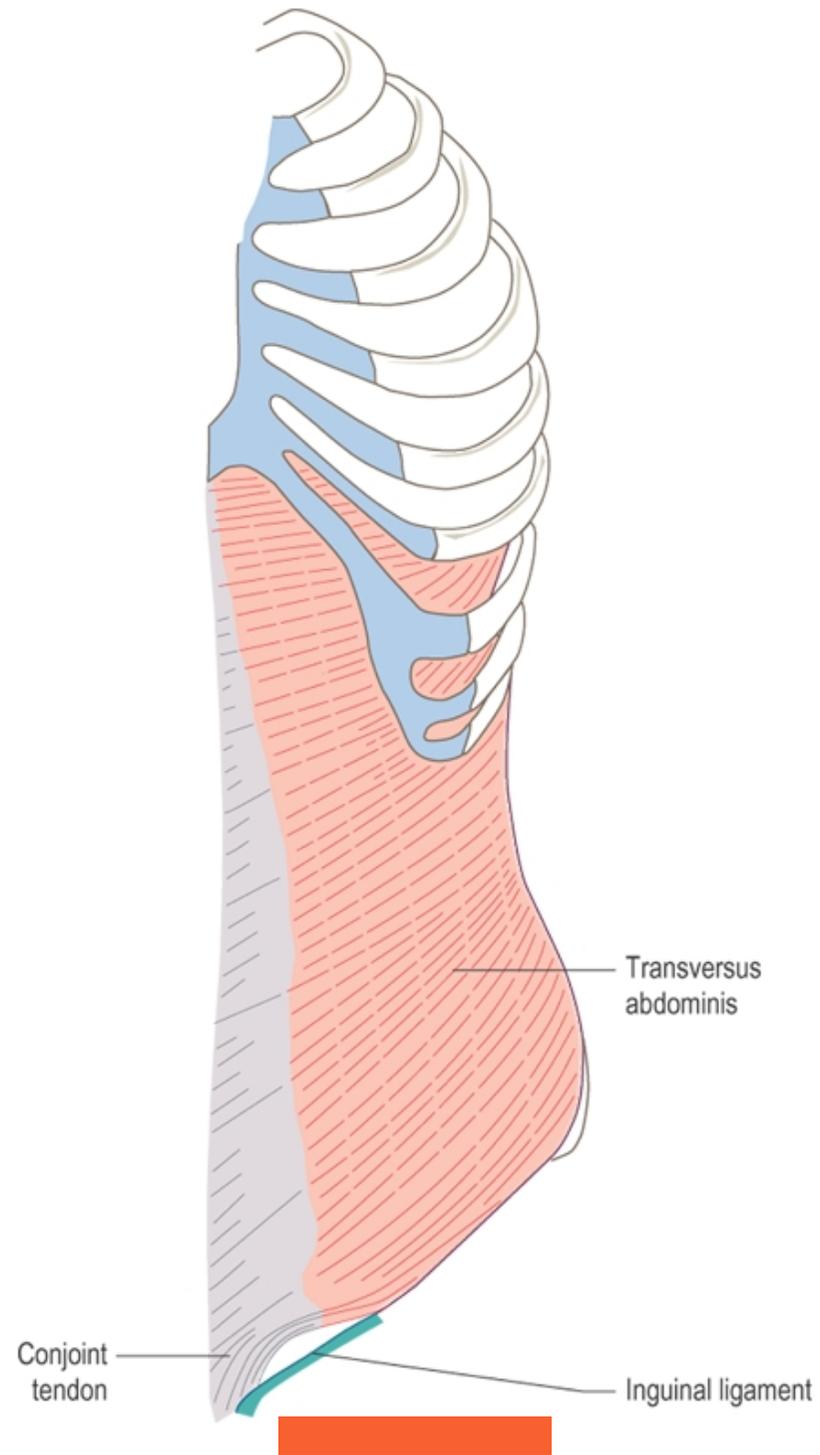


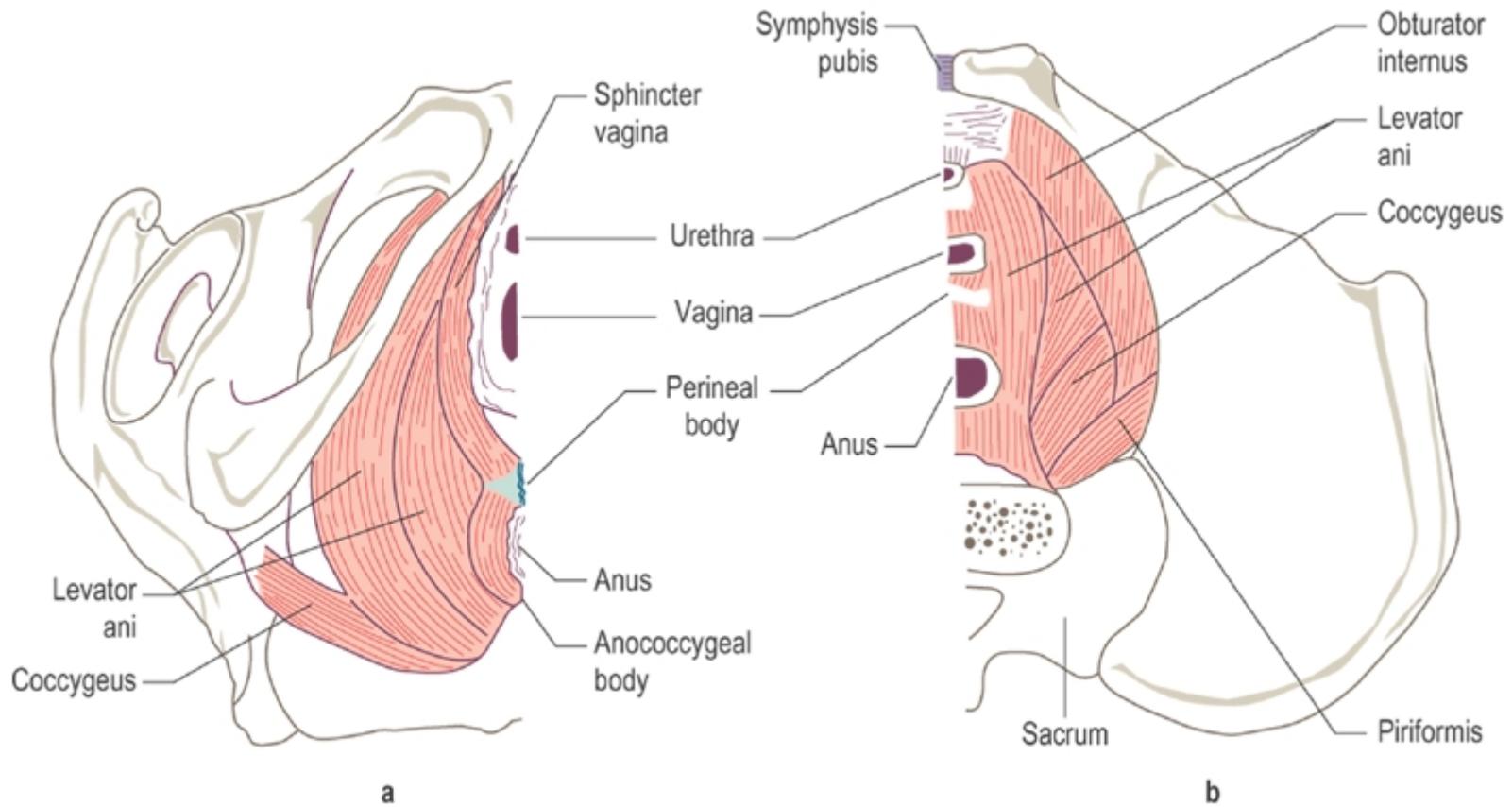




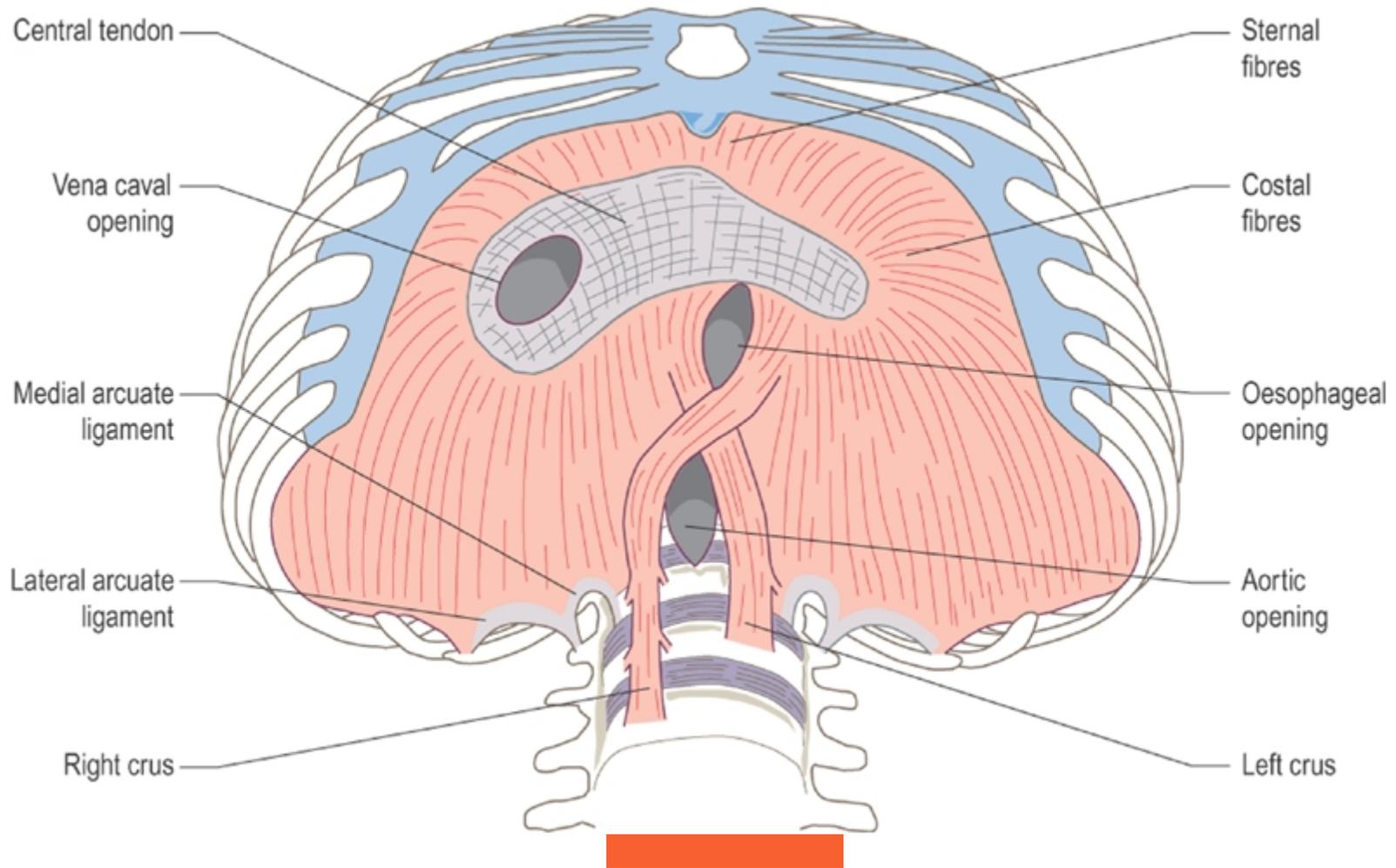


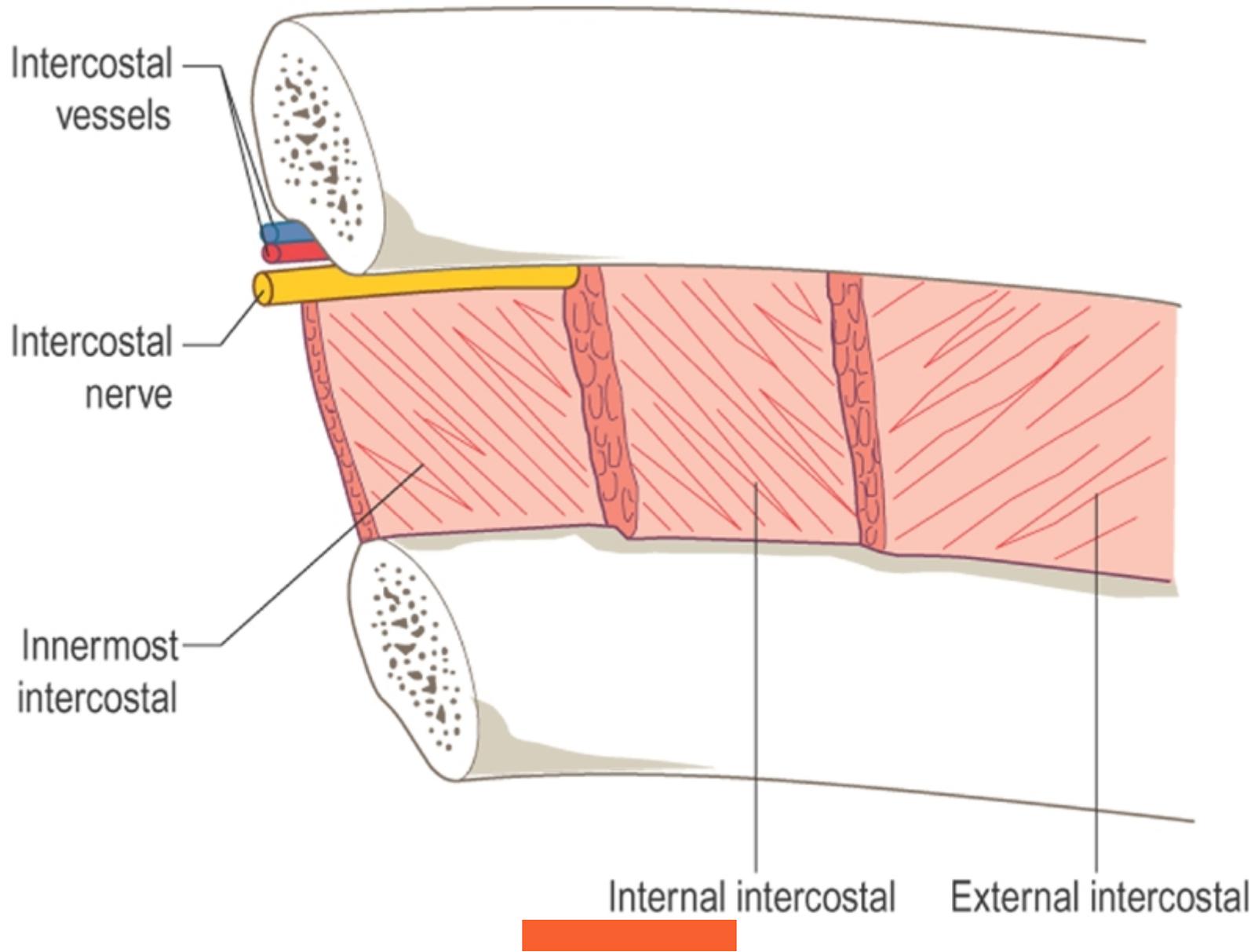


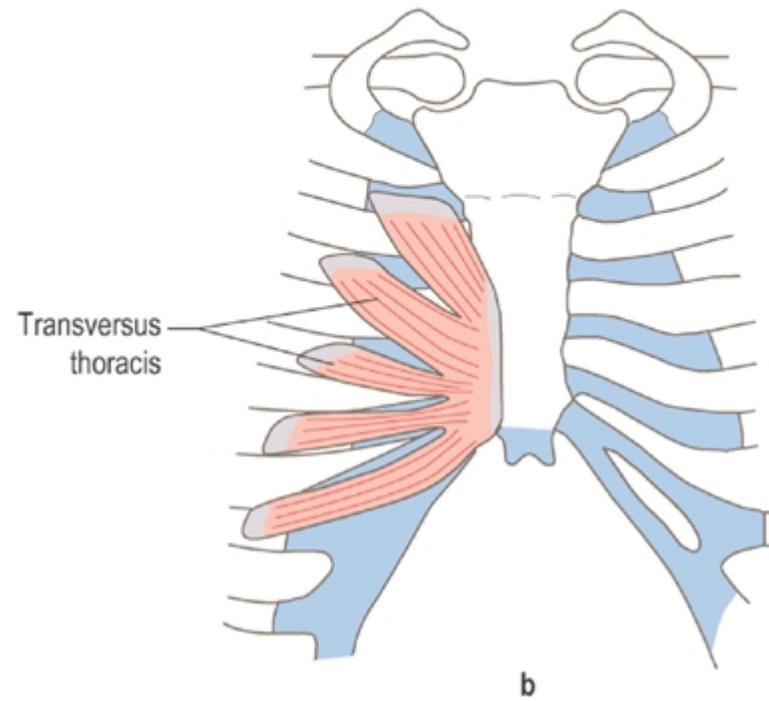
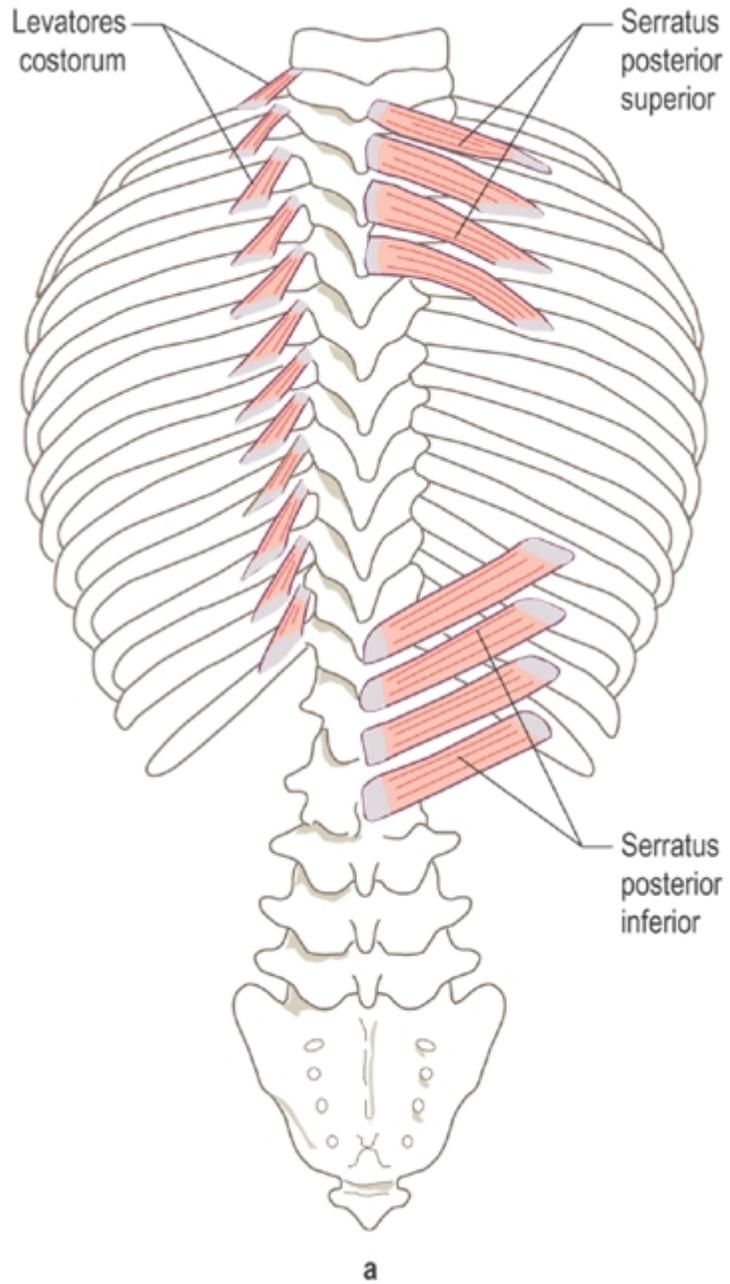


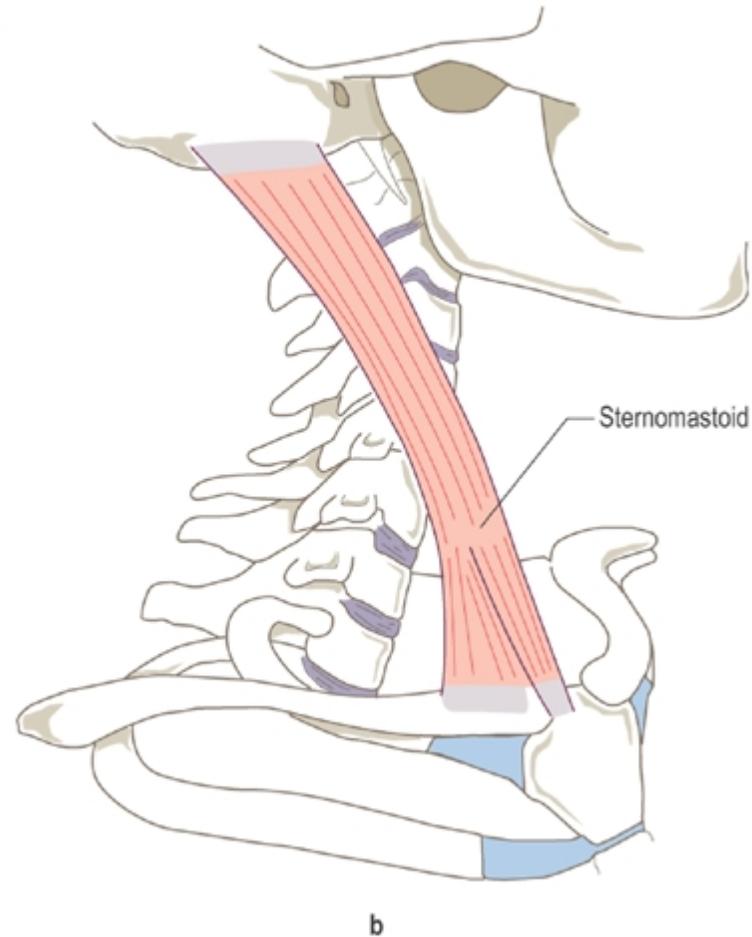
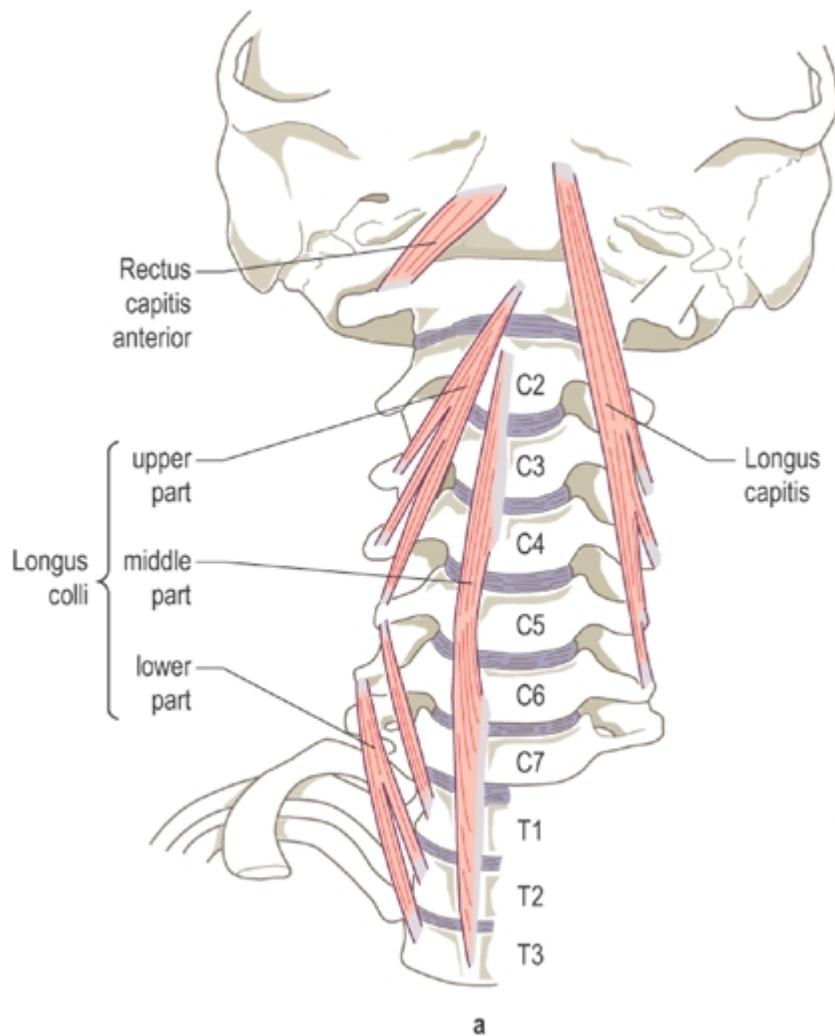


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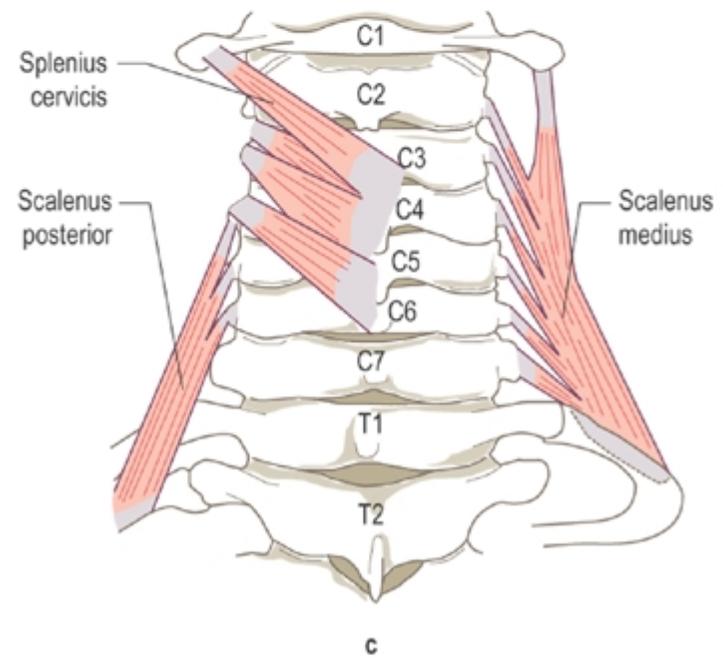
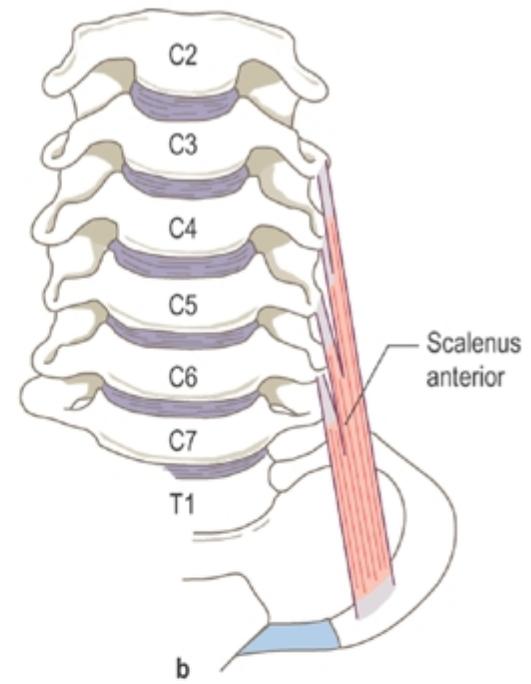
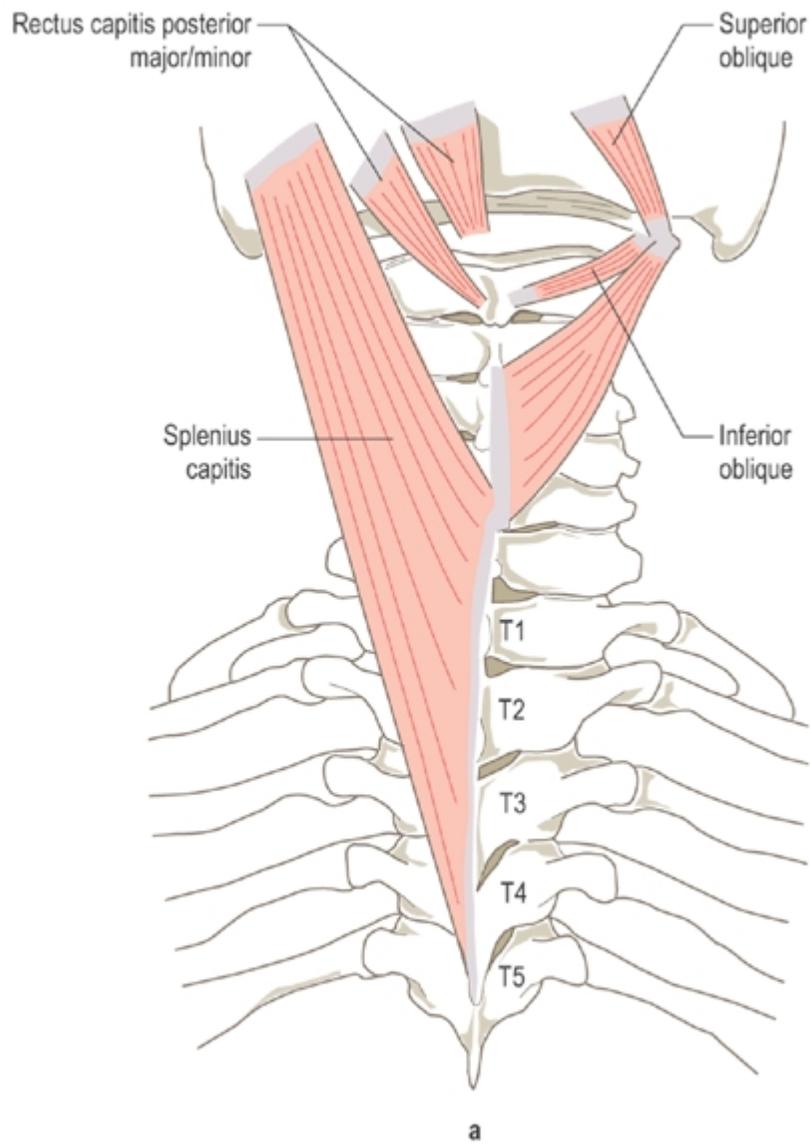


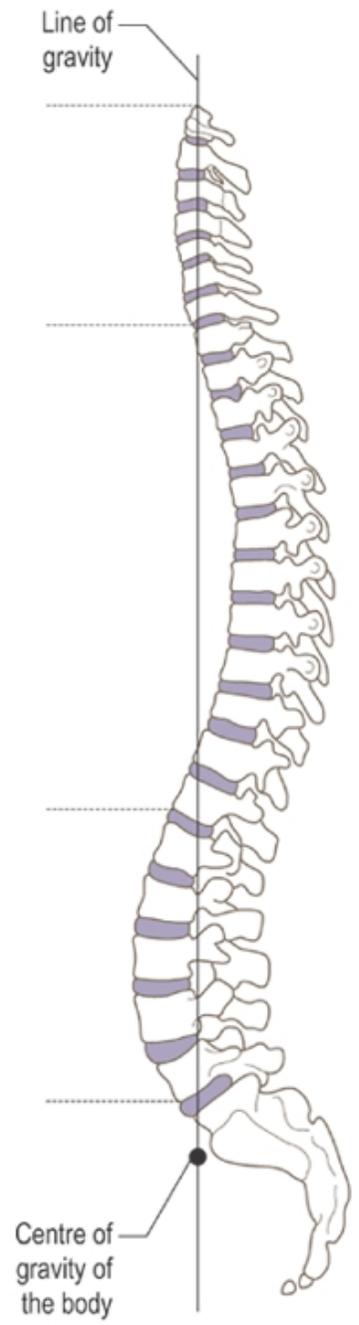






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REGION

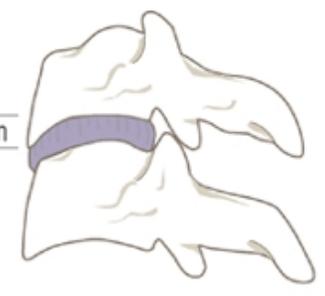
CERVICAL

THORACIC

LUMBAR

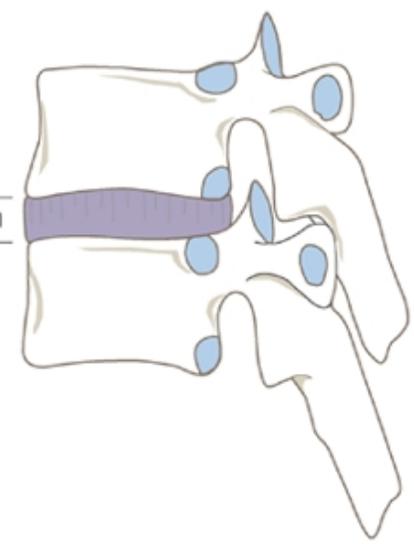
SACRAL

5 mm



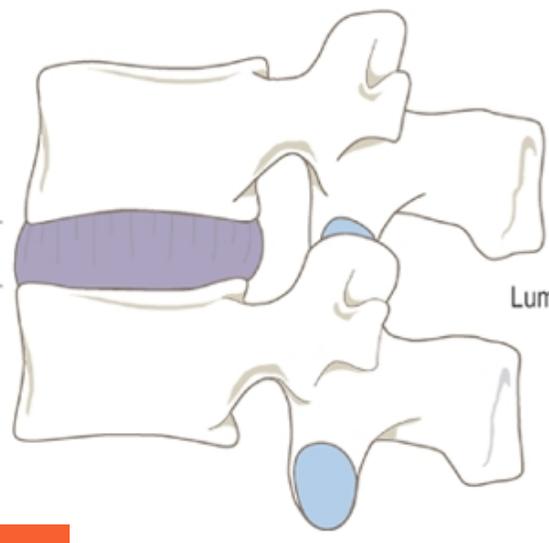
Cervical

7 mm



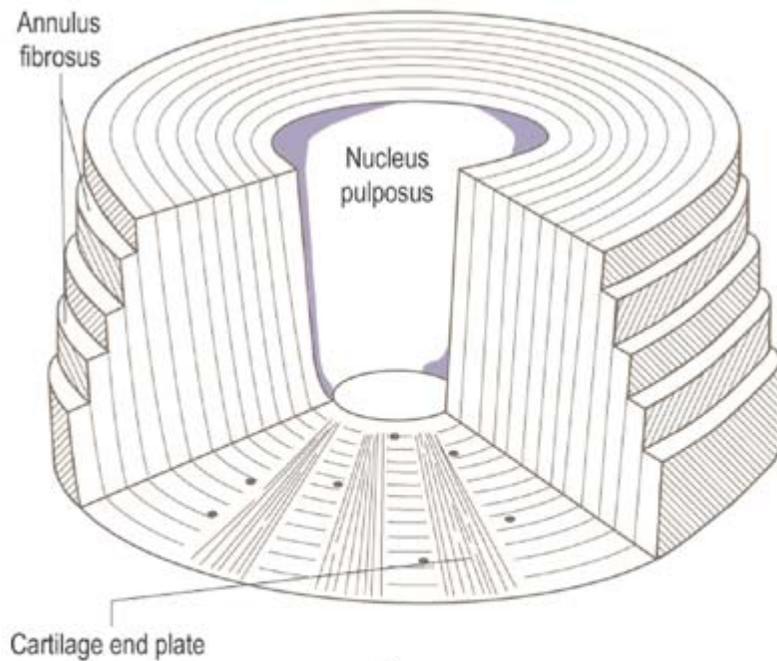
Thoracic

10 mm

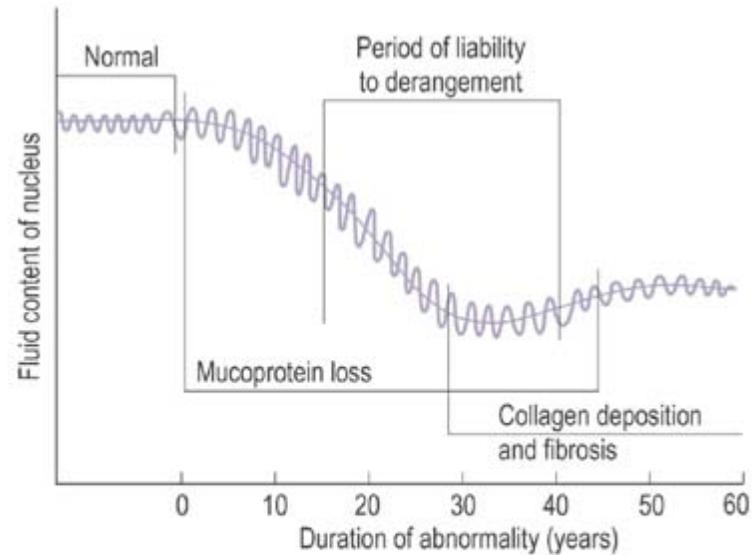


Lumbar





a

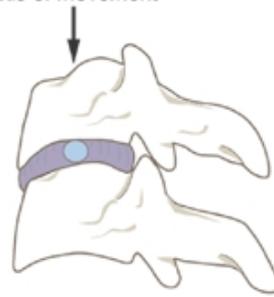


b

(Adapted from Hendry N (1958) The hydration of the nucleus pulposus and its relation to the intervertebral disc derangement. *Journal of Bone and Joint Surgery*, 40B, 132-144.)

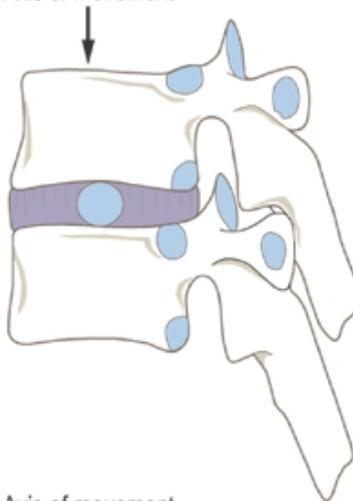
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Axis of movement



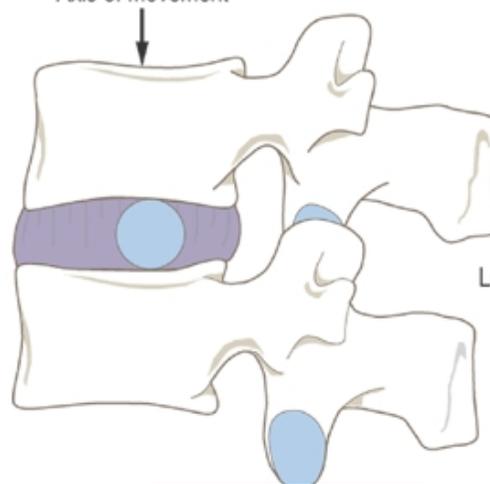
Cervical

Axis of movement

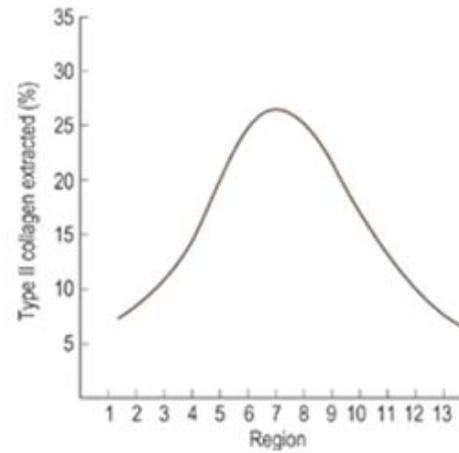
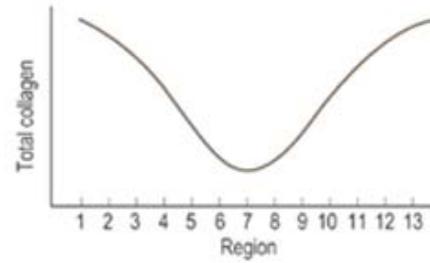
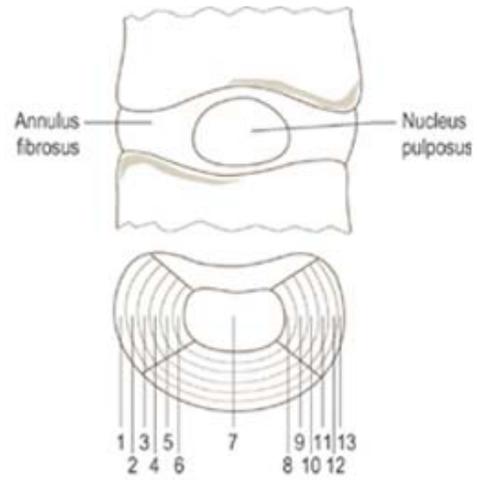


Thoracic

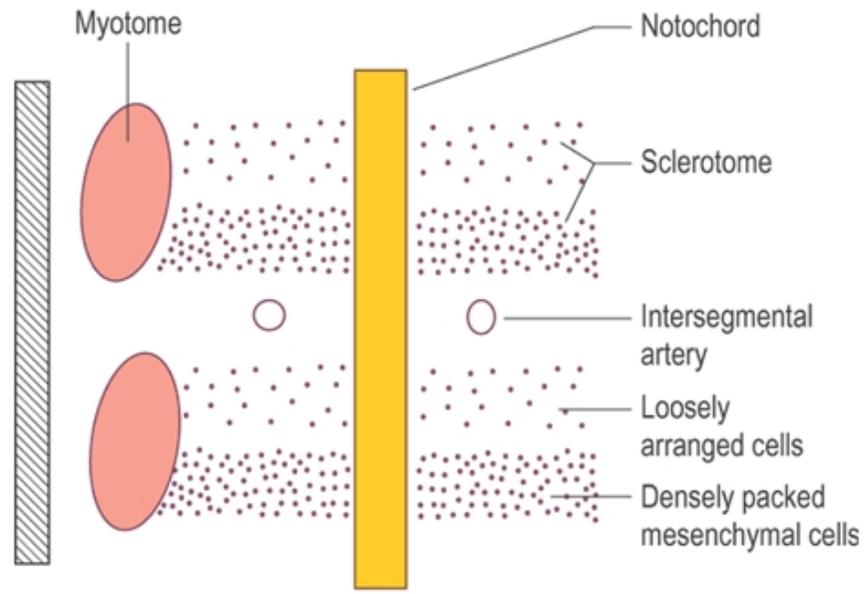
Axis of movement



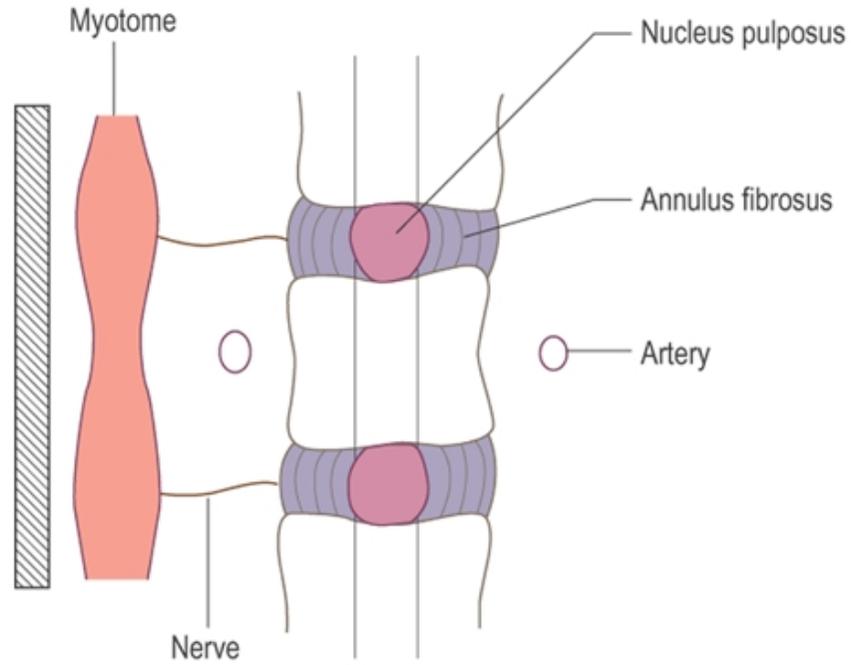
Lumbar



(Adapted from Taylor TKF, Ghosh P and Bushel GR (1981) The contribution of the intervertebral disc to scoliotic deformity. *Clinical Orthopaedics and Related Research*, 156, 79-90.)

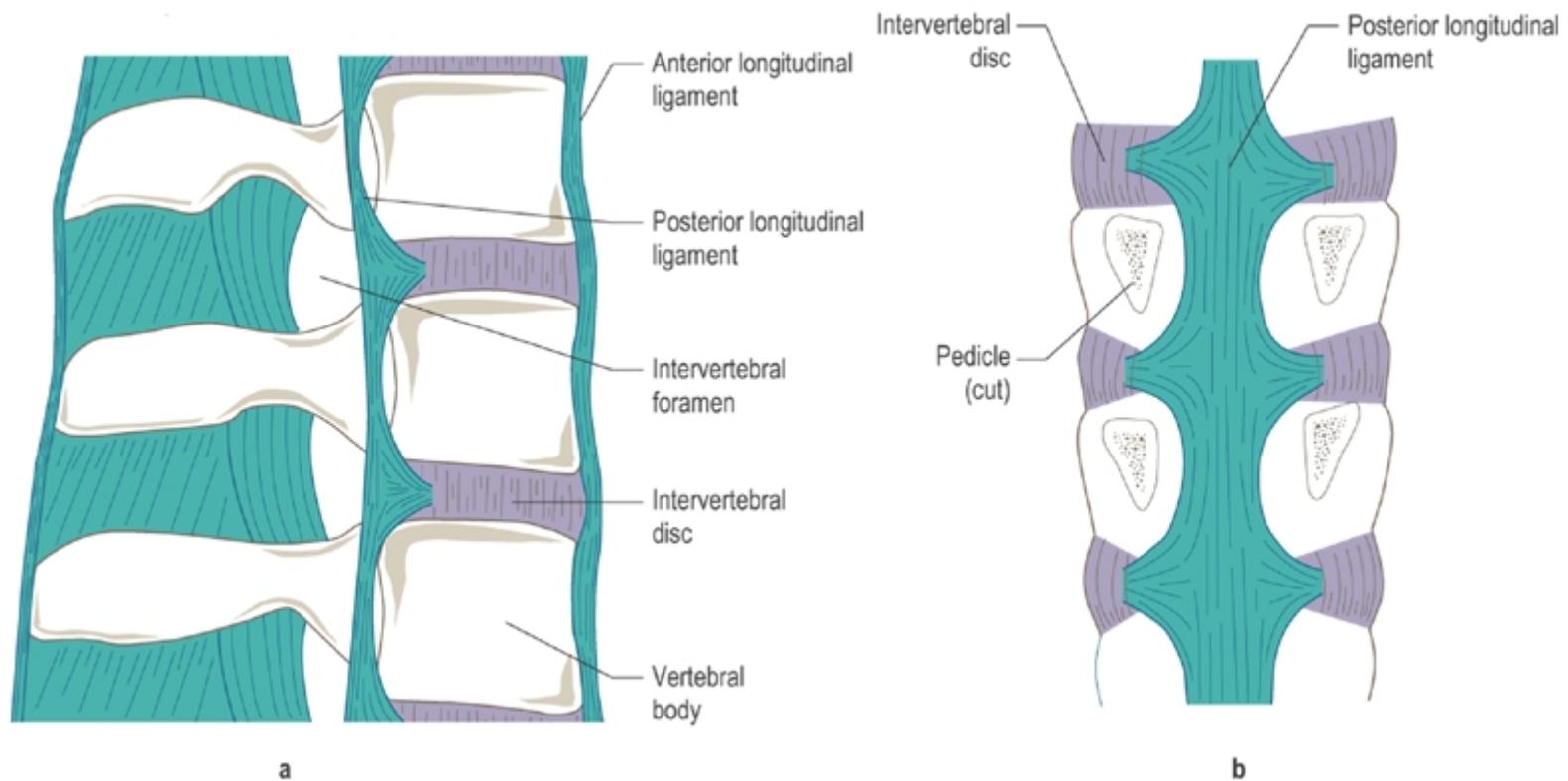


a



b

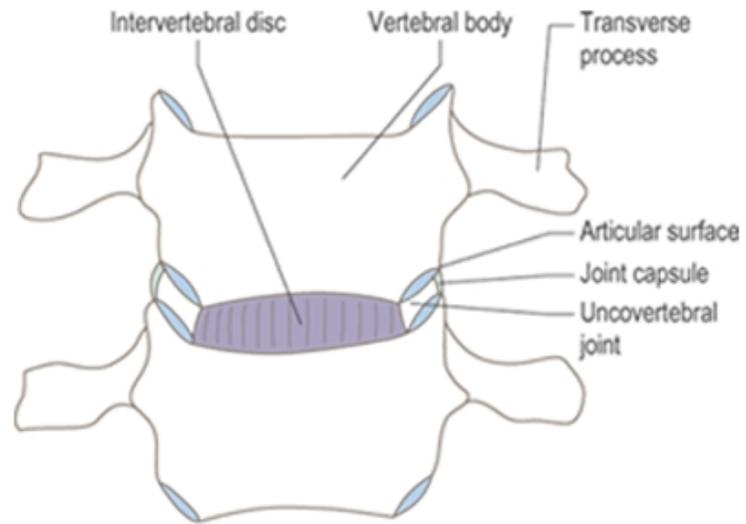




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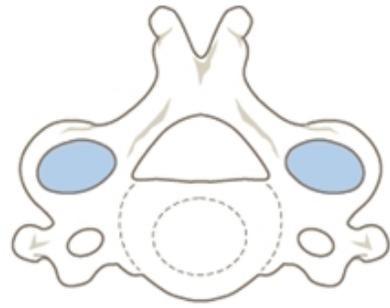


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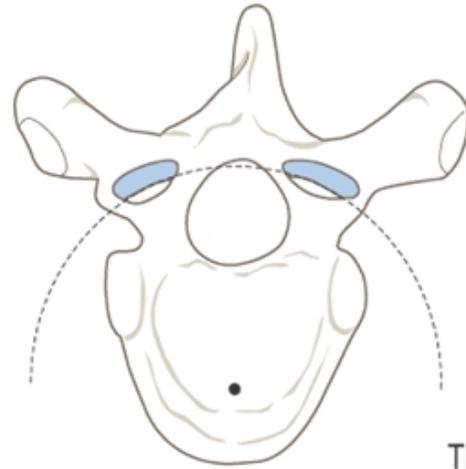
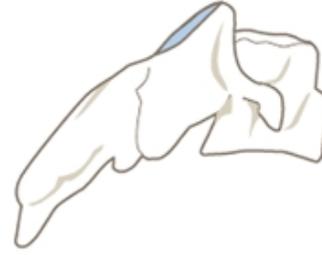


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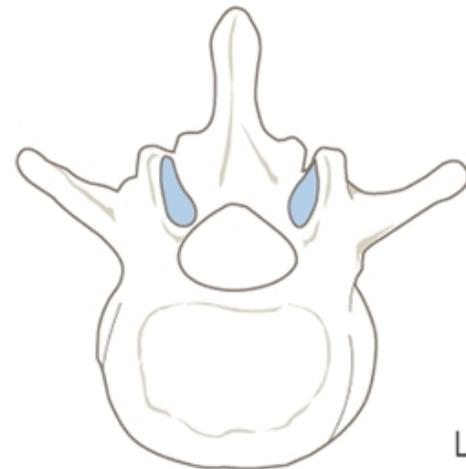
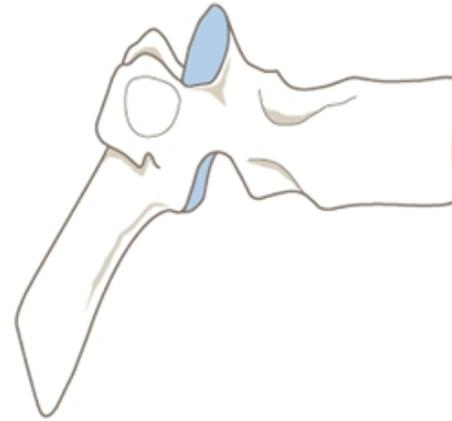




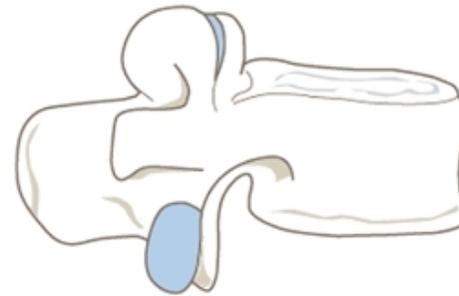
Cervical



Thoracic



Lumbar



a



b

Supraspinous
ligament

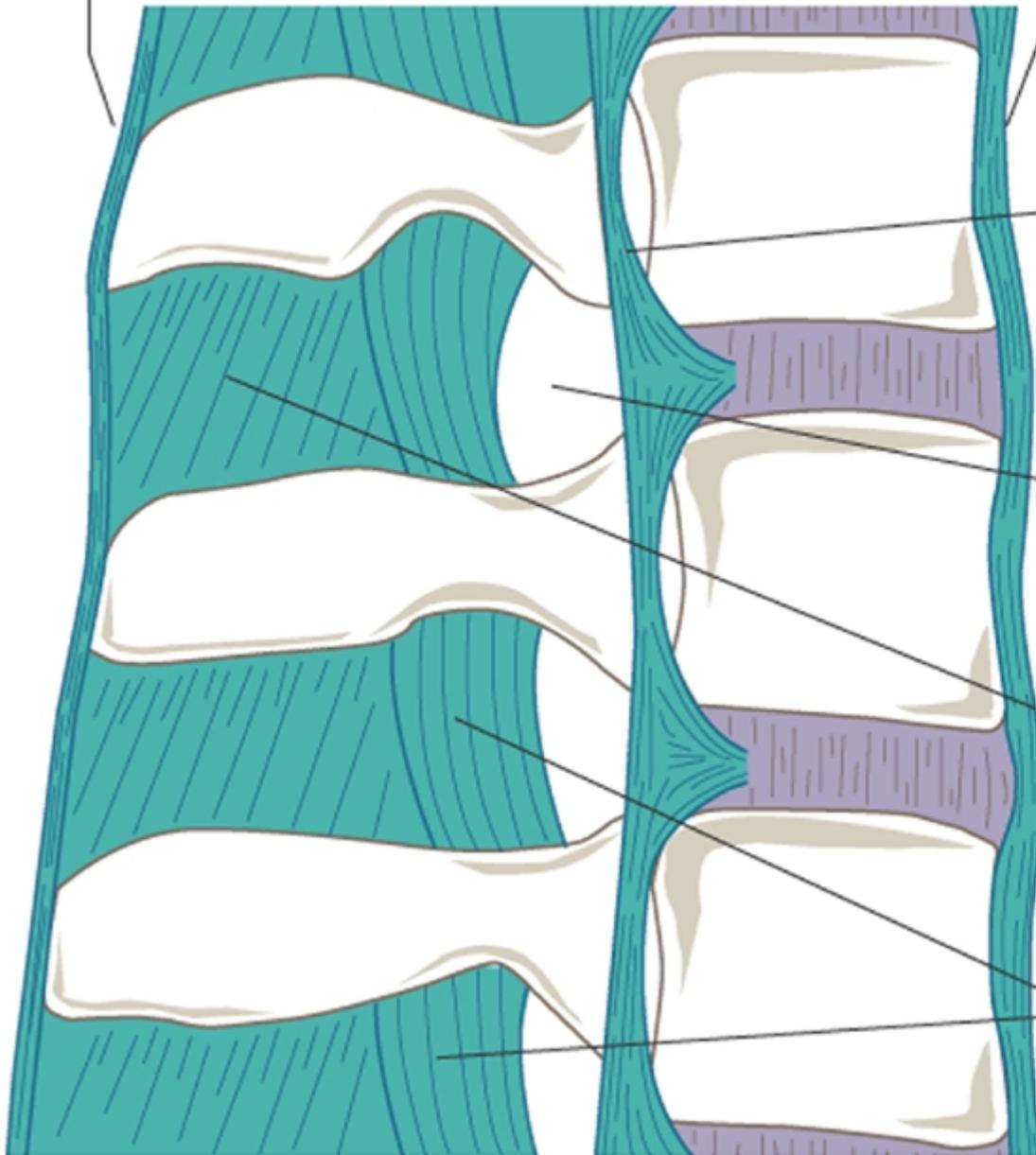
Anterior
longitudinal
ligament

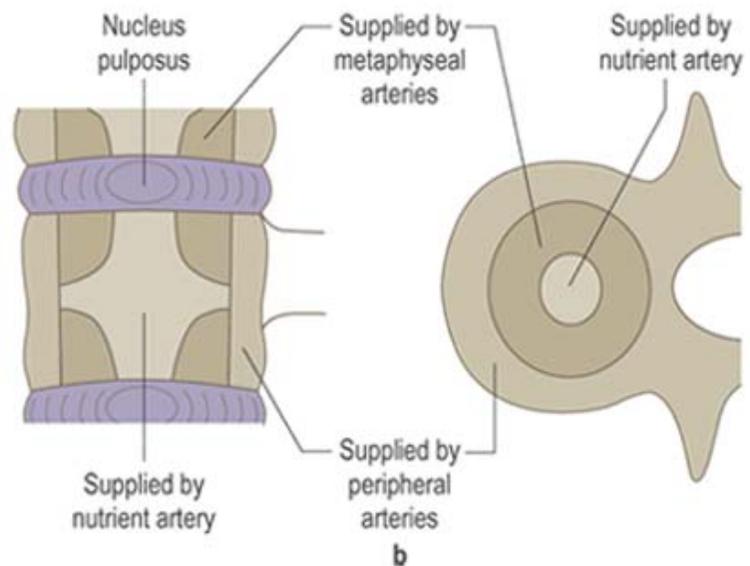
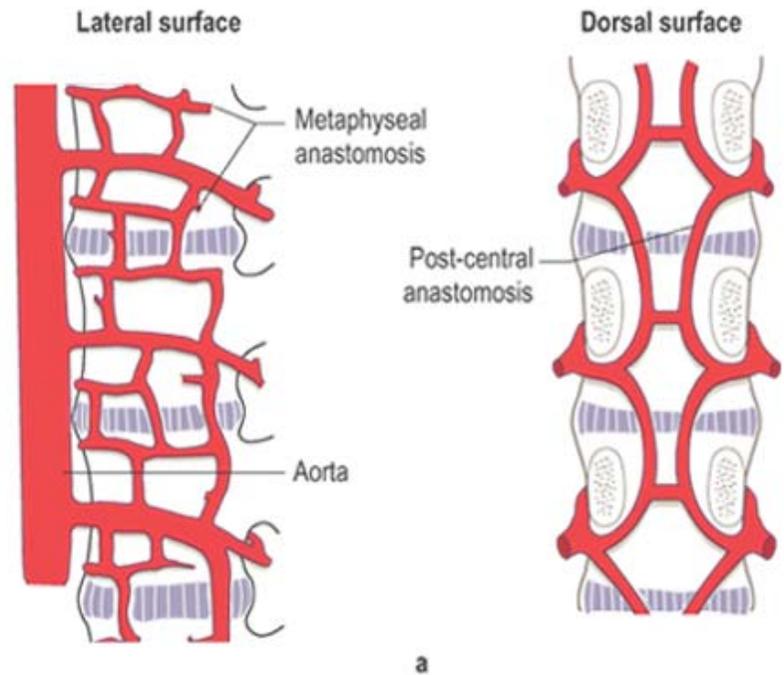
Posterior
longitudinal
ligament

Intervertebral
foramen

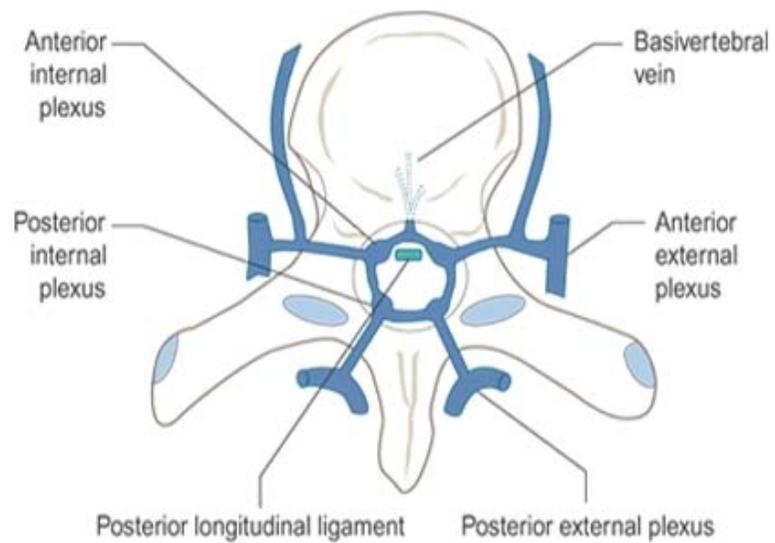
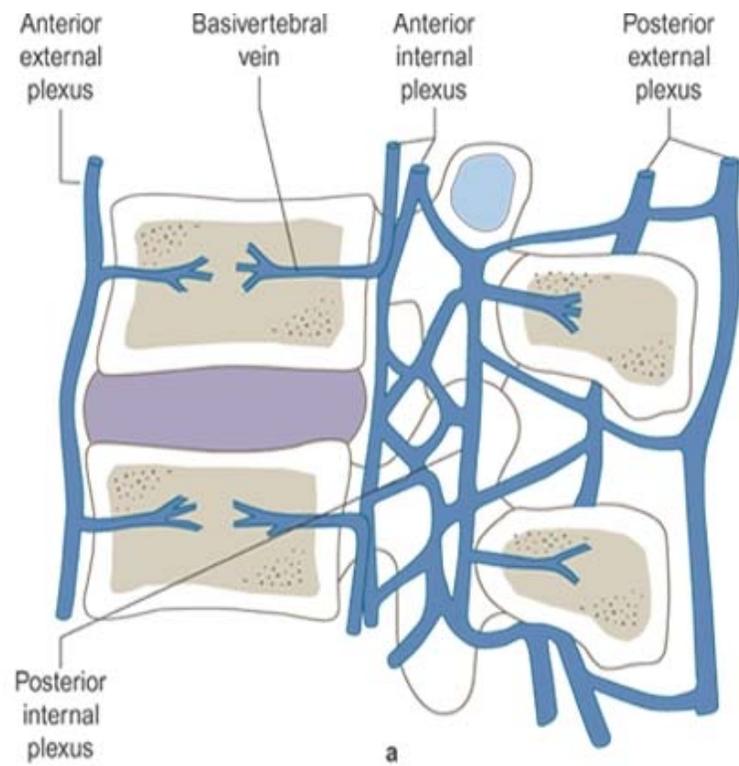
Interspinous
ligament

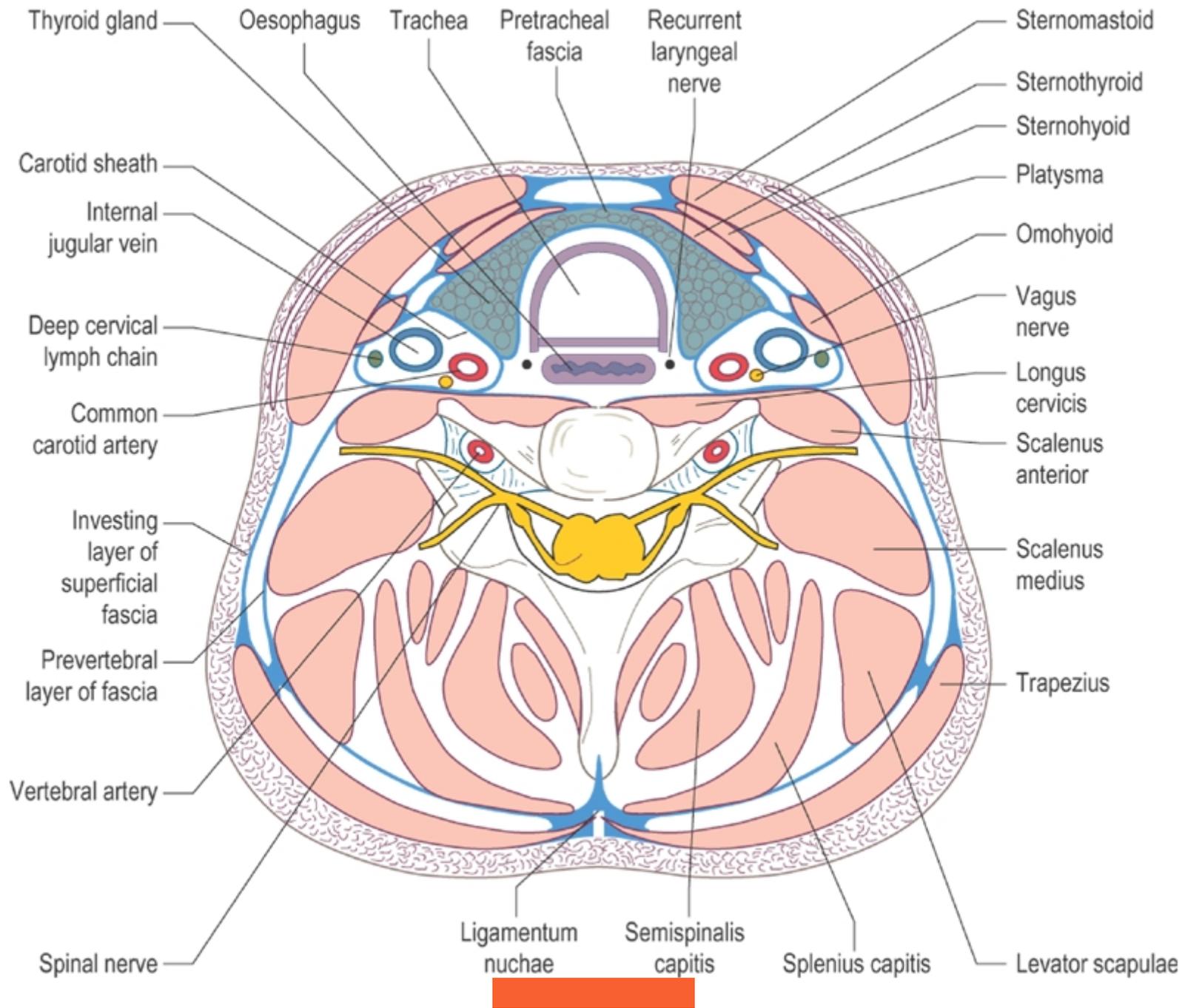
Ligamentum
flavum

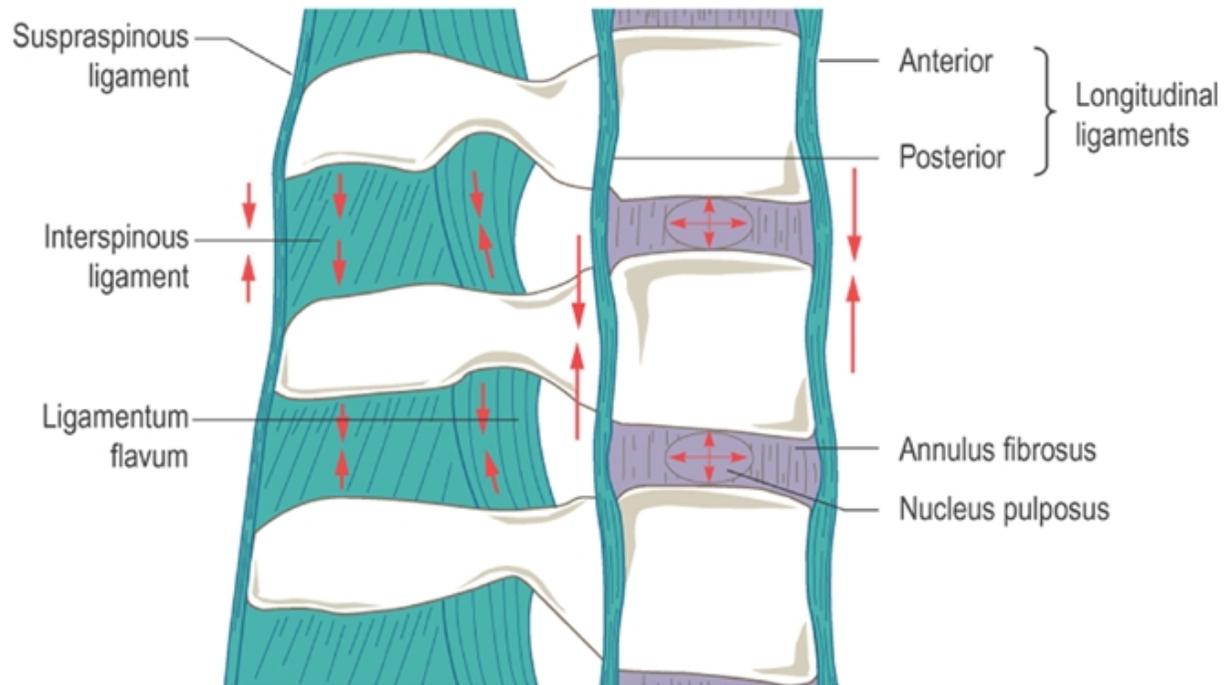
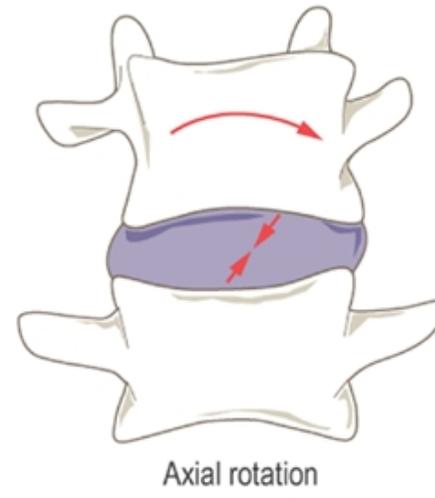
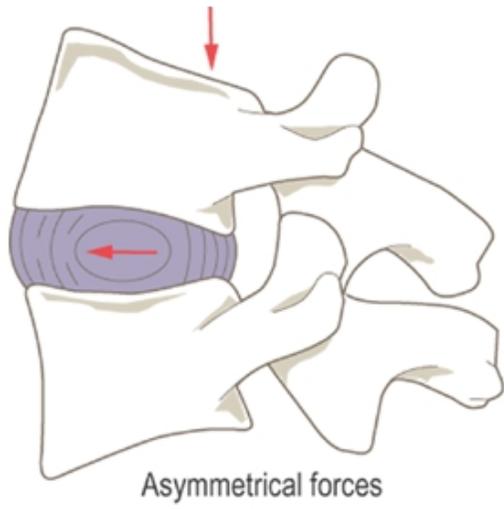




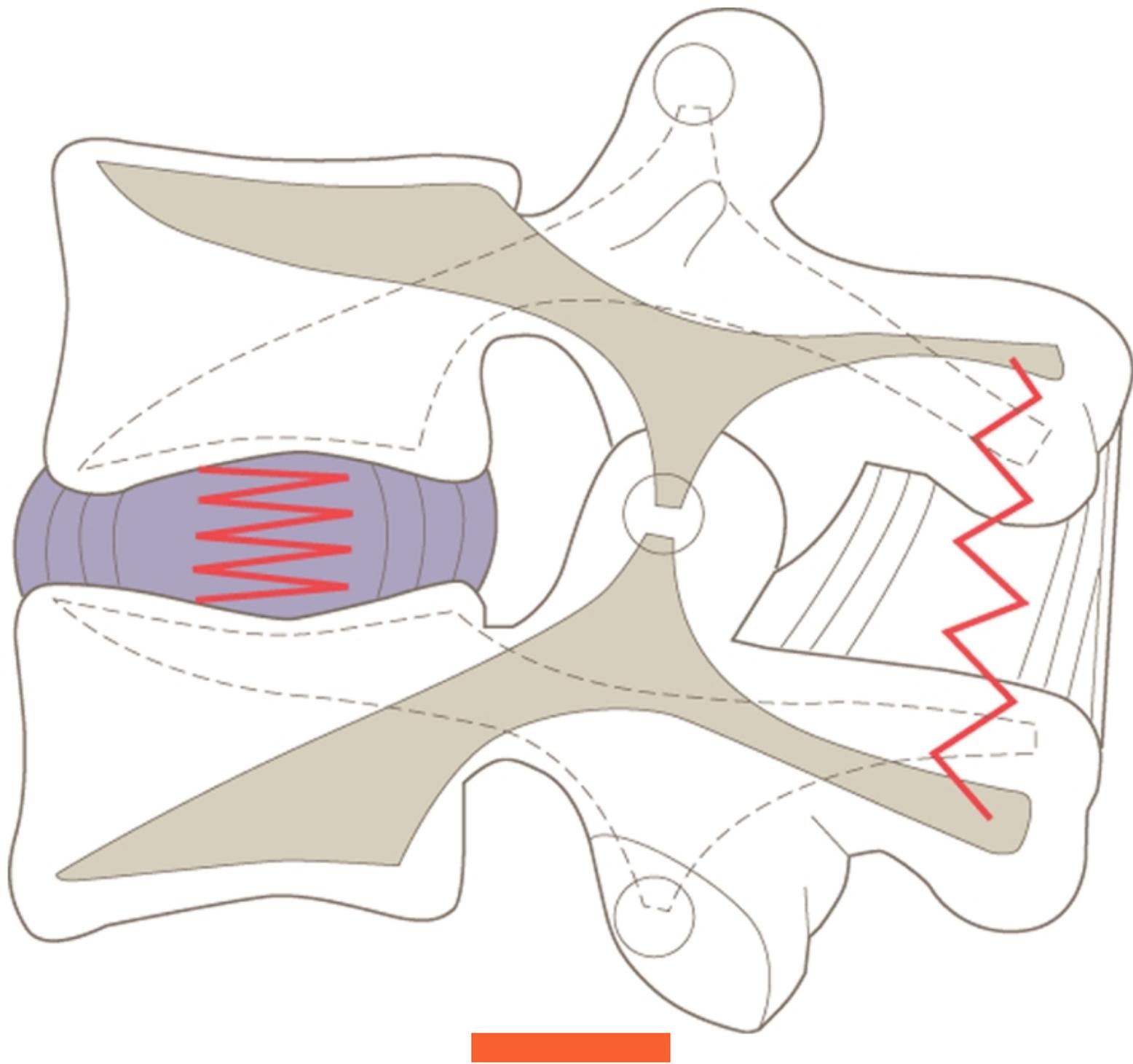
(Adapted from Ratcliffe JF (1980) The arterial anatomy of the adult human lumbar vertebral body: a microarteriographic study. *Journal of Anatomy*, 131, 57-79.)

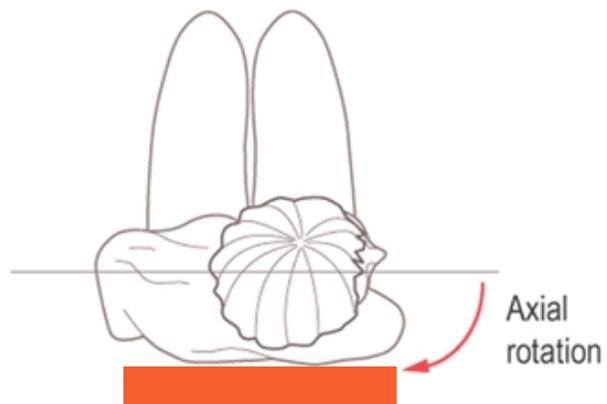
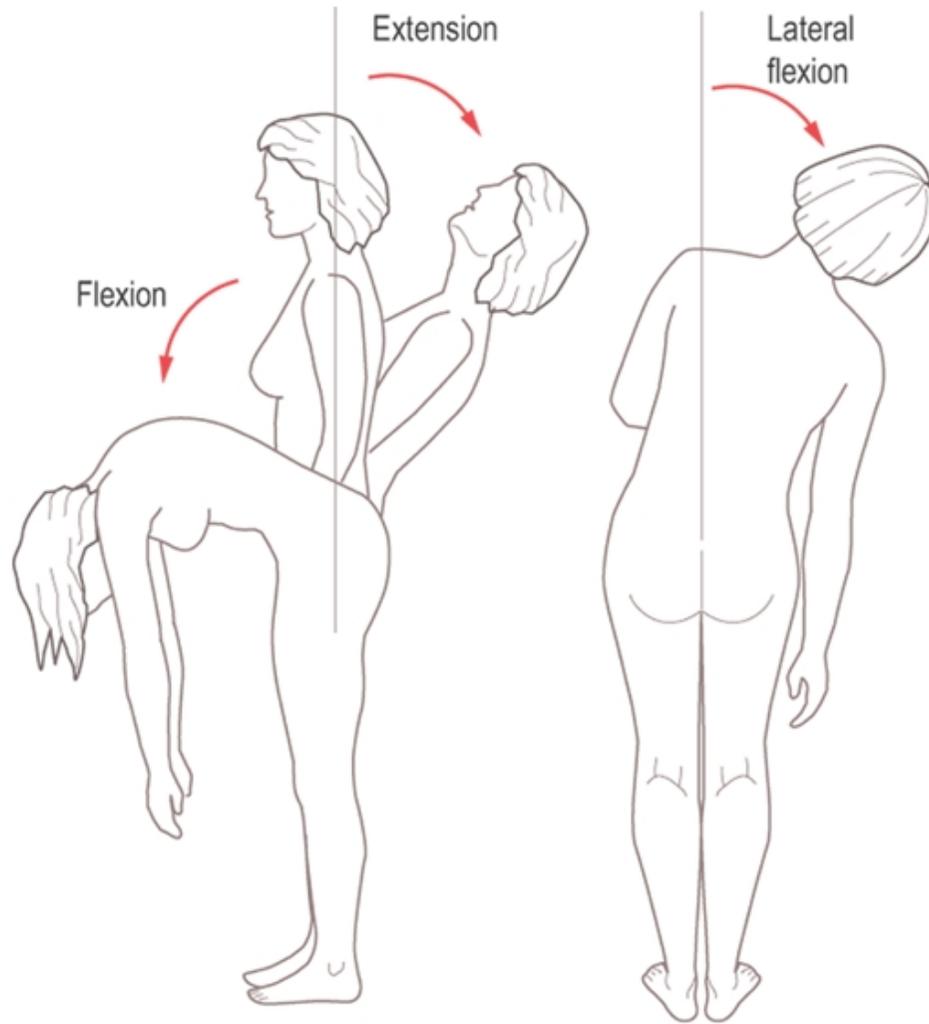


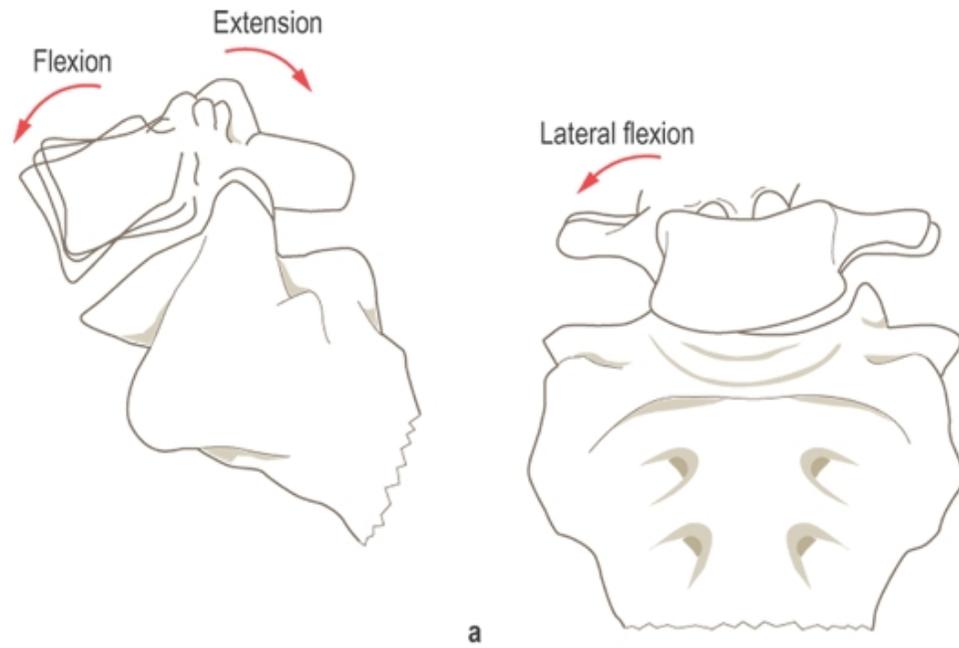




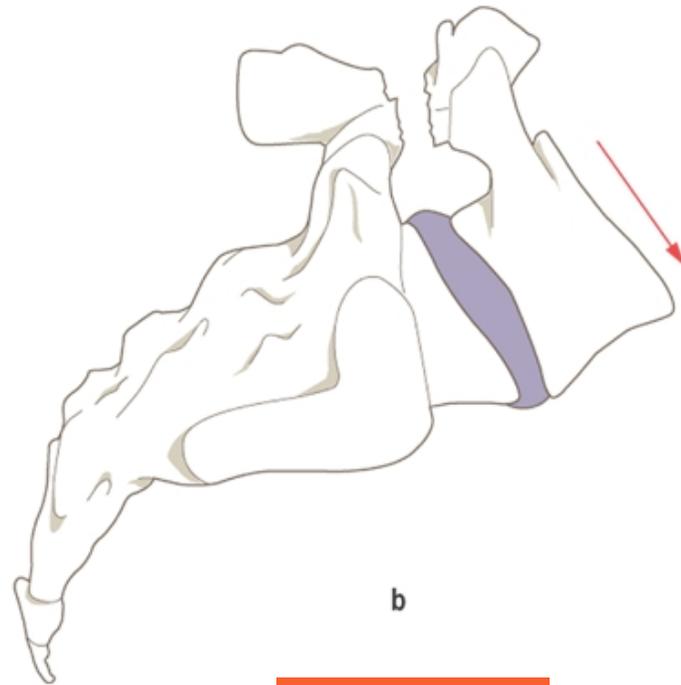
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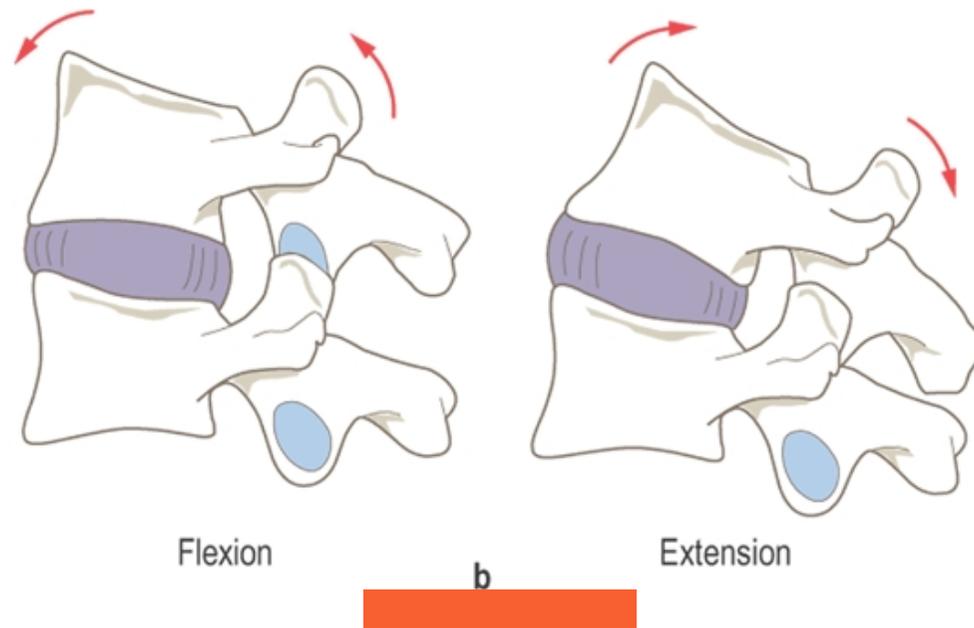
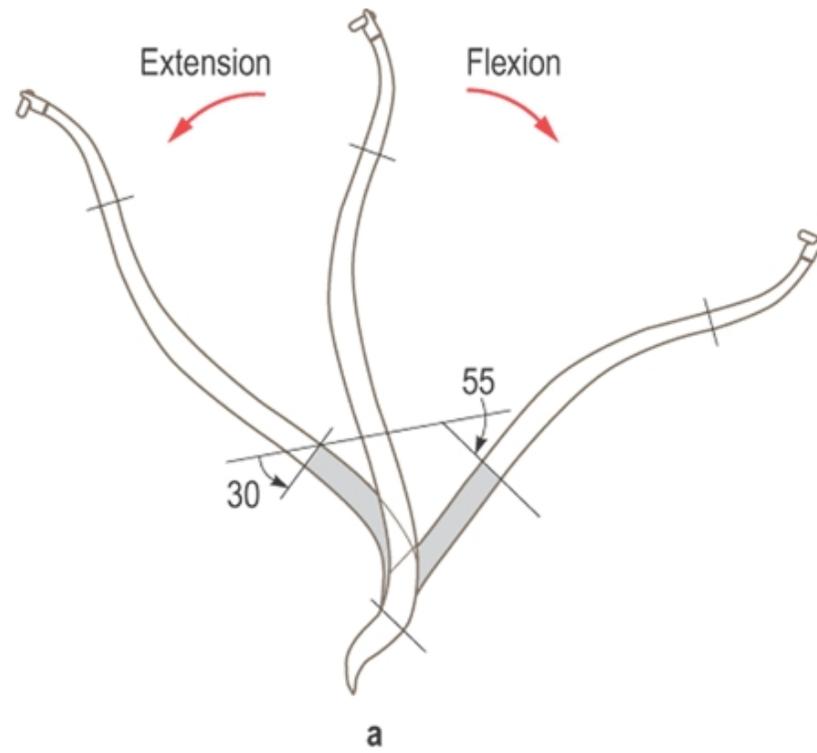


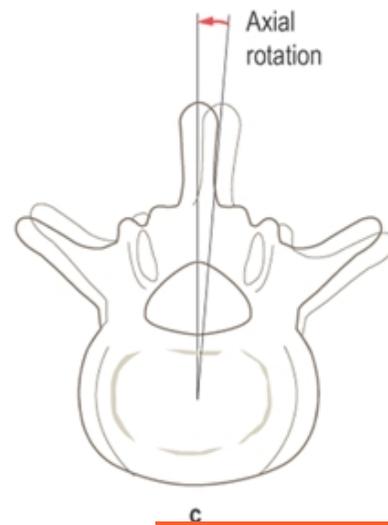
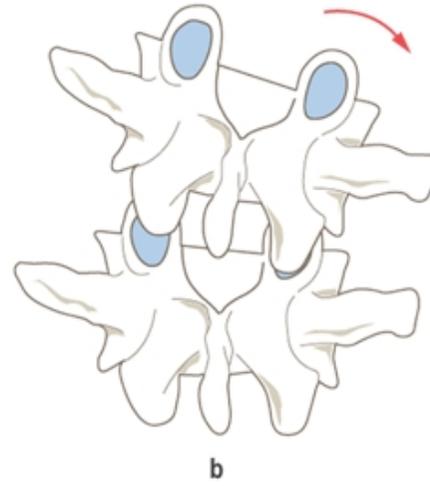


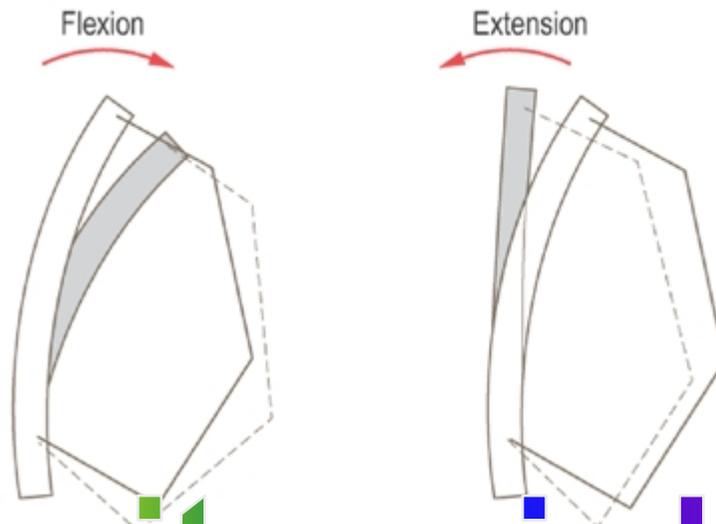
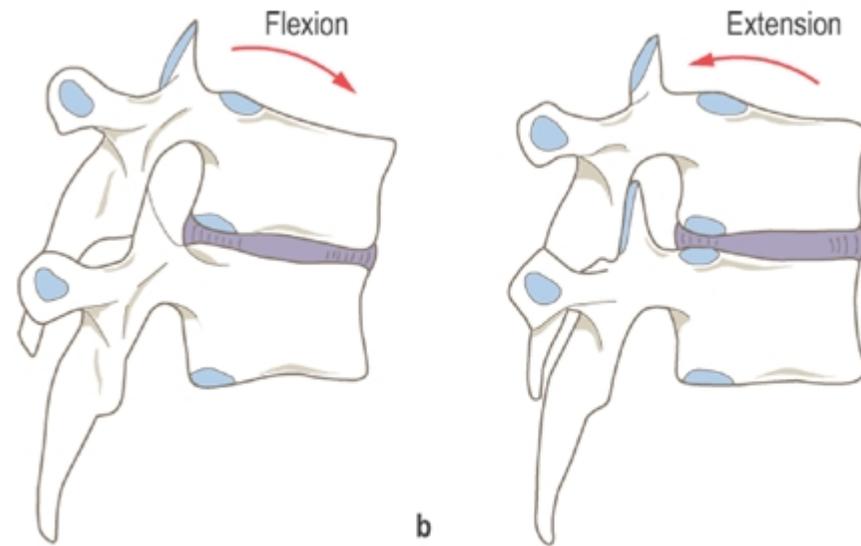
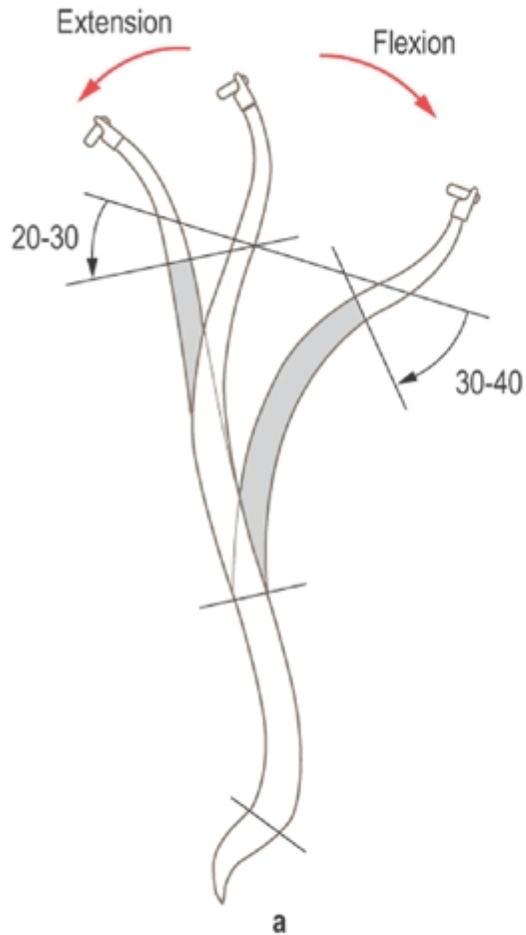
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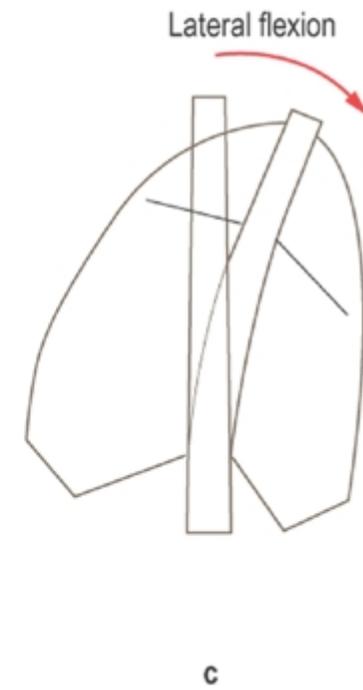
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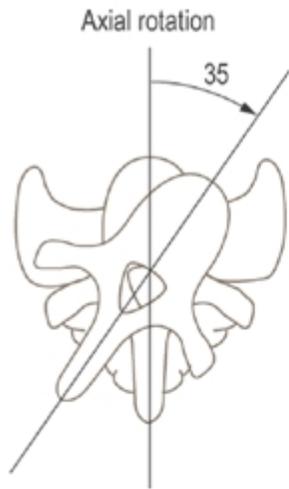




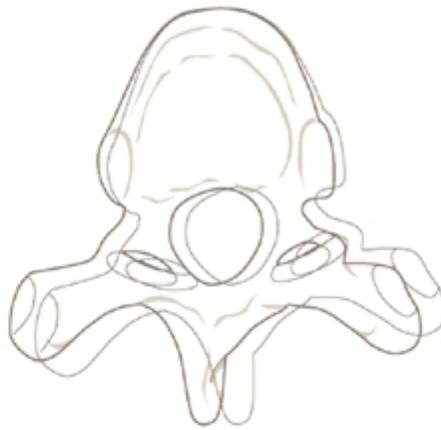


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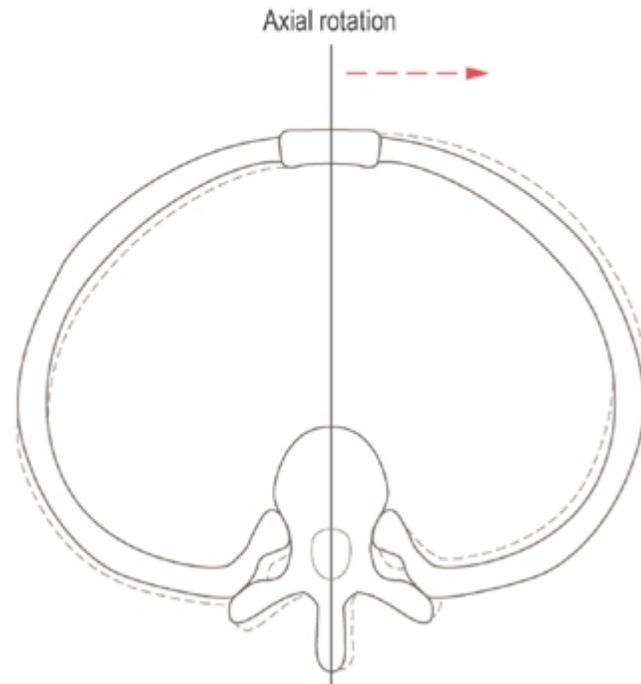




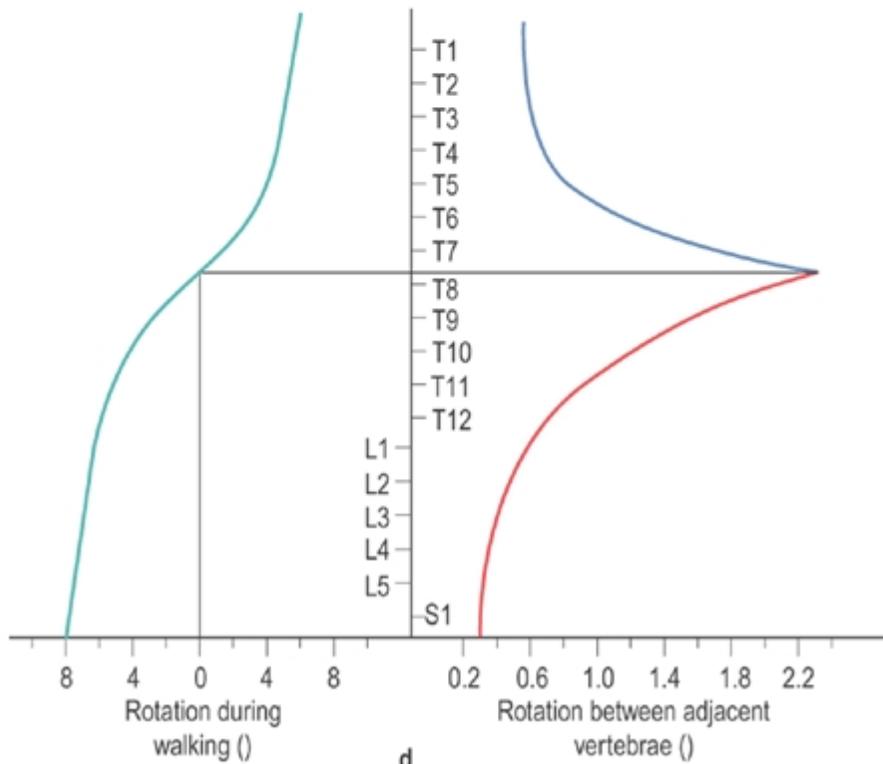
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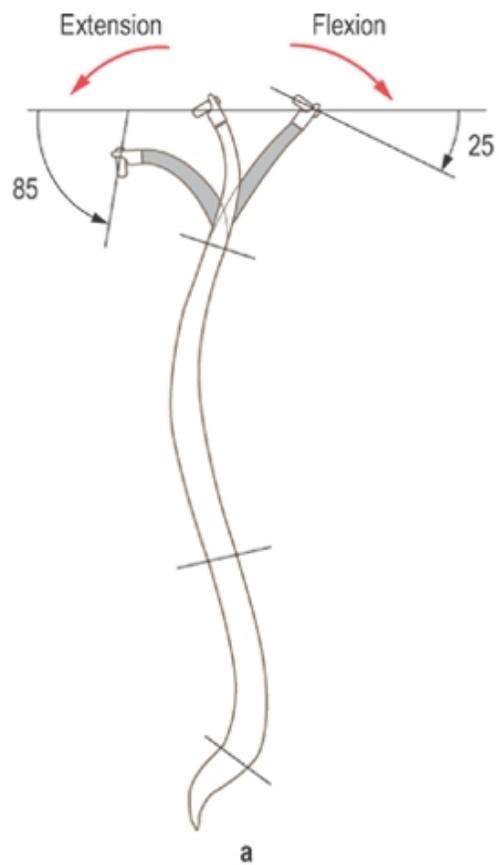


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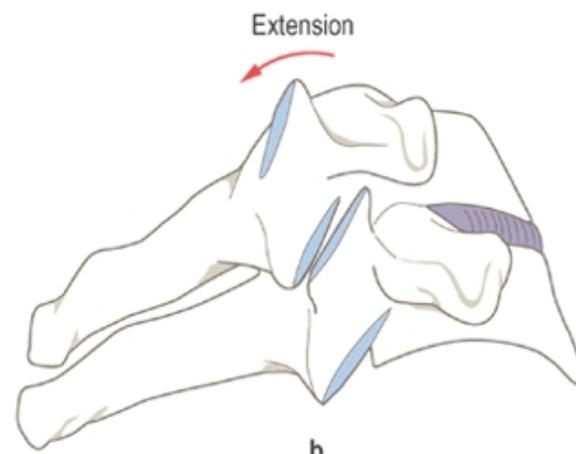
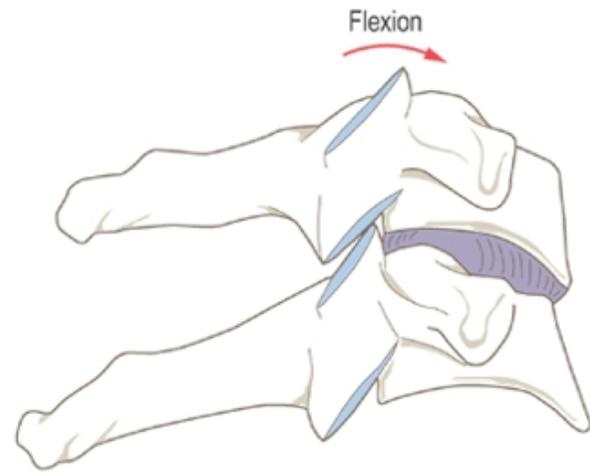


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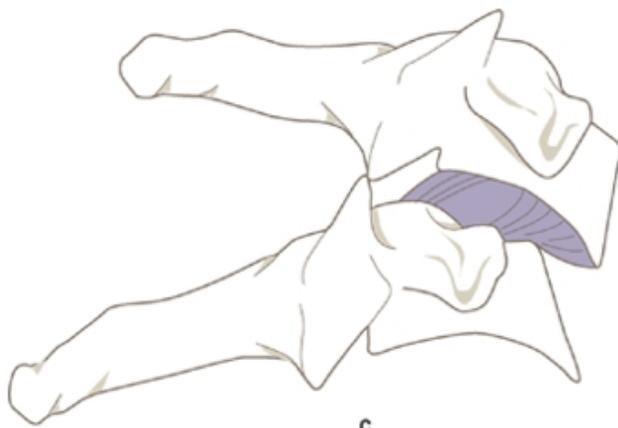




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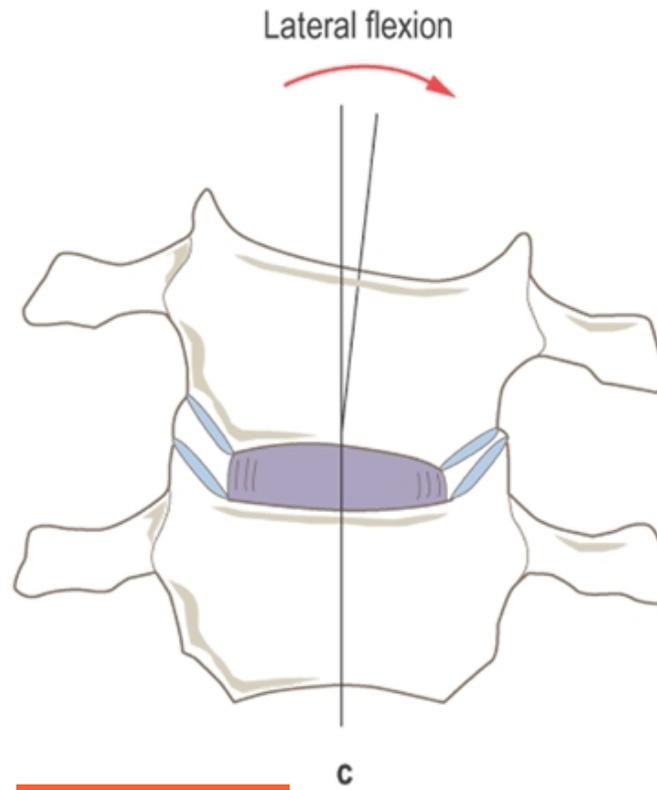
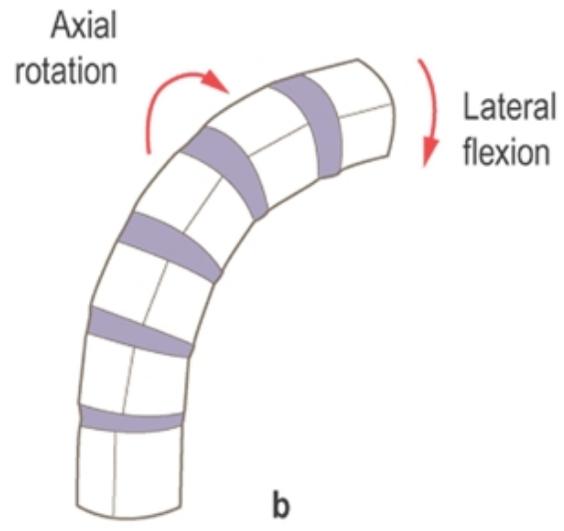
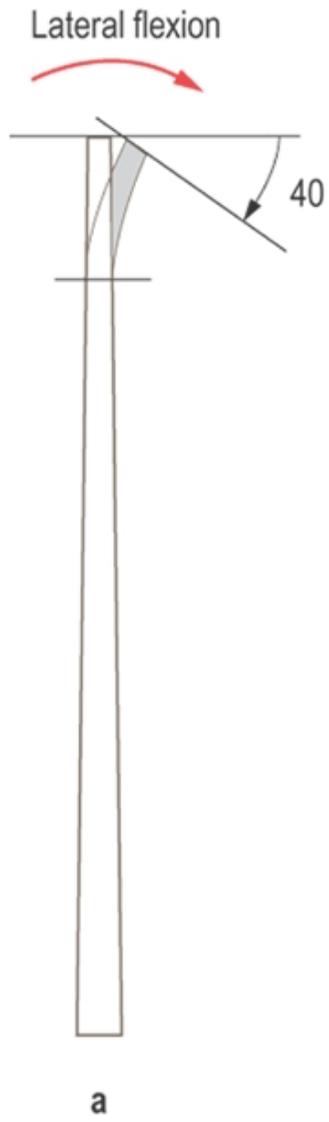


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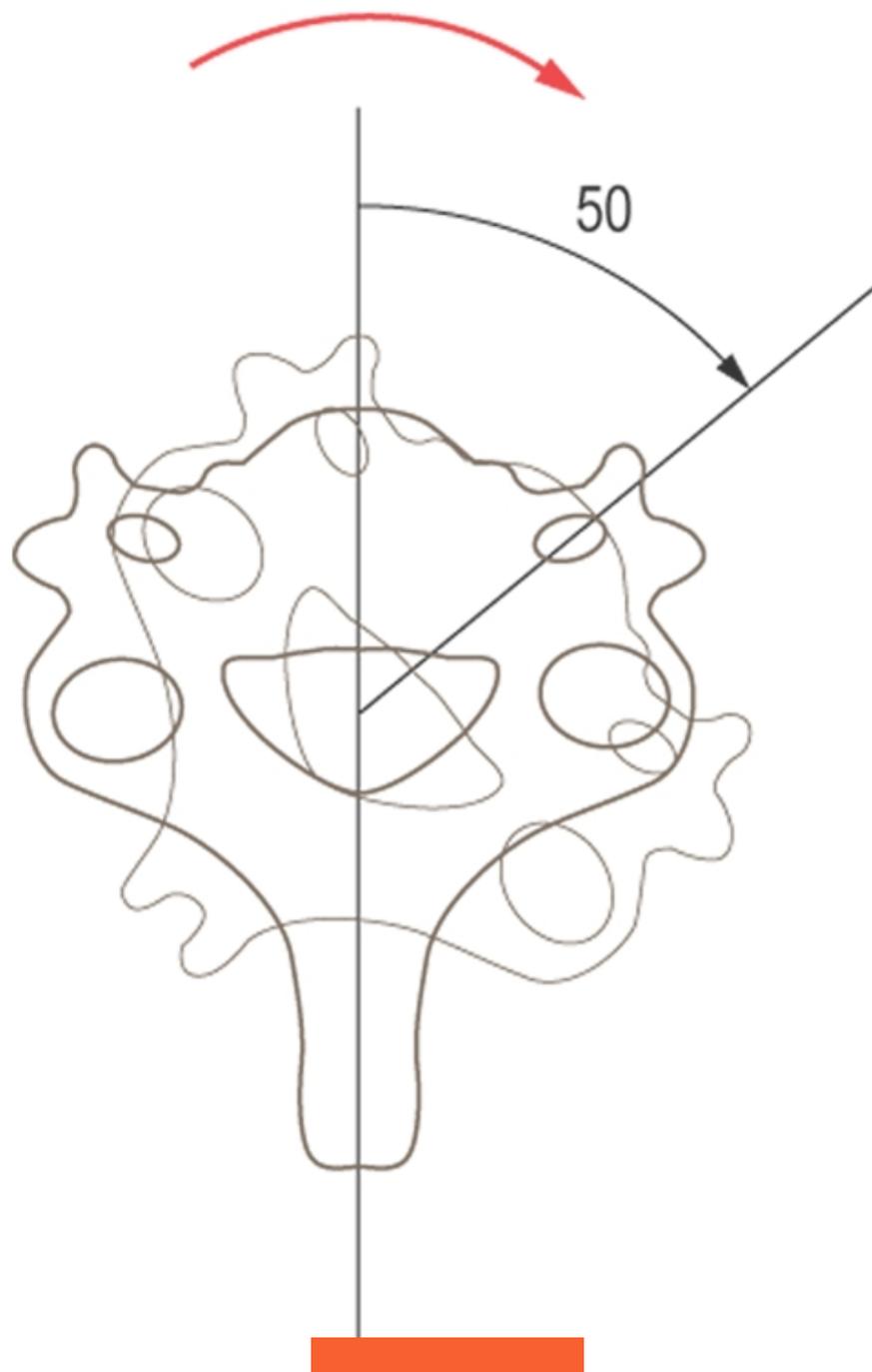


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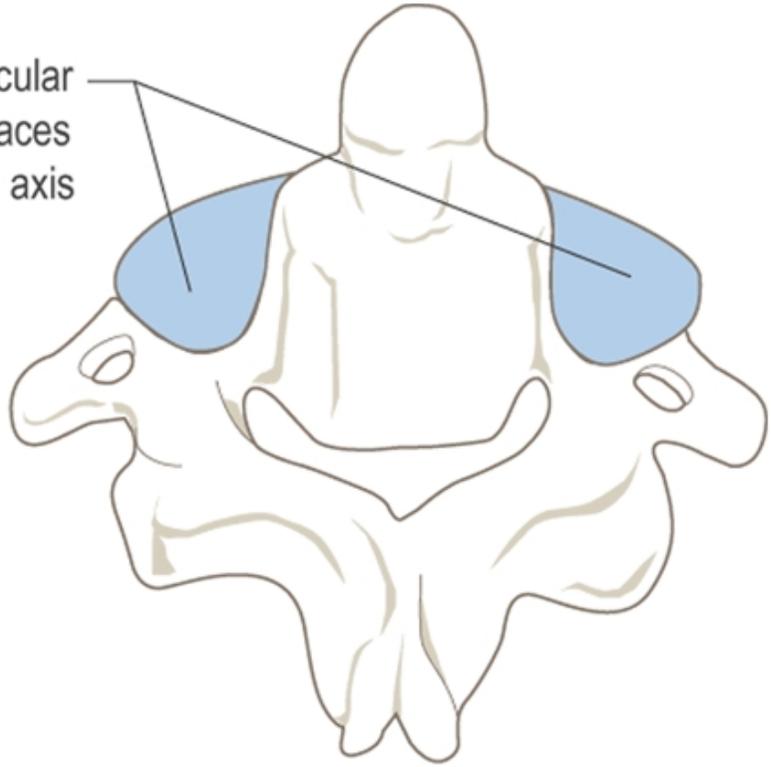




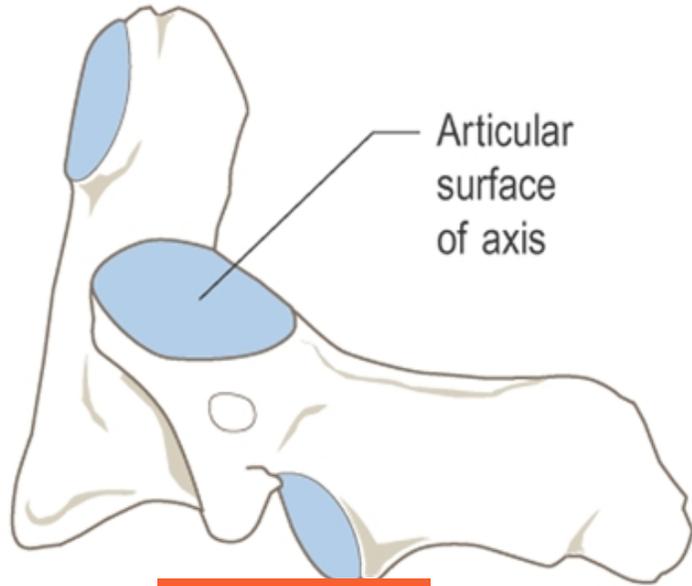
Axial rotation

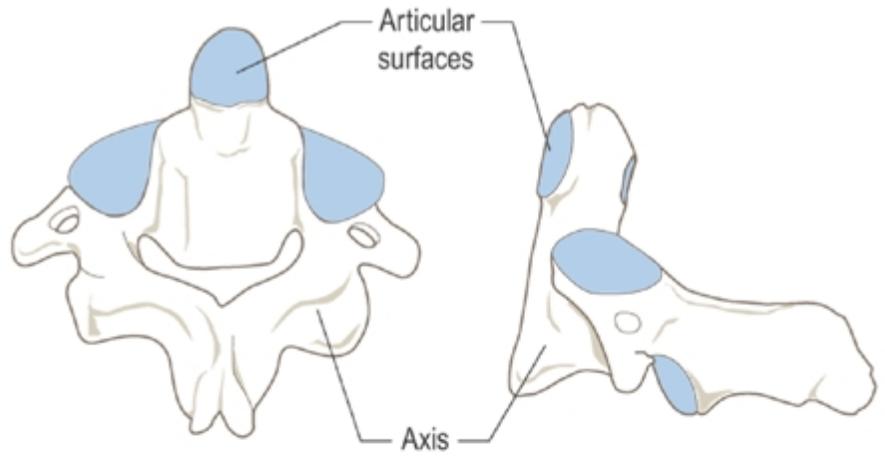
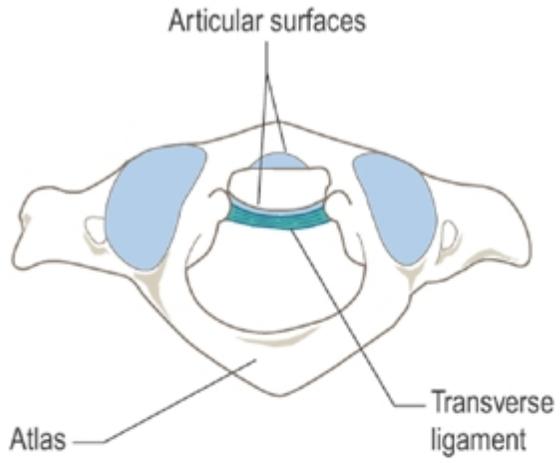


Articular surfaces of axis

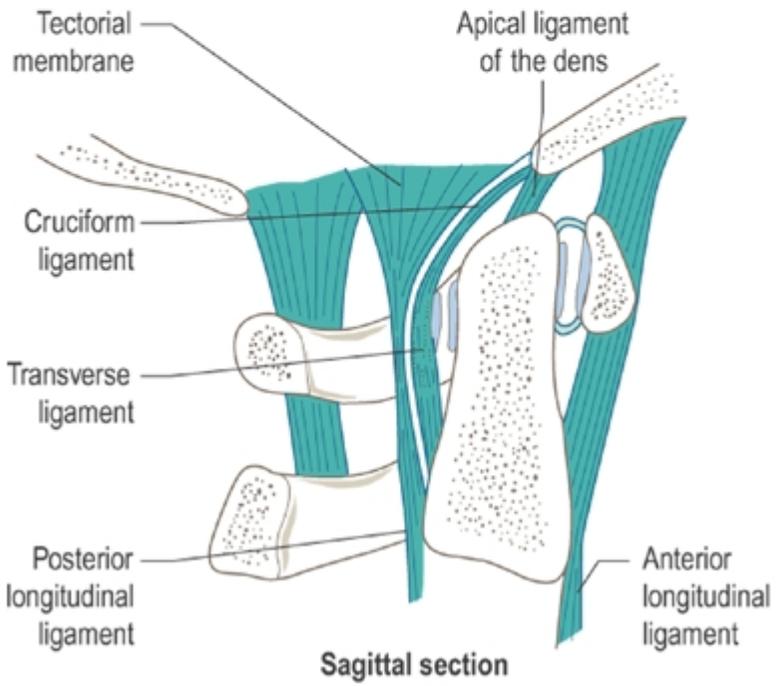


Articular surface of axis

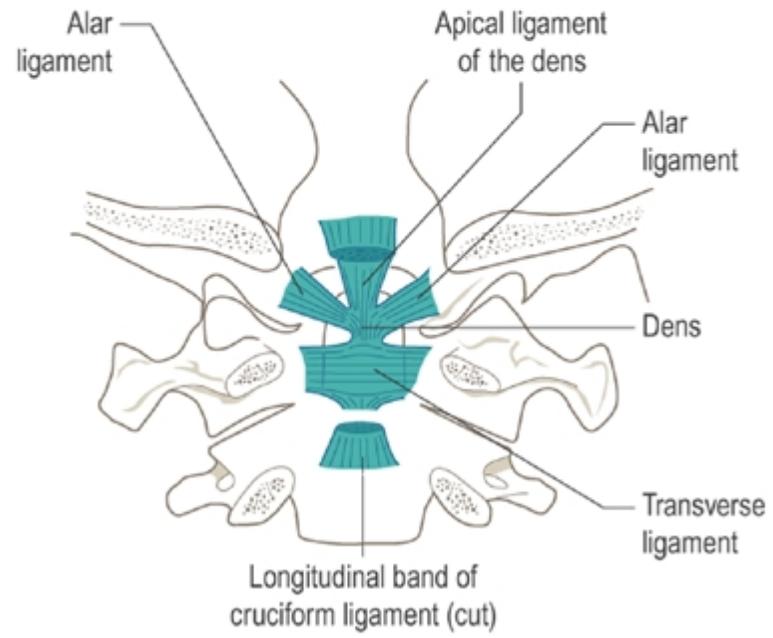




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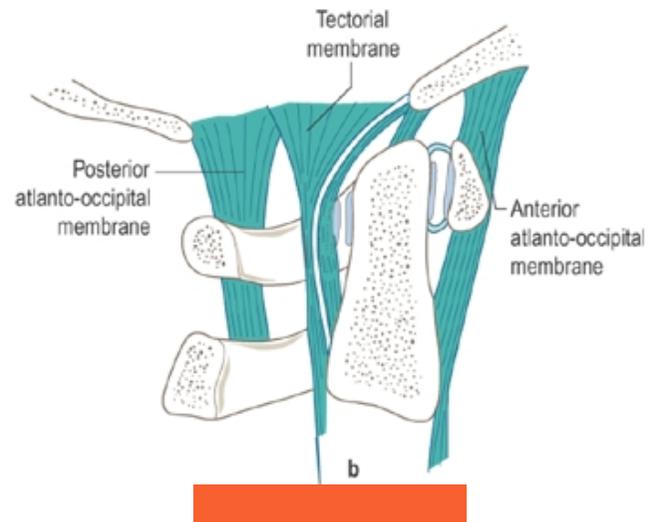
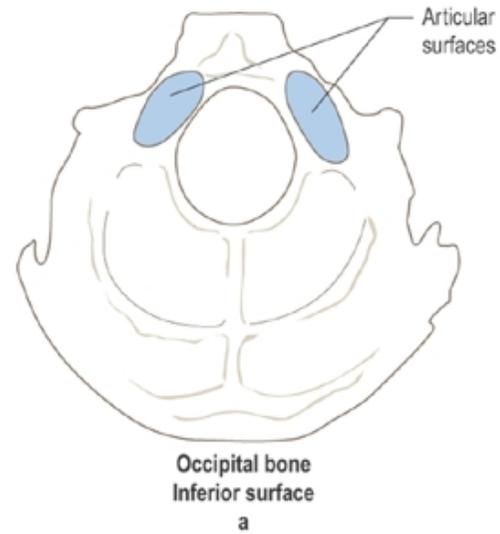
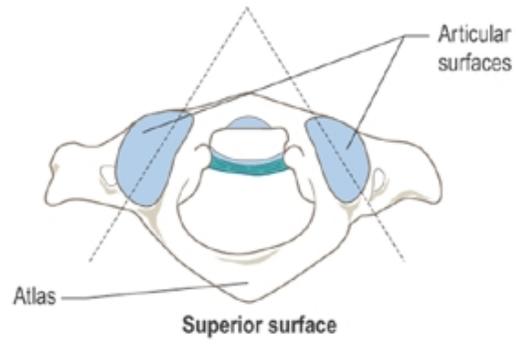


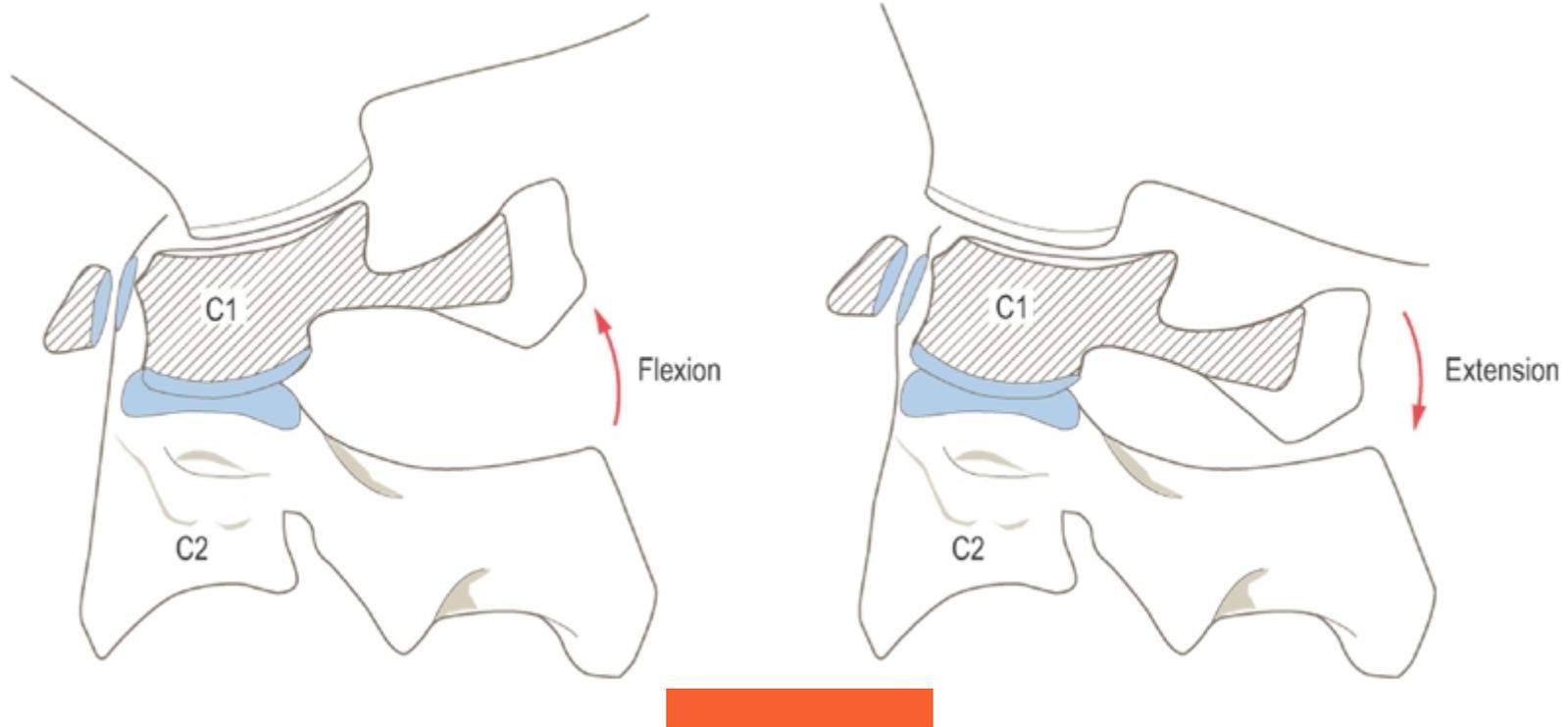
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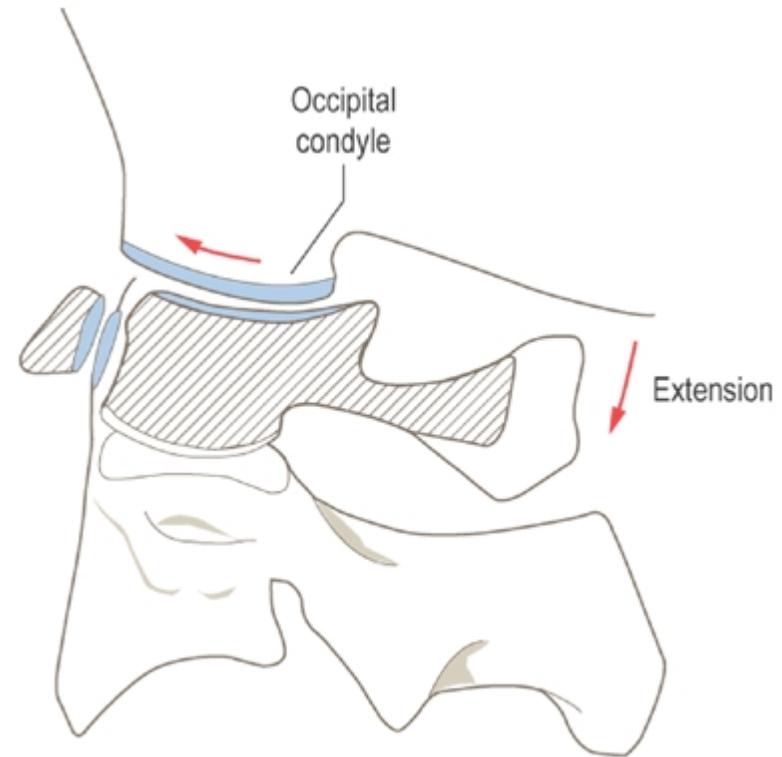
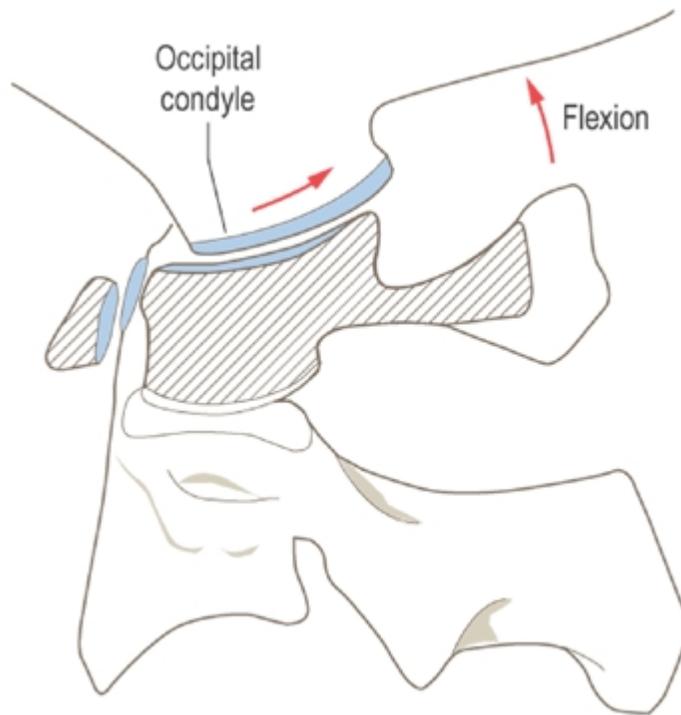
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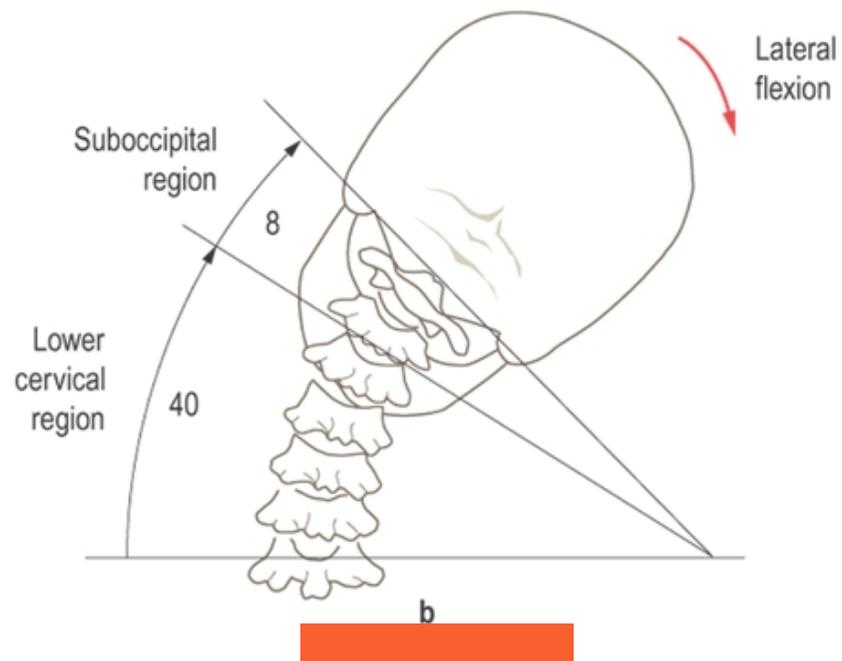
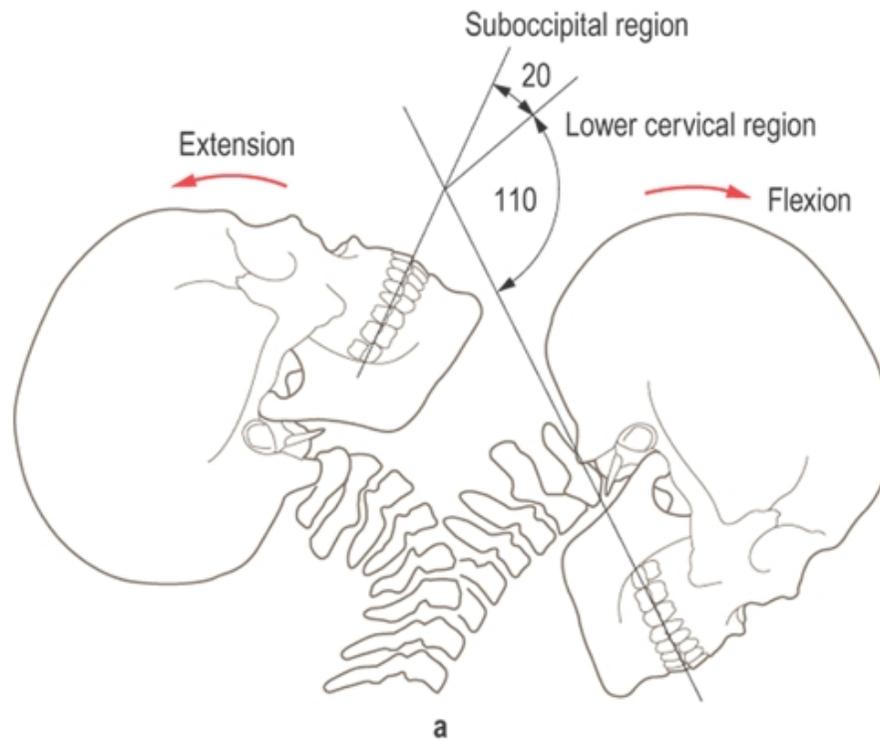


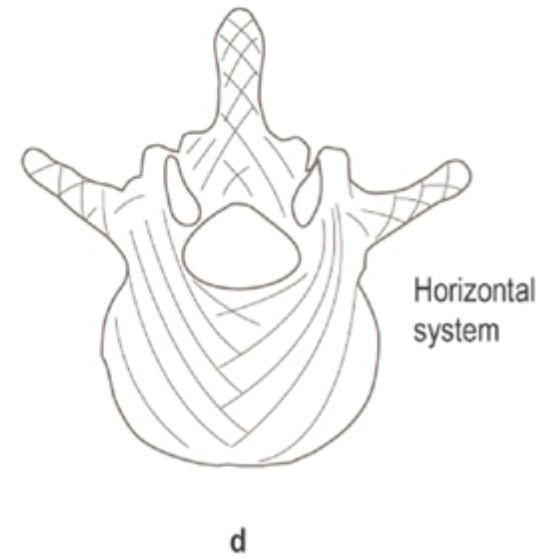
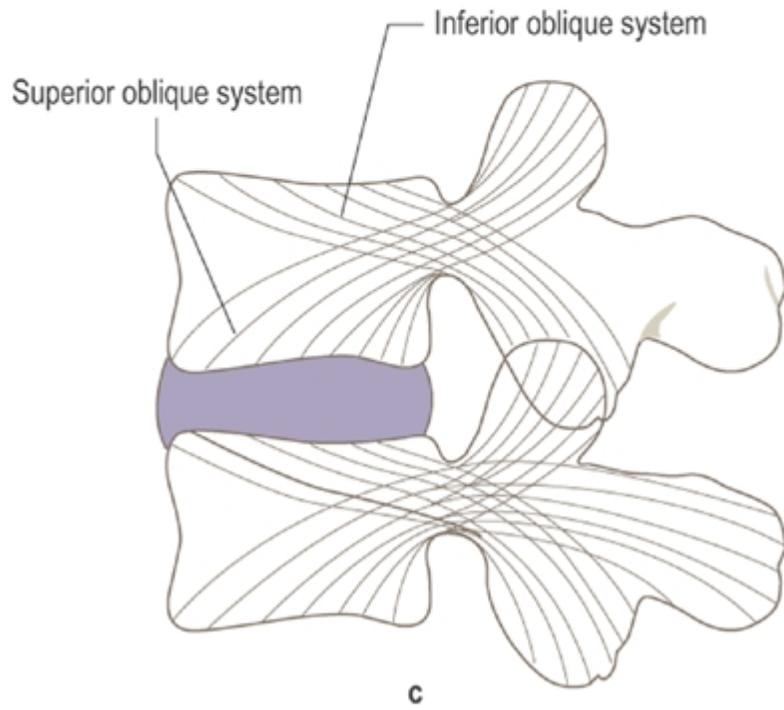
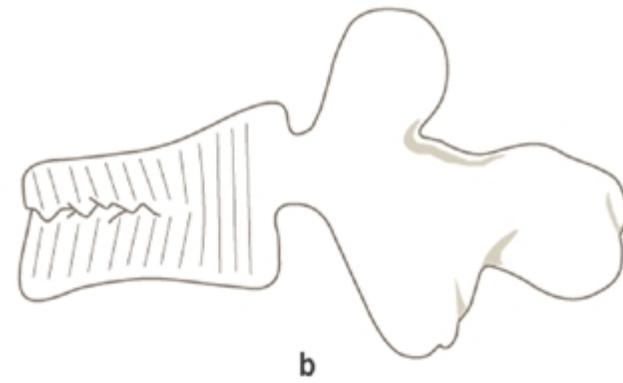
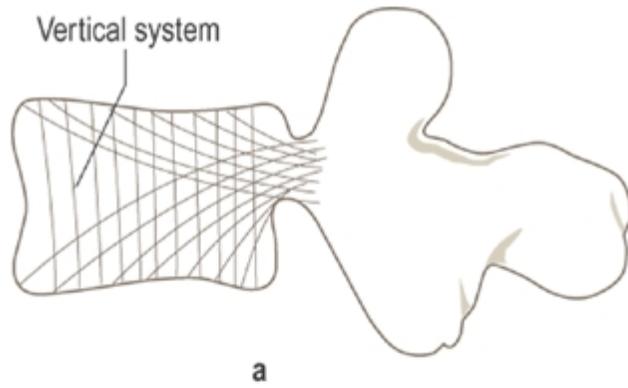


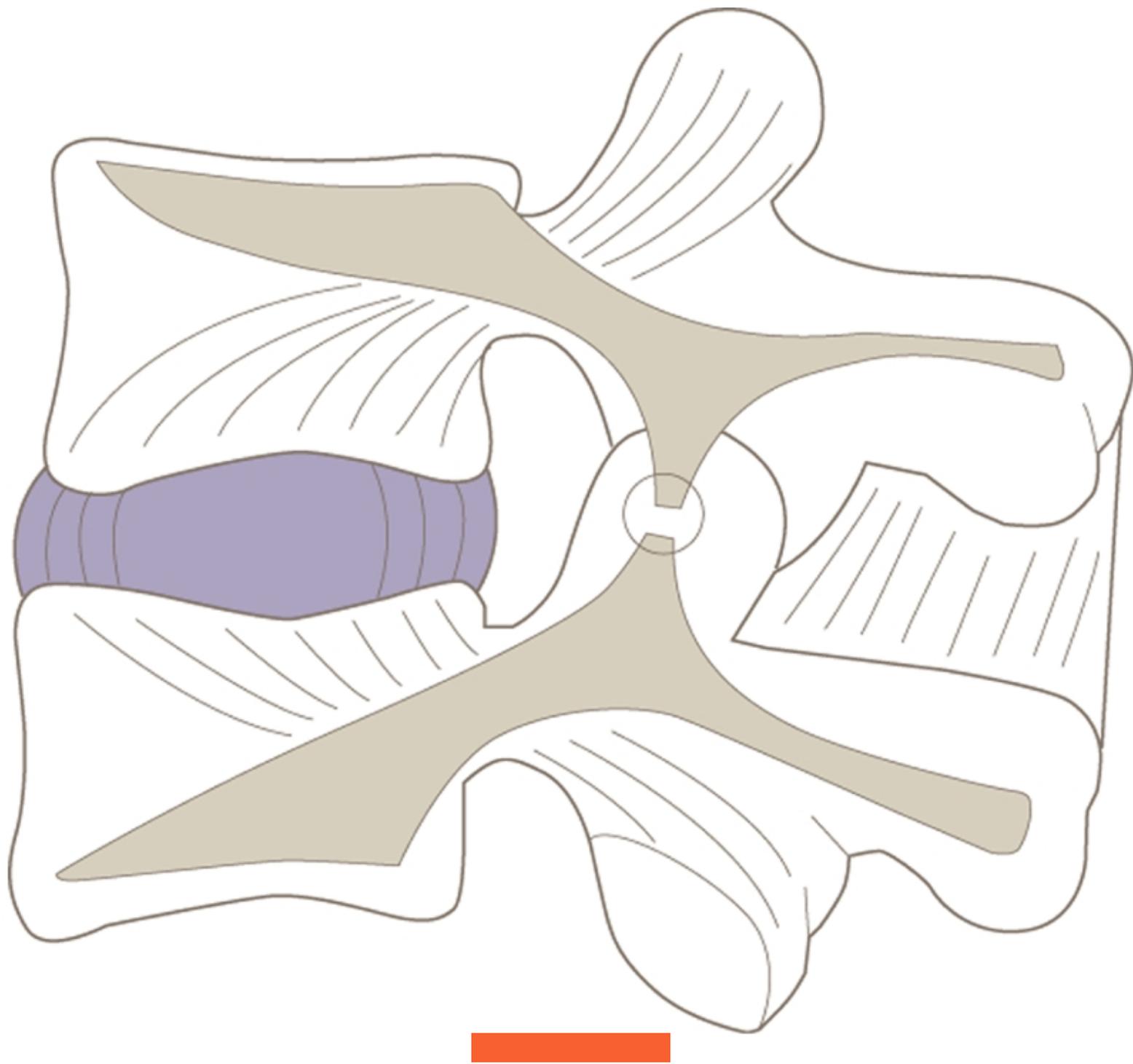
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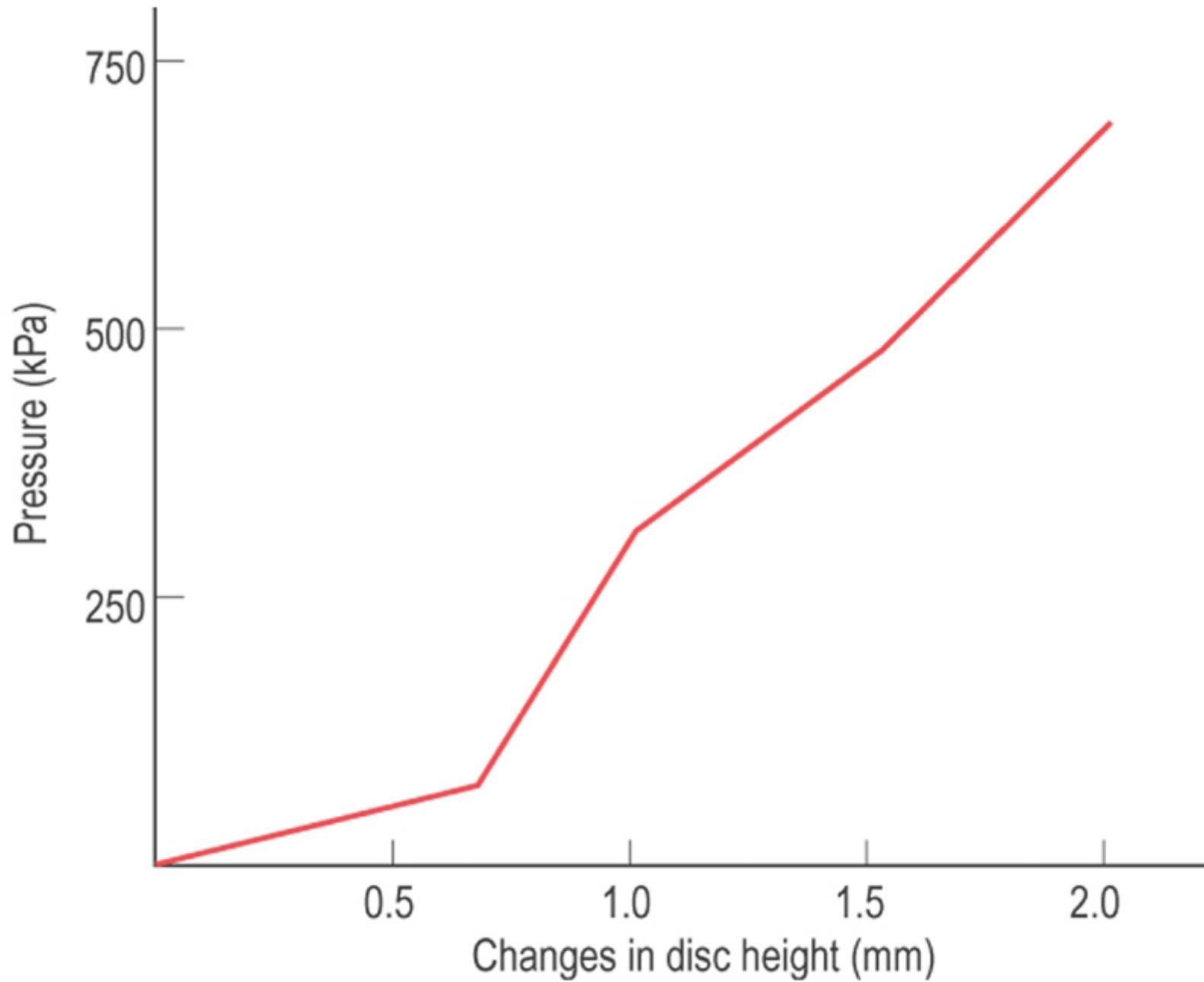


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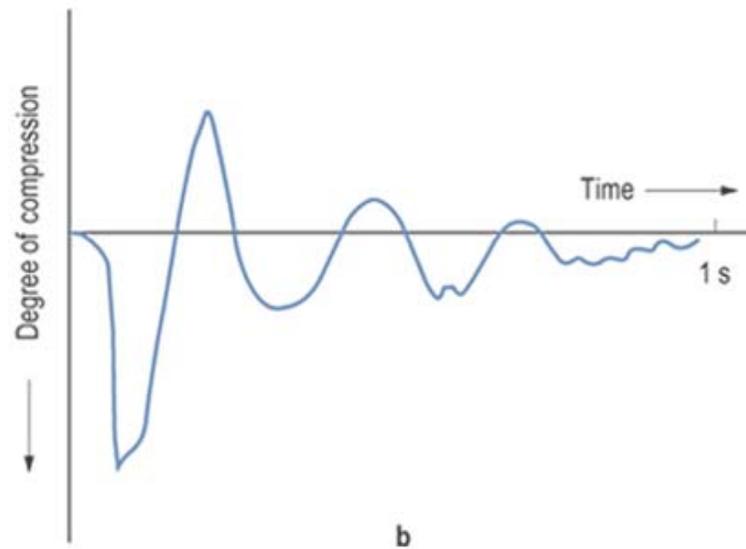
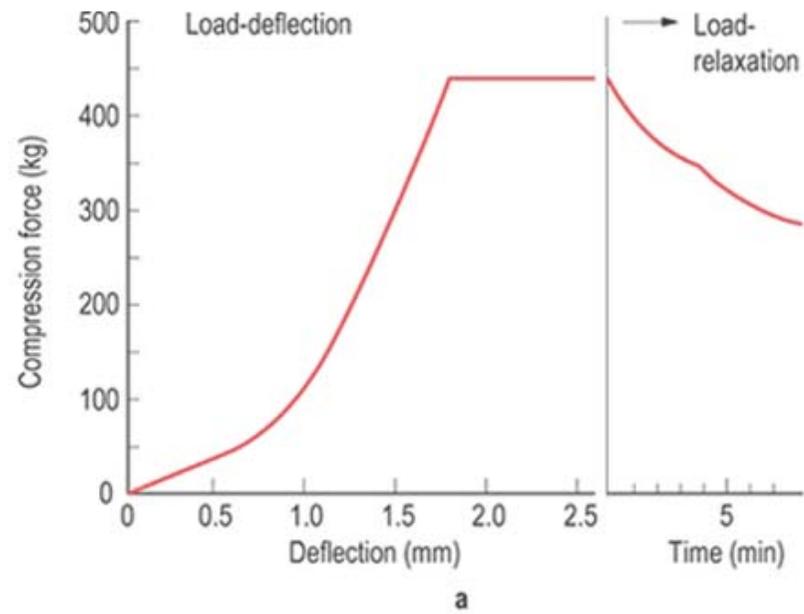








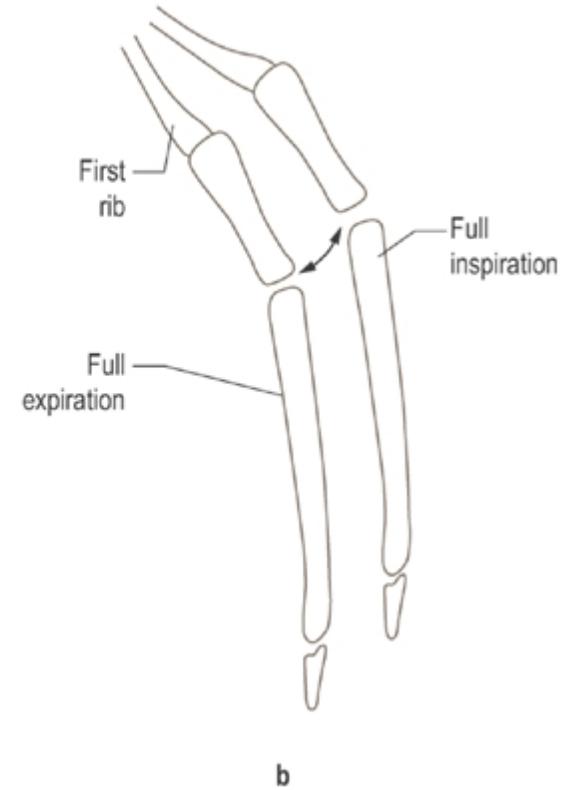
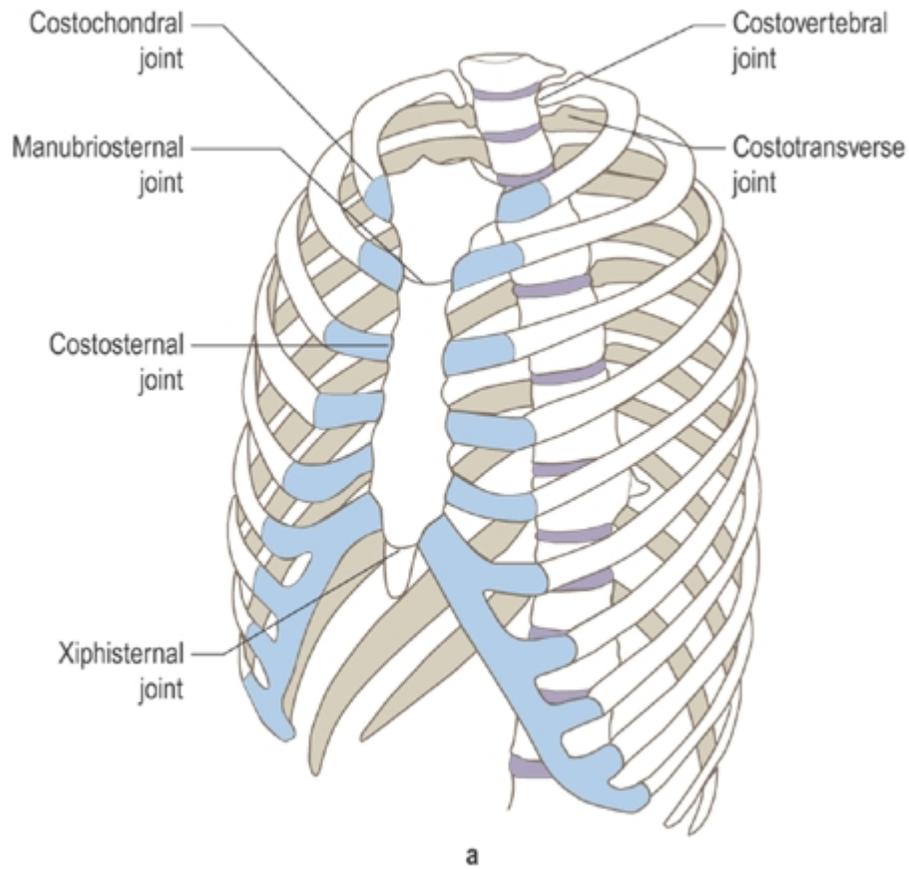
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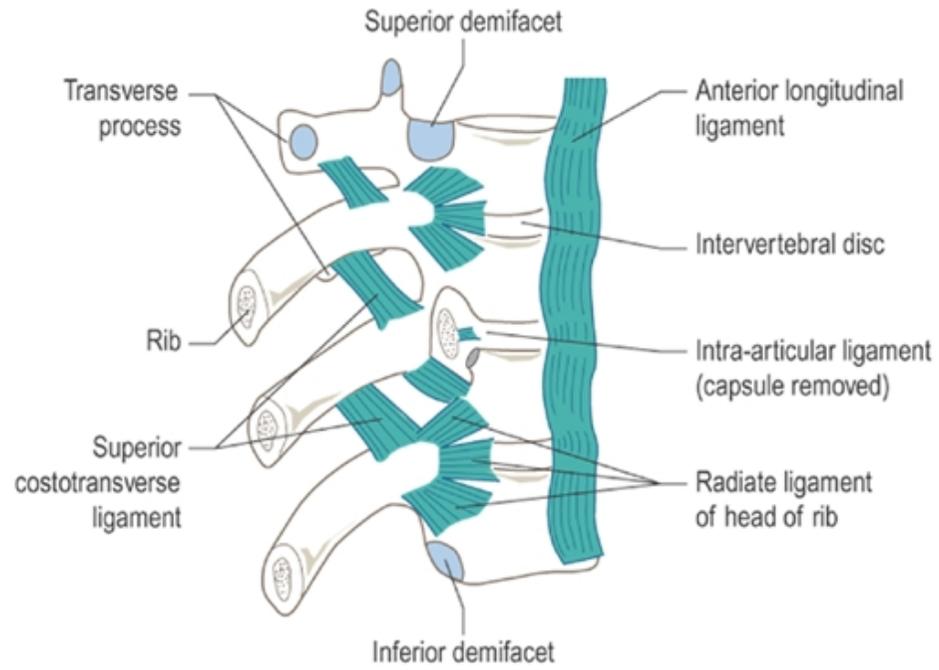
(Adapted from Markolf K and Morris J (1974) The structural components of the intervertebral disc. *Journal of Bone and Joint Surgery*, 56A, 675-687.)

(Adapted from Hirsch CS (1995) The reaction of the intervertebral disc to compressive forces. *Journal of Bone and Joint Surgery*, 37A, 1188-1192.)

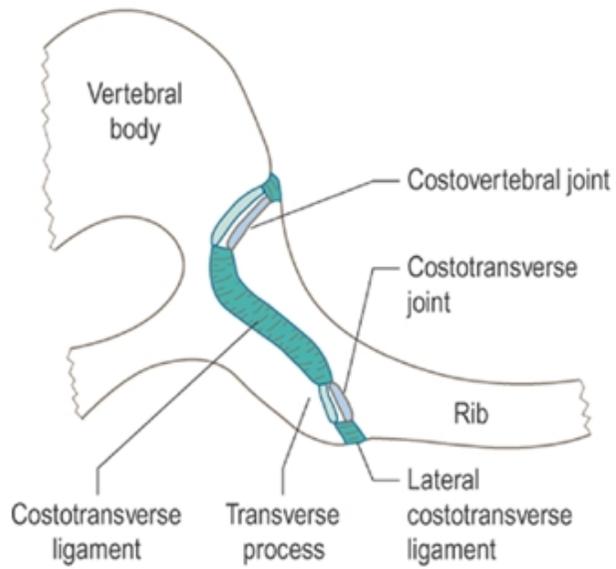




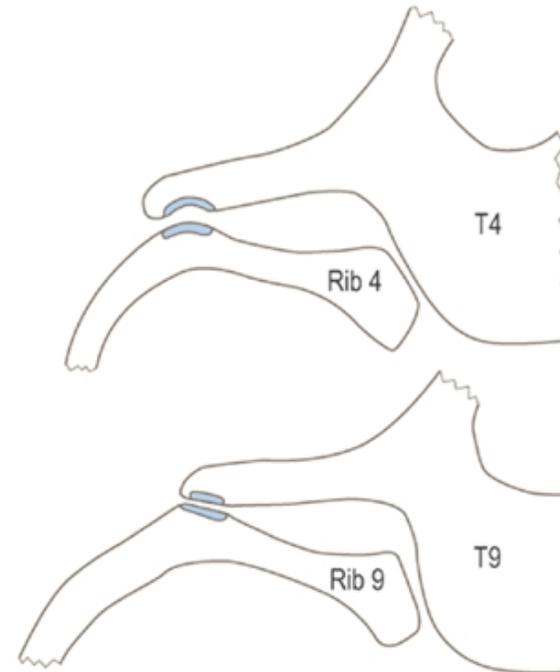
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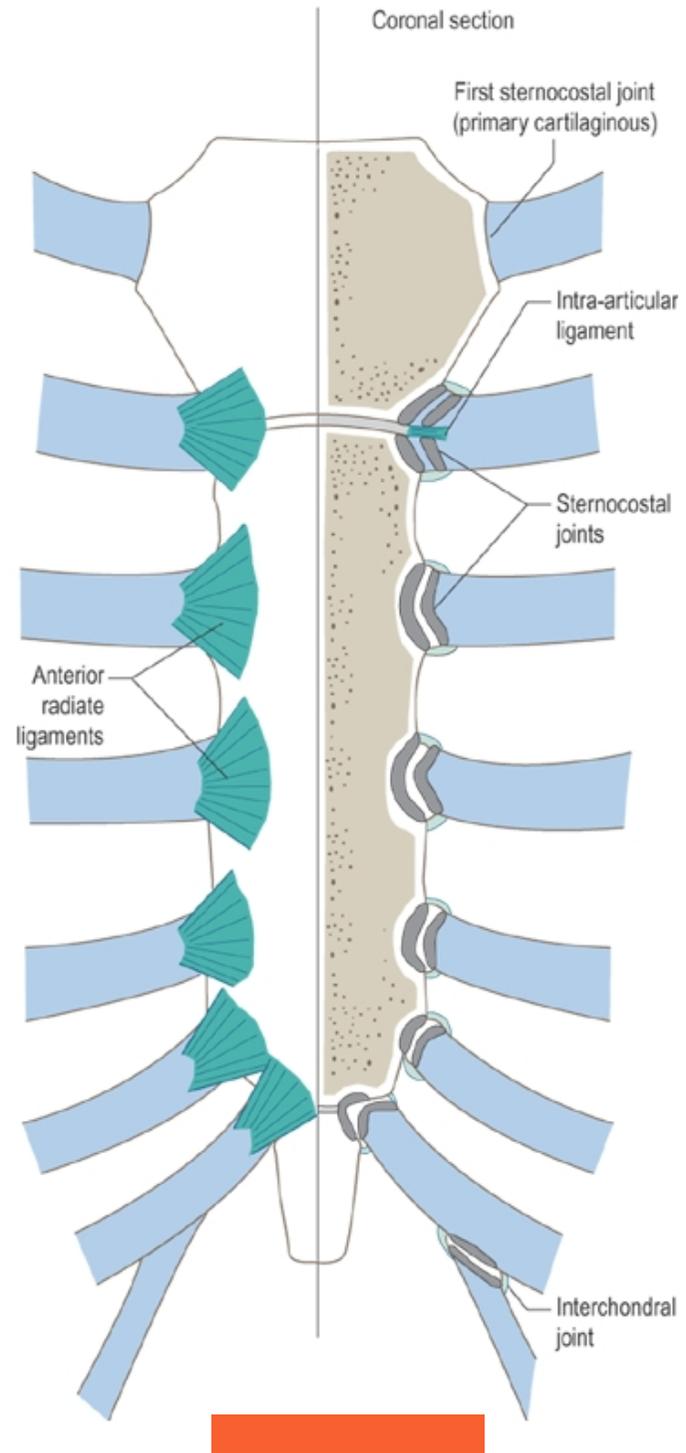


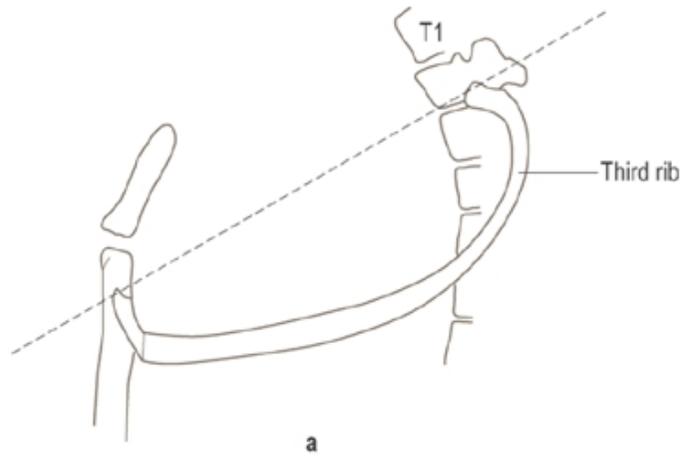
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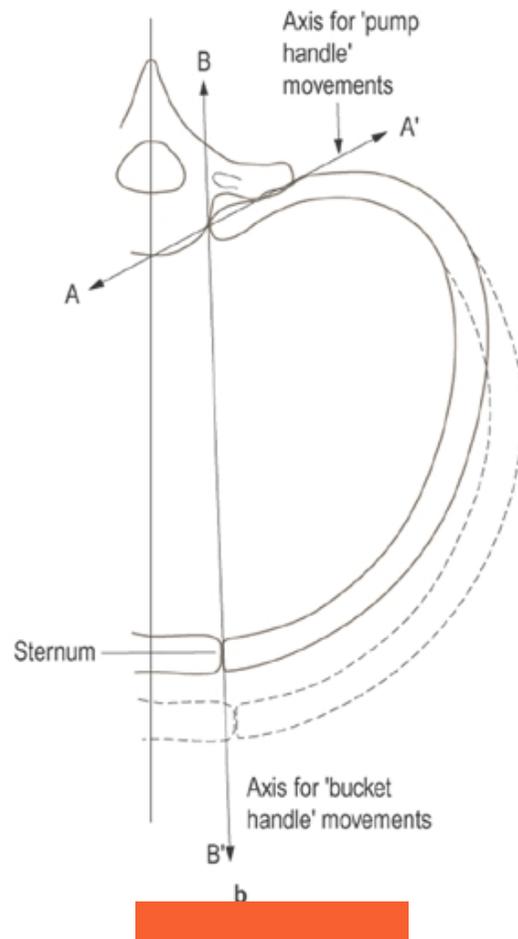
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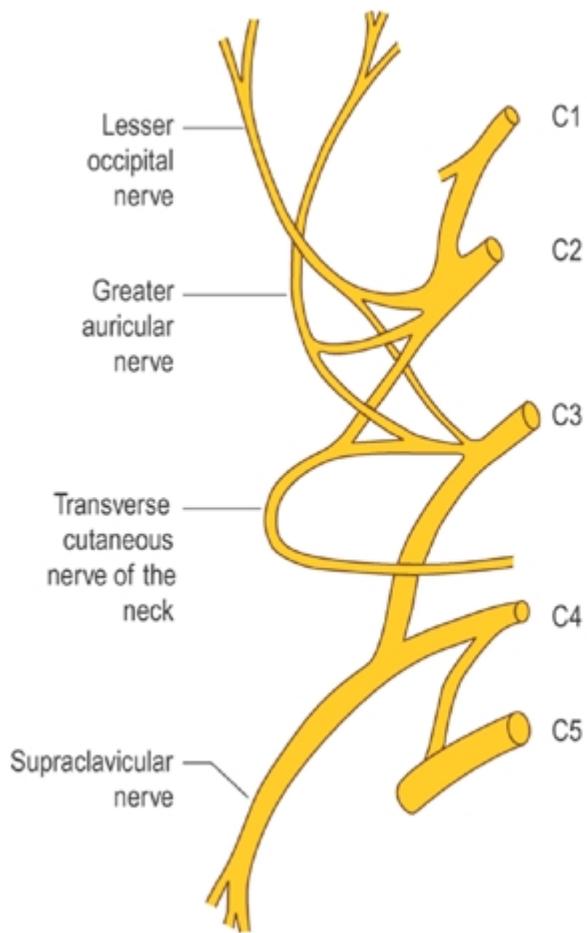




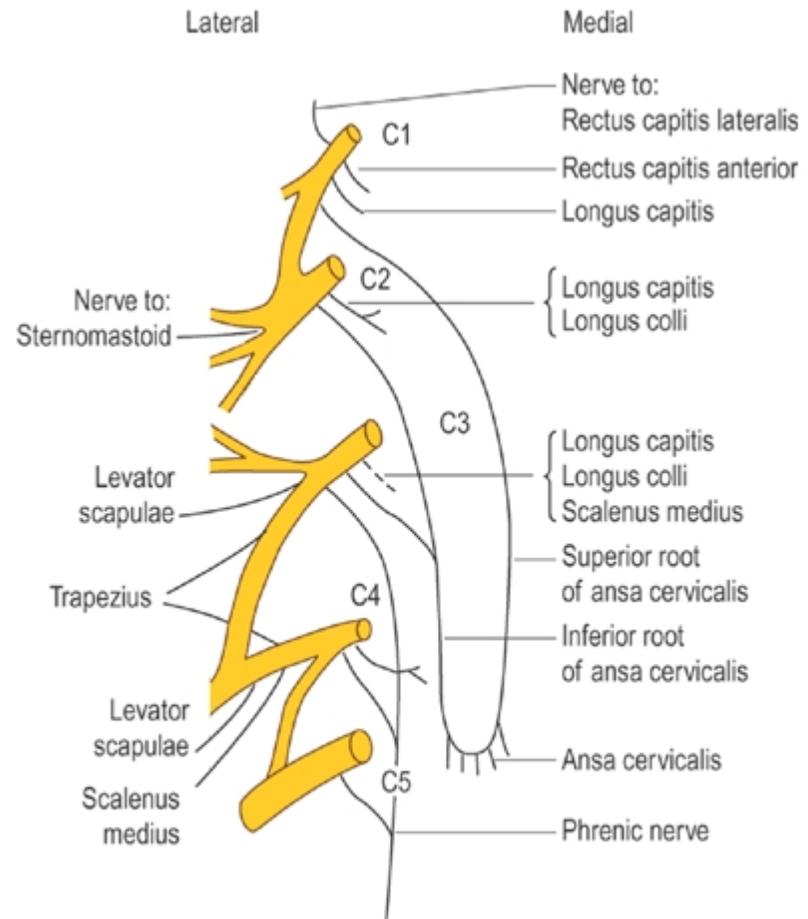


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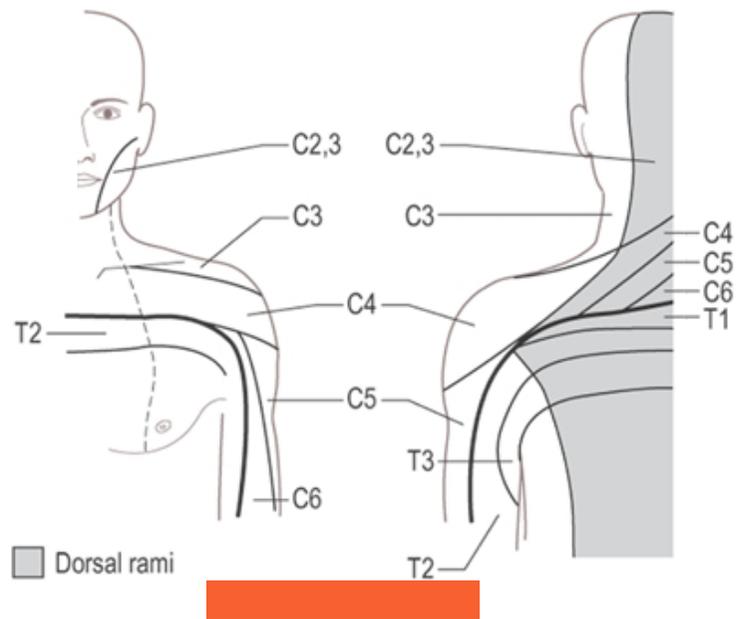
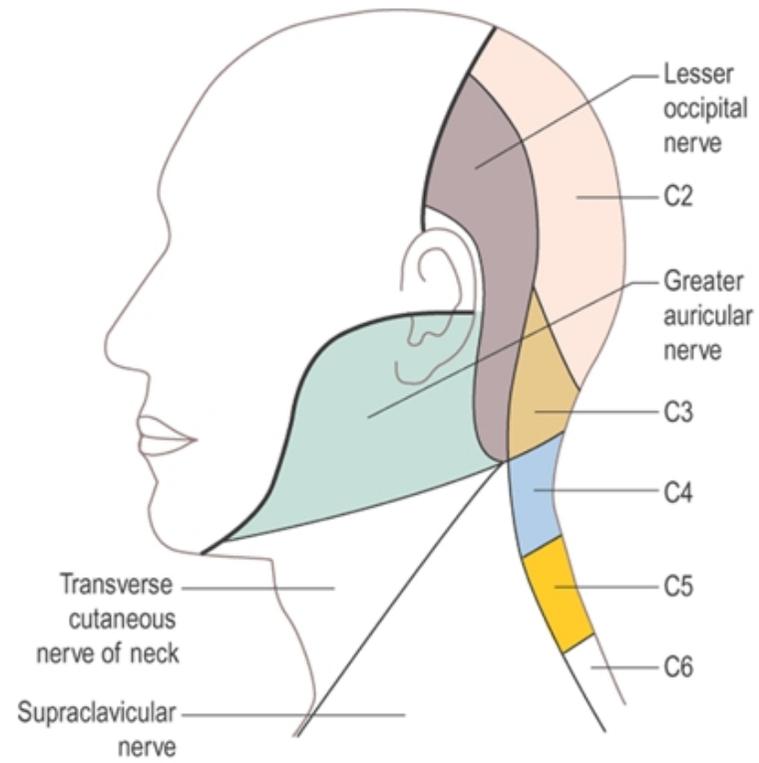




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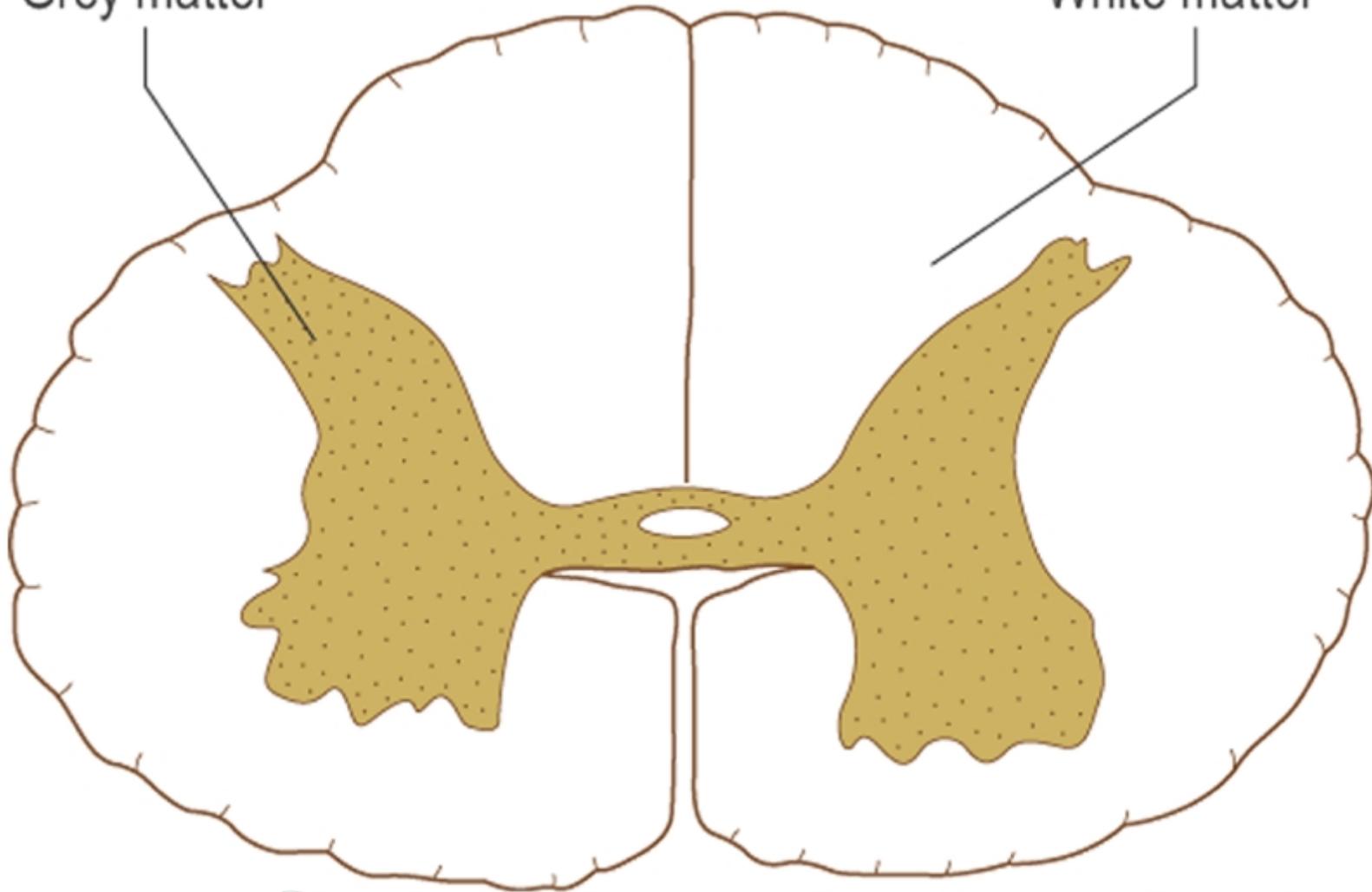


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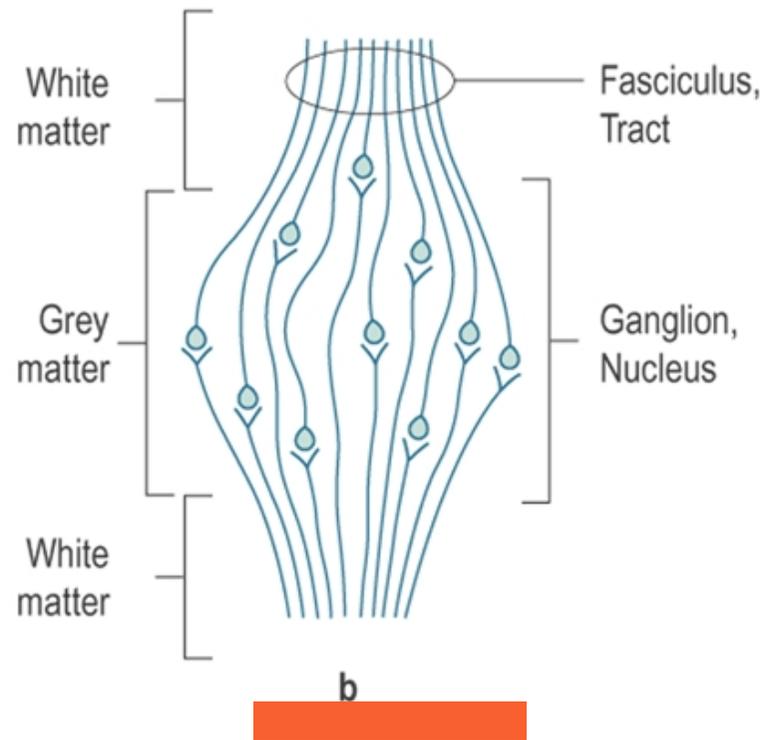
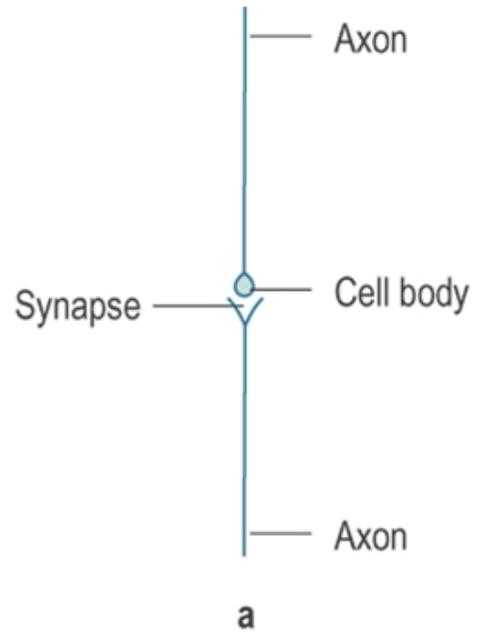


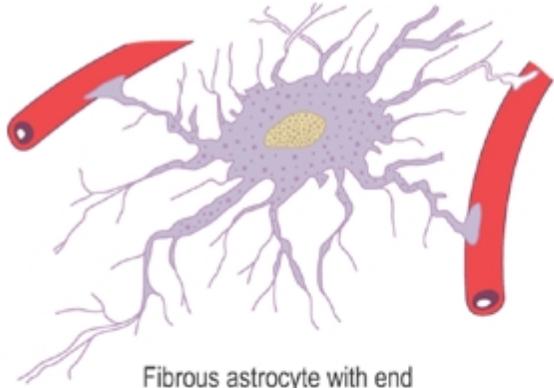
Grey matter

White matter

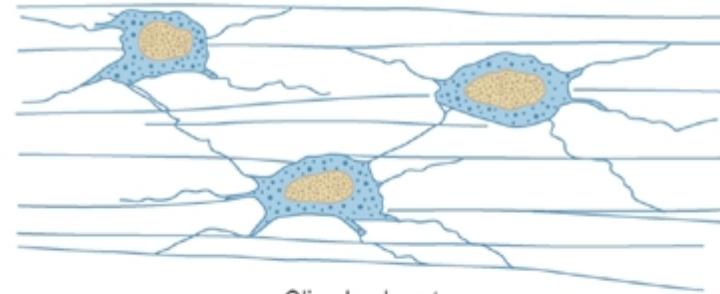


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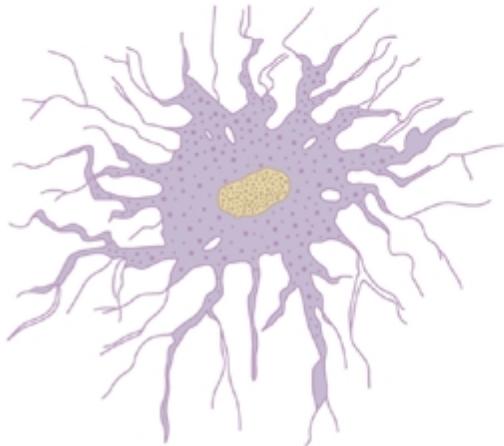




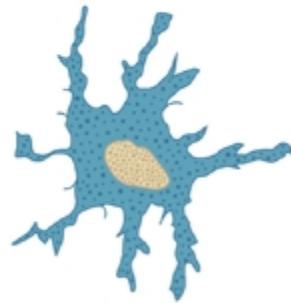
Fibrous astrocyte with end feet on blood vessels



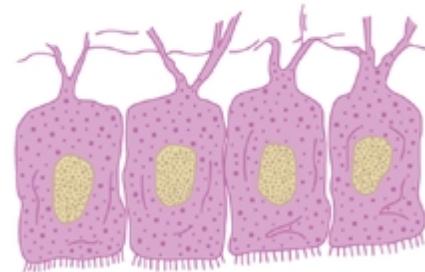
Oligodendrocyte



Protoplasmic astrocyte

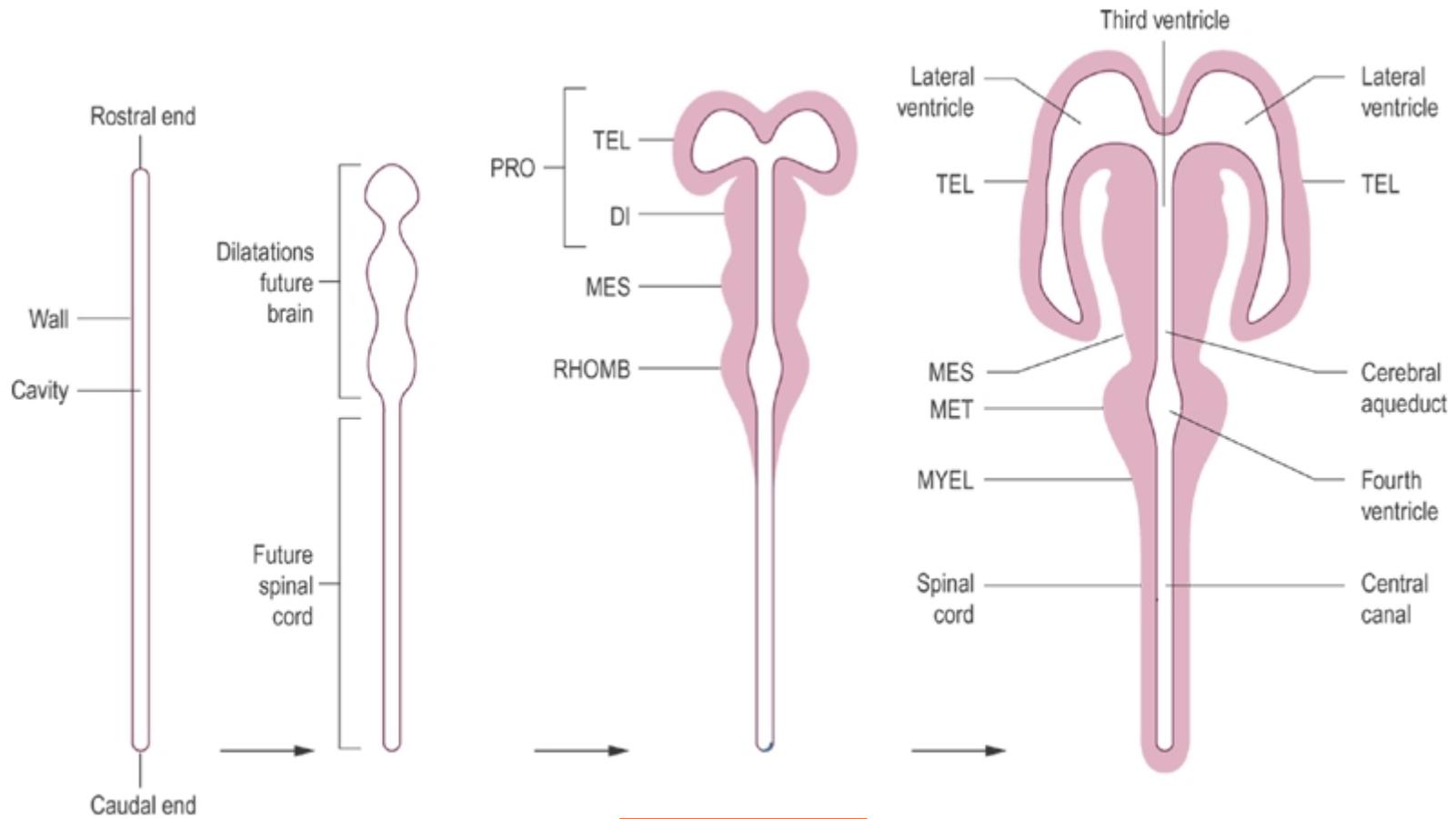


Microglial cell

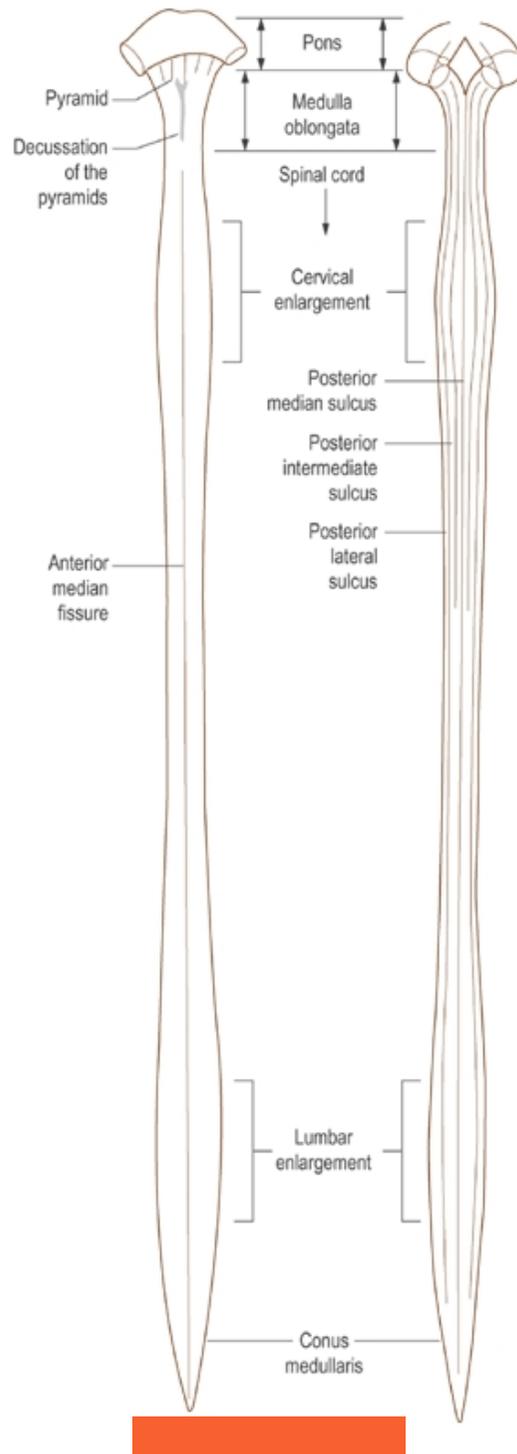


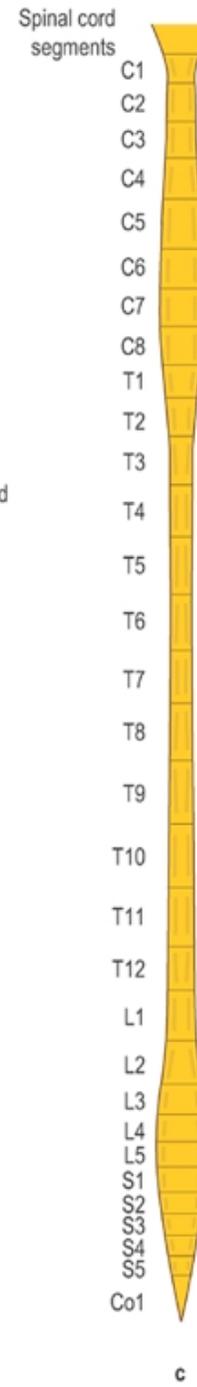
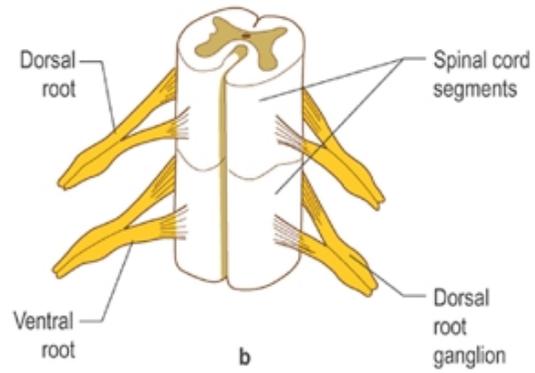
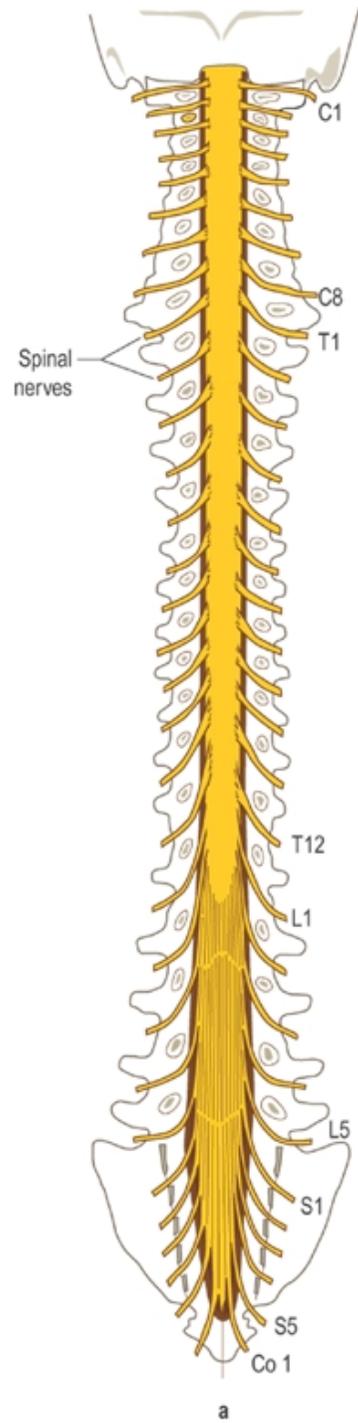
Ependymal cells

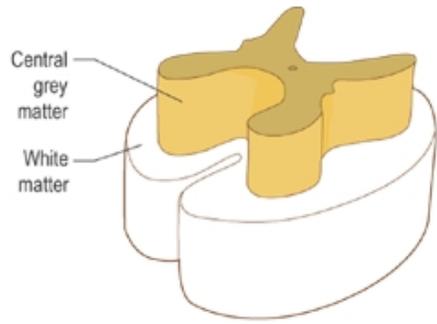




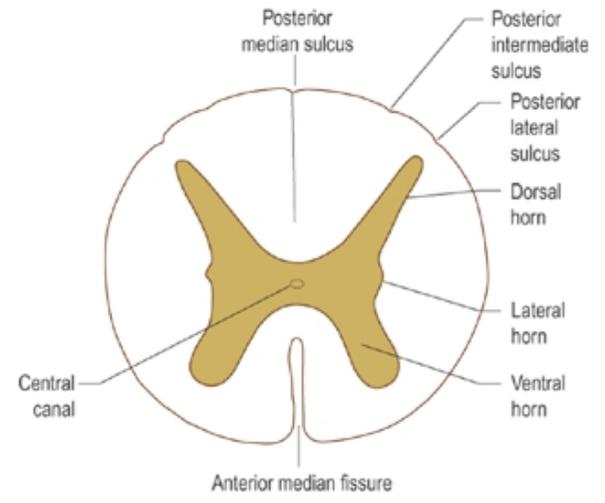
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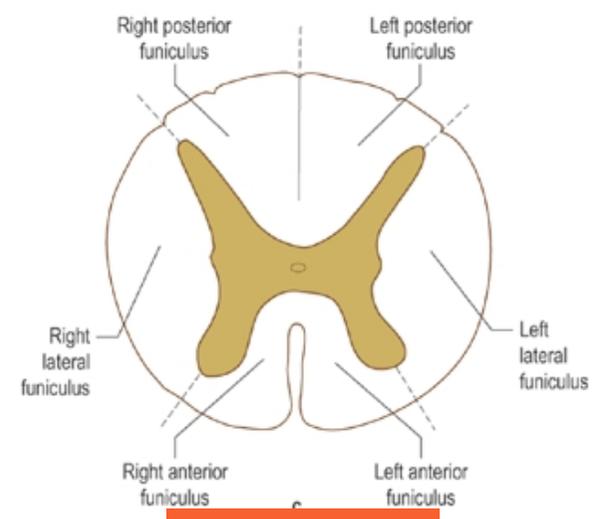




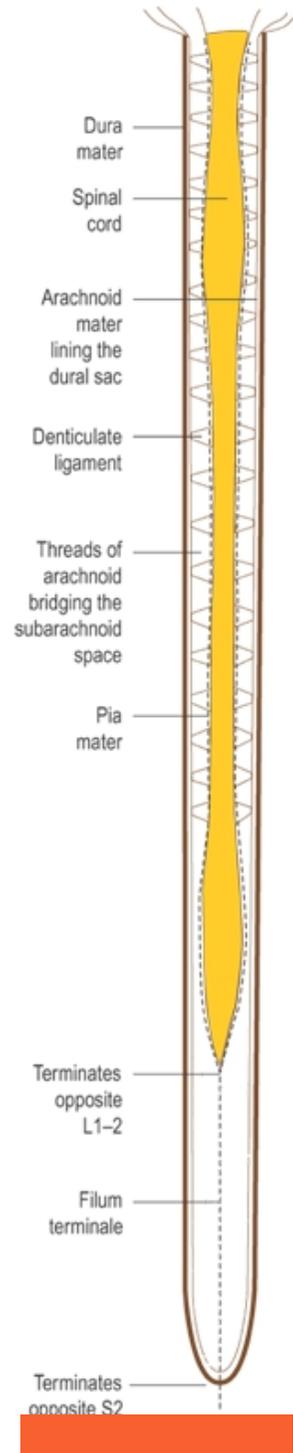
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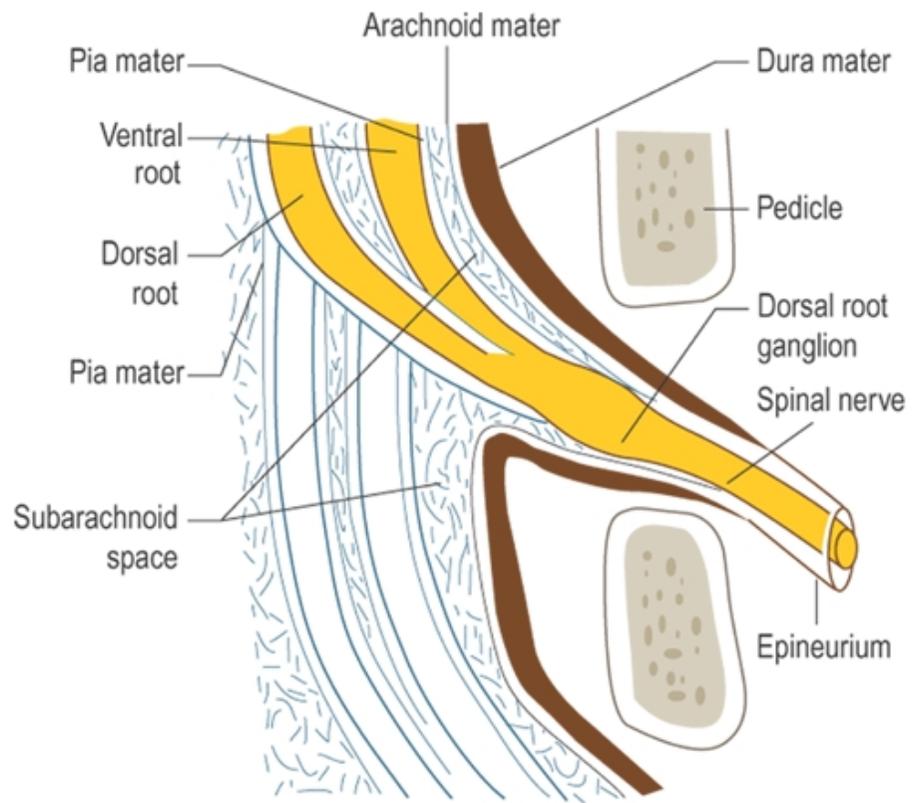


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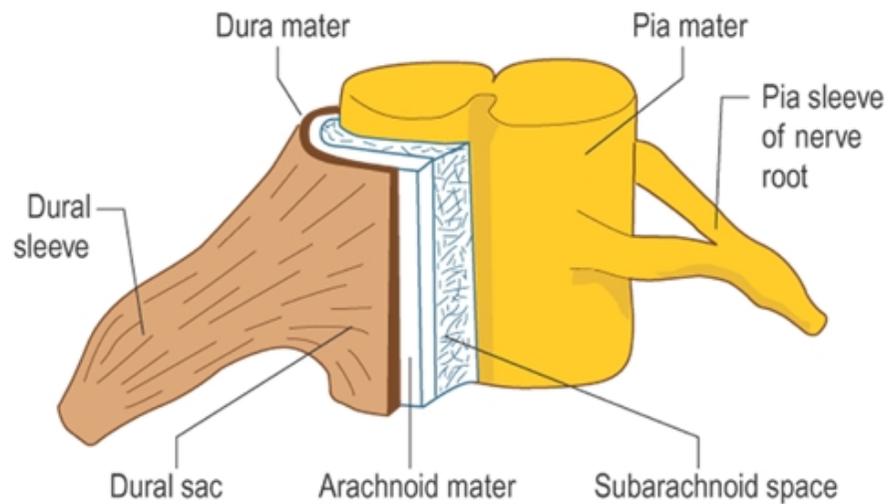


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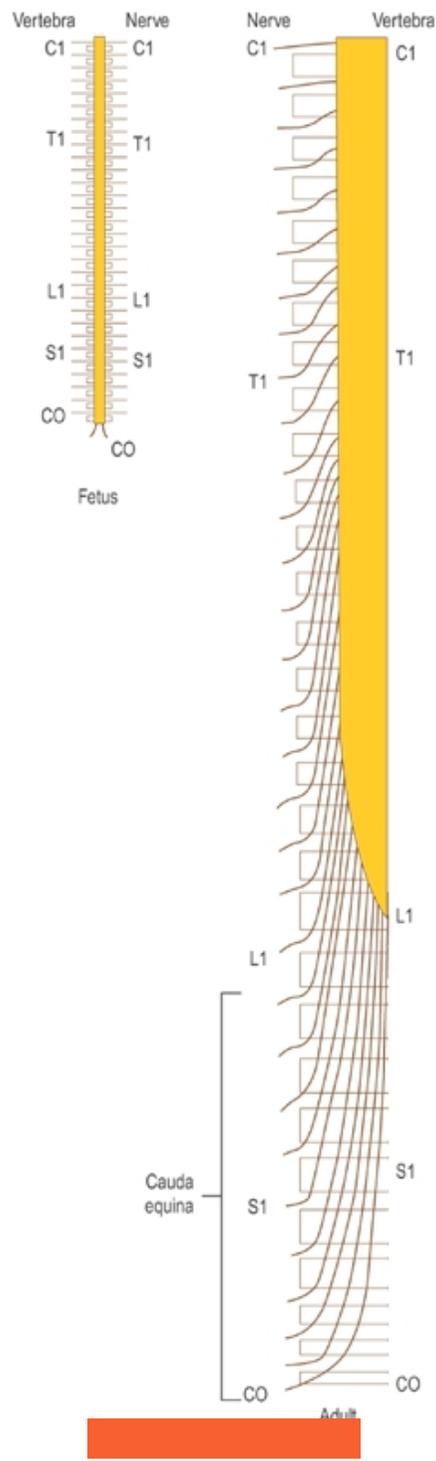


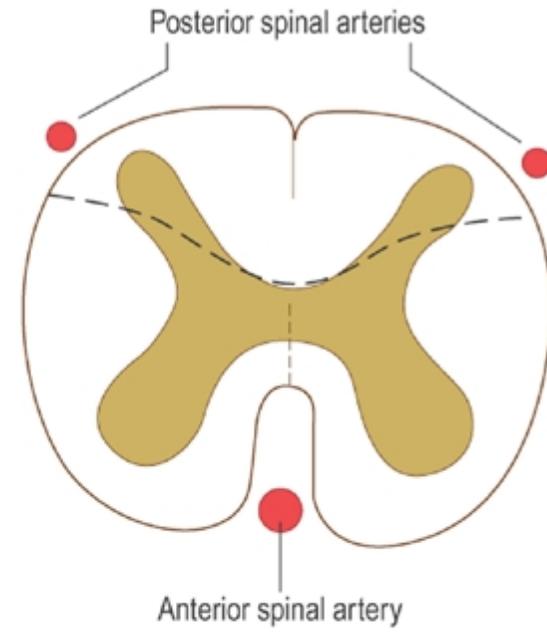
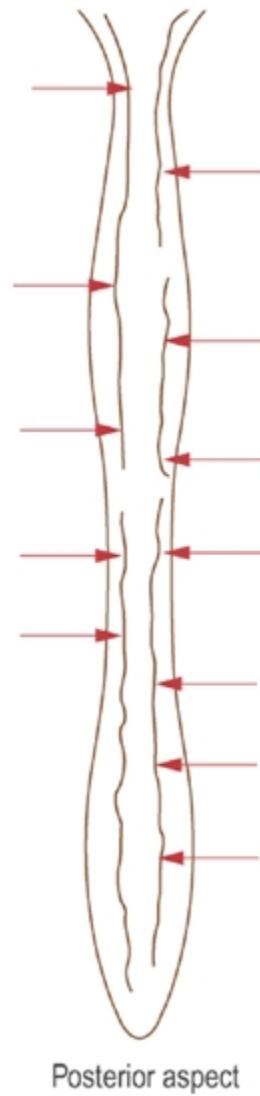
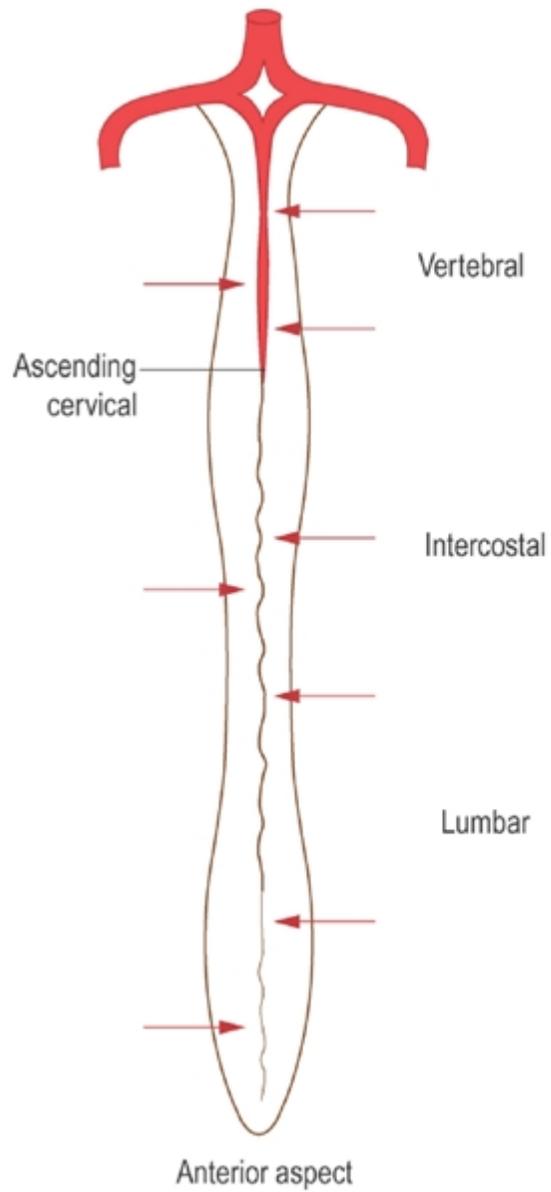


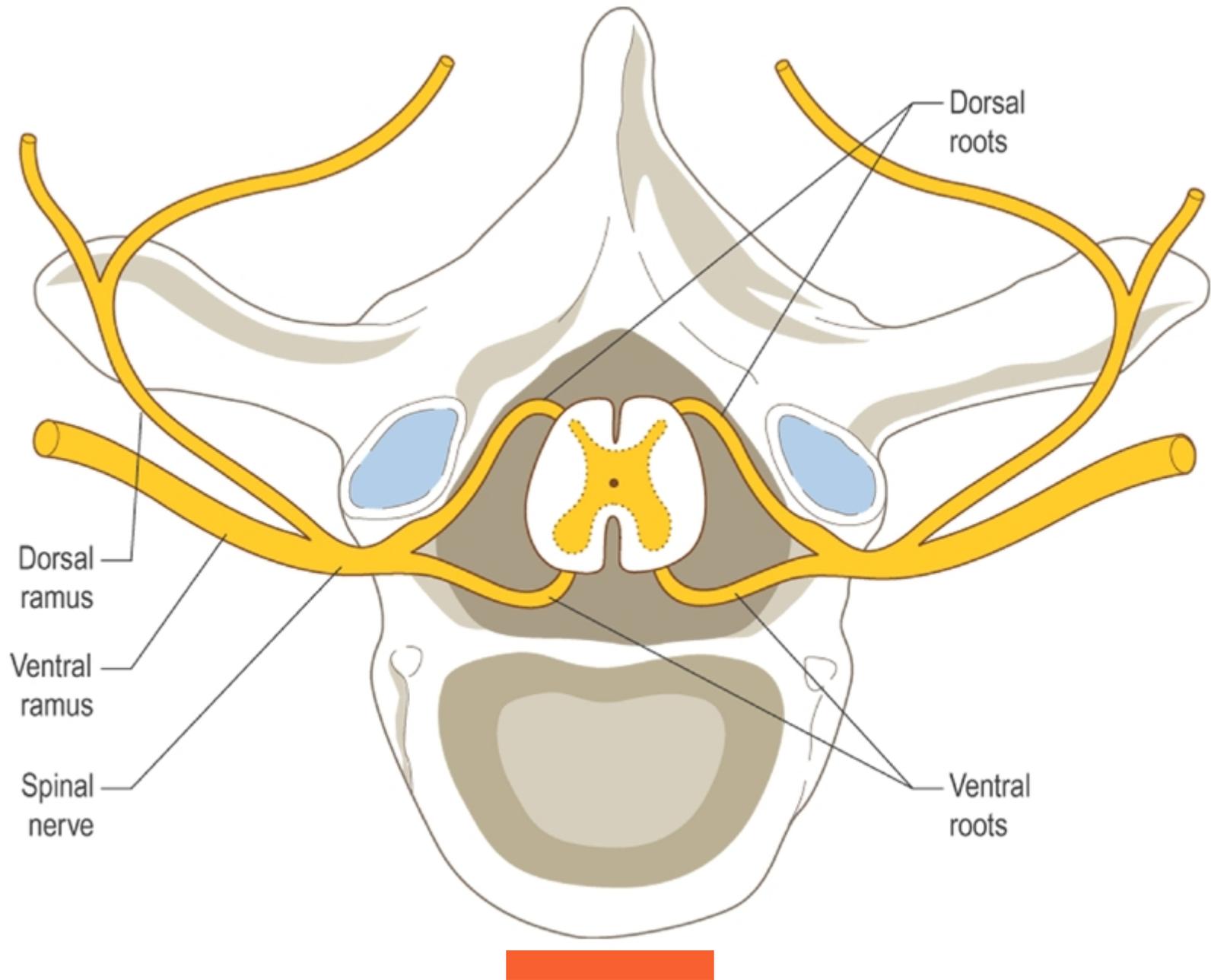
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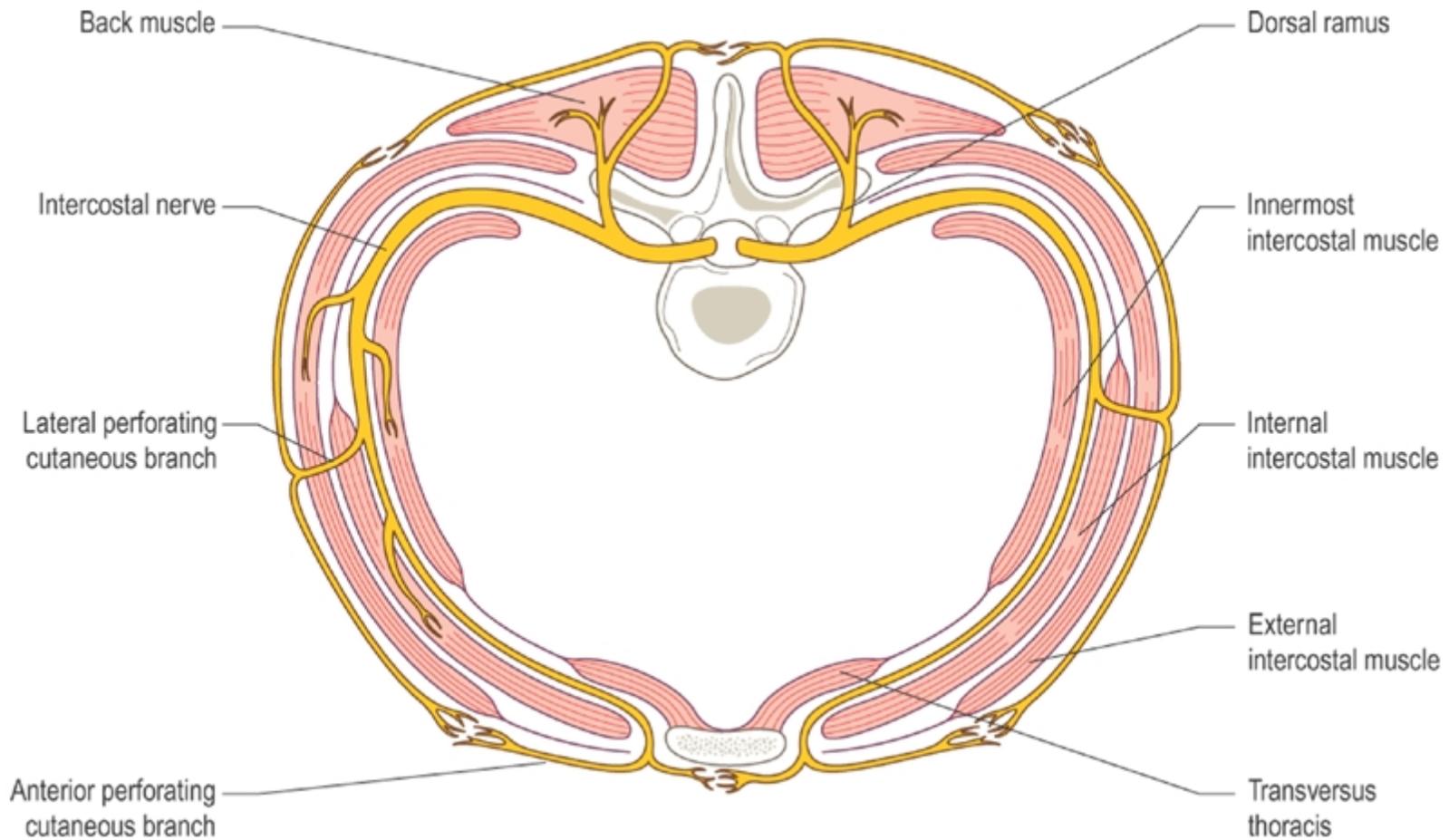


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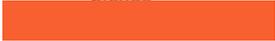
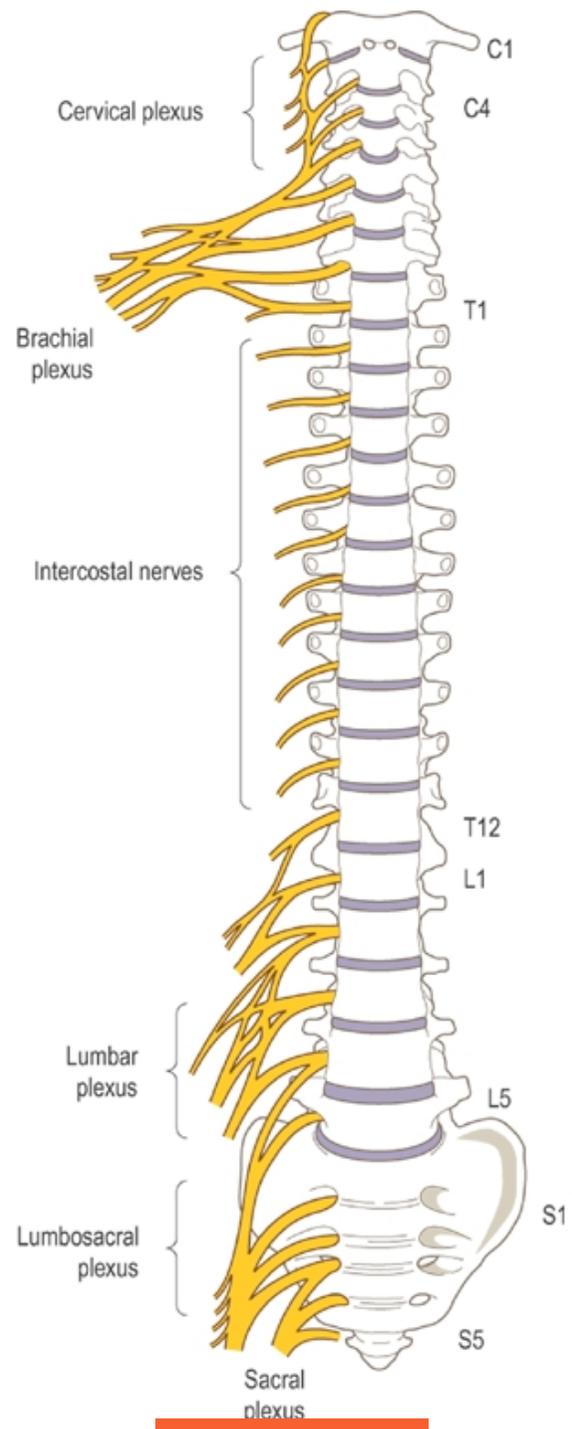


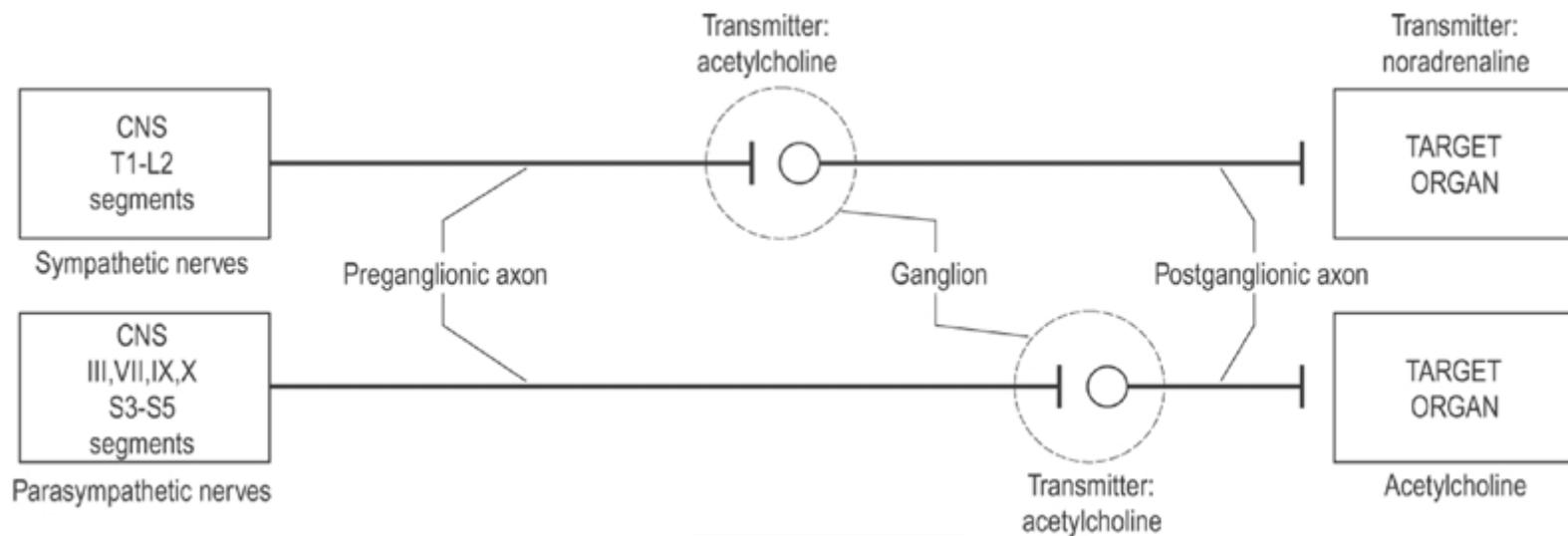




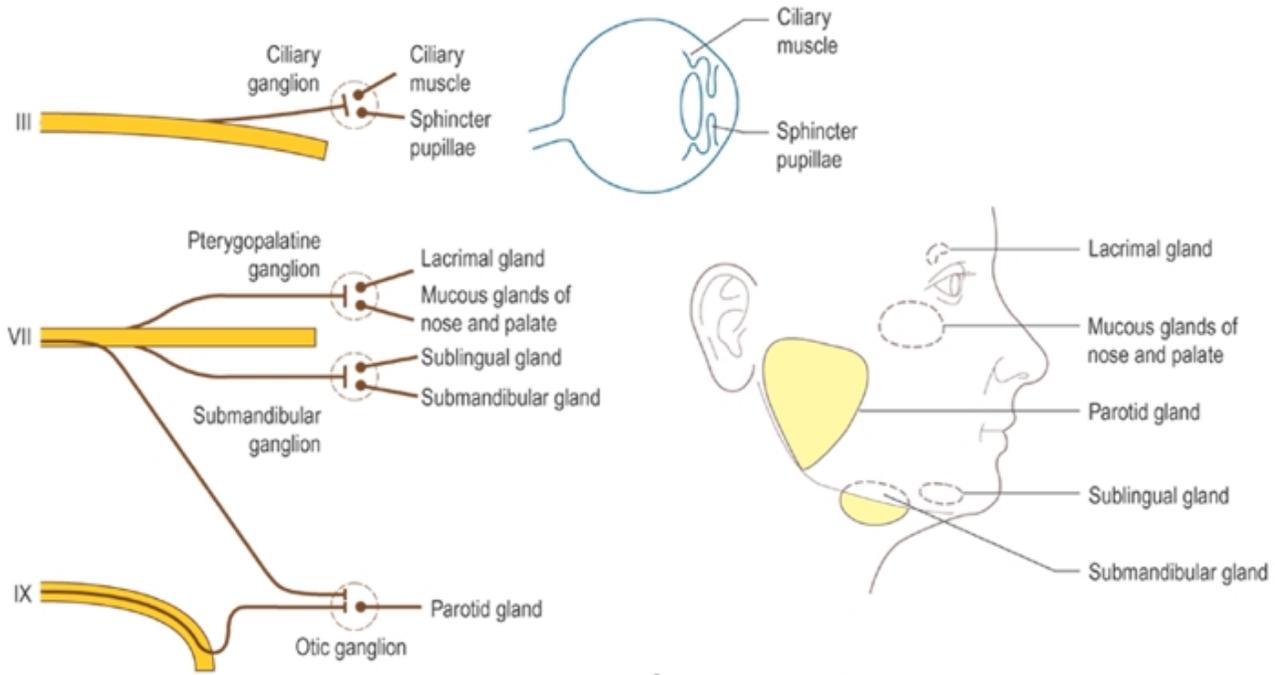


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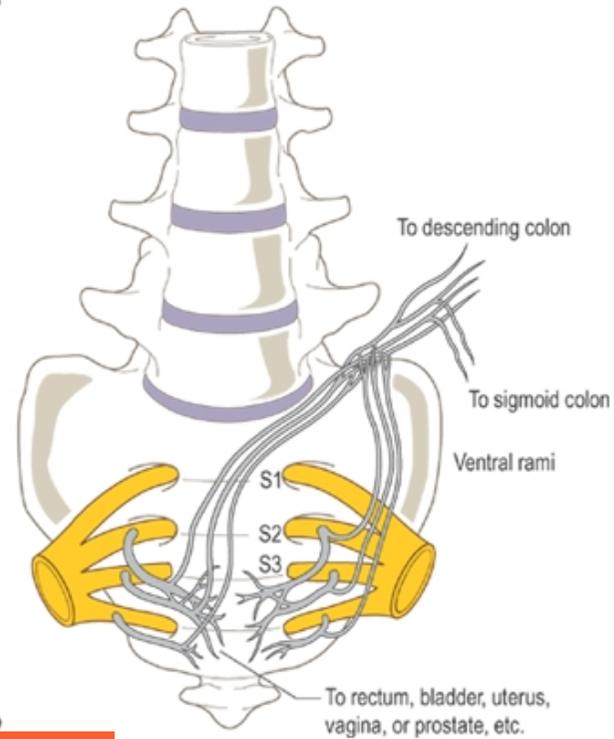
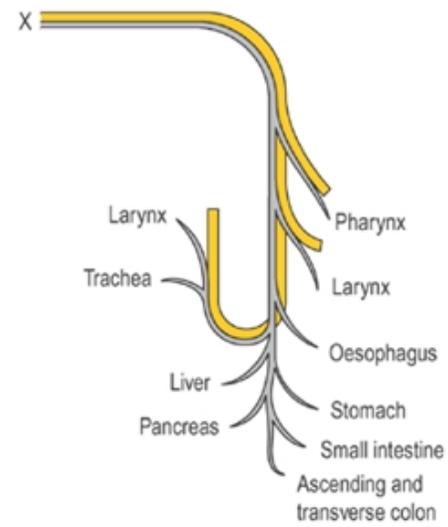




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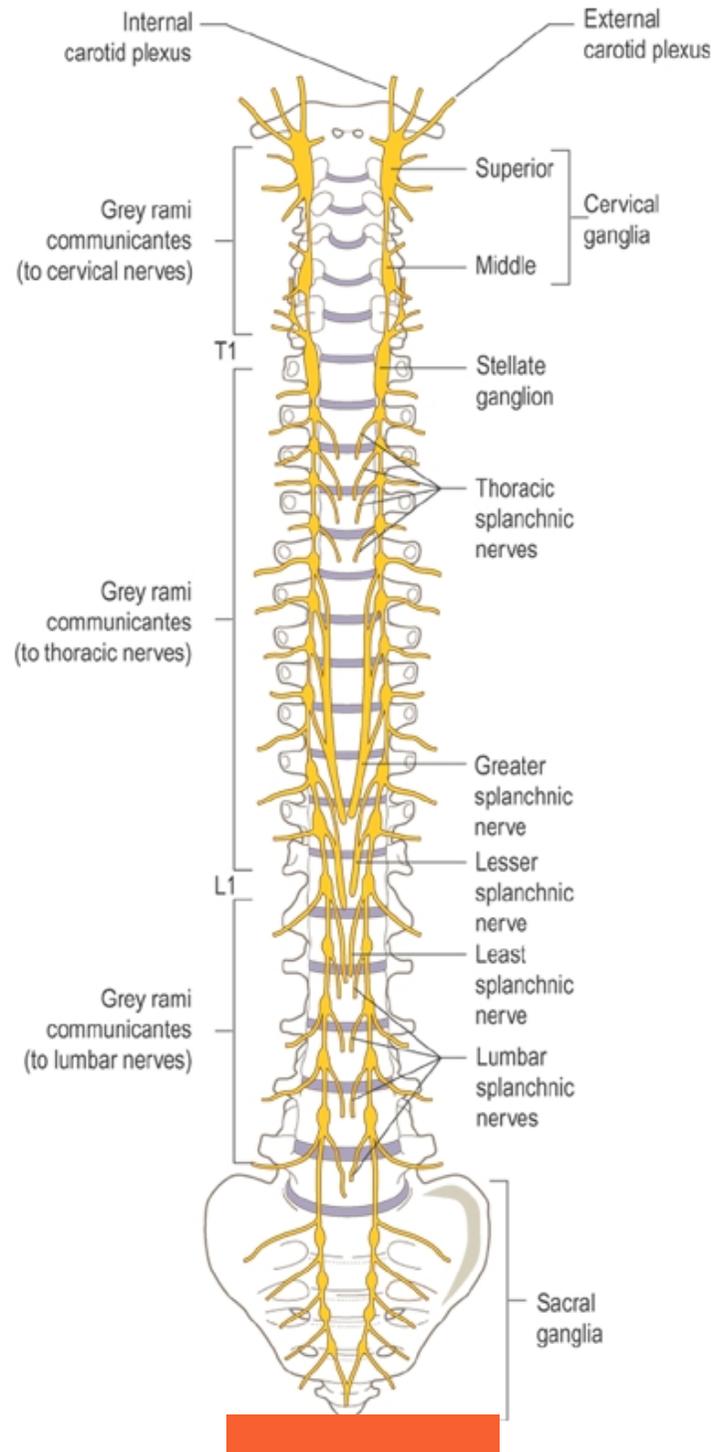


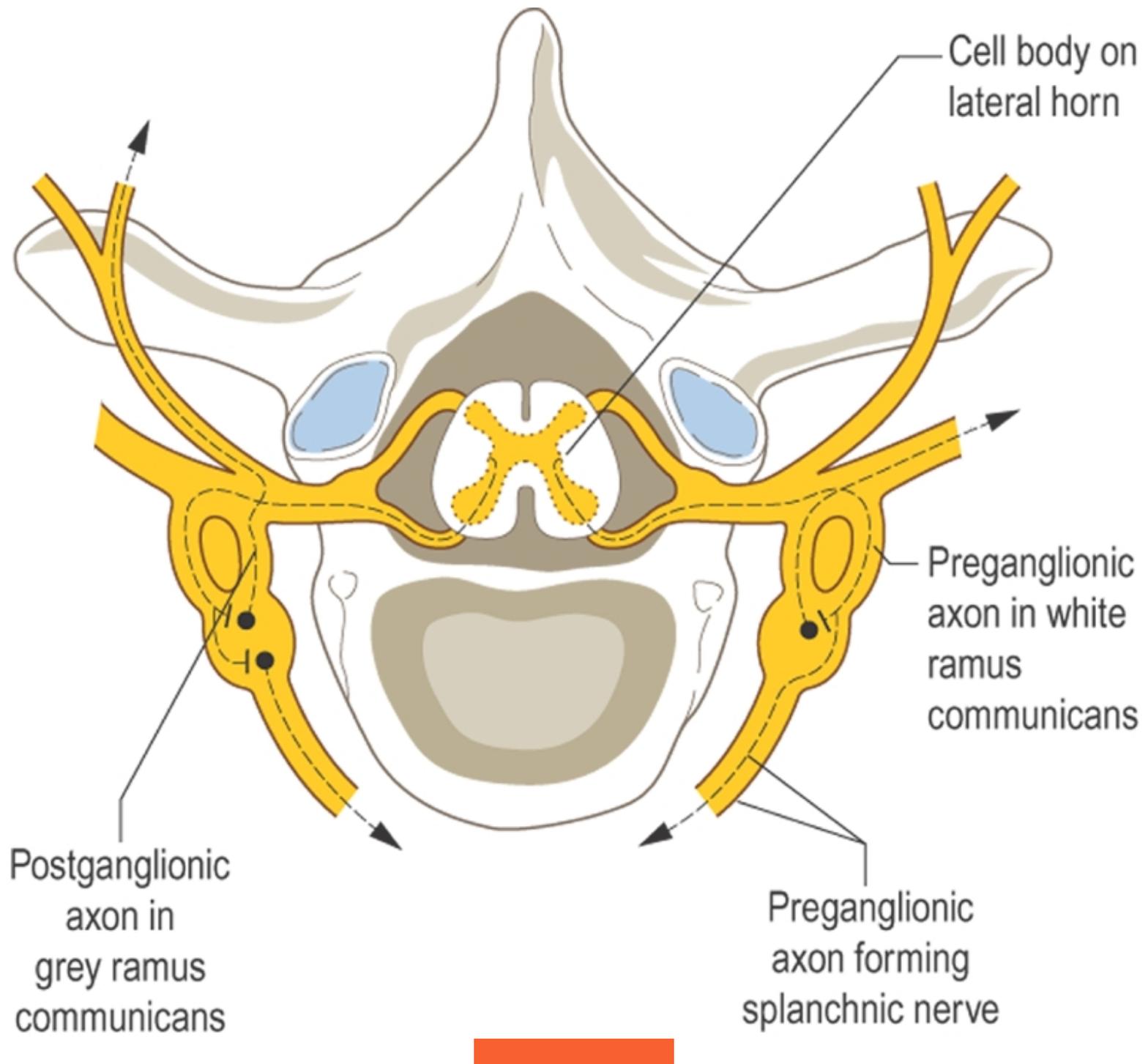
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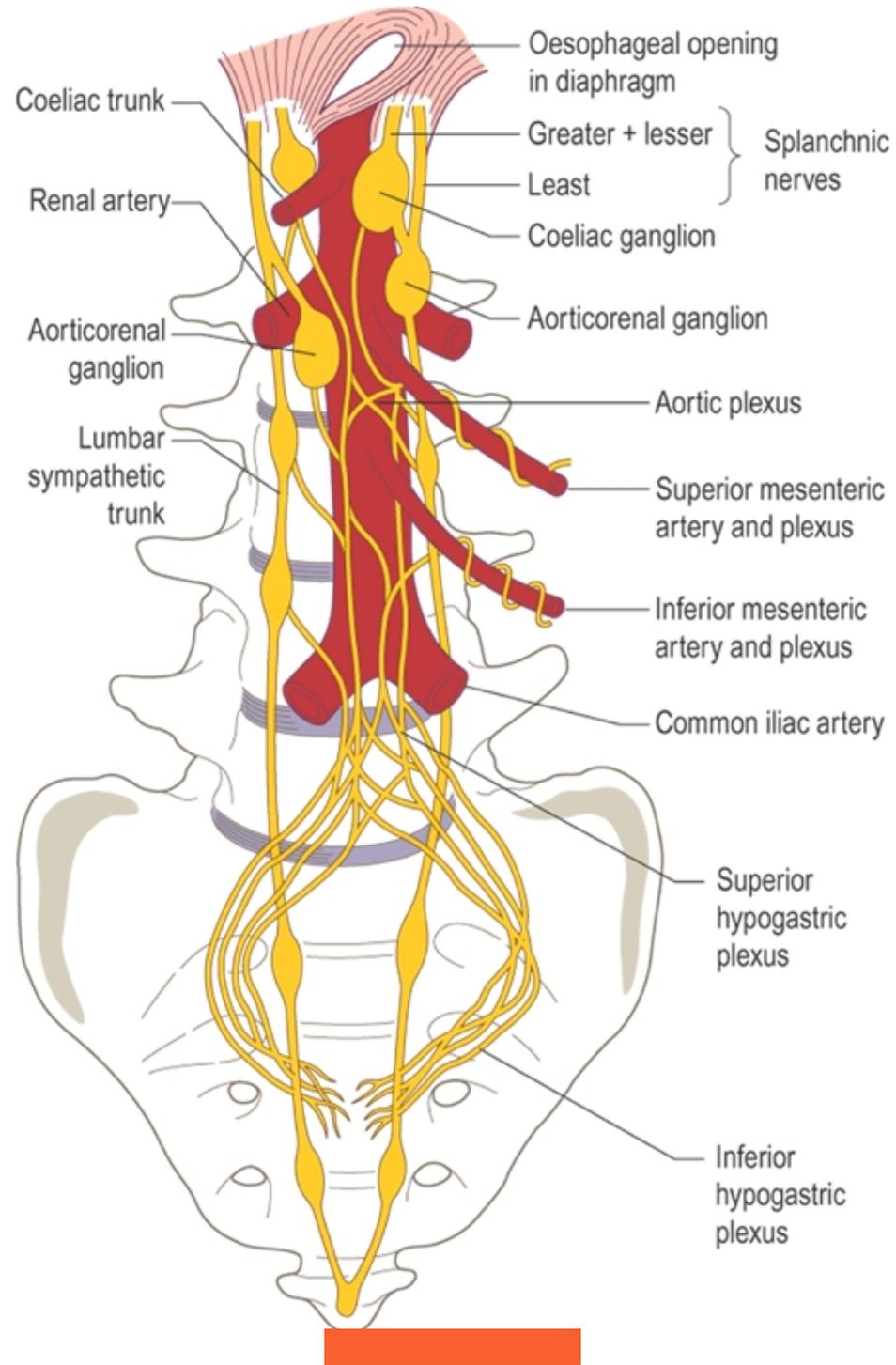


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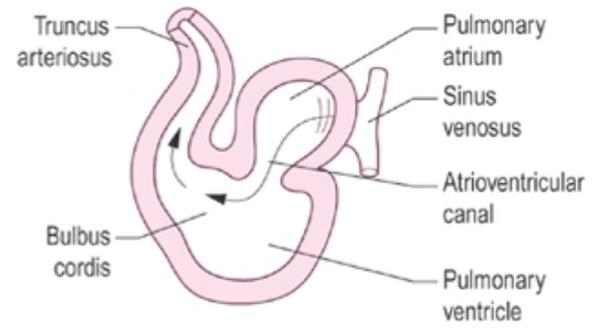
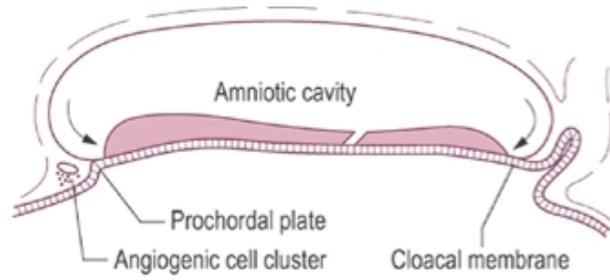




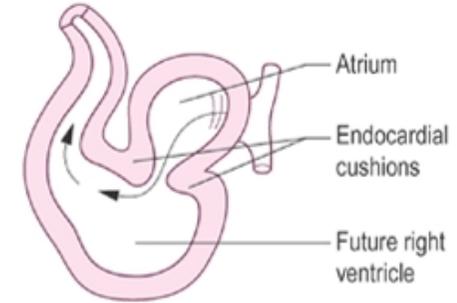
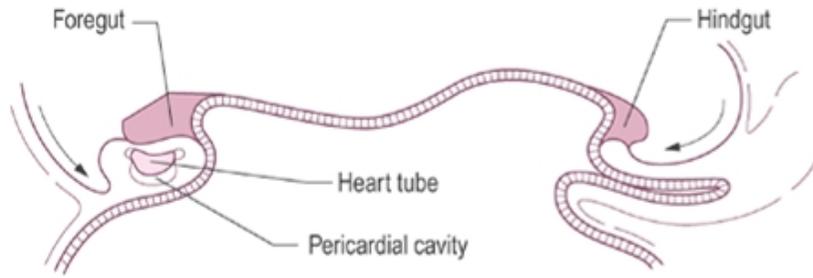




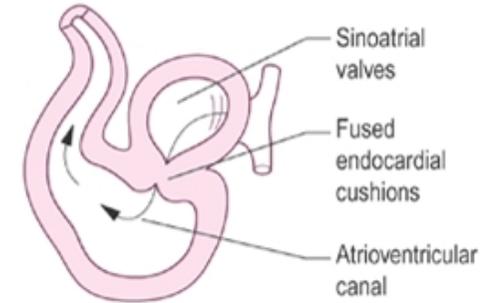
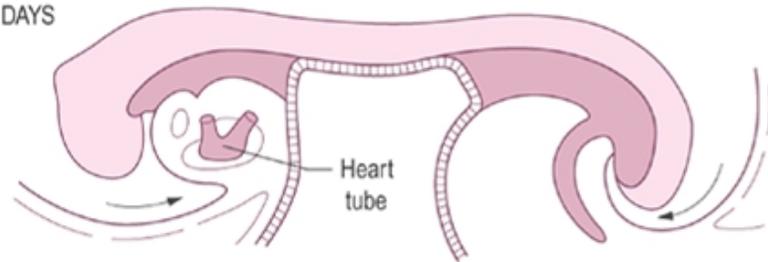
19 DAYS



22 DAYS



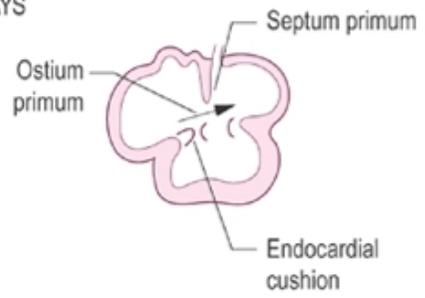
25 DAYS



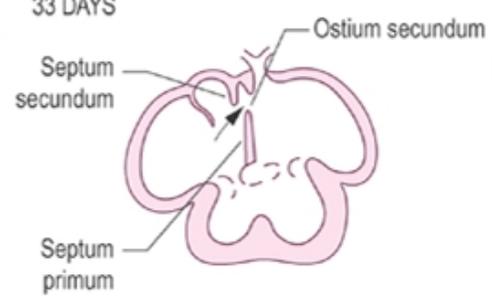
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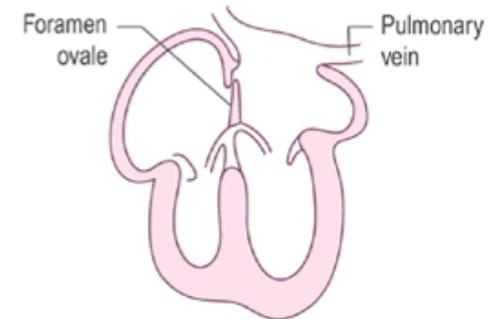
30 DAYS



33 DAYS

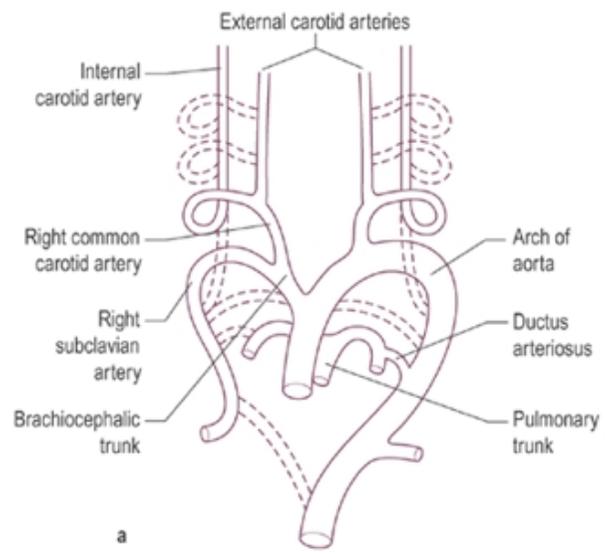
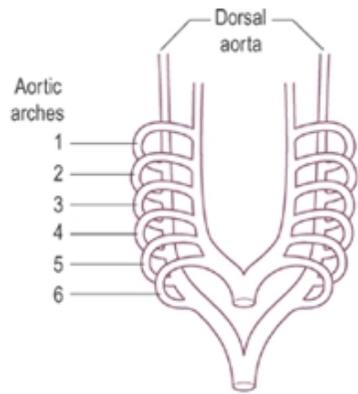


NEWBORN

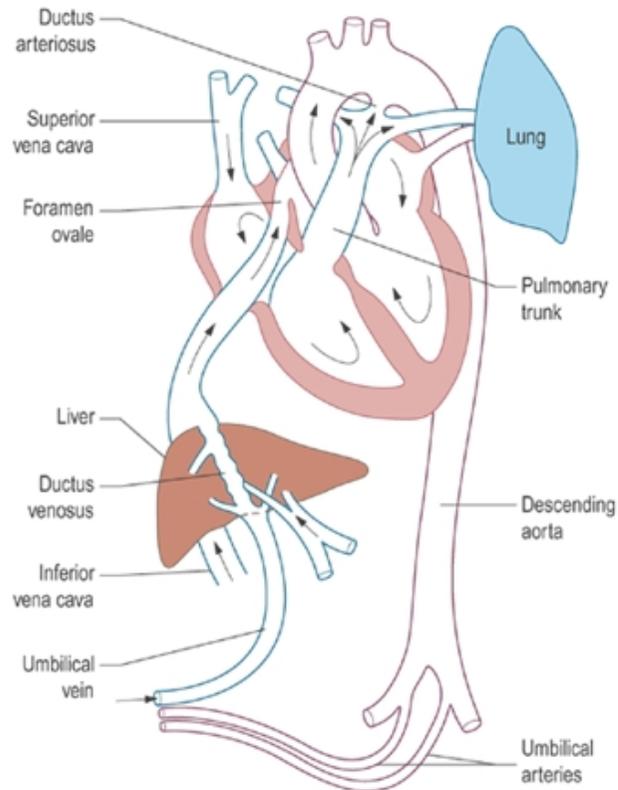


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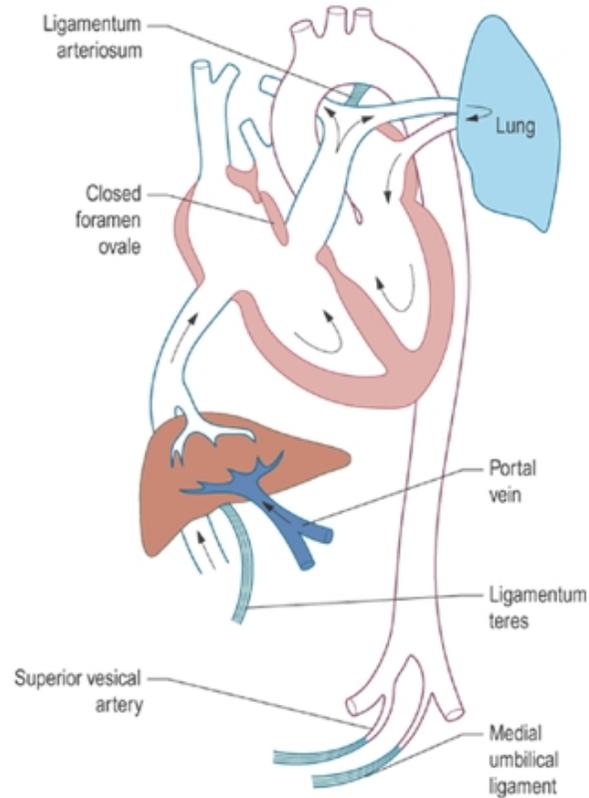




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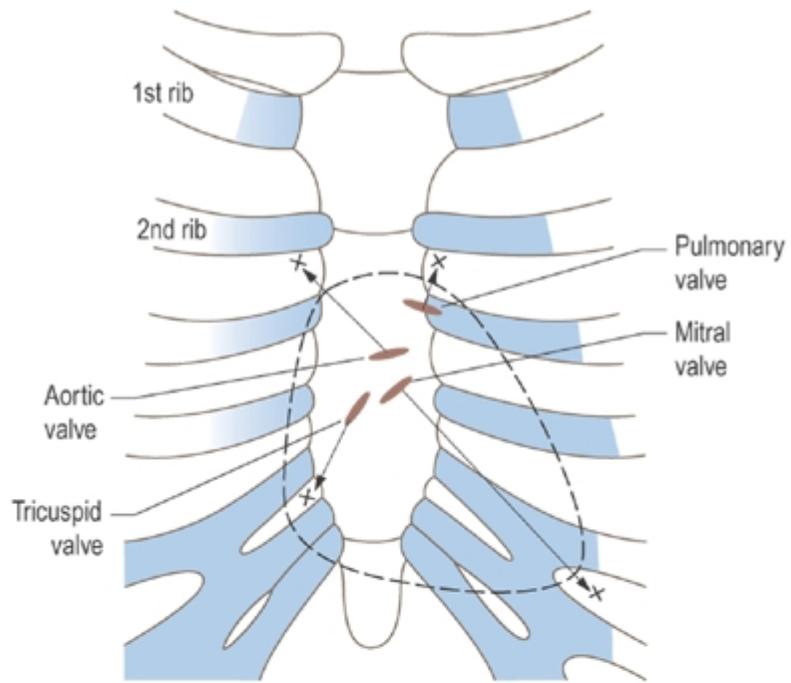


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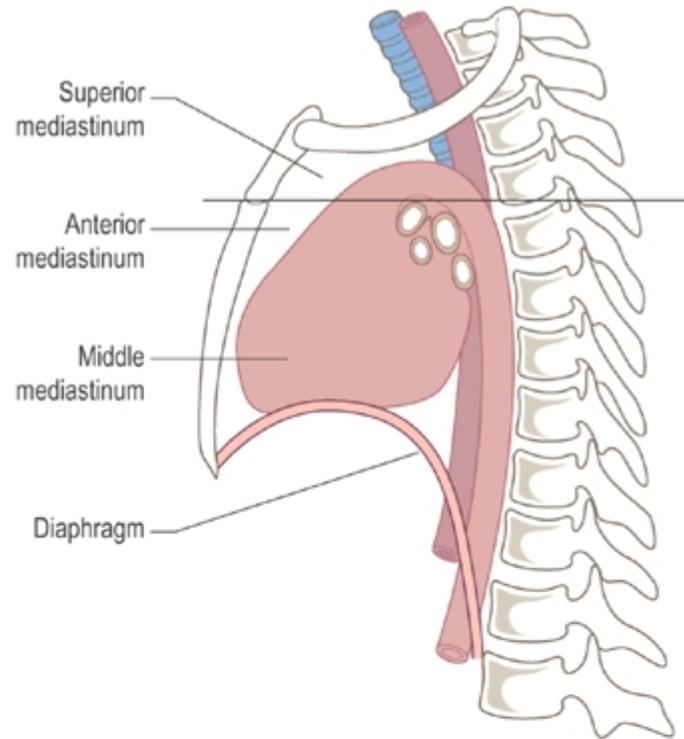


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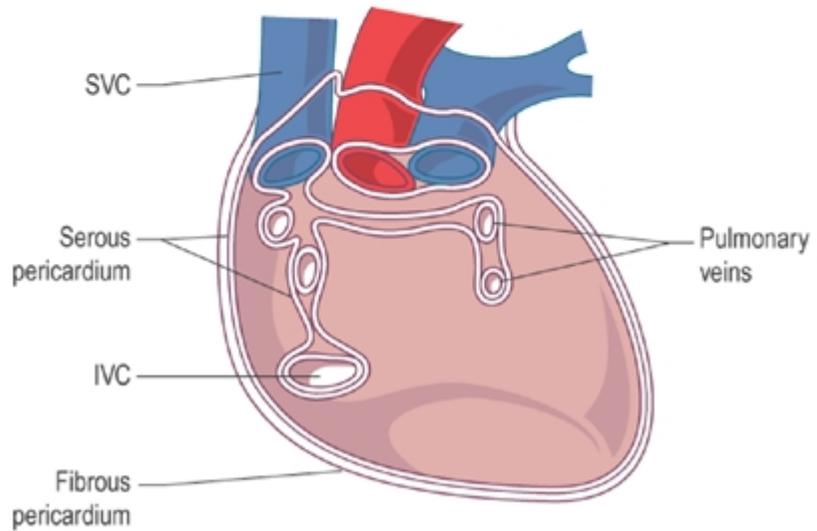




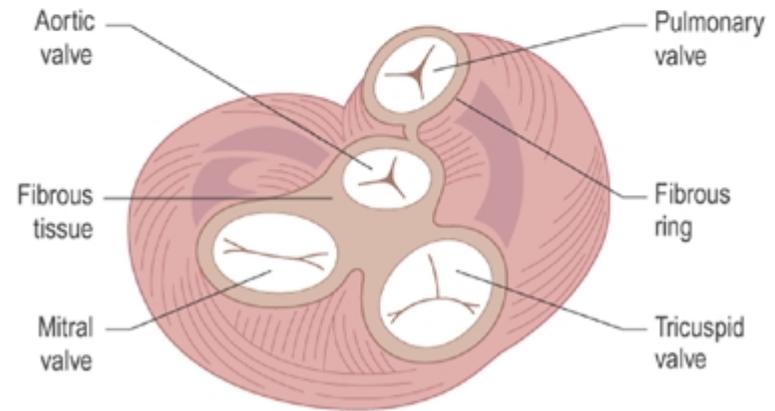
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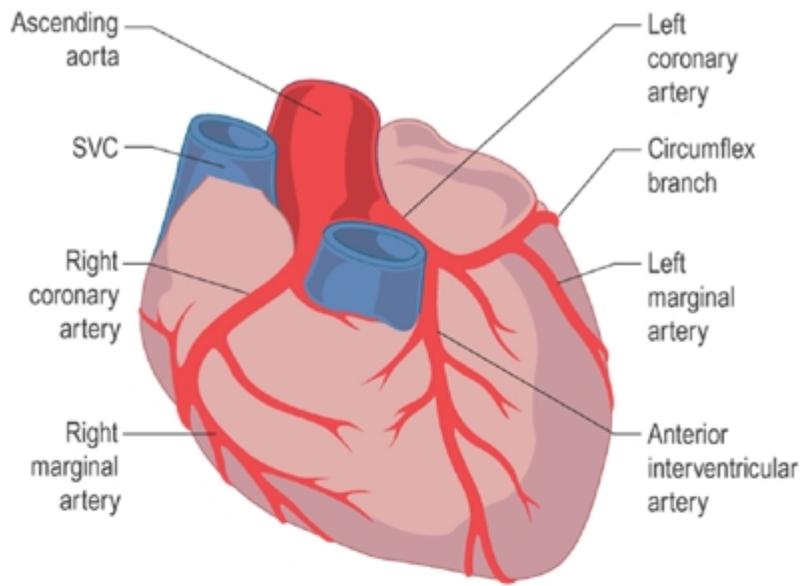


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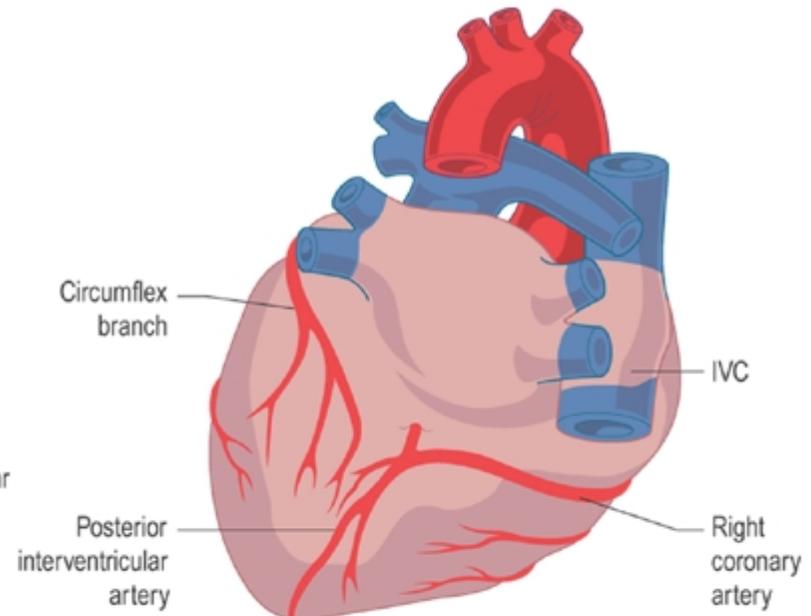


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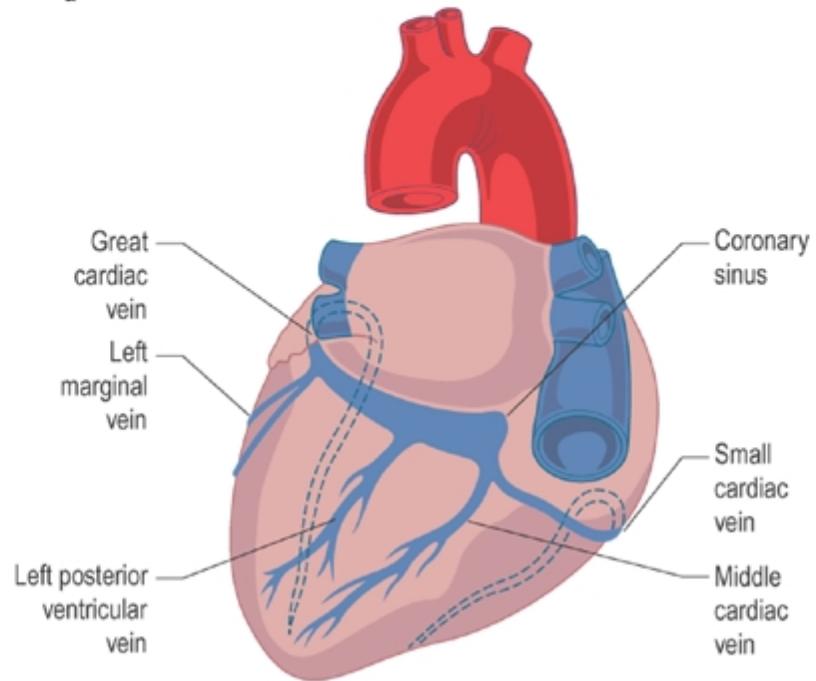




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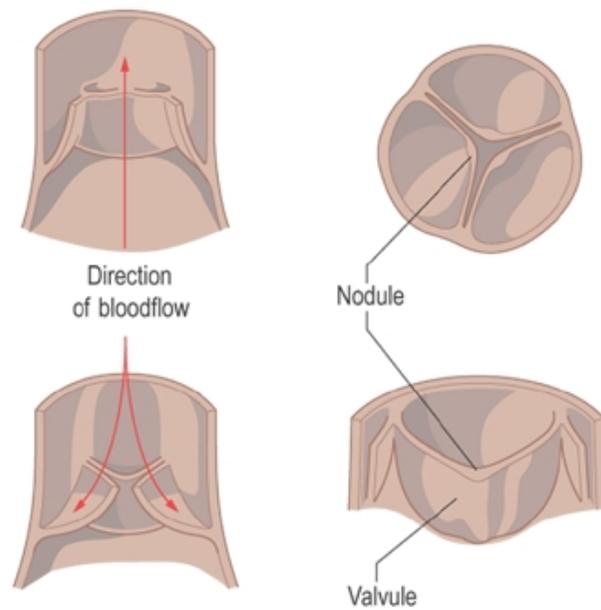
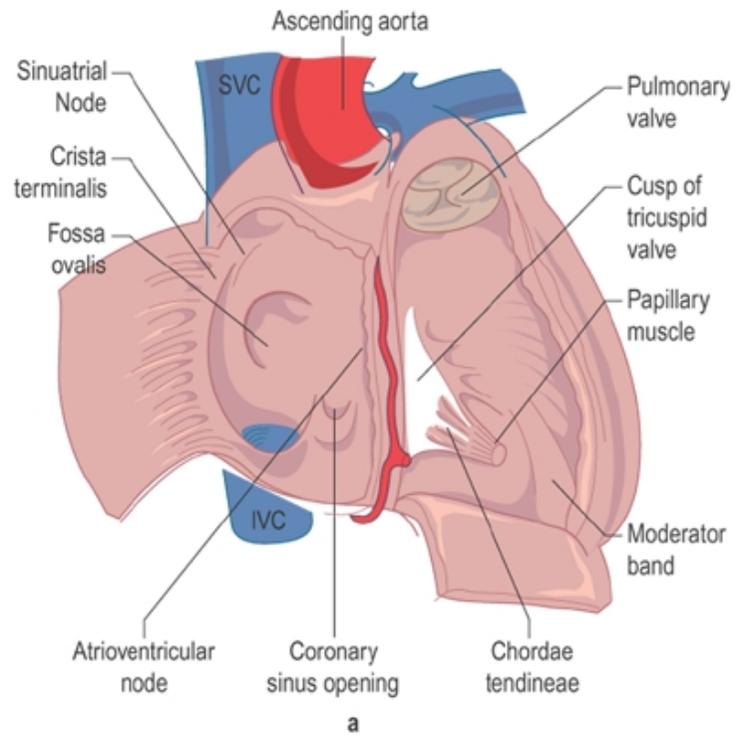


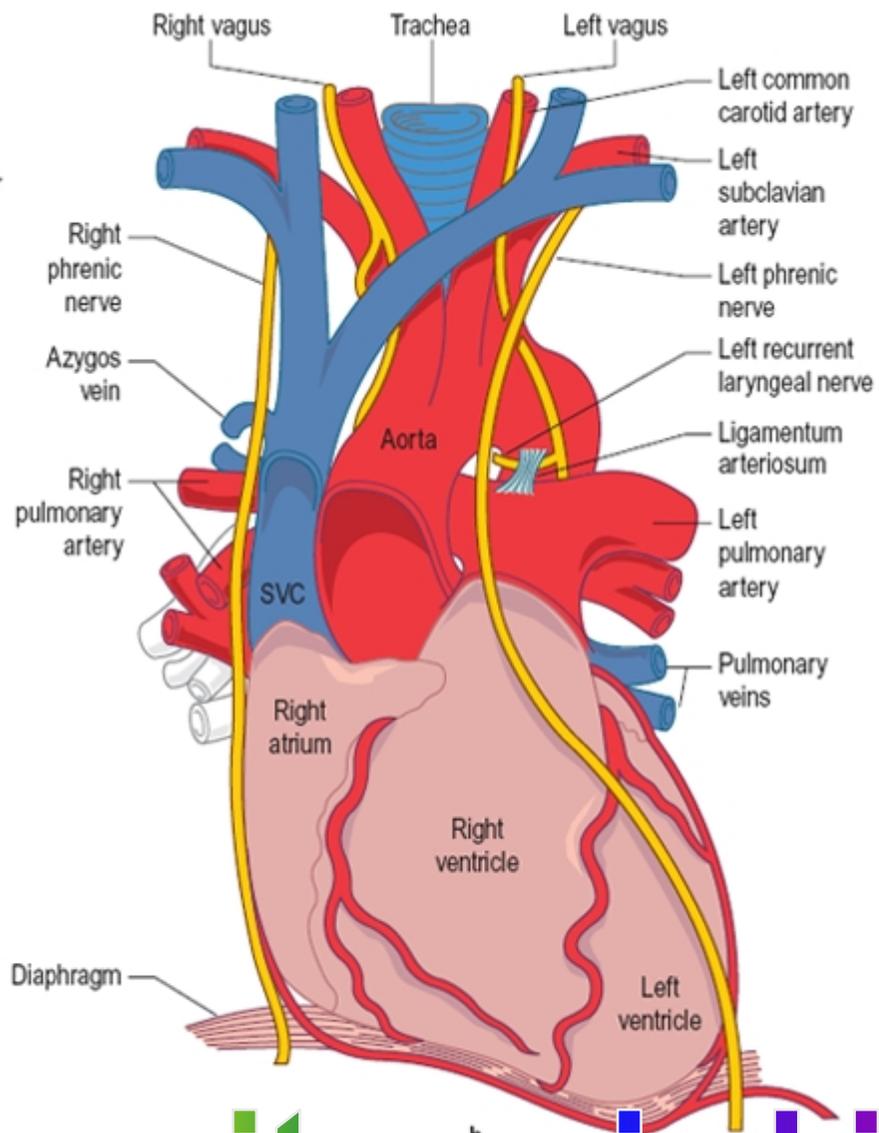
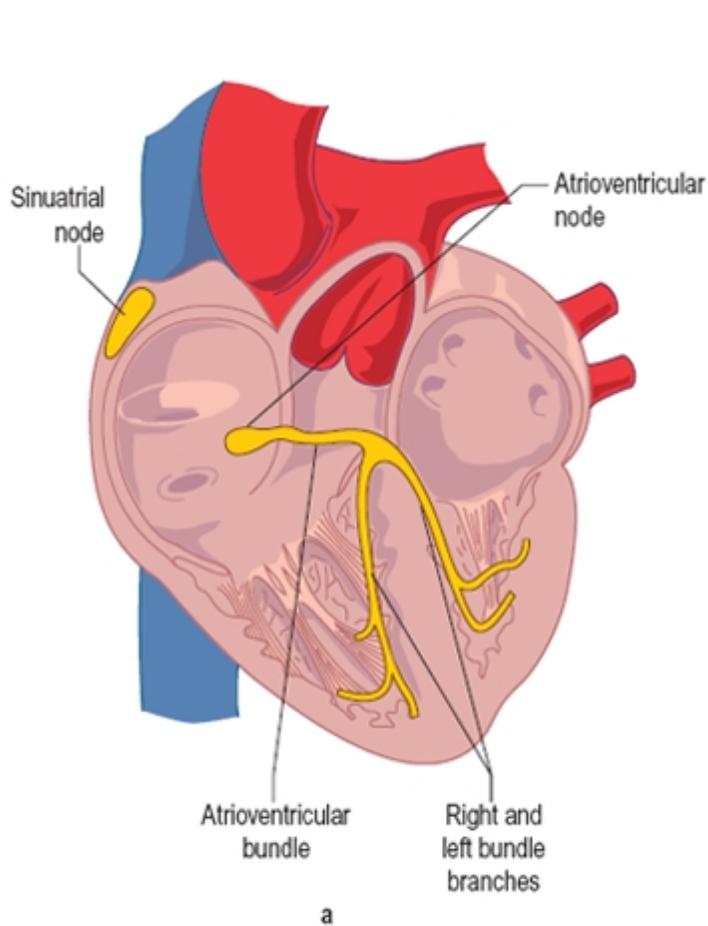
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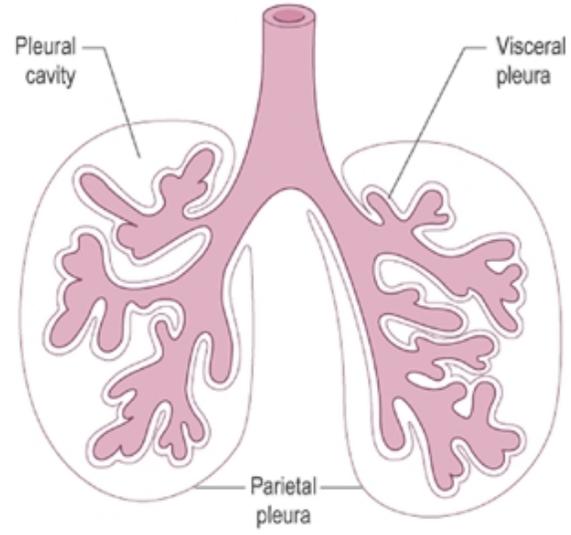
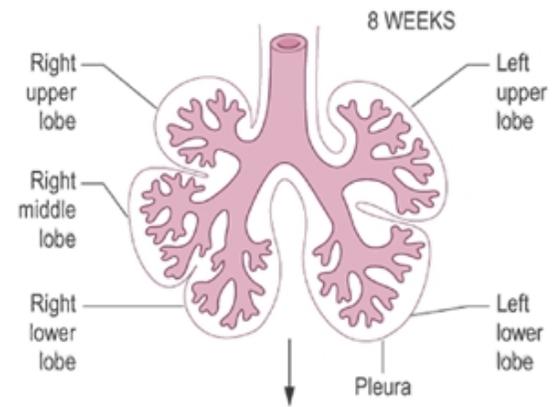
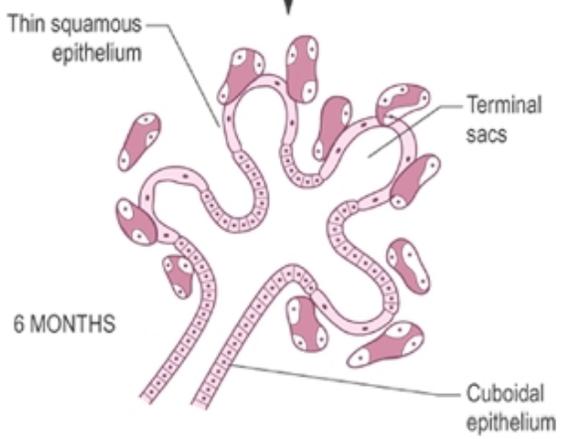
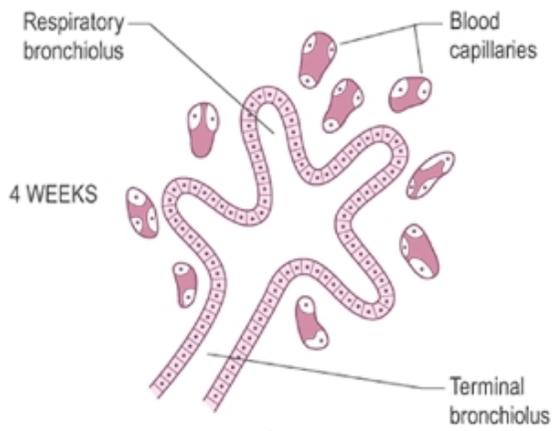
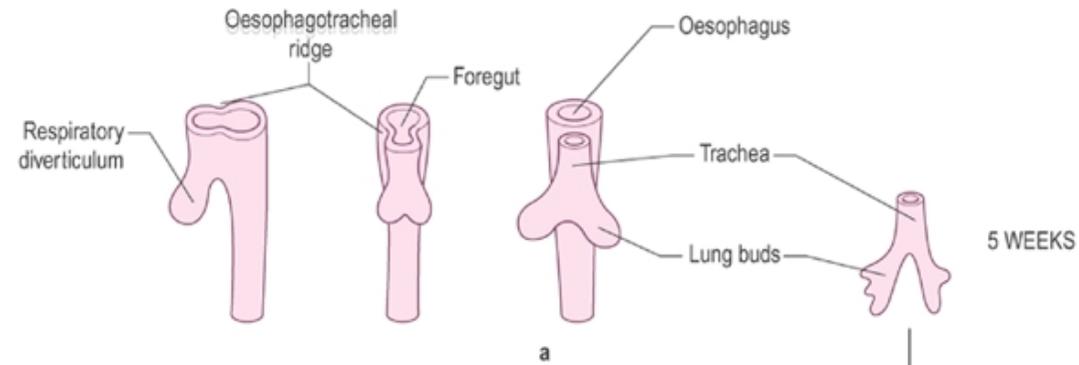
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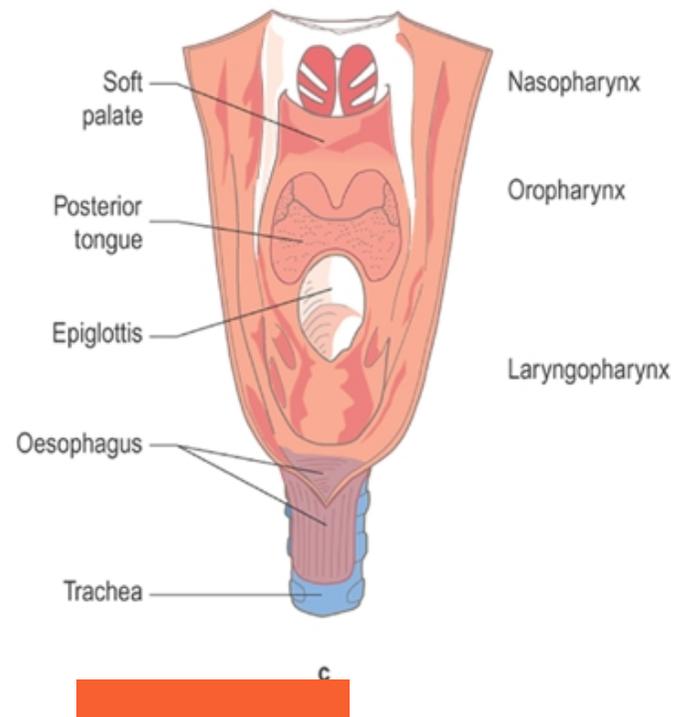
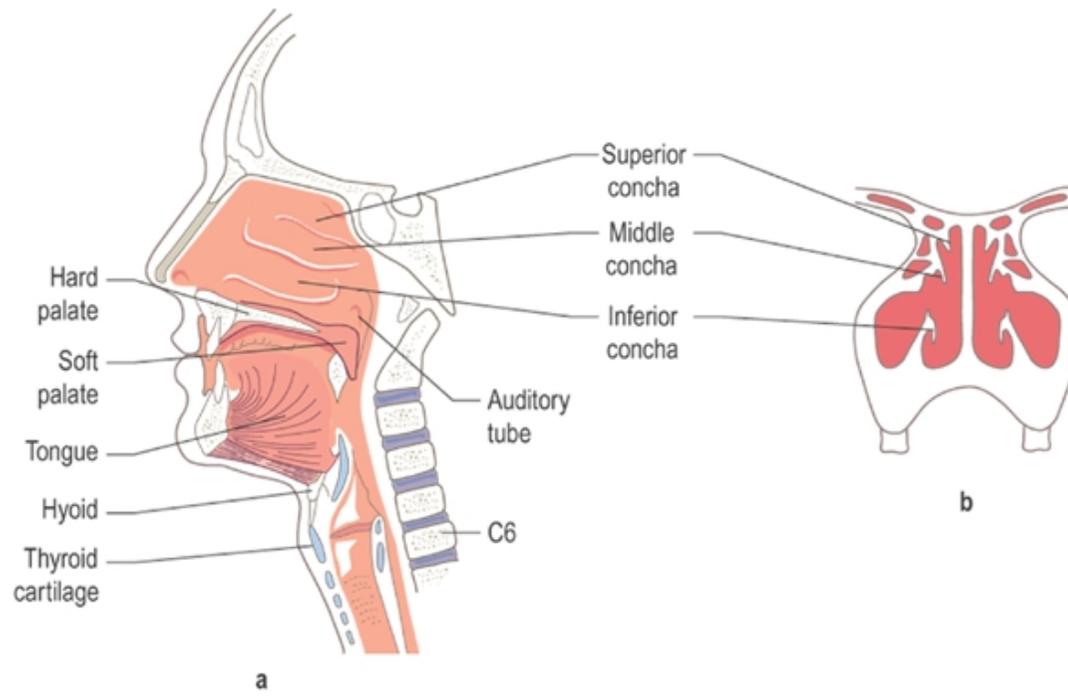
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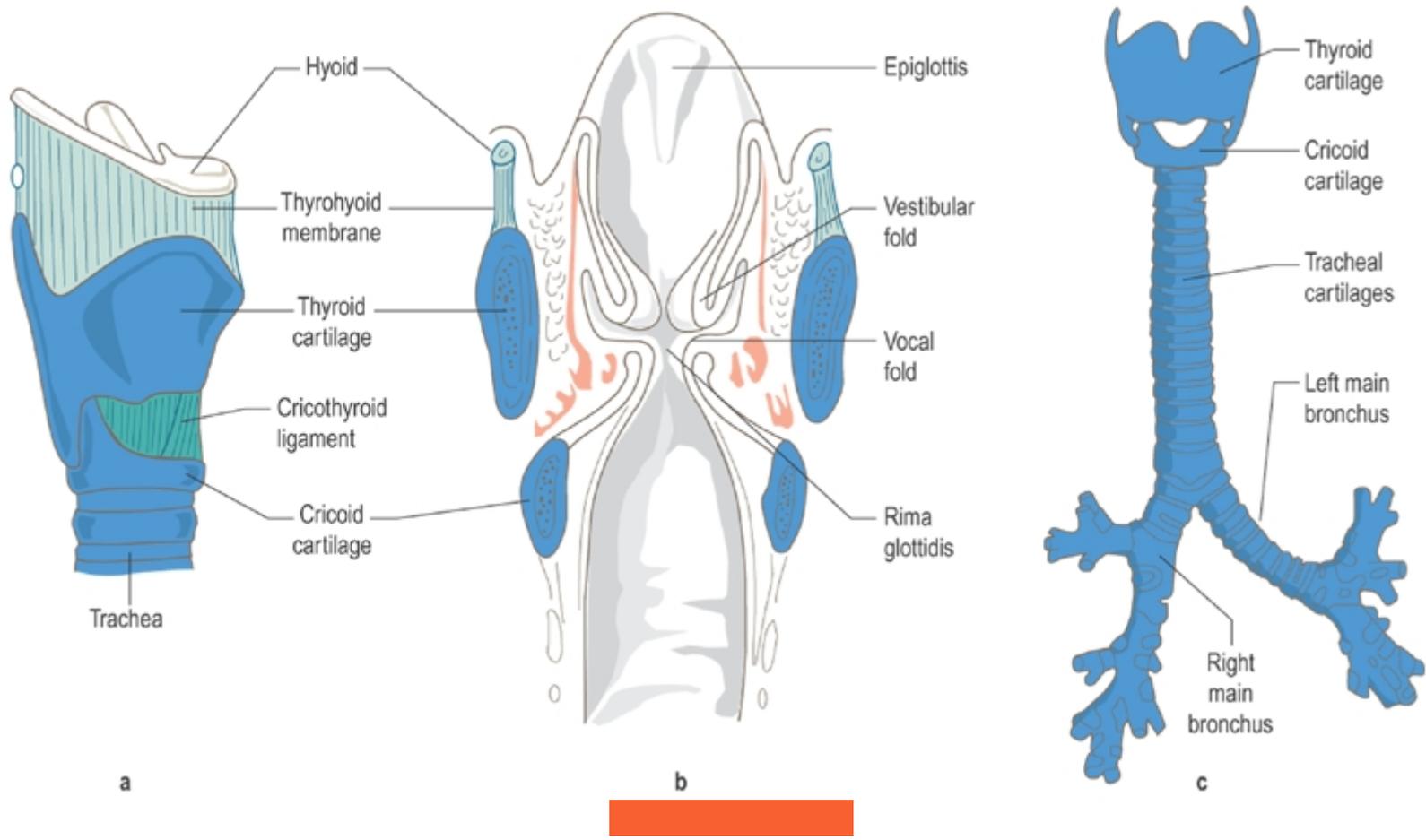


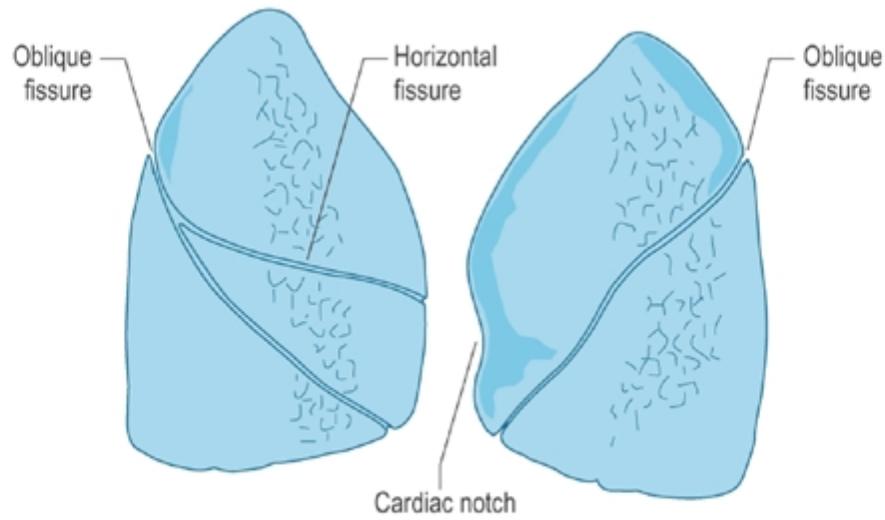
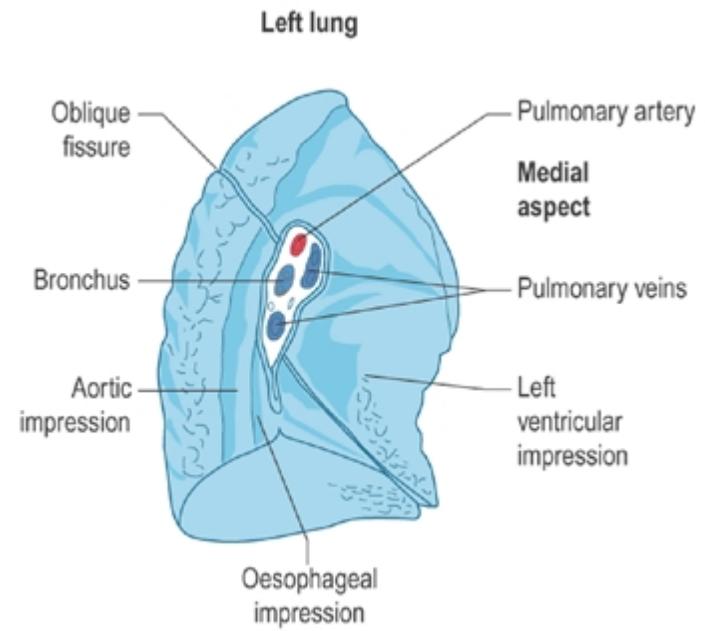
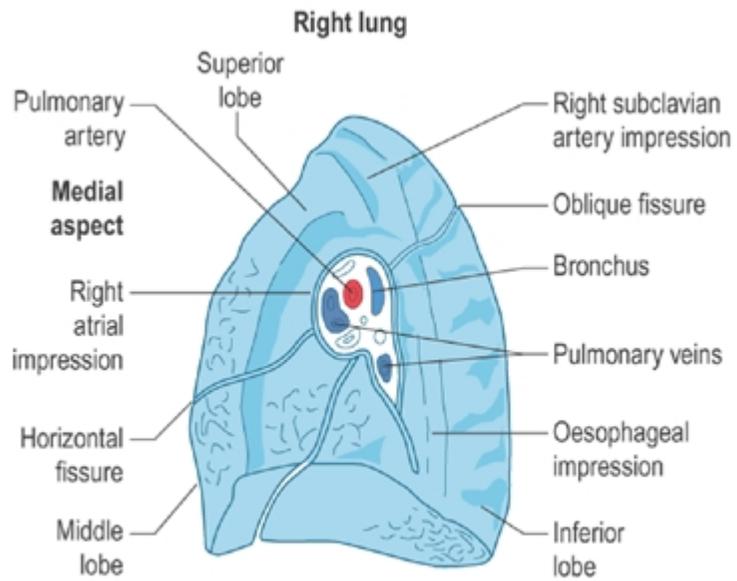
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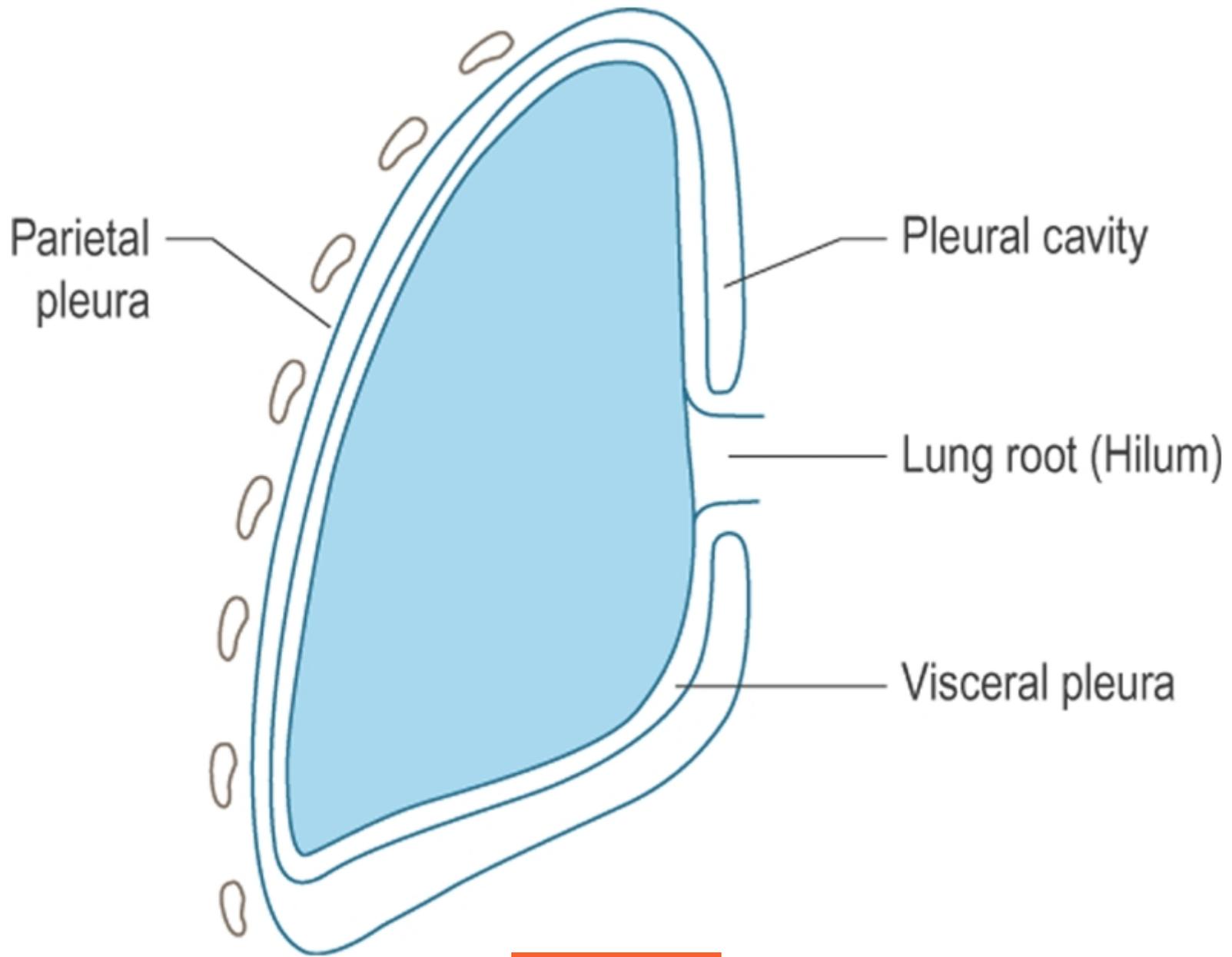








Lateral aspect



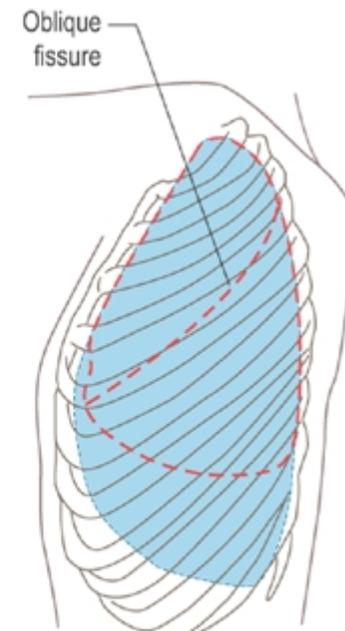
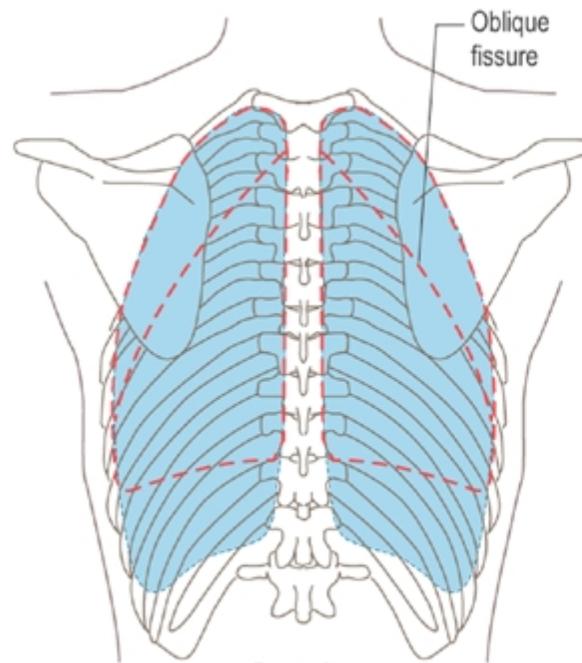
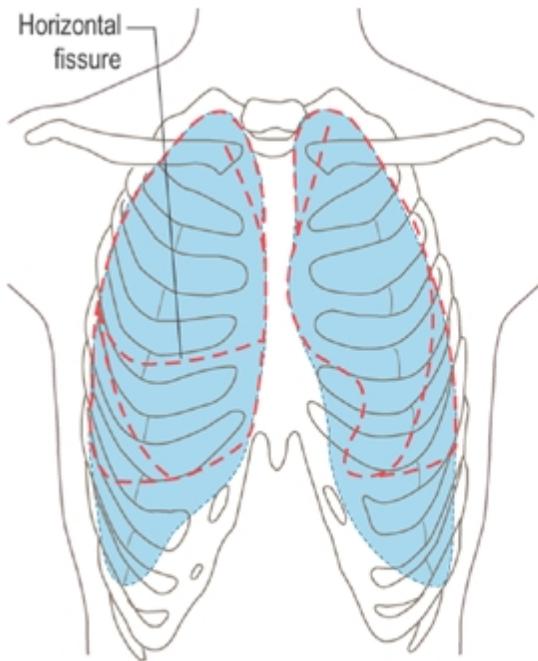
Parietal
pleura

Pleural cavity

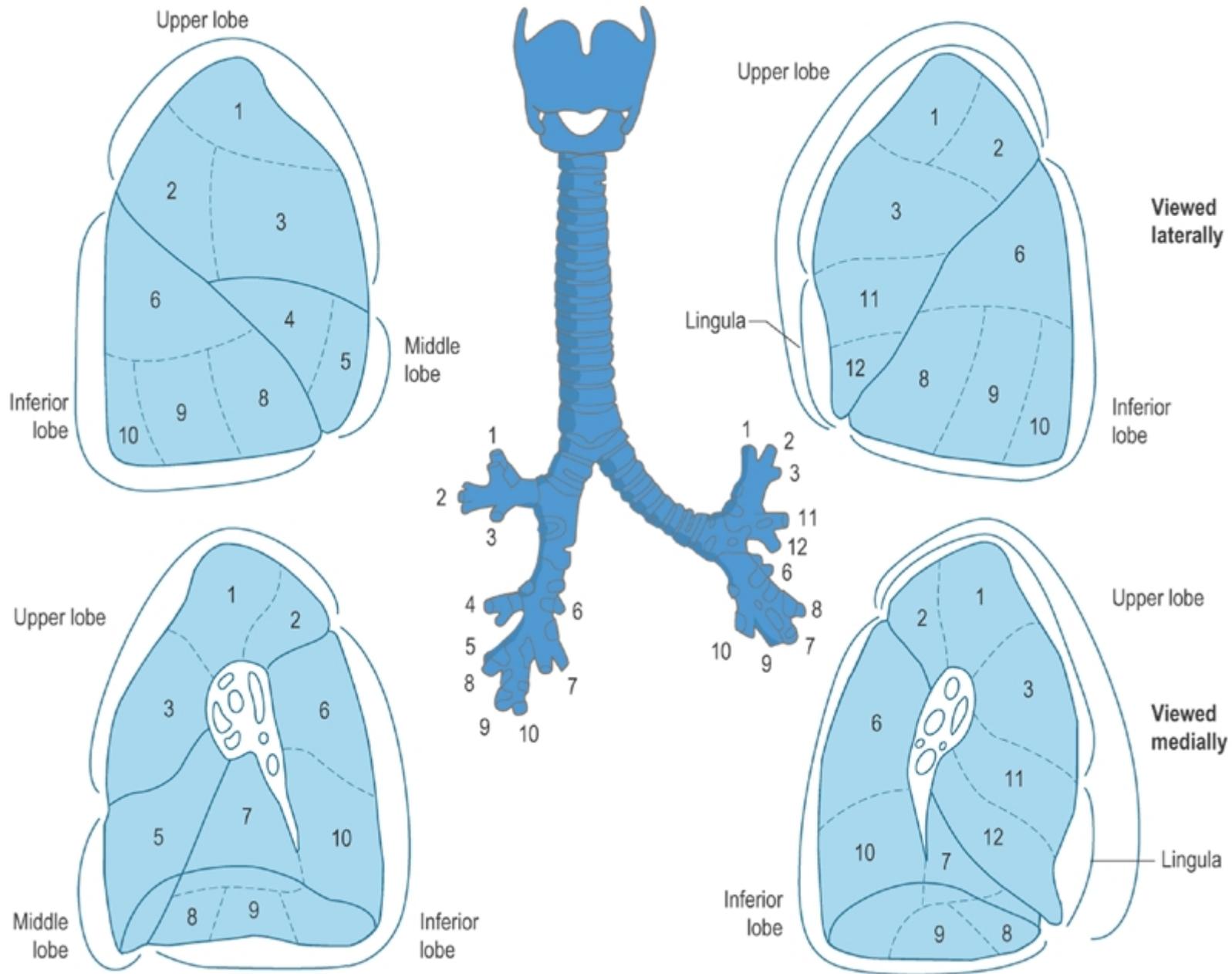
Lung root (Hilum)

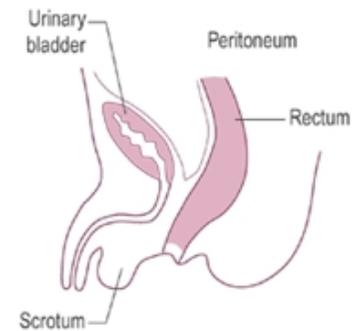
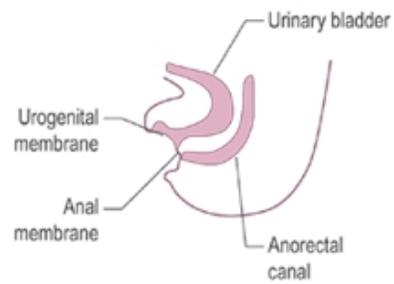
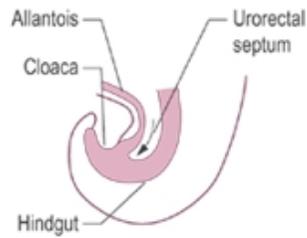
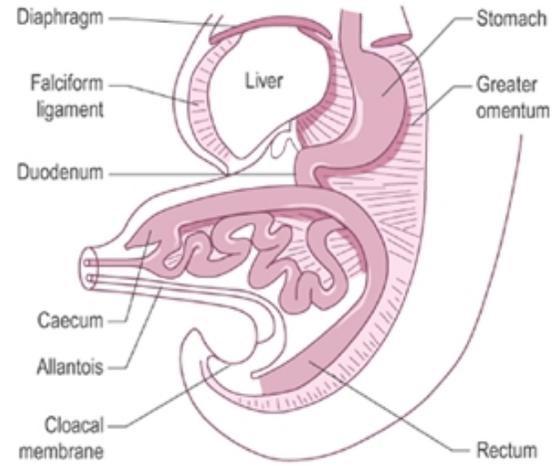
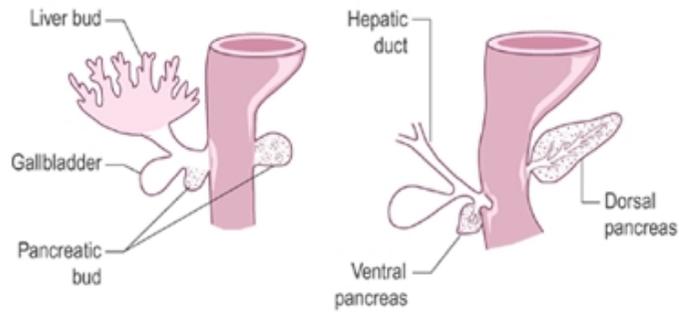
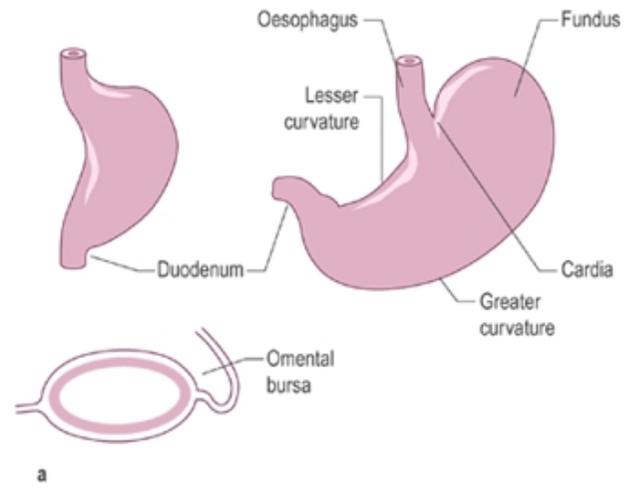
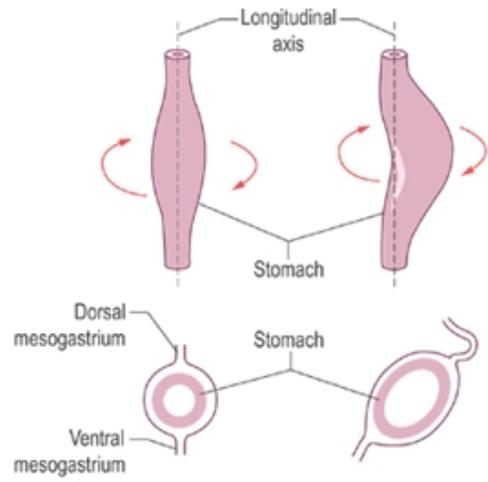
Visceral pleura

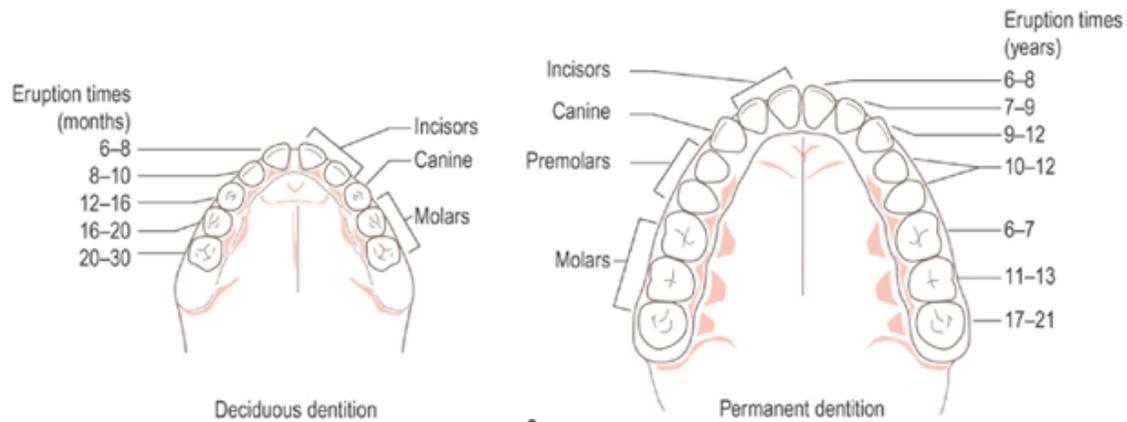
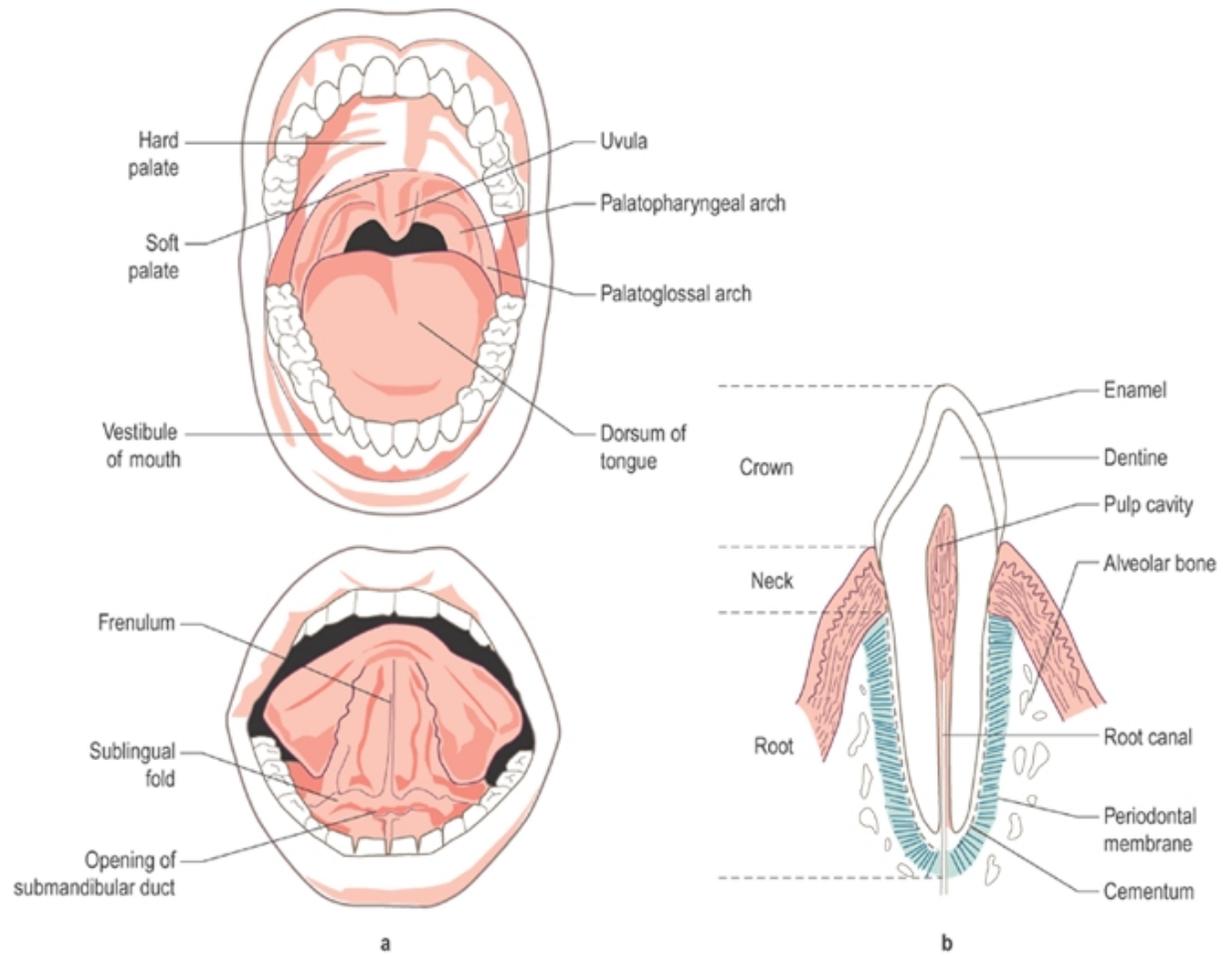


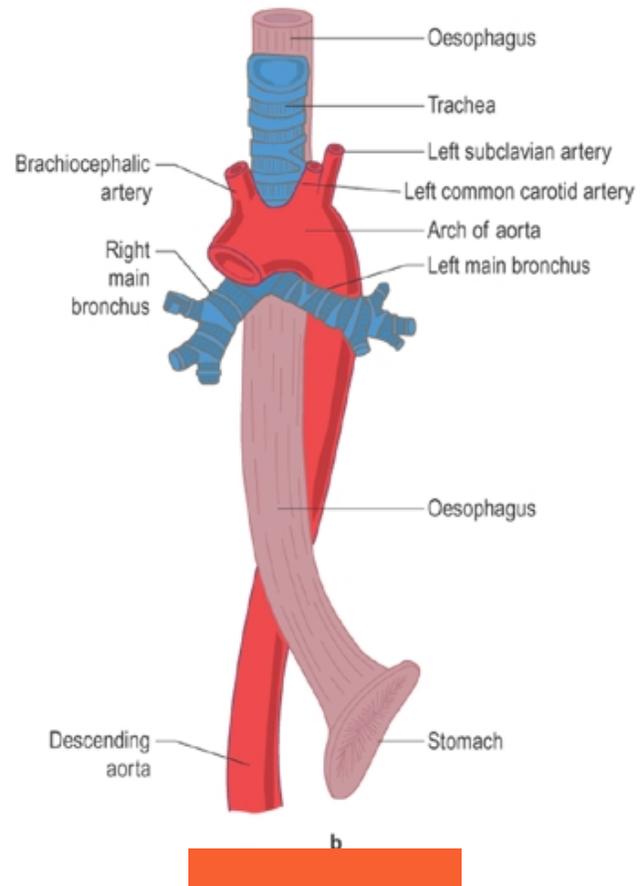
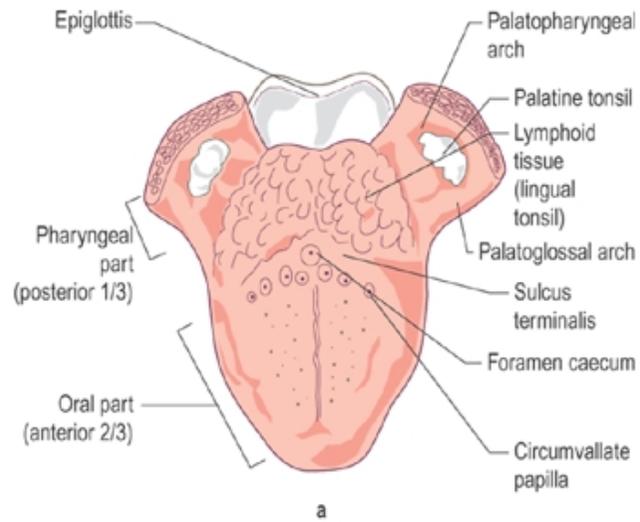


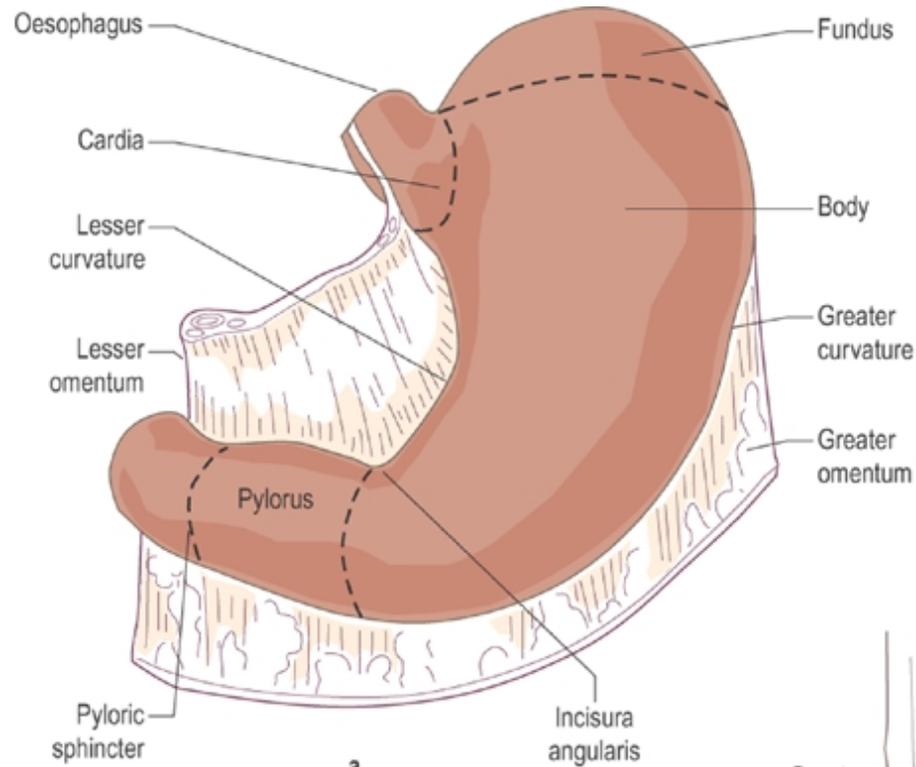
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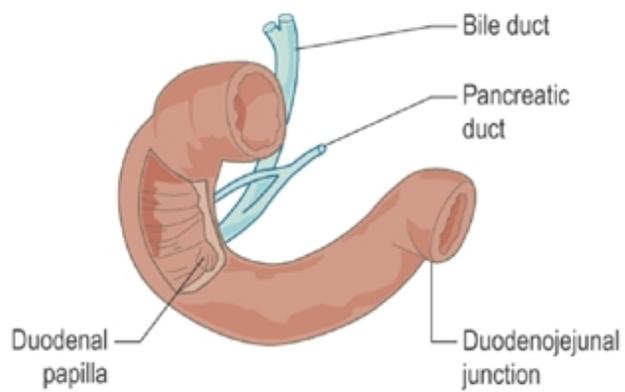




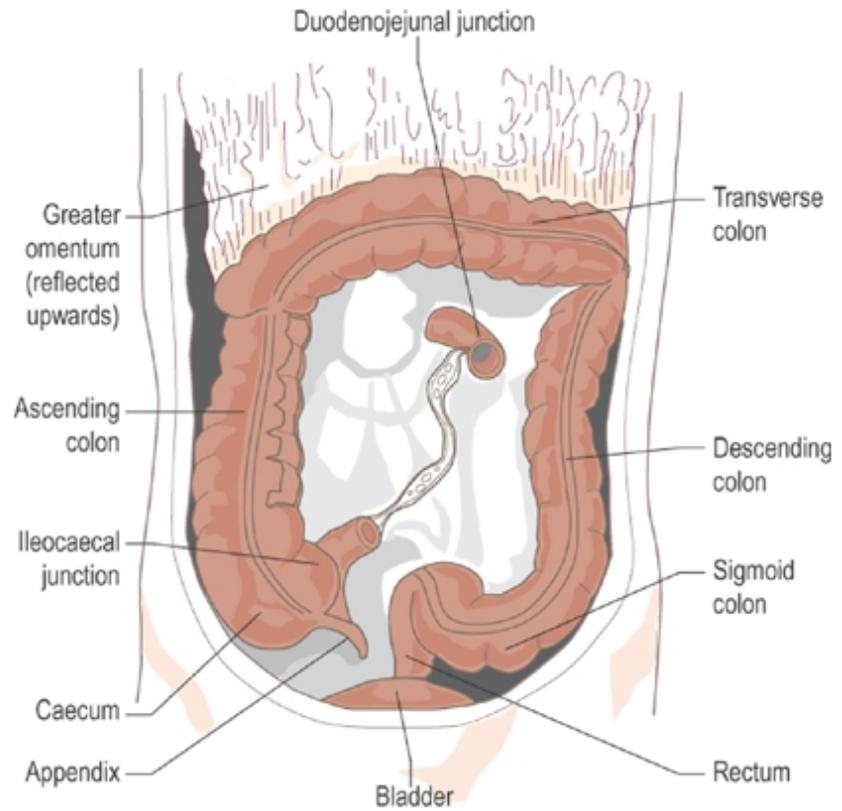




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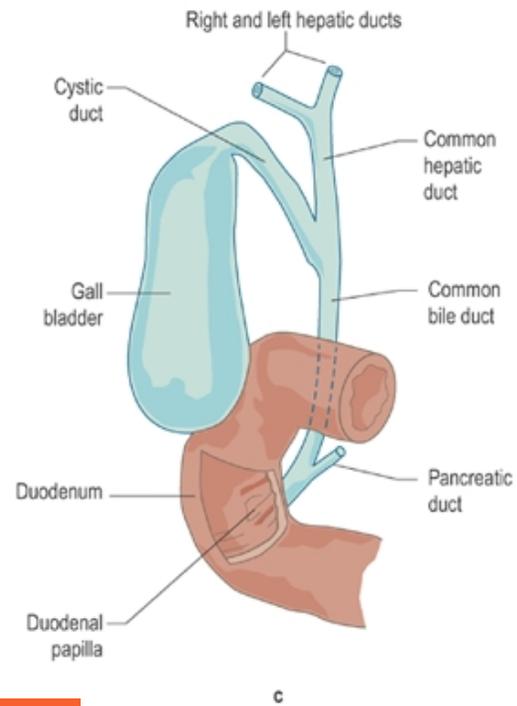
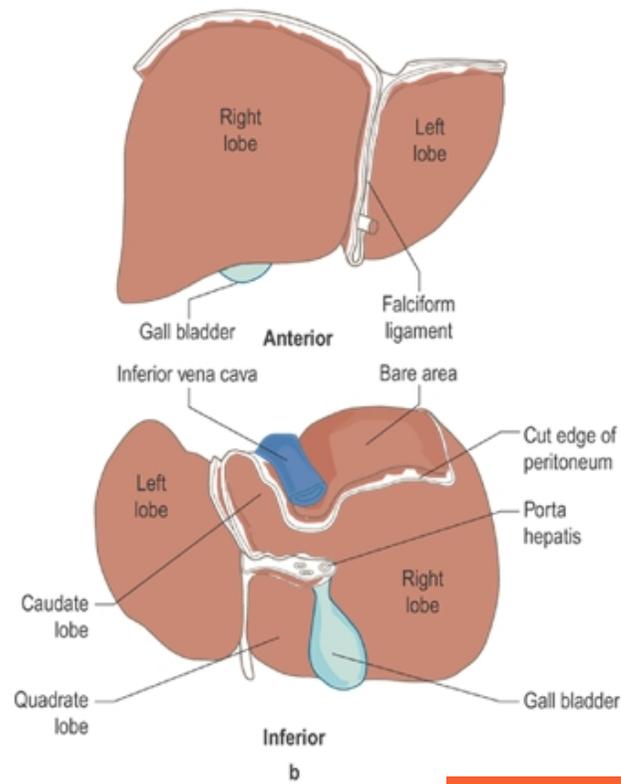
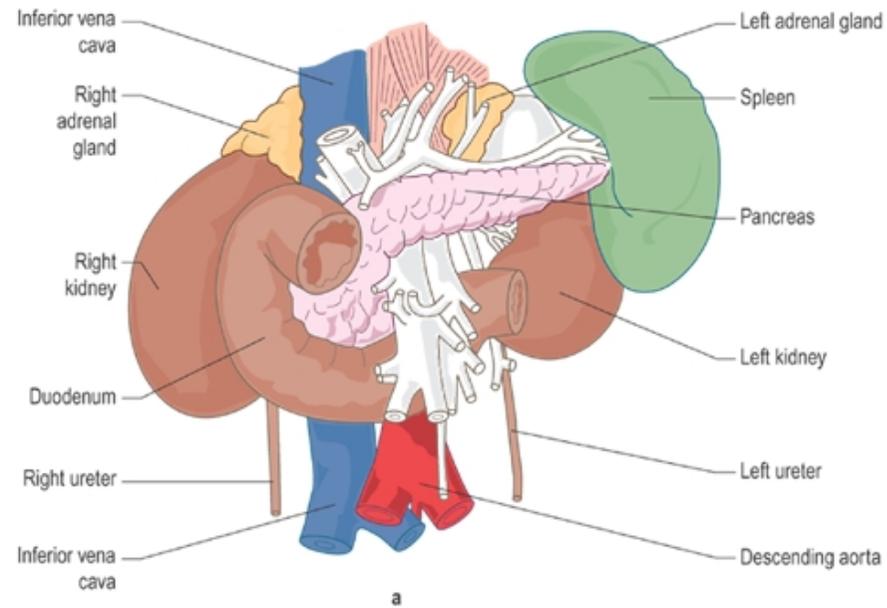


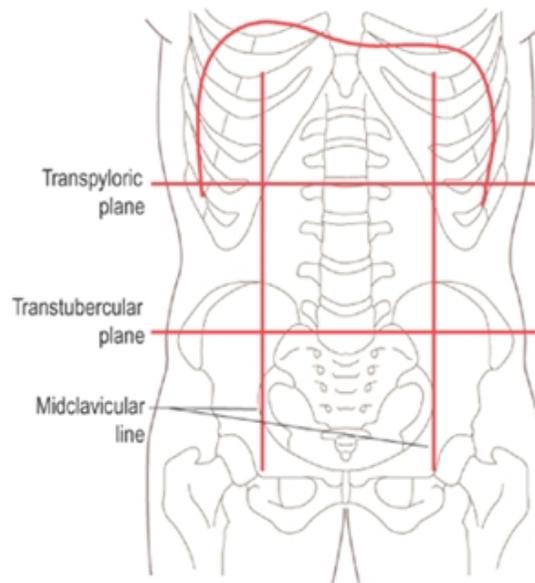
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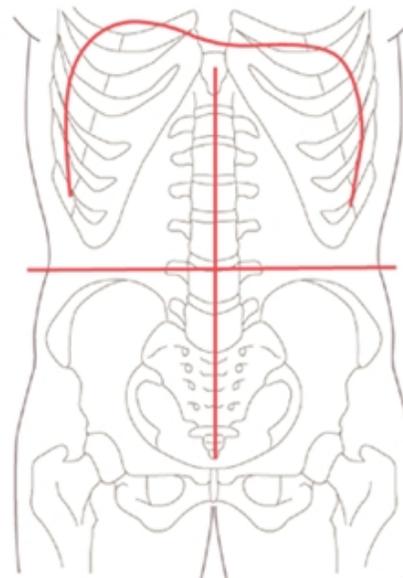




Abdominal Regions

Right hypochondrium	Epigastrium	Left hypochondrium
Liver and gall bladder (Kidney) and adrenal gland Colon (hepatic flexure)	Liver (Transverse colon) Abdominal aorta and inferior vena cava	Stomach Spleen (Kidney) and adrenal gland Colon (splenic flexure)
Right lumbar	Umbilical	Left lumbar
Kidney Colon (ascending) Small intestine	(Transverse colon) Duodenum and pancreas Small intestine Abdominal aorta and inferior vena cava Iliac vessels	Kidney Colon (descending) Pancreas Small intestine
Right iliac	Hypogastric	Left iliac
Caecum Appendix Small intestine	Distensible organs of pelvis Small intestine Iliac vessels Spermatic cords	Sigmoid colon Small intestine

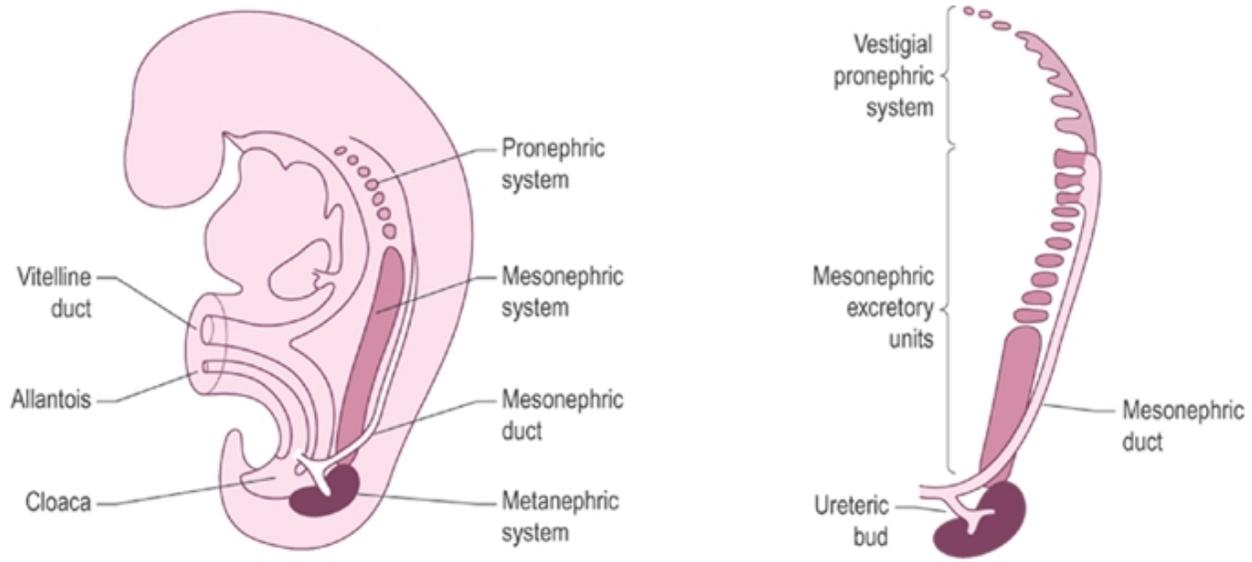
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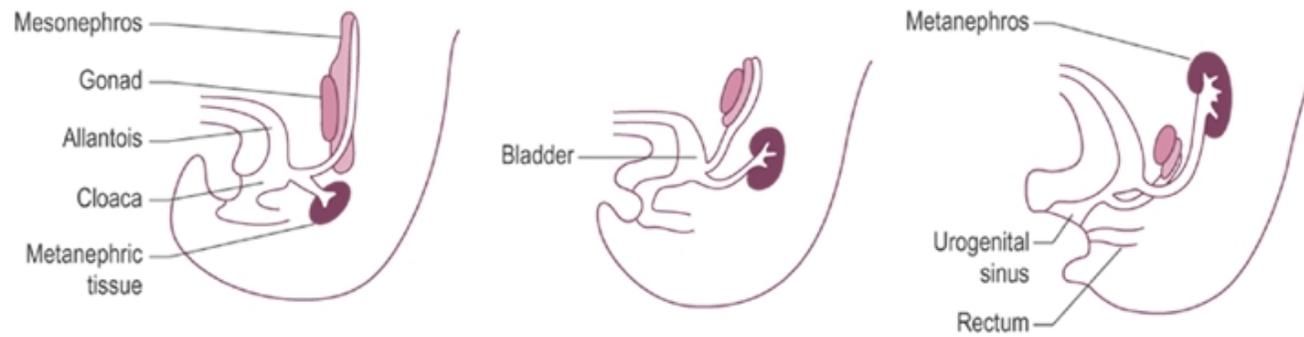
Abdominal Quadrants

Right upper	Left upper
Liver Gall bladder Colon (hepatic flexure and transverse) Kidney and adrenal gland Duodenum with head of pancreas Small intestine	Stomach Spleen Pancreas Kidney and adrenal gland Colon (splenic flexure and transverse) Small intestine (jejunum)
Right lower	Left lower
Colon (ascending) Caecum Appendix Small intestine	Colon (descending) Sigmoid colon Small intestine

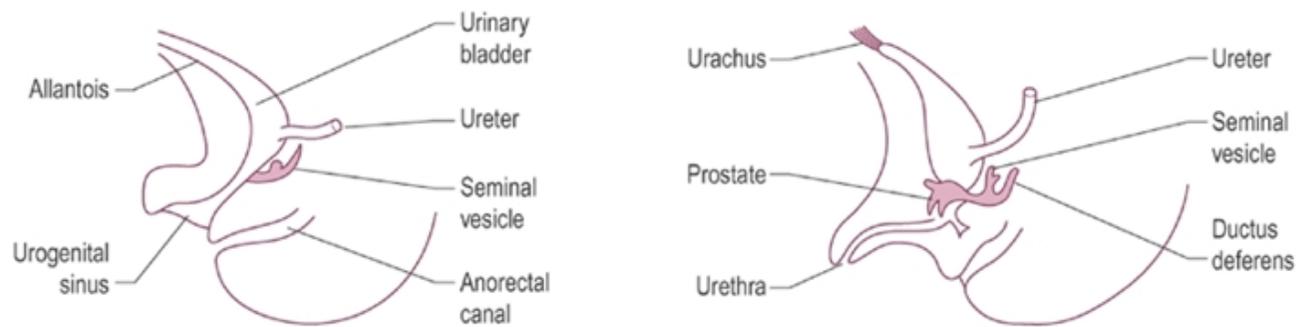
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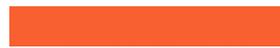
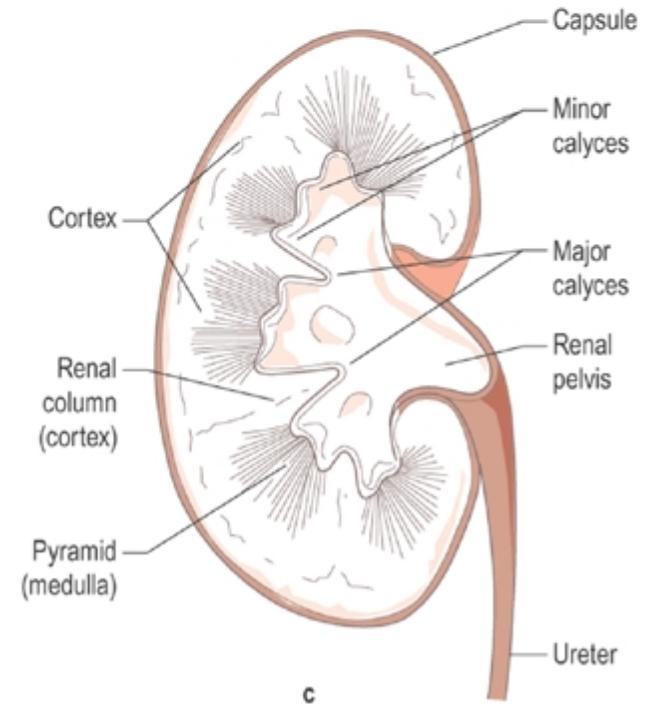
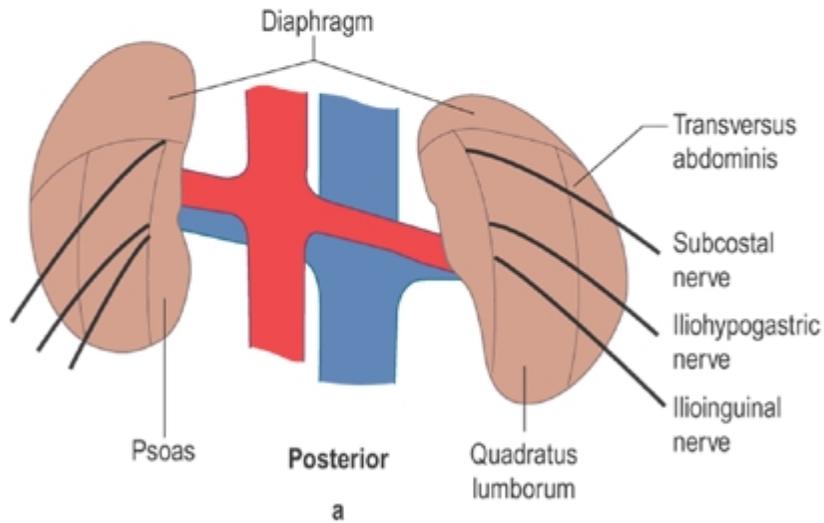
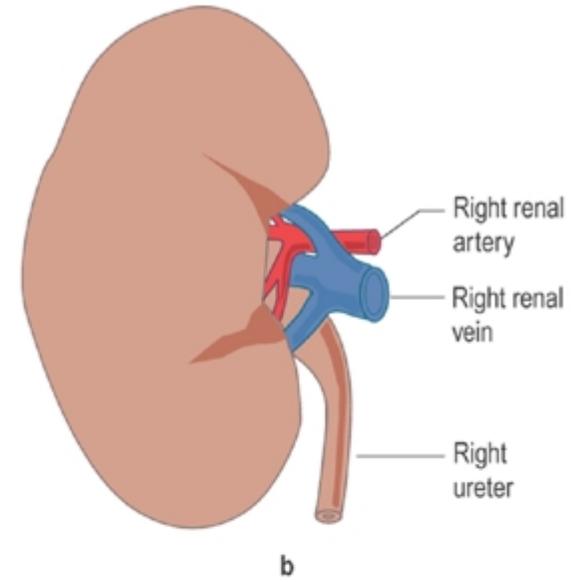
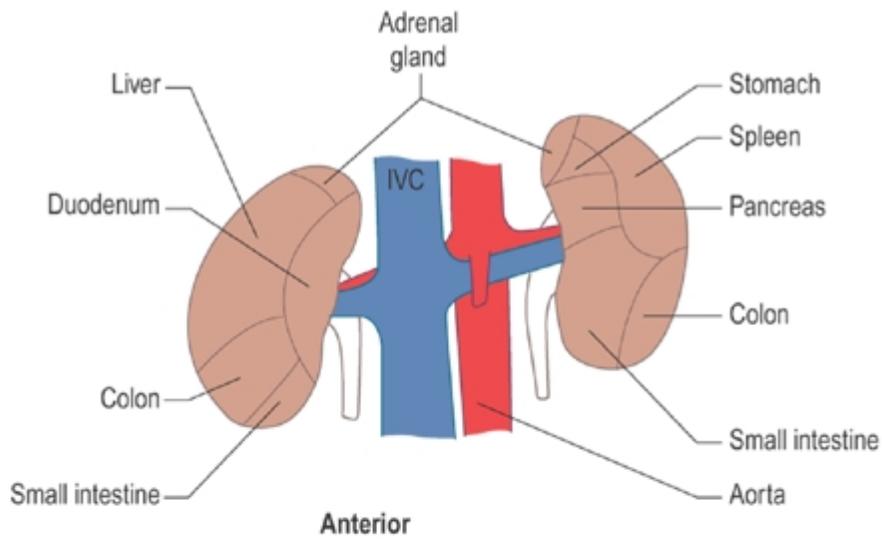


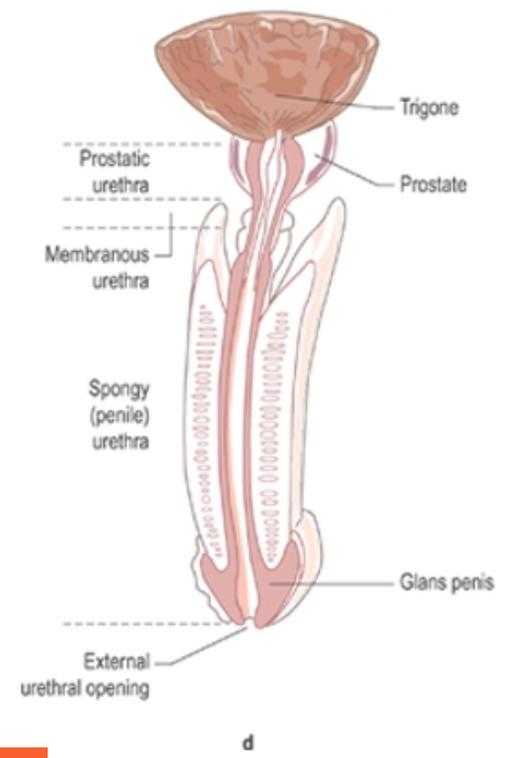
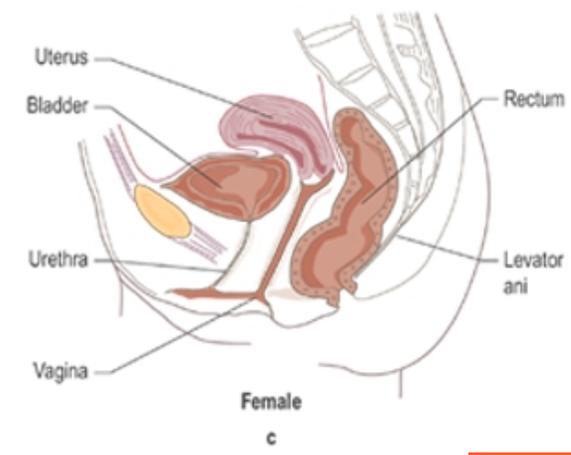
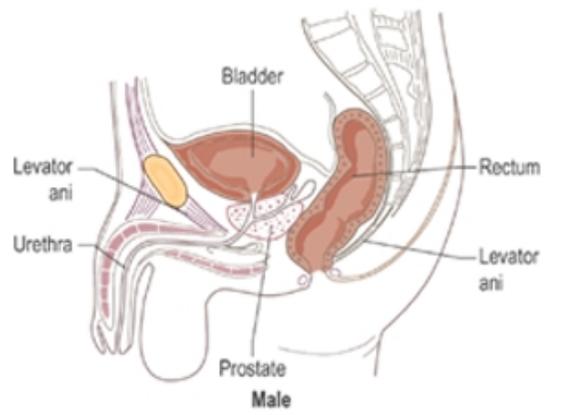
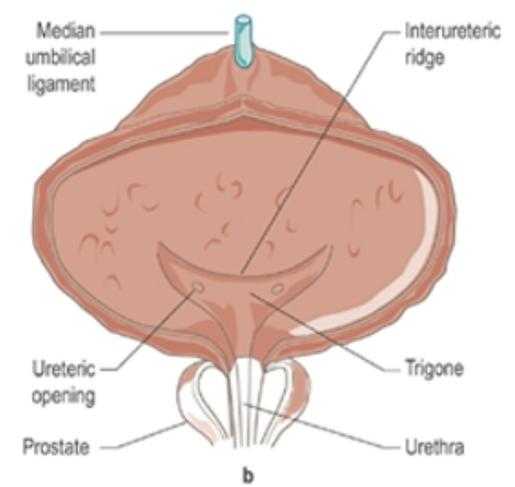
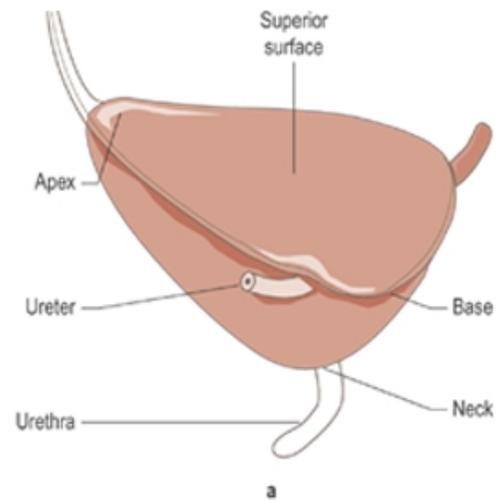
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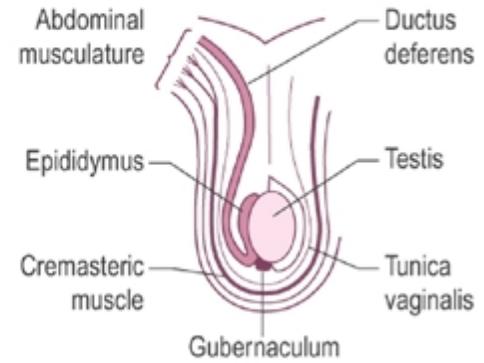
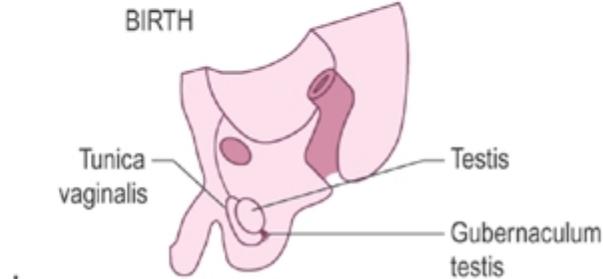
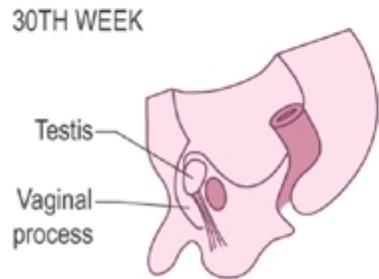
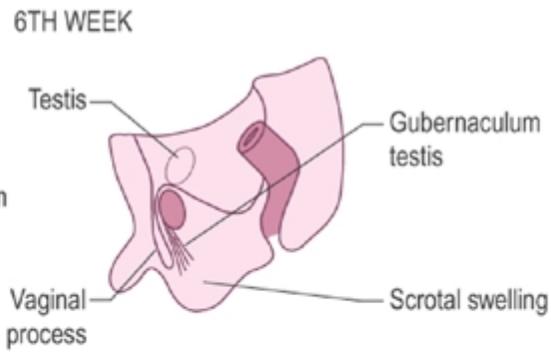
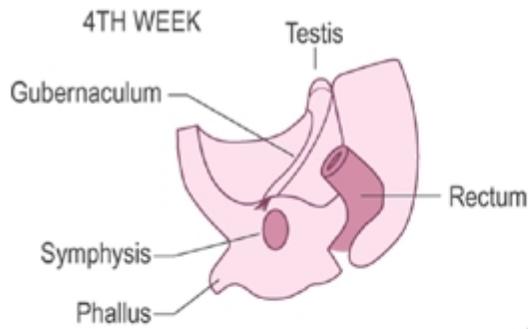
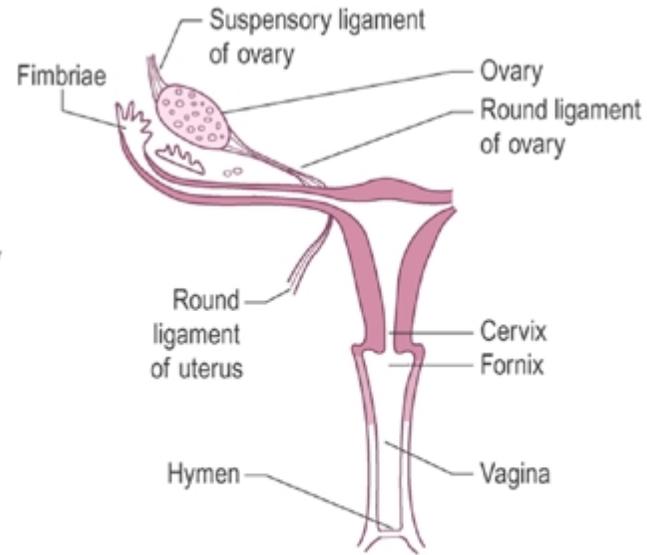
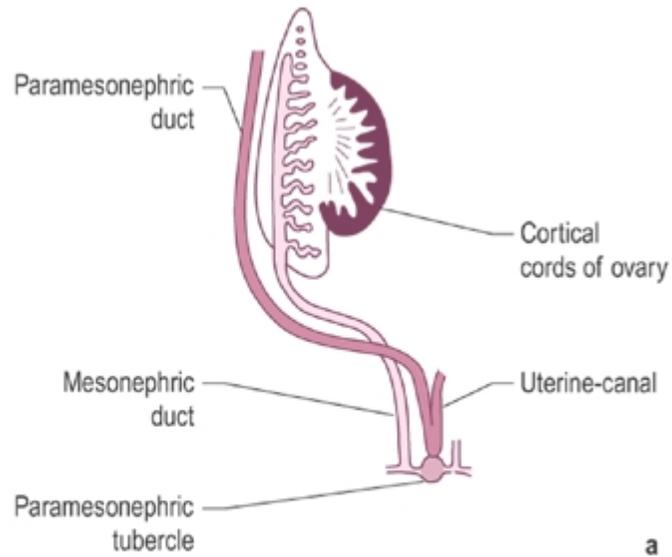


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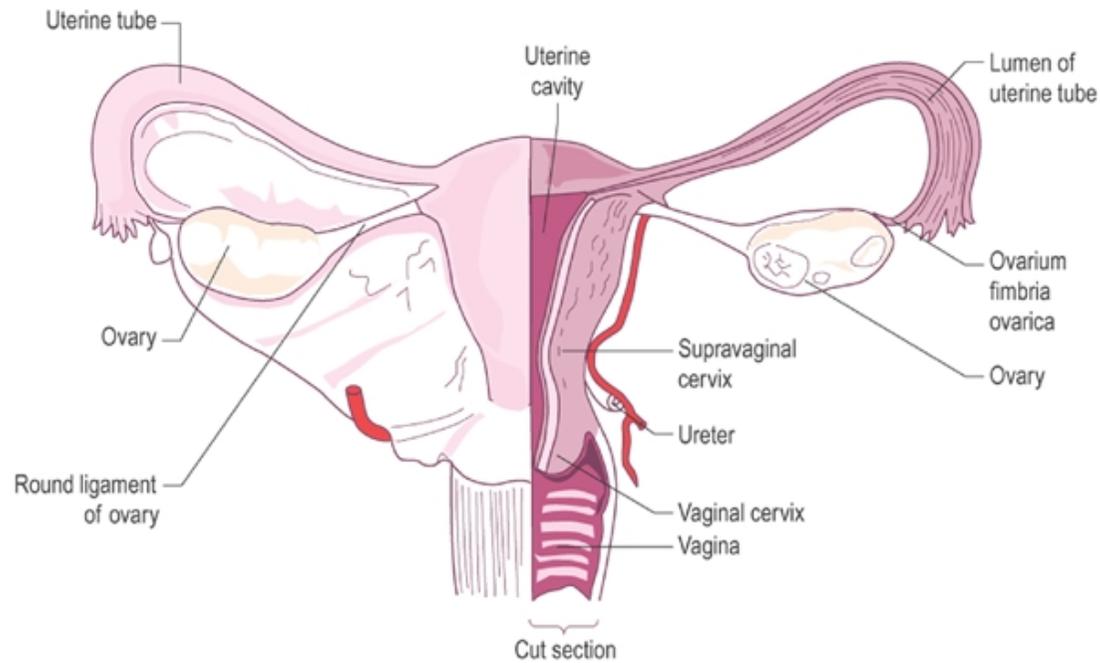
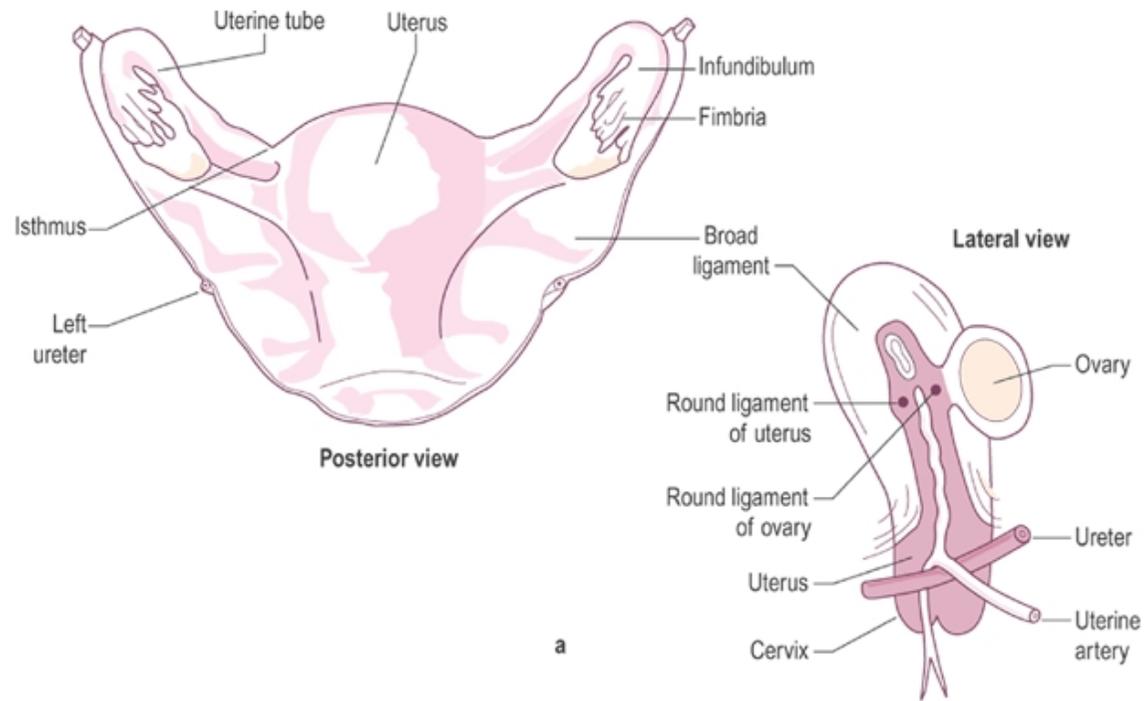


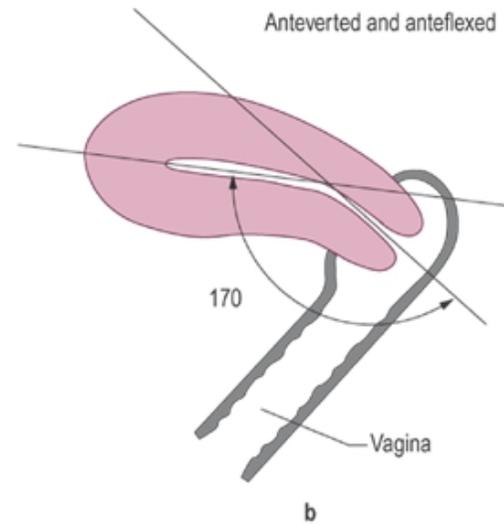
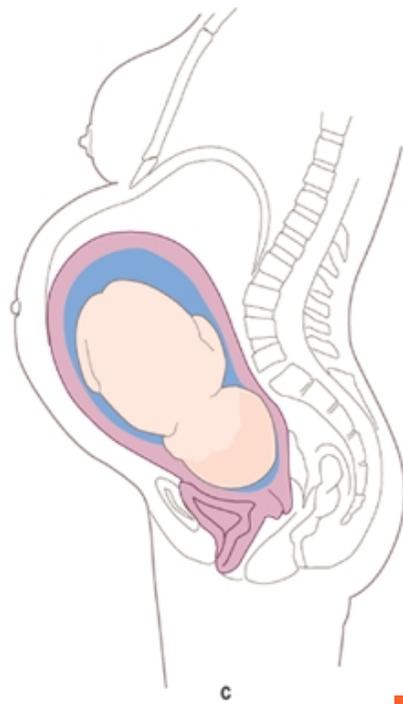
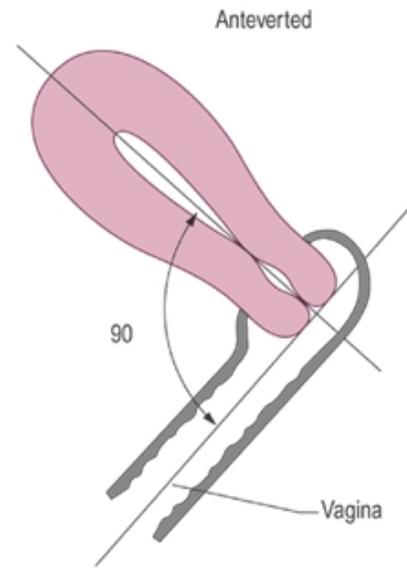
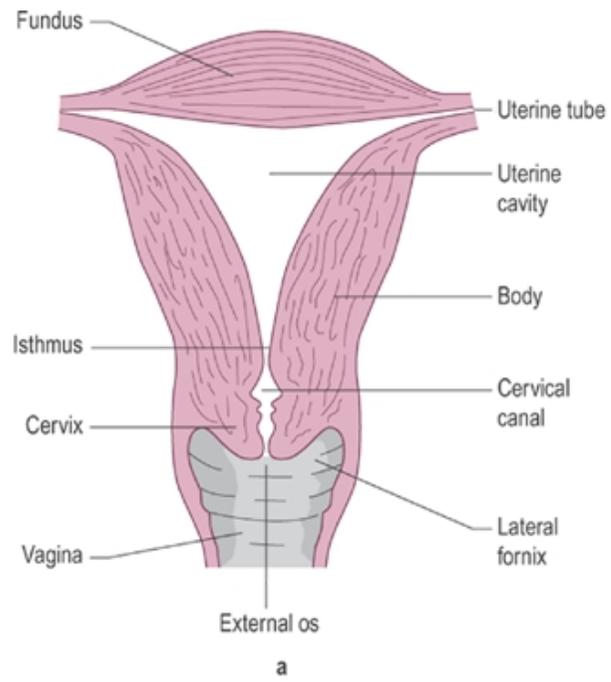


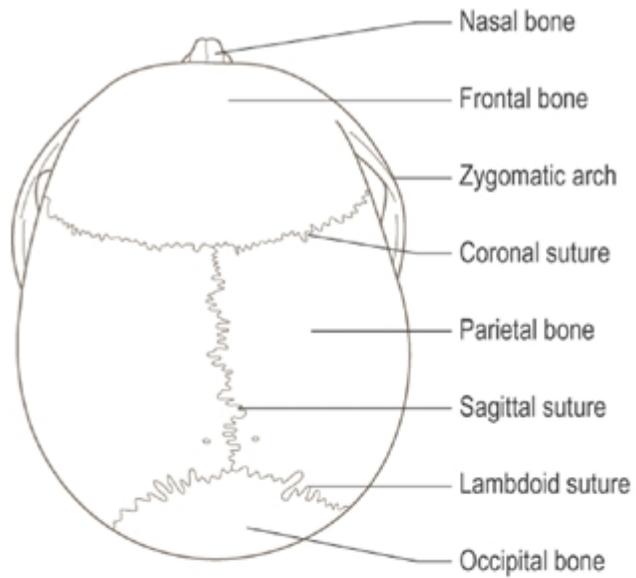


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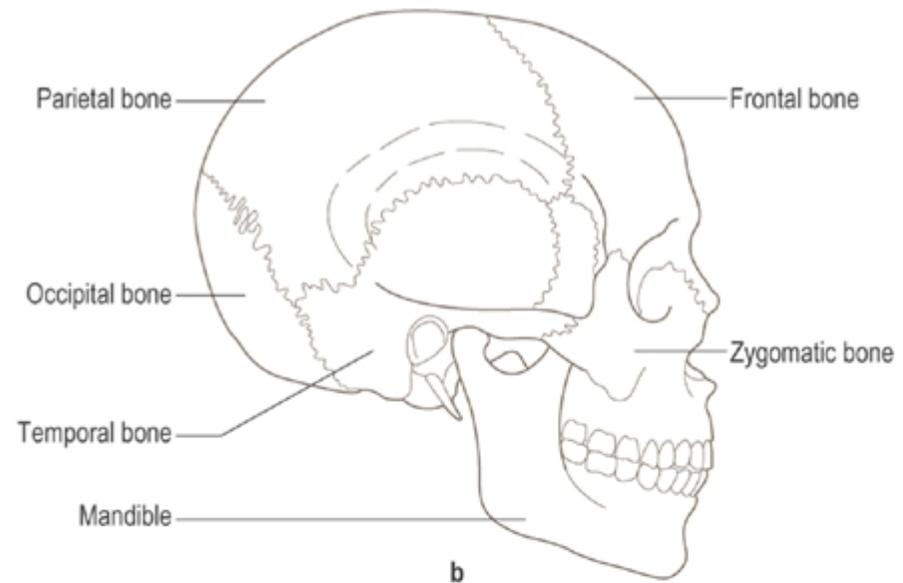
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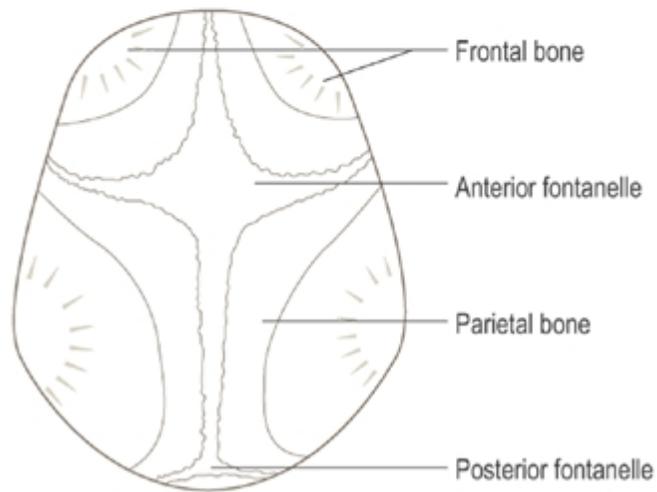




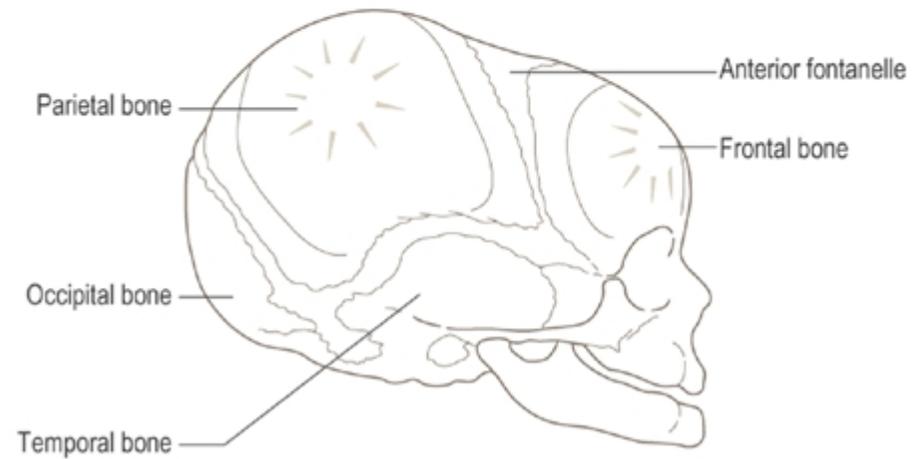
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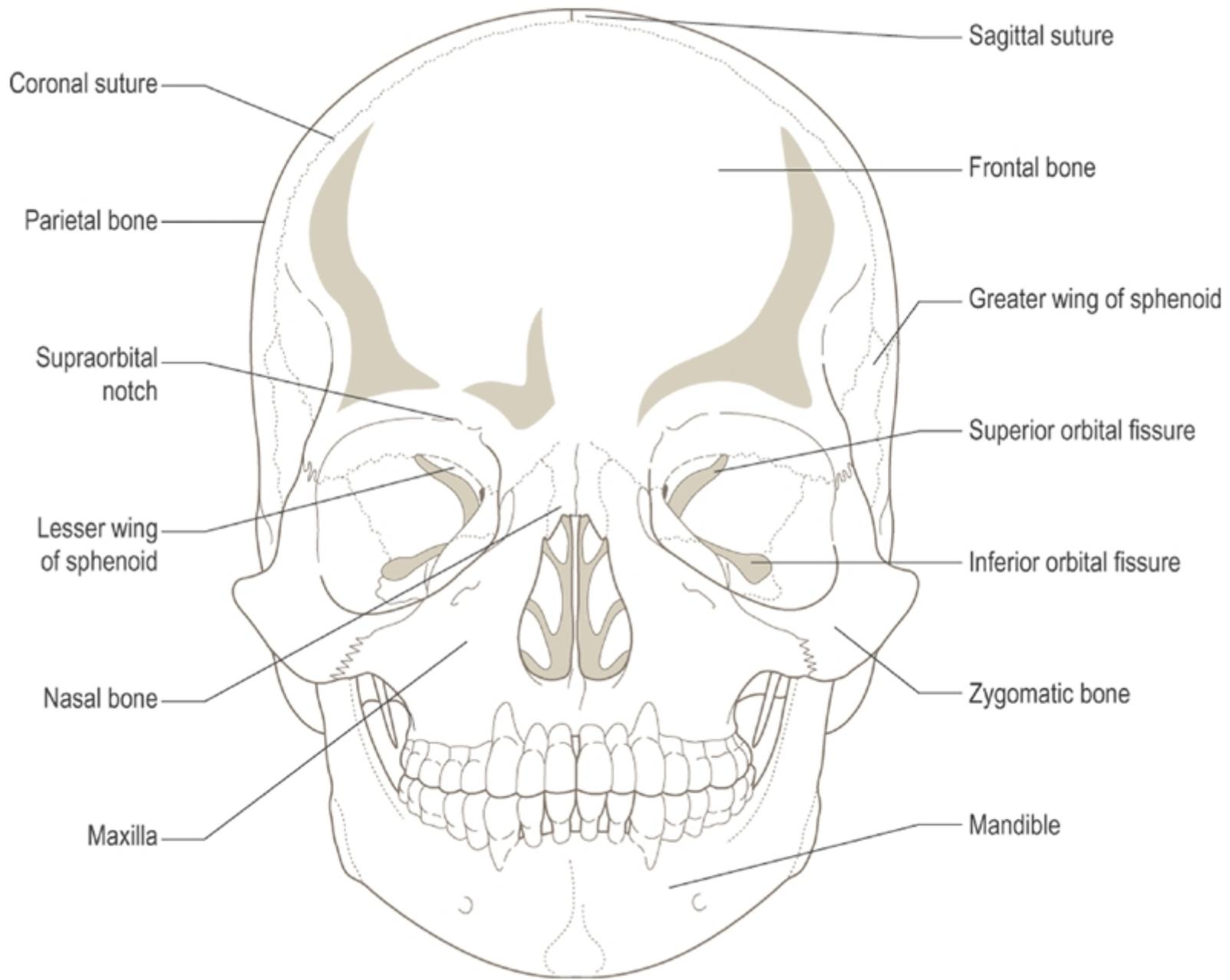


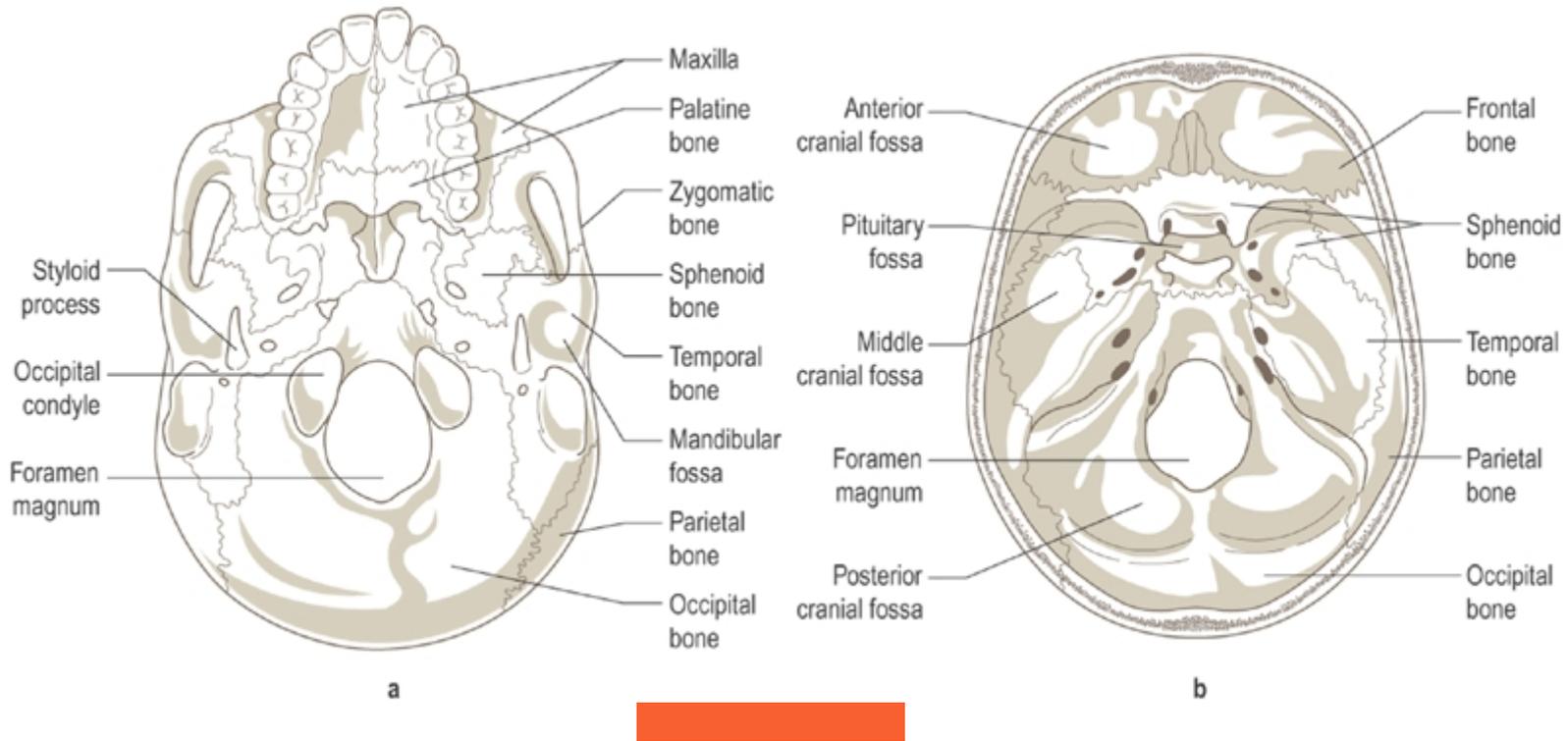
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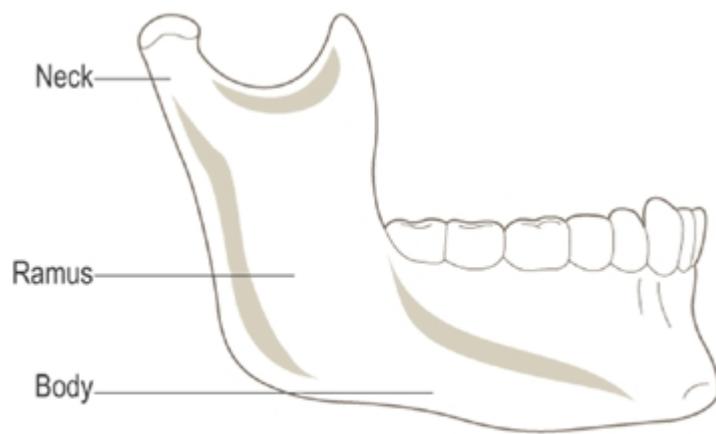
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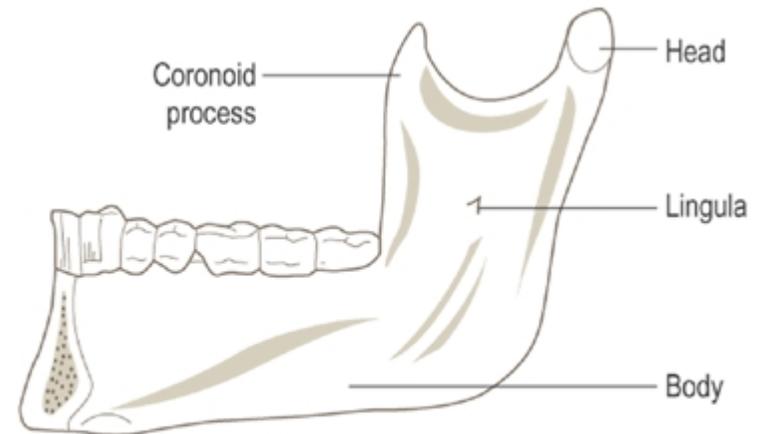




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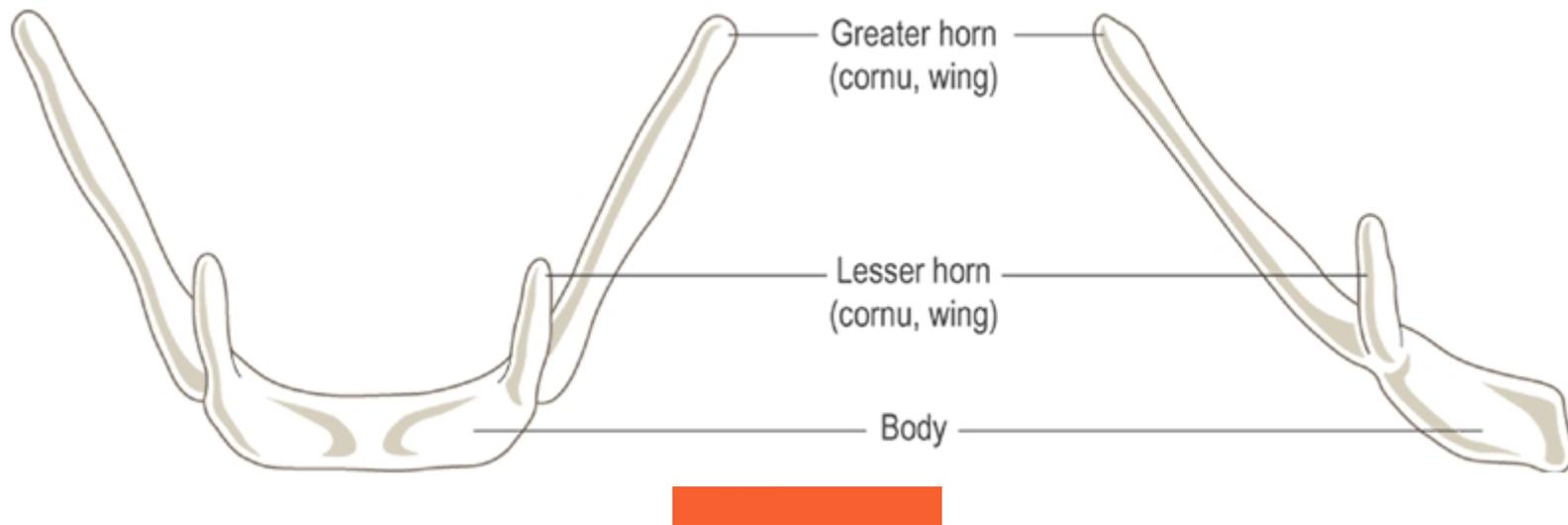


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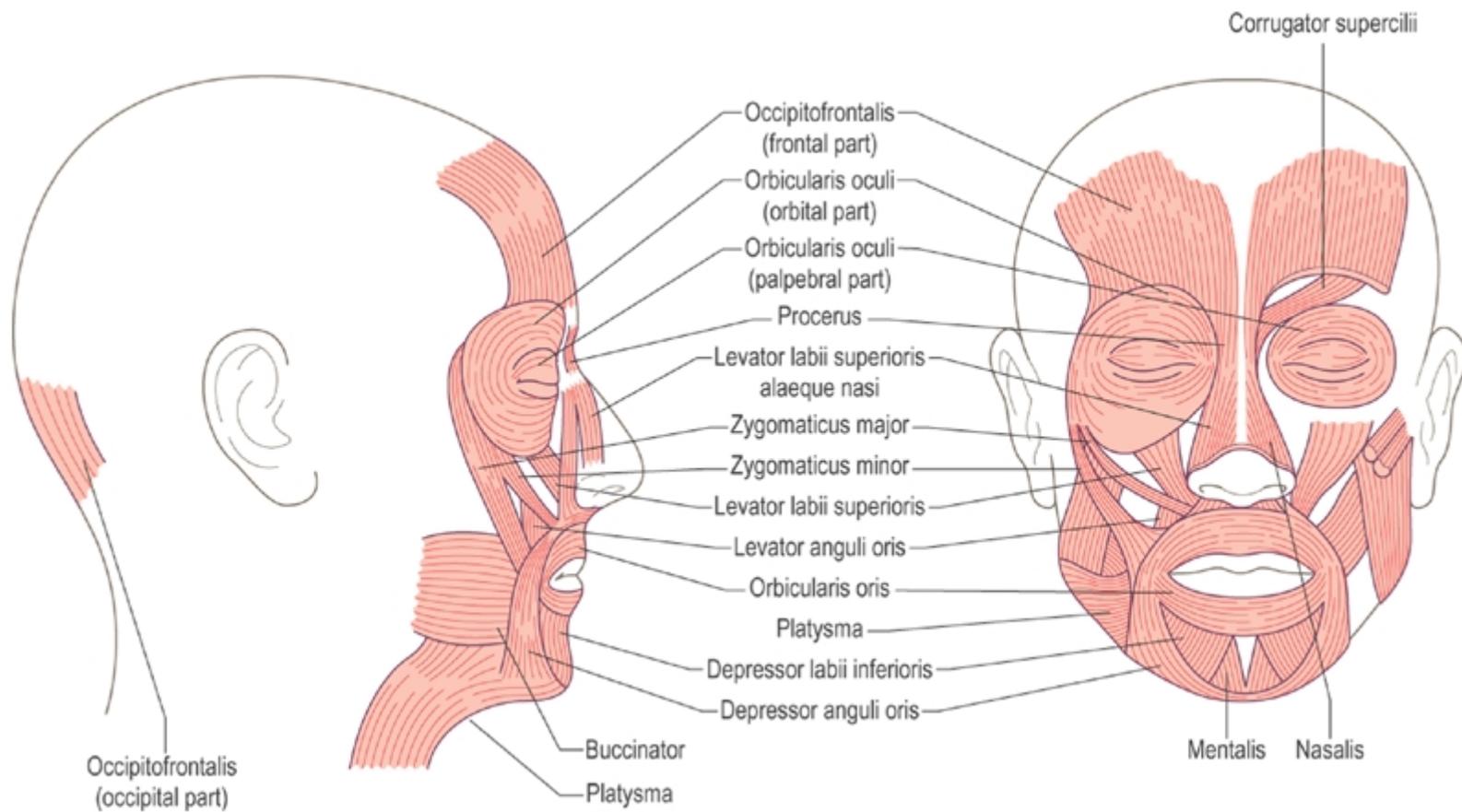


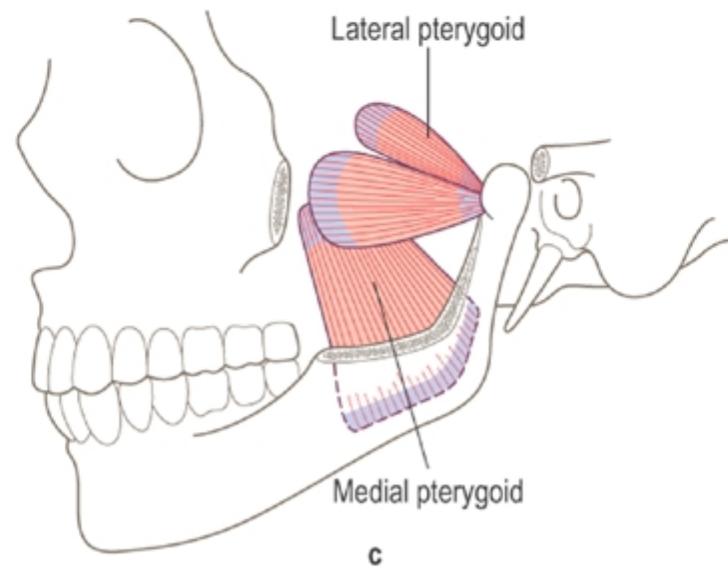
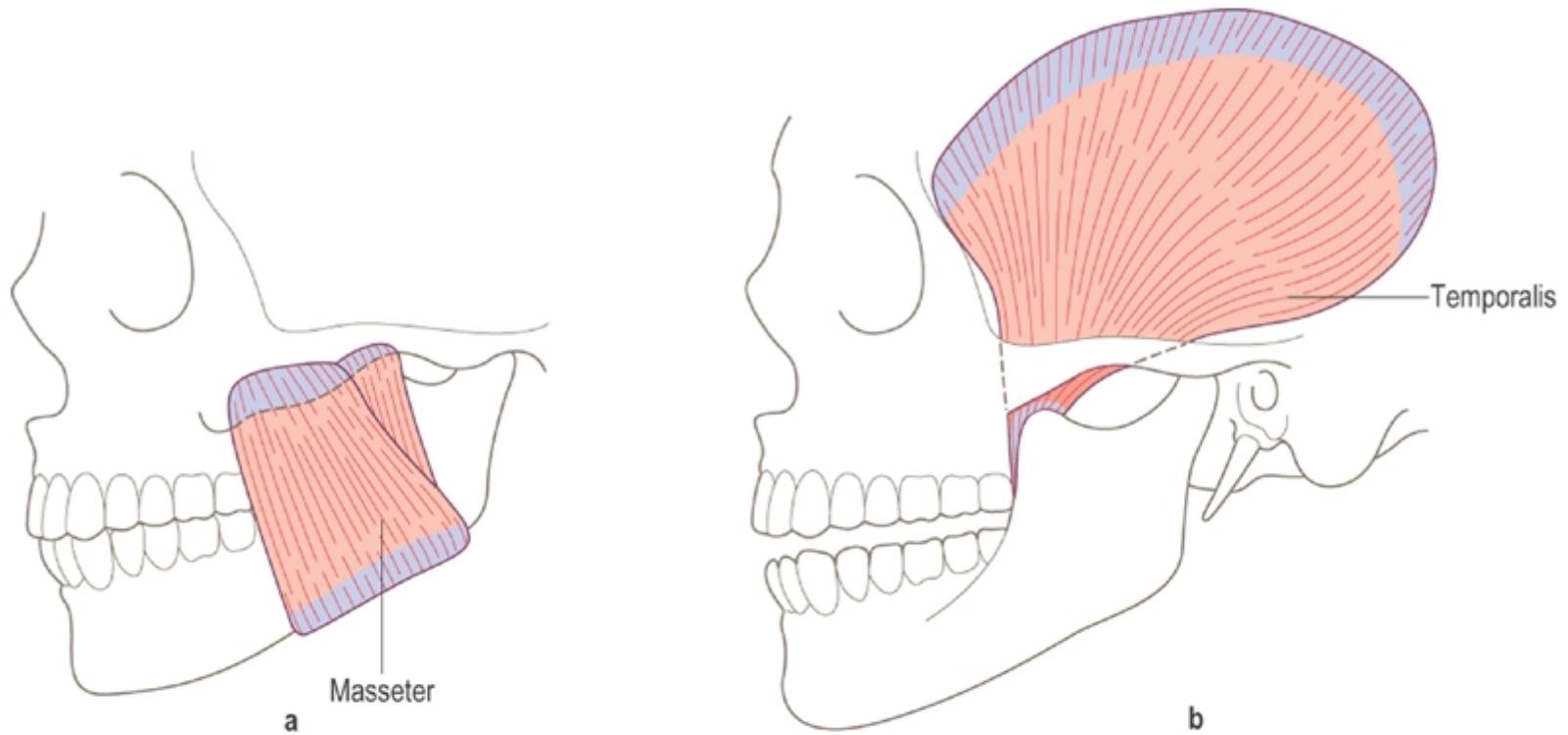
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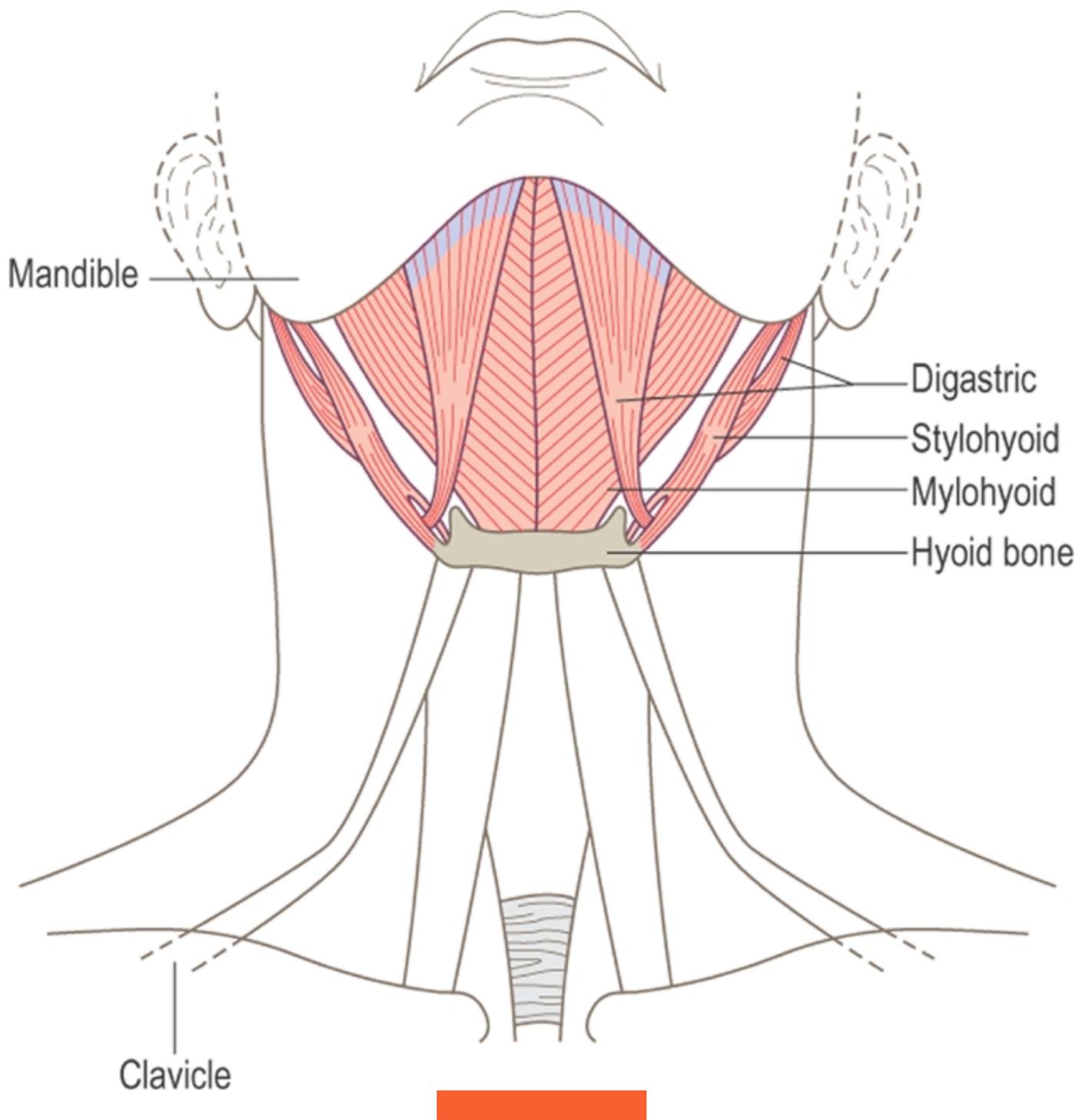
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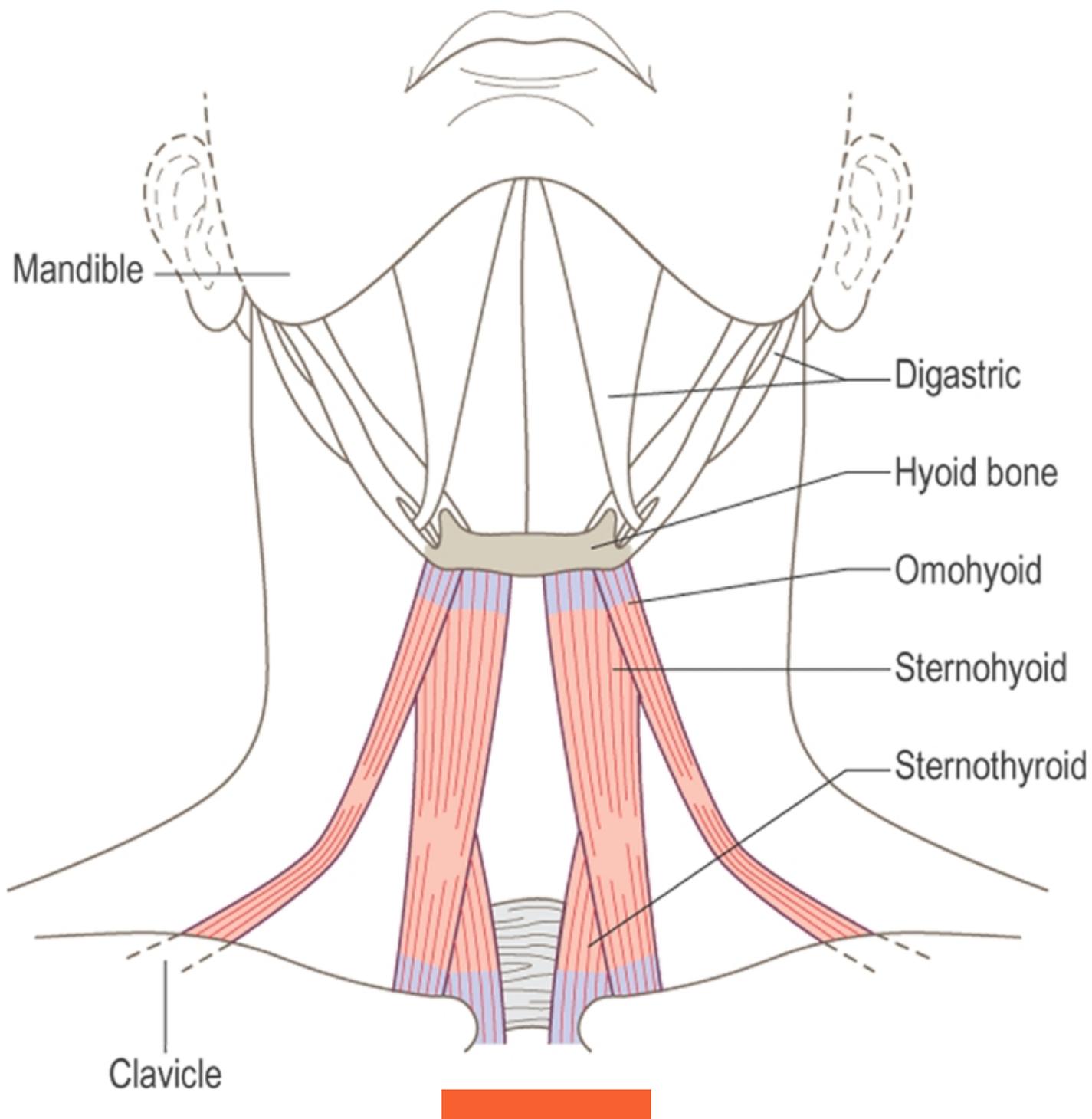


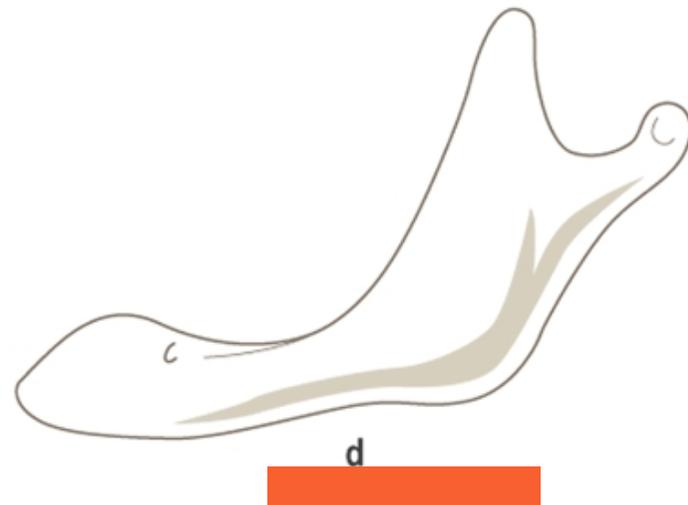
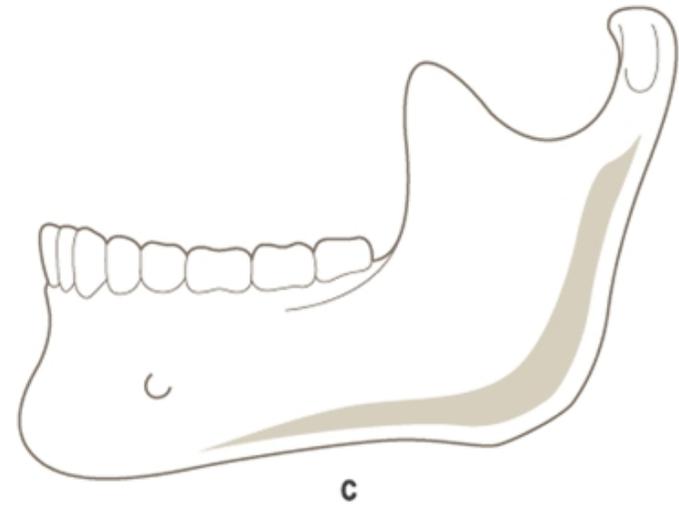
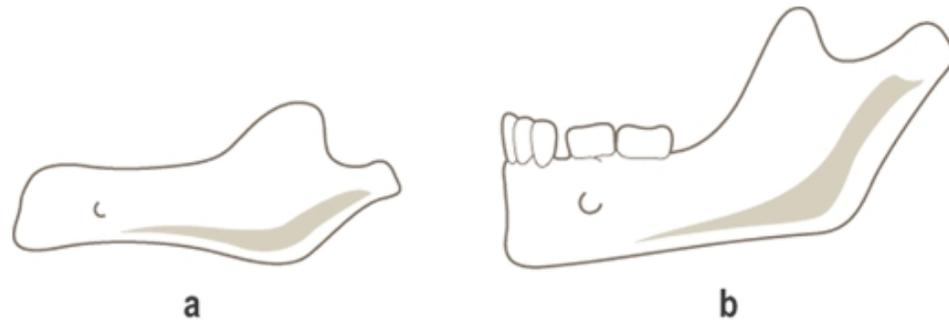
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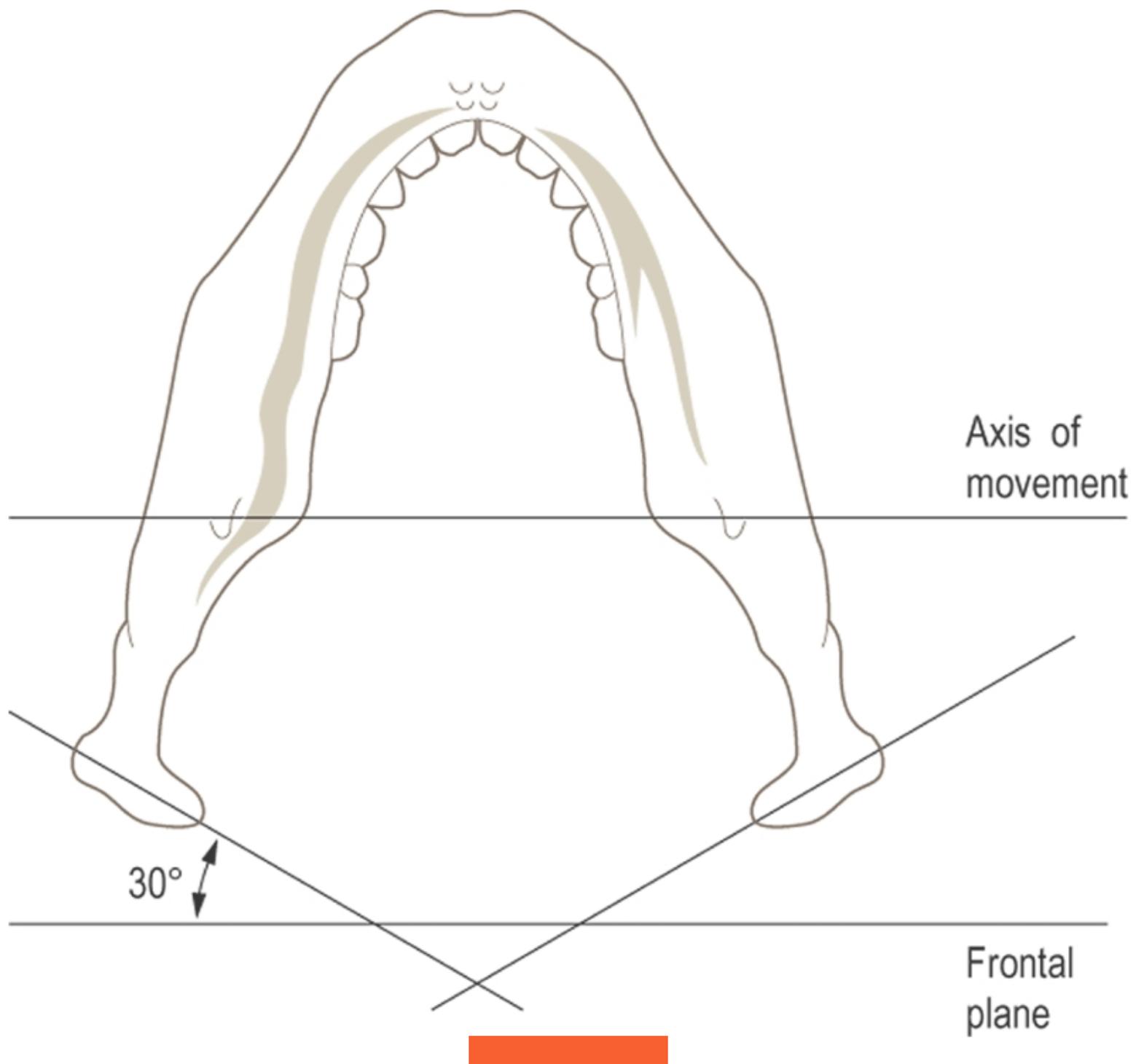


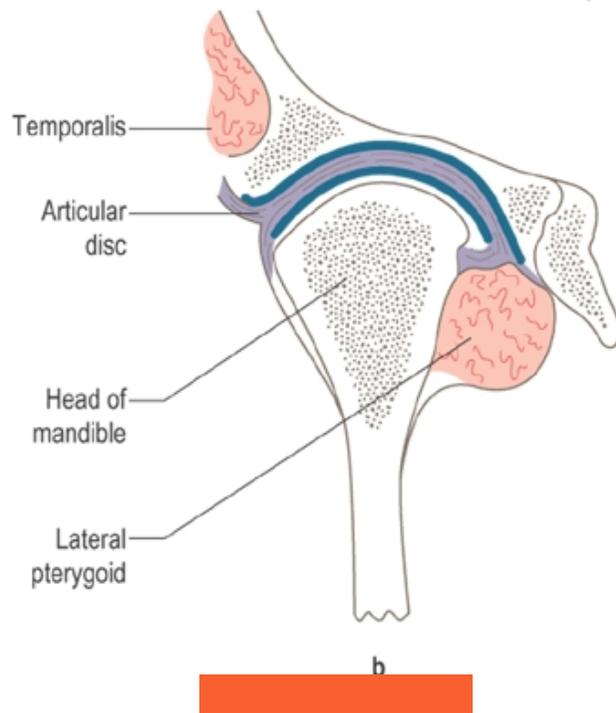
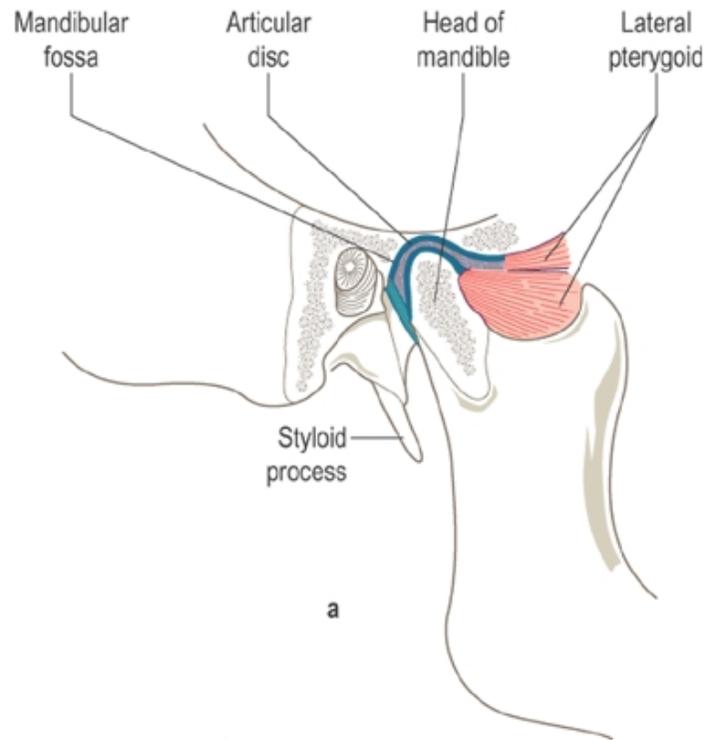


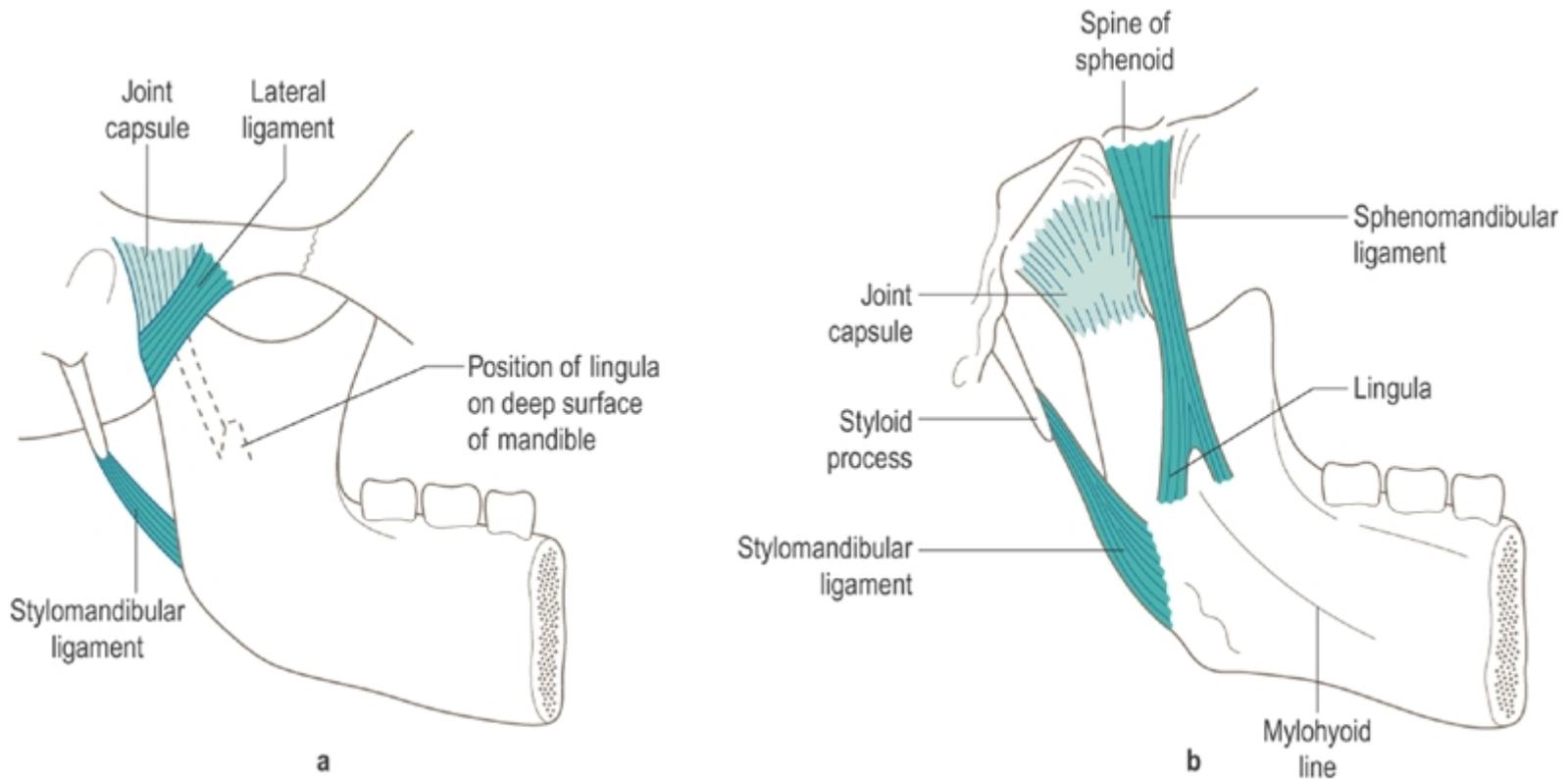




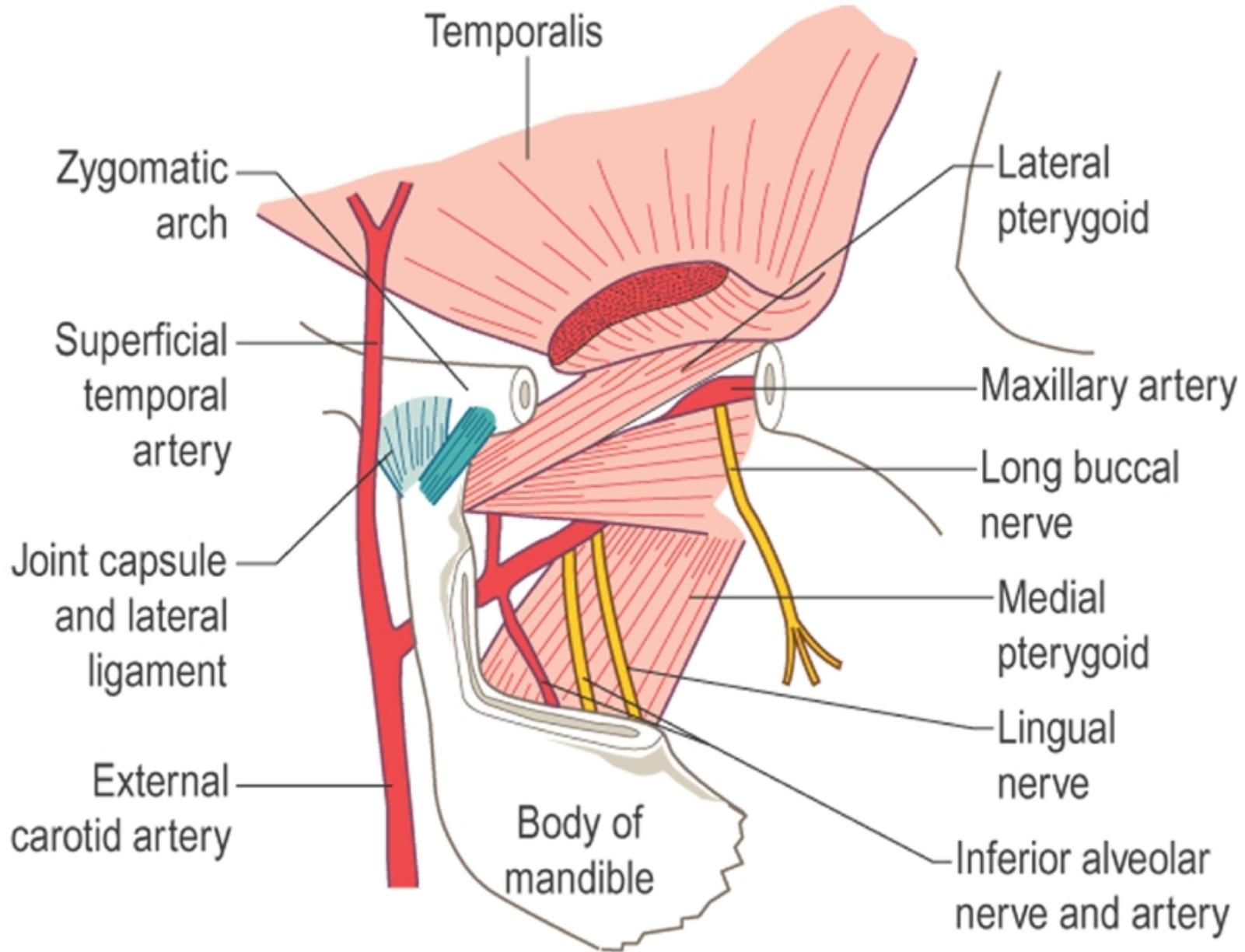






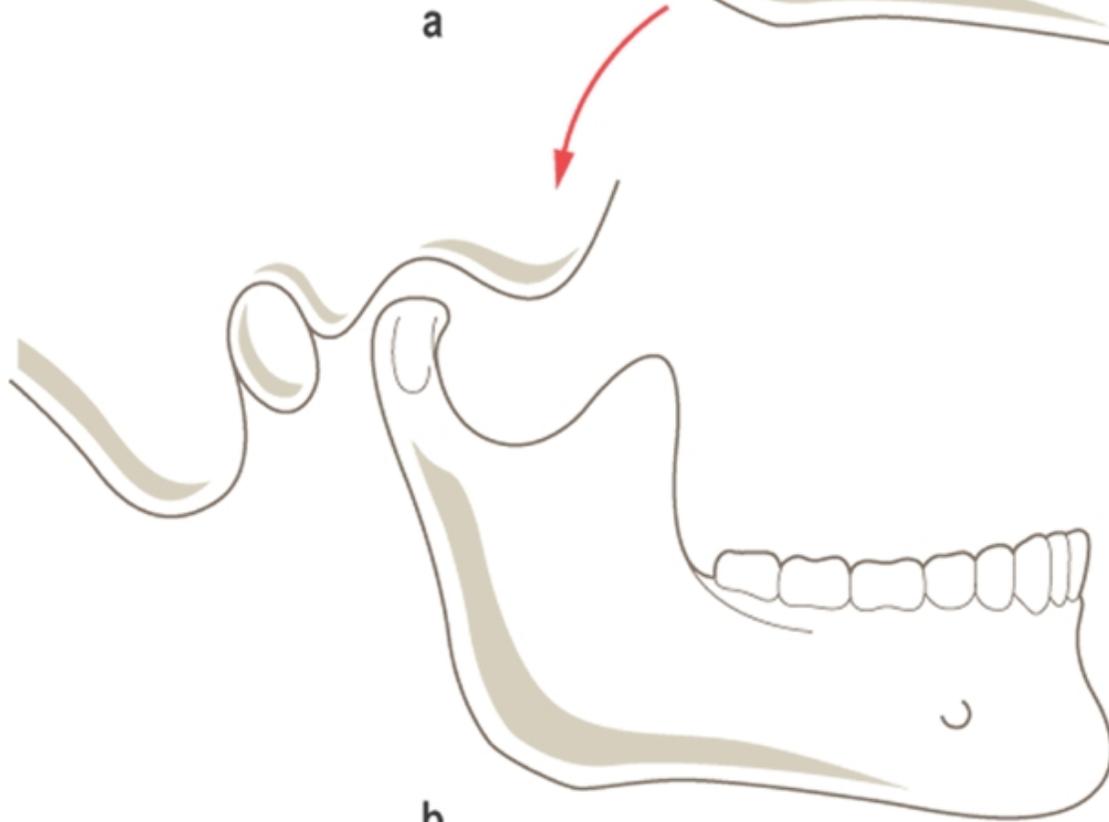


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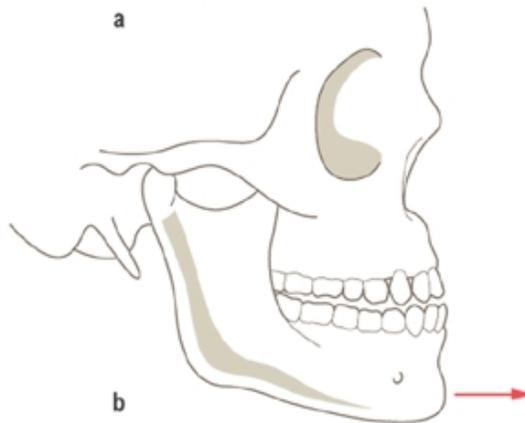


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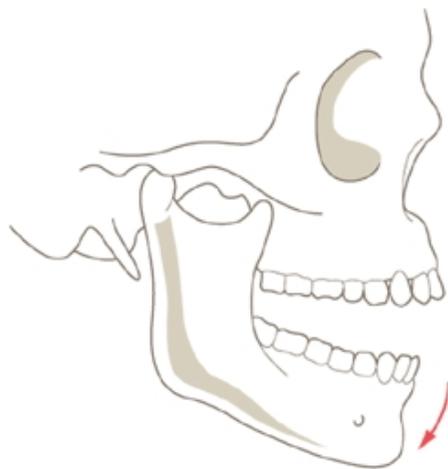




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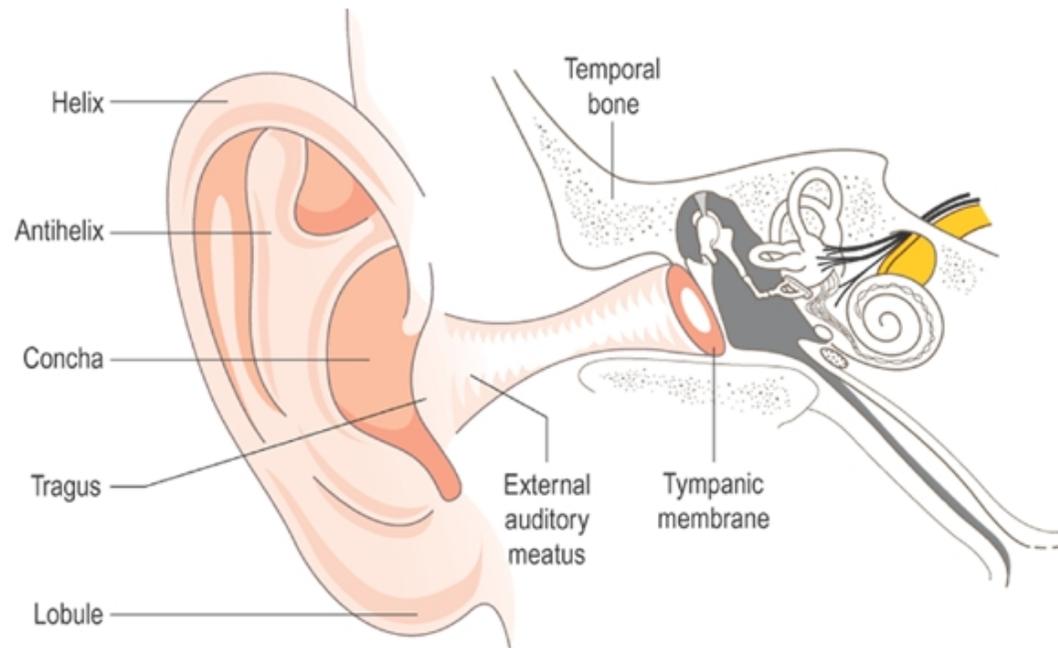


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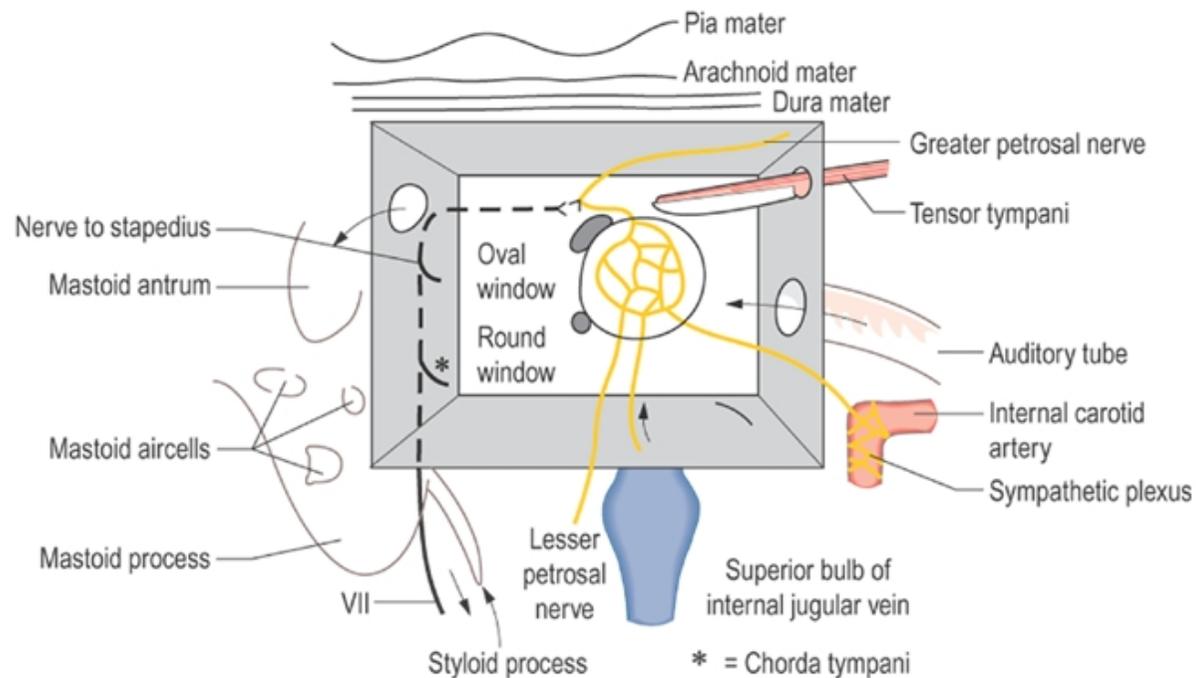


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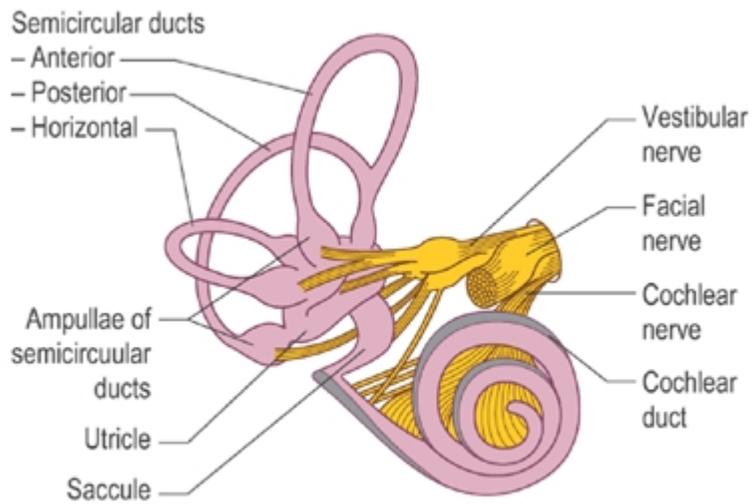


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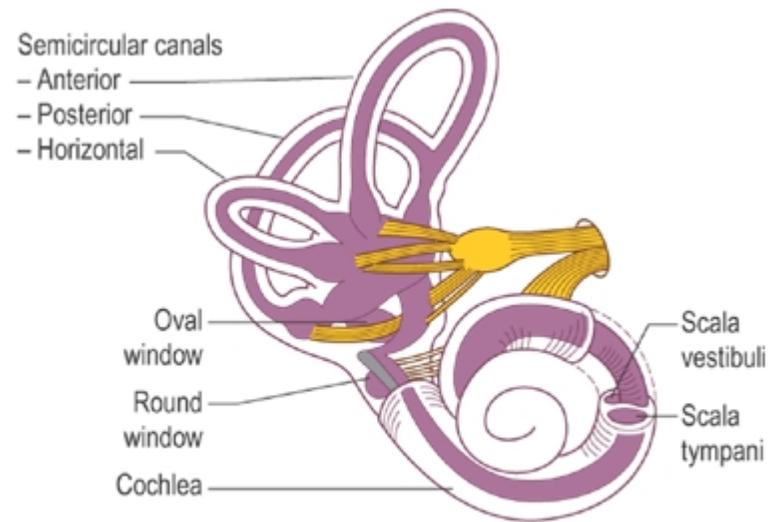


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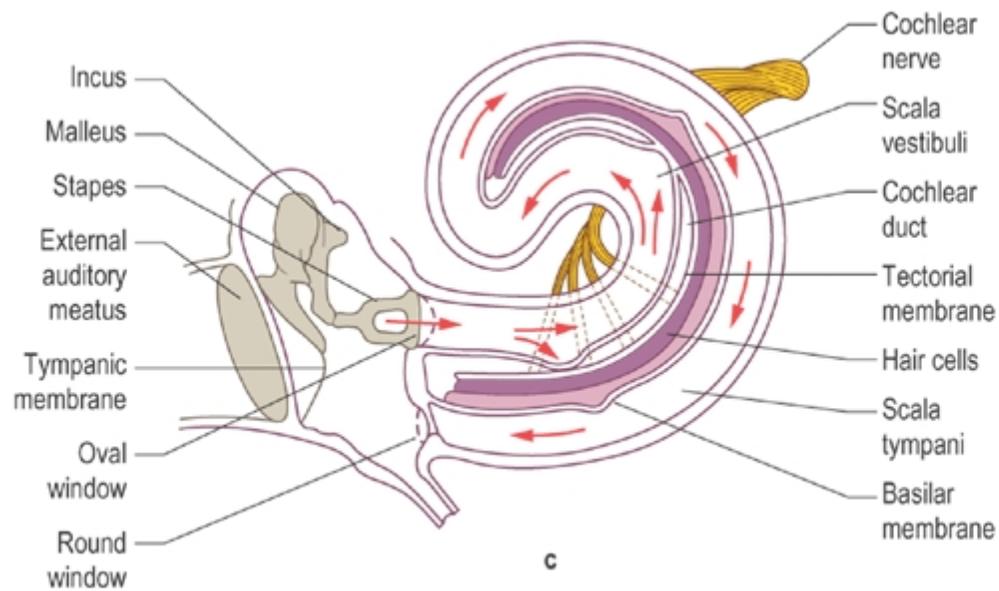




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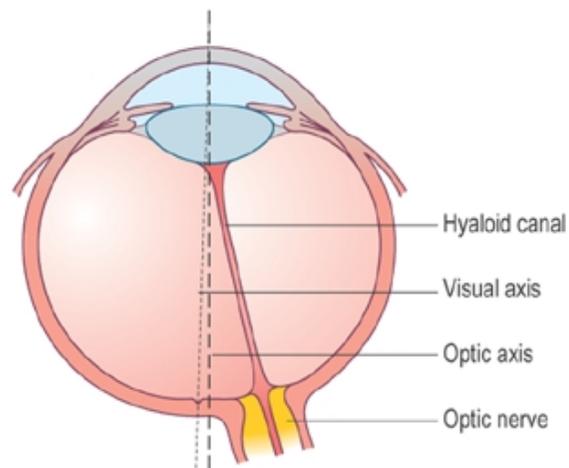
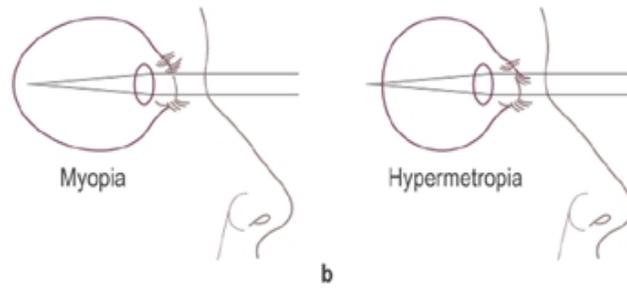
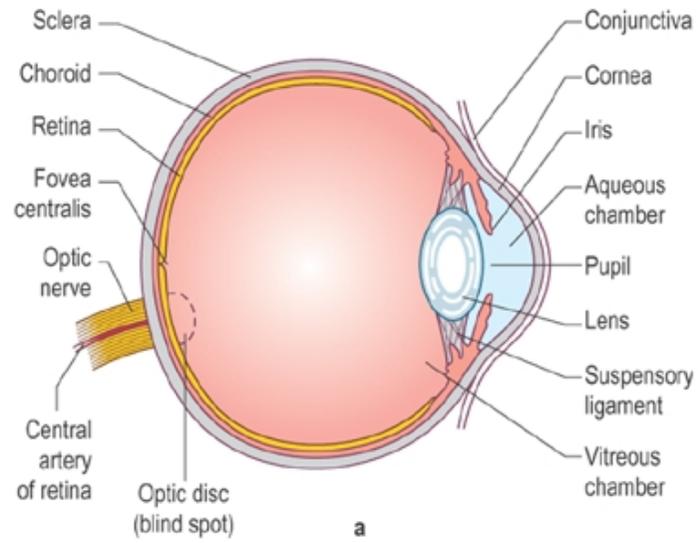


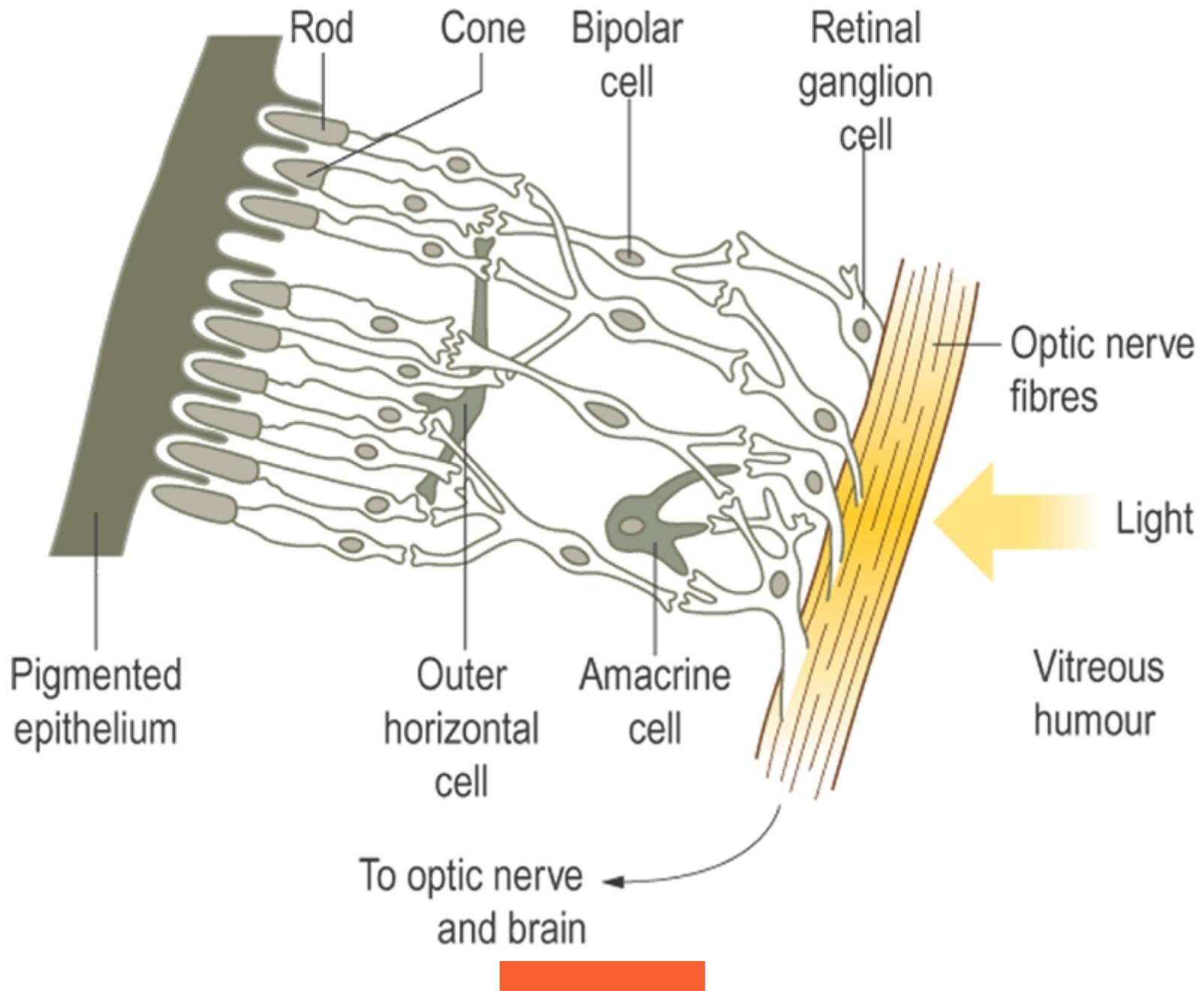
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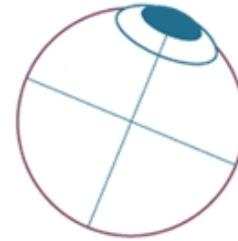
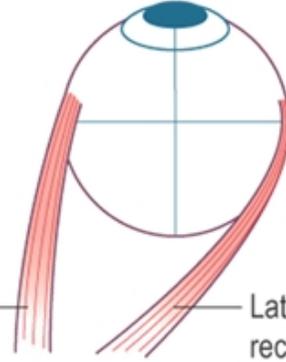
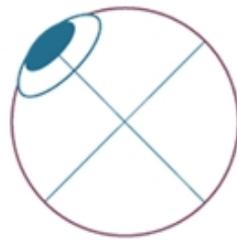






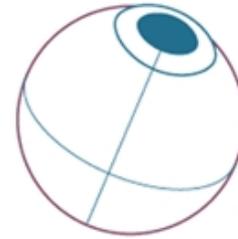
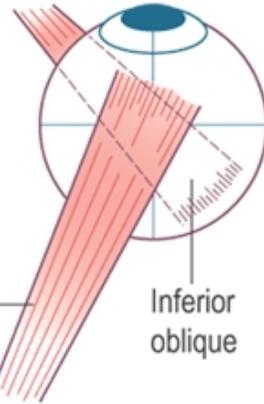
Medial

Lateral



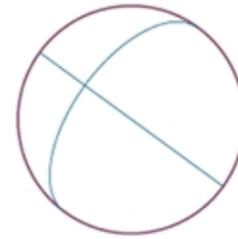
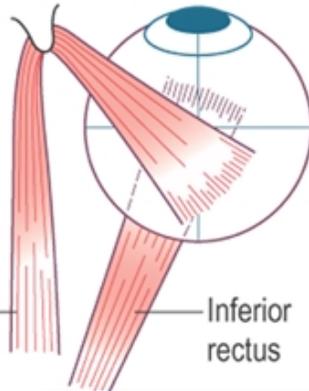
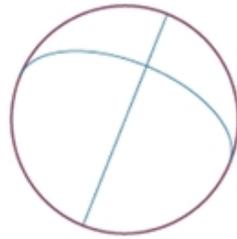
Medial rectus

Lateral rectus



Superior rectus

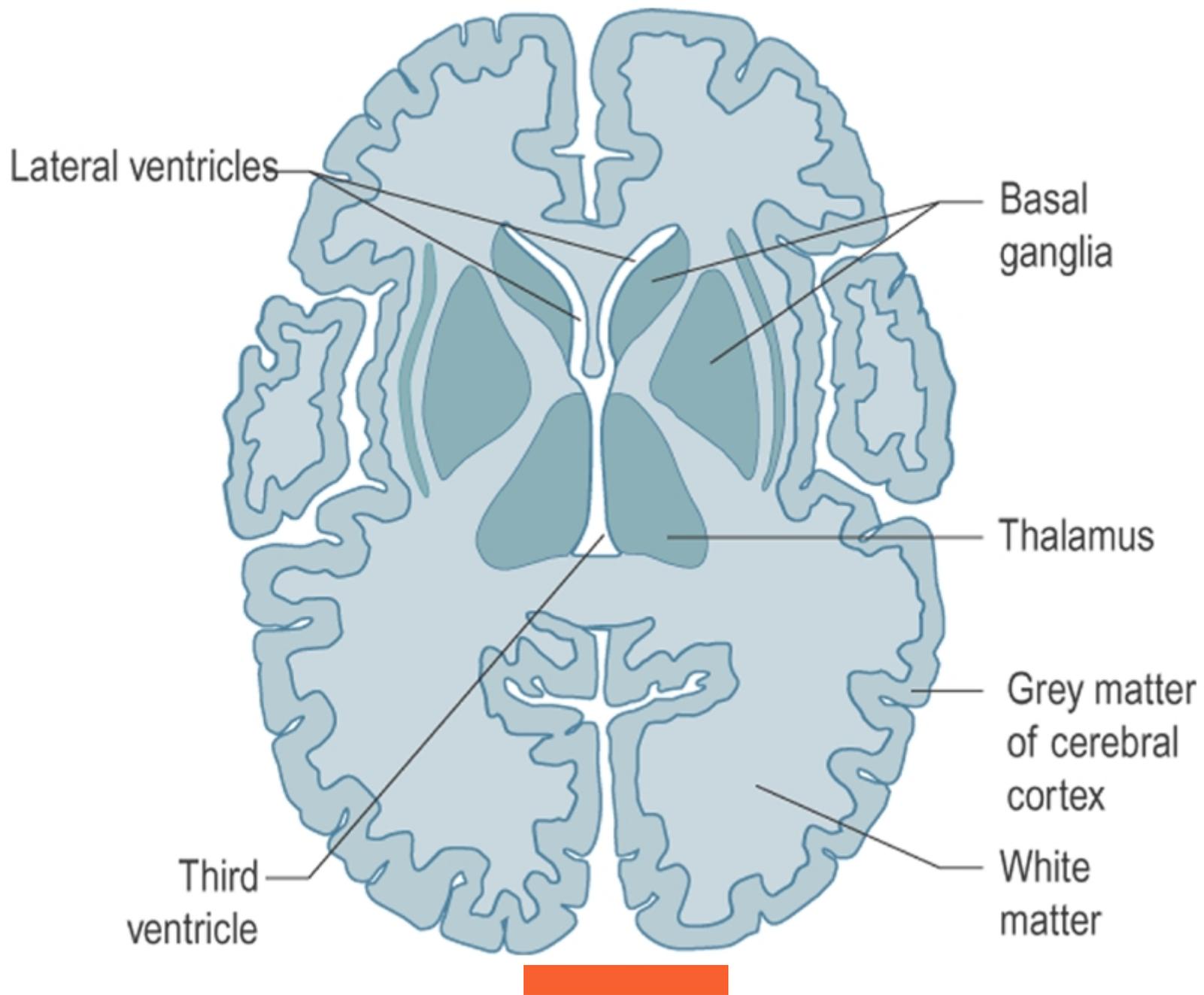
Inferior oblique

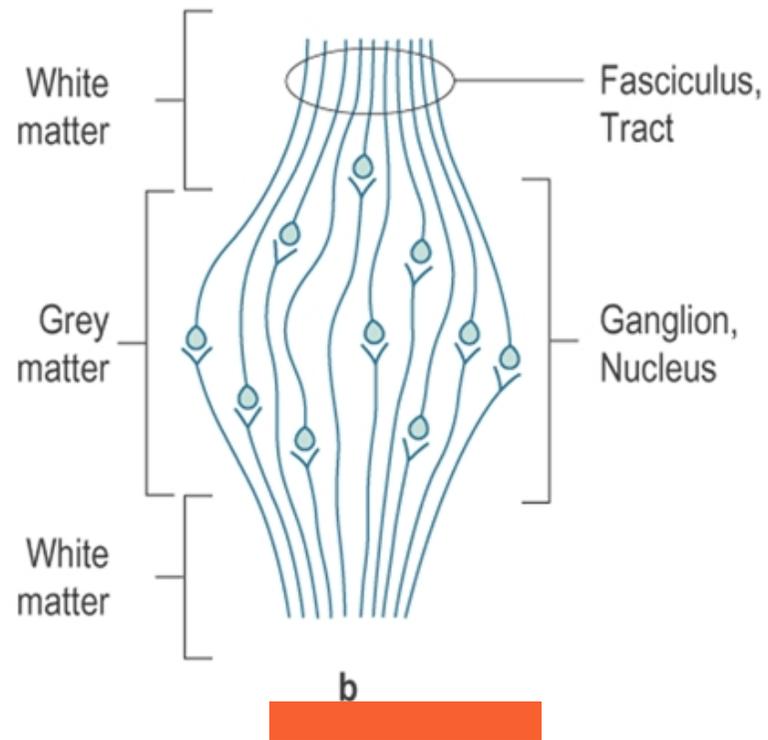
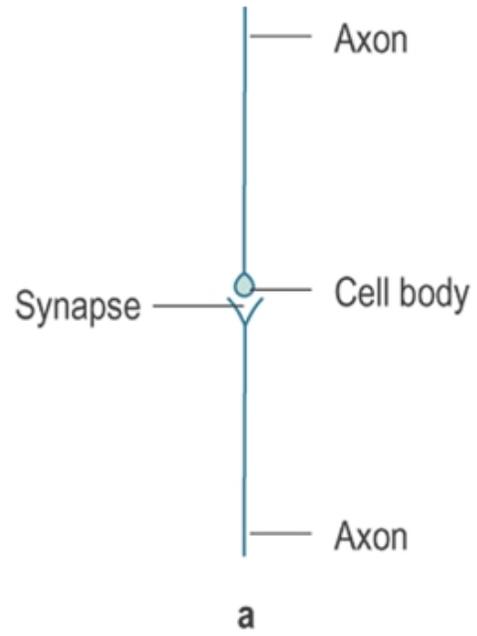


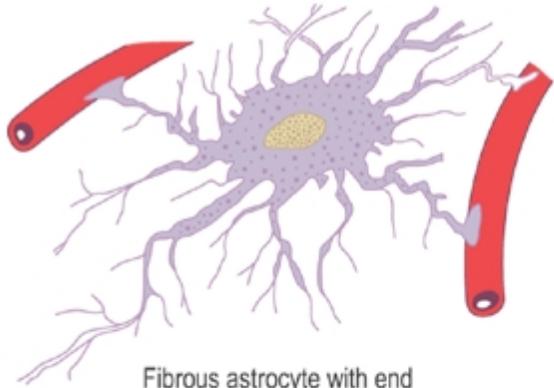
Superior oblique

Inferior rectus

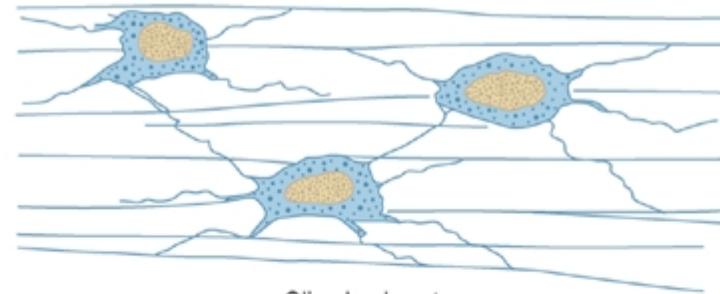




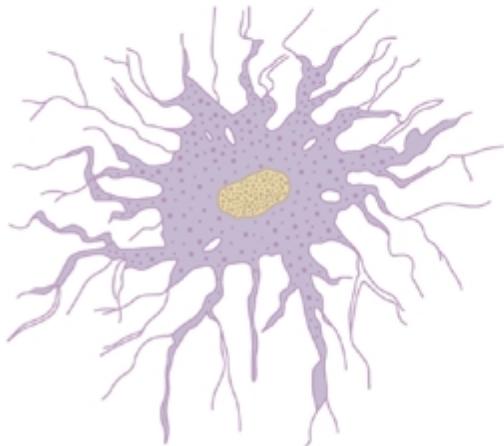




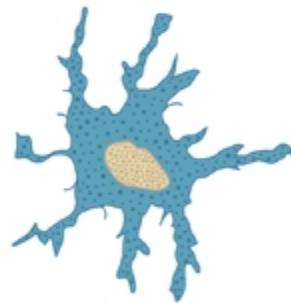
Fibrous astrocyte with end feet on blood vessels



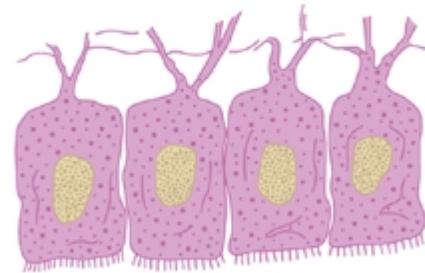
Oligodendrocyte



Protoplasmic astrocyte

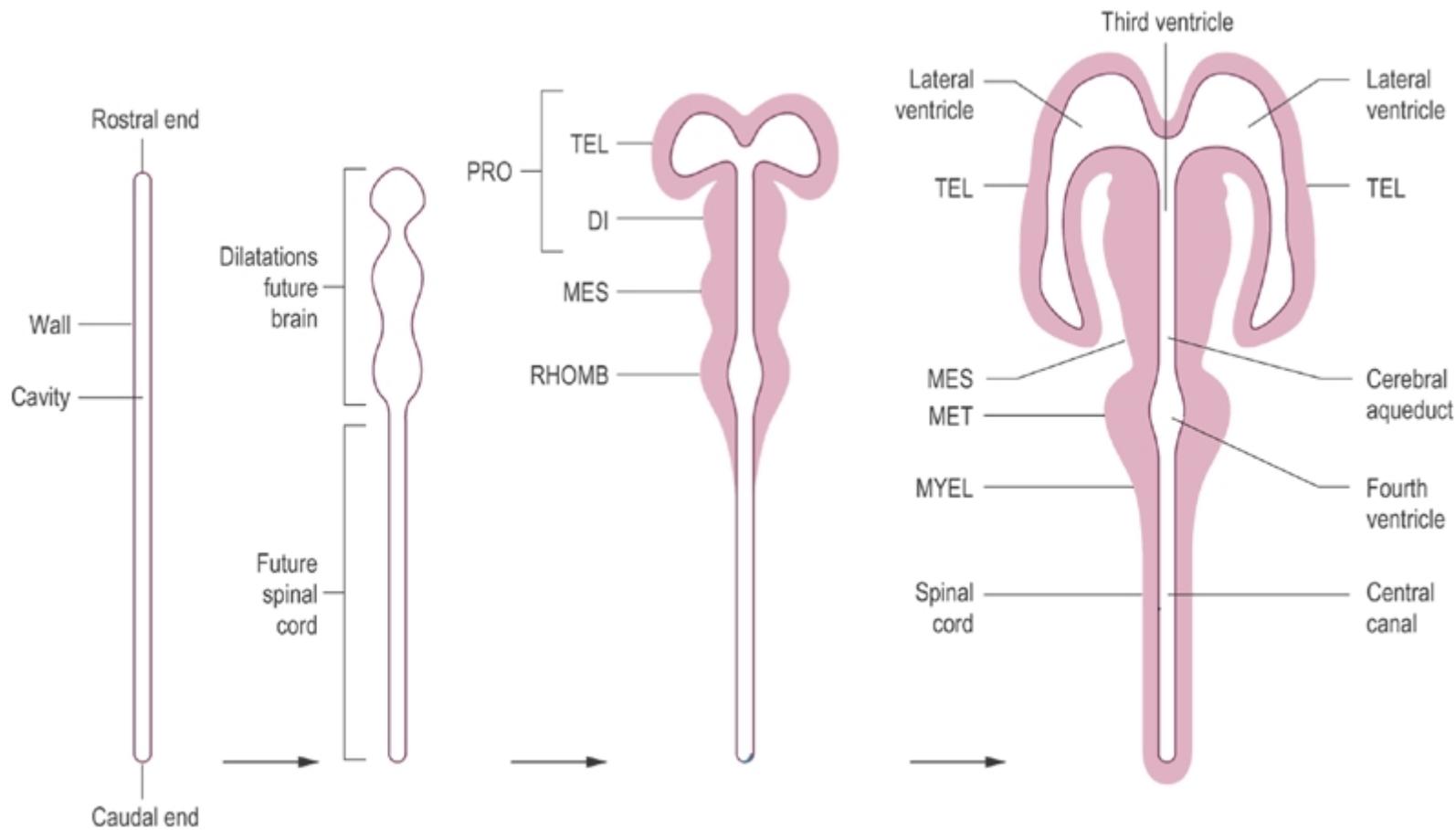


Microglial cell

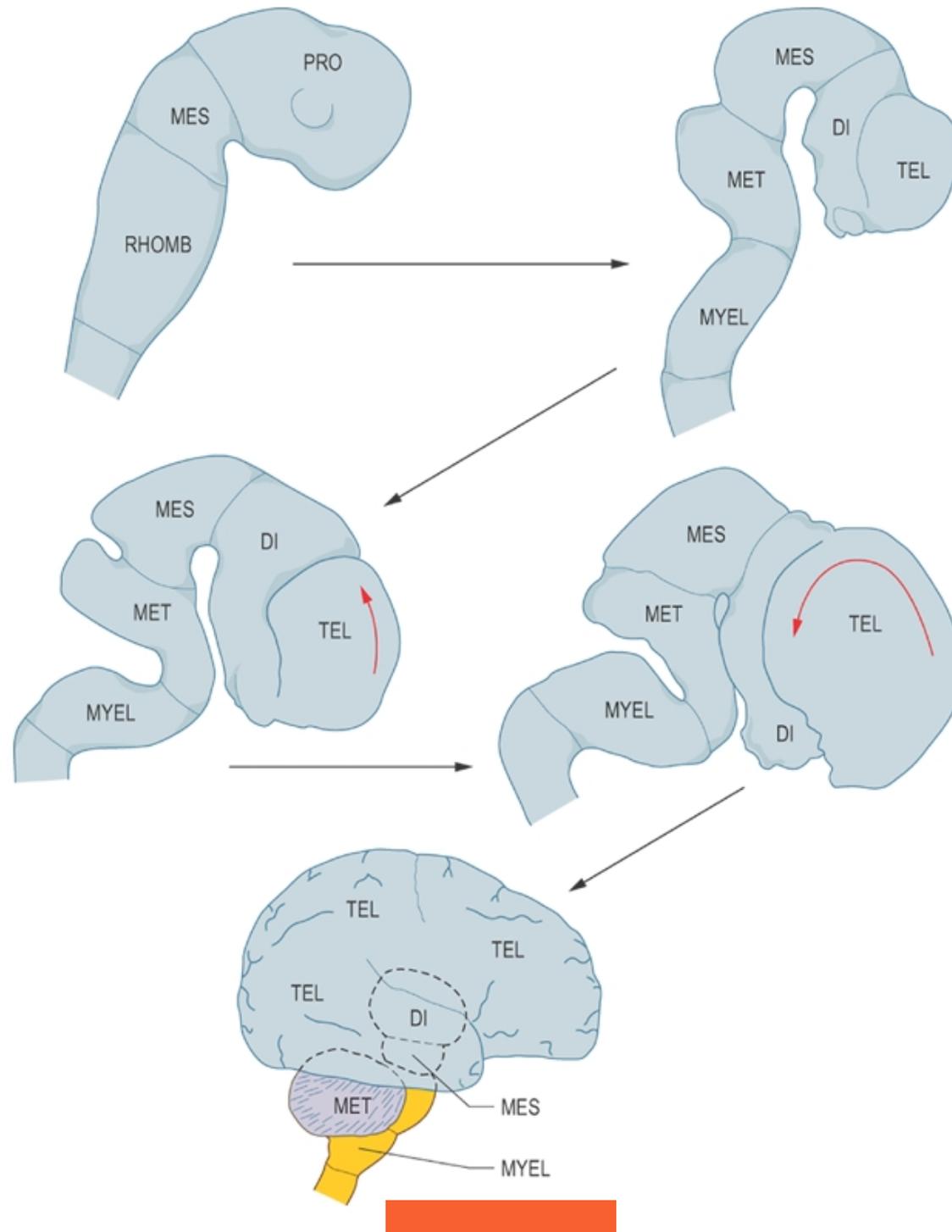


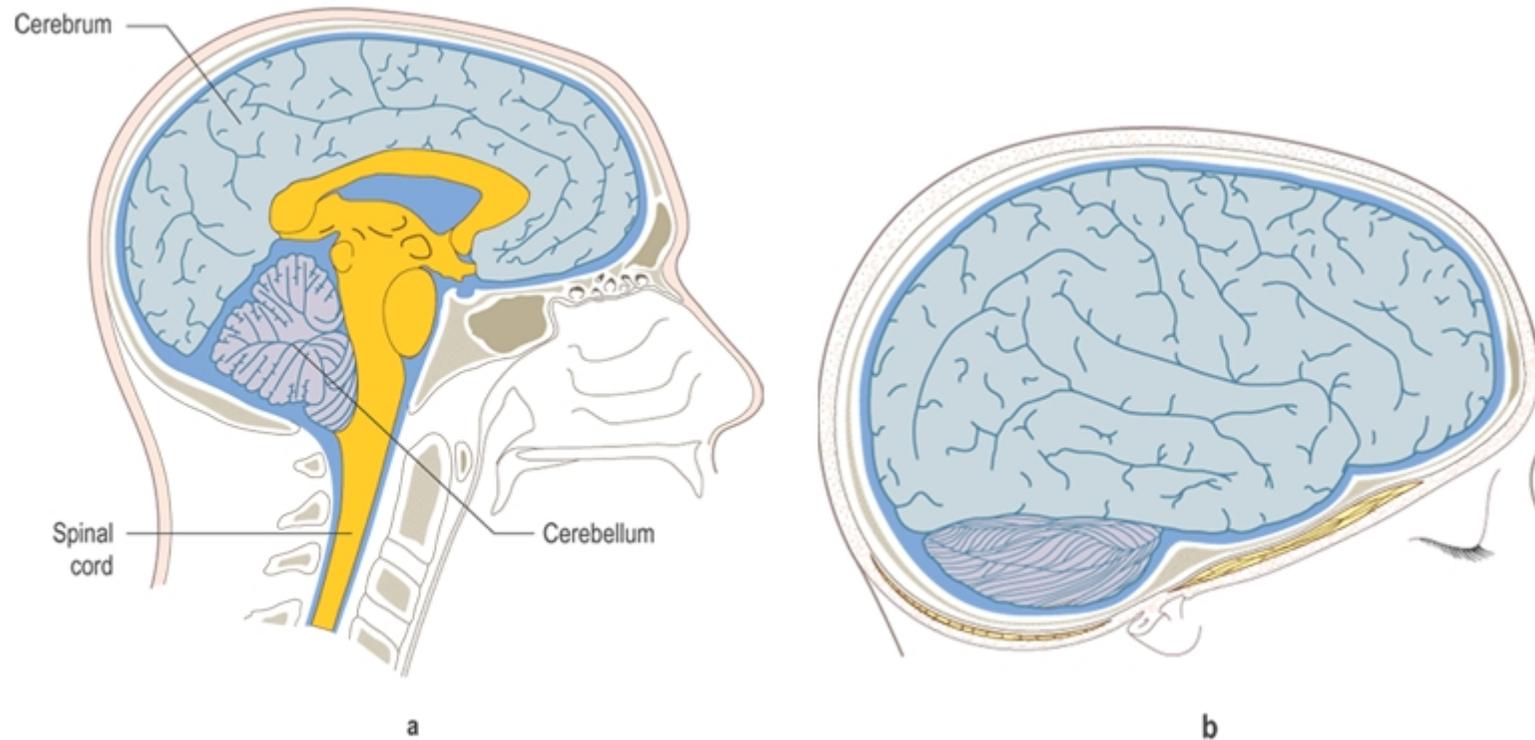
Ependymal cells



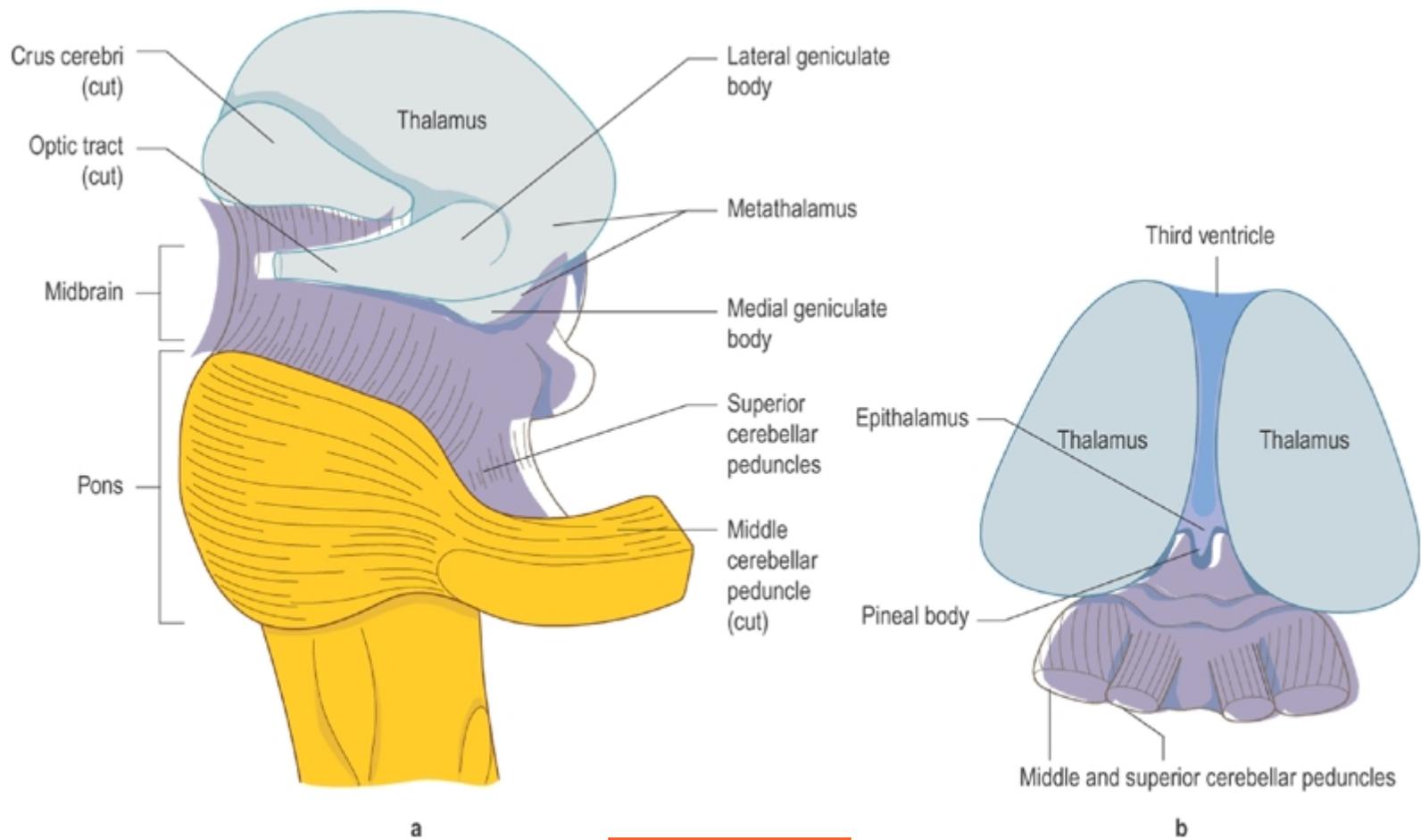


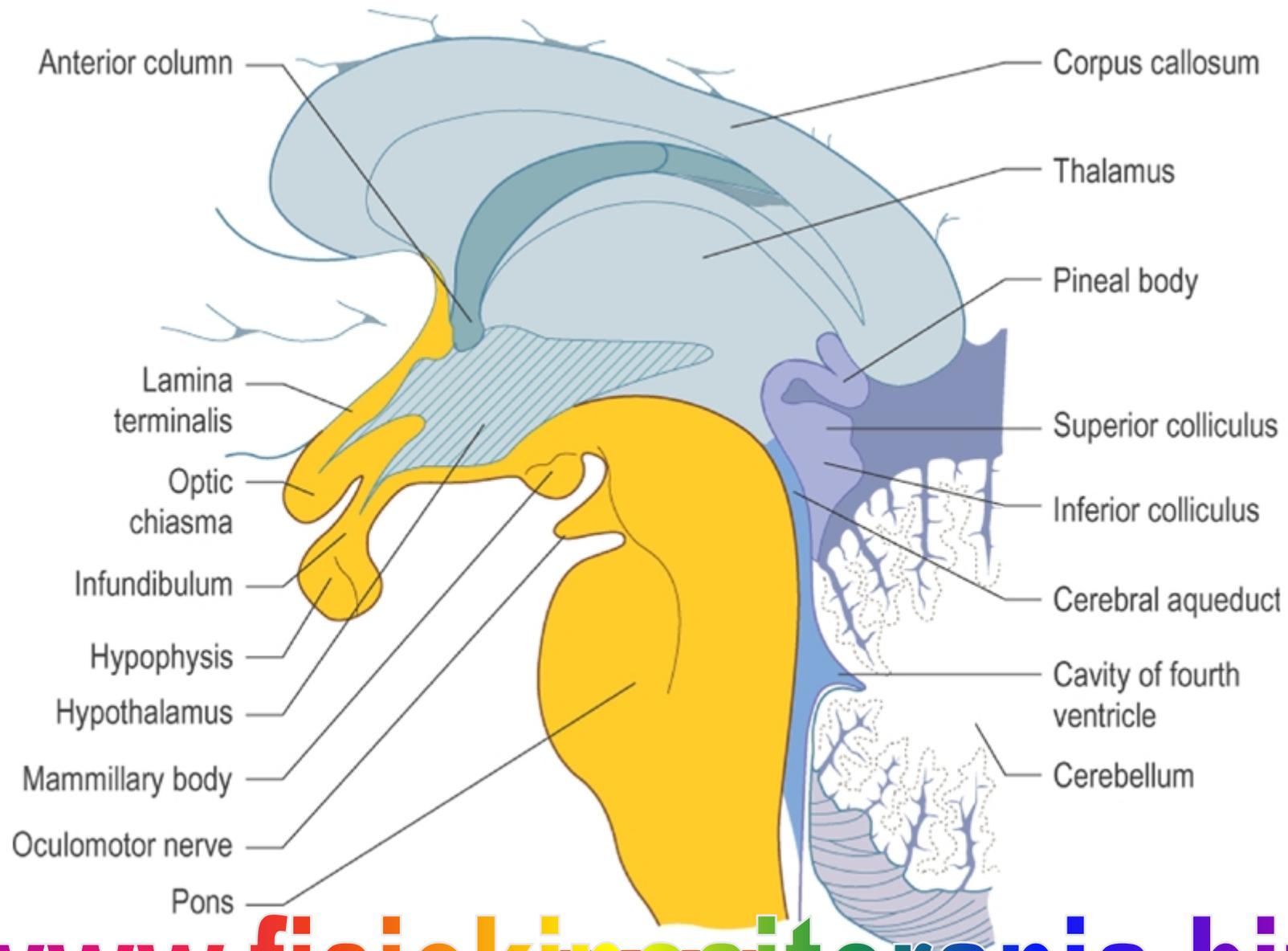
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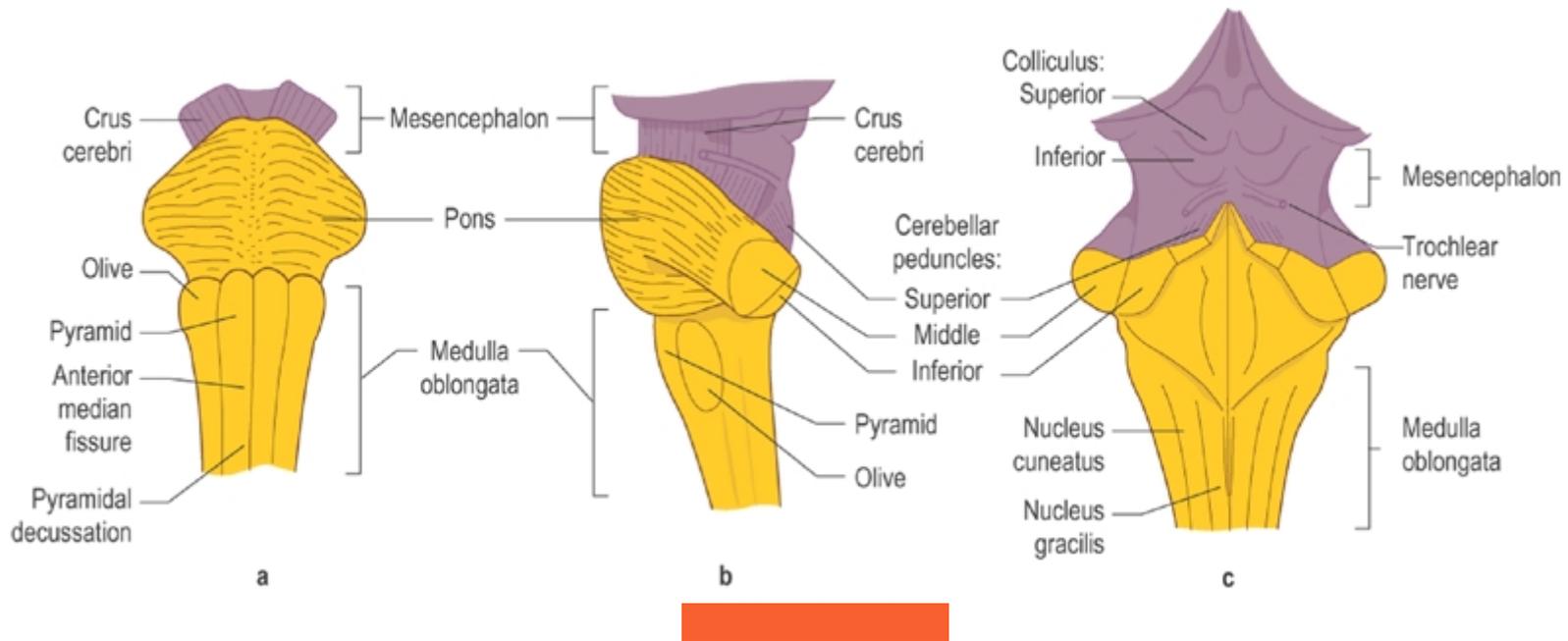


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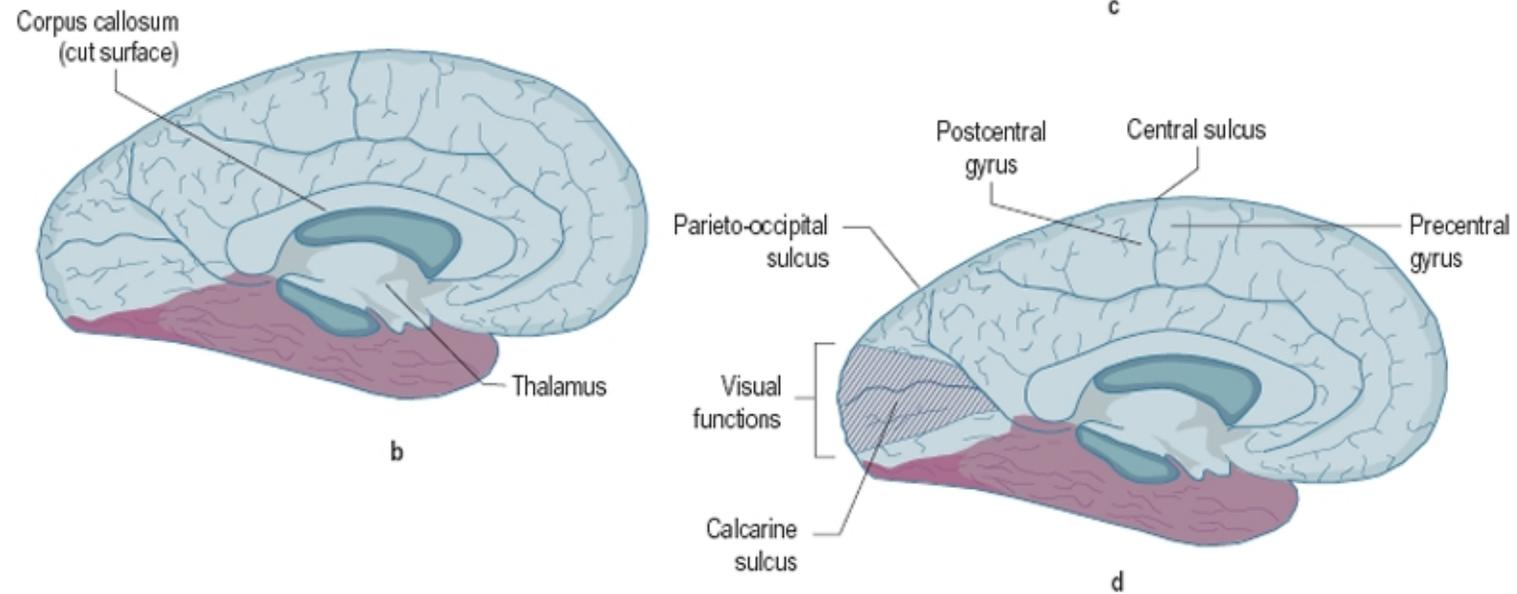
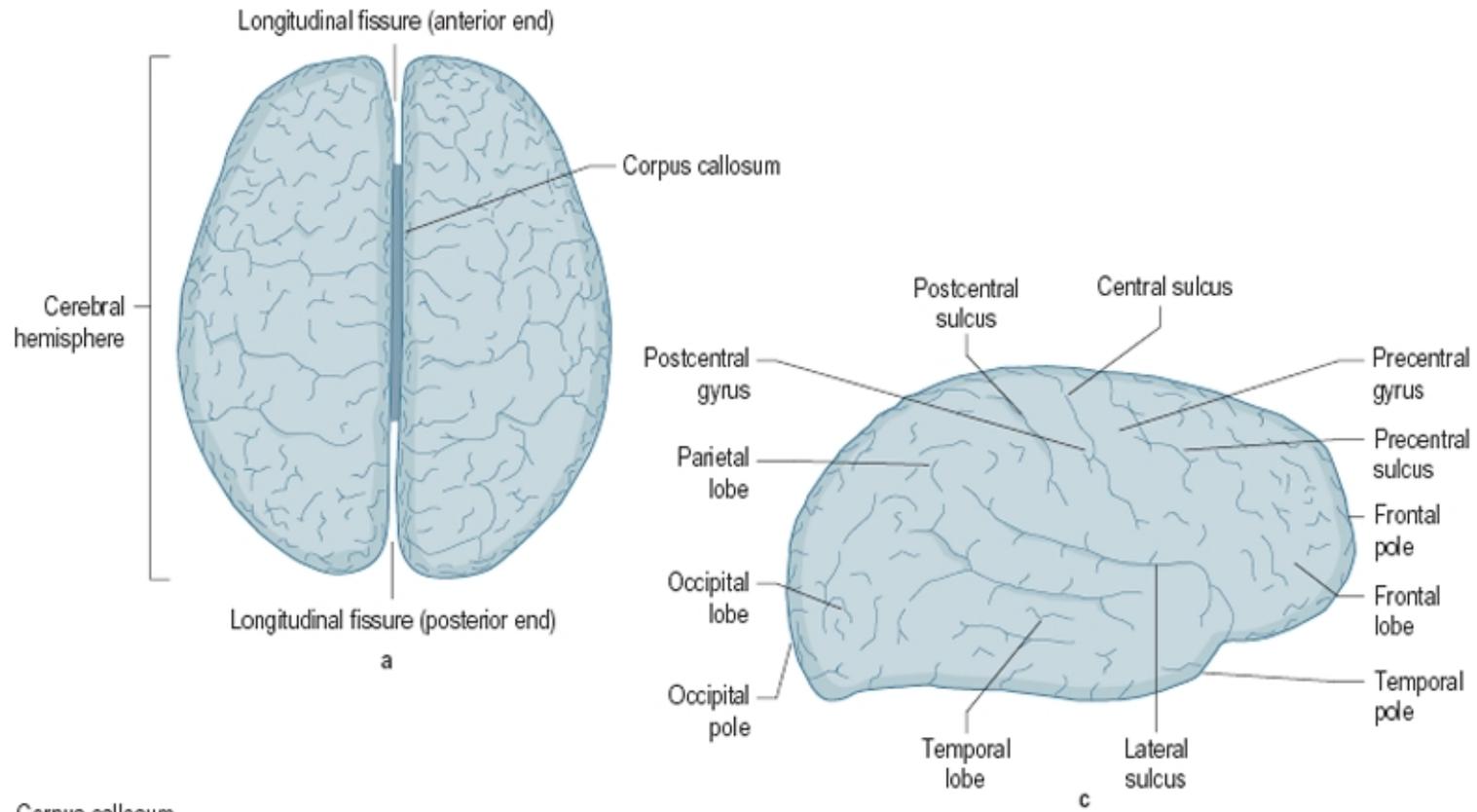


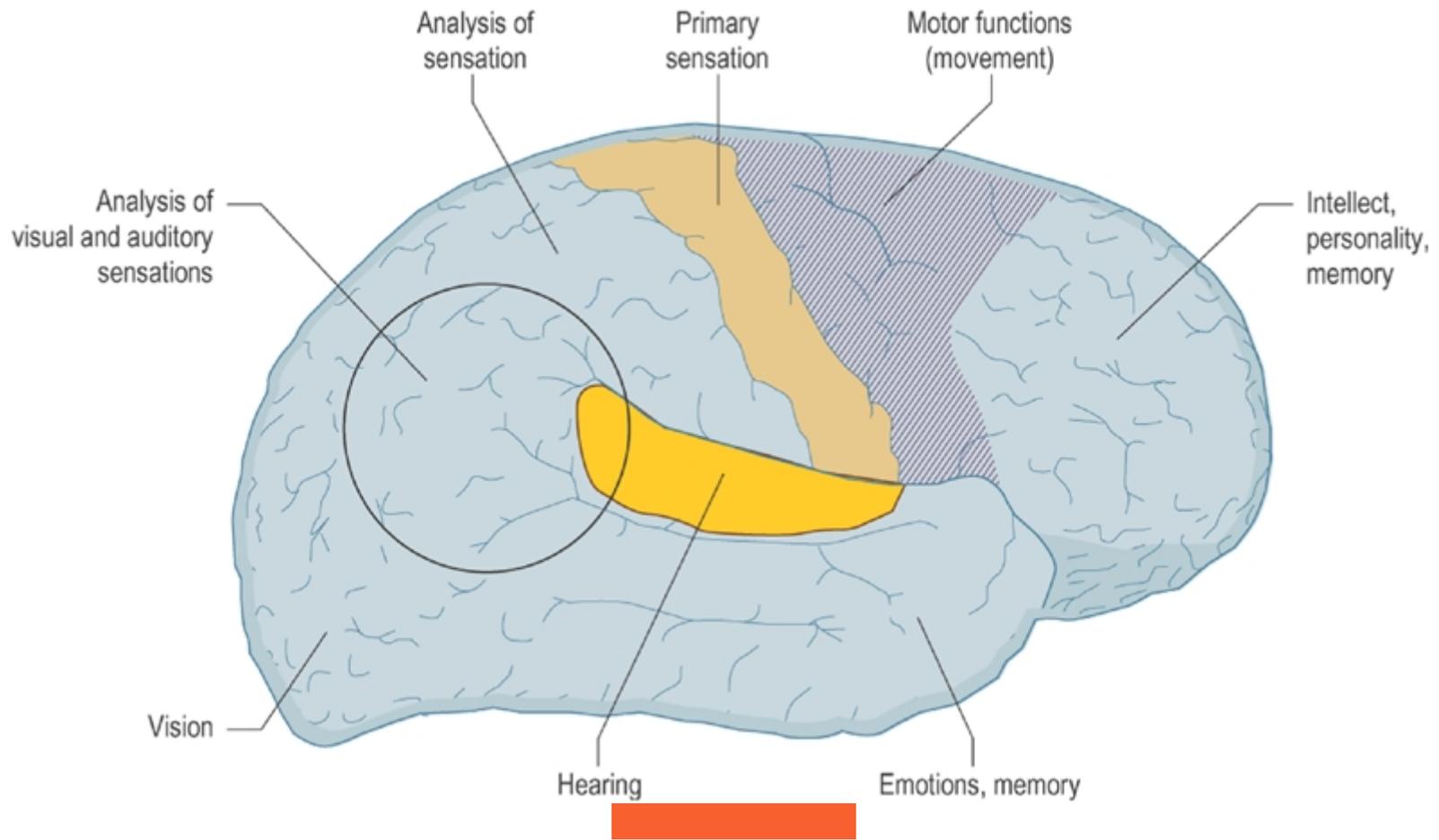


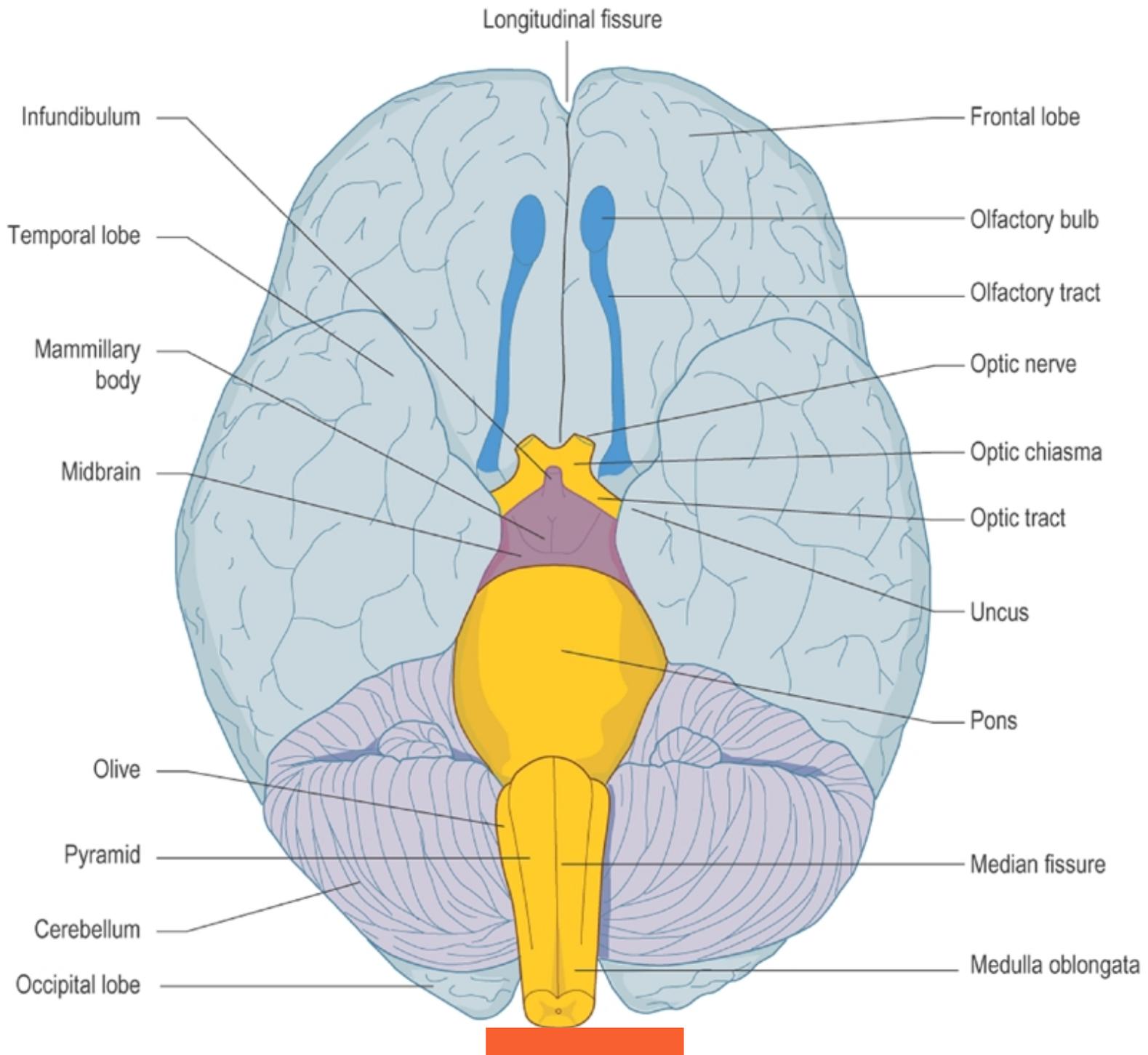
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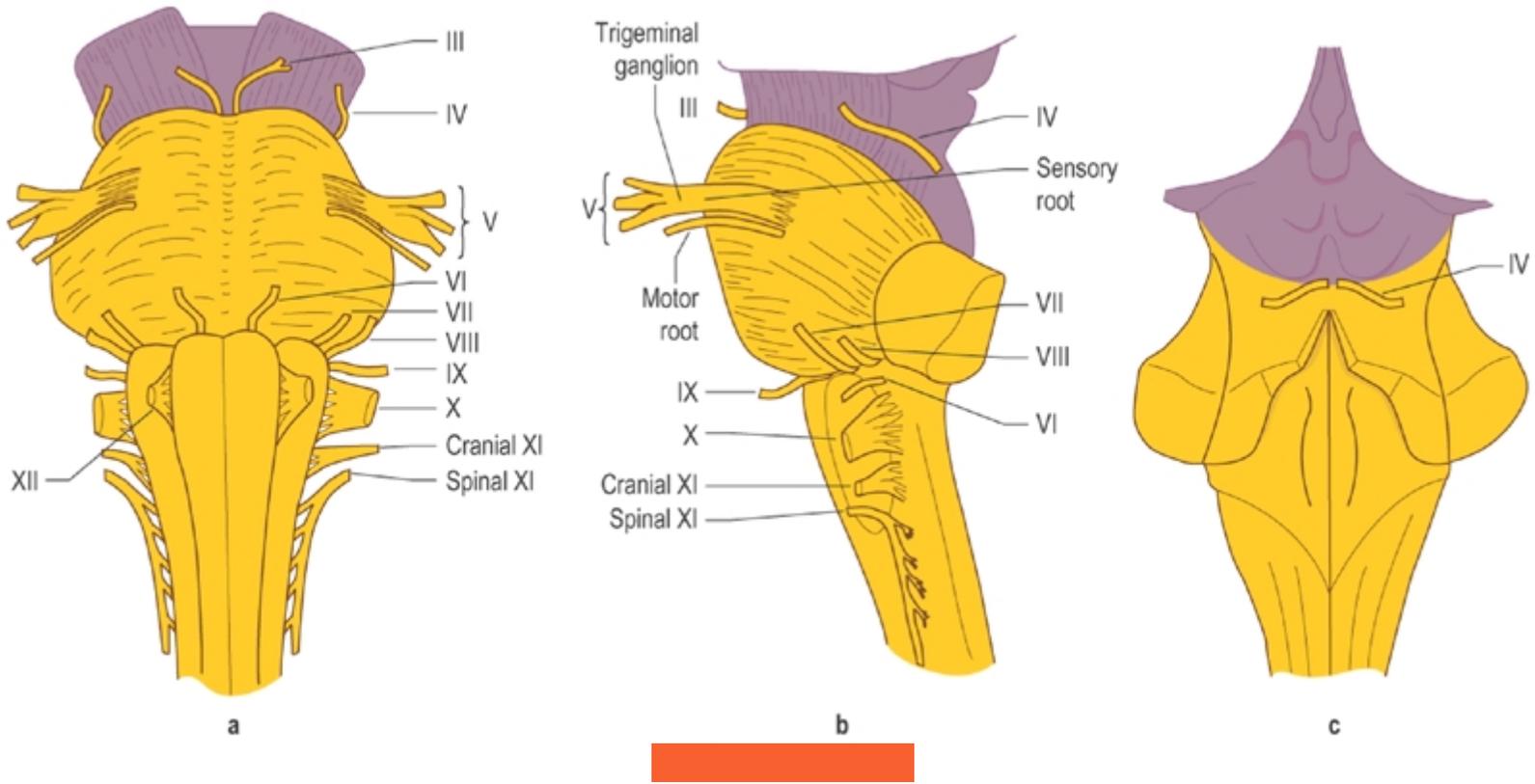


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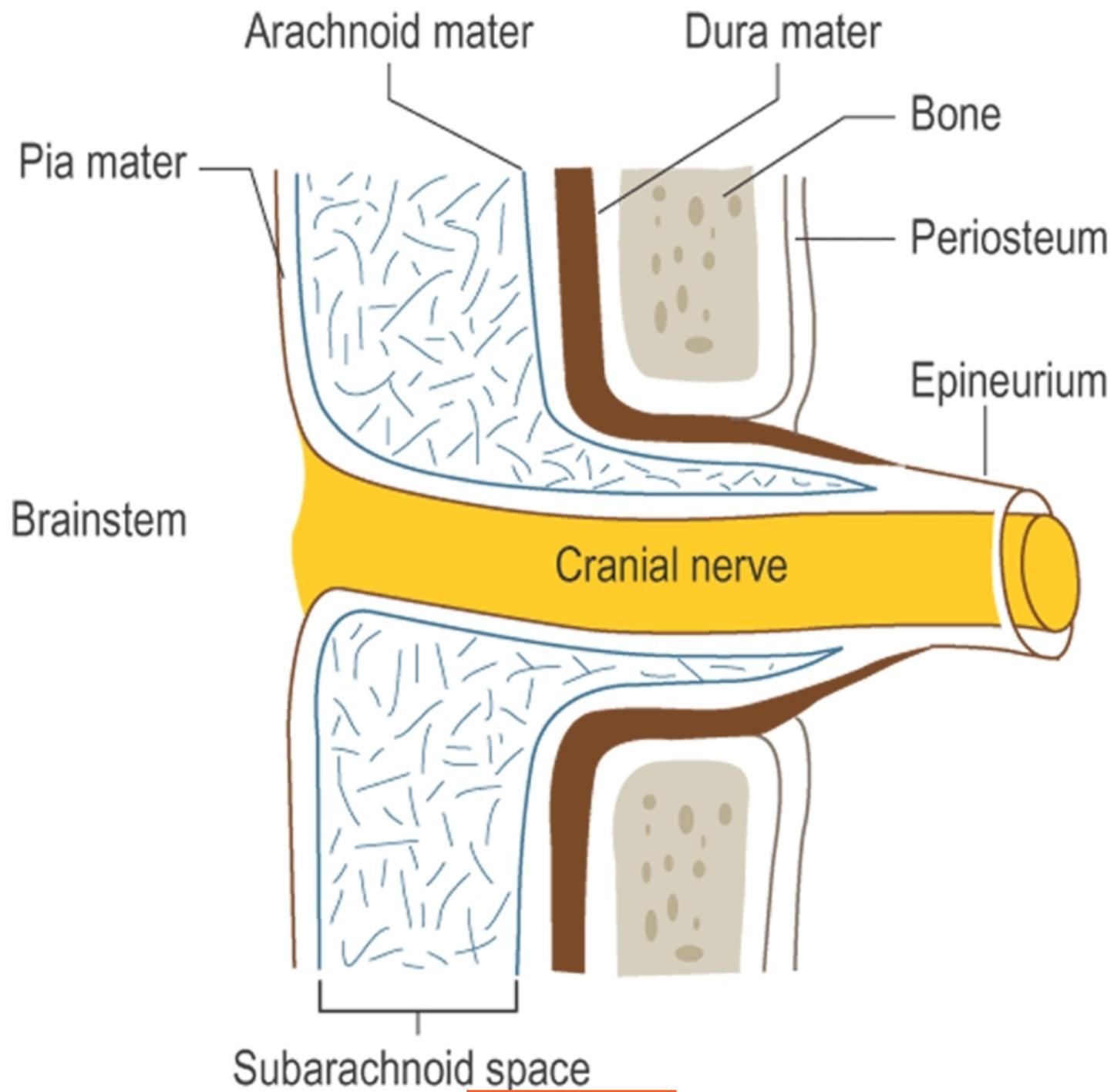


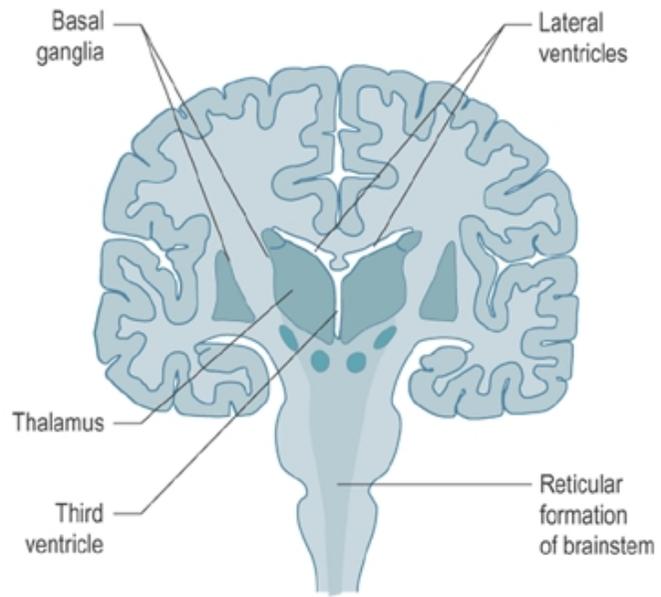




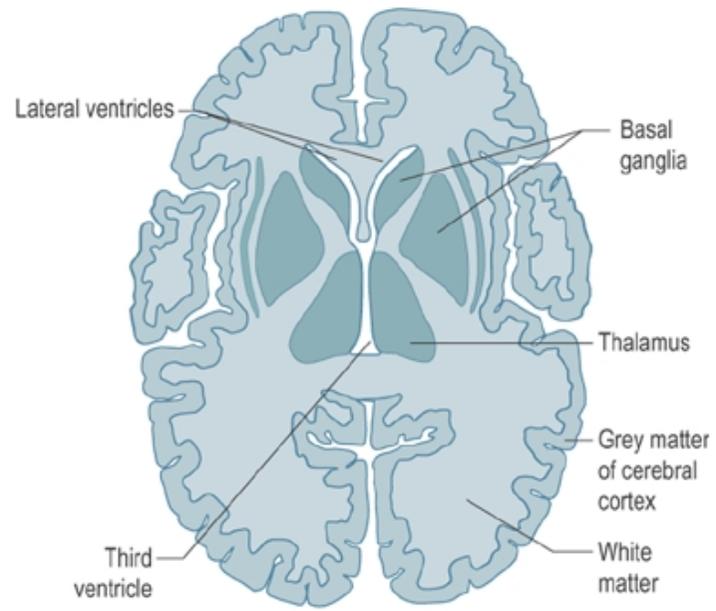


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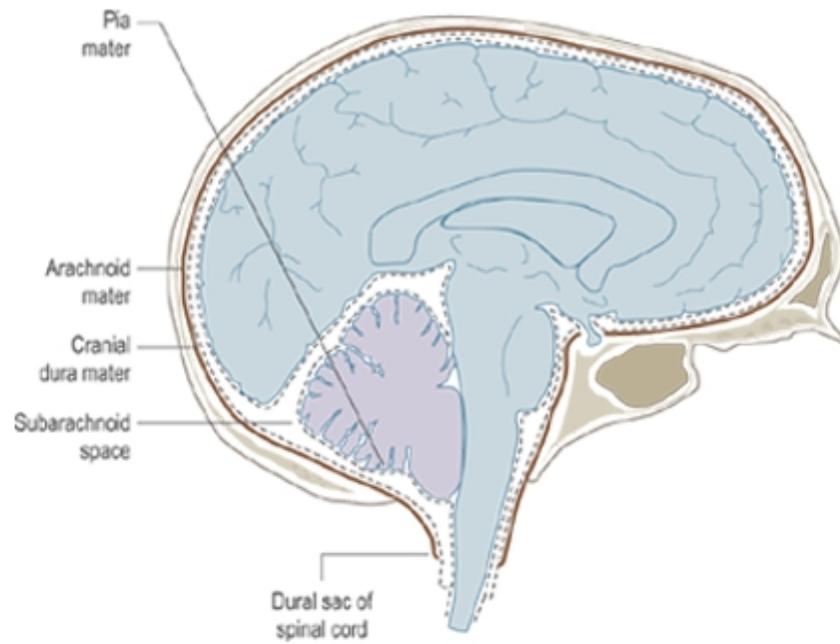


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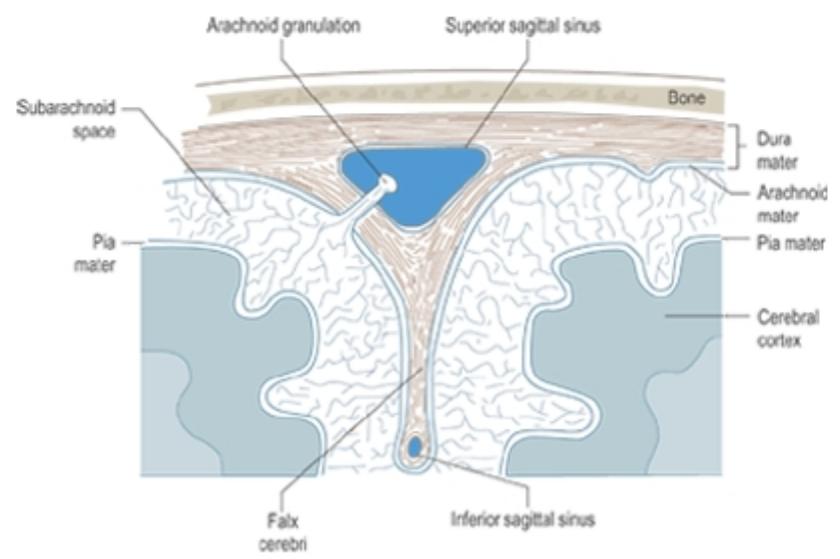


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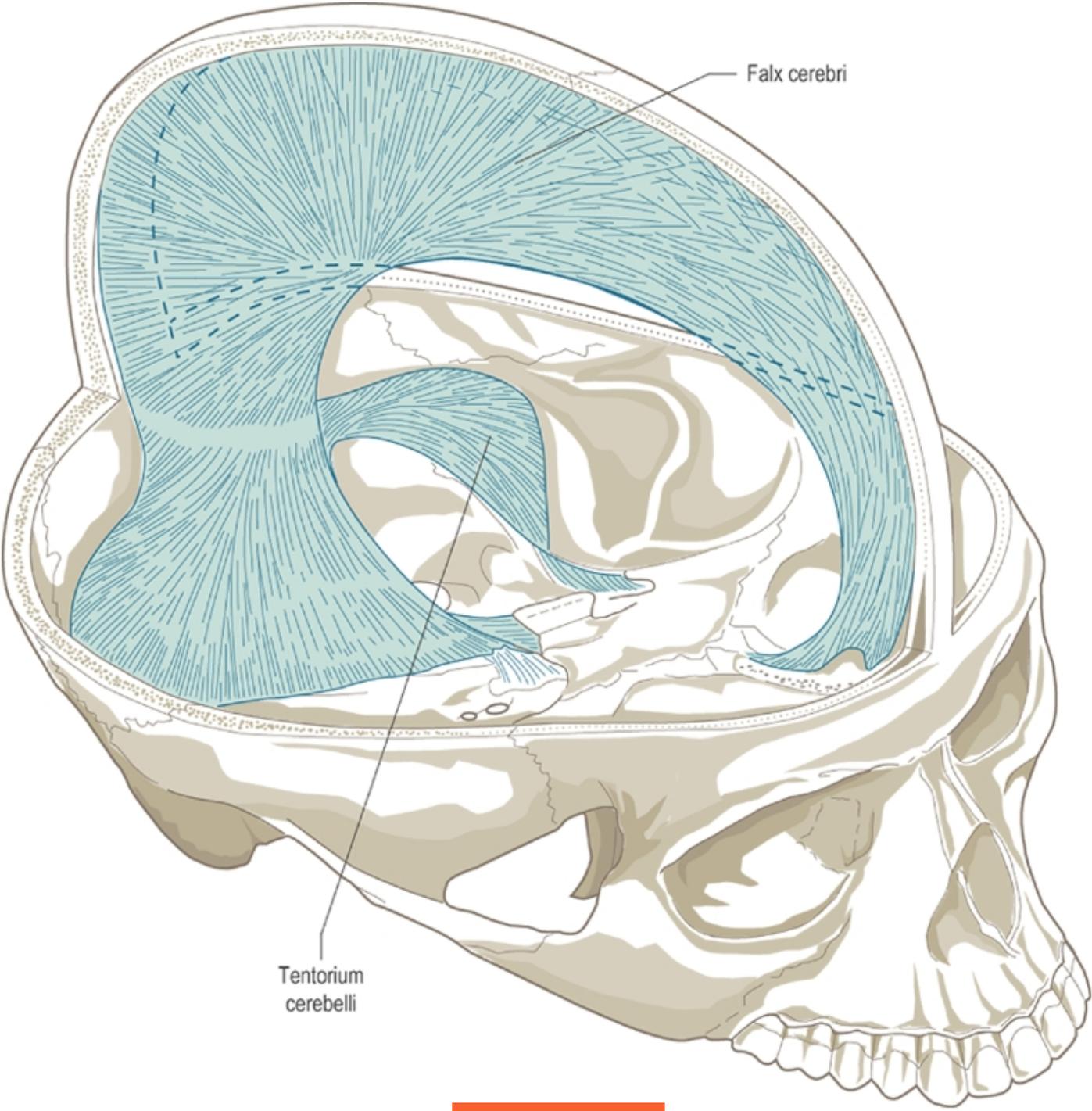


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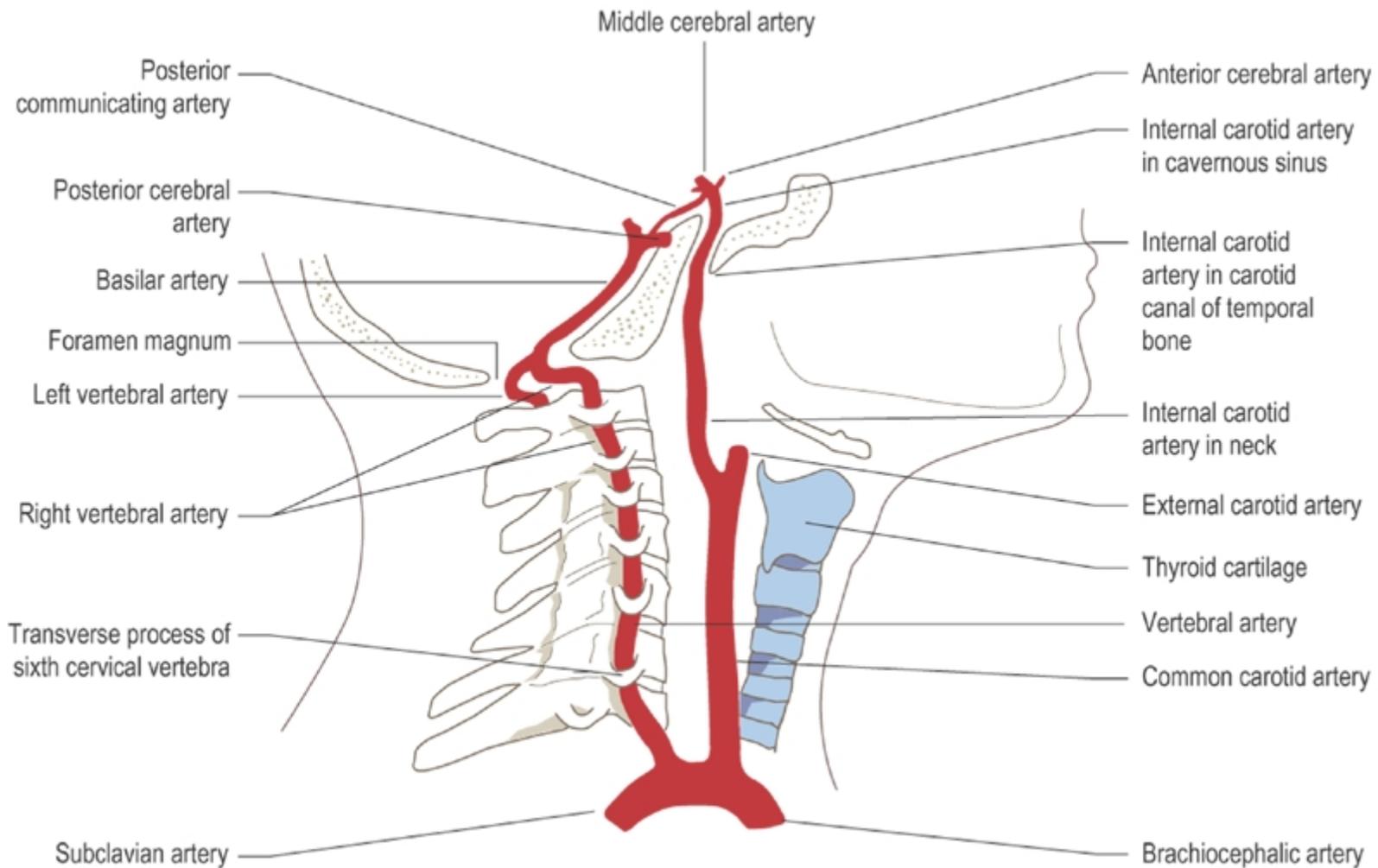




Falx cerebri

Tentorium cerebelli





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