

# ARTHROLOGY

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**Connections on the skull**

**Synarthrosis** (syndesmosis, synchondrosis, synostosis)

**Diarthrosis** (articulatio temporomandibularis, craniovertebral connections)

**Syndesmosis cranii**

suturae                      ligamentum stylohyoideum

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**Synchondrosis cranii**

synchondrosis sphenopertosa  
synchondrosis petrooccipitalis  
synchondrosis sphenoccipitalis

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**Articulatio temporomandibularis**

**Articular facets:** caput mandibulae, fossa mandibularis + tuberculum articulare

**Joint capsule:** margines of the articular facets

**Joint apparatus:** discus articularis

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**Articulatio temporomandibularis**

**Type:** articulatio composita - pars discotemporalis et discomandibularis

**Movements:** pars discotemporalis (translatory movement), pars discomandibularis (rotation), elevation, depression, protraction, retraction, chewing

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**Craniovertebral connections - articulatio atlantooccipitalis**

**Articular facets:** condyli occipitales, foveae articulares superiores atlantis

**Joint capsule:** margines of the articular facets

**Apparatus:** membrana atlantooccipitalis ant. et post., membrana fectoria

**Type:** ellipsoid

**Movements:** flexion, extension, lateroflexion

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**Craniovertebral connections - articulatio atlantoaxialis**

**Articulatio atlantoaxialis mediana**  
 facies articularis ant. et fovea dentis  
 facies articularis post. et lig. transversum atlantis

**Articulatio atlantoaxialis lateralis**  
 facies articulares inferiores atlantis  
 proc. articulares sup. axis

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**Articulatio atlantoaxialis mediana et lateralis**

**Apparatus:**  
 lig. apicis dentis  
 ligg. alaria  
 lig. cruciforme atlantis (lig. transversum atlantis, fasciculi longitudinales)  
 membrana tectoria

**Type:**  
 articulatio composita, mechanical unit

**Movements:**  
 Rotation of the atlas around the dens app. 60°

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**Articulationes intervertebrales**

**Articular facets:** processus articulares sup. et inf. of adjacent vertebrae  
 (position of the facets - C oblique, Th front, L sagittal)

**Joint capsule:** margins of the articular facets

**Type:** articulatio plana (translatory movements)

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**Short ligaments of the spine:**

ligamenta flava (arches)  
 ligamenta interspinalia (proc. spinosi)  
 ligamenta intertransversalia (proc. transversi)

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**Long ligaments of the spine**

ligamentum supraspinale (ligamentum nuchae)  
 Ligamentum longitudinale anterius  
 Ligamentum longitudinale posterius (membrana tectoria)

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**Juncturae thoracis – articulationes costovetebrales**

**Articulatio capitis costae**

**Articular facets:** facies articularis capitis costae, foveae costales sup. et inf.

**Apparatus:**  
 discus articularis  
 lig. capitis costae radiatum  
 lig. capitis costae intraarticulare (2nd-10th)

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**Articulatio costotransversaria**

**Articular facets:** facies articularis tuberculi costae, fovea costalis proc. transversarii

**Apparatus:**

- lig. costotransversarium
- lig. costotransversarium laterale
- lig. costotransversarium superius
- lig. lumbocostale

**Movements:** elevation of the ribs

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**Juncturae sternocostales**

**Symphondrosis sternocostalis** (1st, 6th and 7th)

**Articulationes sternocostales** (2nd – 5th)

**Articular facets:**

Rib cartilages, incisurae costales sterni

**Apparatus:**

- ligg. sternocostalia radiata
- membrana sterni externa
- membrana sterni interna

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**Juncturae intercostales**

**Articulationes interchondrales**

**Articular facets:** cartilages 5th – 9th rib

**Membranae intercostales**

- membrana intercostalis externa
- membrana intercostalis interna

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**Connections of the girdle of the upper extremity**  
(juncturae ossium cinguli extremitatis superioris)

- Articulatio sternoclavicularis
- Articulatio acromioclavicularis
- Syndesmosis scapulae

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**Connections of the free upper extremity**  
(juncturae ossium extremitatis superioris liberae)

**Articulatio humeri** (shoulder joint)

**Articular facets:**  
caput humeri, cavitas glenoidalis + labrum glenoidale

**Joint capsule:**  
margines, med. on collum anat. humeri – distally  
vagina synovialis intertubercularis

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**Articulatio humeri – articular apparatus**

- labrum glenoidale
- ligg. glenohumeralia (sup., inf., ant.)
- lig. coracohumerale
- lig. coracoacromiale


**Firmed by tendons**  
(rotator cuff)

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**Articulatio cubiti**

Articulatio composita:

1. **Articulatio humeroradialis** (articulatio spherioidea)  
capitulum humeri, fovea capitis radii
2. **Articulatio humeroulnaris** (articulatio trochlearis)  
trochlea humeri, incisura trochlearis ulnae
3. **Articulatio radioulnaris proximalis** (articulatio trochoidea)  
circumferentia articularis capitis radii, incisura radialis ulnae



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**Articulatio cubiti**

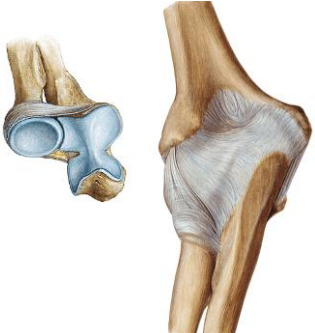
**Joint capsule**

Epicondyles extracapsular, fossae intracapsular  
recessus sacciformis

**Ligg.:**

- lig. anulare radii
- lig. collaterale radiale
- lig. collaterale ulnare

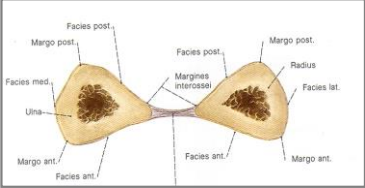

**Movements:**



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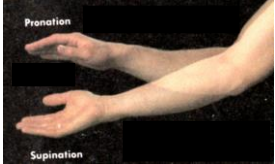
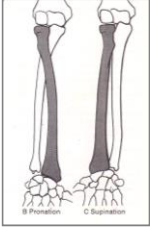
**Juncturae radioulnares**

**Membrana interossea antebrachii**

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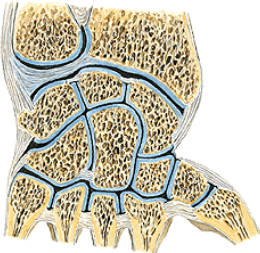
**Articulatio radioulnaris distalis**

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**Articulatio radiocarpalis**

**Articular facets:**  
facies articularis carpalis radii, discus articularis  
os scaphoideum, os lunatum, os triquetrum (lig. intercarpalia interossea)

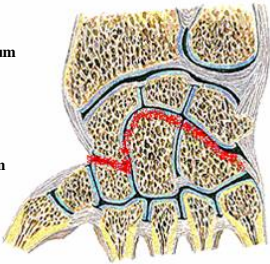


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**Articulatio mediocarpalis**

**Radial:**  
head: os scaphoideum  
pit: os trapezium, trapezoideum, capitatum

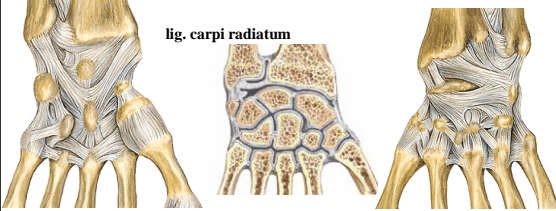
**Ulnar:**  
head: os capitatum, hamatum  
pit: os scaphoideum, lunatum, triquetrum



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**Articulatio mediocarpalis ligg.**

ligg. intercarpea dorsalia, palmaria et interossea  
 lig. radiocarpeum dorsale et palmare  
 lig. ulnocarpeum palmare et dorsale  
 lig. carpi radiatum



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**Sulcus carpi et canalis carpi**

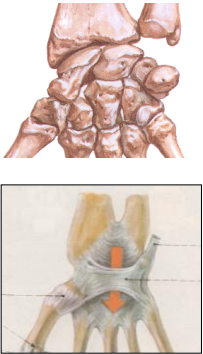
**eminentia carpi radialis**  
 (tuberculum ossis scaphoidei et trapezii)

**eminentia carpi ulnaris**  
 (hamulus ossis hamati et os pisiforme)

**sulcus carpi**

**lig. carpi transversum (retinaculum flexorum)**

**canalis carpi:**

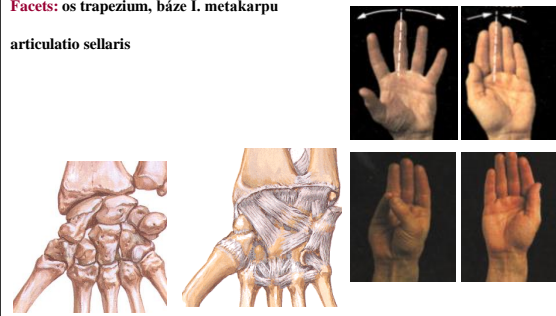


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**Articulatio carpometacarpalis pollicis**

**Facets:** os trapezium, baze I. metakarpu

articulatio sellaris



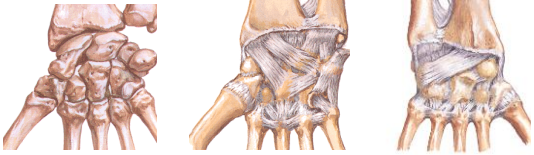
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**Articulationes carpometacarpales II. - V.**

**Facets:** distal row of the carpal bones

ligg. metacarpea palmaria, dorsalia et interossea,  
 ligg. carpometacarpea palmaria, dorsalia et interossea

**Type:** amfiarthrosis



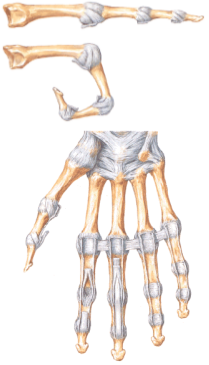
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**Articulationes metacarpophalangeae**

laminae fibrocartilagineae palmares  
 (thumb - 2 ossa sesamoidea)

lig. collaterale radiale et ulnare  
 lig. metacarpeum transversum profundum

**Type:** articulatio ellipsoidea

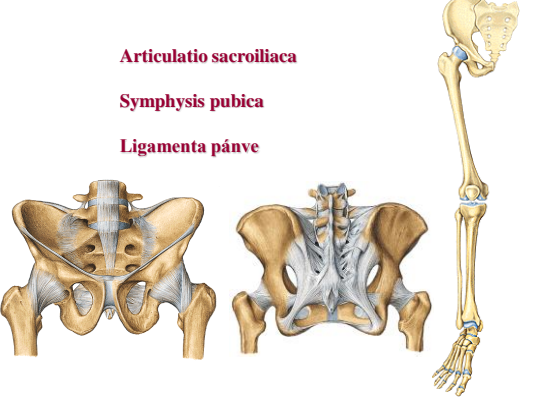


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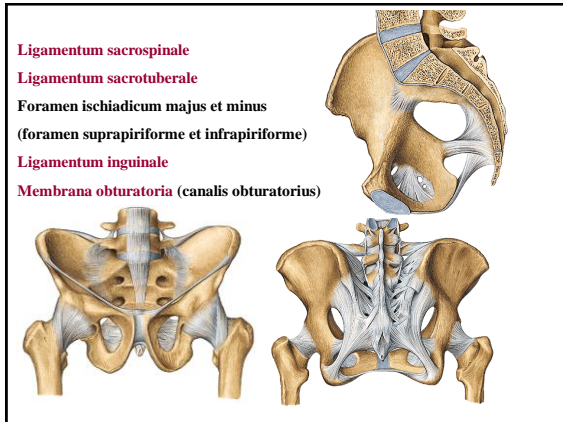
**Articulatio sacroiliaca**

**Symphysis pubica**

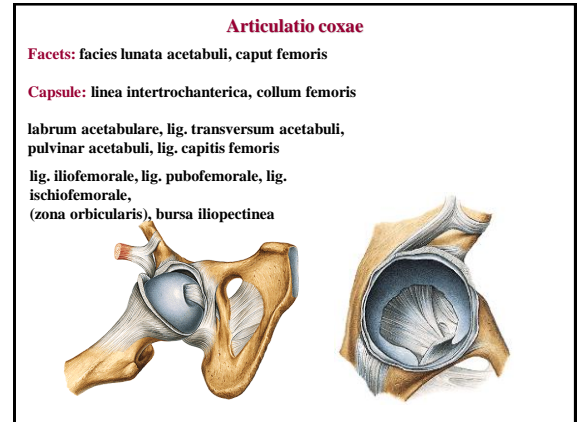
**Ligamenta páneve**



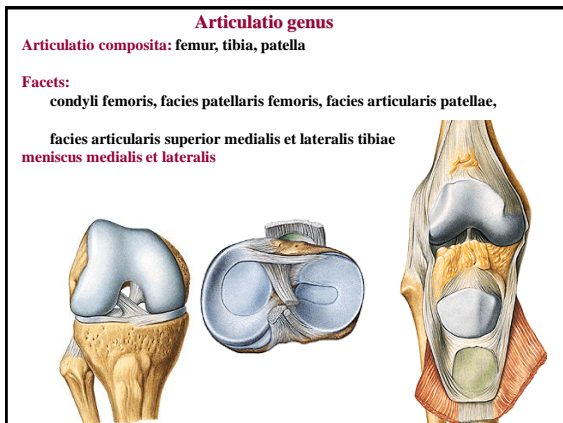
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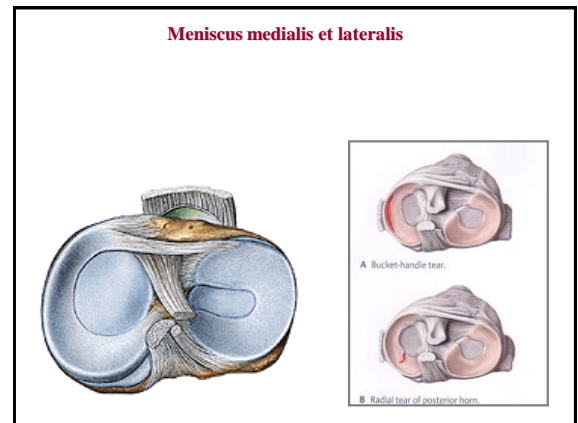
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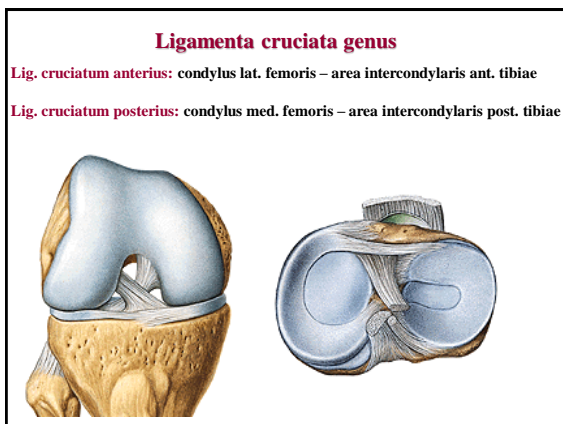
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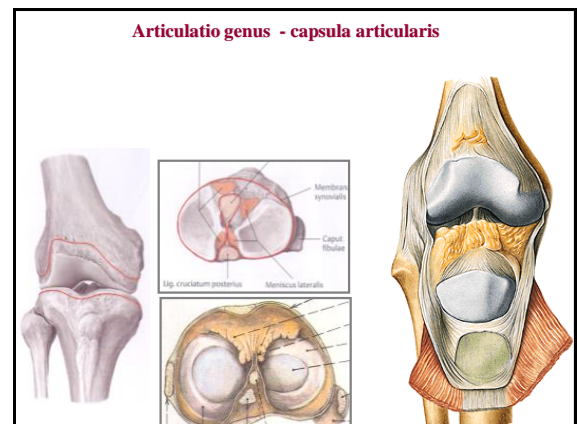
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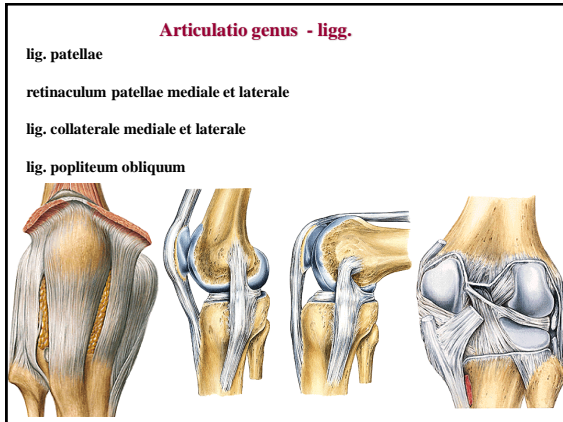
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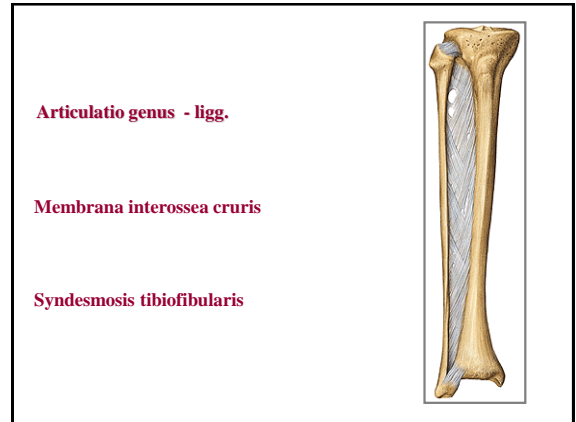
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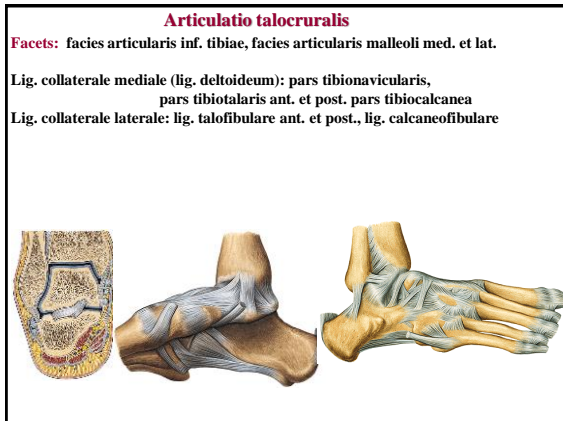
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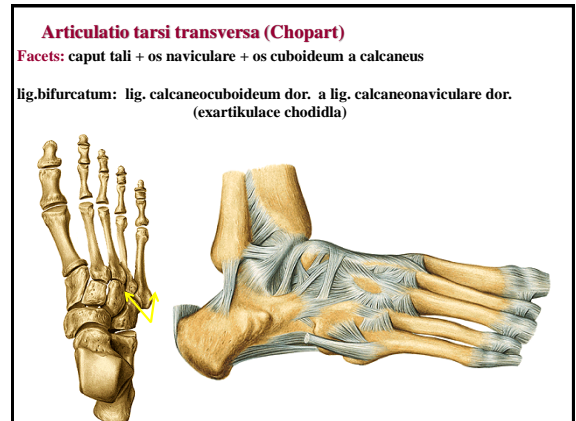
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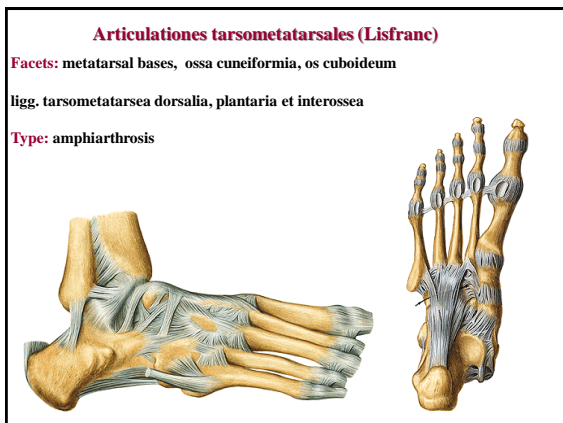
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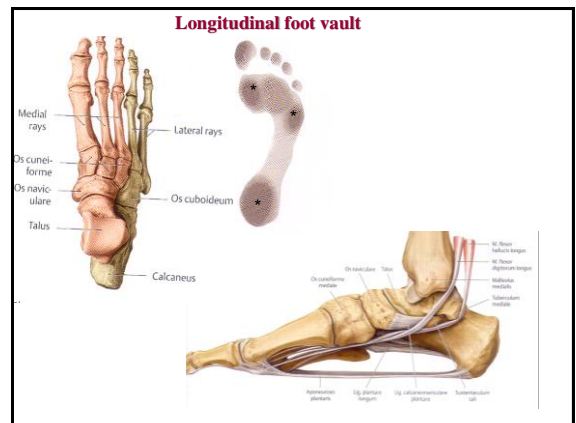
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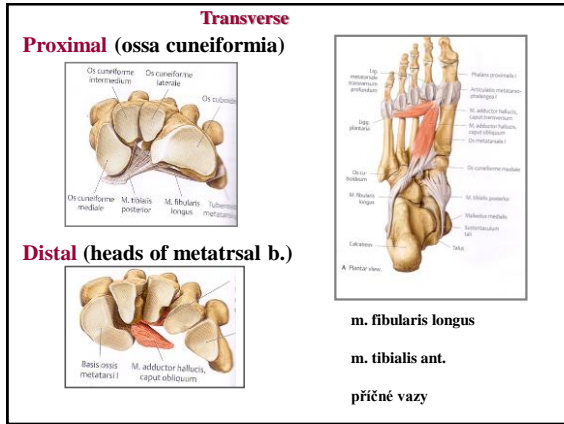
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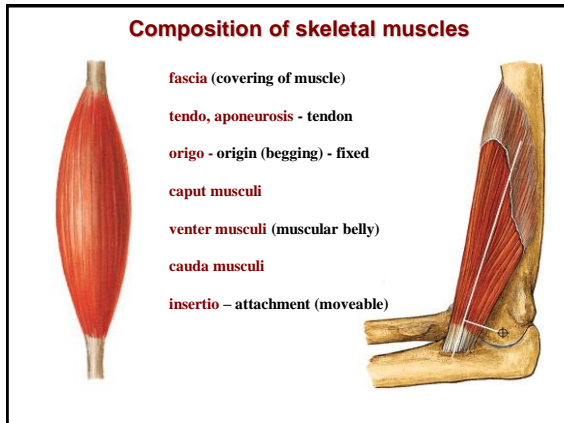
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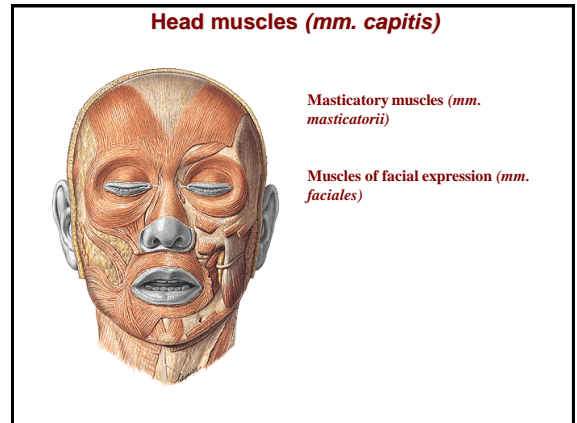
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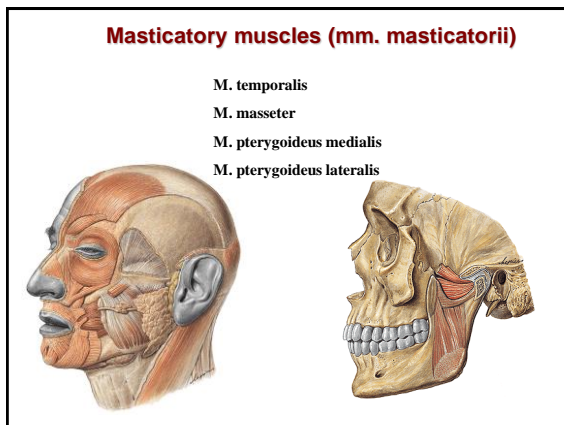
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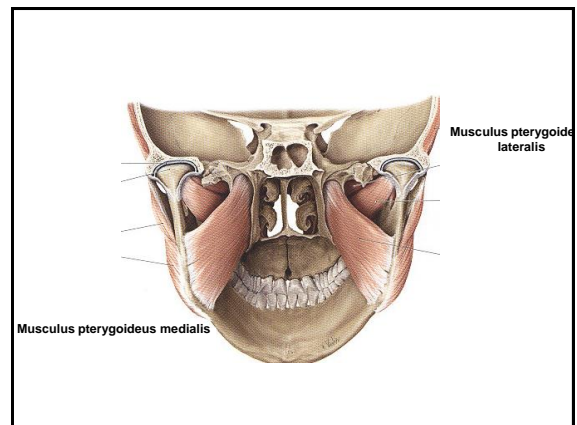
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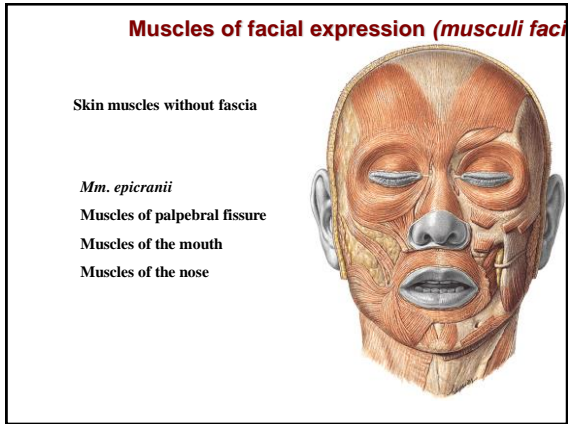


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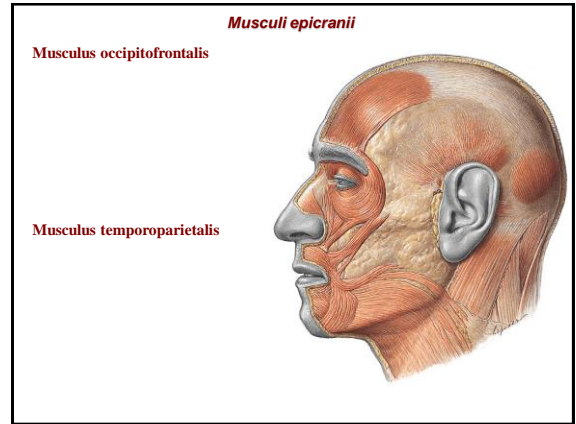


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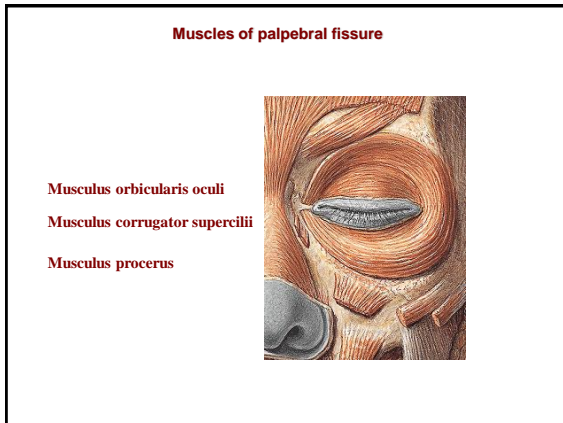




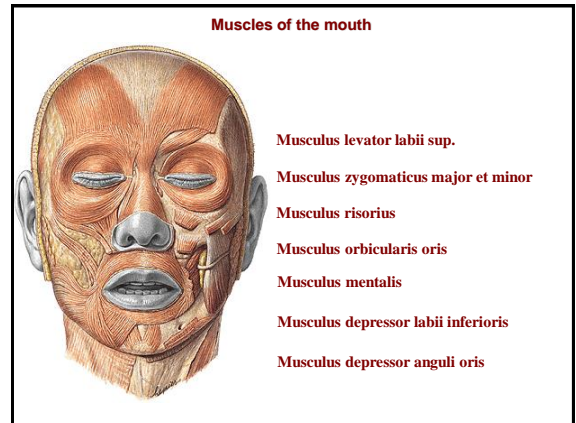
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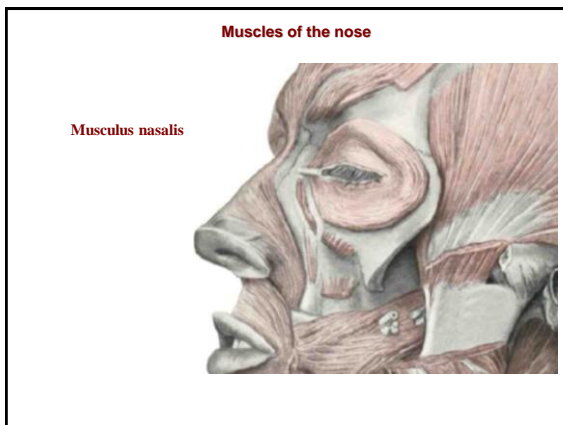
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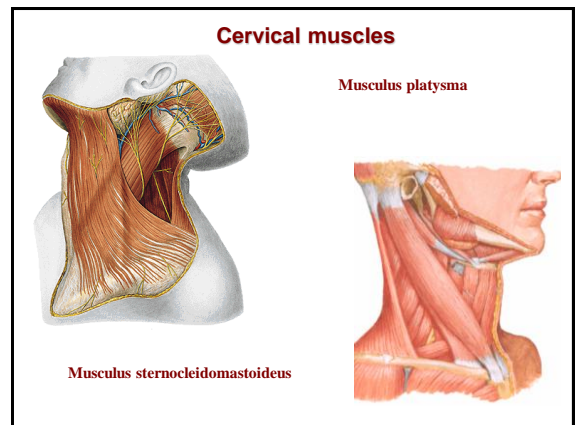
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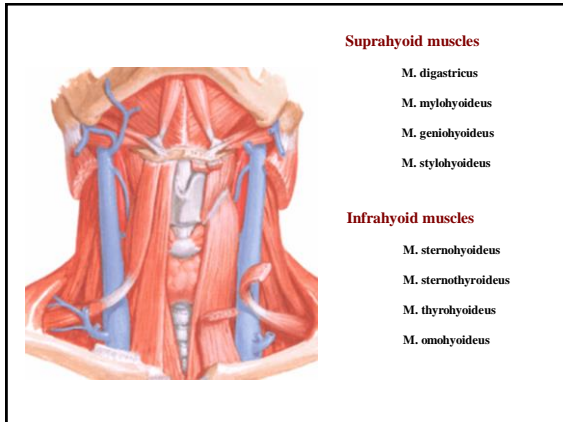
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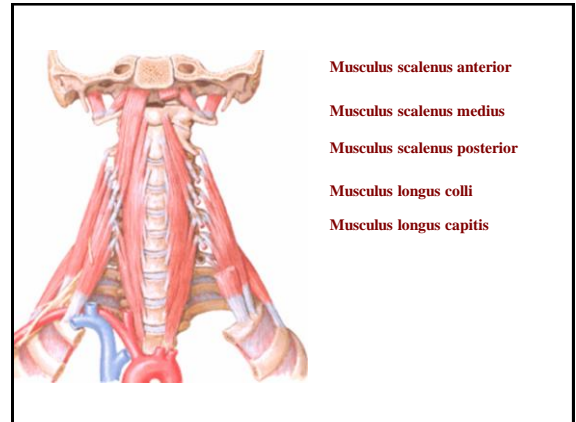
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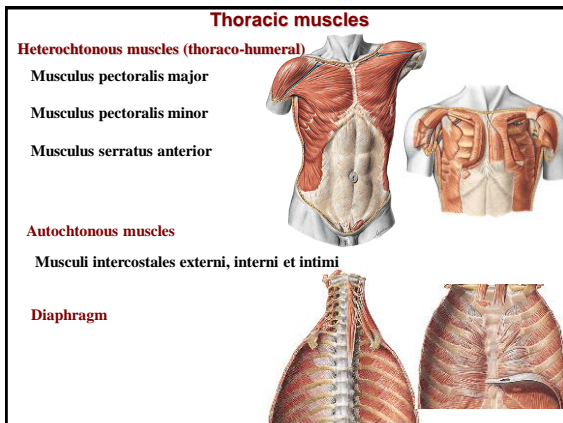
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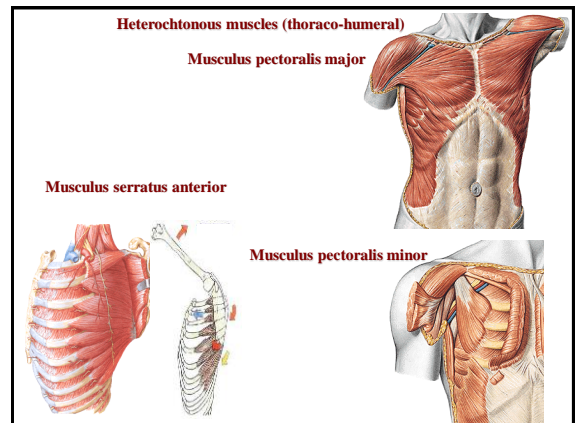
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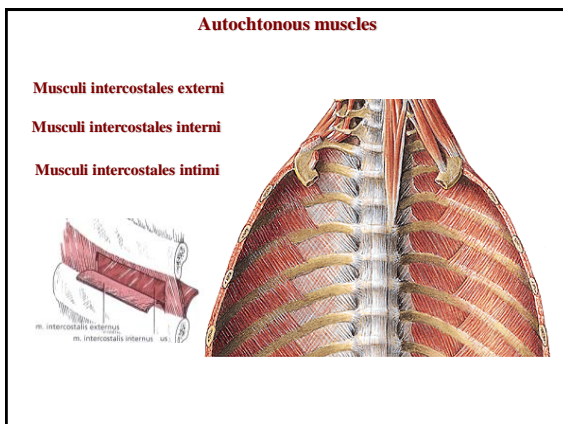
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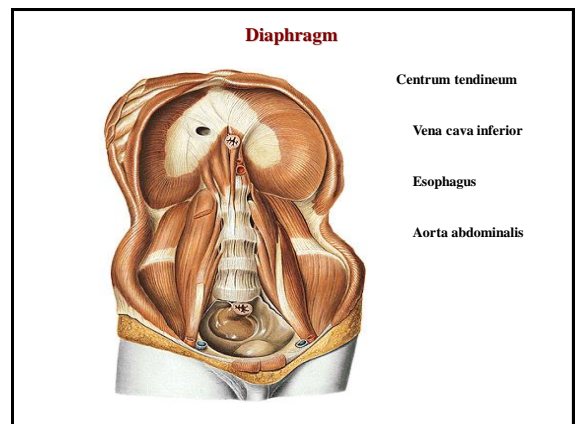
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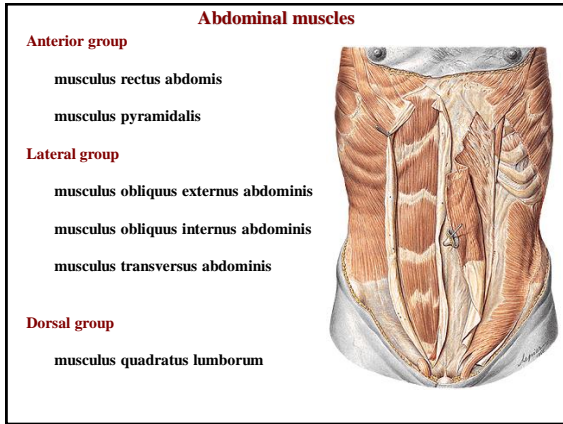
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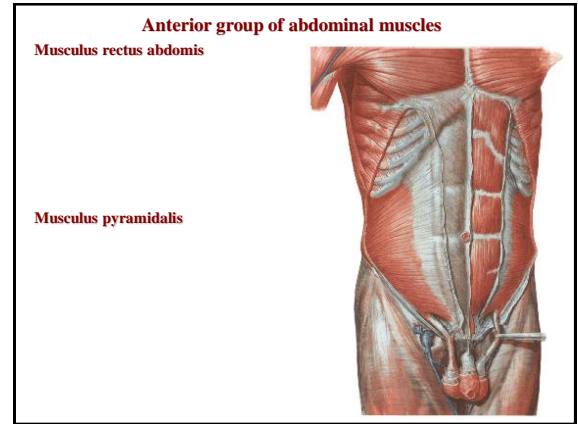
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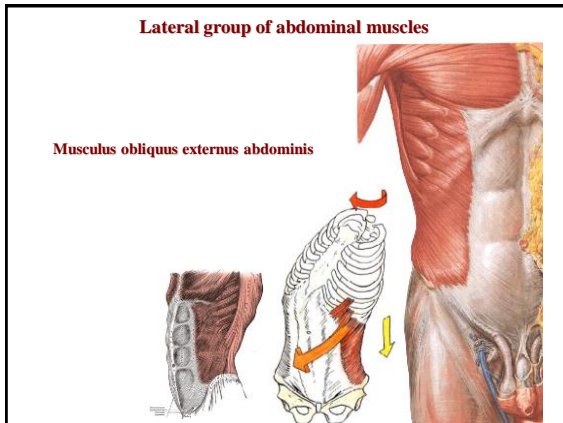
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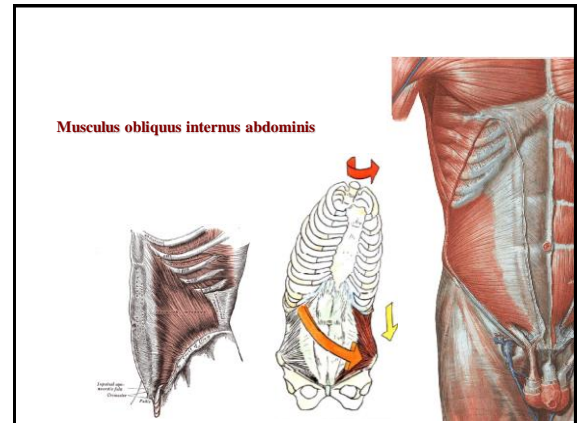
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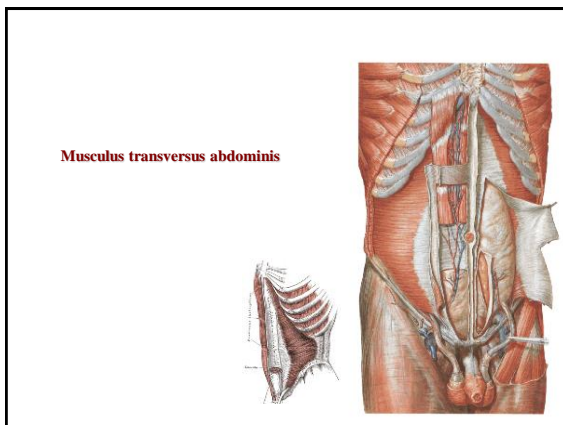
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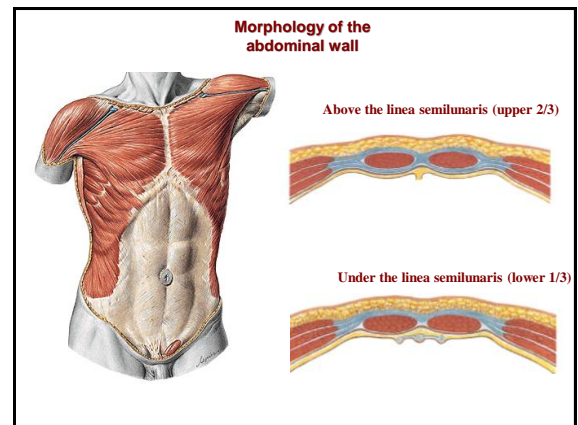
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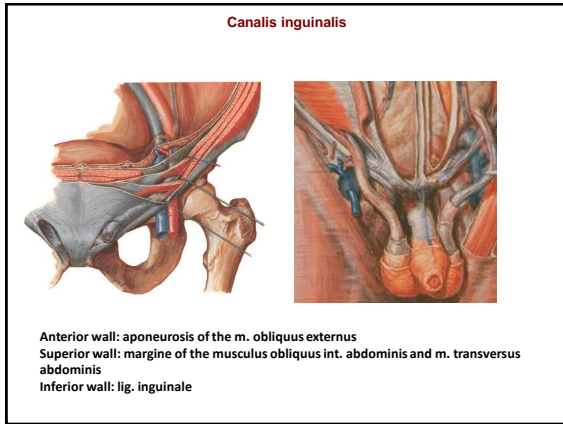
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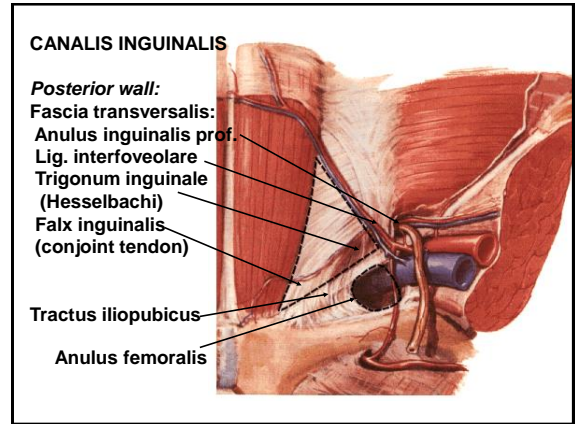
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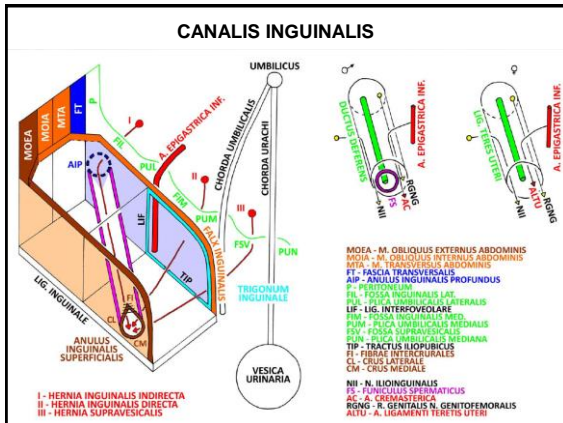
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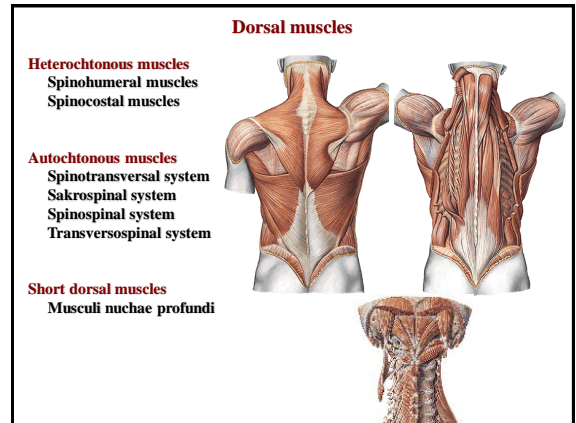
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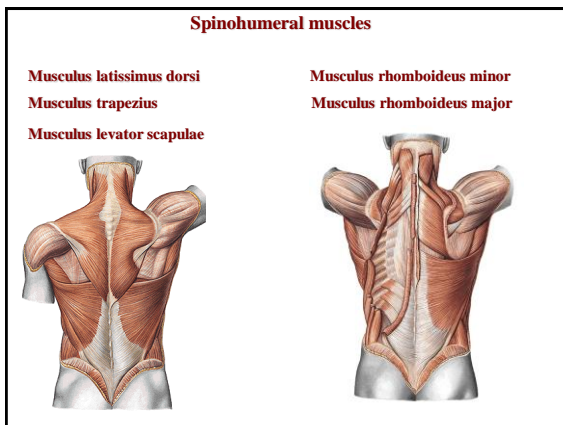
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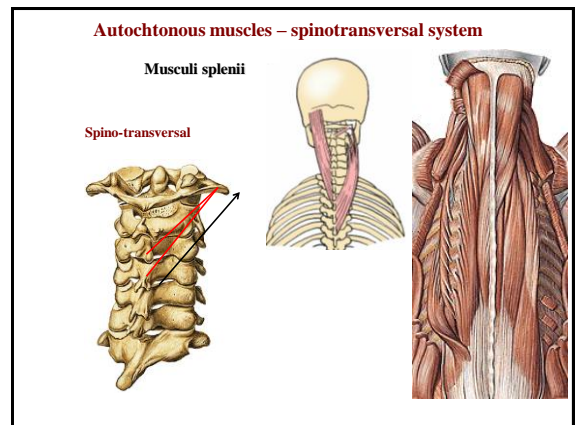
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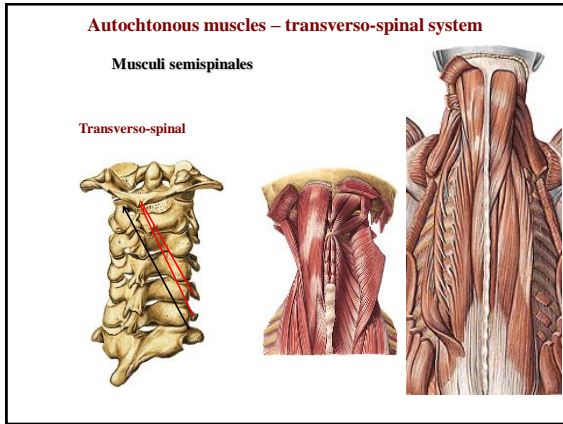
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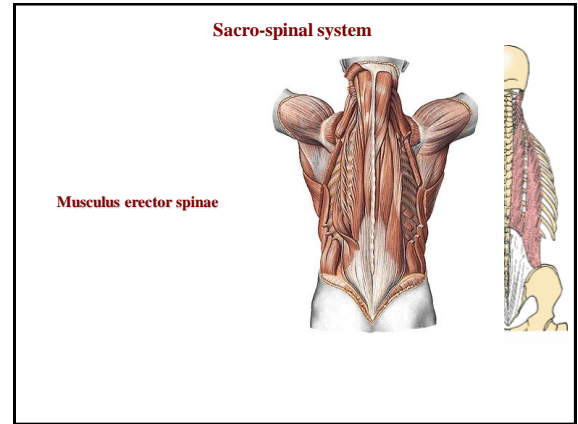
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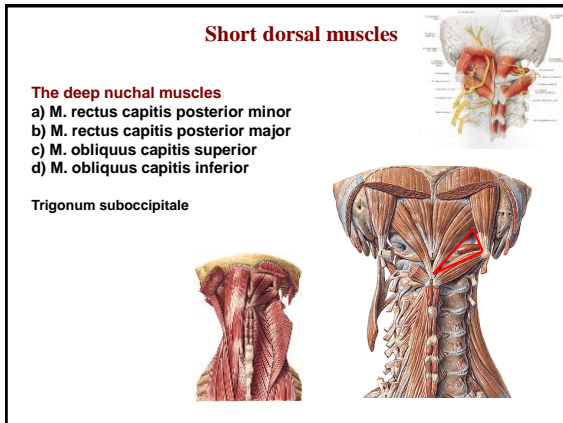
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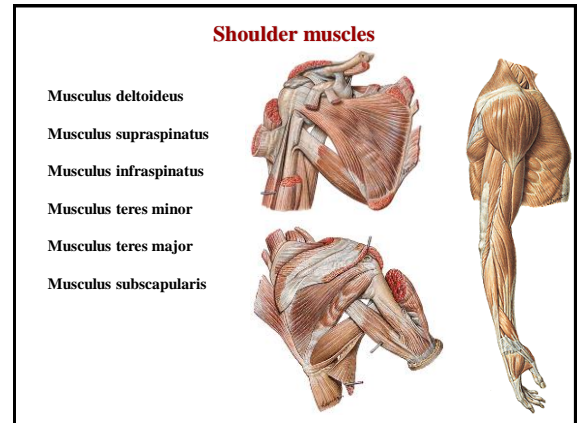
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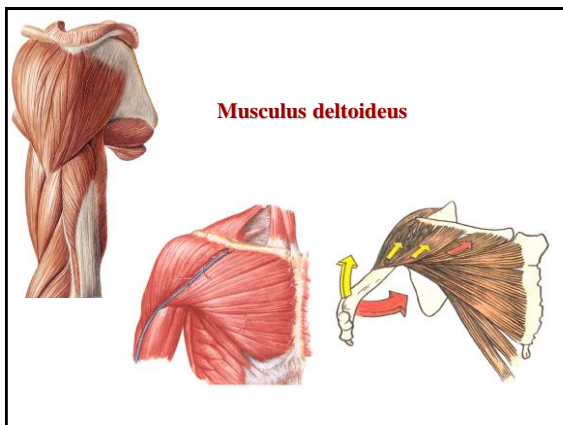
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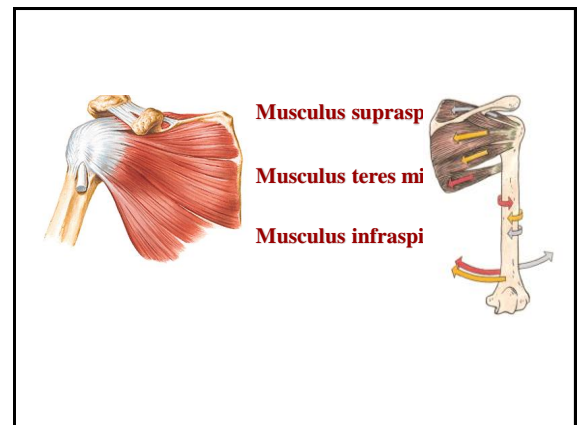
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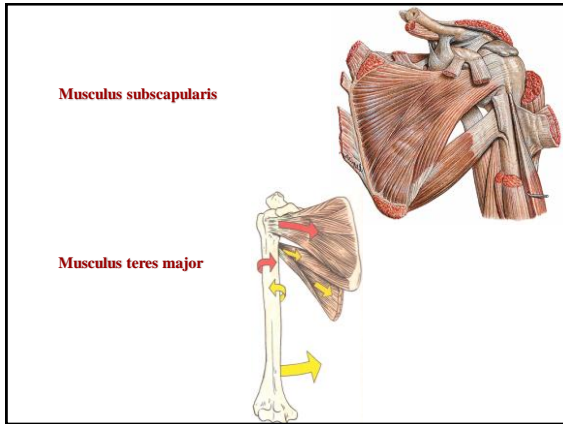
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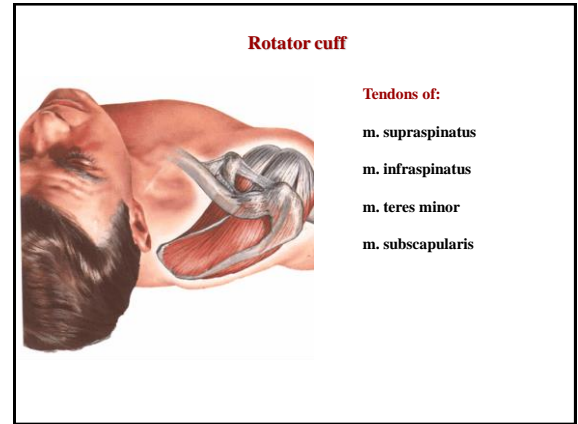
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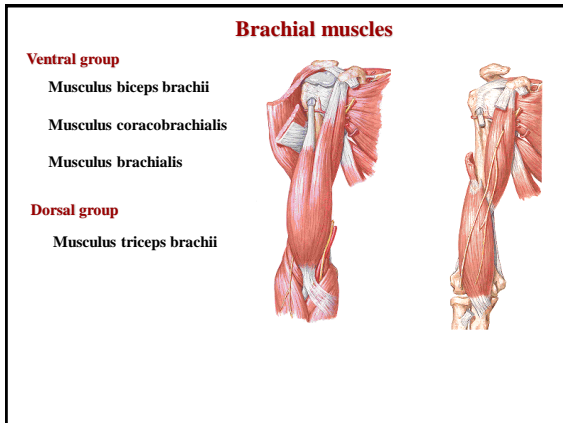
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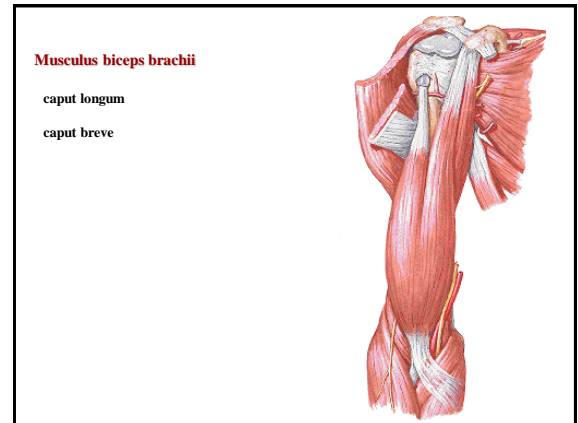
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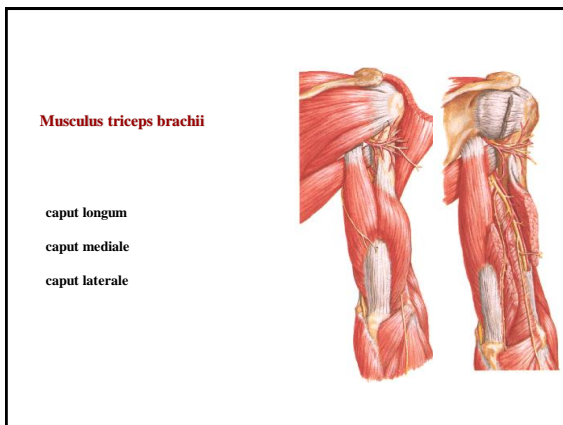
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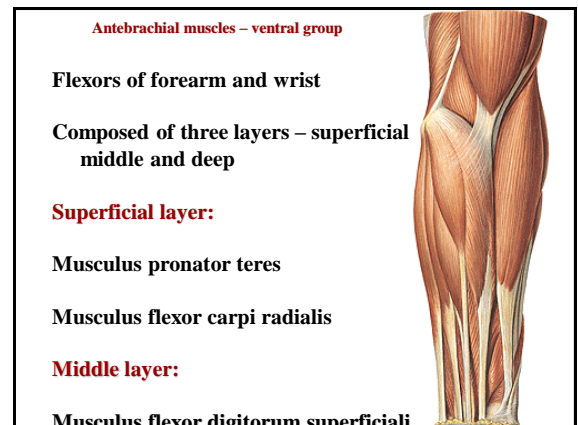
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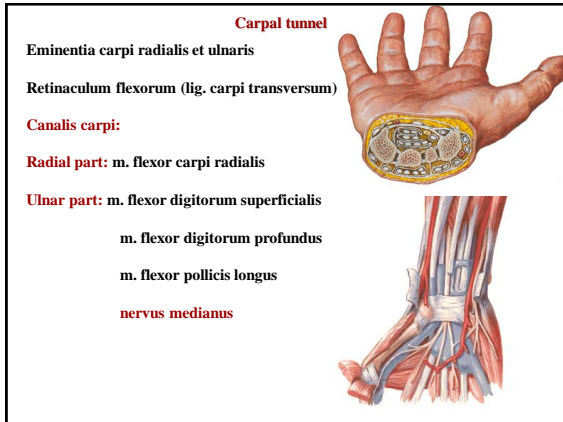
82



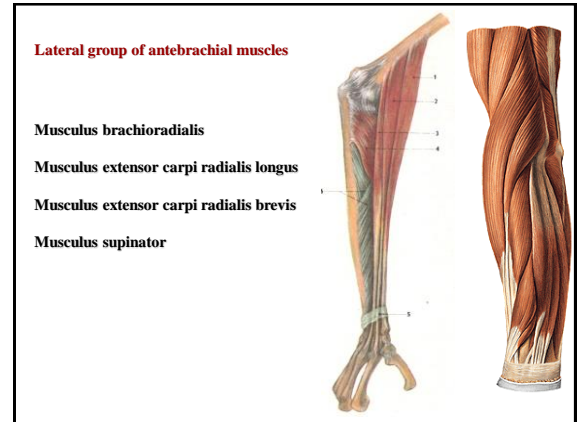
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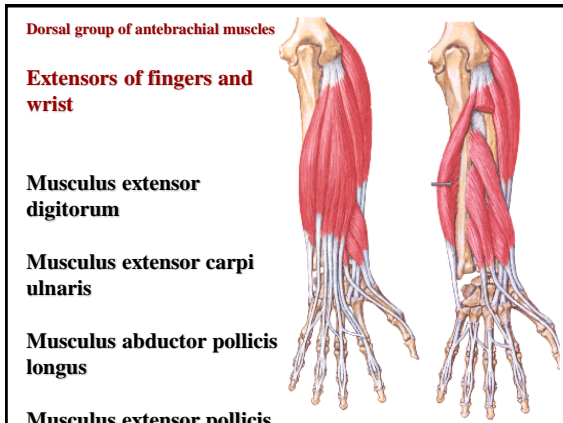
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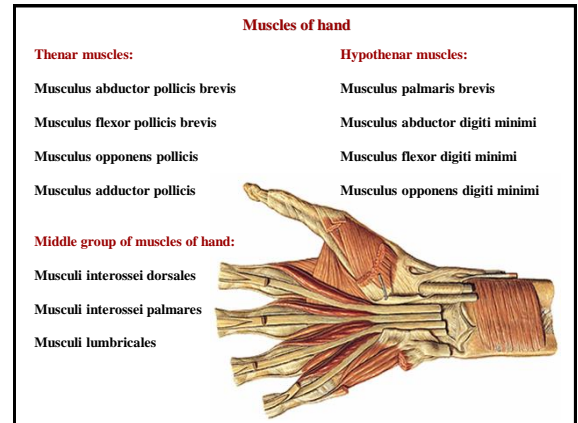
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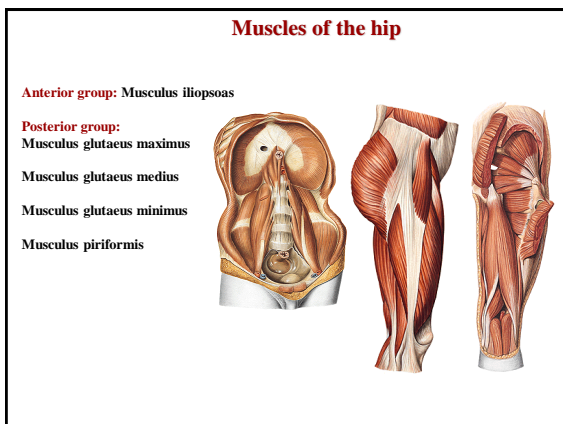
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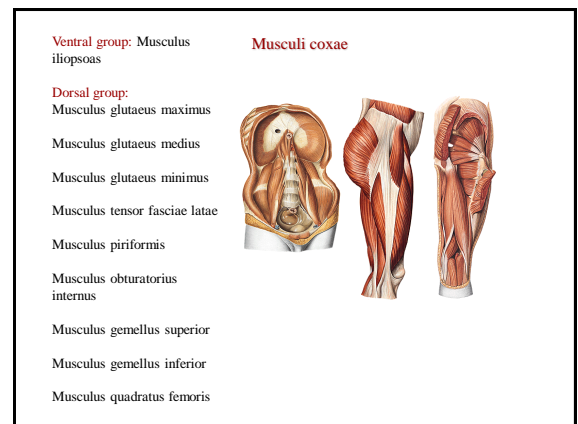
87



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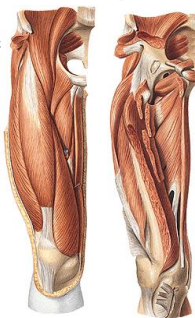
**Anterior group of muscles of thigh**

Flexors of the hip joint, extensors of the knee joint

**Musculus quadriceps femoris**

1. m. rectus femoris
2. m. vastus medialis
3. m. vastus lateralis
4. m. vastus intermedius

**Musculus sartorius**



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**Medial group of muscles of thigh**

Adductors of thigh

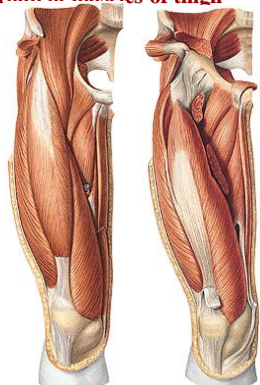
Musculus gracilis

Musculus pectineus

Musculus adductor longus

Musculus adductor brevis

Musculus adductor magnus



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**Dorsal group of muscles of thigh**

Extensors of the hip joint, flexors of the knee joint

Musculus semitendinosus

Musculus semimembranosus

Musculus biceps femoris



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**Muscles of crus – anterior group**

Extensors of toe, foot and fingers

Musculus tibialis anterior

Musculus extensor hallucis longus

Musculus extensor digitorum longus



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**Muscles of crus – lateral group**

Flexors of foot

**Musculus fibularis (peroneus) longus**

Foot vault

**Musculus fibularis brevis**



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**Muscles of crus – posterior group**

Superficial layer:


Musculus triceps surae

Deep layer:

Musculus tibialis posterior

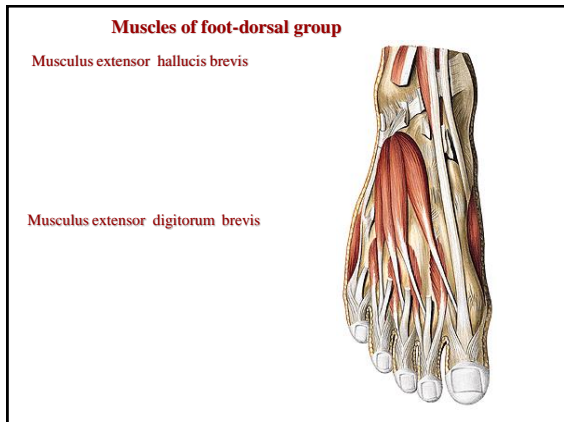
Musculus flexor hallucis longus

Musculus flexor digitorum longus

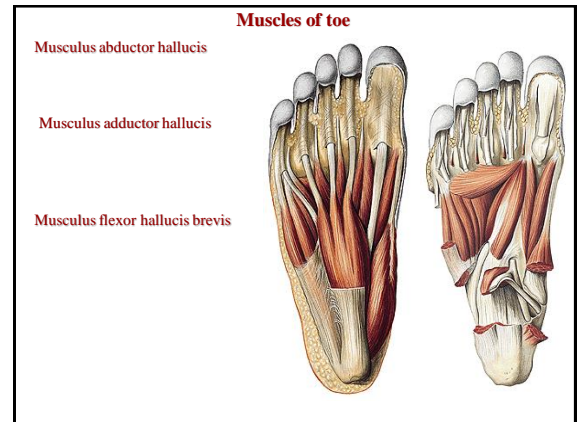


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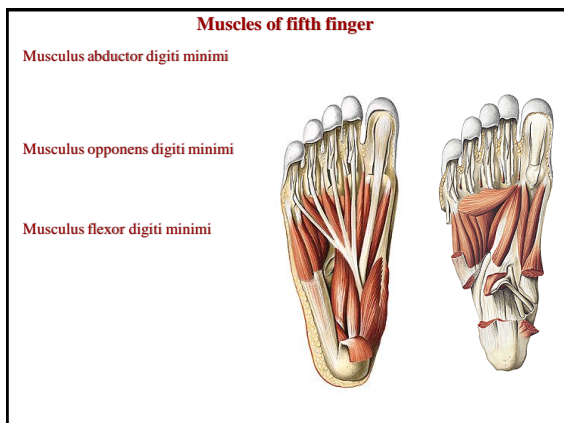




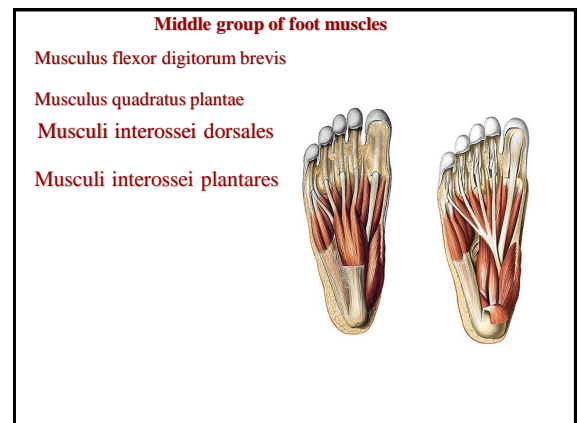
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