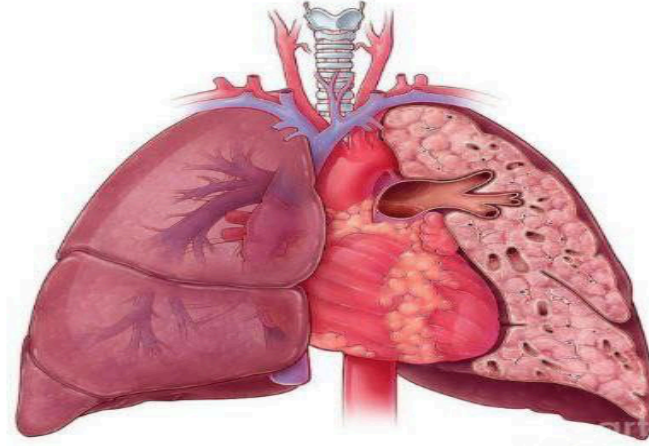


Date:

29 / 11 / 2023



لجان الدُّفعات

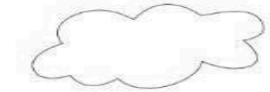


تفريغ أناتومي

Muscles: موضوع المحاضرة

رقم المحاضرة: (16)

إعداد الصيدلانية : Yasmeen Alharahsheh



ال muscles الموجودة حول ال humerus

Muscles of the arm (that move the forearm)

Flexors muscles ال العوضدين بال arm :-

- ① The **biceps brachii**, **brachialis**, and **brachioradialis** are flexors. ②

The **triceps brachii** extends the forearm.

ثلاثة الرؤوس ←

(امداد الساعد) العسولة عن ال extension تبع ال forearm

- ③ The biceps has two heads of origin. The long head passes through the intertubercular sulcus of the humerus. The biceps inserts into the **radial tuberosity**.

- It also forms an aponeurosis that inserts medially into fascia and that **protects** the underlying **brachial artery** and **median nerve** as they pass in the cubital fossa.

الشريان
الأساسي
العضدي

العصب
المتوسط

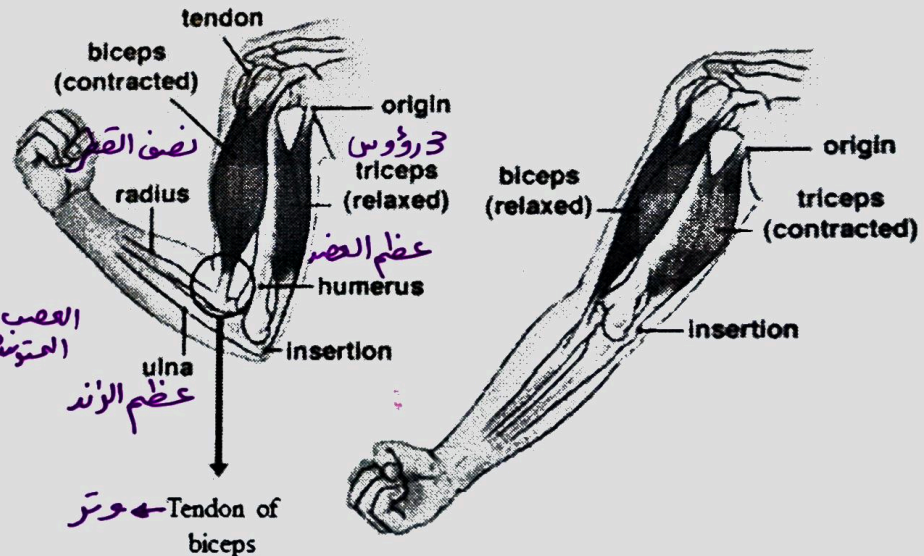


Fig.20: The biceps and triceps muscles.

* رؤسين

* ثلث رؤوس

الحفرة العرفية

أقيس
Cubital Fossa من ظلالها بقدر الإمكان

The Cubital Fossa:

1- blood pressure
2- pulse (نبض)

مثلثي

■ Shallow triangular depression anterior to elbow joint. → مضغ الكوع
← احام
وبر العضة ذات رأسين

■ Tendon of biceps, brachial artery and median nerve pass through it. ① ②

■ Site of measuring brachial artery pulse and taking blood pressure. ← نبض
اوردة سطحية

■ The superficial veins passing in the skin overlying this fossa can be used to take blood samples.

أخذ عيّنات الدم

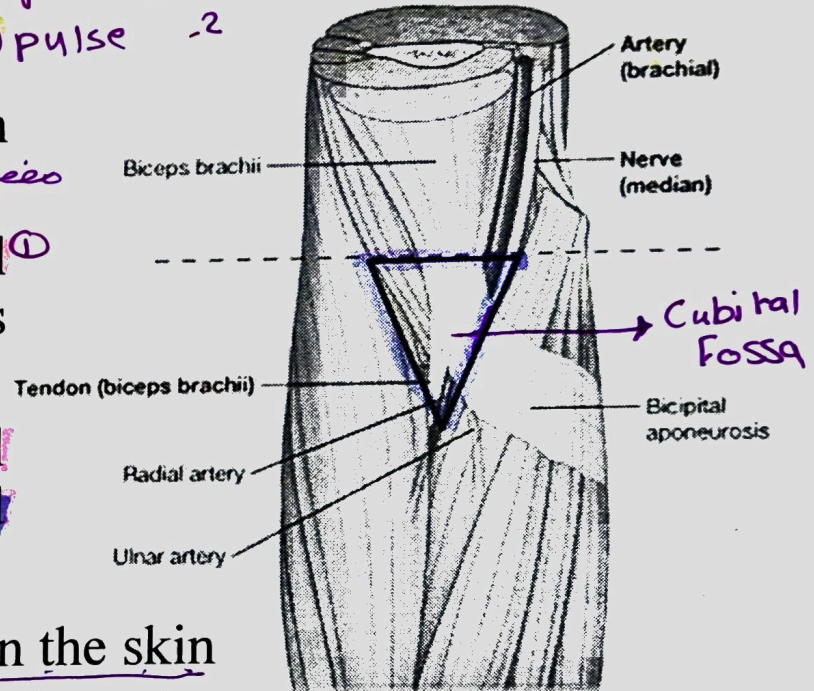


Fig.21: The cubital fossa.

مردود ال muscles بالز لوان مطلوب من حفظ

Muscles of the Forearm

- Muscles in this group that act on the wrist and fingers are known as **extrinsic muscles of the hand** because they originate *outside* the hand and *insert* within it.

عضلات اليد
الخارجية

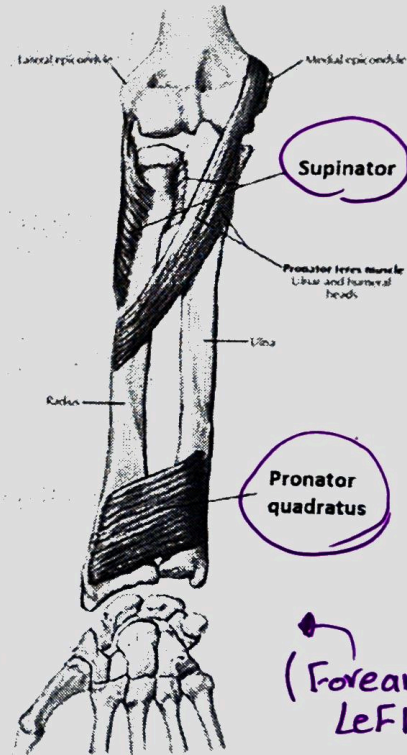
- Based on location and function, these muscles are divided into an **anterior (flexor) compartment** and a **posterior (extensor) compartment**.

- Anconeus, supinator and pronator quadratus are muscles in the forearm that act on the forearm.

Fig.22: Muscles of the anterior compartment of the forearm.



- Flexor carpi ulnaris
- Palmaris longus
- Flexor carpi radialis
- Pronator teres
- Flexor digitorum superficialis



Supinator

Pronator quadratus

(Forearm Left)

(انثناء)

لها امدا يدي للثمام واربع ركني لتختل بسببها (Flexion)

(extension)

لها امدا يدي لتختل بسببها

(امتداد)

(Extension)

- As the long muscles of the anterior forearm pass over the carpal bones, they are held in place by a thick band of connective tissue called the flexor retinaculum (transverse carpal ligament). This band with the carpal bones form a tunnel called the carpal tunnel.

- Also passing through this tunnel is the median nerve.

- Certain conditions may affect this tunnel (like inflammation of the tendons or the joints) leading to compression of the median nerve. →

This is called **Carpal Tunnel**

← **Syndrome** متلازمة

- The affected person may have pain in the hand, change in sensations and even weakness in the hand muscles supplied by the median nerve.

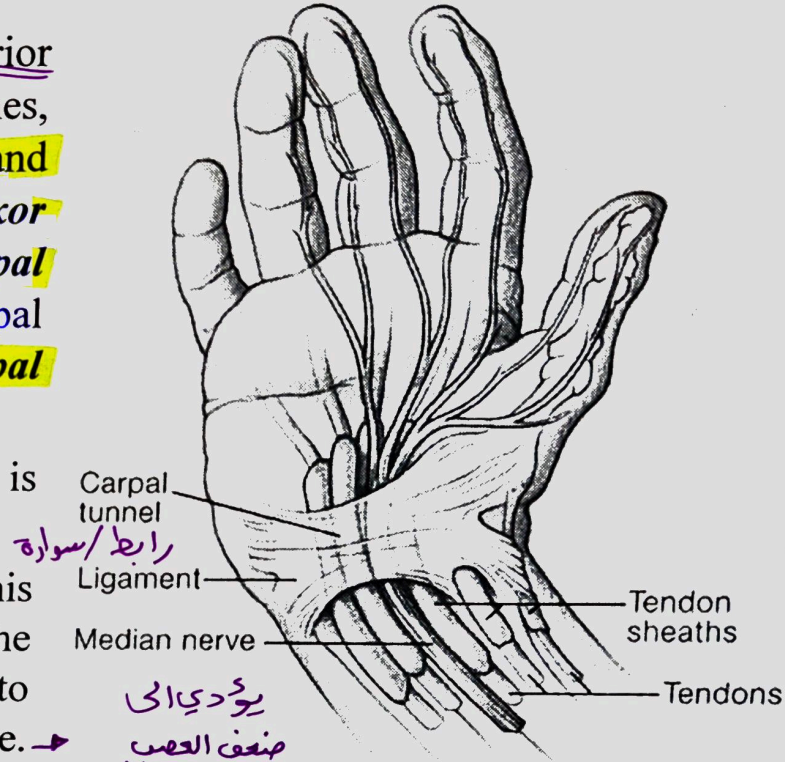


Fig.23: The carpal tunnel.

* Females أكثر عرضة من الرجال بسبب

ال (Carpal Tunnel) أصغر عند النساء

التي يغذيها

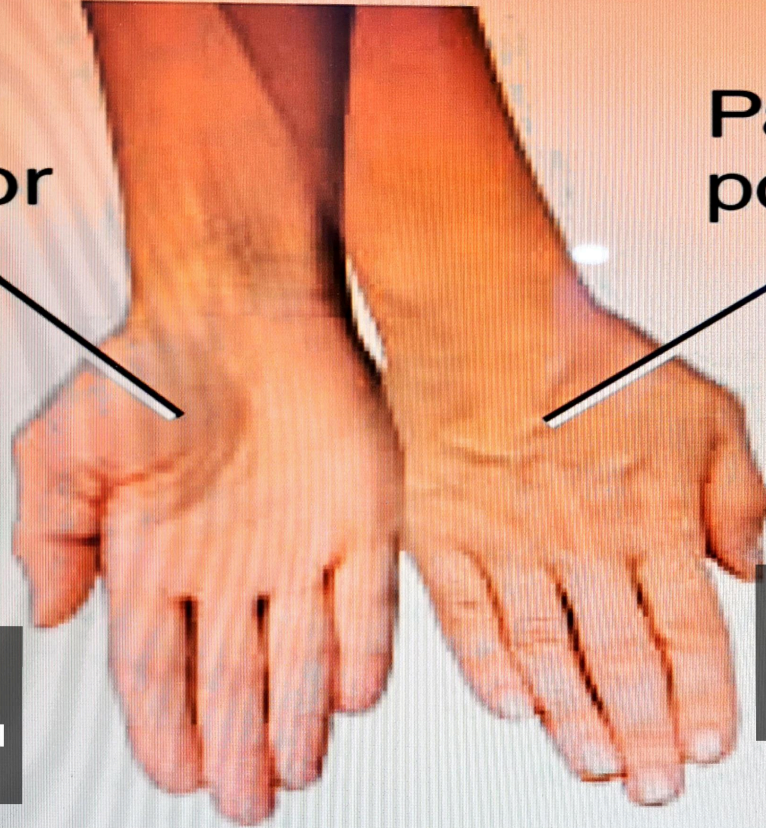
Movement of Forearm	Muscles that produce them
انثناء Flexion	Biceps Brachialis Brachioradialis
امتداد Extension	Triceps Anconeus
استلقاء Supination (باطن اليد)	Biceps Supinator
الانطاف Pronation	Pronator teres Pronator quadratus رابعة

ال Thumb
يكون باتجاه
الجسم .

(اراح نقرها بسلايد 43)

Palm
anterior

Palm
posterior



ال pronation بيسموها ال kings hand
زي أيد الملك بيكون قالبها على
شان يبوسوها

لتسهيل الحفظ
ال supination بيسموها ال bigger
hand زي ايد الشحاذ بتكون مفتوحة
عشان يطلب مصاري

Supination

Pronation

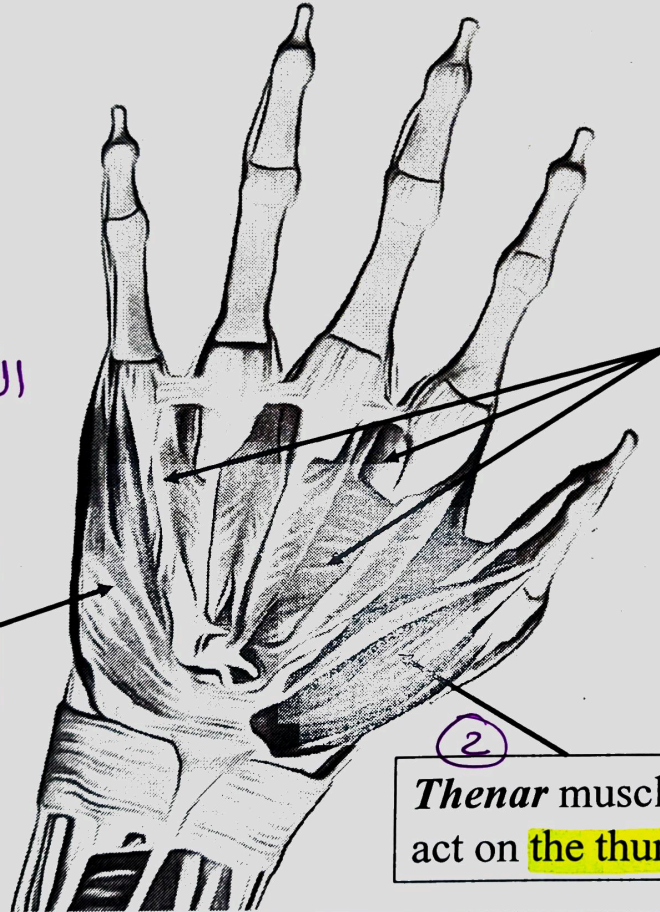
Intrinsic Muscles of the Hand (3 groups)

* adduct → يقرب
* abduct → يبعد

الHypothenar موجودين بال
little Finger.

①

Hypothenar
muscles act on
the little finger



②
Thenar muscles
act on the thumb

الThenar موجودين
داخل الThumb

- The intermediate group include the **lumbricals**, the **palmar** and **dorsal interossei**.
- The **palmar interossei** **adduct** the fingers towards the middle finger. The **dorsal interossei** **abduct** the fingers away from the **middle finger** → الاصبع الأوسط

تبعد

Muscles Of The Lower Limb

- ① الاستقرار
■ Lower limb muscles function in stability,
② الحركة (movement) locomotion, and ③ المحافظة على الوضعية maintaining posture. In contrast, وقفه الشخص upper limb muscles are characterized by versatility of movement. (تغير الحركة)
- Muscles of the lower limbs often cross two joints (الخصر) Hip and can act equally on both. ~~shoulder~~ Kneen رتبة
- Most muscles that move the femur originate from the pelvic girdle and insert on the femur.
عظم الفخذ
حزام الحوض وتنغرس في عظم الفخذ

Muscles of the Gluteal region (Buttocks) →

أرداف

مكان ما الشخص يجلس .

deep

Muscle	Action	Notes
Gluteus maximus	Extends thigh	With fat forms the buttocks
Gluteus medius	1. Abduct thigh 2. Medial rotation of thigh 3. Tilt hip	These muscles are essential in initiating walking, because they allow the legs to be lifted off the ground
Gluteus minimus		
Piriformis	1. Abduct thigh 2. Lateral rotation of the thigh	Between the piriformis and gemellus superior muscles is a small space through which pass the big Sciatic nerve ↓ اكبر nerve موجود داخل الجسم
Gemellus superior		
Obturator internus		
Gemellus inferior		
Quadratus femoris		

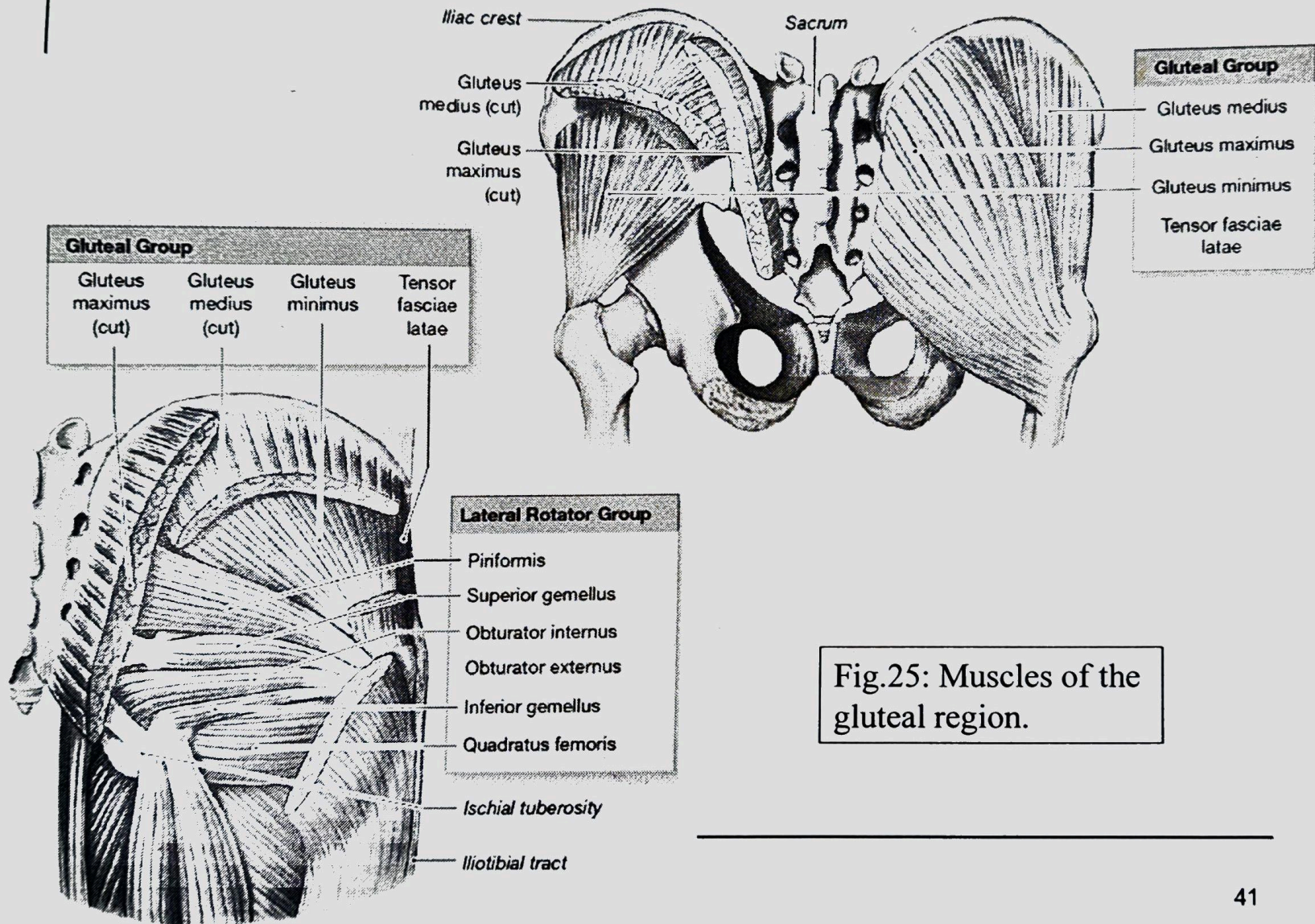


Fig.25: Muscles of the gluteal region.

Muscles of the Thigh

مقسمة الى

- Divided into ¹ anterior, ² medial, and ³ posterior compartments.

تعمل على
تقوية
الساق

- **Anterior (extensor) compartment** of the thigh extend the leg →

(and flex the thigh). Supplied by the **femoral nerve**. ← شني الفخذ

- **Medial (adductor) compartment** of the thigh adduct the femur at the hip joint. (Supplied by the **obturator nerve**). ← تعمل على تقريب عظم الفخذ في مفصل الورك (hip) (خضرة)

- **Posterior (flexor) compartment** of the thigh flex the leg (and extend the thigh). (Supplied by the **sciatic nerve**). ← تعمل على شني الساق و عد الفخذ

- The **anterior compartment** of the thigh is **divided into 2 triangles** by the **Sartorius muscle**. The **sartorius** (cross-leg, ← الطول عظمة في الجسم

tailor's) muscle is the longest muscle in the body. It originates from the **anterior superior iliac spine** and is inserted into the medial surface of **the upper part of the shaft of tibia**. It flexes, **abduct** and laterally rotates the thigh, it also flexes the leg.

يعد الفخذ ويدور بشكل دائري

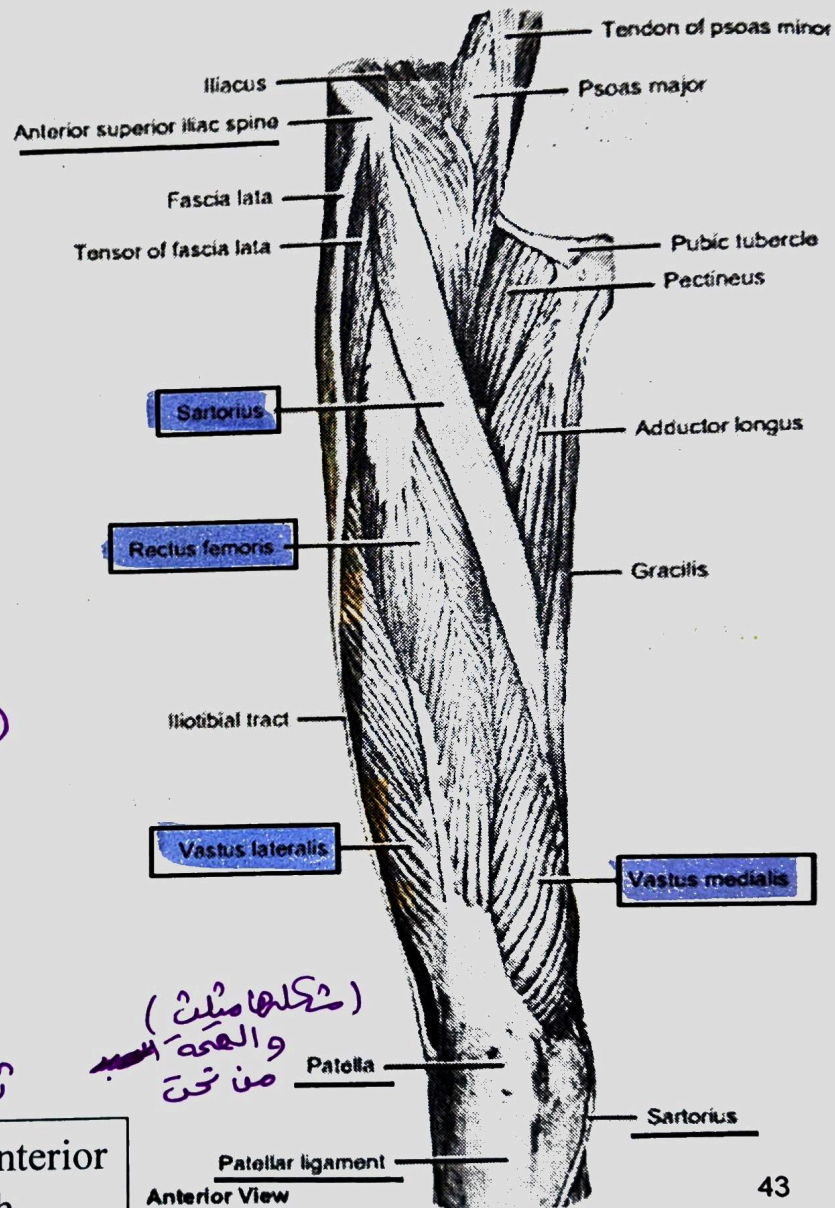
شني الفخذ والساق

تحت
4 muscles

Below the **sartorius**, we have the **quadriceps femoris** muscle which is formed of the **rectus femoris**, **vastus medialis**, **vastus intermedius** and **vastus lateralis**. The tendon of the quadriceps inserts into the **patellar** base. The patellar ligament arises from the apex of the patella and inserts into the **tibial tuberosity**.

- لحم
- The quadriceps extends the leg at the **knee joint**. The rectus femoris muscle also flexes thigh at the hip joint.
- تسحب العضلة عند مفصل الورك (الخصر)

Fig.26: Muscles of the anterior compartment of the thigh.



Muscles of the Leg

- Leg muscles, like those of the thigh, are divided into three compartments: anterior, lateral, and posterior.

- **Anterior** compartment muscles **dorsiflex** the foot.

- **Lateral** compartment muscles **plantar flex** & **evert** the foot.

- **Posterior** compartment muscles are split into a superficial group: the gastrocnemius, soleus and plantaris; and a deep group (e.g., tibialis posterior). The superficial muscles share a common tendon of insertion, the **calcaneal tendon** (**Achilles tendon** – the

largest and strongest tendon in the body). They plantar flex the foot and the gastrocnemius also flexes the leg.

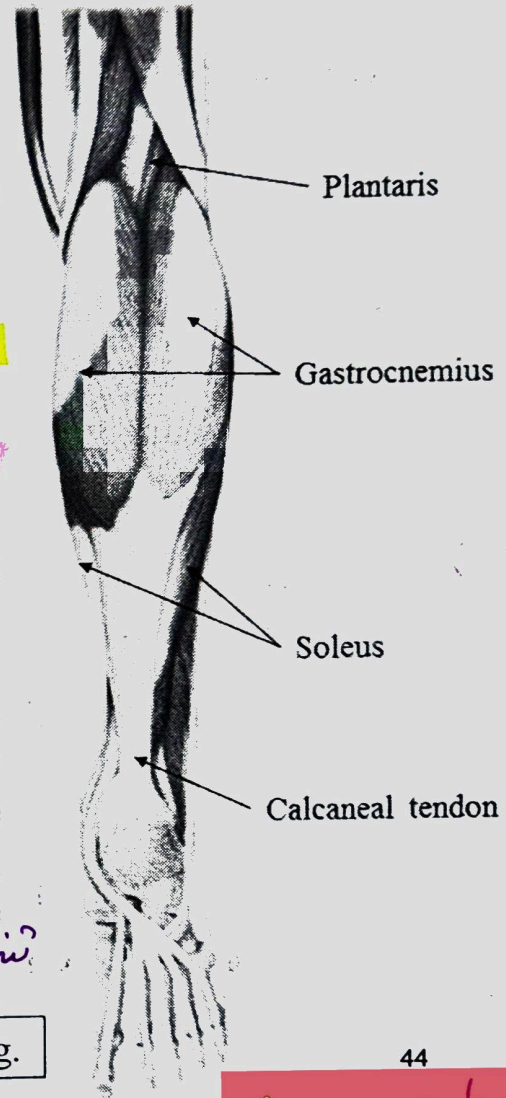


Fig.27: Muscles of the posterior compartment of the leg.

Dorsiflexion

Plantar flexion

Inversion

Eversion

داغلة

Intrinsic Muscles of the Foot

(- يكون محدودة في العمل)
1- support
2- locomotion

- These muscles are termed **intrinsic** because they originate & insert *within* the foot.
لأنها تنشأ داخل القدم
- These muscles are limited in action. They're designed for **locomotion** and **support** (of the arches).
- They include **dorsal** and **plantar groups**.

①

②

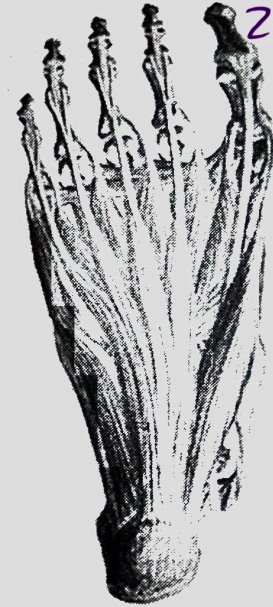


Fig.28: Intrinsic muscle of the foot (plantar group).