

大體老師 無語良師

大體解剖學實驗

HUMAN DISSECTION

THE LOWER LIMB DISSECTION IV

 盧家鋒 助理教授

臺北醫學大學醫學系 解剖學暨細胞生物學科

臺北醫學大學醫學院 轉譯影像研究中心

<http://www.ym.edu.tw/~cflu>

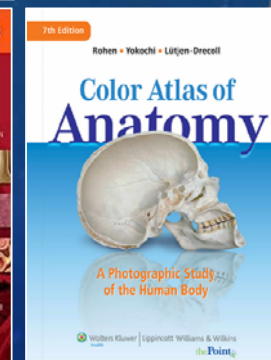
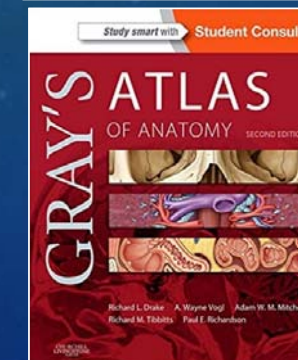
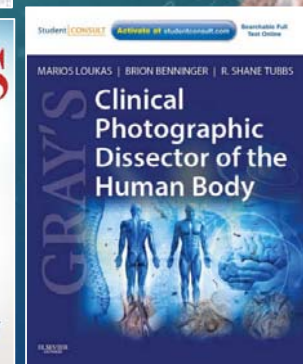
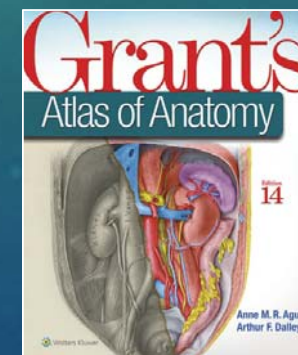
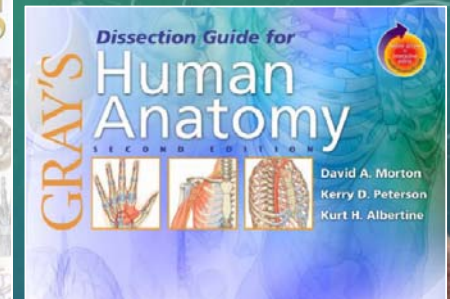
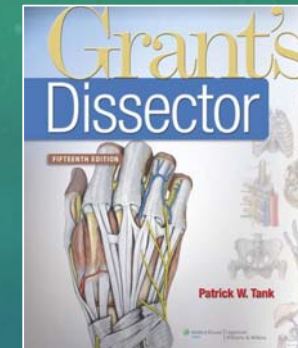


Merry Christmas

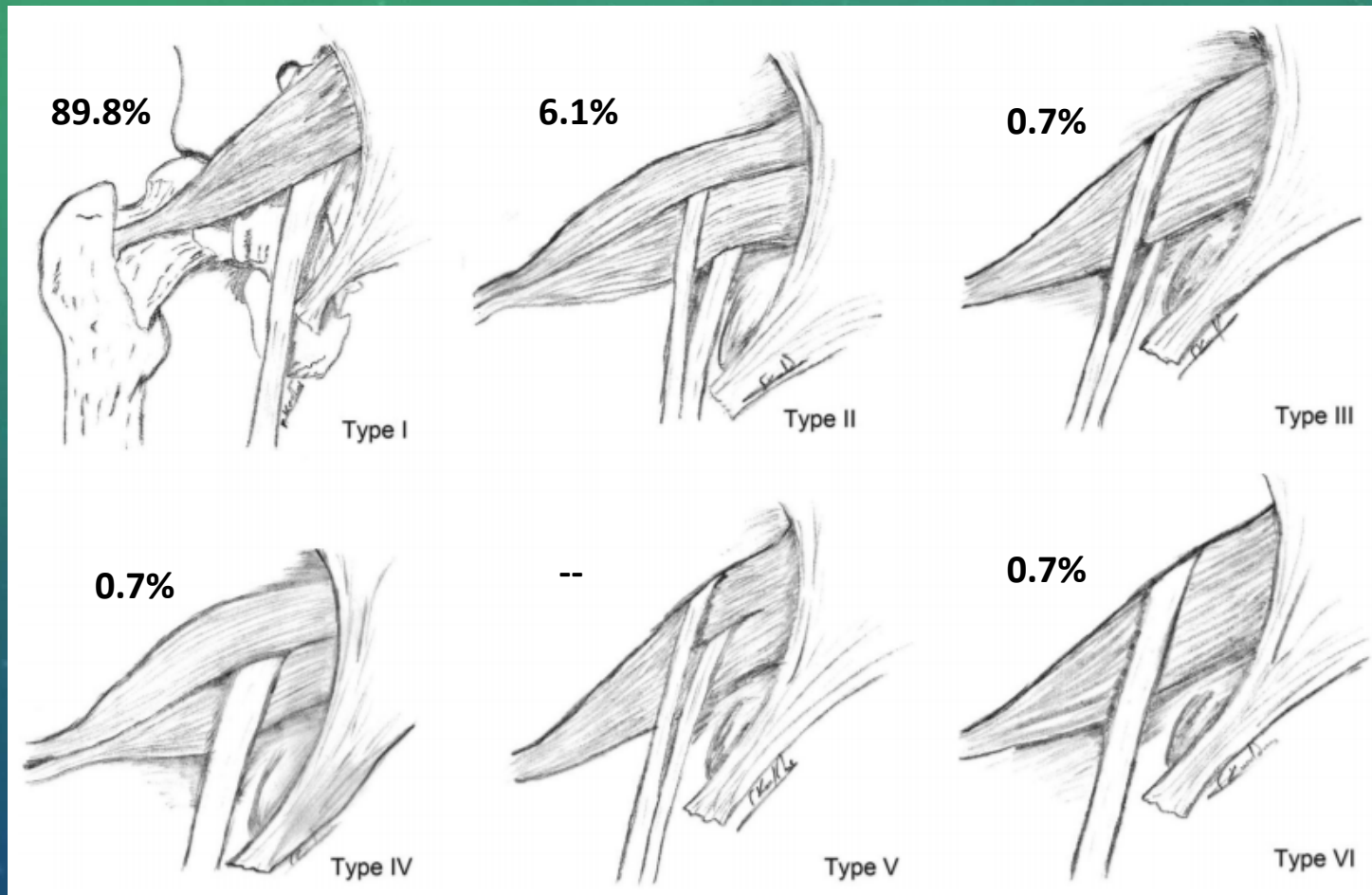
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- **Dissector's guide**
 - [1] Dissection Guide for Gray's Human Anatomy, 2ed, 2006
 - **[2] Grant's Dissector, 15ed, 2012**
- **Photographic Dissector**
 - [3] Gray's Clinical Photographic Dissector of the Human Body, 2013
- **Human Atlas**
 - [4] Gray's Atlas of Anatomy, 2ed, 2014
 - **[5] Grant's Atlas of Anatomy 13ed, 2012**
 - [6] Color Atlas of Anatomy: A Photographic Study of the Human Body, 7ed, 2011
 - [7] Atlas of Human Anatomy, 6ed, 2014

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VARIATION OF SCIATIC NERVE



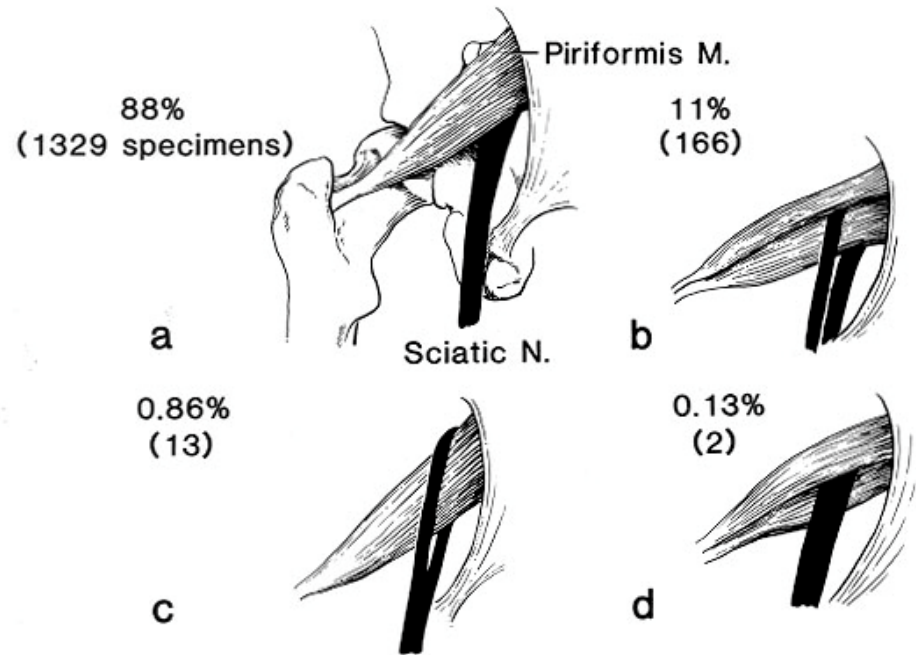
Natsis K, Totlis T, Konstantinidis GA, Paraskevas G, Piagkou M, Koebeke J. Anatomical variations between the sciatic nerve and the piriformis muscle: a contribution to surgical anatomy in piriformis syndrome. *Surgical and Radiologic Anatomy*. 2014 Apr 1;36(3):273-80.



VARIATION OF SCIATIC NERVE

- Number of extremities studied, 1510.
- A: Usual relationships with the sciatic nerve passing from the pelvis beneath piriformis m..
- B: Piriformis m. divided into two parts with the peroneal division of the sciatic nerve passing between the two parts of piriformis.
- C: The peroneal division of the sciatic nerve passes over m. piriformis and the tibial division passes beneath the undivided muscle.
- D: In these cases the entire nerve passes through the divided m. piriformis.

Relation of Sciatic Nerve to Piriformis Muscle
In 1510 Extremities Studied



Beaton, L.E. and B.J. Anson. The relation of the sciatic nerve and its subdivisions to the piriformis muscle. *Anat. Rec.* 70:1-5, 1938

LOWER LIMB (4/4)

- Joints of the lower limb

僅在卸下的腿進行關節解剖!



Hip joint

Knee joint

Ankle joint



JOINTS OF THE LOWER LIMB

下肢關節

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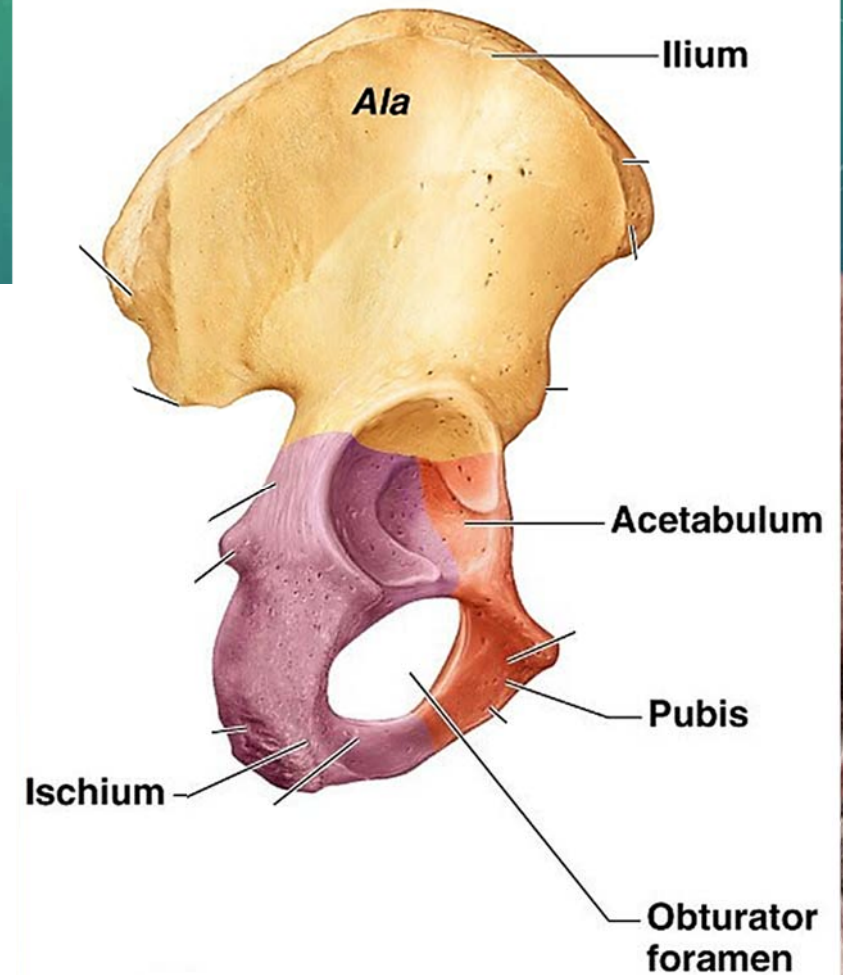
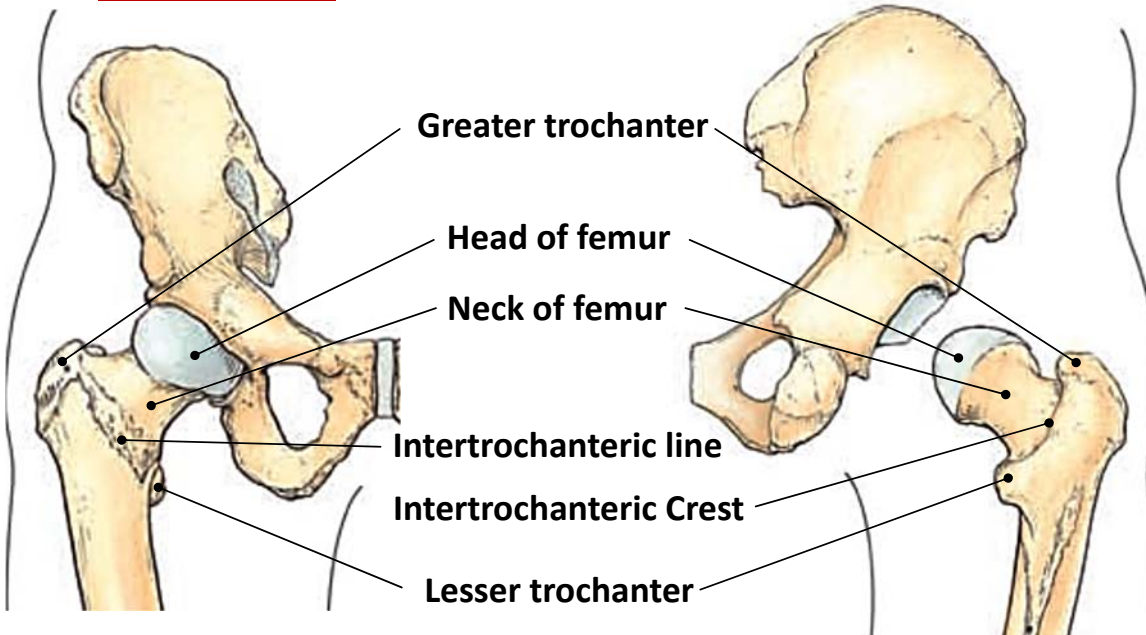


HIP JOINT - OSTEOLOGY

- Three bones form the **acetabulum**: ilium, ischium, and pubis.

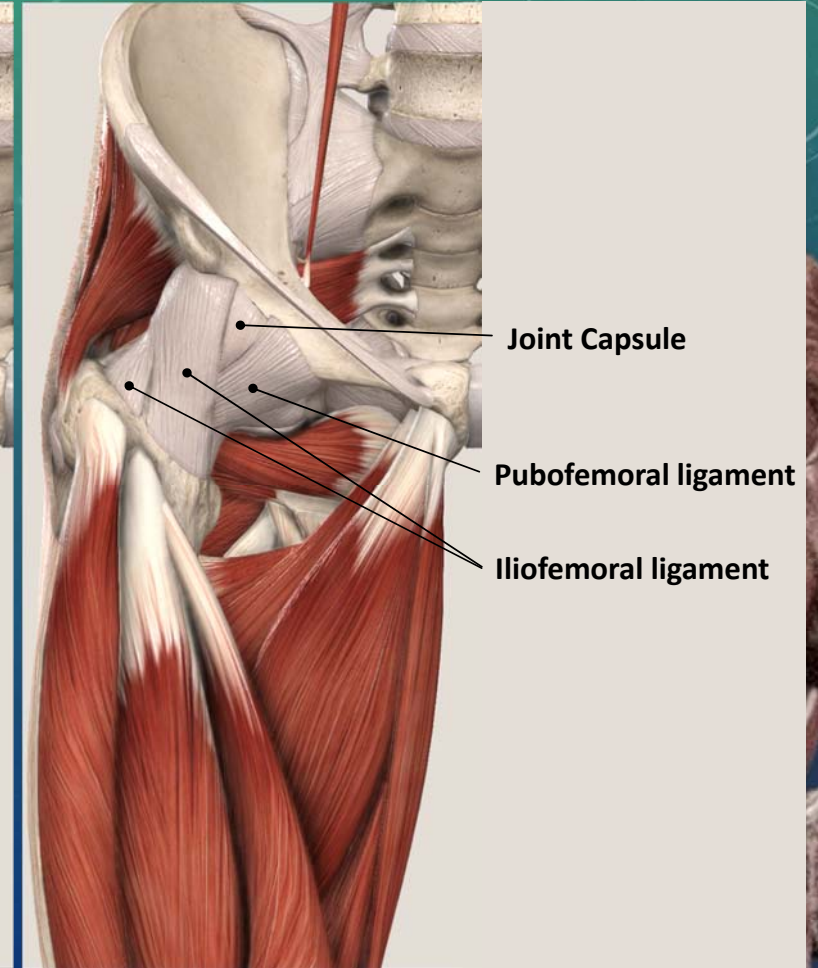
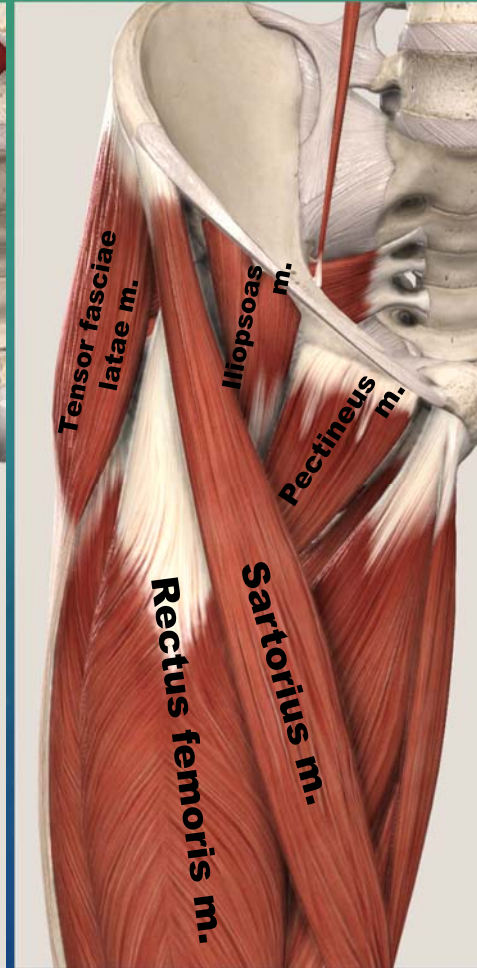
Anterior view

Posterior view



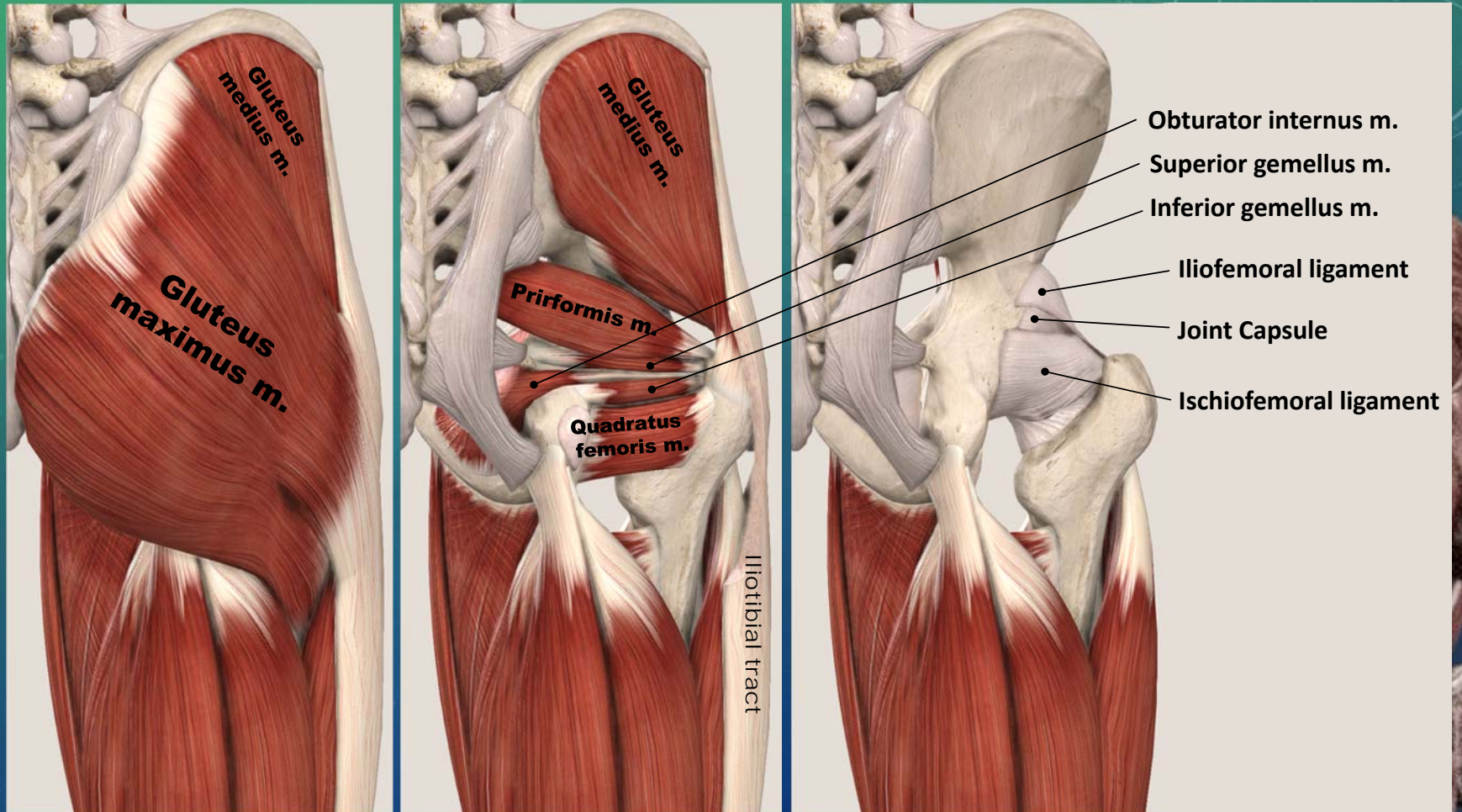
HIP JOINT

Anterior surface

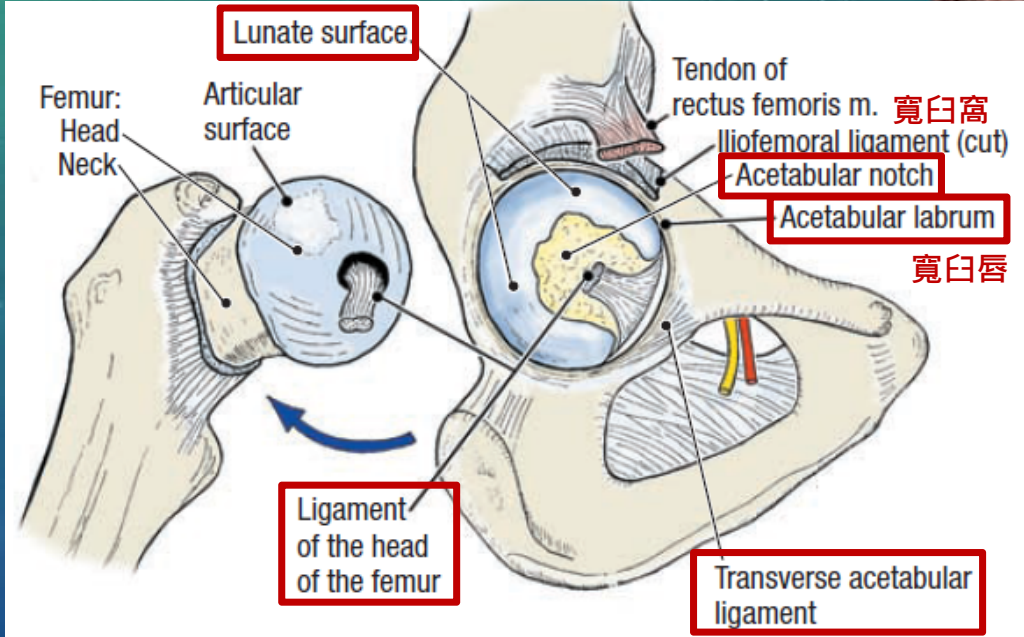
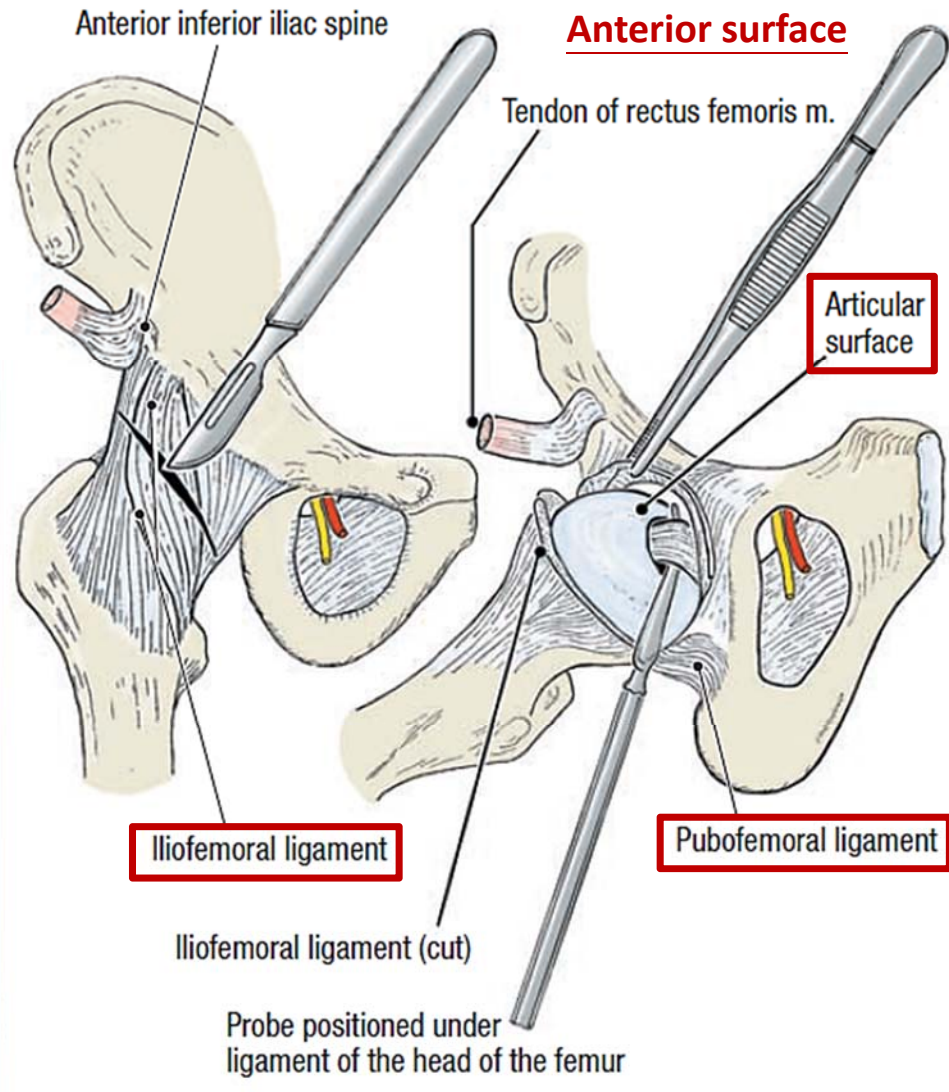


HIP JOINT

Posterior surface



HIP JOINT



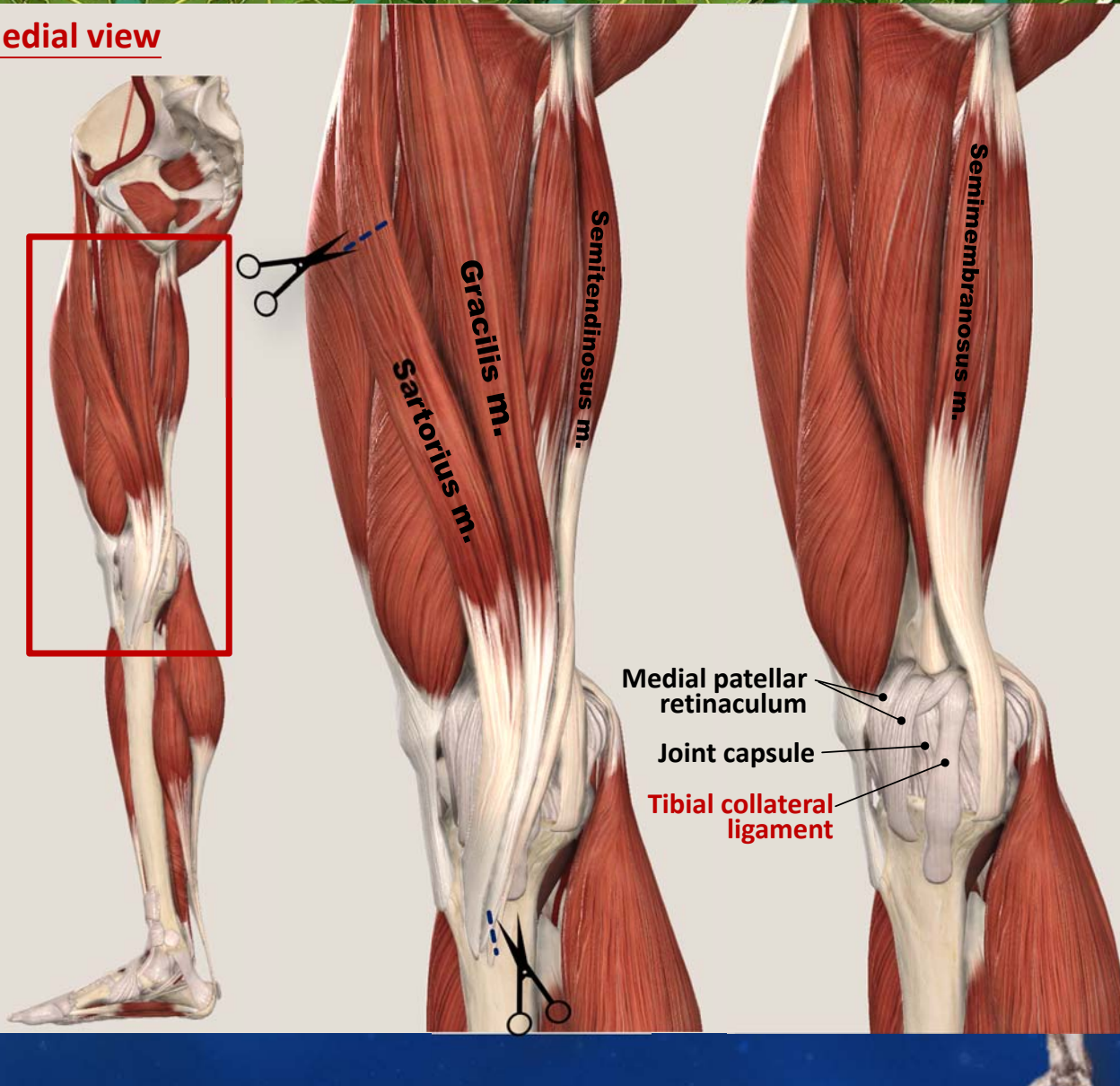
KNEE JOINT

Medial View

- Cut the **sartorius muscle** at the level of apex of femoral triangle. Reflect the lower part inferiorly.
- Cut the **tendons of gracilis and semitendinosus muscles** at medial surface of the tibia and reflect them superiorly.

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Medial view

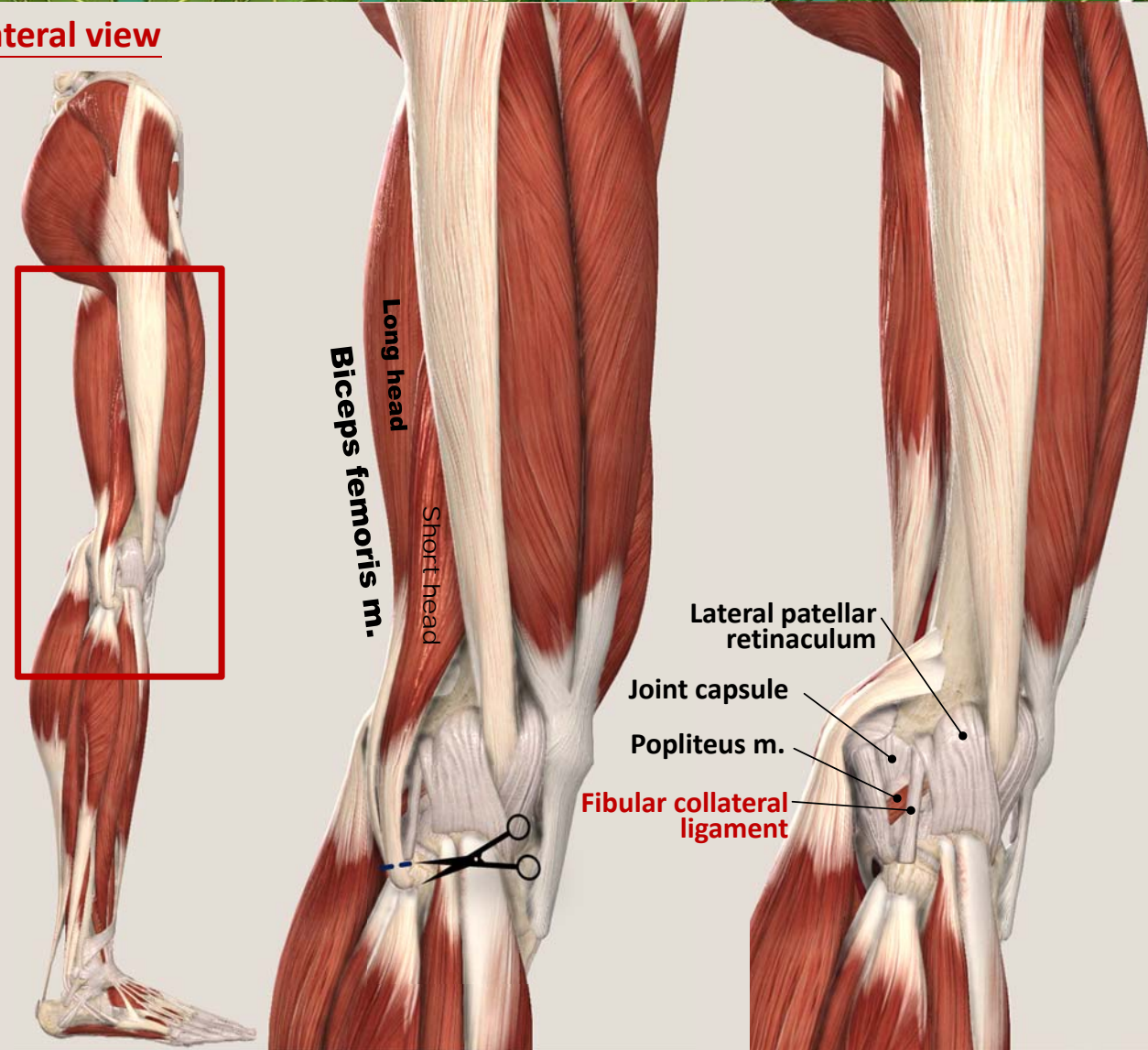


KNEE JOINT

Lateral View

- Cut the long and short heads of biceps femoris tendons (lower end) and reflect them superiorly.

Lateral view

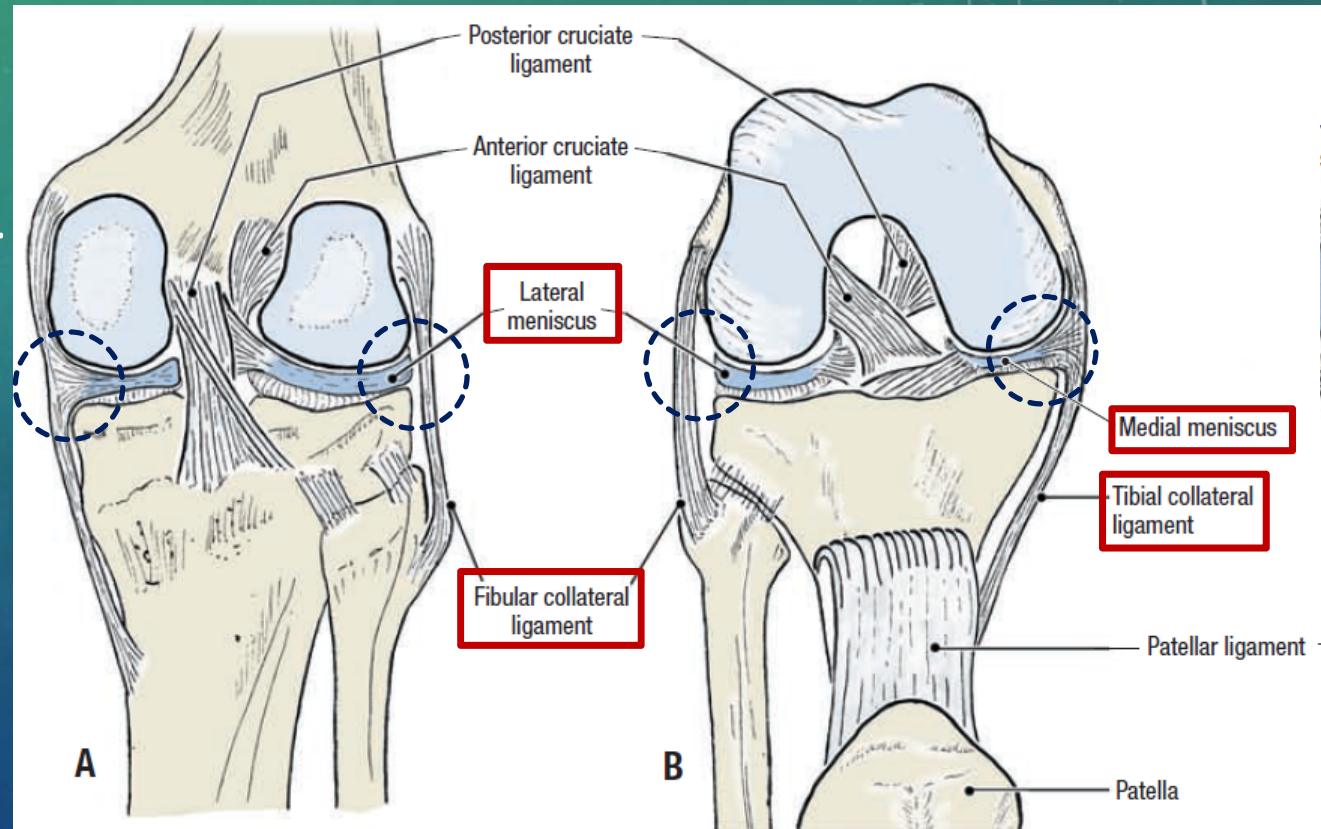


COLLATERAL LIGAMENT

- Note that the **tibial collateral ligament** is attached to the medial meniscus through the joint capsule.
- Note that the **fibular collateral ligament** is **not** attached to the external surface of the joint capsule.
- Observe that the **popliteus tendon** passes between the fibular collateral ligament and the joint capsule.

Posterior view

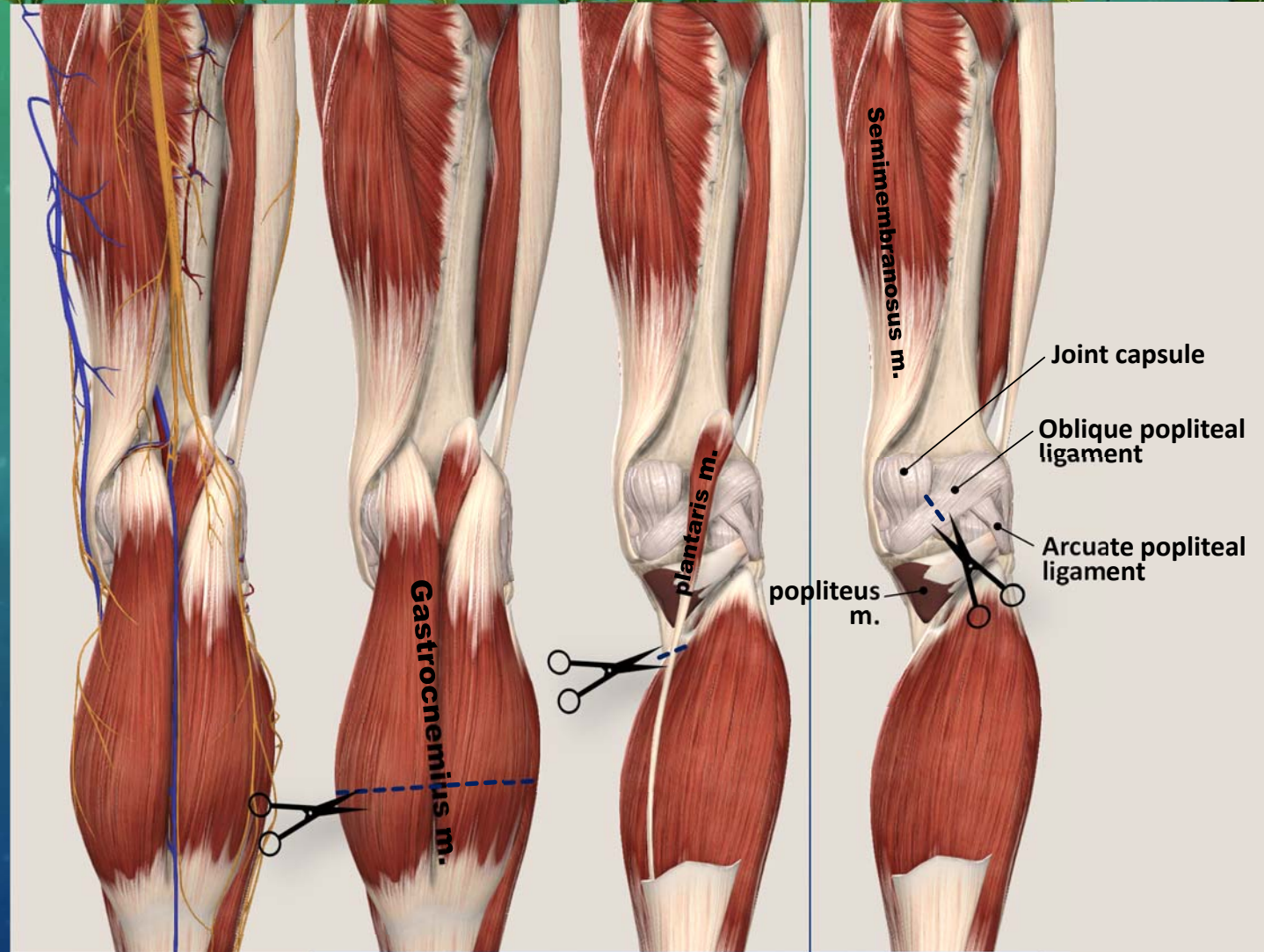
Anterior view



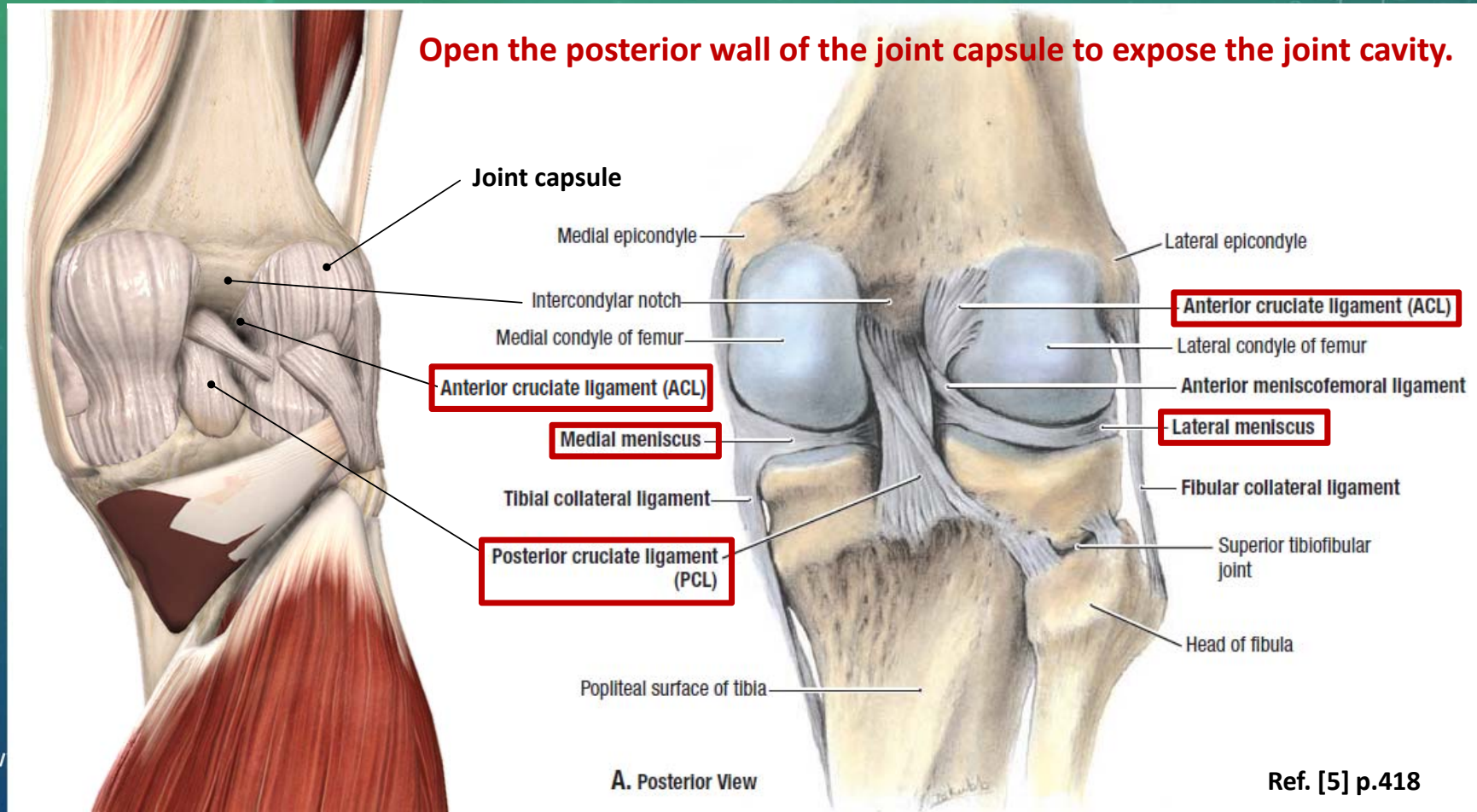
KNEE JOINT

Posterior View

- Remove the popliteal vessels, the tibial nerve, and the common fibular nerve.
- Free the both heads of the gastrocnemius muscle and plantaris muscle from the joint capsule.



KNEE JOINT Posterior View



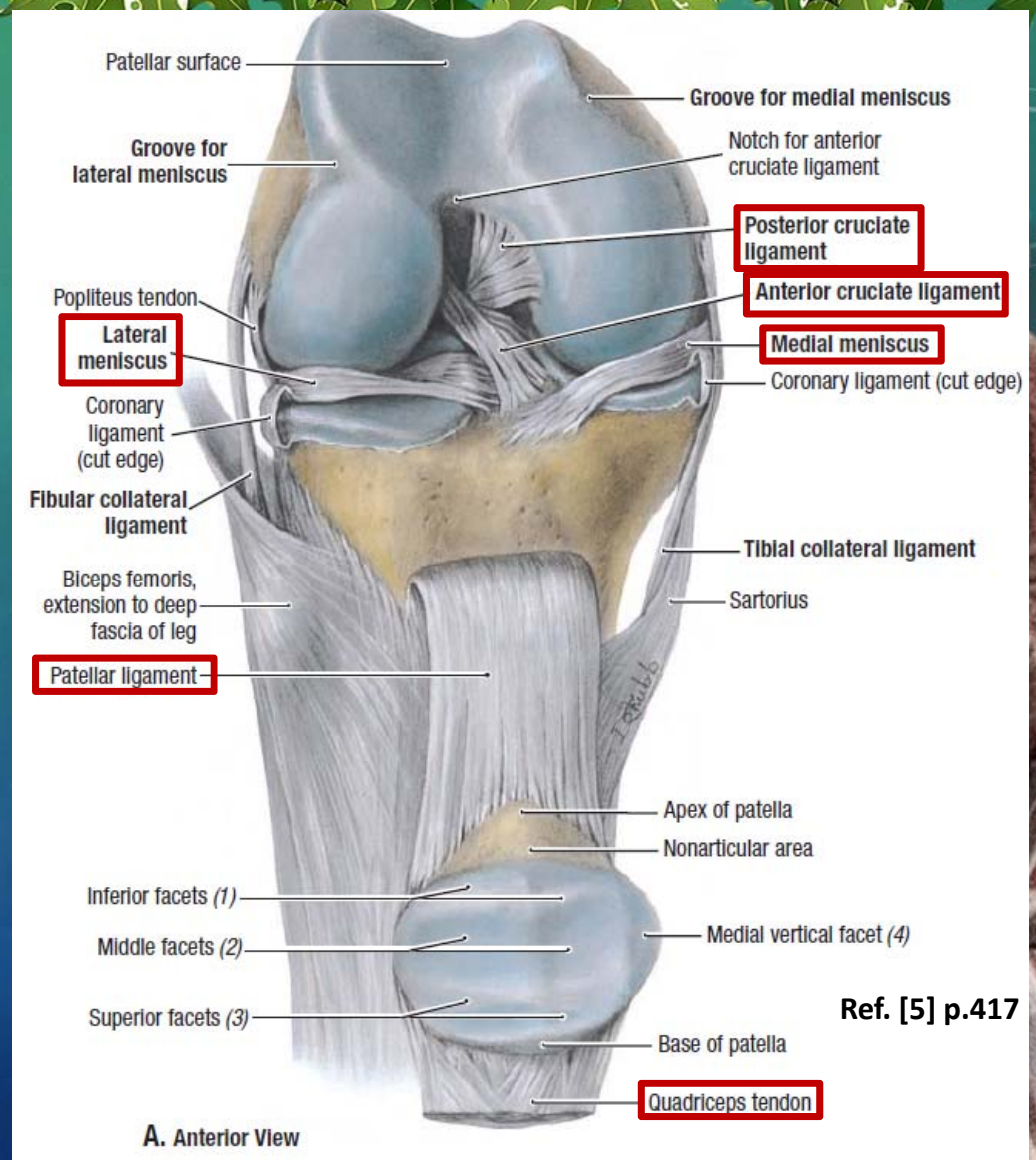
<http://www>



KNEE JOINT

Anterior View

- Observe that the quadriceps femoris tendon has patellar retinacula that help to keep the patella centered.
- Reflect the patella and patellar ligament inferiorly.
- Open the joint capsule and verify that the cruciate ligaments cross each other.



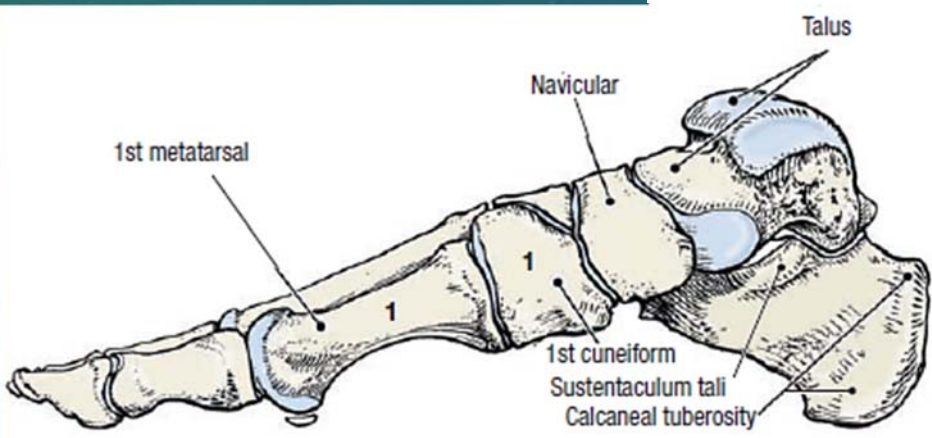
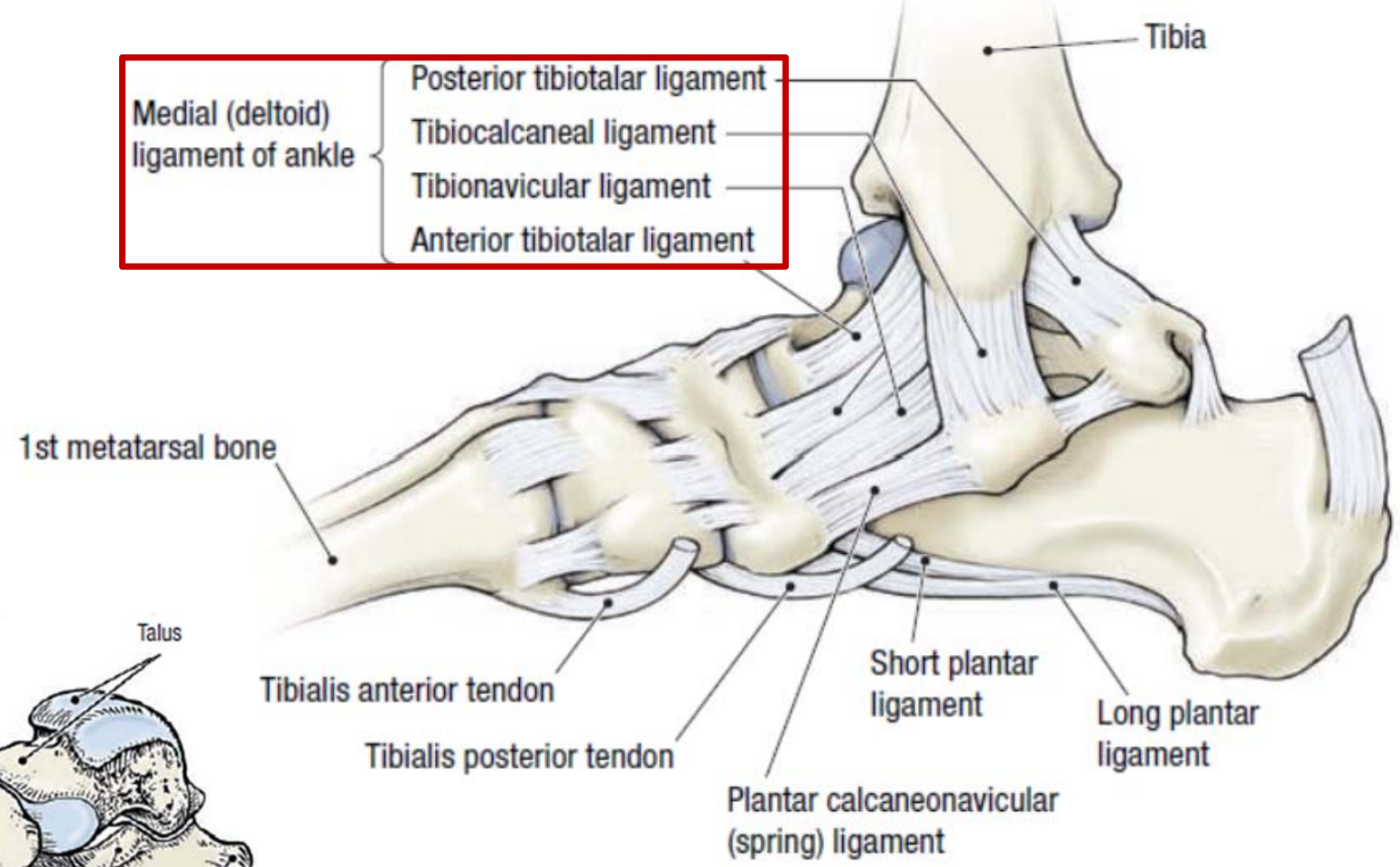
ANKLE JOINT

Medial View

Medial ligament of ankle

Medial (deltoid) ligament of ankle

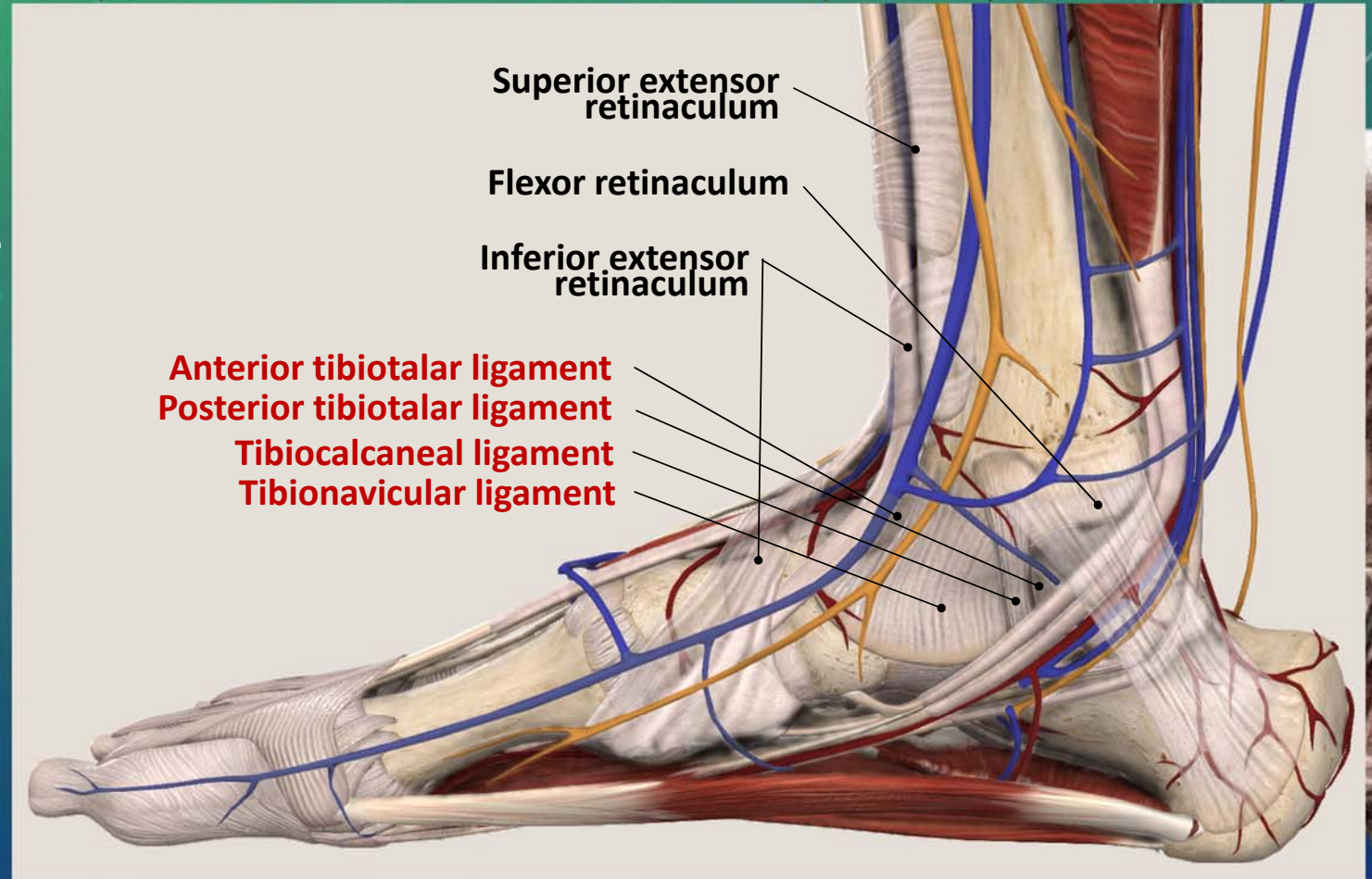
- Posterior tibiotalar ligament
- Tibiocalcaneal ligament
- Tibionavicular ligament
- Anterior tibiotalar ligament



ANKLE JOINT

Medial View

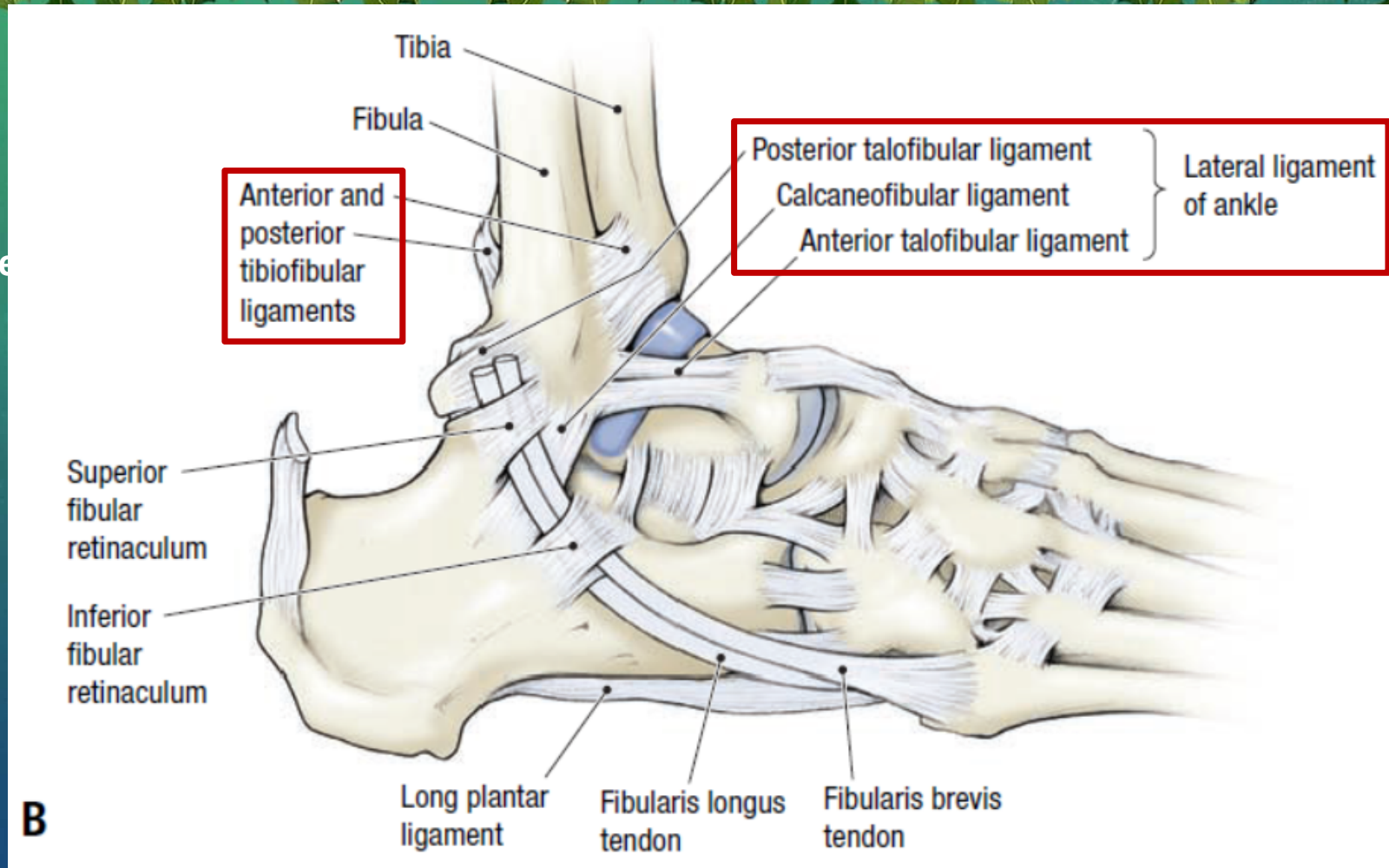
Medial ligament of ankle



ANKLE JOINT

Lateral View

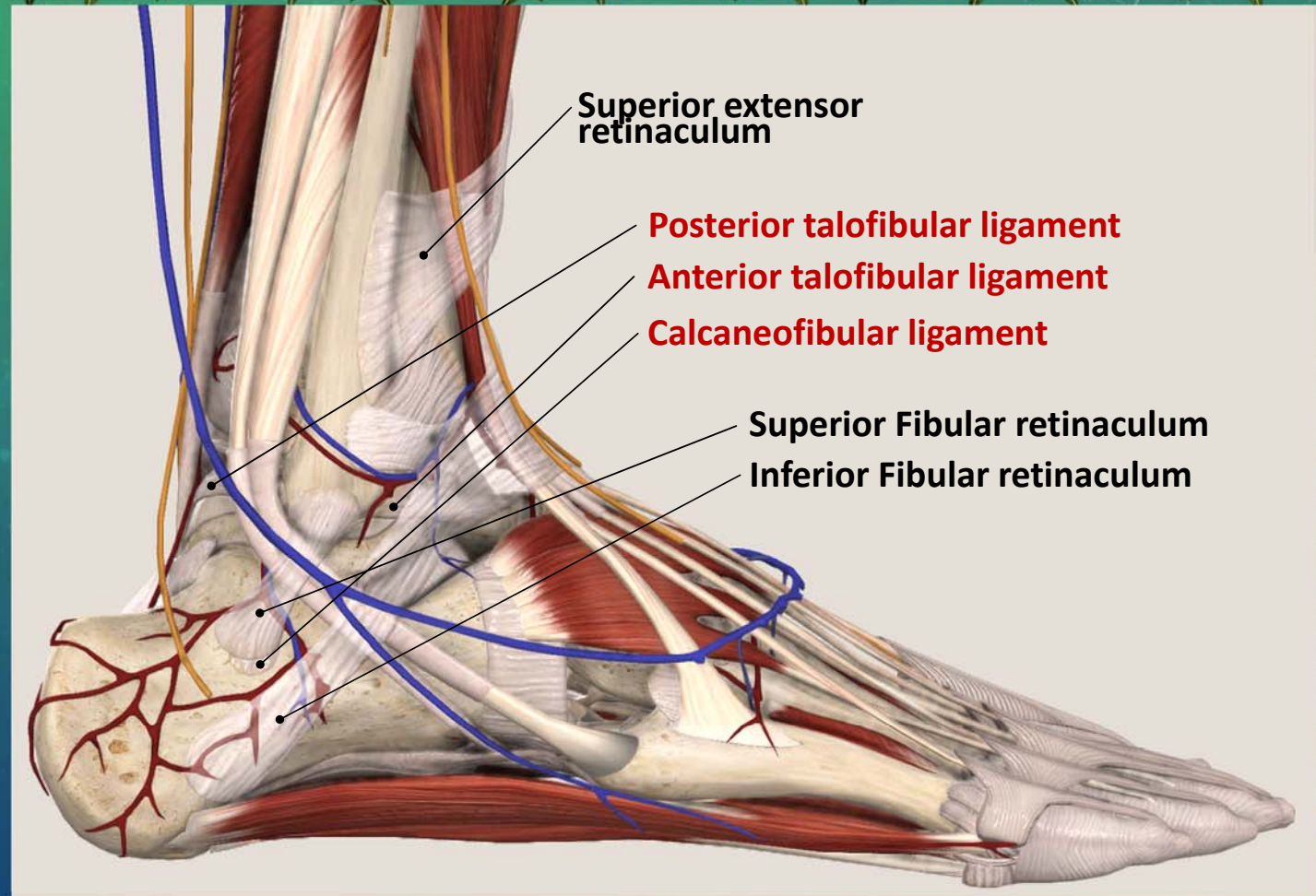
Lateral ligament of ankle



ANKLE JOINT

Lateral View

Lateral ligament of ankle





THE  END

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