

Smith-Petersen (anterior) Approach to hip

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Smith-Petersen Approach

- Hueter Approach
- Direct Anterior Approach to the Hip

Indication

- ORIF for femoral head/neck fracture
- Pelvic osteotomies
- THA

Treatment Options for FHF

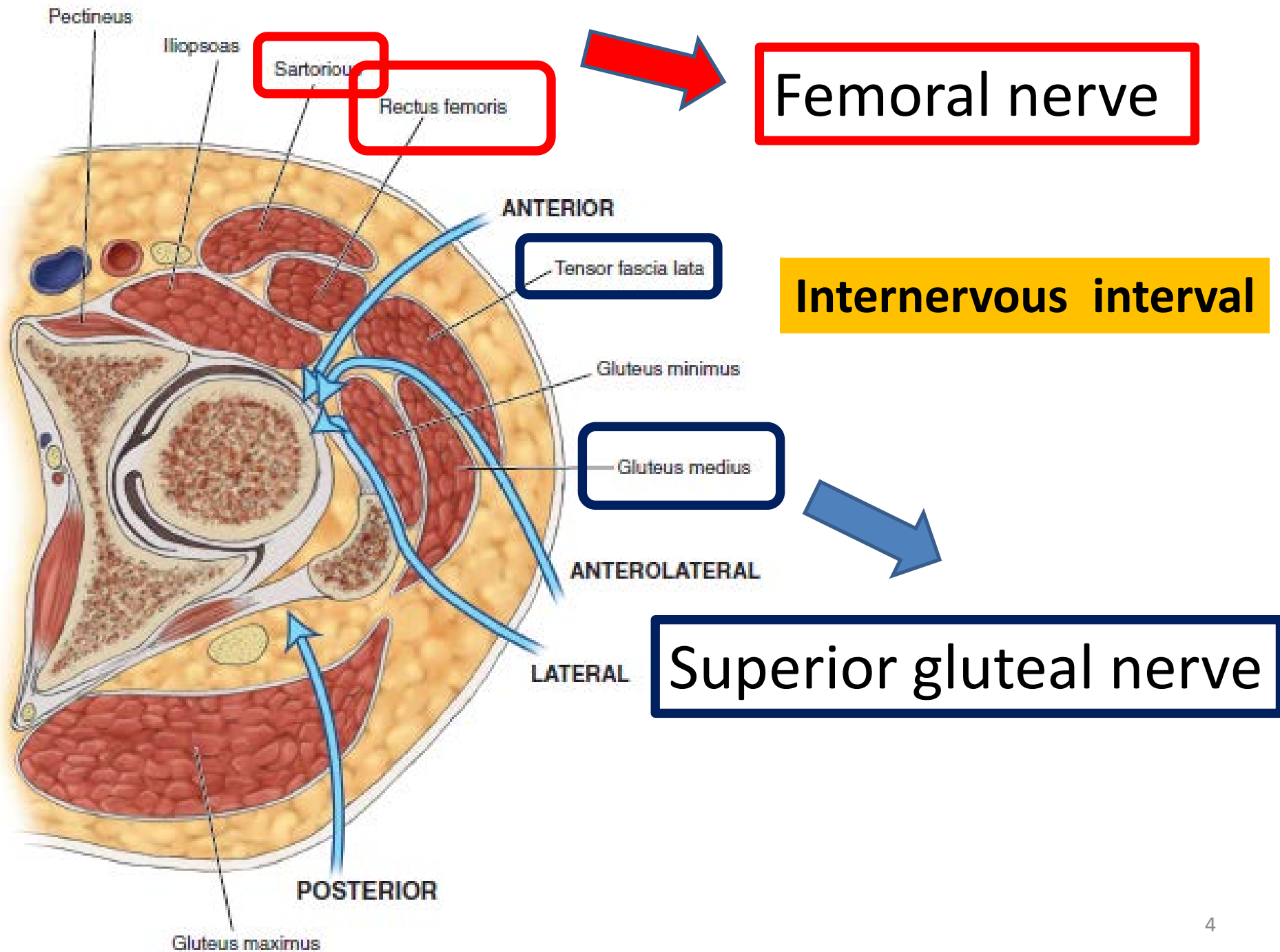
Table 1

Treatment Options for Femoral Head Fracture Based on the Pipkin Classification

Type	Treatment		Preferred Approach [†]
	Nonsurgical [*]	Surgical	
I	Y	Internal fixation, possible excision, prosthesis (elderly)	Anterior
II	Y	Internal fixation, possible excision, prosthesis (elderly)	Anterior
III	N	Internal fixation of the neck, internal fixation of the head, possible excision, prosthesis (elderly)	Anterolateral, ±anterior
IV	Y	Internal fixation of the acetabulum, internal fixation of the head, possible excision	Posterior or surgical dislocation

* Nonsurgical treatment is possible in the presence of anatomic or near-anatomic reduction, a stable hip joint, and no incarcerated fragments

† Assuming that the hip is reducible by closed means



Steps

1. Supine, radiolucent table.
2. Skin incision: ASIS, lateral border patella
3. Identify LCFN (2-5cm below ASIS)
4. Interval: Tensor fascia lata and Satoris
5. Interval: Gluteus medius and Rectus femoris
6. Tag: Rectus femoris, identify lateral femoral circumflex artery
7. Capsulotomy, T shaped

1. Skin Landmark

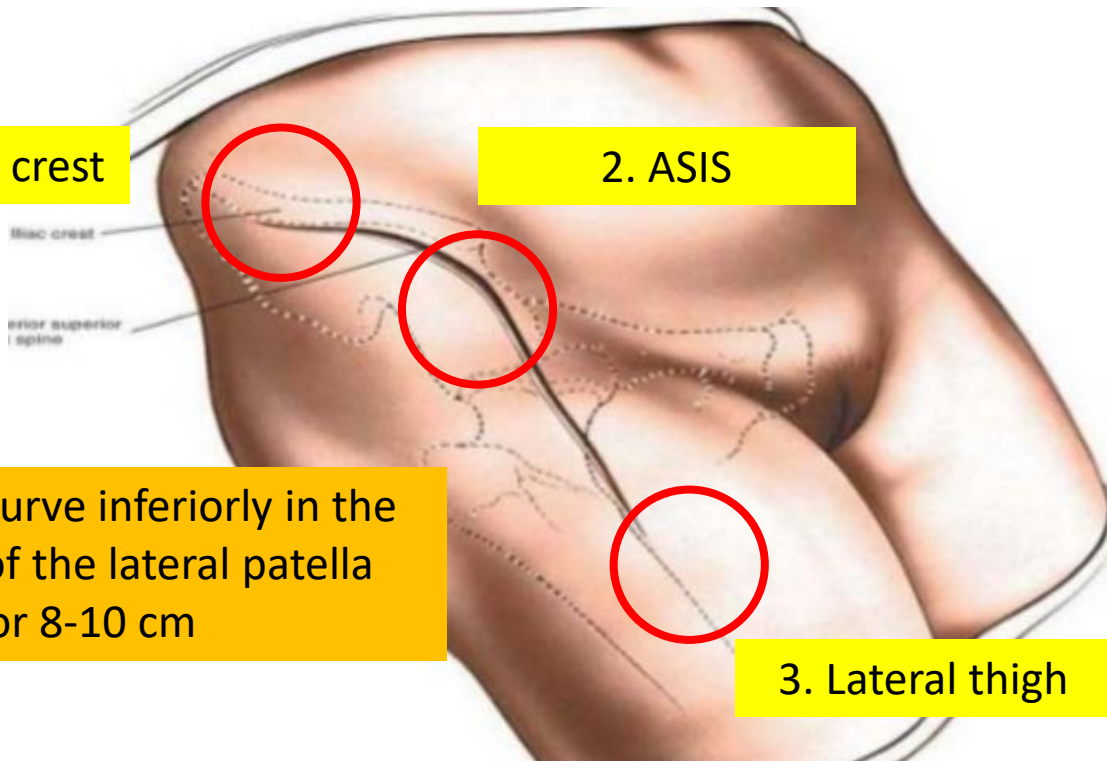
Supine

1. Posterior crest

2. ASIS

From ASIS curve inferiorly in the direction of the lateral patella for 8-10 cm

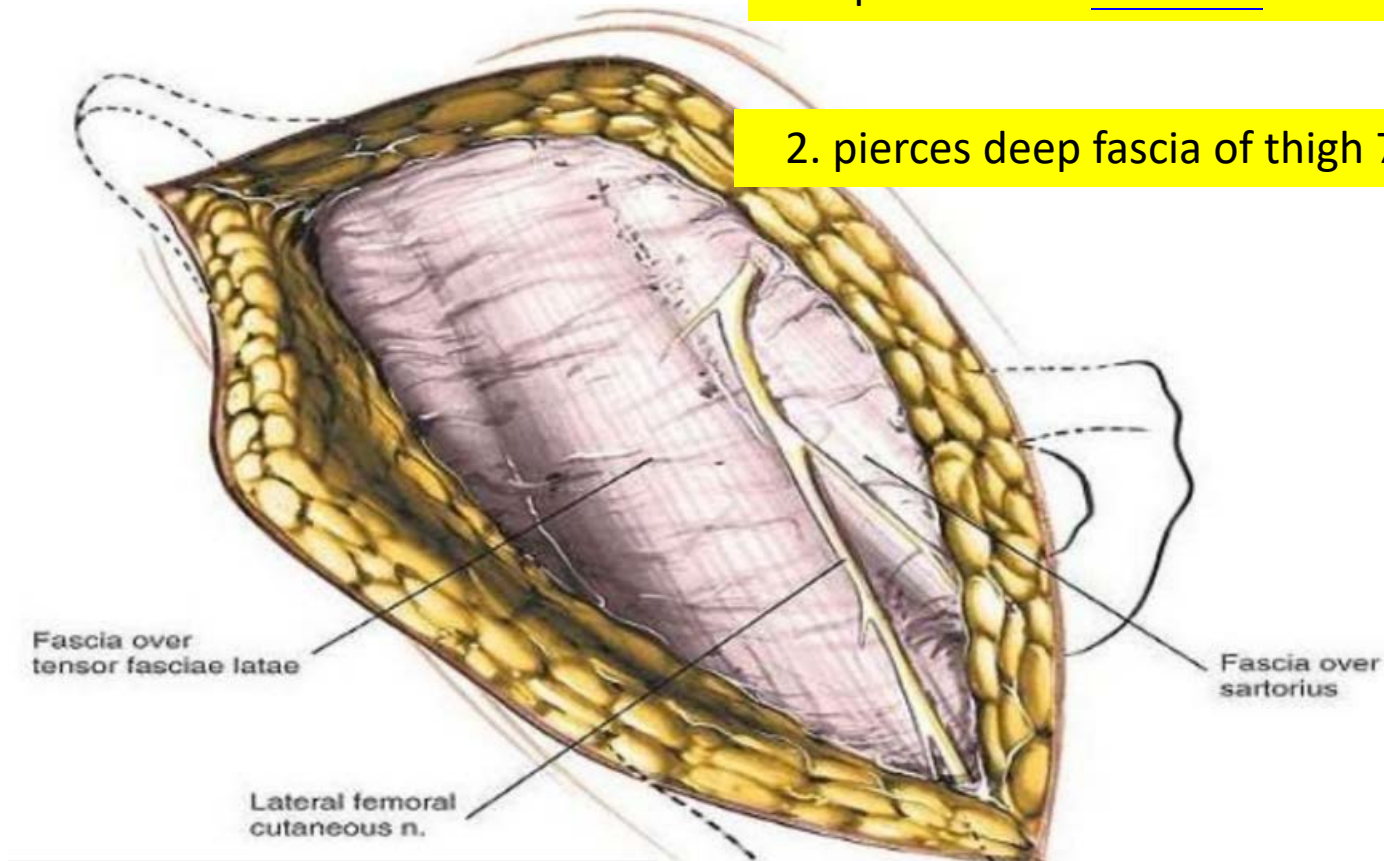
3. Lateral thigh



2. LCFN

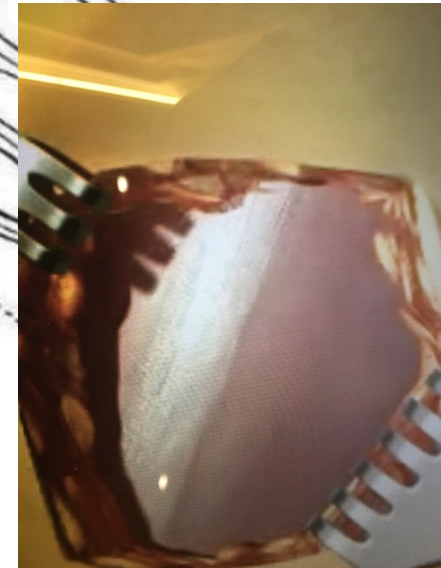
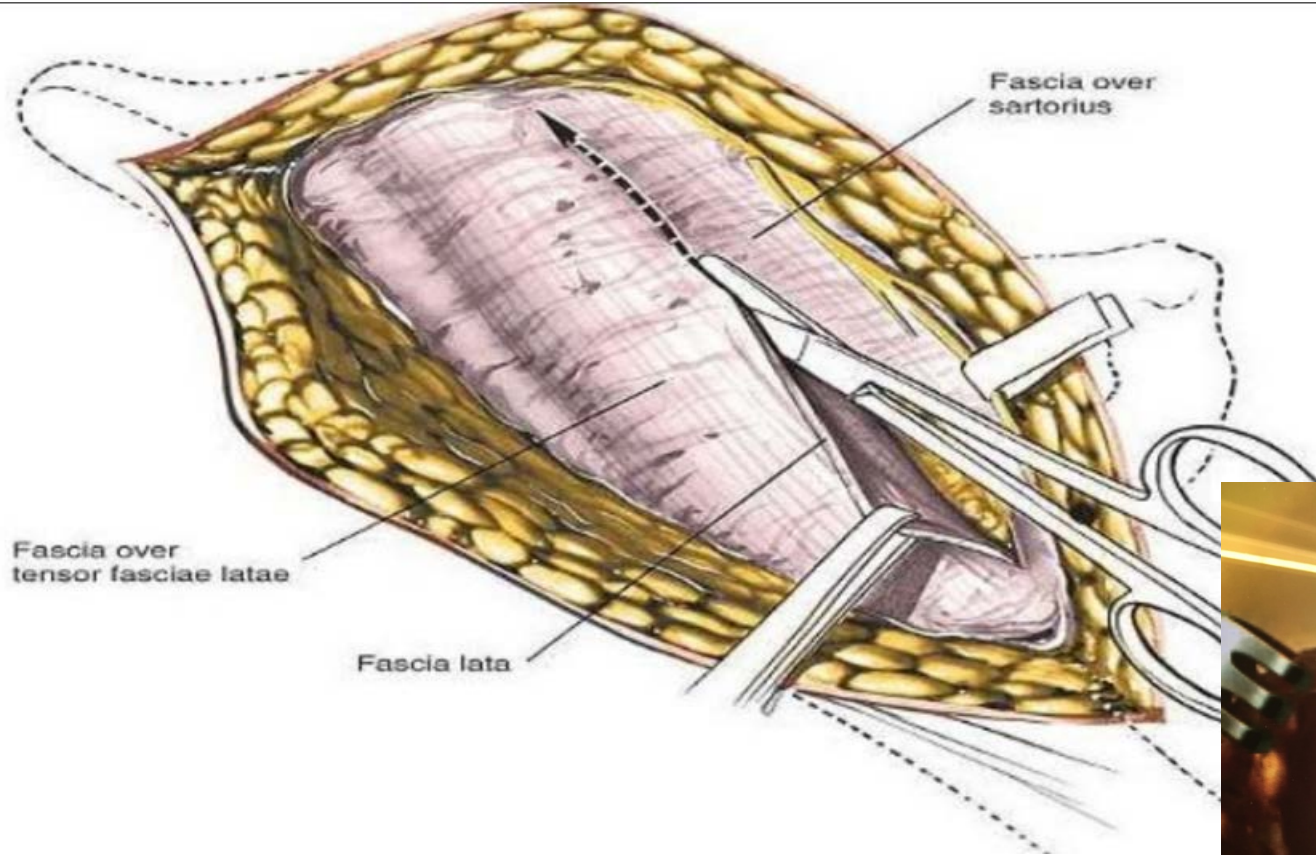
1. passes over [sartorius](#) 2 cm distal to ASIS

2. pierces deep fascia of thigh 7 cm below ASIS

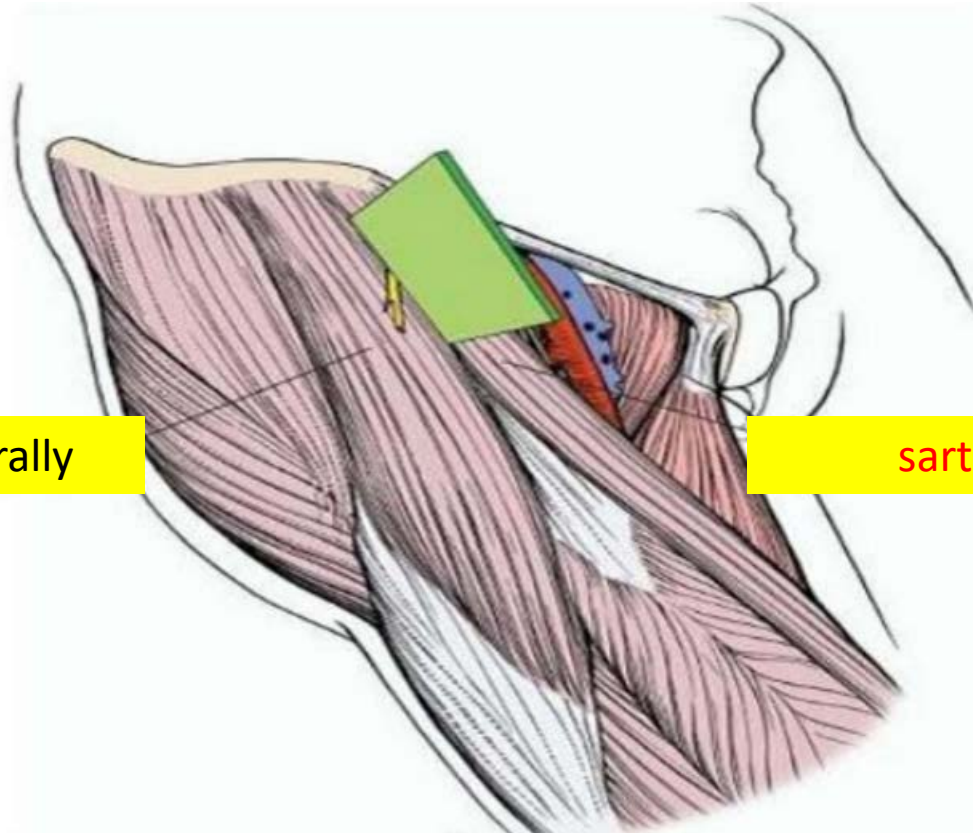


3. identify the nerve and retract it medially with [sartorius](#)

Cut the fascia



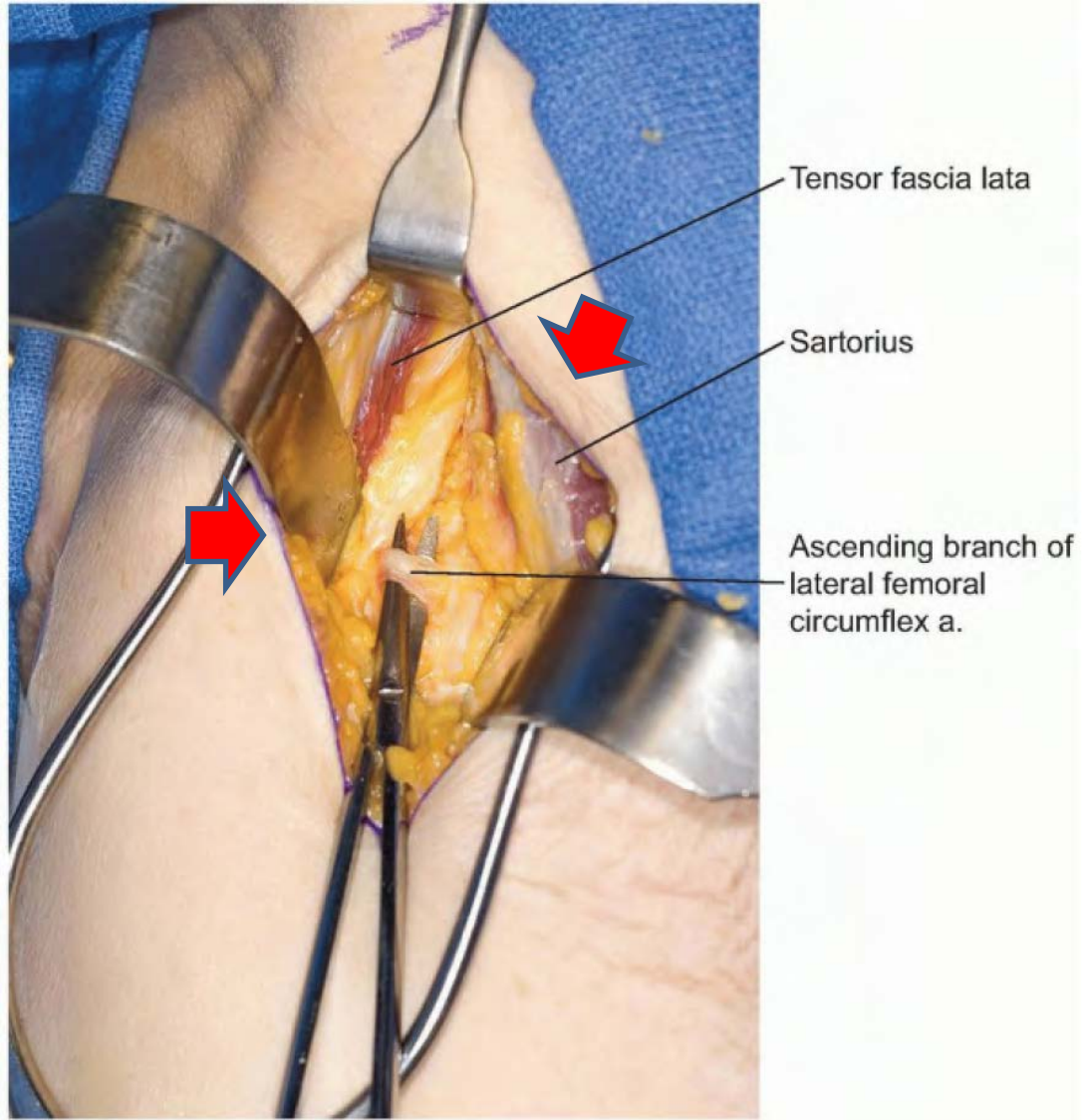
3. Inter-nervous interval: TFL/Sat



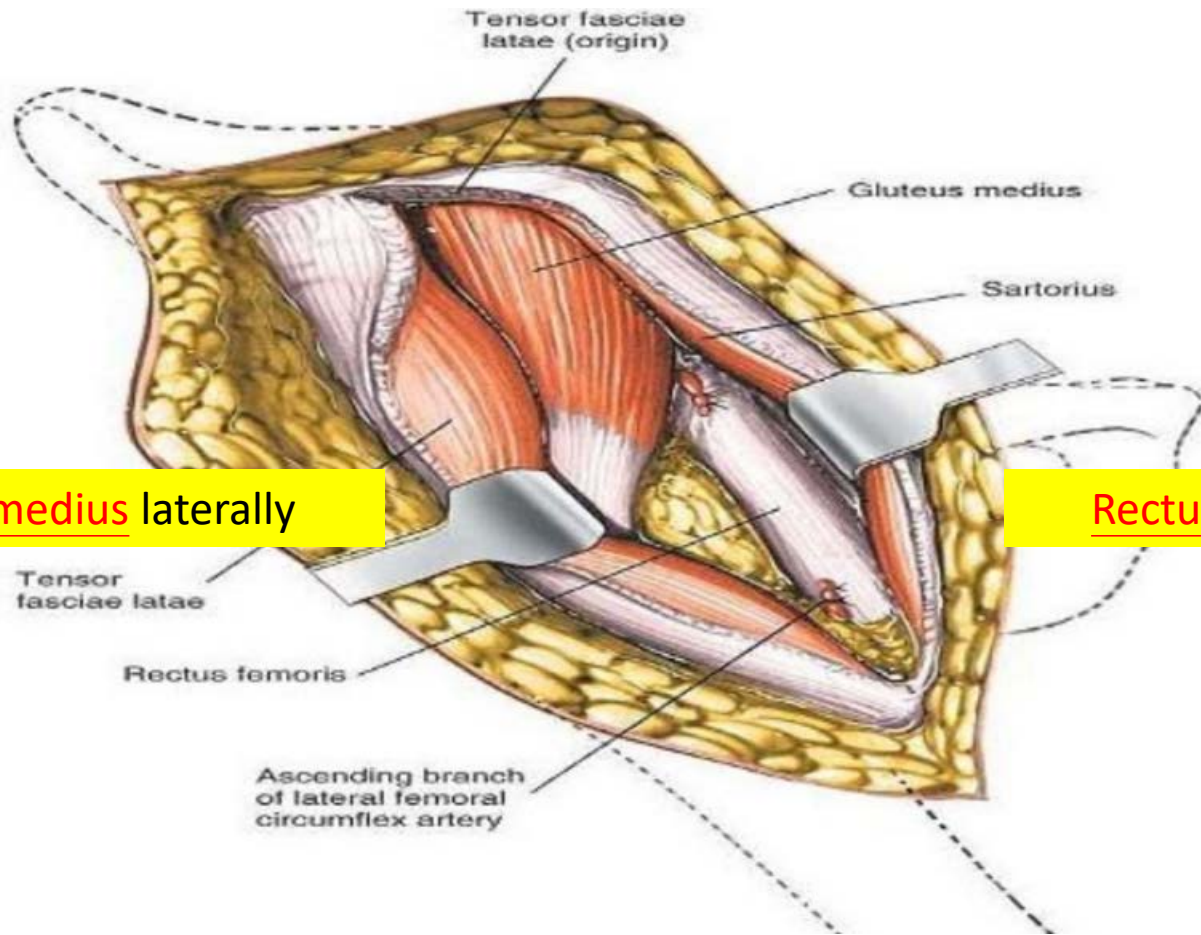
tensor fascia lata laterally

sartorius medially

3. Inter-nervous interval TFL/Sat



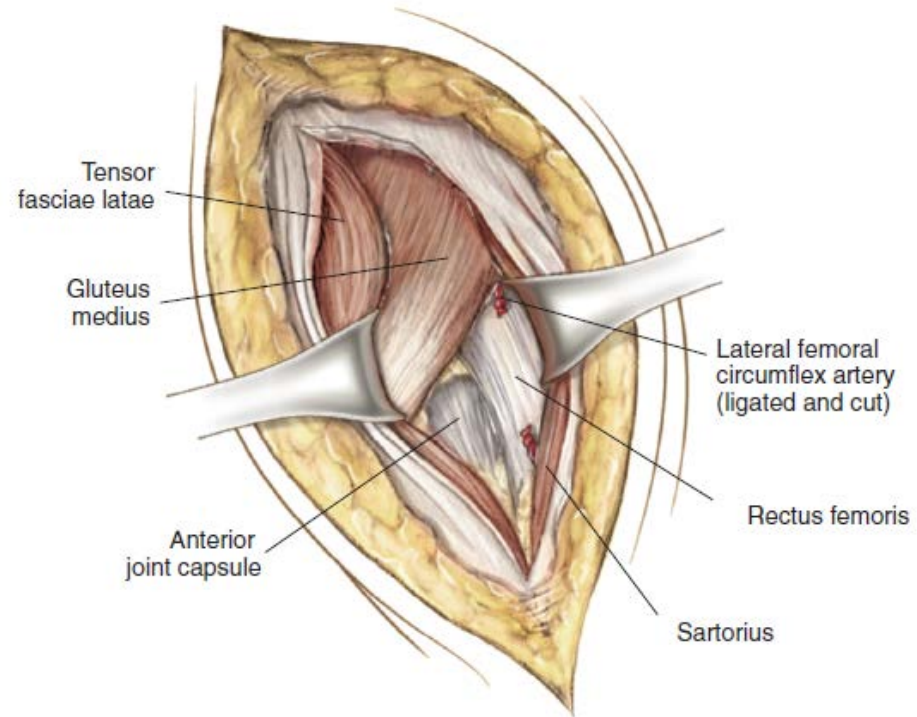
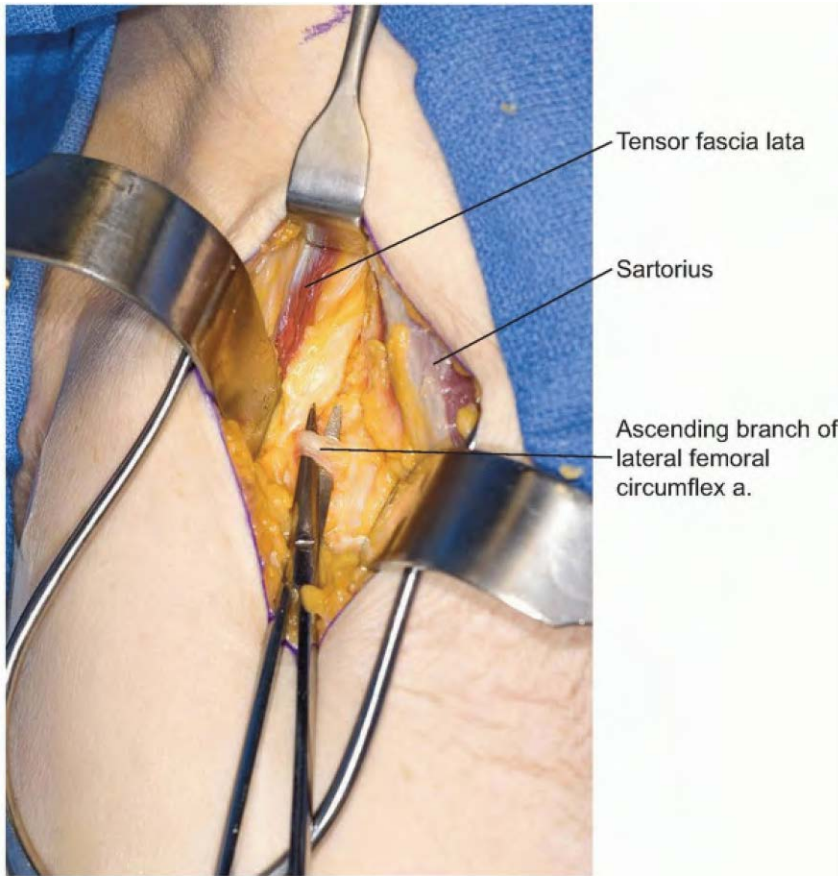
4. Inter-nervous interval GM/RF



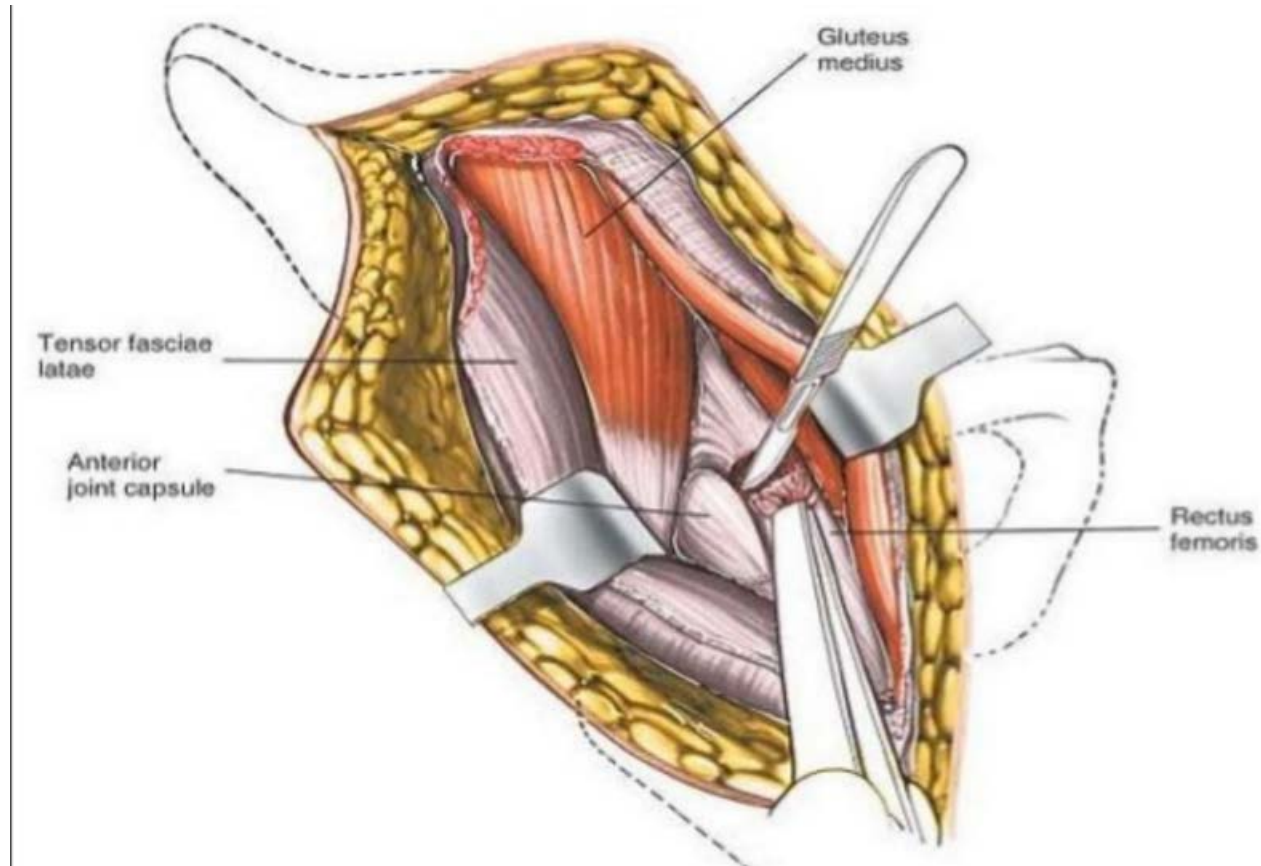
Gluteal medius laterally

Rectus femoris medially

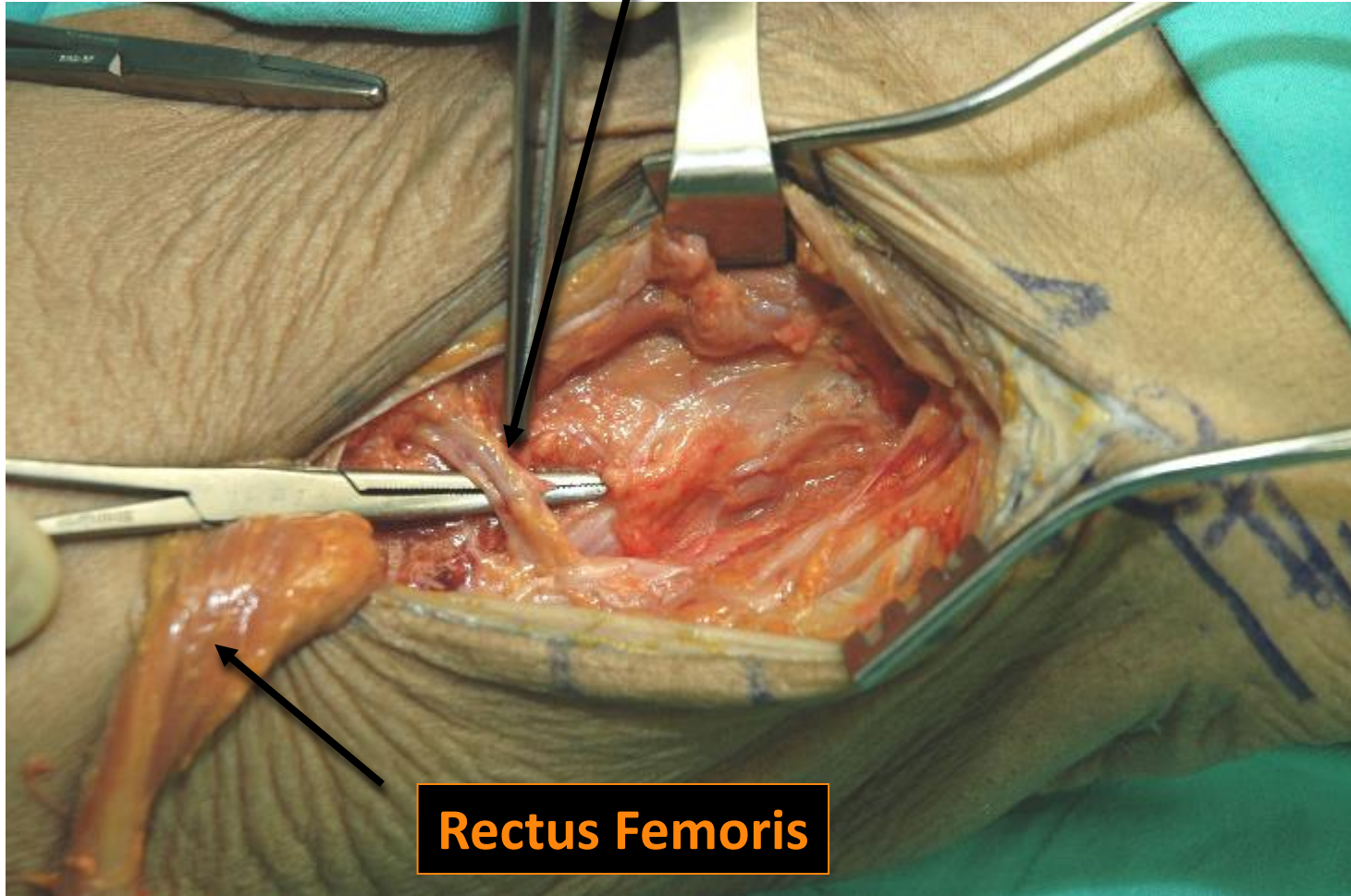
Ascending br. of lateral femoral circumflex artery



5. Rectus Femoris is detached from its origins

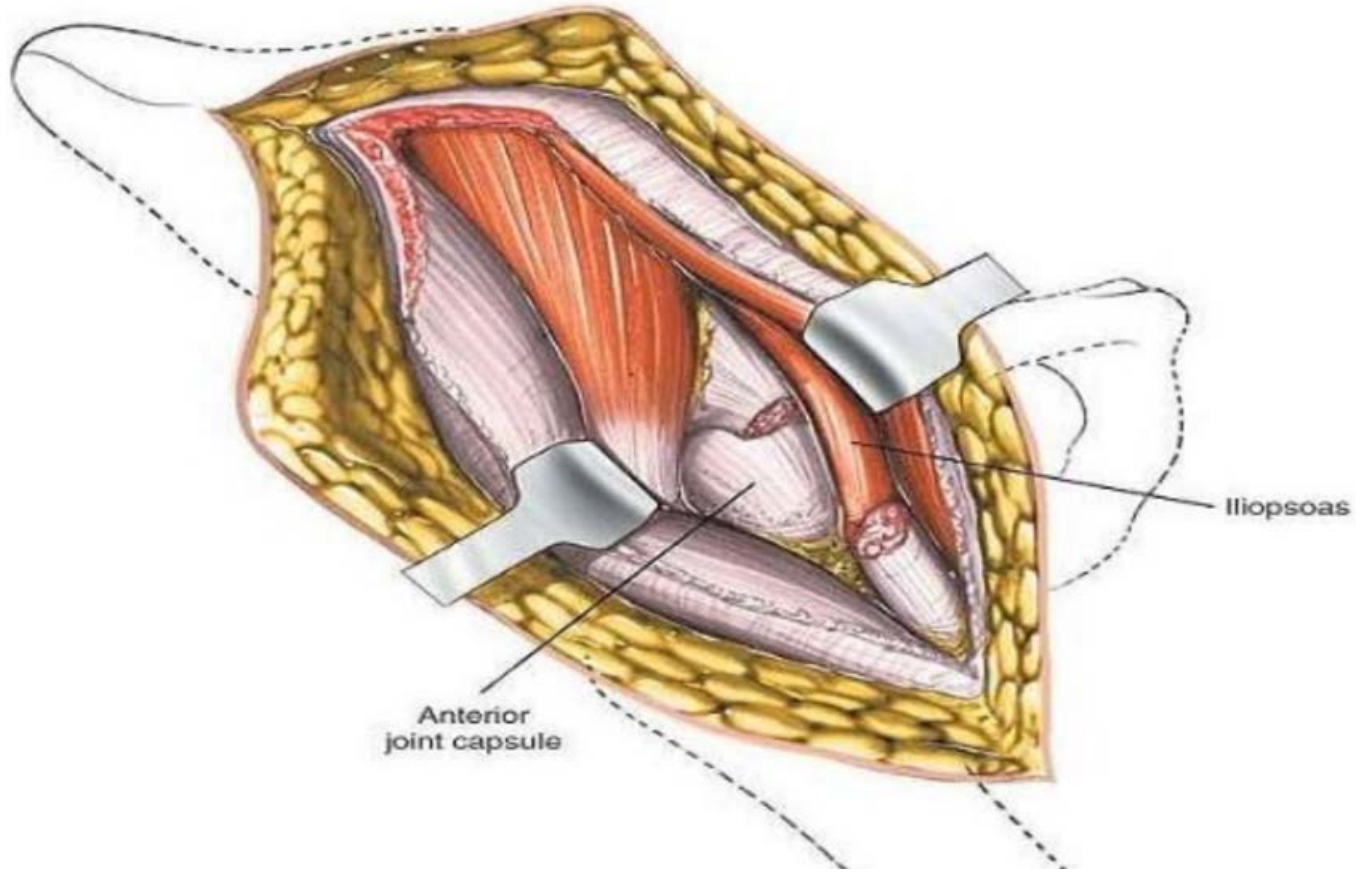


**Ascending branches of
lateral femoral circumflex artery**

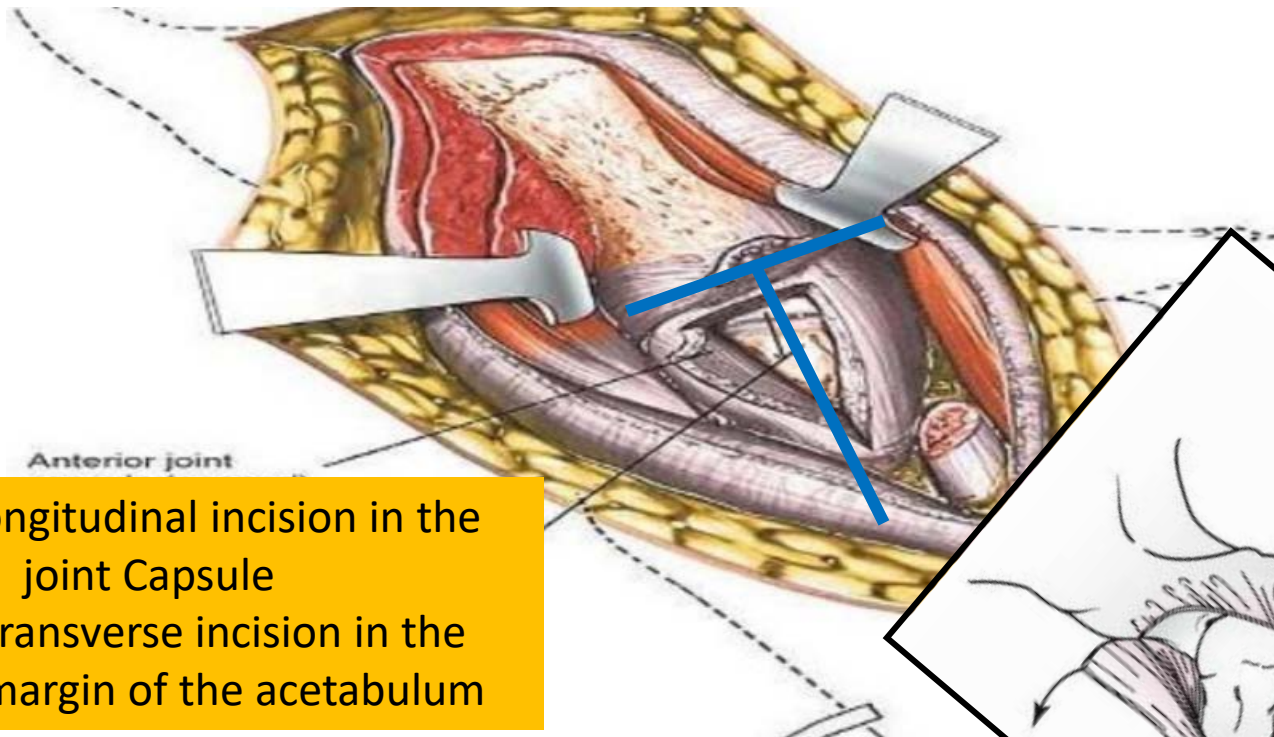


Rectus Femoris

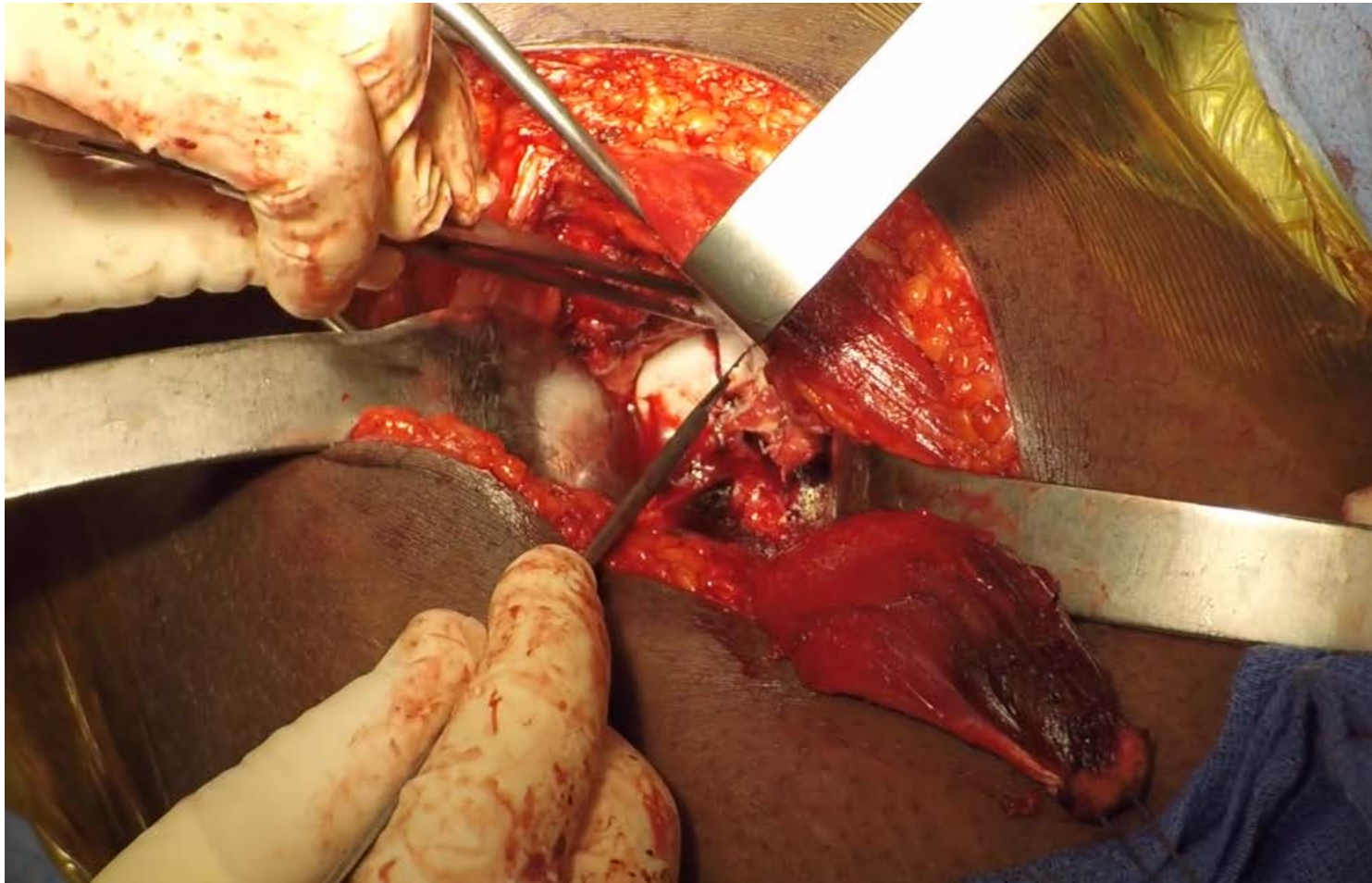
6. Exposure of anterior capsule



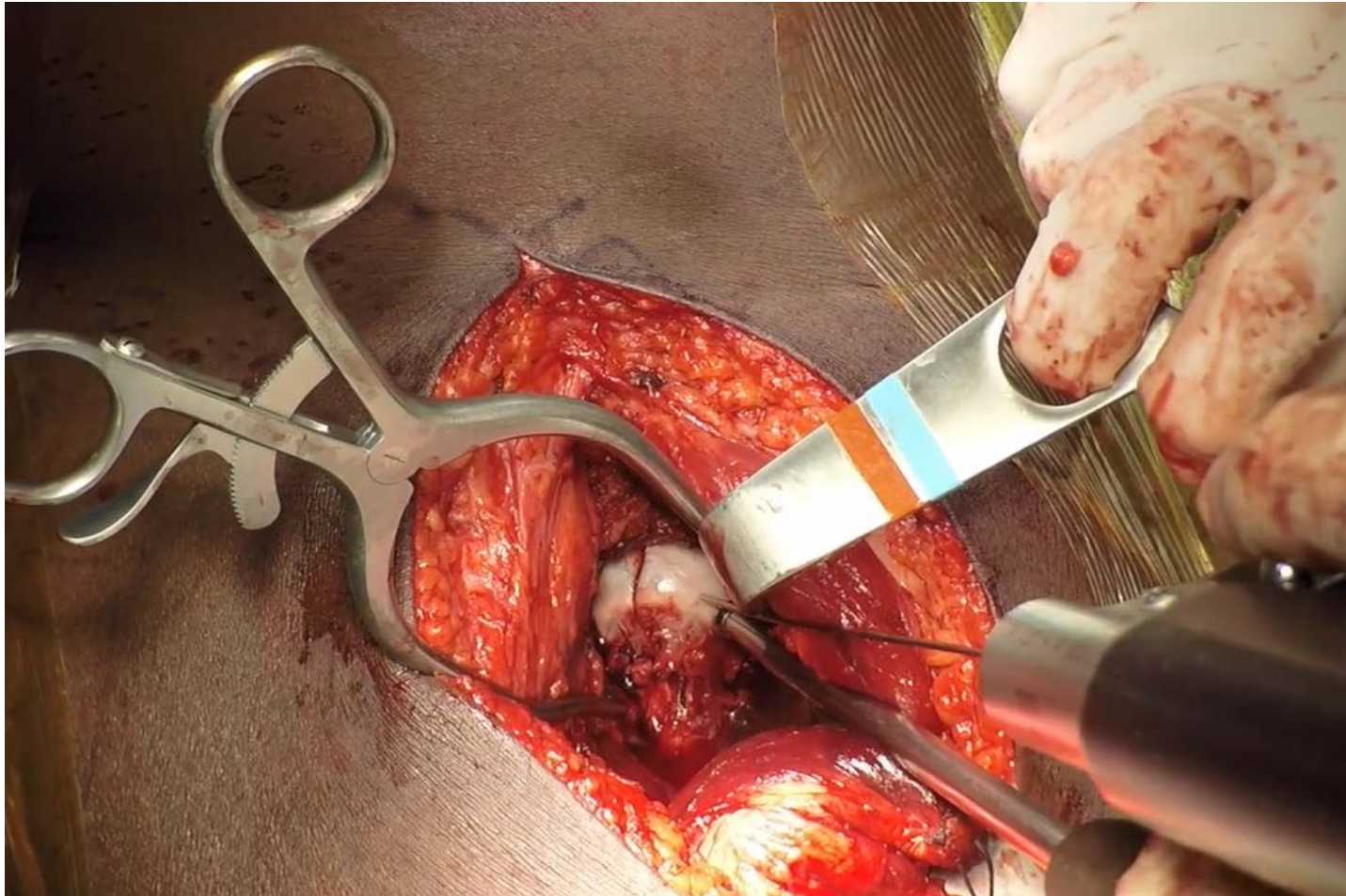
7. Capsulotomy (T shape)



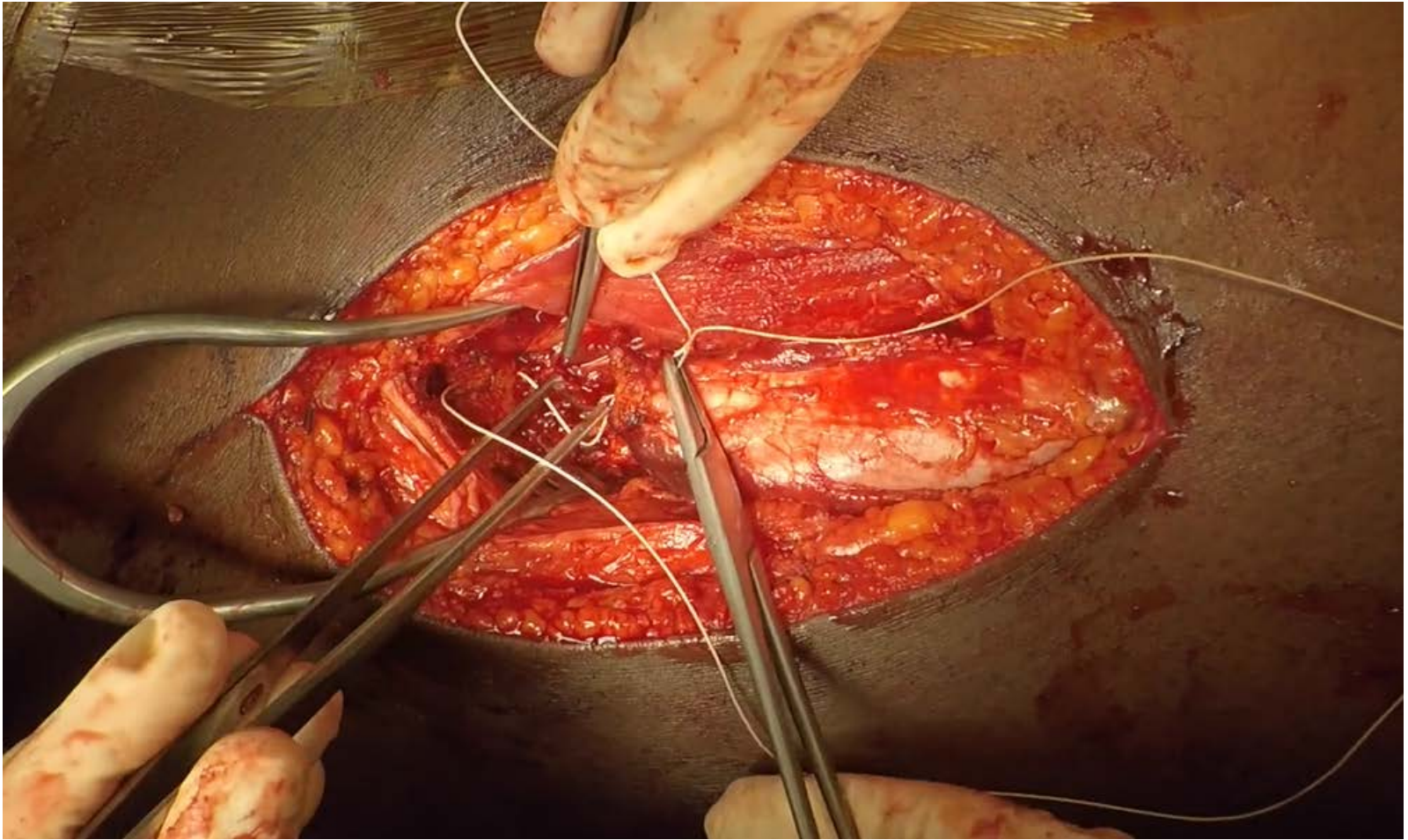
Femoral head exposure



Fixation of femoral head

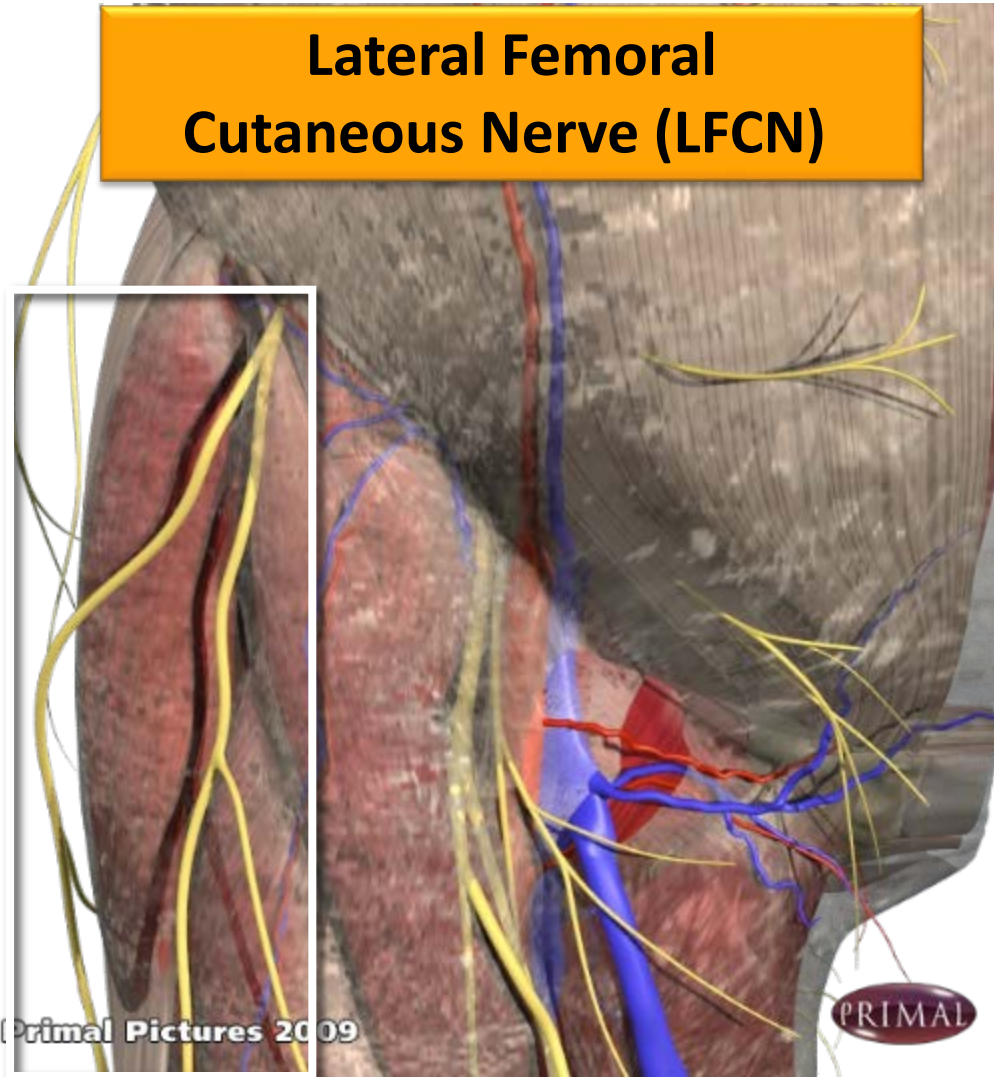


Repair Rec Femoris



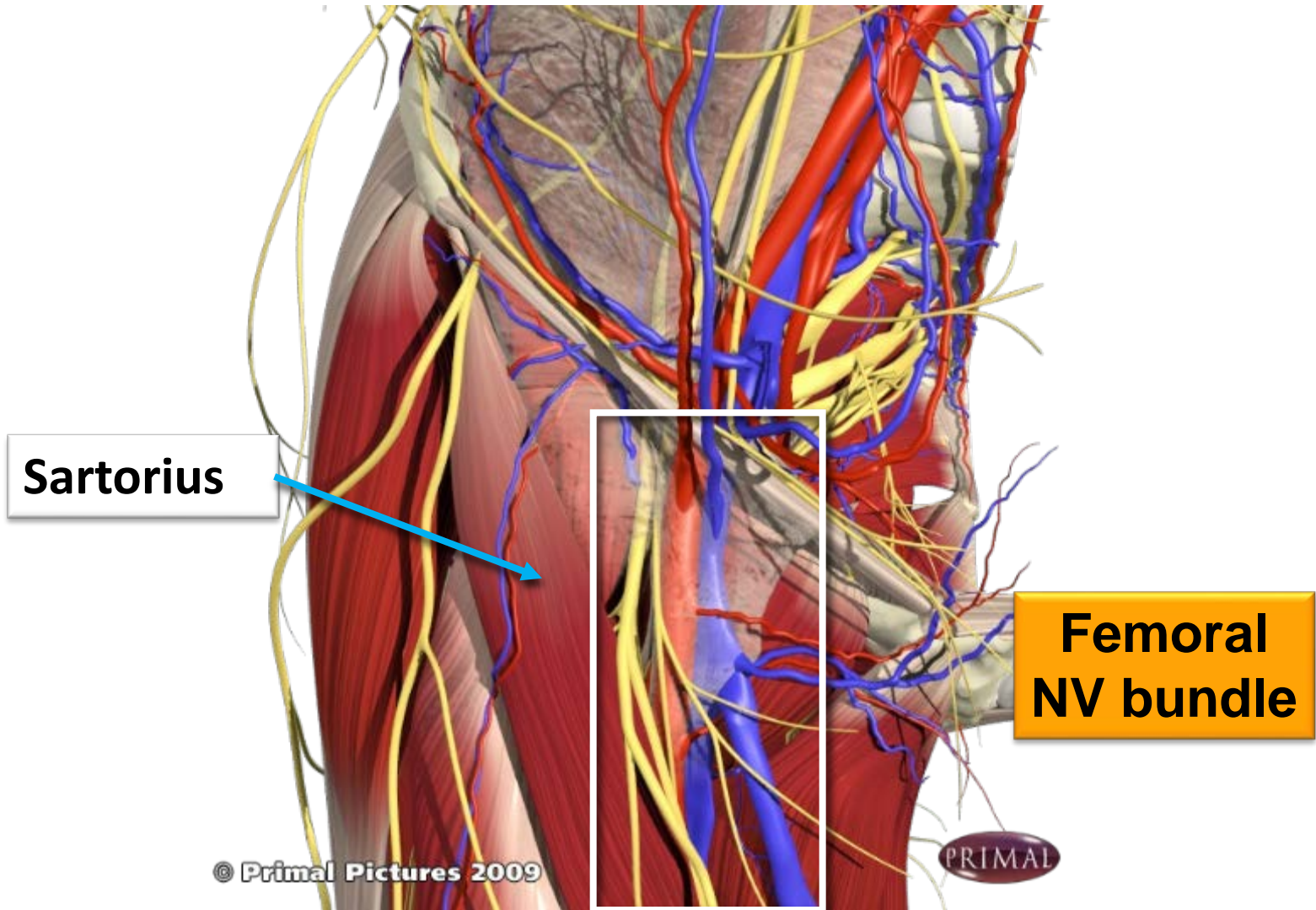
Structures at Risk

**Lateral Femoral
Cutaneous Nerve (LFCN)**



Courtesy of T. Apivatthakakul

Femoral Neurovascular Bundle



Courtesy of T. Apivatthakakul

Case study

20/M Scooter accident

