

# Anatomie radiologique systémique: ostéo

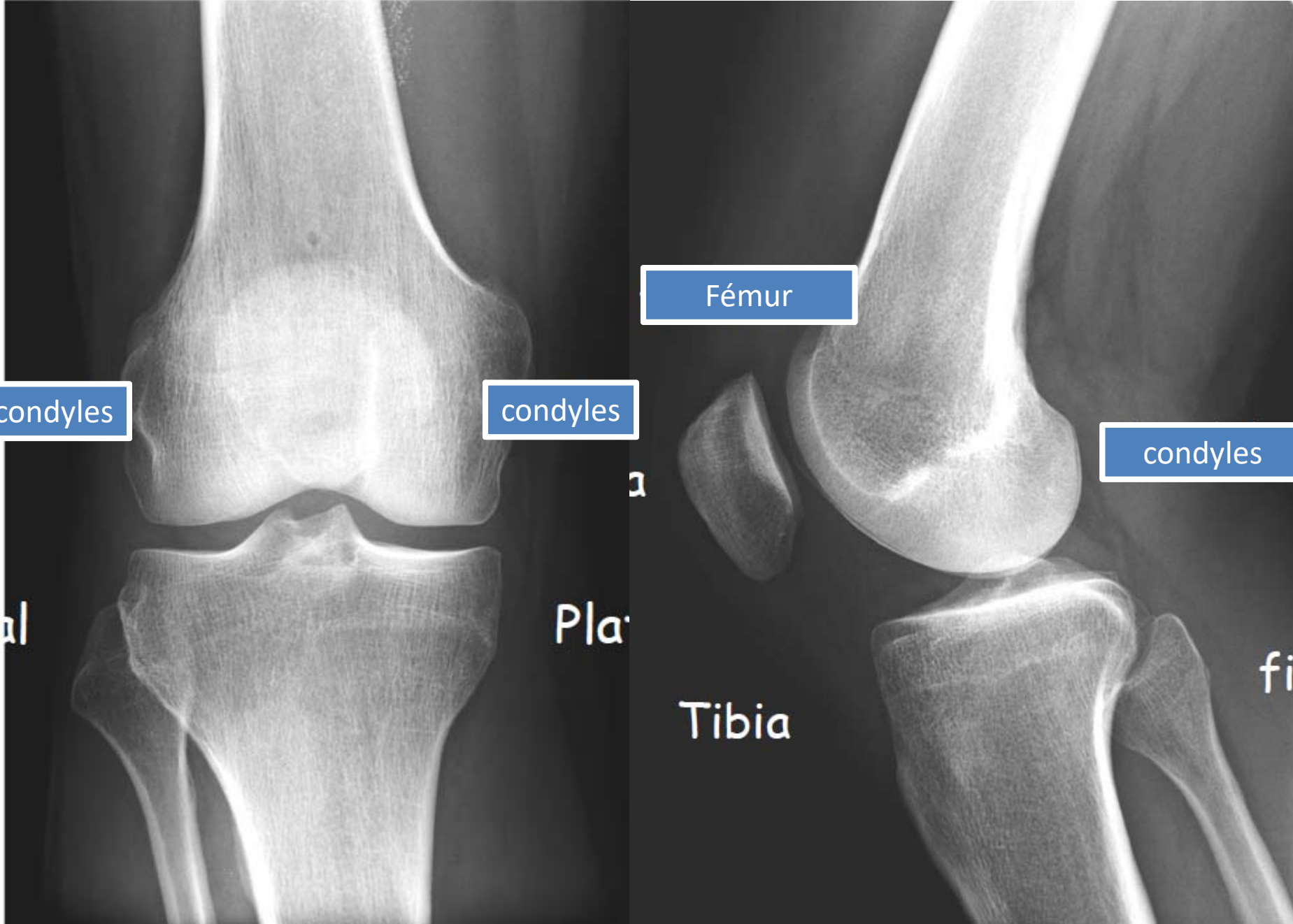
- Os
- Cartilage
- Ligaments/tendons
- Ménisques
- Muscles

Merci au Pr B Vande berg pour l'iconographie

OS

RX US CT IRM





condyles

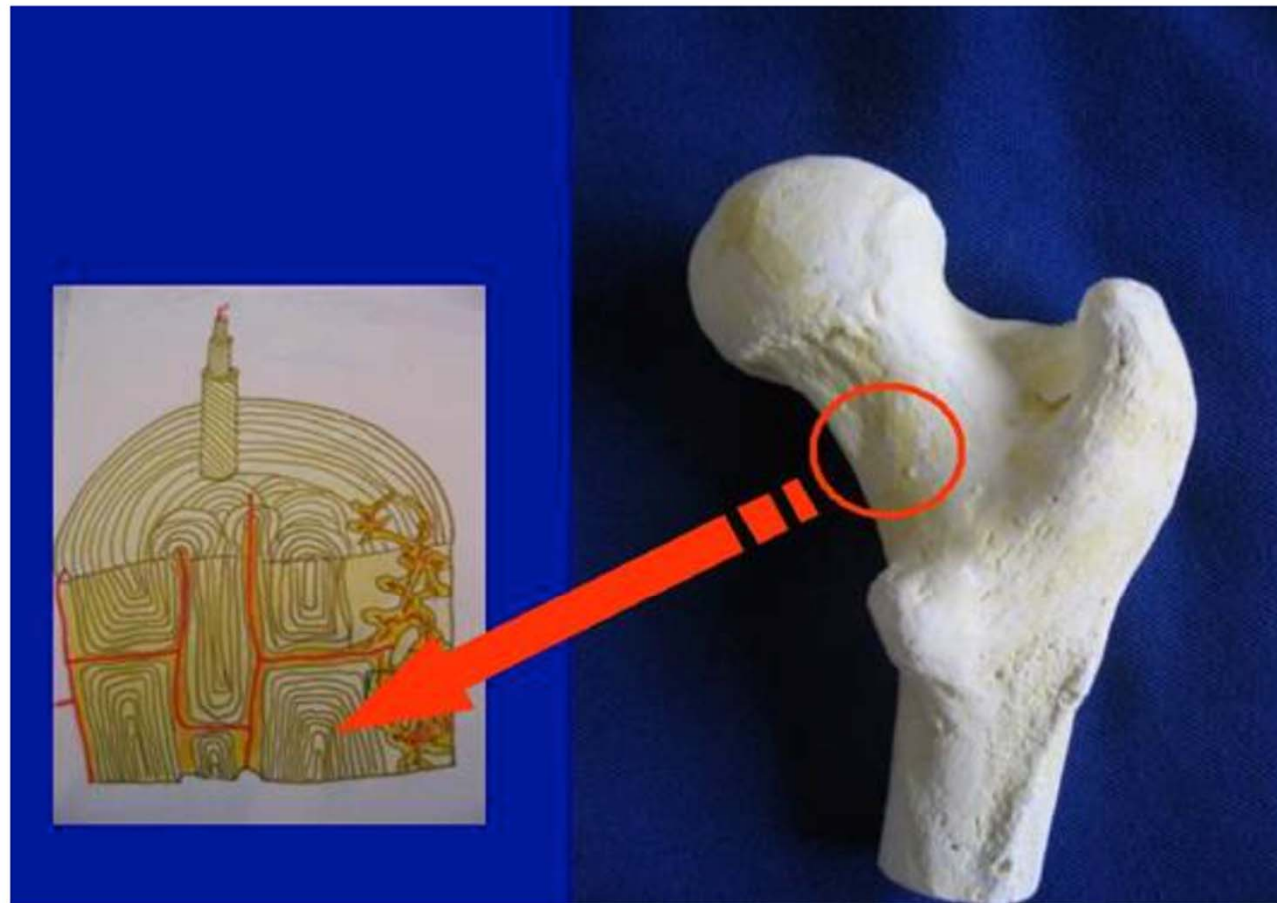
condyles

Fémur

condyles

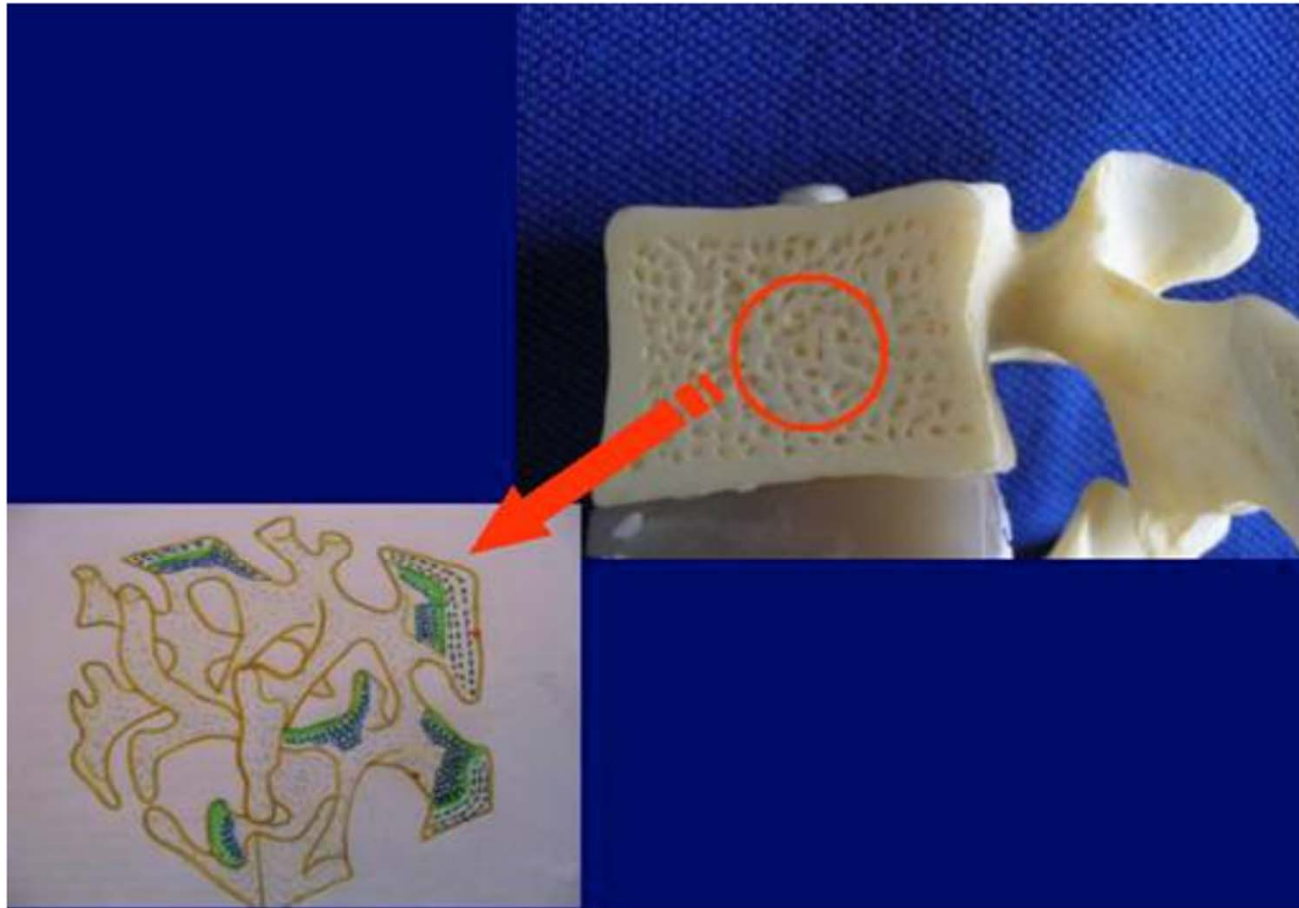
Tibia

- l'**os compact** ou **cortical** qui constitue la paroi des os longs. Il est le constituant principal du col du fémur,

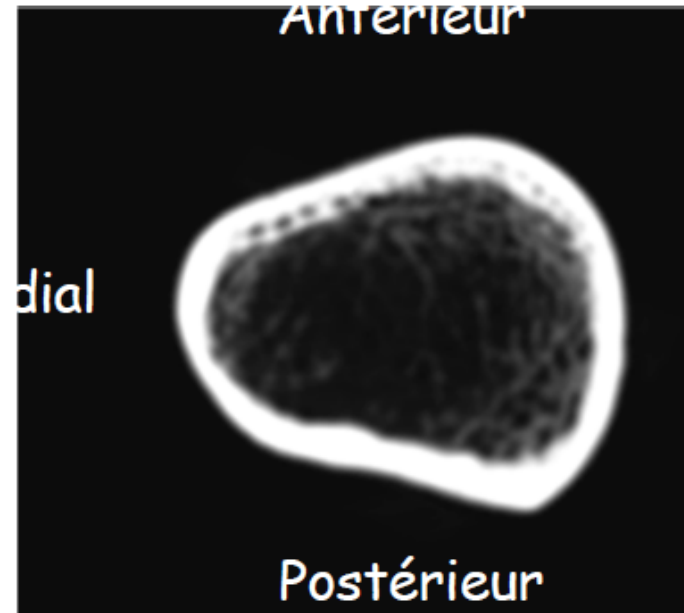


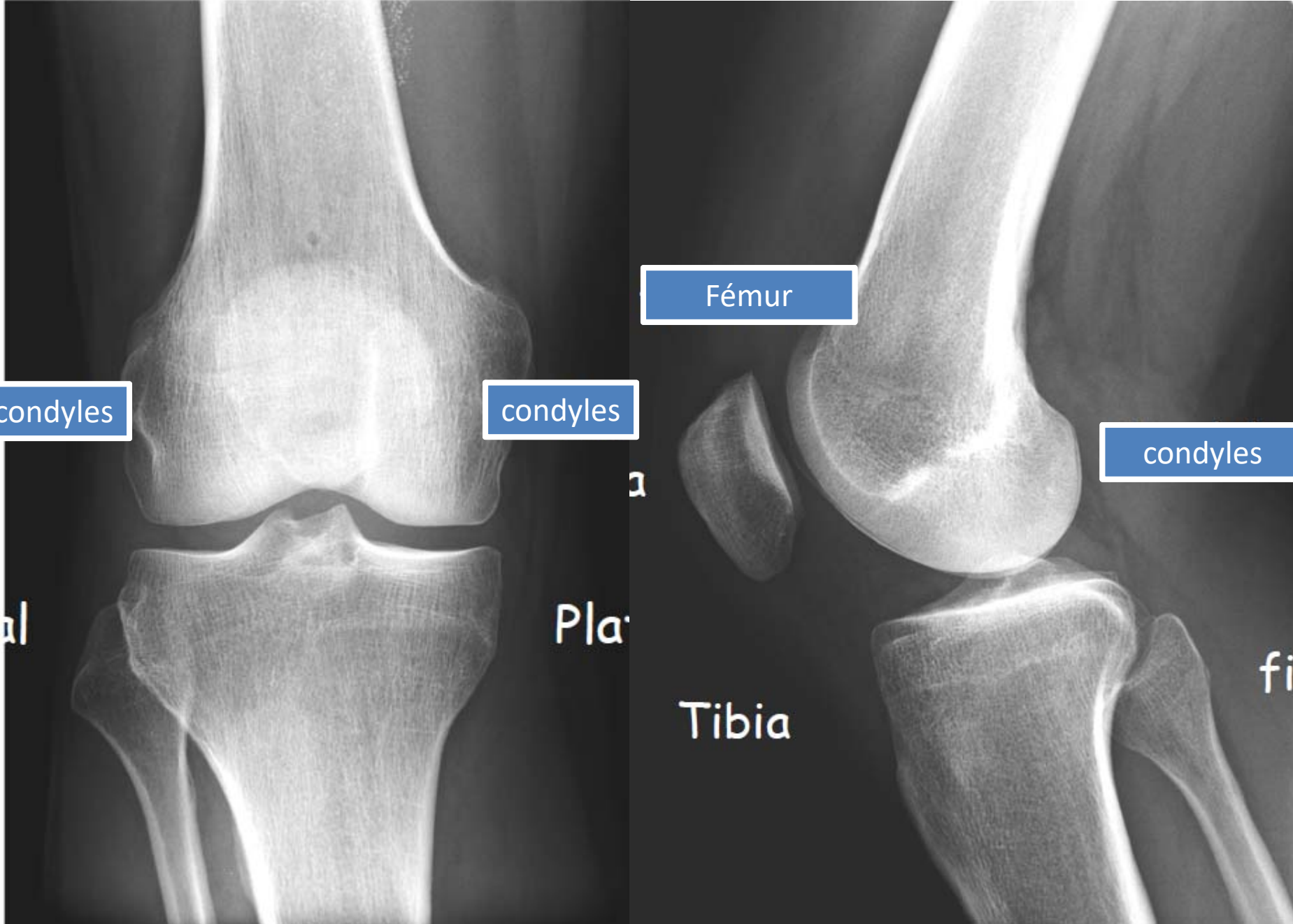
[http://www.rhumatologie.asso.fr/04-Rhumatismes/grandes-maladies/0A-dossier-osteoporose/B1\\_de\\_quoi\\_os.asp](http://www.rhumatologie.asso.fr/04-Rhumatismes/grandes-maladies/0A-dossier-osteoporose/B1_de_quoi_os.asp)

- et l'**os trabéculaire** ou **spongieux** qui est, comme son nom l'indique, constitué de travées. Il est le constituant principal du corps des vertèbres, des os du poignet et du centre des os longs.



[http://www.rhumatologie.asso.fr/04-Rhumatismes/grandes-maladies/0A-dossier-osteoporose/B1\\_de\\_quoi\\_os.asp](http://www.rhumatologie.asso.fr/04-Rhumatismes/grandes-maladies/0A-dossier-osteoporose/B1_de_quoi_os.asp)





condyles

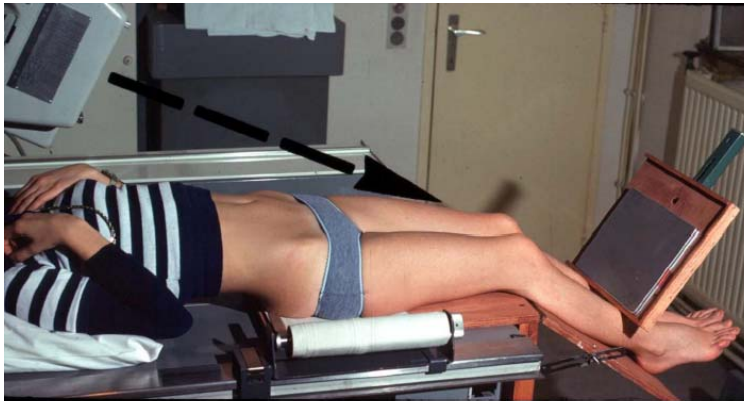
condyles

Fémur

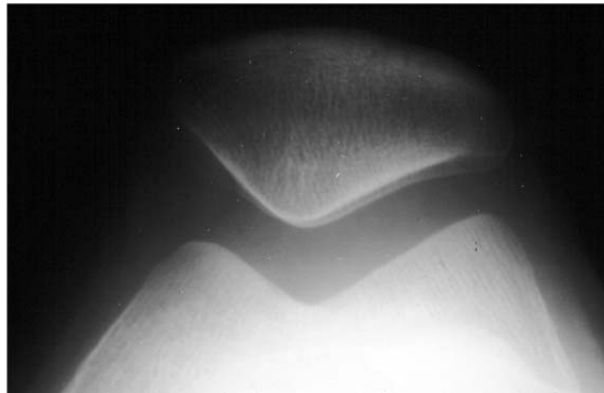
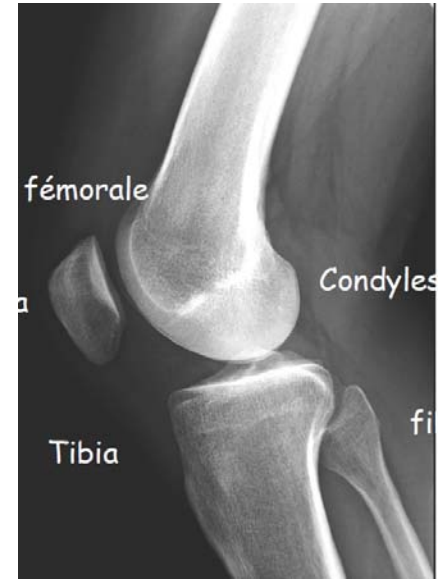
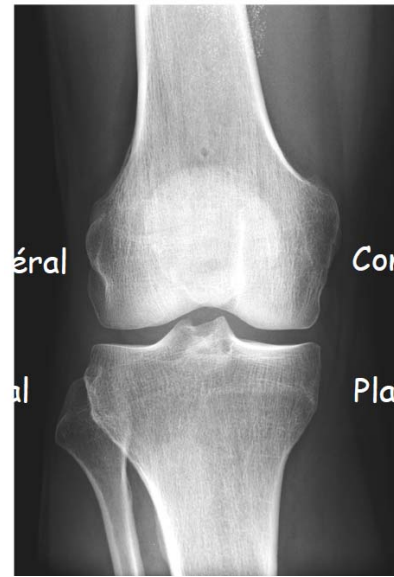
condyles

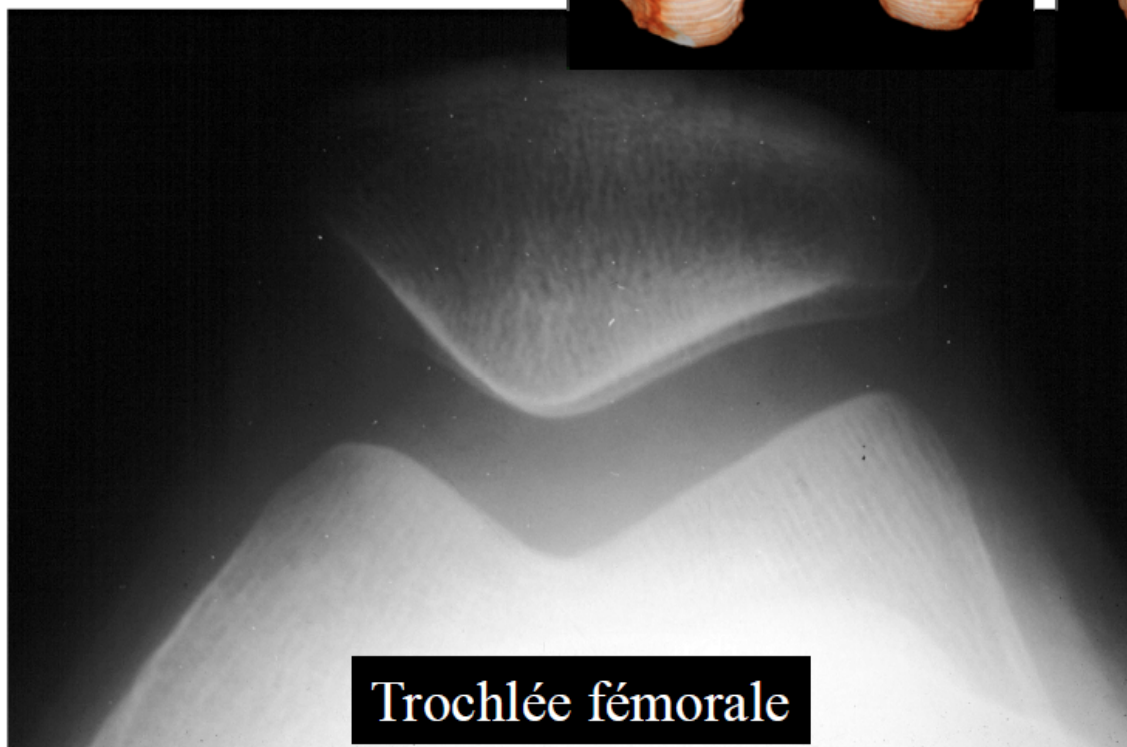
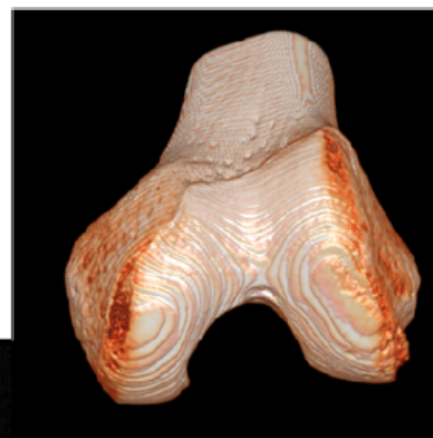
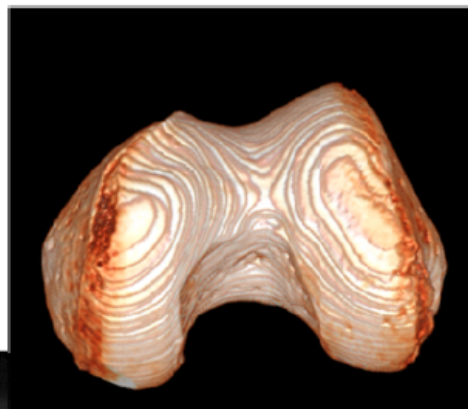
Tibia





FLEXION 30 °

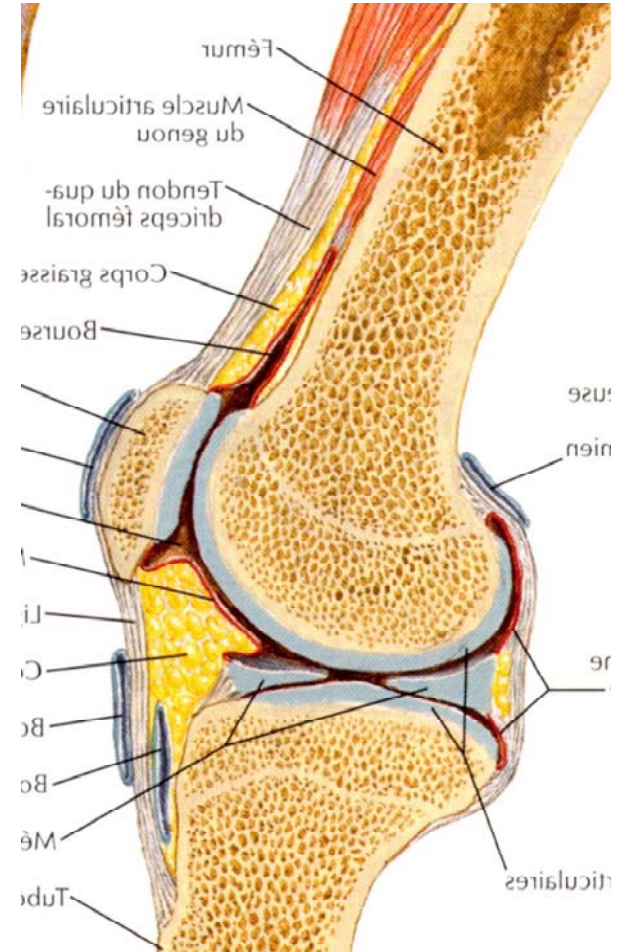
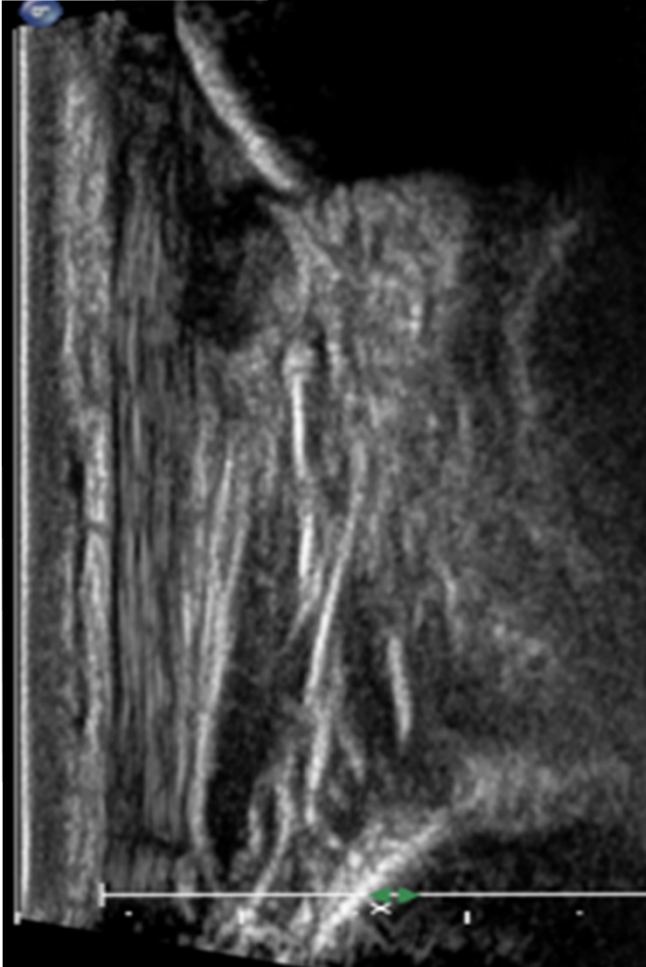




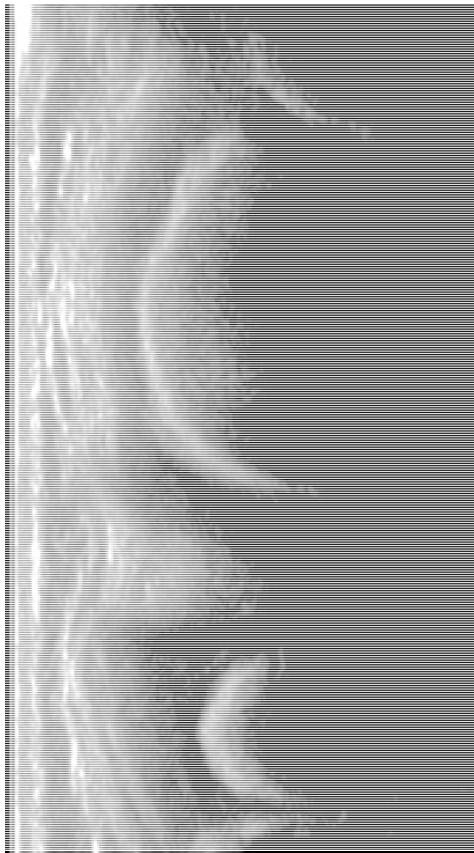
Trochlée fémorale



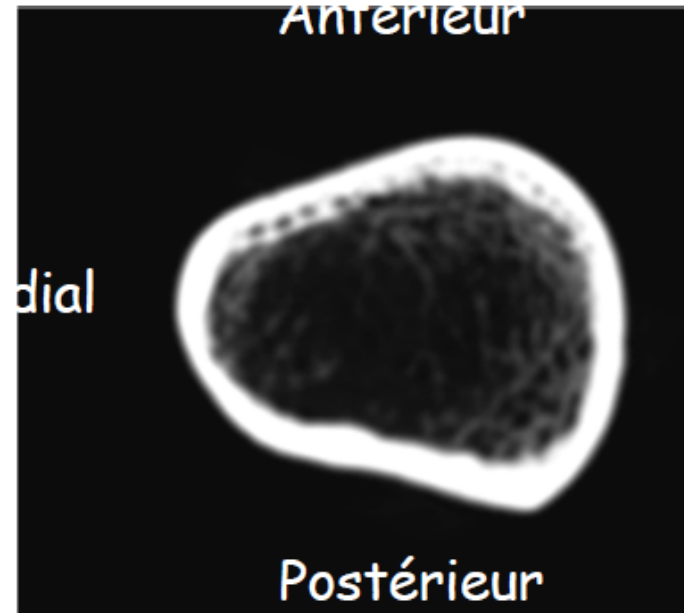
# US

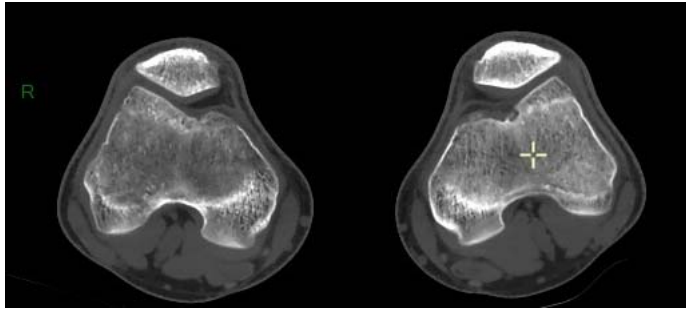
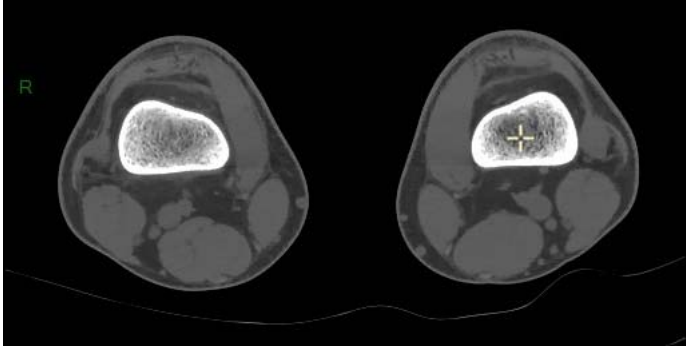


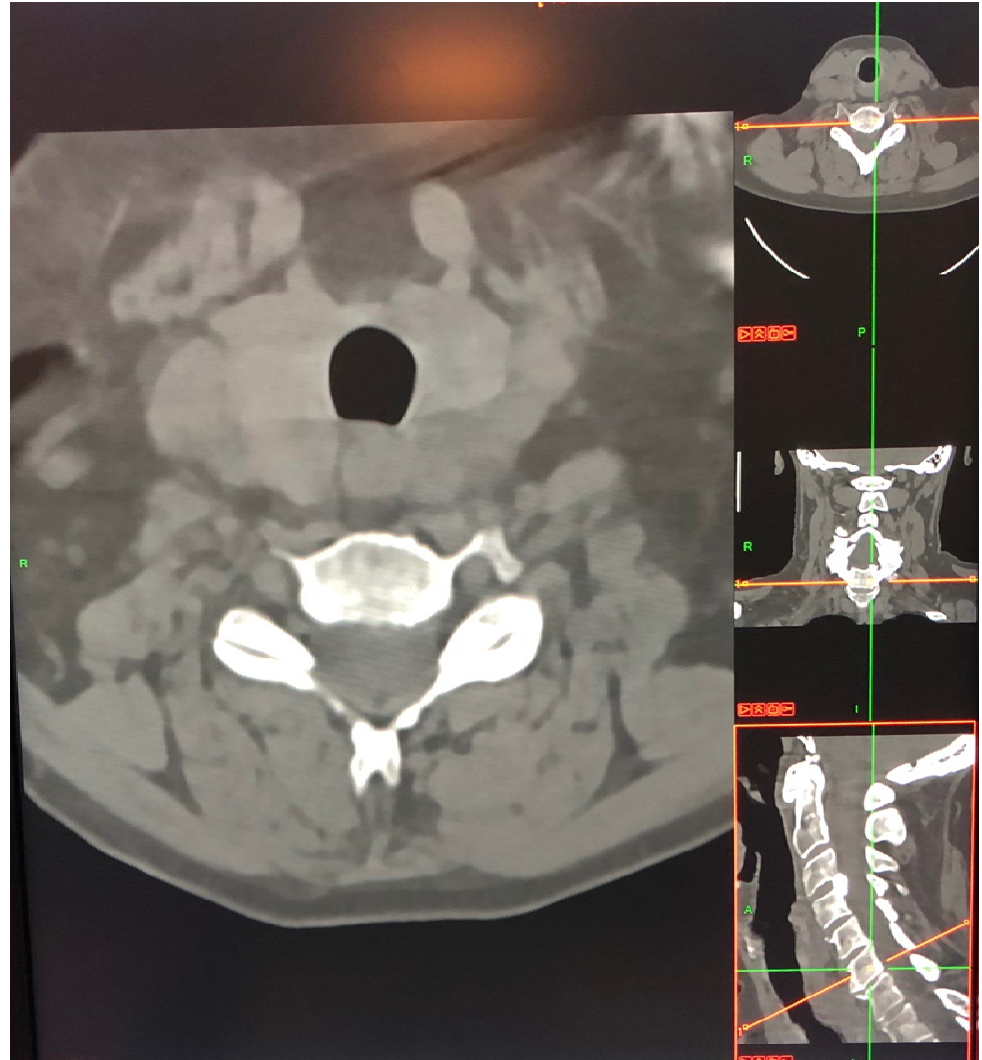
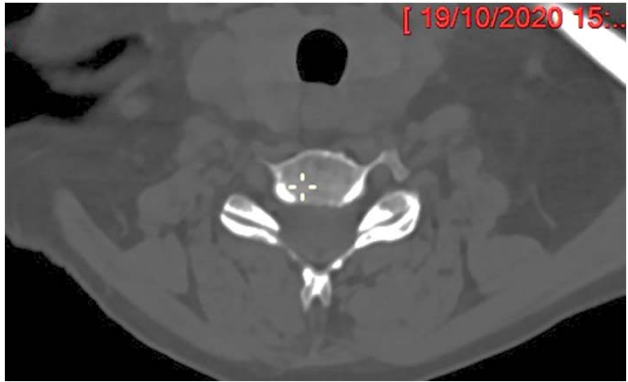
*In Netter, Atlas d'anatomie humaine, 4<sup>ème</sup> édition, 2007*



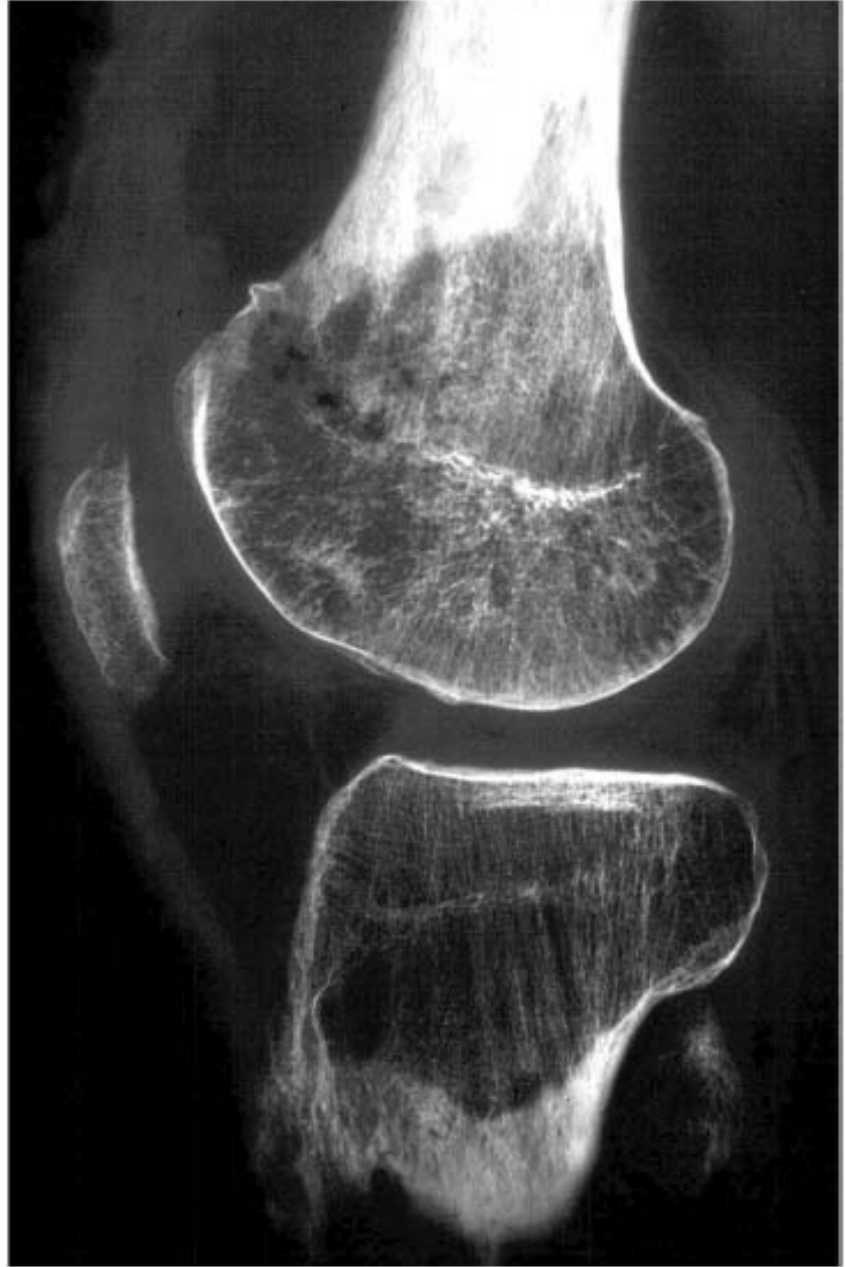
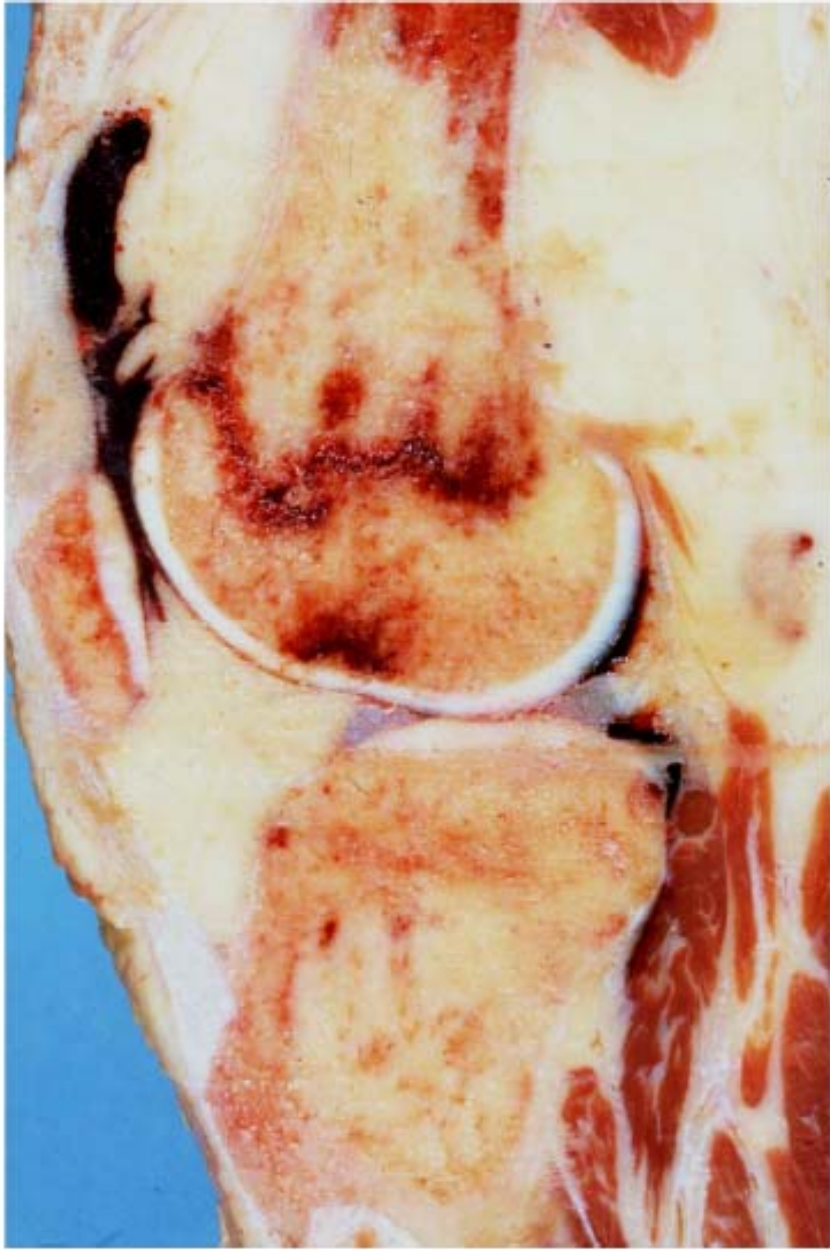
Prof Ph Clapuyt, radiologie pédiatrique



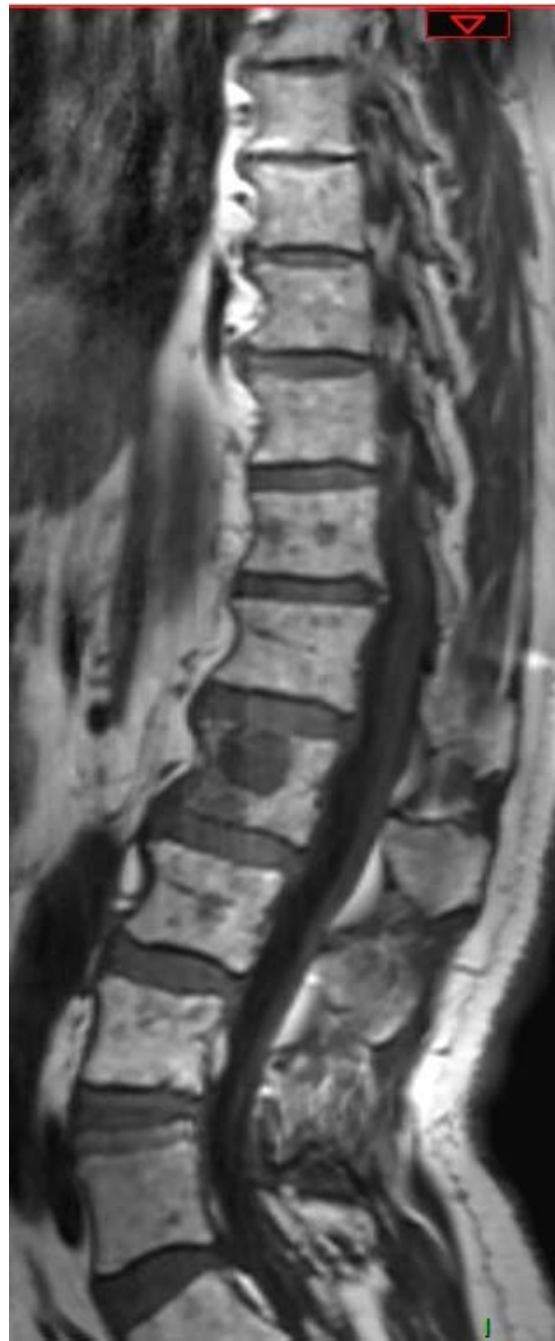




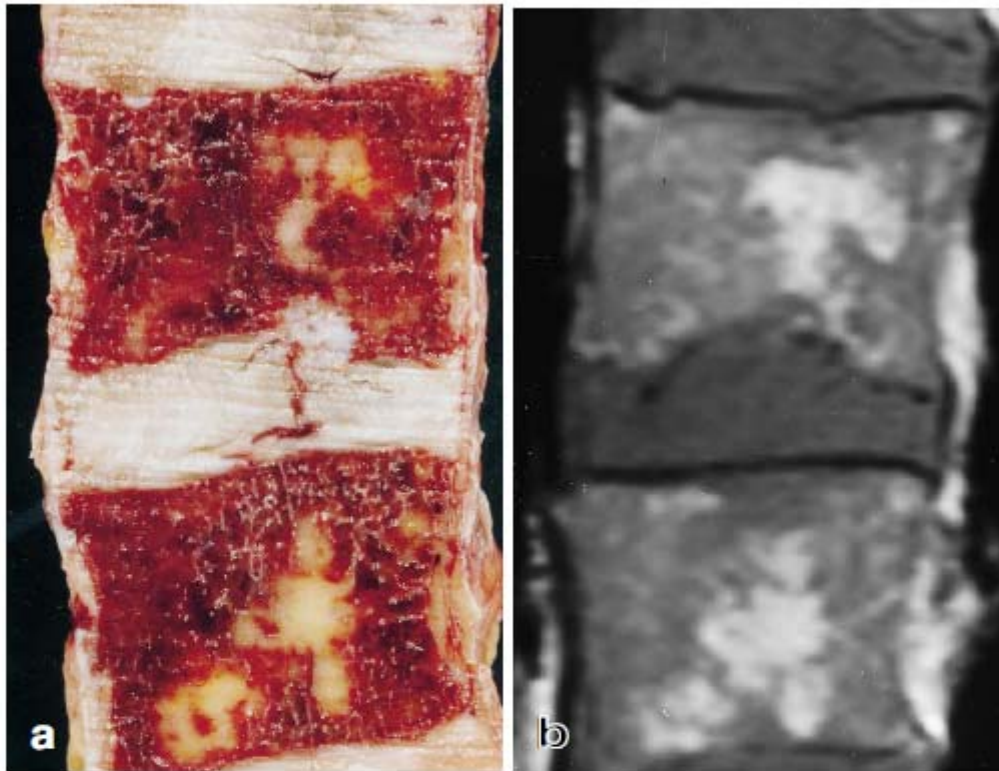




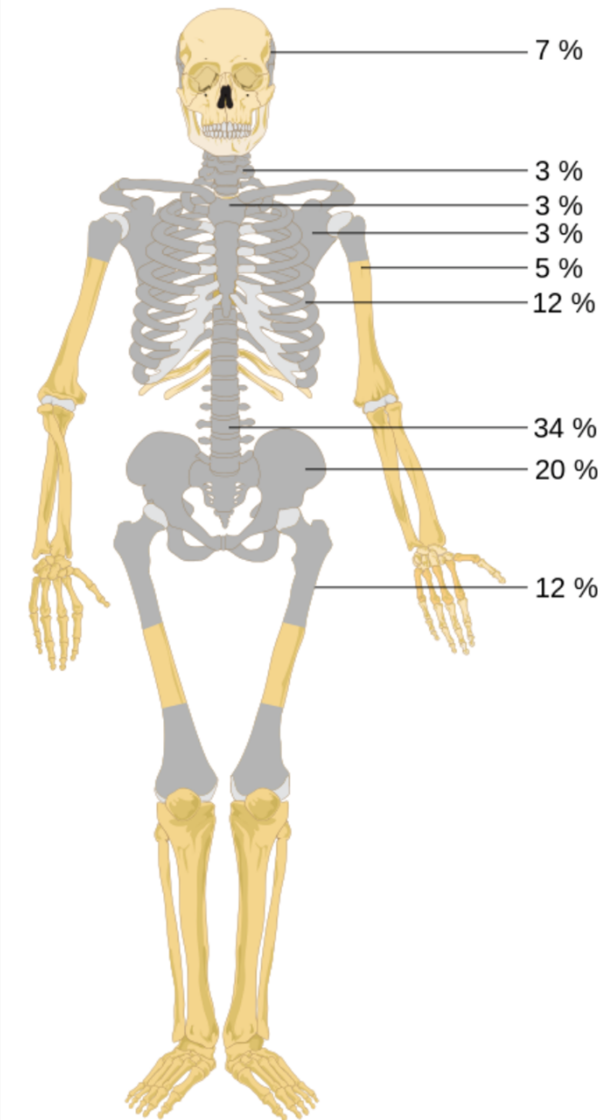








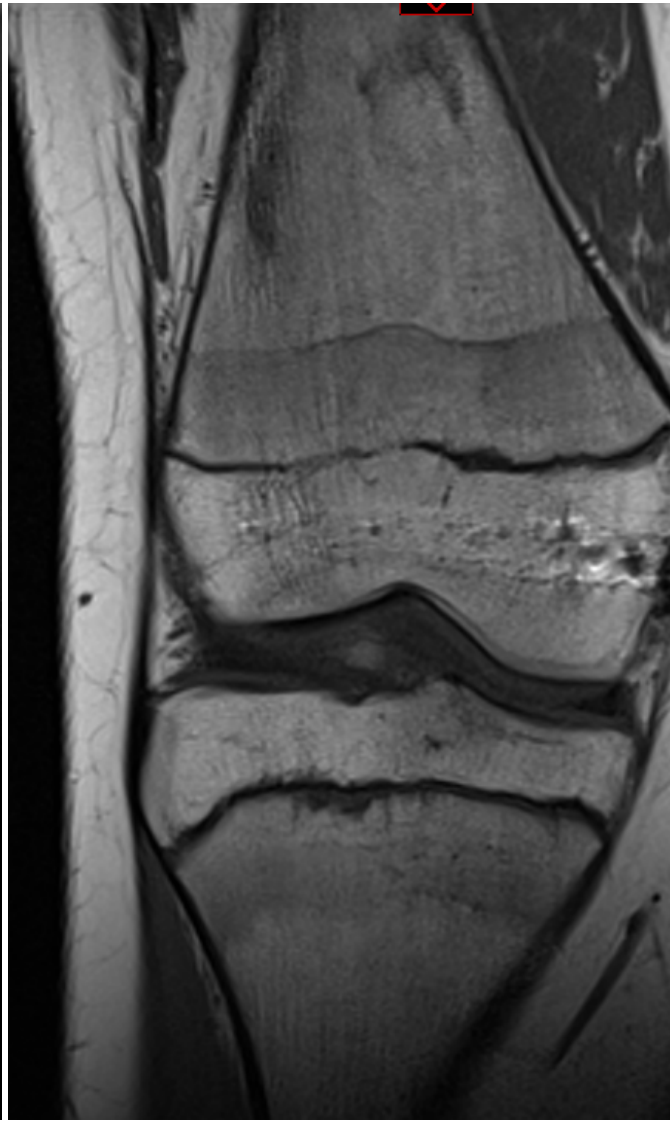
**Fig. 1.** **a** Macroscopic section of two lumbar vertebral bodies obtained at autopsy from a 69-year-old male who died after heart infarct. Red areas correspond to hematopoietic tissue; yellow areas mainly located in the center of the vertebral bodies correspond to fatty marrow. **b** Sagittal T1-weighted spin-echo MR image of the specimen maps the distribution of red and yellow marrow. Areas of intermediate signal intensity in the vertebral bodies correspond to the red marrow areas on the section; areas of high signal intensity correspond to fatty marrow





Prof Ph Clapuyt, radiologie pédiatrique







# Os

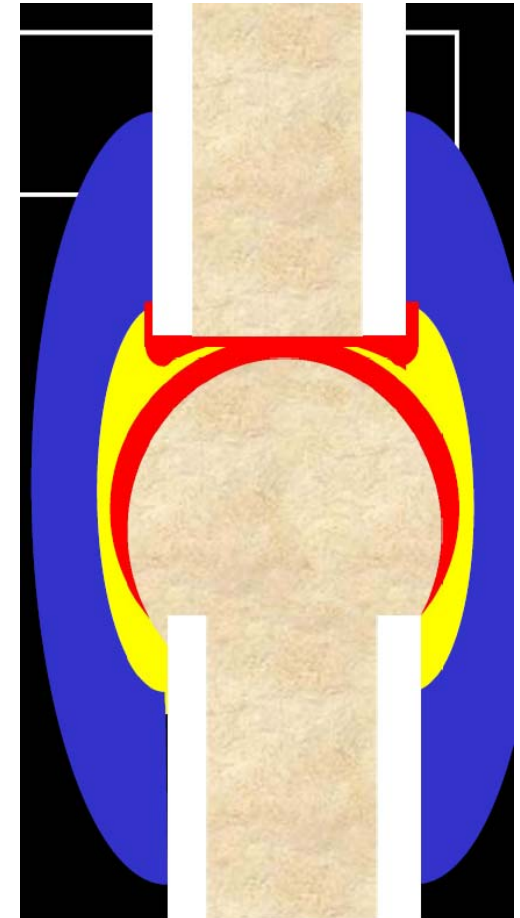
- Os cortical, compact (1)
- Os spongieux
  - Moelle hématopoiétique (2)
  - Moelle grasseuse (3)
- Zones de croissance (4)
- => RX (1) (4)
- => CT (1) (4)
- => IRM (2, 3, 4)
- => US (4)

Cartilages , ligaments, tendons,  
synoviale...

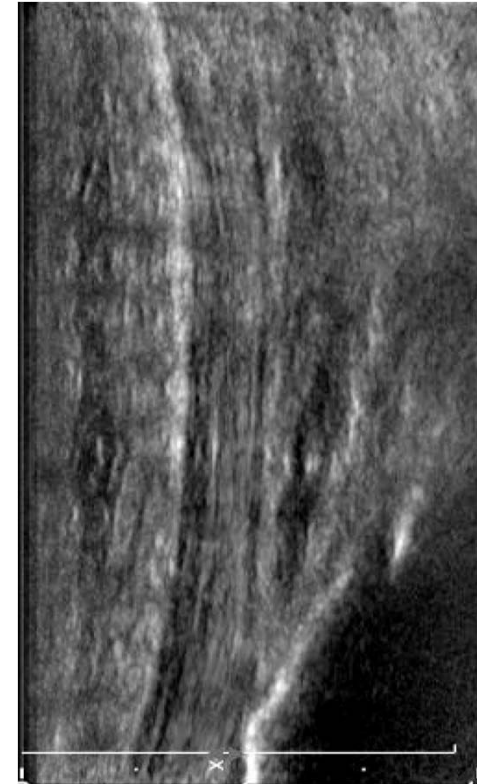
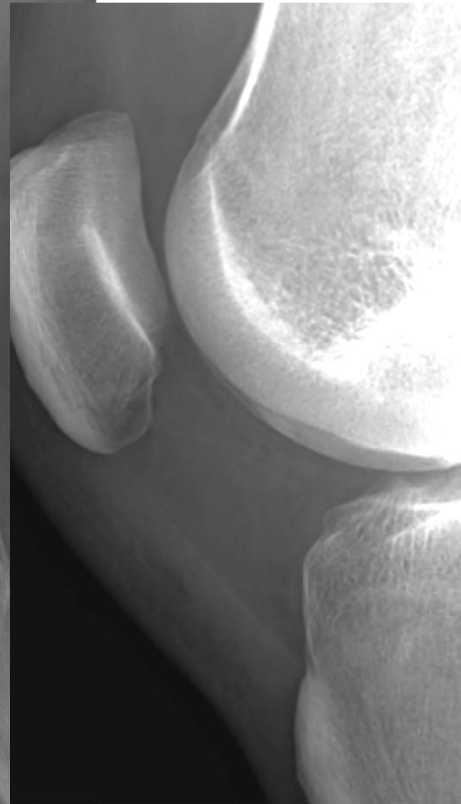
RX US CT IRM

- Cartilage hyalin :
  - Chondrocytes, MEC, collagène
    - Surfaces articulaires
    - la cloison nasale
    - les cartilages [thyroïde](#), [cricoïde](#),
    - Les anneaux [bronchiques](#) et la [trachée](#)
    - l'extrémité des [côtes](#)
    - Sites de l'os en croissance
- Cartilage fibreux (fibrocartilage)
  - Cartilage et tissu conjonctif fibreux
    - Disques intervertébraux
    - Ménisques
- Tendons et ligaments
  - Tissu conjonctif dense , collagène
- Synoviale :
  - Tapisse et limite les cavités articulaires en dehors des surfaces cartilagineuses
  - Synoviocytes et synoviablaste, tissu de soutien
- Capsule articulaire
  - Manchon fibreux
  - Union de deux os qui constituent une articulation

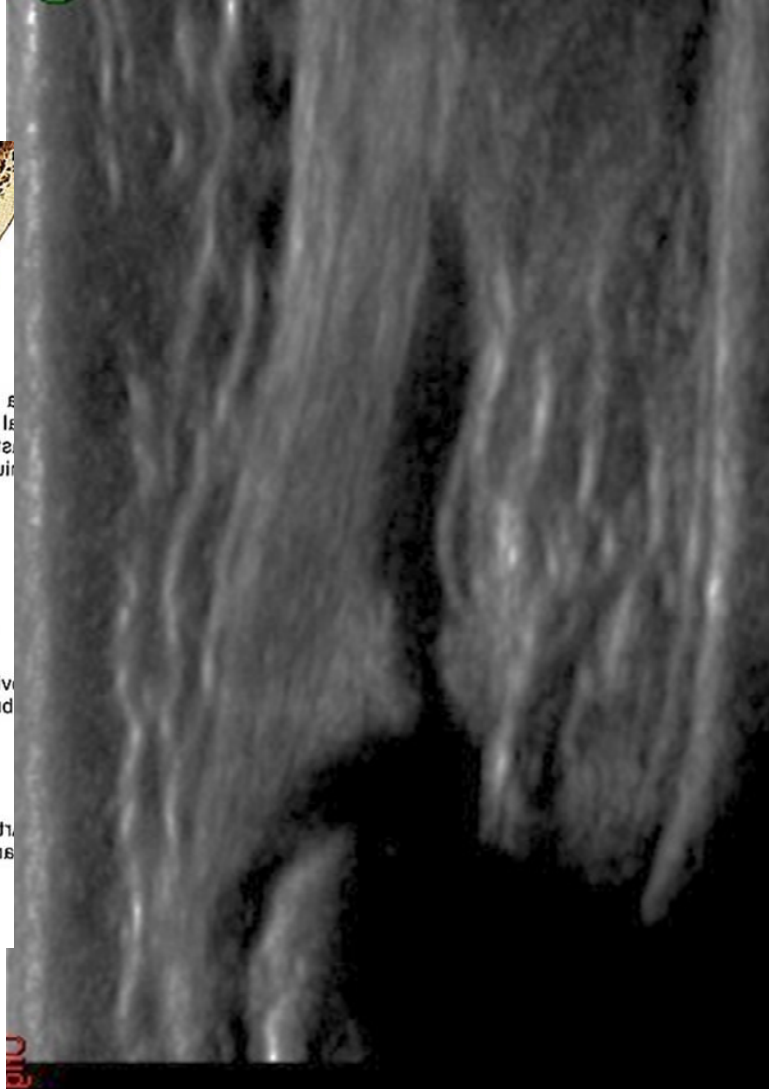
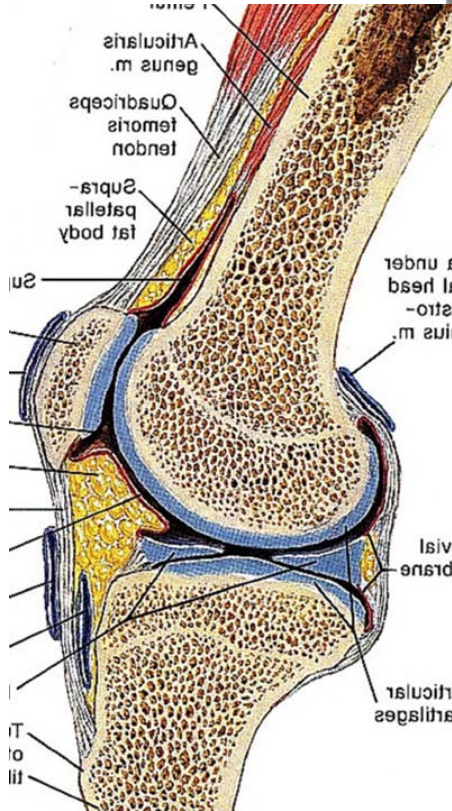
- Tendons et ligaments
  - Tissu conjonctif dense , collagène
- Synoviale : « jaune »
  - Tapisse et limite les cavités articulaires en dehors des surfaces cartilagineuses
  - Synoviocytes et synoviablaste, tissu de soutien
- Capsule articulaire : « bleu »
  - Manchon fibreux
  - Union de deux os qui constituent une articulation



# Tendons

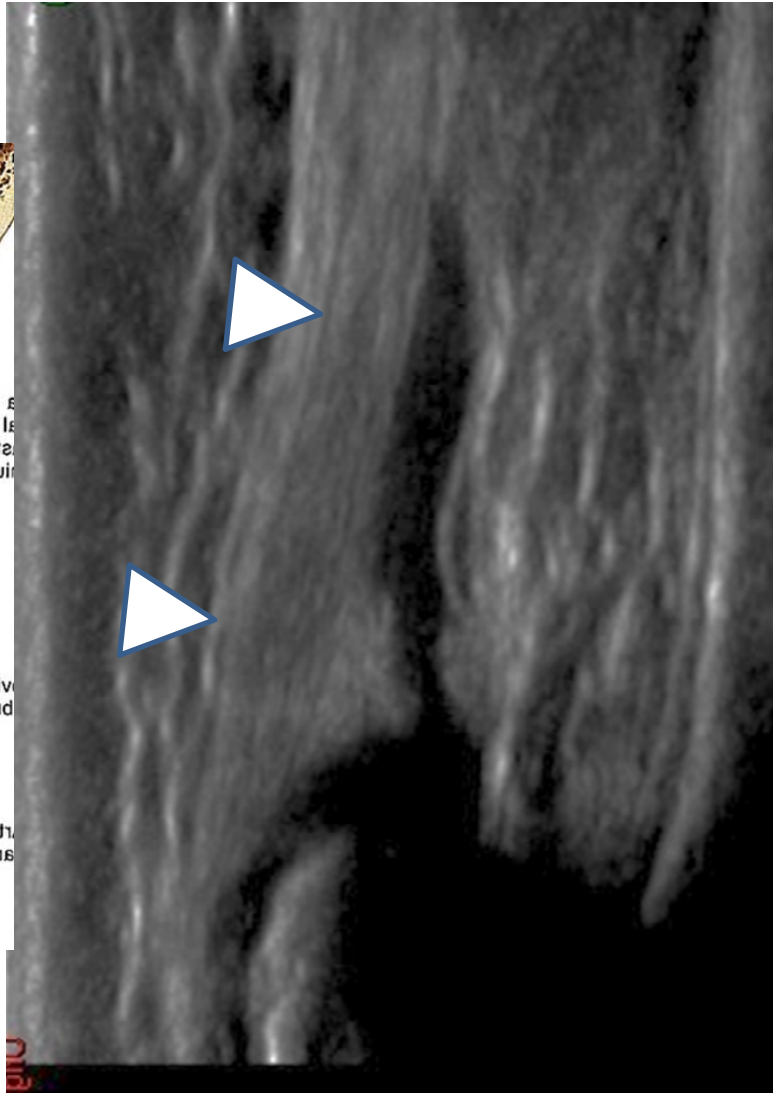
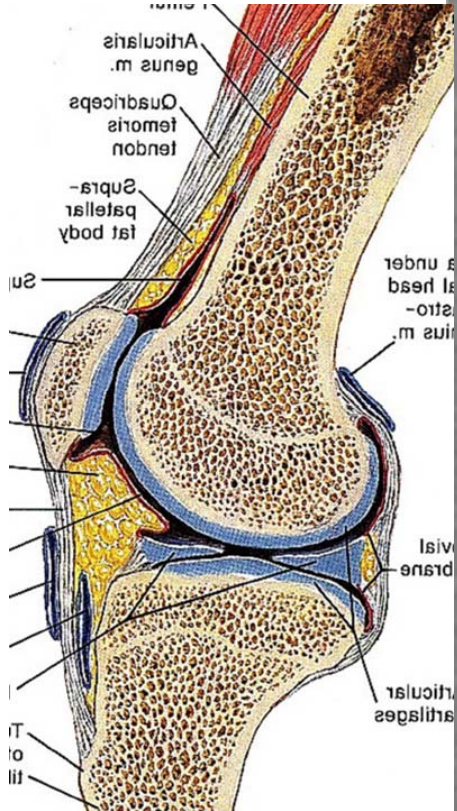


# Tendons



Prof Ph Clapuyt, radiologie pédiatrique

Tendons

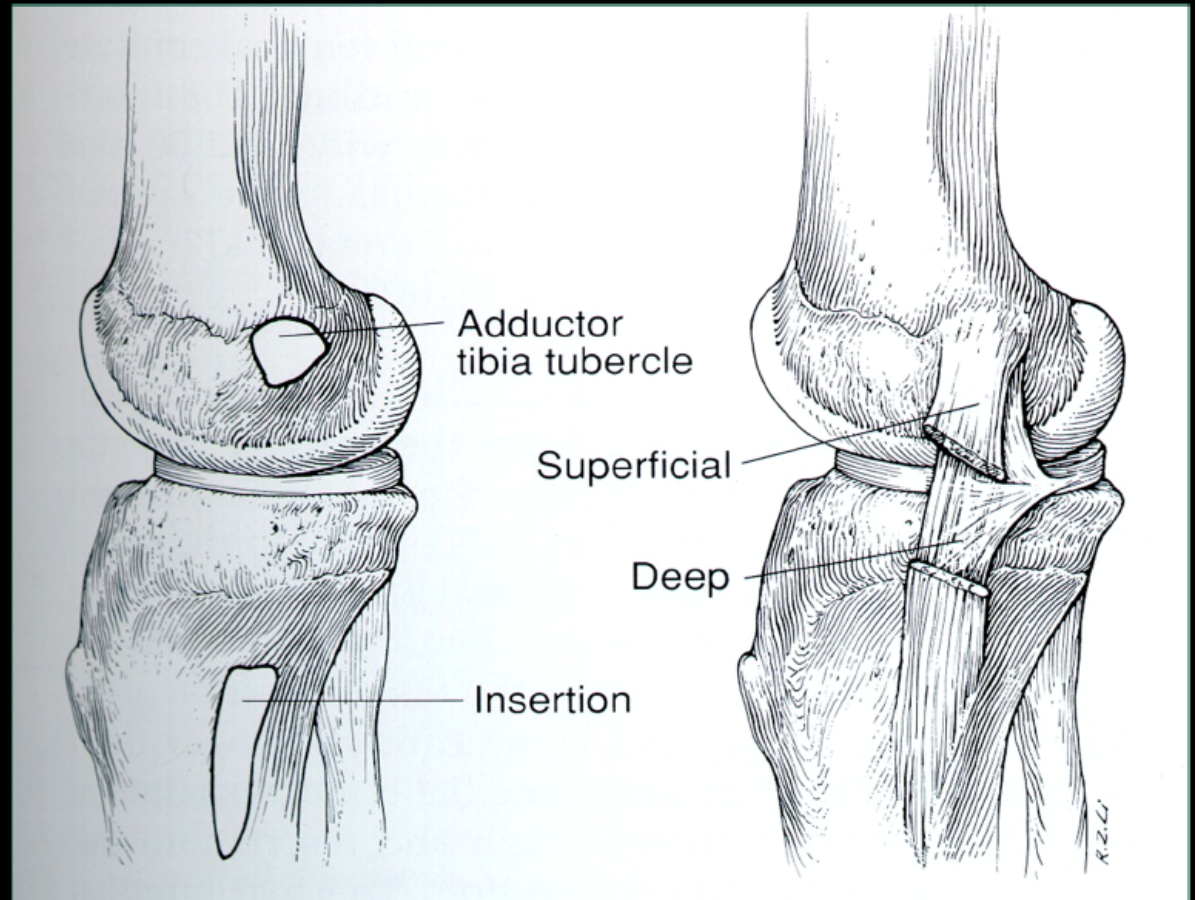
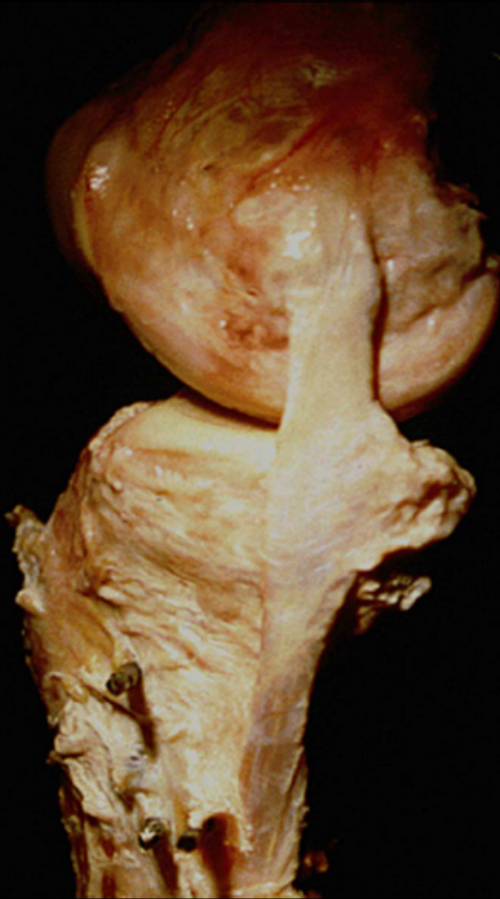


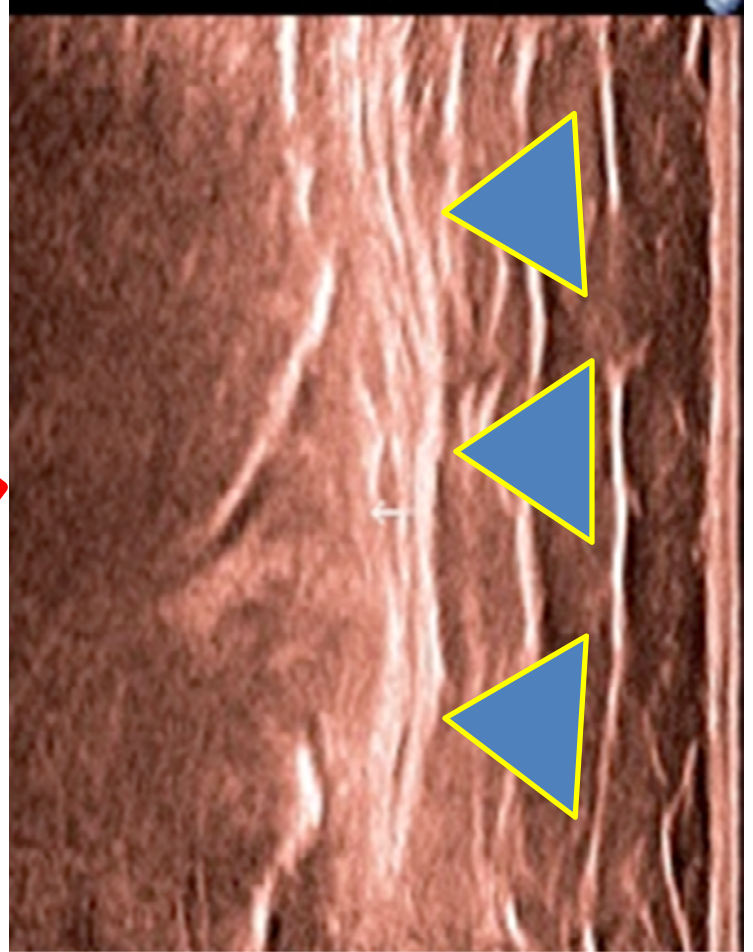
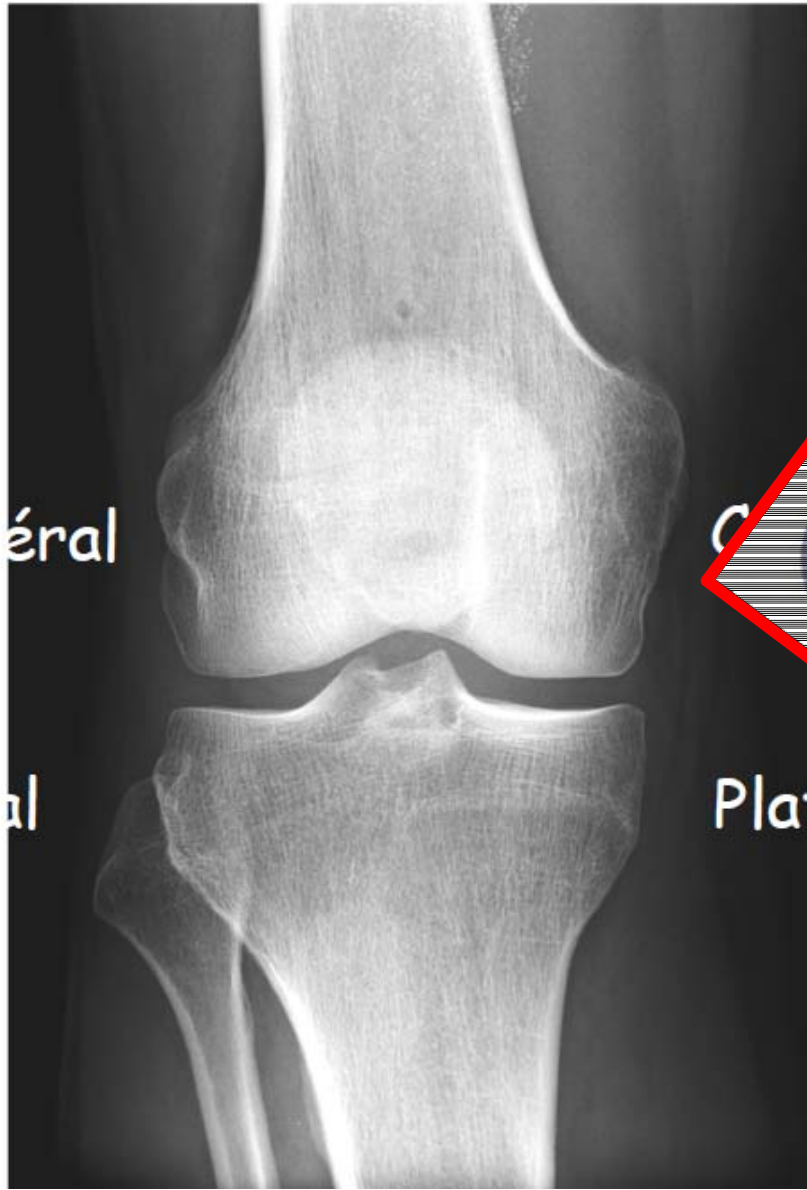
Tendons

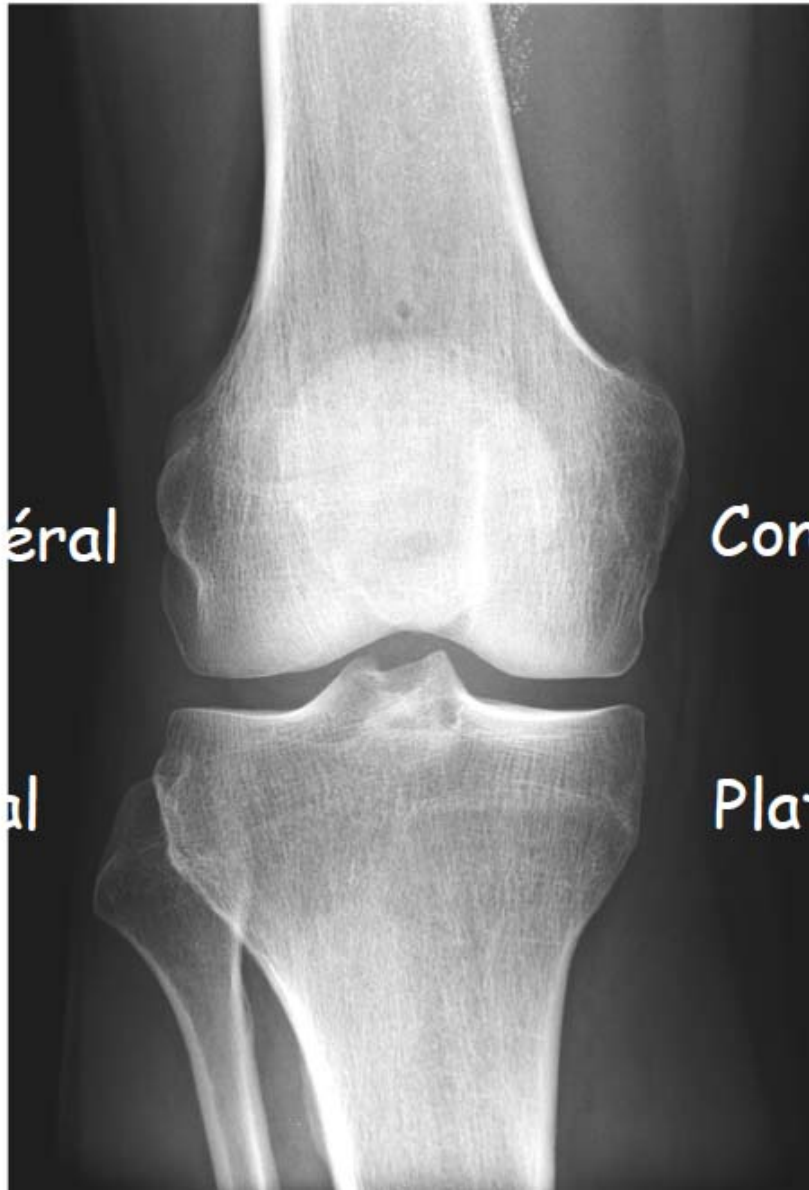




# Ligament collatéral médial





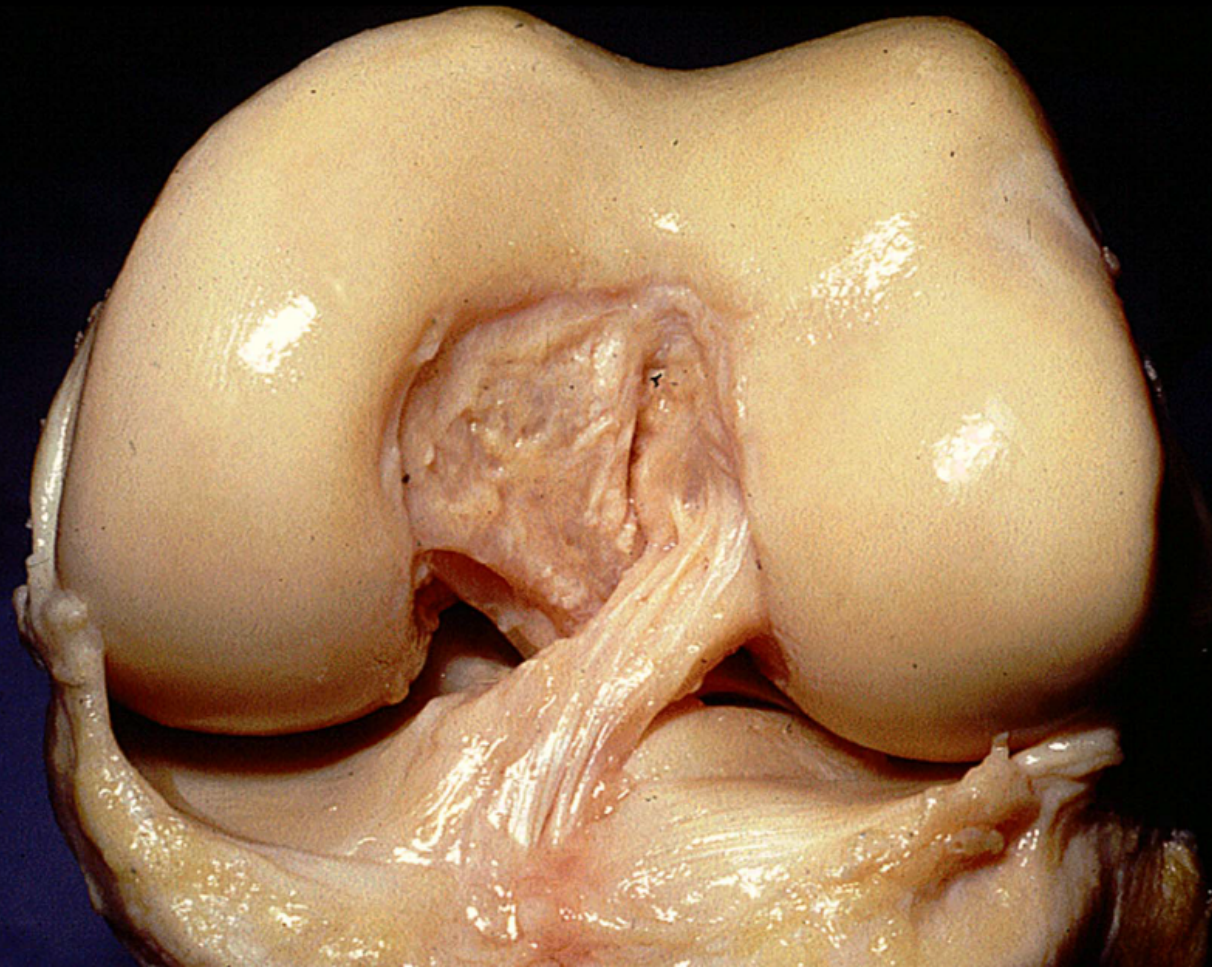


Insertion proximale  
du faisceau superficiel  
du ligament collatéral médial



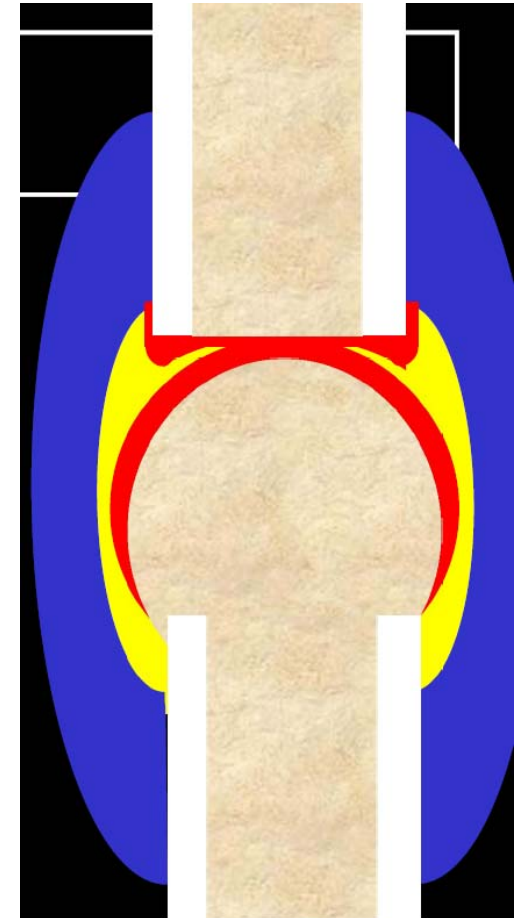


# Ligament croisé antérieur (LCA)





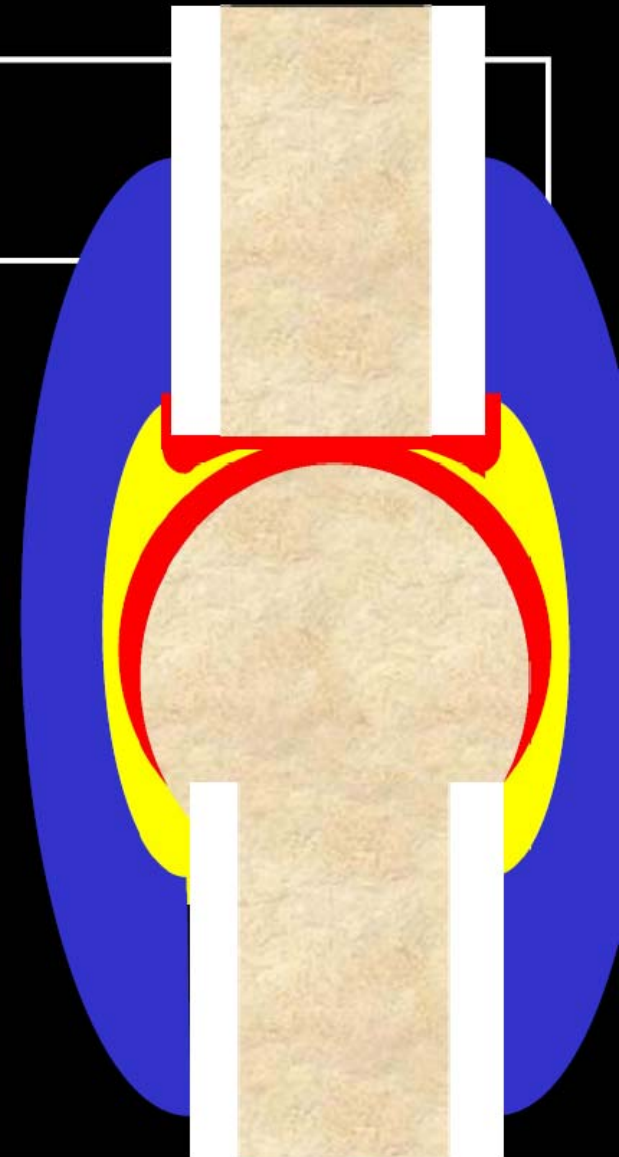
- Tendons et ligaments
  - Tissu conjonctif dense , collagène
- Synoviale : « jaune »
  - Tapisse et limite les cavités articulaires en dehors des surfaces cartilagineuses
  - Synoviocytes et synoviablaste, tissu de soutien
- Capsule articulaire : « bleu »
  - Manchon fibreux
  - Union de deux os qui constituent une articulation





# Anatomie articulaire

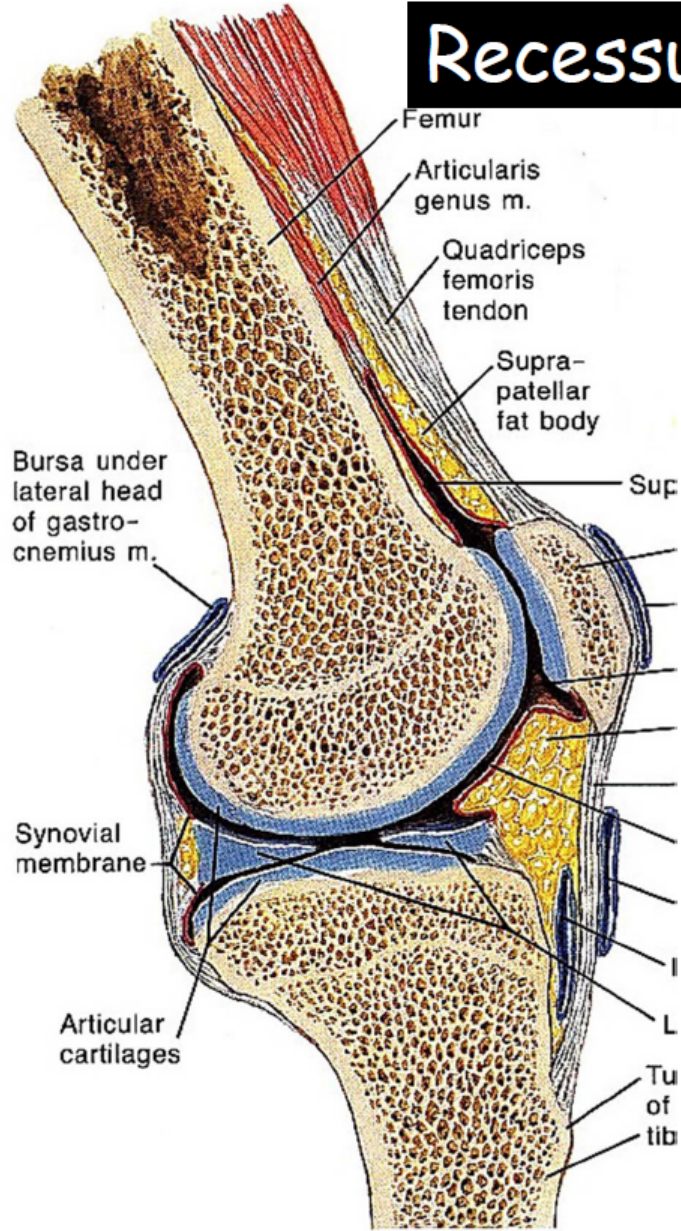
- **espace articulaire**
  - capsule
  - cartilage



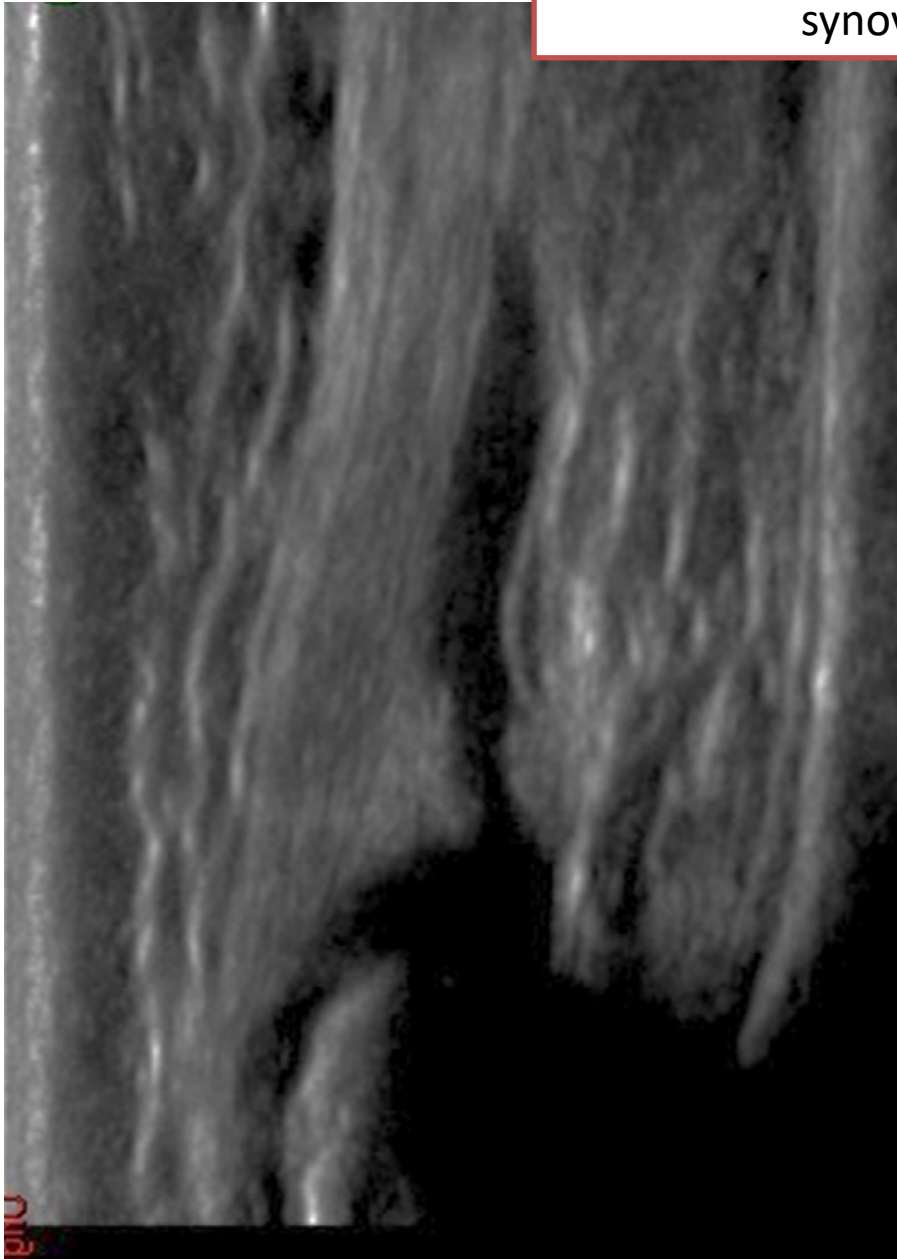
synoviale



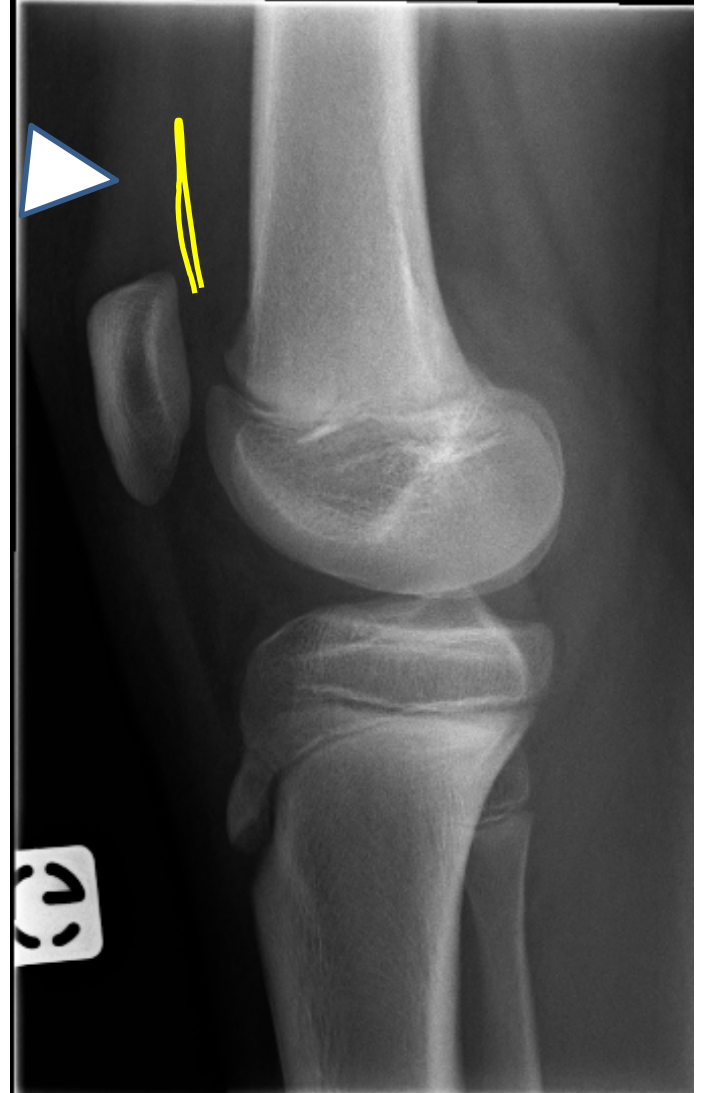
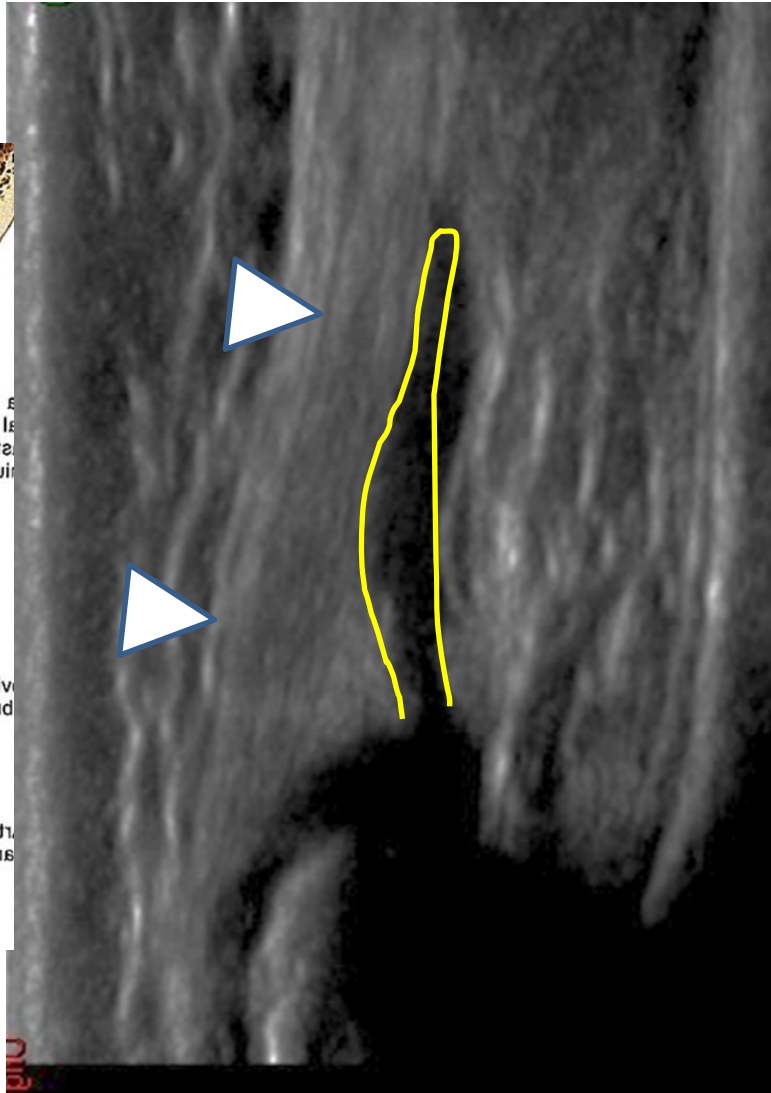
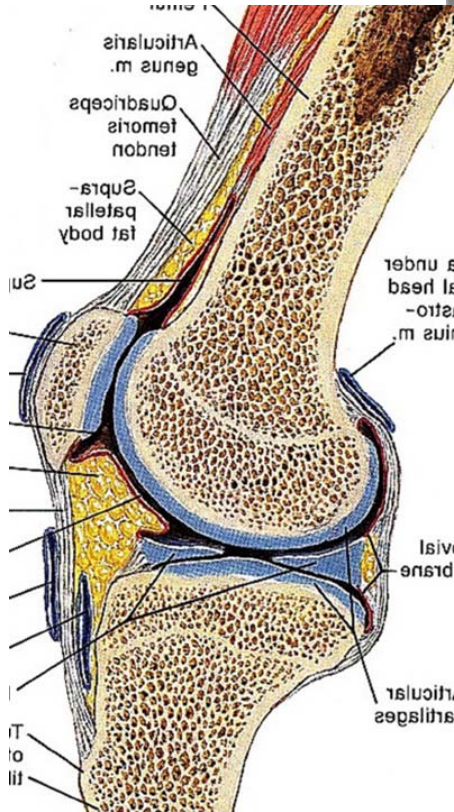
# Recessus sous-quadricipital



synoviale



Prof Ph Clapuyt, radiologie pédiatrique



Prof Ph Clapuyt, radiologie pédiatrique

synoviale

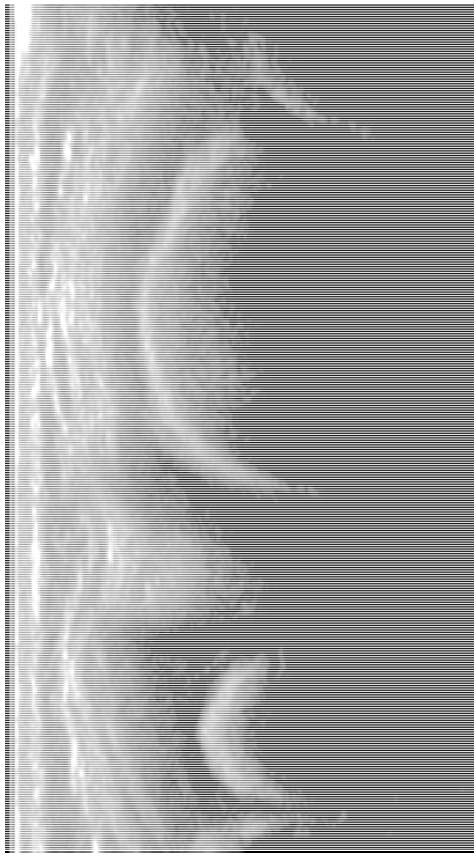




- Cartilage hyalin :
  - Chondrocytes, MEC, collagène
    - Surfaces articulaires
    - cloison nasale
    - cartilages [thyroïde](#), [cricoïde](#),
    - anneaux [bronchiques](#) et la [trachée](#)
    - l'extrémité des [côtes](#)
    - Sites de l'os en croissance
- Cartilage fibreux (fibrocartilage)
  - Cartilage et tissu conjonctif fibreux
    - Disques intervertébraux
    - Ménisques



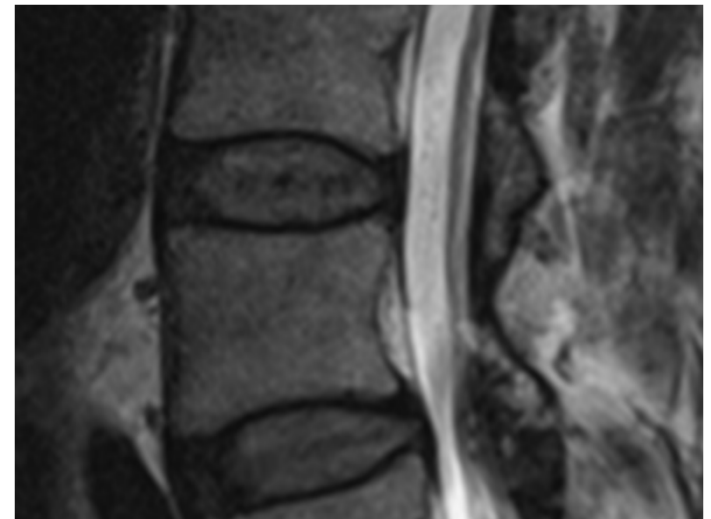
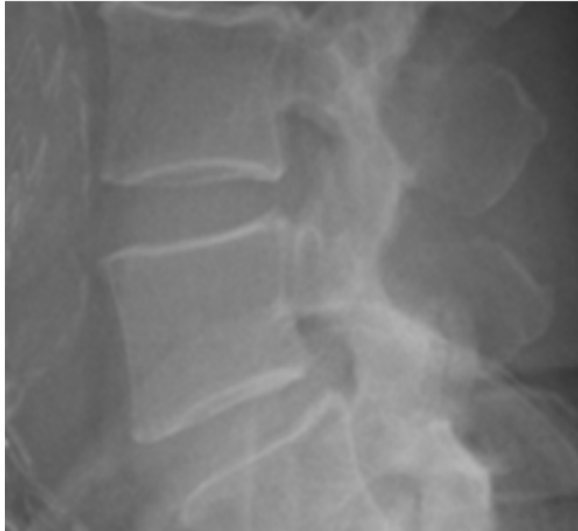




Prof Ph Clapuyt, radiologie pédiatrique







## Cartilage fibreux (fibrocartilage)

Cartilage et tissu conjonctif fibreux

Disques intervertébraux

Ménisques

**Menisque  
médial**

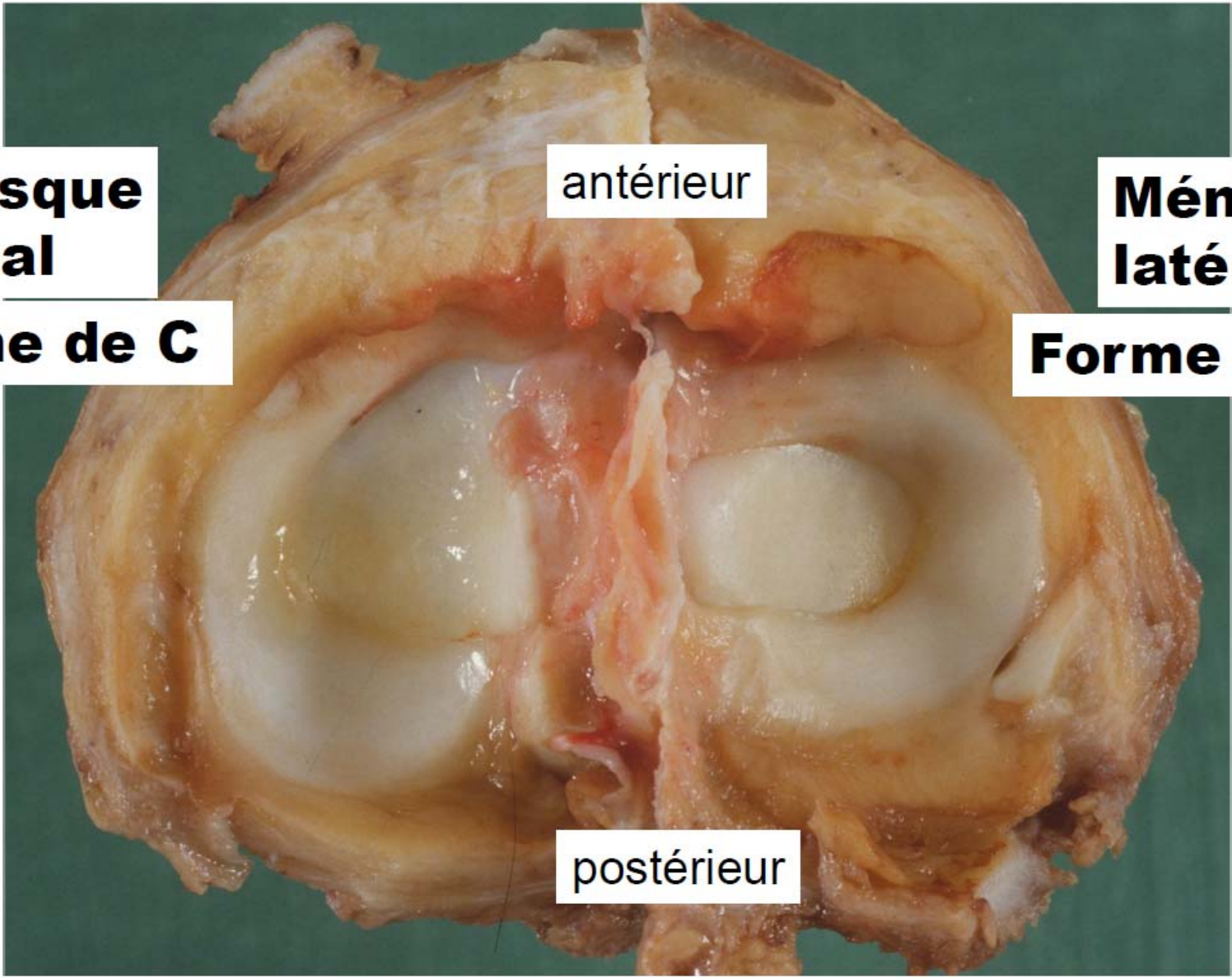
**Forme de C**

antérieur

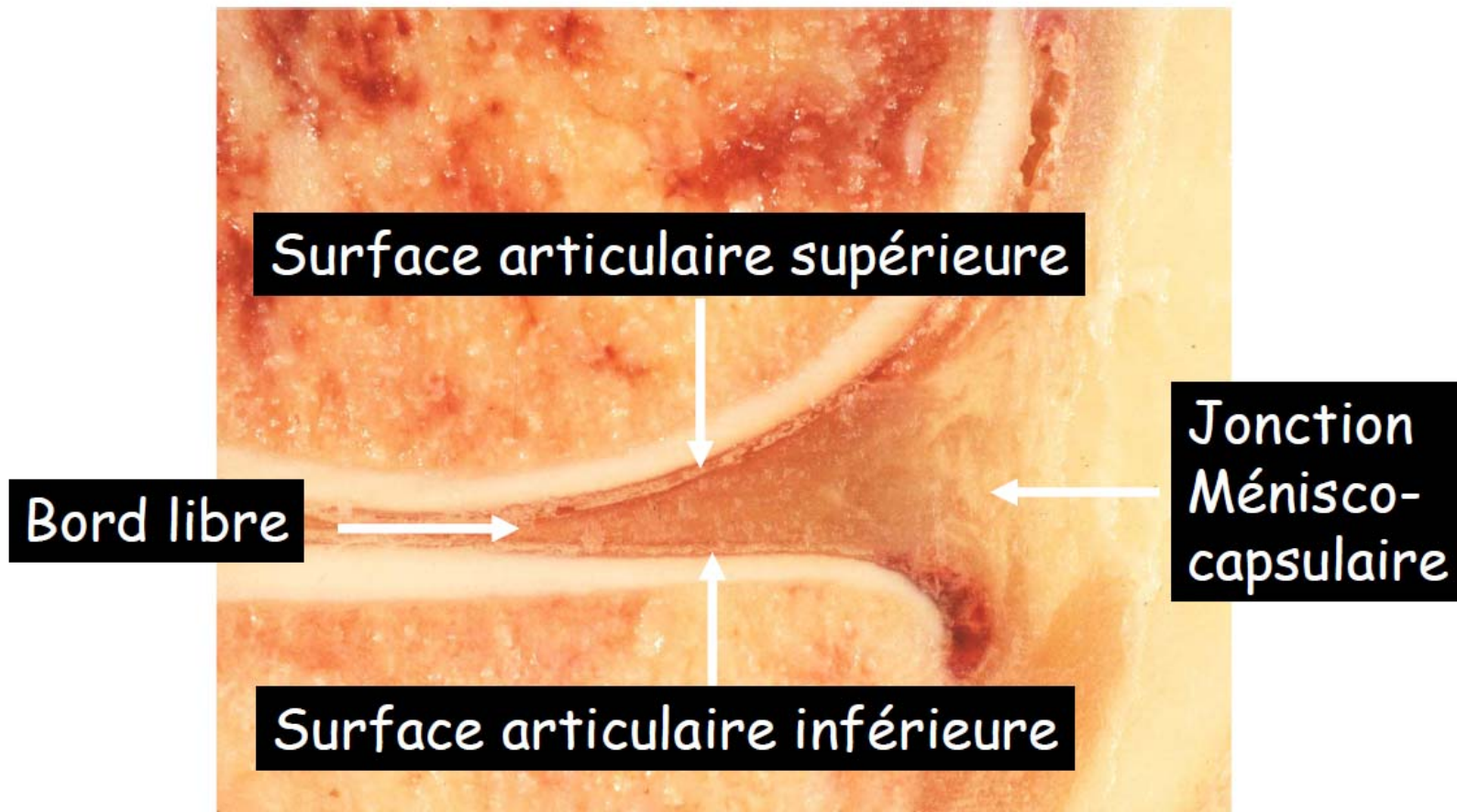
**Ménisque  
latéral**

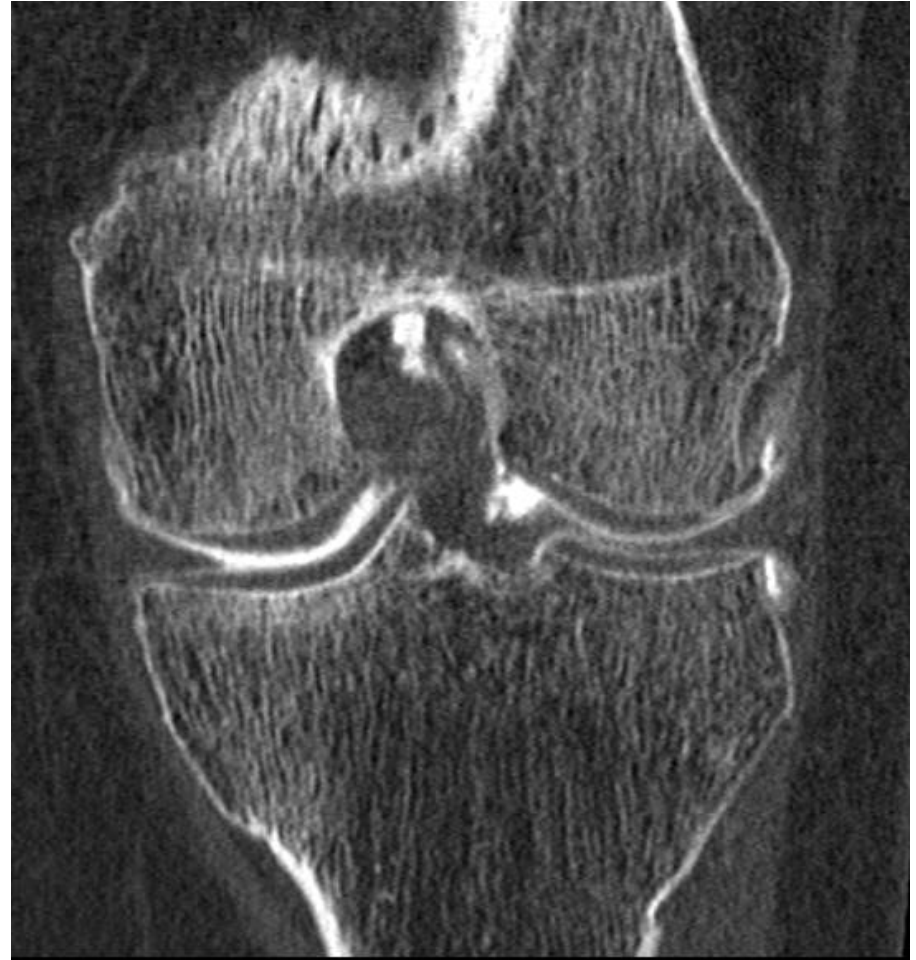
**Forme de O**

postérieur



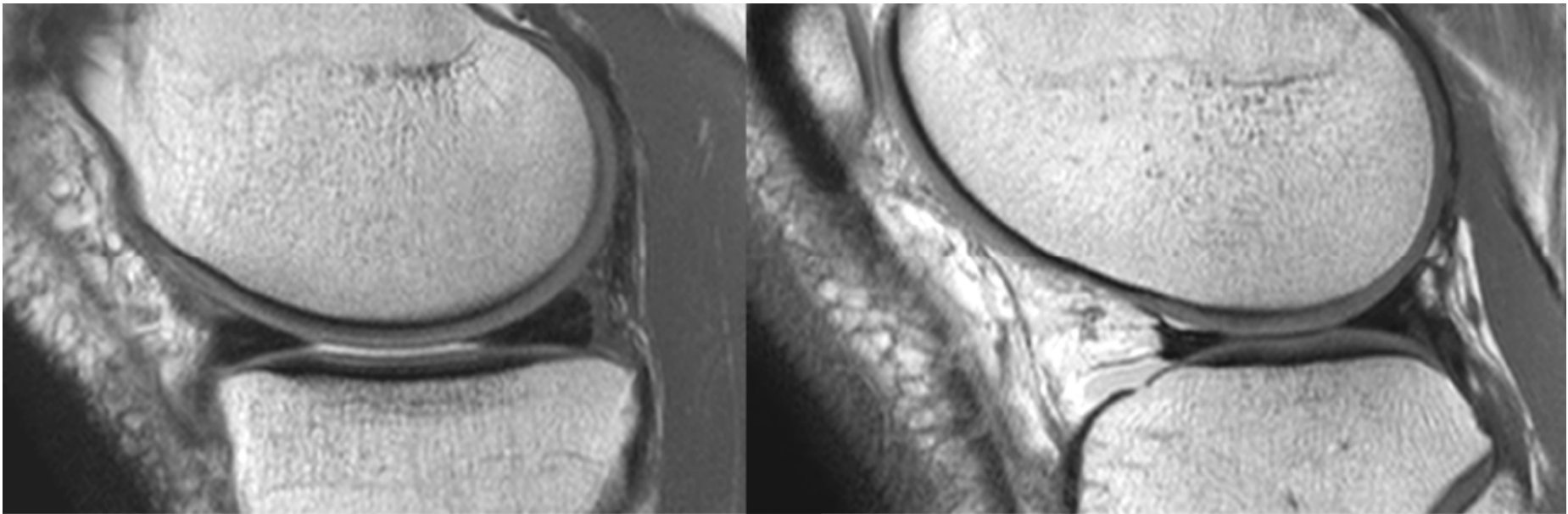
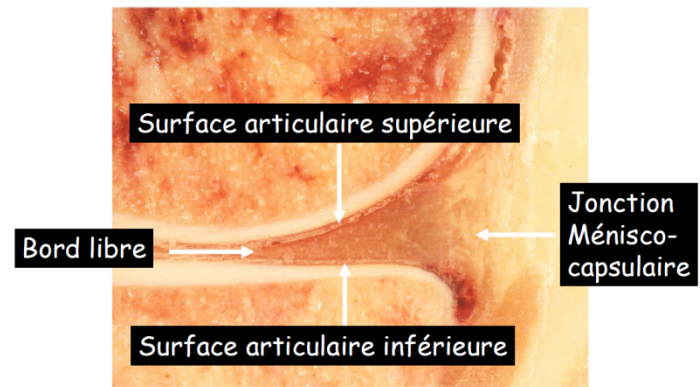
# Anatomie en coupe du ménisque







## Anatomie en coupe du ménisque



## Quelle structure et quelle technique ?

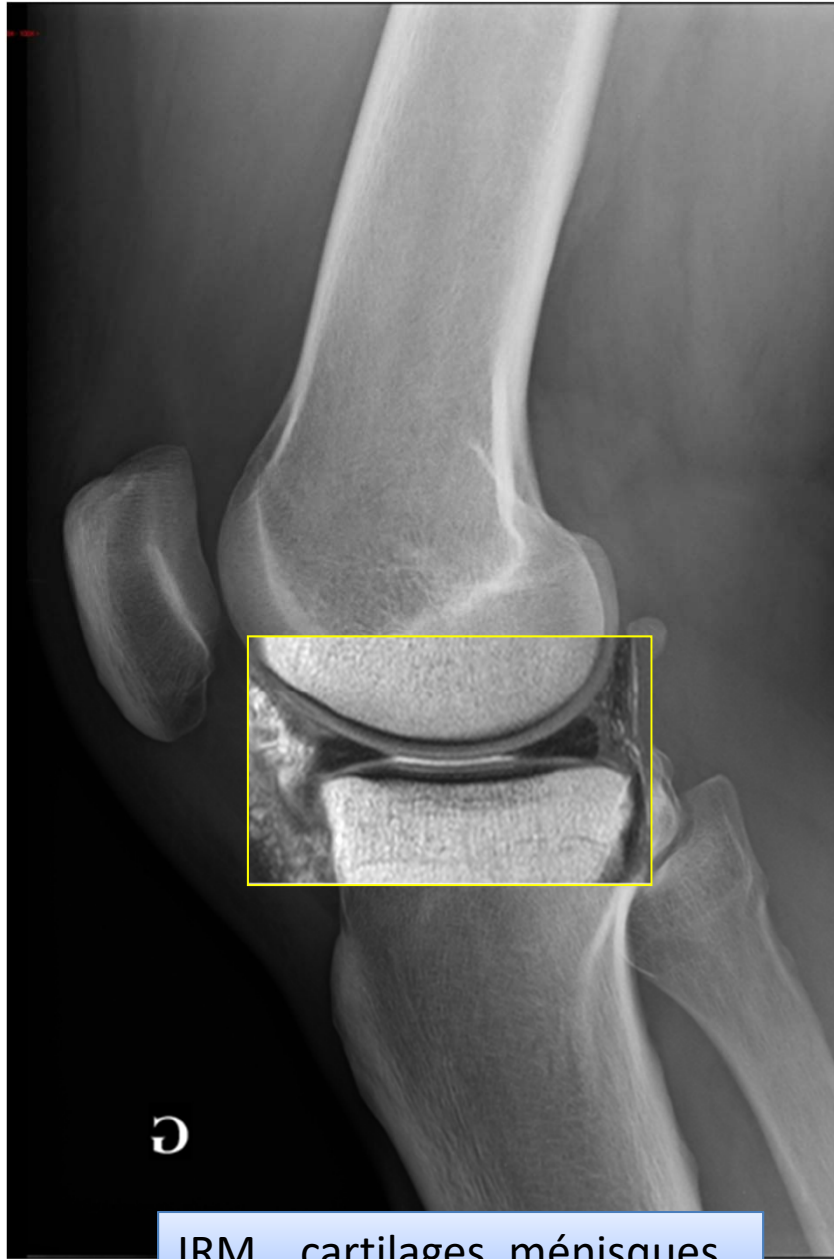
	RX simple	US	(arthro) CT	IRM
OS cortical	+	-	+	-+
Os spongieux	-	-	+-=	++
Cartilages	-	-	++	+
Tendons- ligaments	-	+-	+-	+
Ménisques	-	+-	+	+



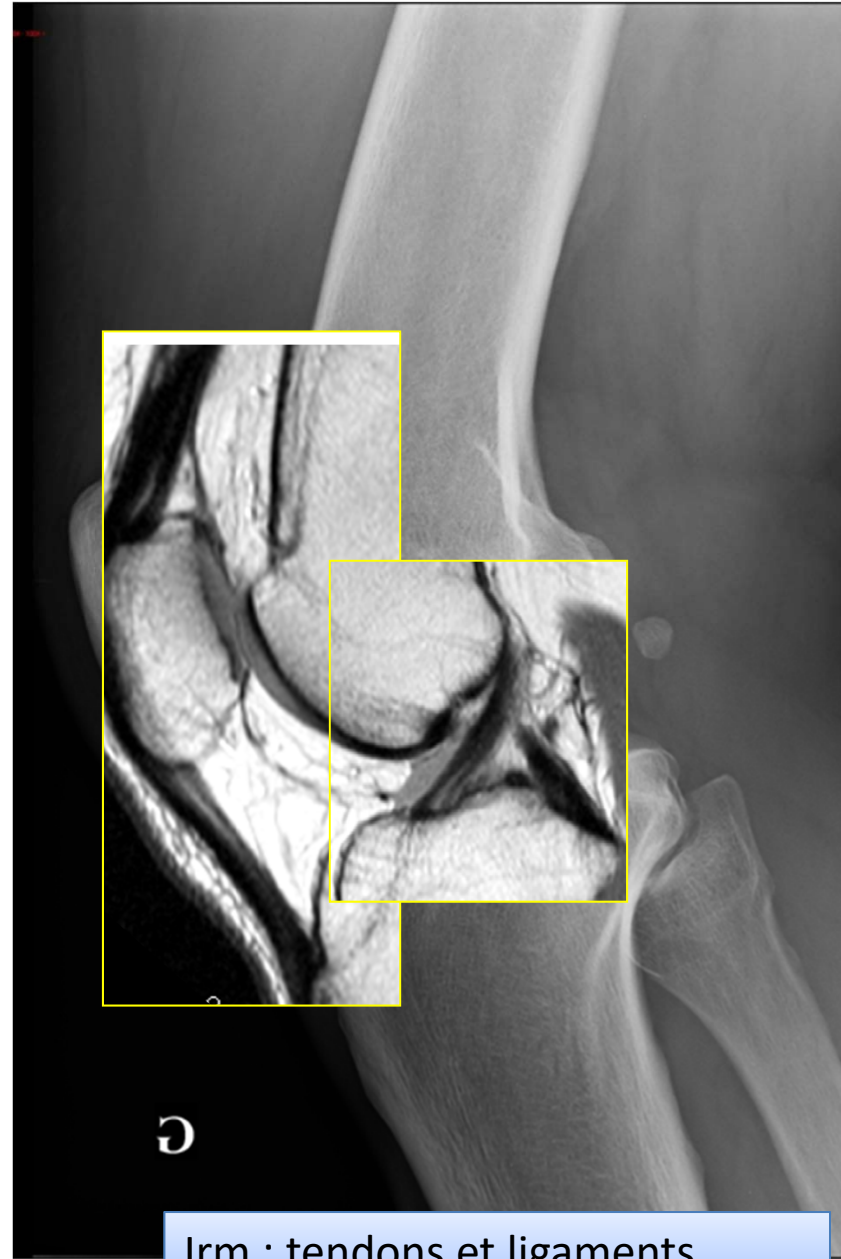
RX : os    US : tendon



CT : os et cartilage



IRM cartilages, ménisques



Irm : tendons et ligaments