

Articulações anatomia e fisiologia

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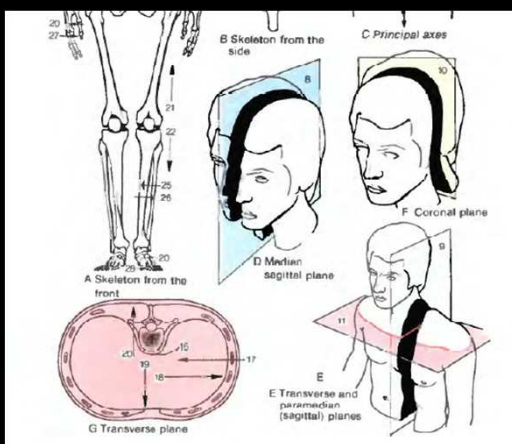
ARTICULAÇÃO:

=JUNTA/JUNTURA

Conexão entre quaisquer partes rígidas componentes do esqueleto, sejam ossos ou cartilagens

Latim – artículu

Grego – arthron – artrologia, artropatia, artrose, artrodese



Juntas e articulações ARTROLOGIA

Classificação de acordo com o grau de mobilidade

Imóveis - Fibrosas = Sinartroses:

- Ossos unidos firmemente por tecido conjuntivo fibroso
- Tipos: suturas cranianas, sinostoses, sindesmoses (T_F)

Movimentos limitados: Cartilagíneas = Anfiartroses

- Ossos unidos por cartilagem
- Tipos: síncondroses e sínfises (pubis, costo-esternal)

– Sinoviais = Diartroses:

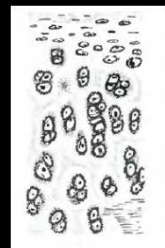
- Movimentação livre, limitado por outras estruturas
- Esferóide, gínglimo, plana, elipsóide
- Ex.: ombro, joelho, cotovelo...

Cartilagem

Tecido conectivo resistente e elástico
Células (condroblasto) em lacunas,
Matriz intercelular gelatinóide e firme
Matriz: fibras colágeno / mucopolissacarídeos
A cartilagem adulta não tem nervos e em geral sem vasos

Cartilagem hialina

- Aparência cristalina
- maioria das cartilagens articulares, cartilagens de crescimento, cartilagens costais, da traquéia, dos brônquios, grande parte das cartilagens do nariz e da laringe



Fibrocartilagem

- ▣ feixes de fibras colágenas são os constituintes principais
- ▣ quantidade de matriz é menor
- ▣ certas articulações cartilágneas, discos articulares



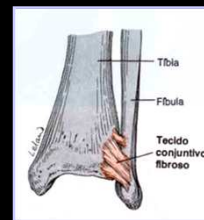
Tipos de articulação:

- Fibrosas: suturas e sindesmoses
- Cartilágneas: cartilagem hialina / sincondrose, fibrocartilágnea/sínfise
- Sinoviais

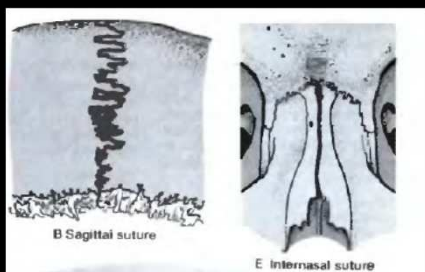
Articulação fibrosa:

- Ossos unidos por tecido fibroso
- Pequeno ou nenhum movimento

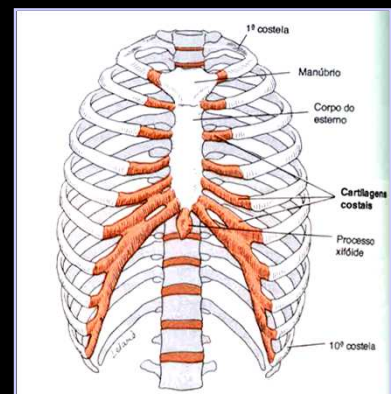
Fibrosa : sindesmose

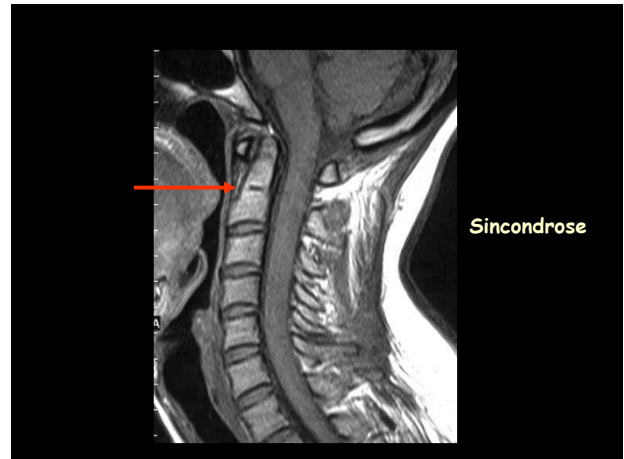
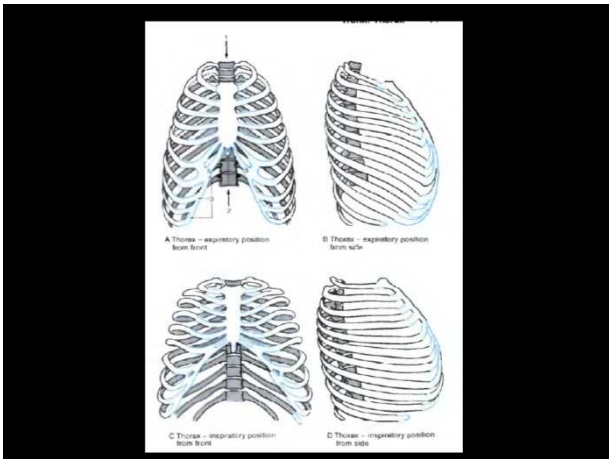


Fibrosa : sutura

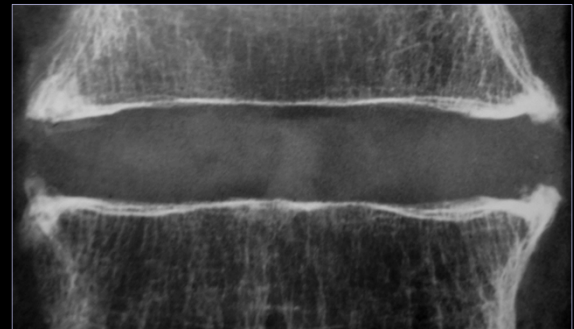
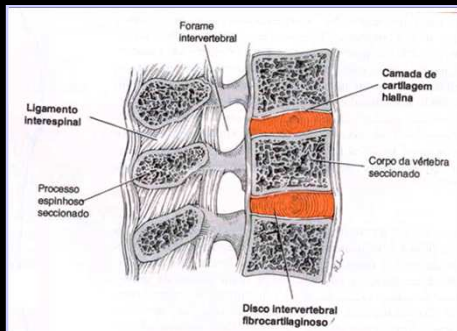


Cartilágnea =
sincondrose

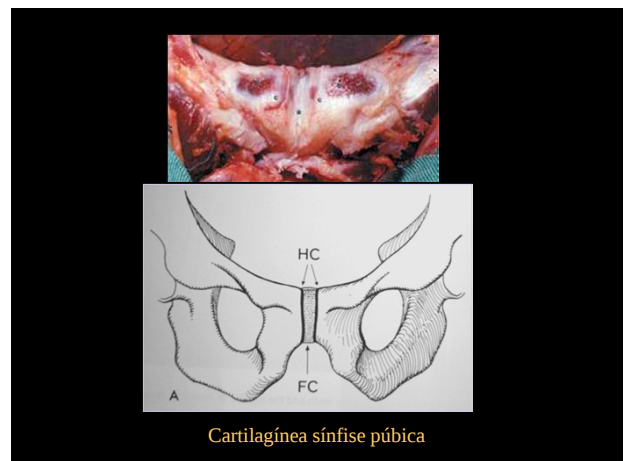
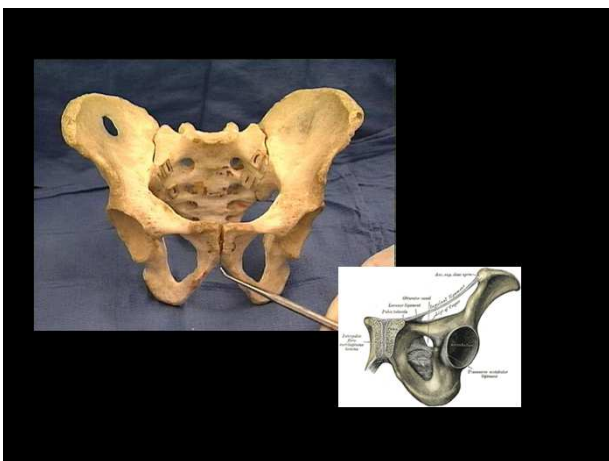




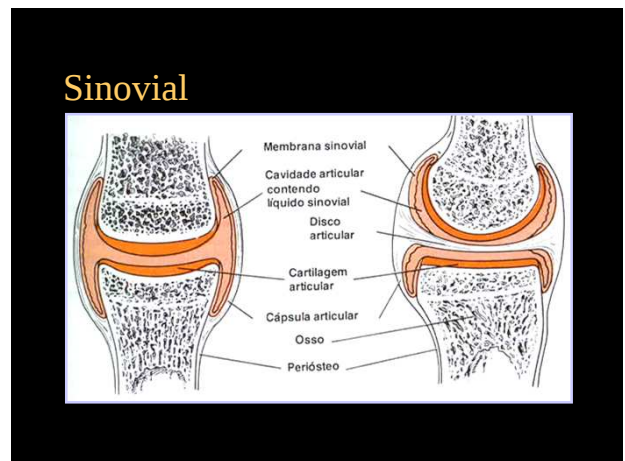
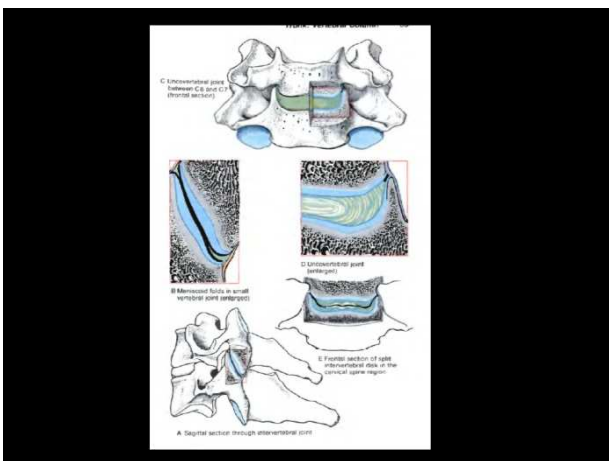
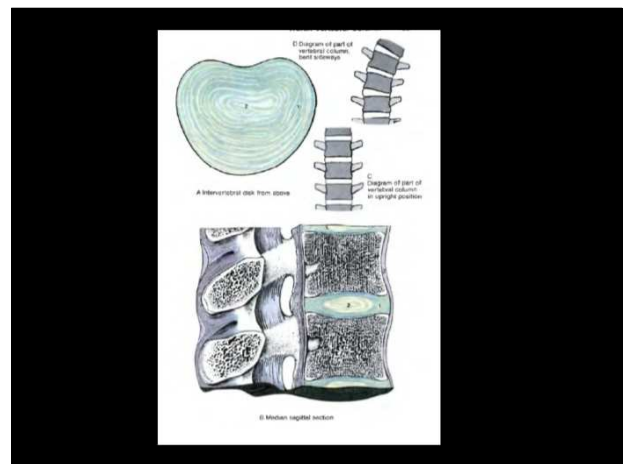
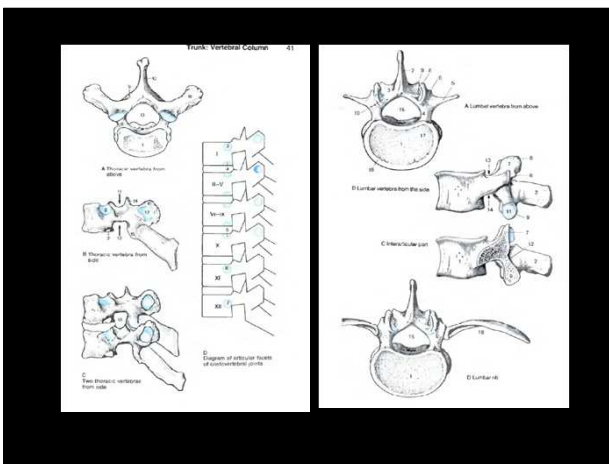
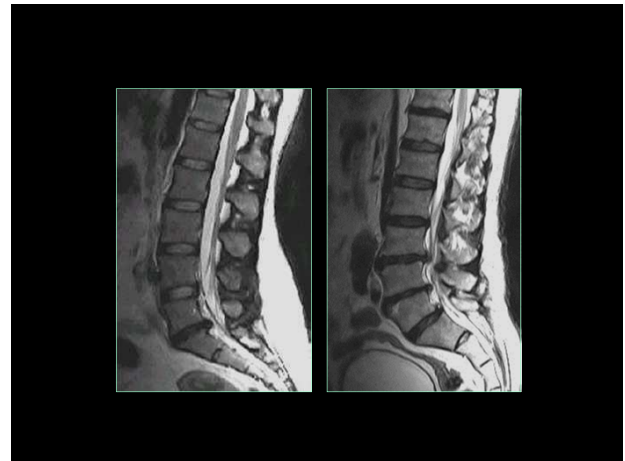
Cartilaginosa : sínfise

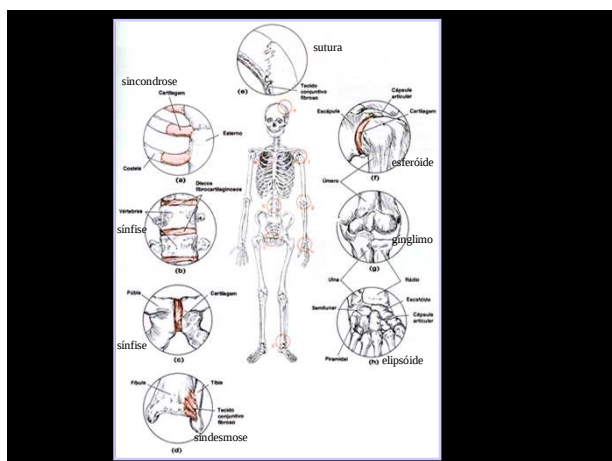
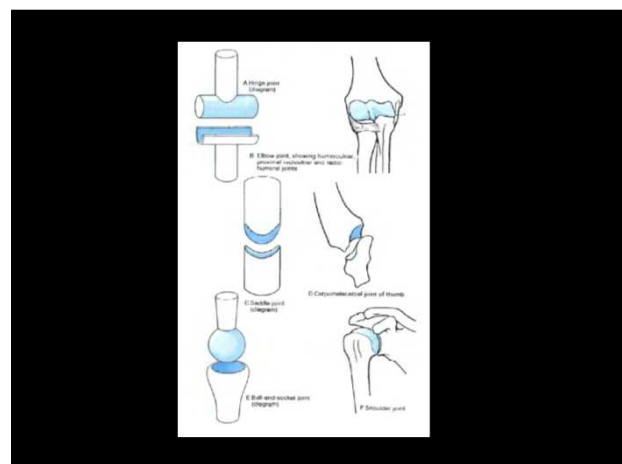
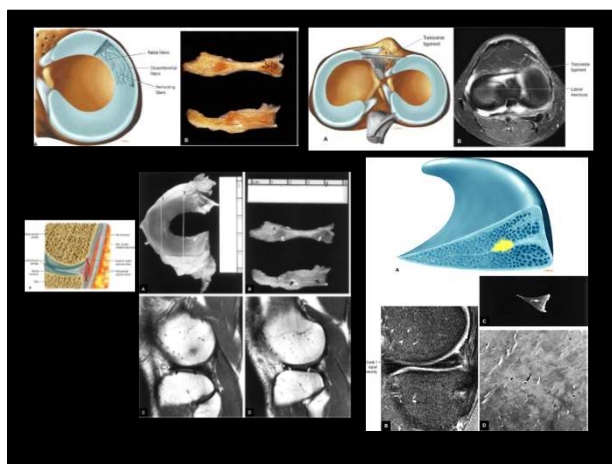
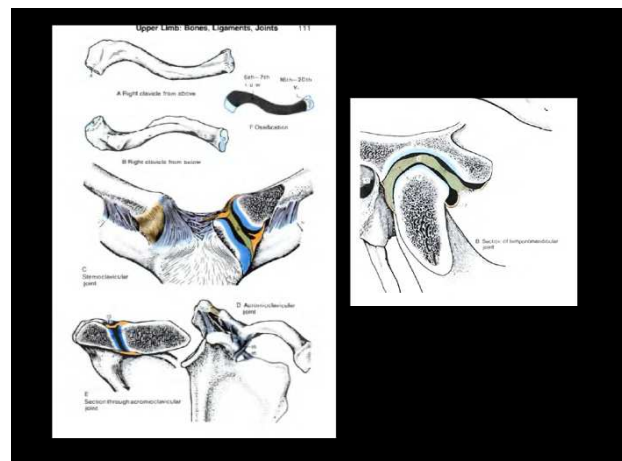
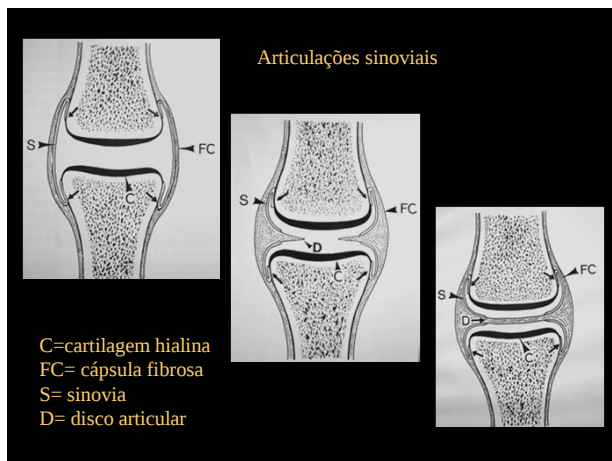


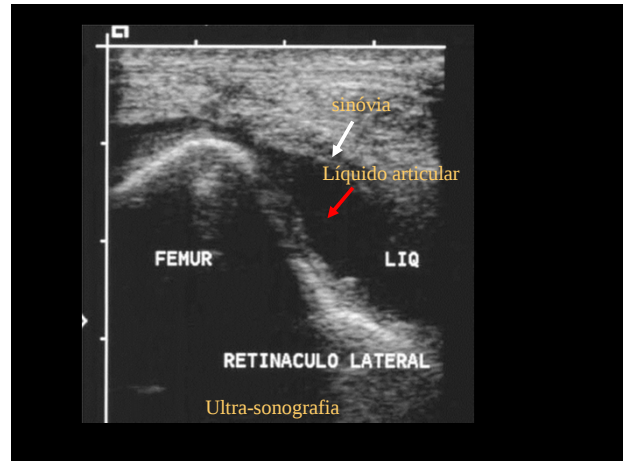
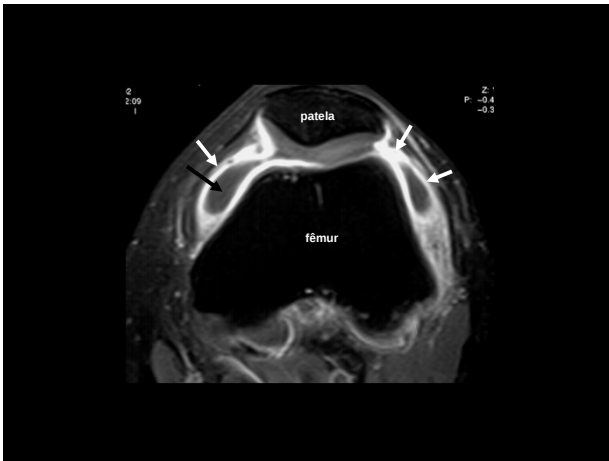
Radiografia disco intervertebral cadáver



Cartilaginosa sínfise púbica







Cartilagem articular
Cartilagem hialina

Colágeno-disposição espacial altamente ordenada

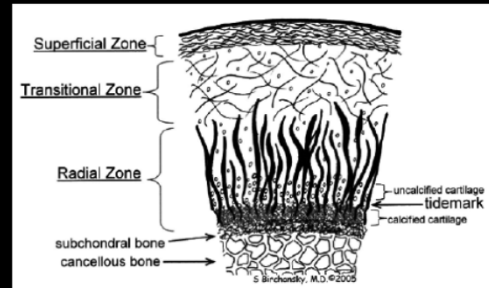
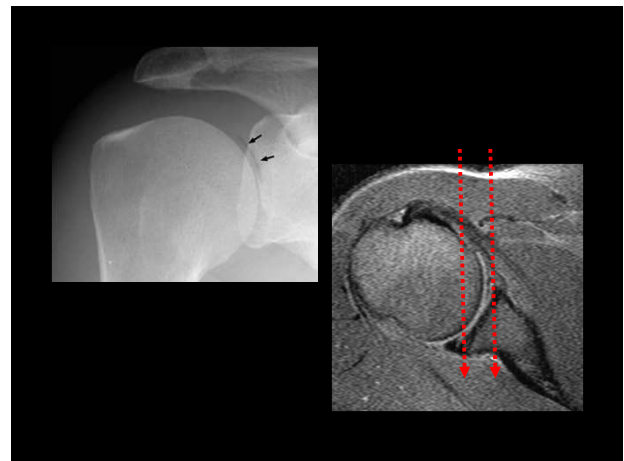
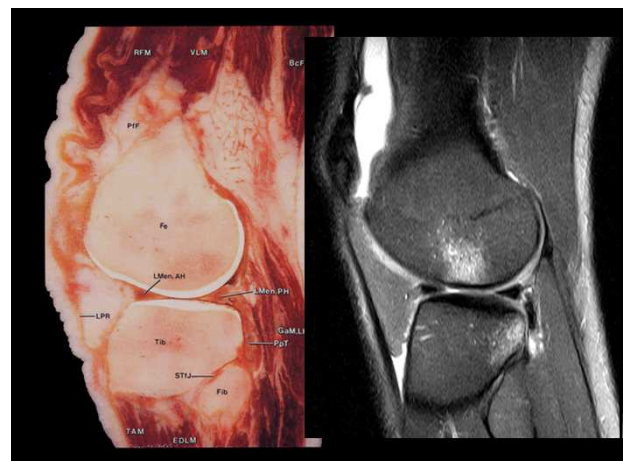
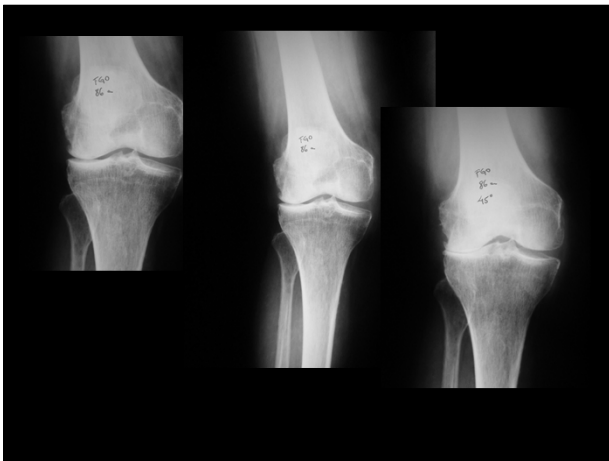
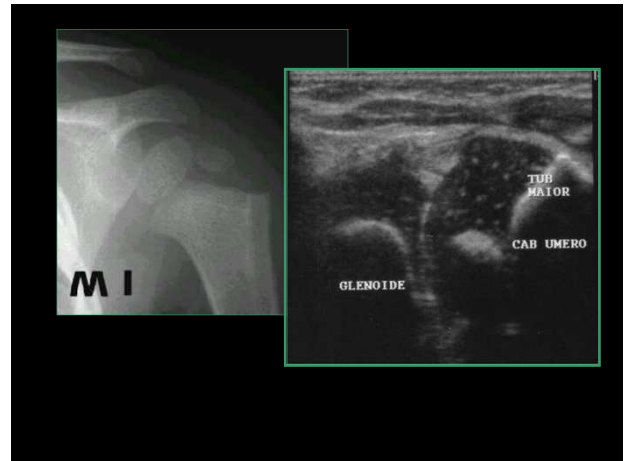
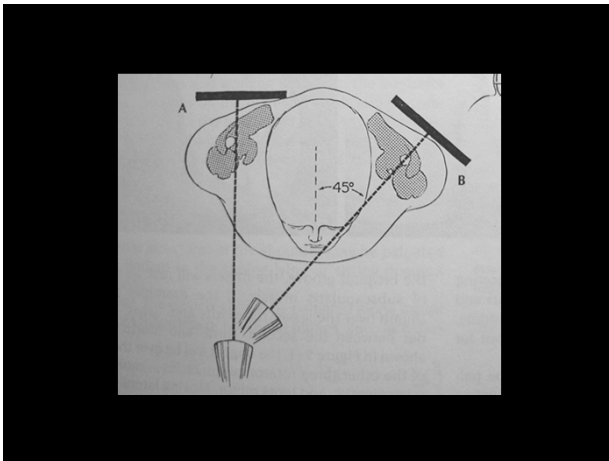
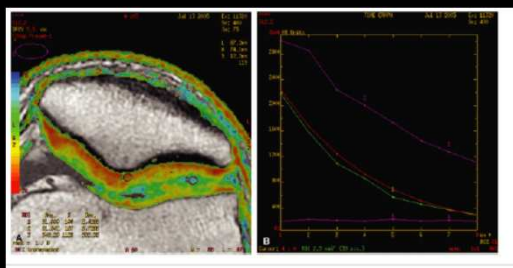
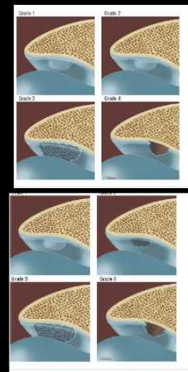
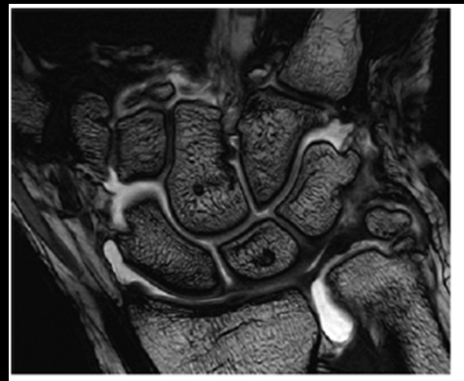
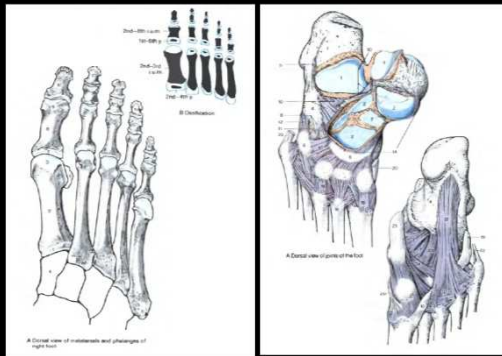


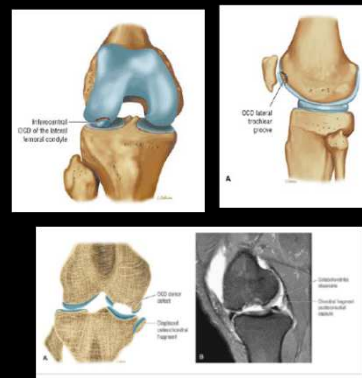
FIGURE 7.2 • Schematic diagram of cartilage zonal histology.







Mapeamento paramétrico valores T2



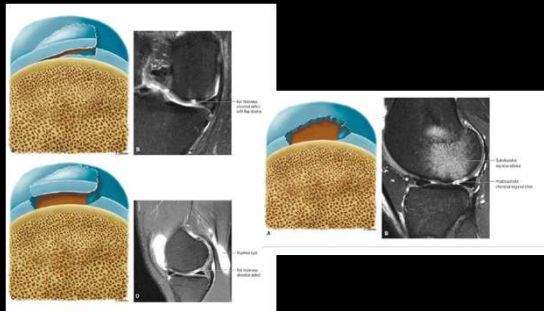


FIGURE 1.20 • Clinical examples of T2 mapping at 3 T. Color map showing T2 values from 25 msec in red to 75 msec in blue. (A, B) Osteoarthritis (arrow) is not visible on the conventional T2 image (A). (C, D) Autologous osteochondral implant (mosaicplasty) of the medial femoral condyle with mild prolongation of T2 values. [Courtesy H.G. Potter, NISS, NY]

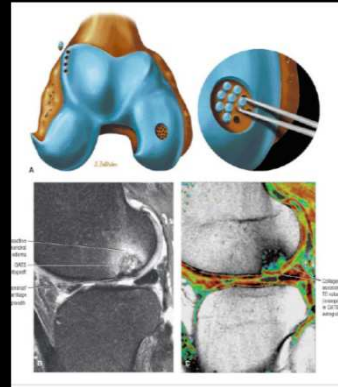
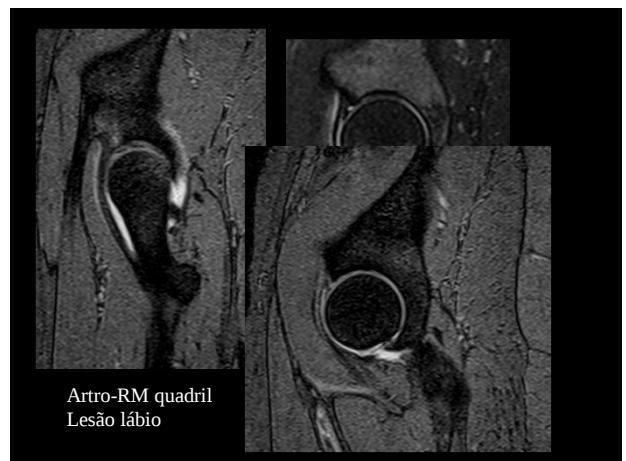
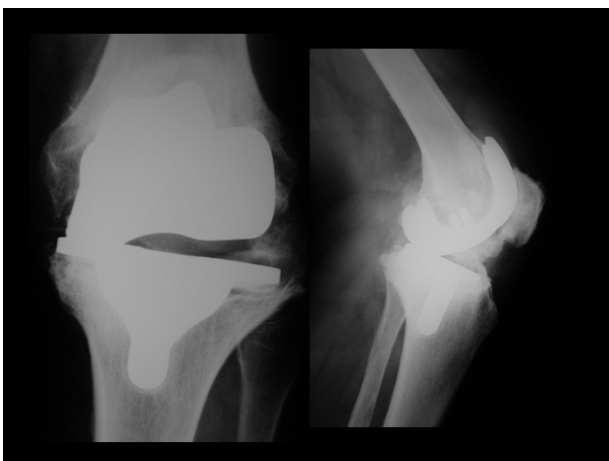


FIGURE 1.21 • dGEMRIC T1 maps at 1 T. (A) Asymptomatic volunteer (in-plane resolution $450 \mu \times 450 \mu$). (B) Patient post-autologous chondrocyte transplantation (in-plane resolution $570 \mu \times 570 \mu$). The graft is indicated with an arrow.



Cápsula articular

Feixes de fibras colágenas disposição irregular

Ligamentos

Feixes de fibras colágenas disposição regular

Sensibilidade-propriocepção

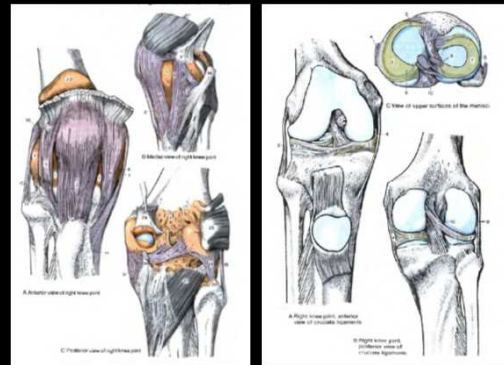
Função mecânica

Ajudam a estabilizar a articulação

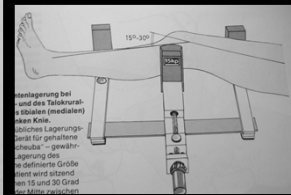
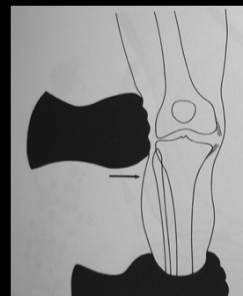
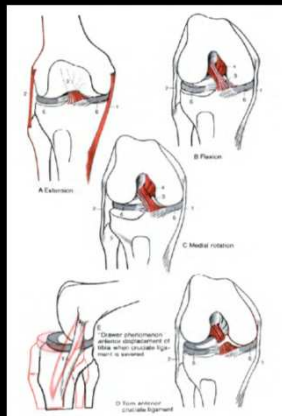
✓Espessamento da cápsula articular

✓Intra-articular

✓Extra-articular

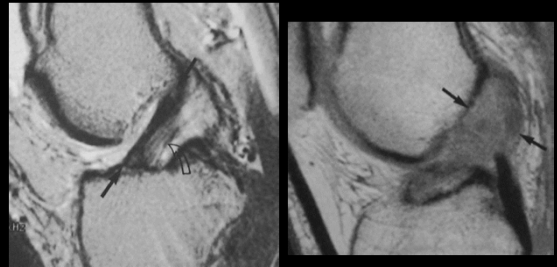


Ligamentos extrínsecos e intrínsecos no joelho

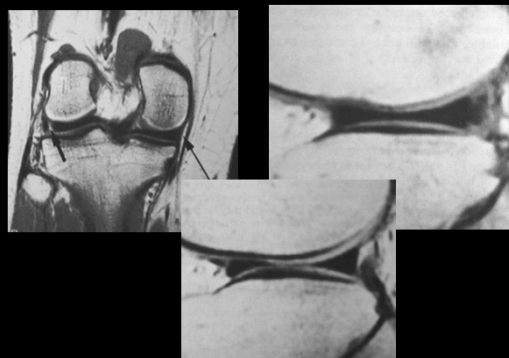


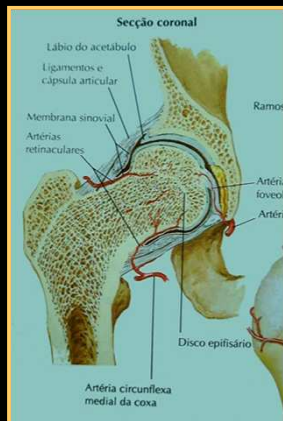


Ligamento cruzado anterior



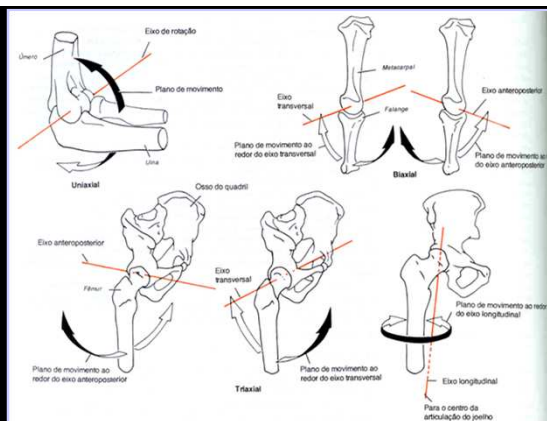
Fibrocartilagem RM joelho meniscos





Tipos de movimento

Movimentos ativos
Movimentos passivos



Articulação sinovial – movimentos

Movimentos da articulação sinovial

- Extensão x flexão
- Dorsoflexão x flexão plantar
- Pronação x supinação
- Adução x abdução
- Rotação medial x lateral / circundução
- Eversão x inversão
- Elevação x depressão
- Retração x protração

