

Osteoarthritis of the hip

Aseptic necrosis of the femoral head

Replacement of the hip joint

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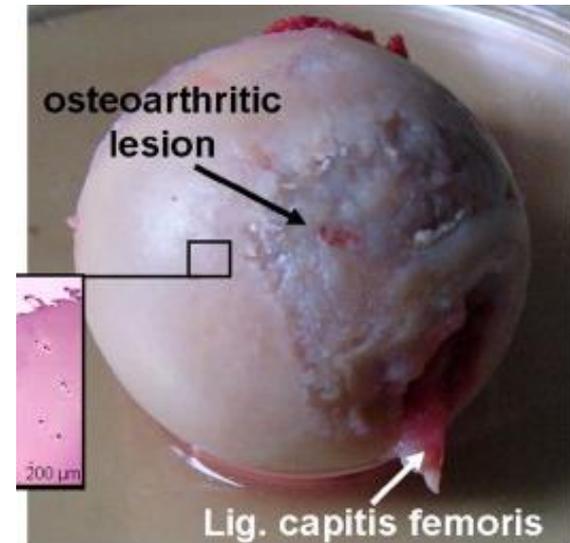
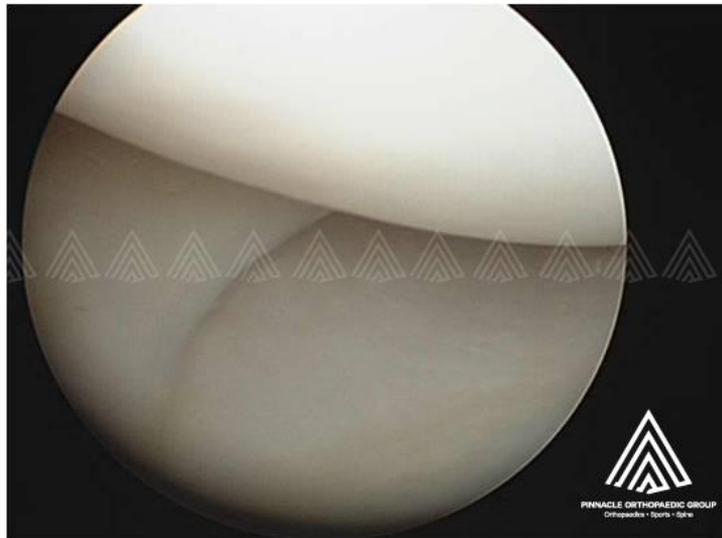
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Osteoarthritis –in general

- Changes in the constitution of joint cartilage
- Decreased amount of water, proteglycans, collagen type II
- Consecutive synovitis, osteophyte formation



Osteoarthritis of the hip – in general

- Prevalence: 15-27% (!!) at the age 65-74 years with radiological signs
- 6-9 %: radiologically identified osteoarthritis with symptoms
- ~12000 hip replacements in Hungary/year
- 2nd most common affected joint

Osteoarthritis of the hip – etiology

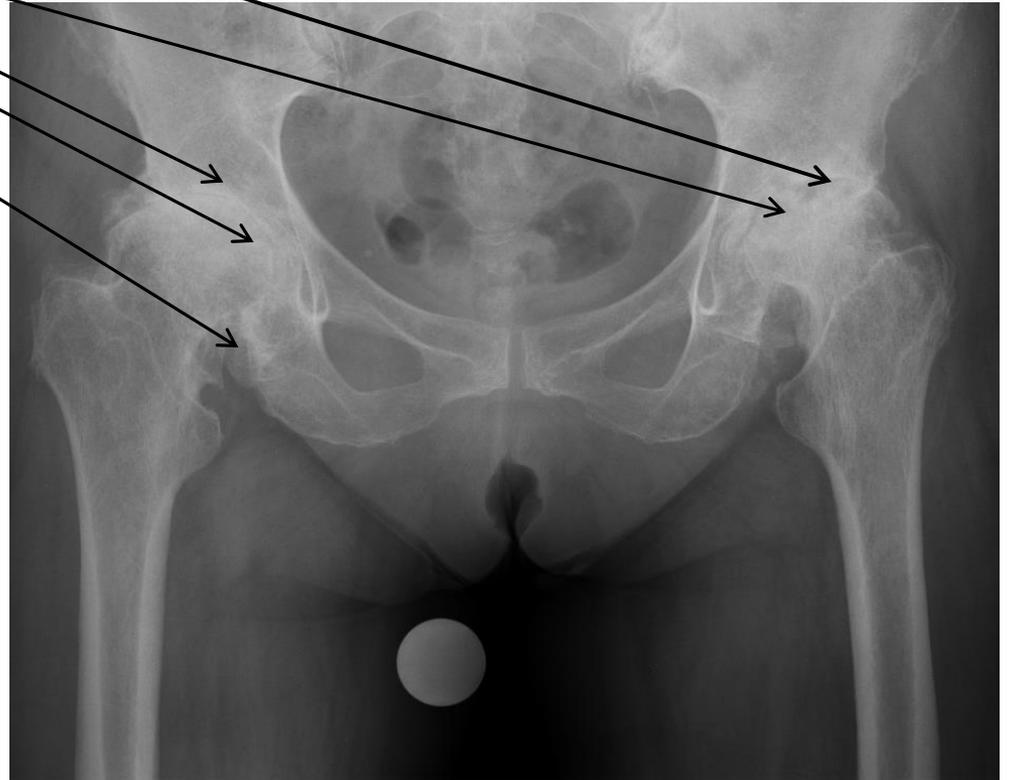
Primary	Secondary
- Unknown origin	- Known origin
- Onset at elder age	- Onset can be at younger age
- Degenerative changes	- Most common etiology (prearthrotic changes):
	- DDH
	- variance of the collodiaphyseal angle (coxa valga, coxa vara)
	- diseases that affect hip joint in childhood (Perthes, slipped capital femoral epiphysis)
	- acetabular protrusion
	- aseptic necrosis of the femoral head
	- inflammatory diseases (RA, JRA, Bechterew, Crohn)
	- posttraumatic disorders
	- osteomalatia, osteoporosis, Paget's disease
	- arthropathies (gout, haemophilia), tumours

Osteoarthritis - symptoms

- Pain – in a milder case only at the onset of motion, then constantly
- Decreased movement (internal rotation, extension, abduction)
- Limping (pain and limb length discrepancy, Trendelenburg sign)

Osteoarthritis - radiological signs

- Joint space narrowing
- Subchondral cysts
- Subchondral sclerosis
- Incongruent joint surface
- Osteophyte formation



Osteoarthritis - treatment

- Treatment of prearthrotic changes (conservative and operative)
- NSAID, physiotherapy, extension, chondroprotective drugs
- Operative treatment - hip replacement

Aseptic necrosis of the femoral head

- Prearthrotic state
- Vascular origin
- Etiology: - posttraumatic
 - alcoholism
 - constant steroid therapy
 - autoimmun diseases (SLE, rheumatoid arthritis)
 - after kidney transplantation
 - sickle cell anaemia
 - caisson disease
 - metabolic diseases (gout, Gaucher's disease, hyperlipidaemia)
 - after irradiation
 - idiopathic

Aseptic necrosis of the femoral head

- Mostly occurs in younger males
- Often bilateral (30-70%)
- Occurs on the lateral and anterior surface of the femoral head
- Might start with pain around knee joint
- Alcoholism – most common etiology
- Recurrent synovitis
- Decreased movements (extension)

Aseptic necrosis of the femoral head

- Ficat's classification:
- Ficat 0: „silent hip”
- Ficat I: symptoms and positive MR scan



- Ficat II: subchondral triangle shaped necrosis



- Ficat III: joint surface of the femoral head collapses
- Ficat IV: secondary osteoarthritis

Aseptic necrosis of the femoral head - treatment

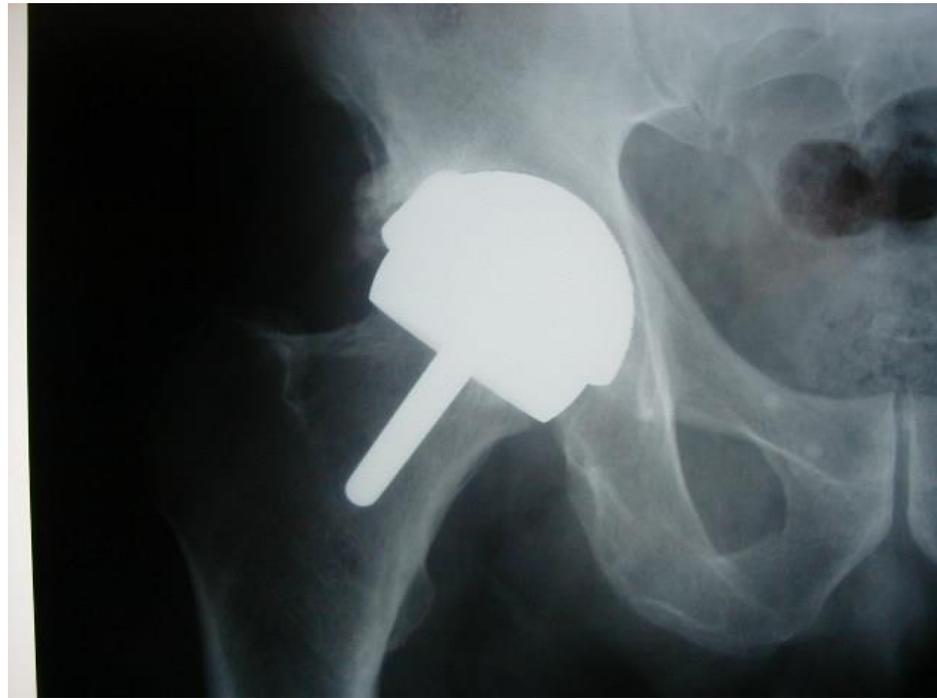
- Prevention!
- NSAID, physiotherapy
- Ficat I-II: core decompression
- Ficat II-III: bone graft transplantation or flexion osteotomy/hip replacement
- Ficat IV: total hip replacement

Aseptic necrosis of the femoral head - treatment



Hip replacement

- Hip resurfacing
- Common early complications – aseptic loosening



Hip replacement

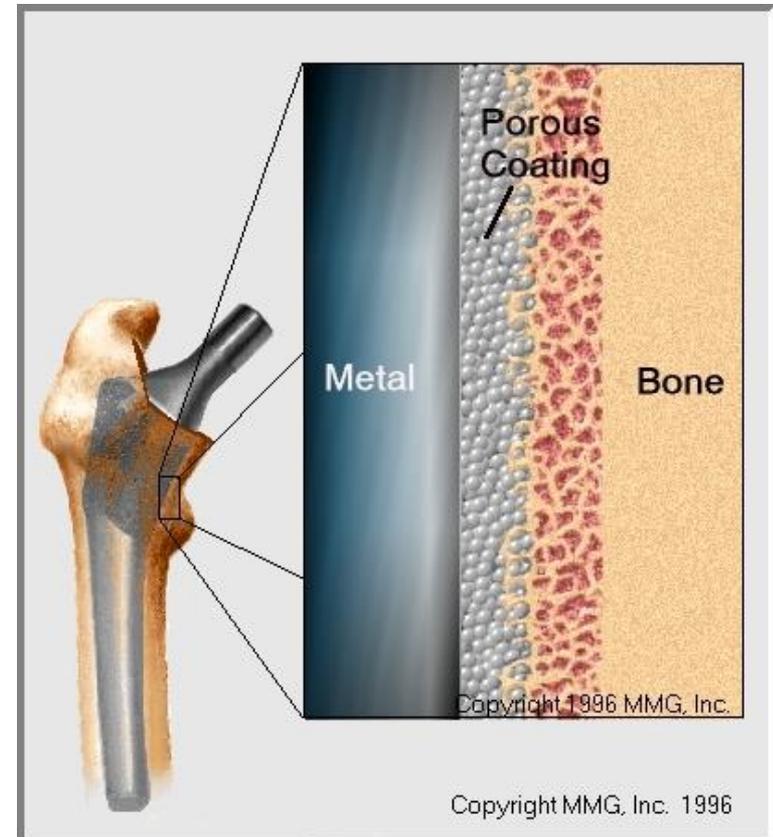
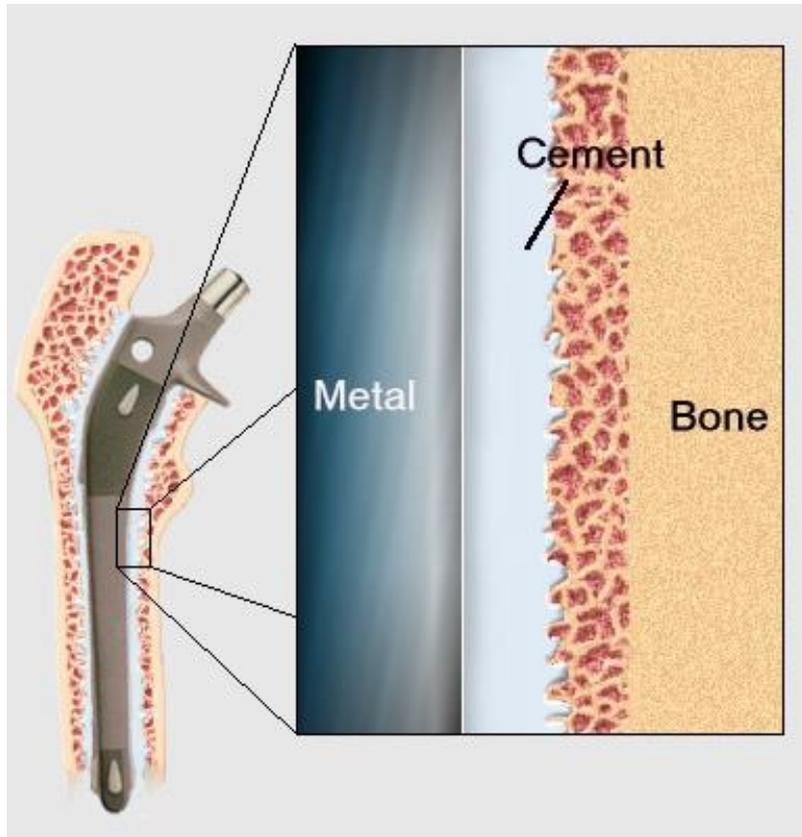
- Hemiarthroplasty – cervicocapital prosthesis
- At older age with intact acetabulum
- Mostly used by old patients after femoral neck fracture



Hip replacement

- Total hip replacement
- Cemented prosthesis
- Cementless prosthesis (primary „press fit” and secondary stability)
- Hybrid prosthesis

Hip replacement



Hip replacement

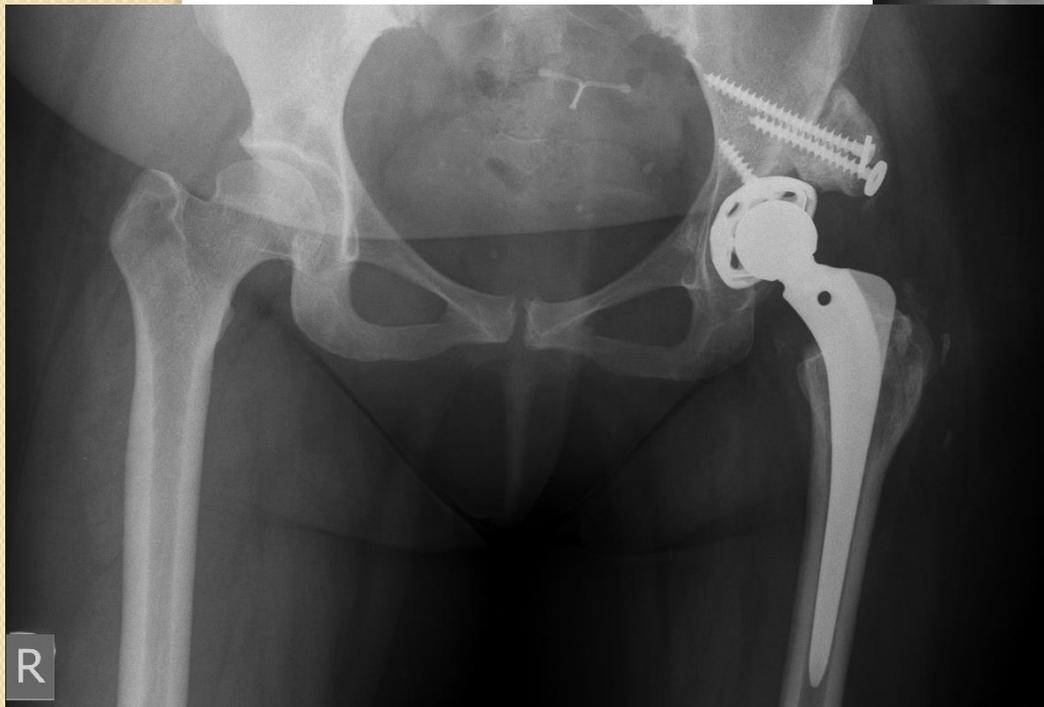
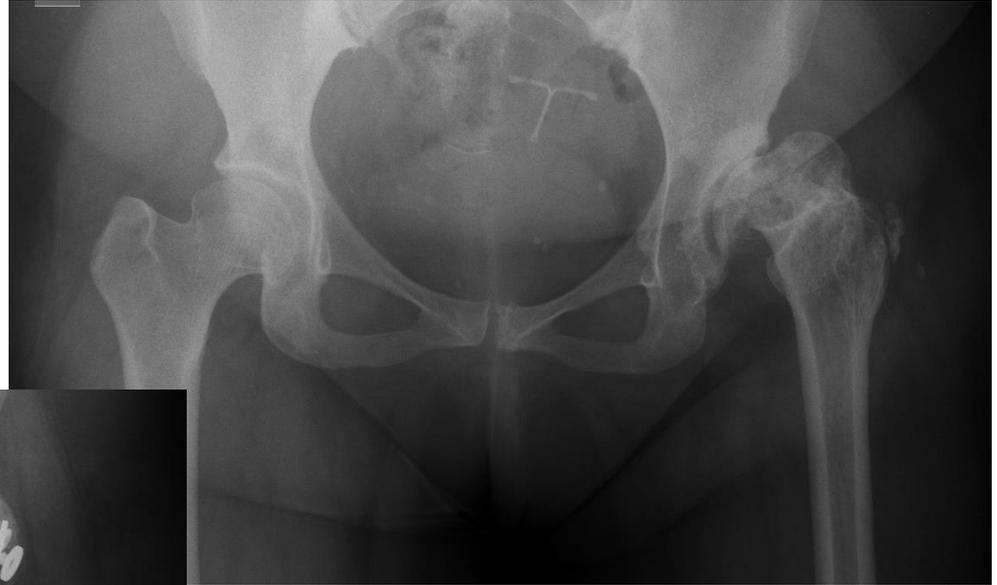
- Cementless



Cemented



Secondary osteoarthritis



Hip replacement

- Complications
- General: deep vein thrombosis, wound infection, pneumonia, decubitus, urine infection
- Specific:
- Dislocation of the prosthesis
- Aseptic loosening
- Septic loosening
- Periprosthetic fracture

Hip replacement - complications





Thank you for your attention!