

Osteoarthritis

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Definition

- Degenerative disease affecting mainly large weight-bearing joints (commonly hips and knees).

- **Age:** usually old ages.

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Types of Osteoarthritis & causes

1. Primary osteoarthritis:

- It is of unknown cause.
- It affects the elderly.
- It occurs in a normal joint.

2. Secondary osteoarthritis:

- Occurs on top of an intra-articular or extra-articular bone diseases e.g congenital hip dysplasia, malunion of a fracture or bowing legs

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Pathoanatomy

articular cartilage

increased water content

synovium and capsule

early phase of OA

mild inflammatory changes in synovium

middle phase of OA

moderate inflammatory changes of synovium

synovium becomes hypervascular

late phases of OA

synovium becomes increasingly thick and vascular

bone

subchondral bone attempts to remodel forming lytic lesion with sclerotic edges

bone cysts form in late stages

osteophytes formation

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Symptoms

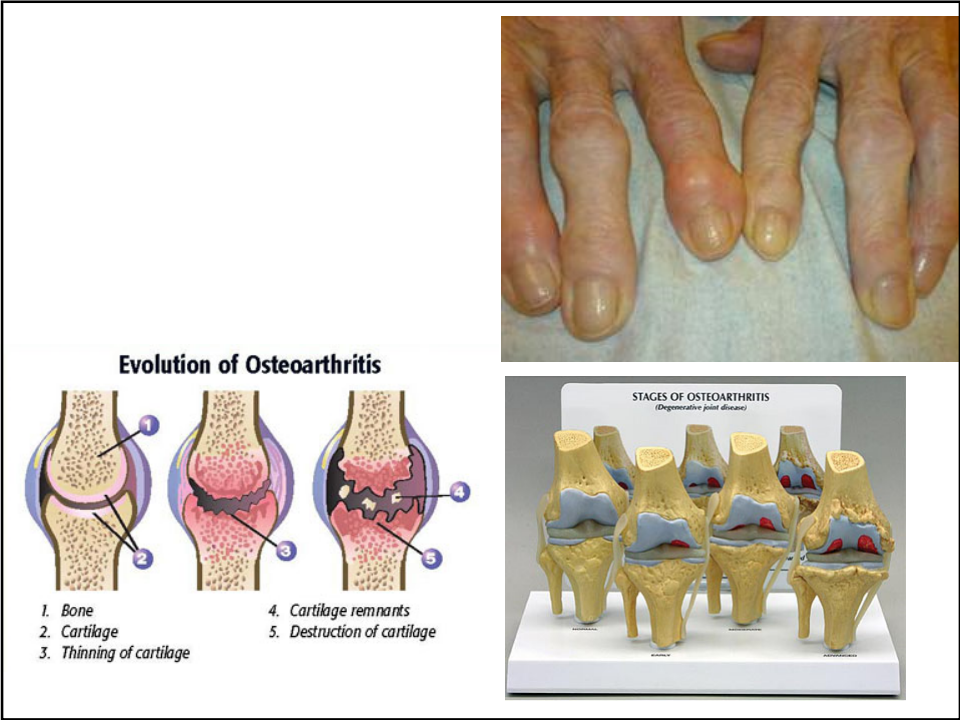
- **Pain and stiffness** in the joints are the most common symptoms. The pain is often worse after exercise.
- function-limiting knee pain
- effect on walking distances
- pain at night or rest
- range of motion
- lack of full extension (>5 degrees flexion contracture)
- lack of full flexion

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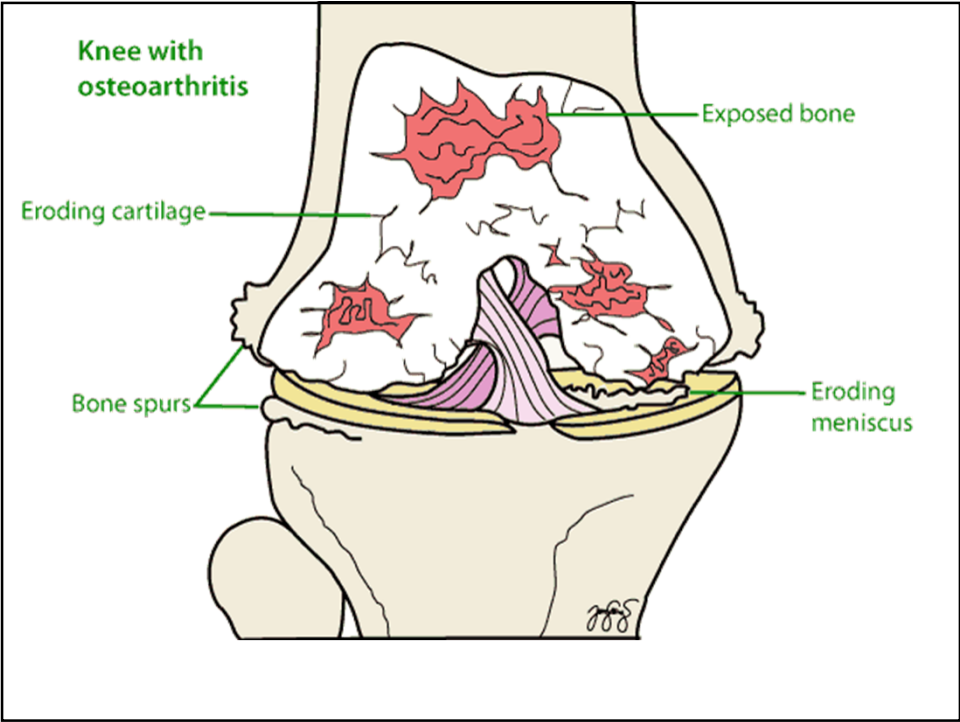
Signs

- Crepitus (cracking) sound during joint motion
- Joint swelling
- Painful movement
- Stiffness (limited range of motion)
- Tenderness over joint line

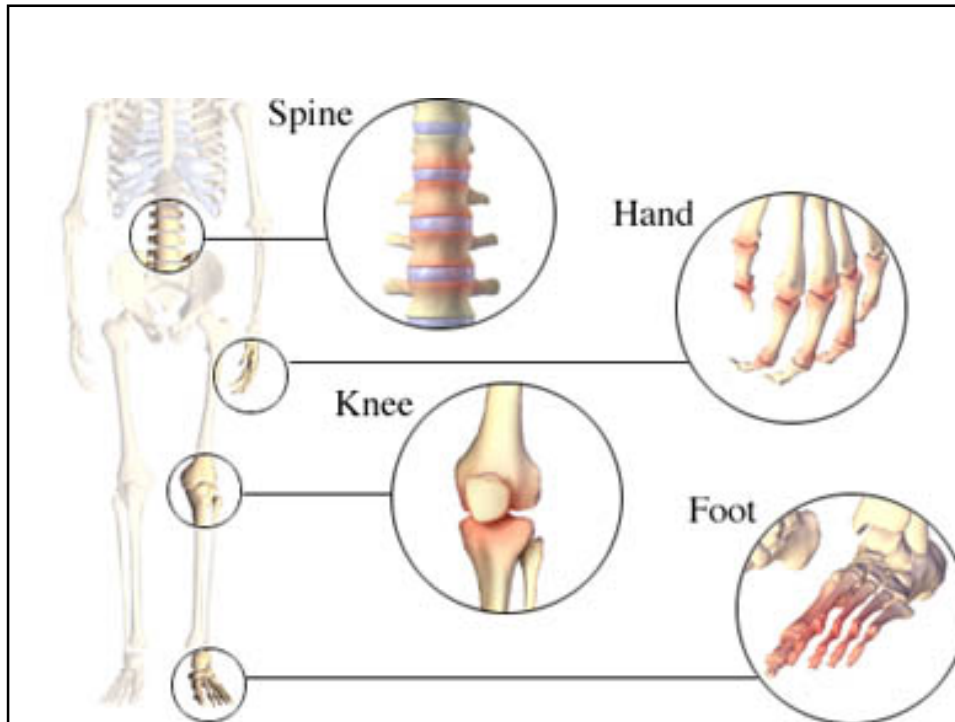
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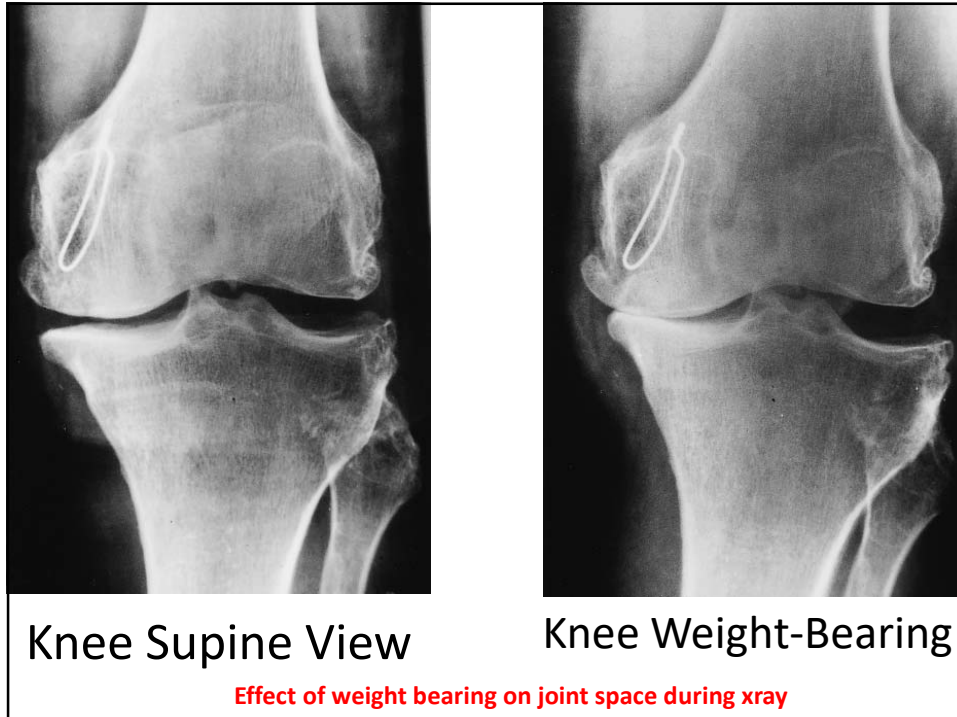


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Imaging

- weight-bearing views of affected joint
- joint space narrowing
- osteophytes
- subchondral sclerosis
- subchondral cysts
- Deformities

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Treatment

- Weight control
- Proper exercises
- Heat and cold therapy
- Pain medication
- Physiotherapy
- Injections into the joint
- Surgery

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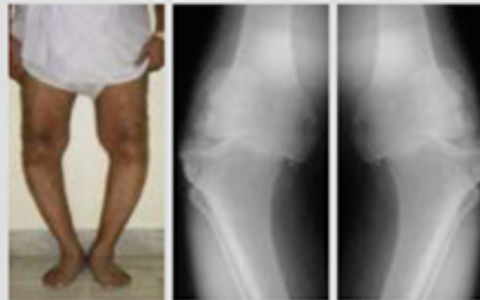
Surgery:
Total Hip & Knee Replacement

- Survival 15 years in 95 % of patients
- 10 % temporary problems:
 - DVT, PE, chest infection, UTI, wound infection
- 2% major problem:
 - Loosening, infection, instability

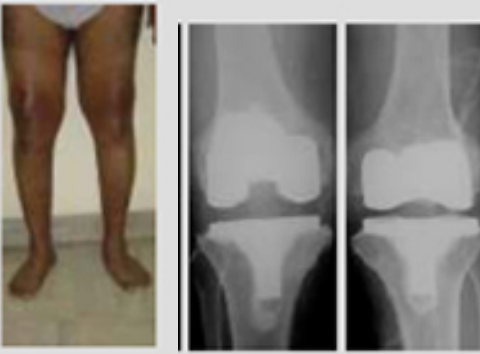
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Knee replacement for severe OA and deformities

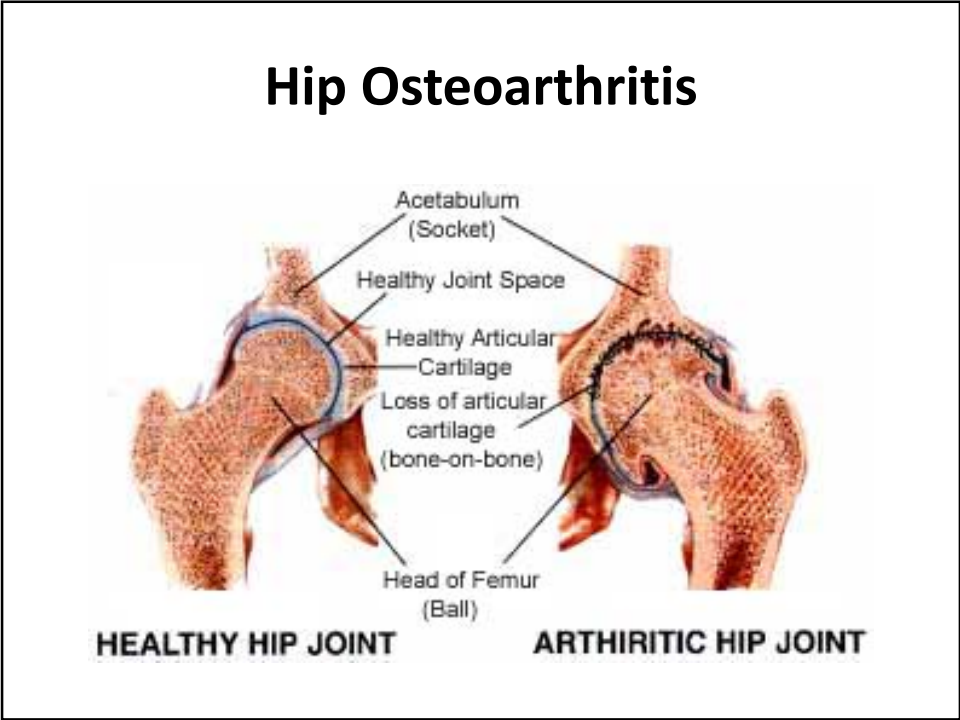
Before surgery



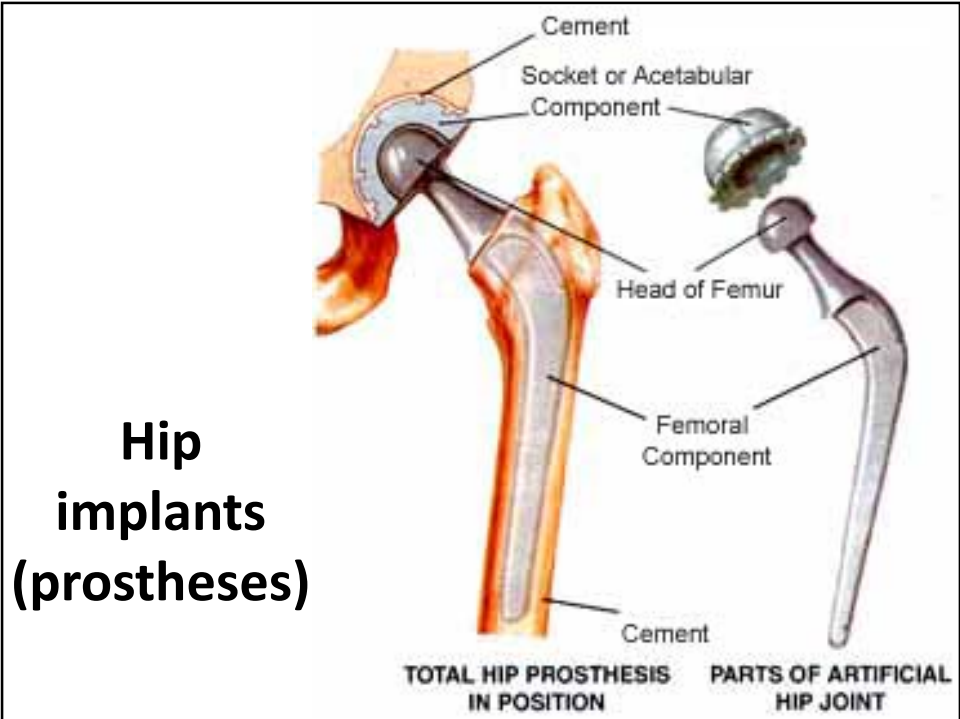
After surgery



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