

Mechanical joint degradation with degeneration of articular cartilage, peri-articular bone remodelling and inflammation.

## Risk Factors

- **Primary osteoarthritis** risk factors
  - Increasing age
  - Obesity
  - Family history
  - Female gender
- **Secondary osteoarthritis** causes
  - Pre-existing joint damage: trauma, RA, gout, spondyloarthropathy, septic arthritis, Paget's disease, avascular necrosis
  - Metabolic disease: chondrocalcinosis, haemochromatosis, acromegaly
  - Systemic disease: haemophilia (haemarthrosis), neuropathy, haemoglobinopathy

## Clinical features

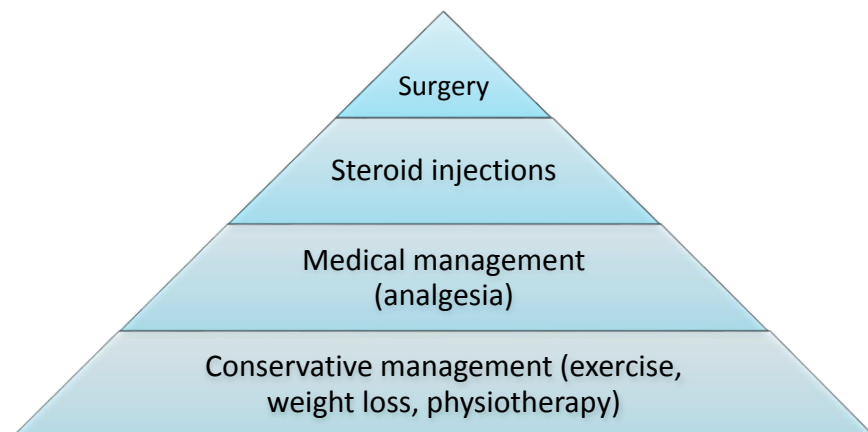
- Joint pain
  - Worse on exercise and relieved by rest
  - Morning pain <30mins
- Clinical examination
  - Crepitus
  - Pain on movement
  - Reduced range of movement
  - May be: bony swelling (osteophytes), joint instability, joint effusion
- Characteristic hand deformities: Heberden's nodes, Bouchard's nodes, squaring of carpometacarpal joint of thumb
- Commonly affected joints: knees, hips, interphalangeal joints of fingers, carpometacarpal joint of thumb

## Investigations

- X-Ray (see below)
- Bloods: FBC, CRP/ESR
  - Only useful for **ruling out** inflammatory and infectious causes
  - WCC and CRP **not** raised in osteoarthritis

## Management

- **Conservative:** exercise, physiotherapy, weight loss, walking aids, supportive footwear, local thermotherapy
- **Analgesia:**
  1. Paracetamol ± topical NSAIDs
  2. Codeine
  3. Oral NSAIDs (for flare ups)
- **Intra-articular steroid injections**
- **Joint replacement** aims to reduce pain and can also improve mobility





Classic features of osteoarthritis on X-Ray (**LOSS**):

- **L**oss of joint space
- **O**steophytes
- **S**ubchondral sclerosis
- **S**ubchondral bone cysts



**Bouchard's nodes:** bony swelling of proximal interphalangeal joints

**Heberden's nodes:** bony swelling of distal interphalangeal joints