


OSTEOARTHRITIS

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RISK FACTORS:

- ▶ AGE
- ▶ GENDER
- ▶ JOINT INJURY (ruptured anterior cruciate ligament or torn meniscus) 
- ▶ OBESITY

PATHOGENESIS:

Osteoarthritis is a disease in which most or all of joint structures are affected by pathology.

- ▶ Thin layer of hyaline articular cartilage interposed between two articular bones is targeting site
- ▶ Degeneration of fibrocartilagenous structures like meniscus, sclerosis and growth of osteophytes.

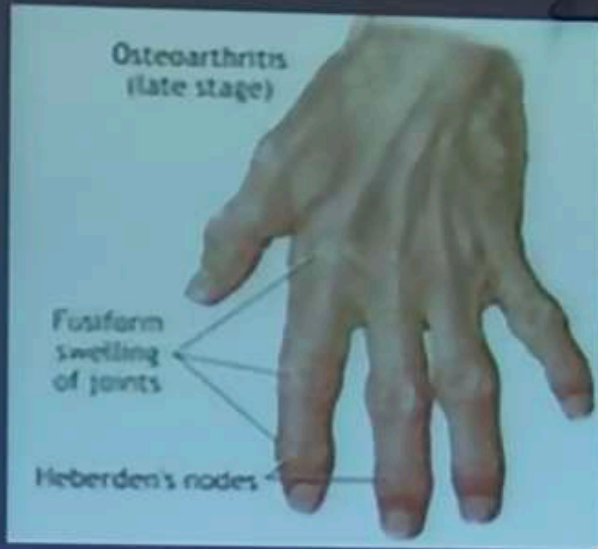
PREVENTION:

- ▶ No proven strategy
- ▶ Framingham osteoarthritis study shows that weight reduction of 5 kg or more reduce risk of OA about half. 4
- ▶ Prevention of injuries

SIGNS AND SYMPTOMS:

- ▶ Joint pain that increase with activity
- ▶ Morning stiffness brief and self limited
- ▶ Crepitus
- ▶ Bony enlargement at the joint margin
- ▶ Tenderness to palpation over the joint

Osteoarthritis



DIAGNOSIS:

- ▶ ESR ----NORMAL
- ▶ SEROLOGY-----VE



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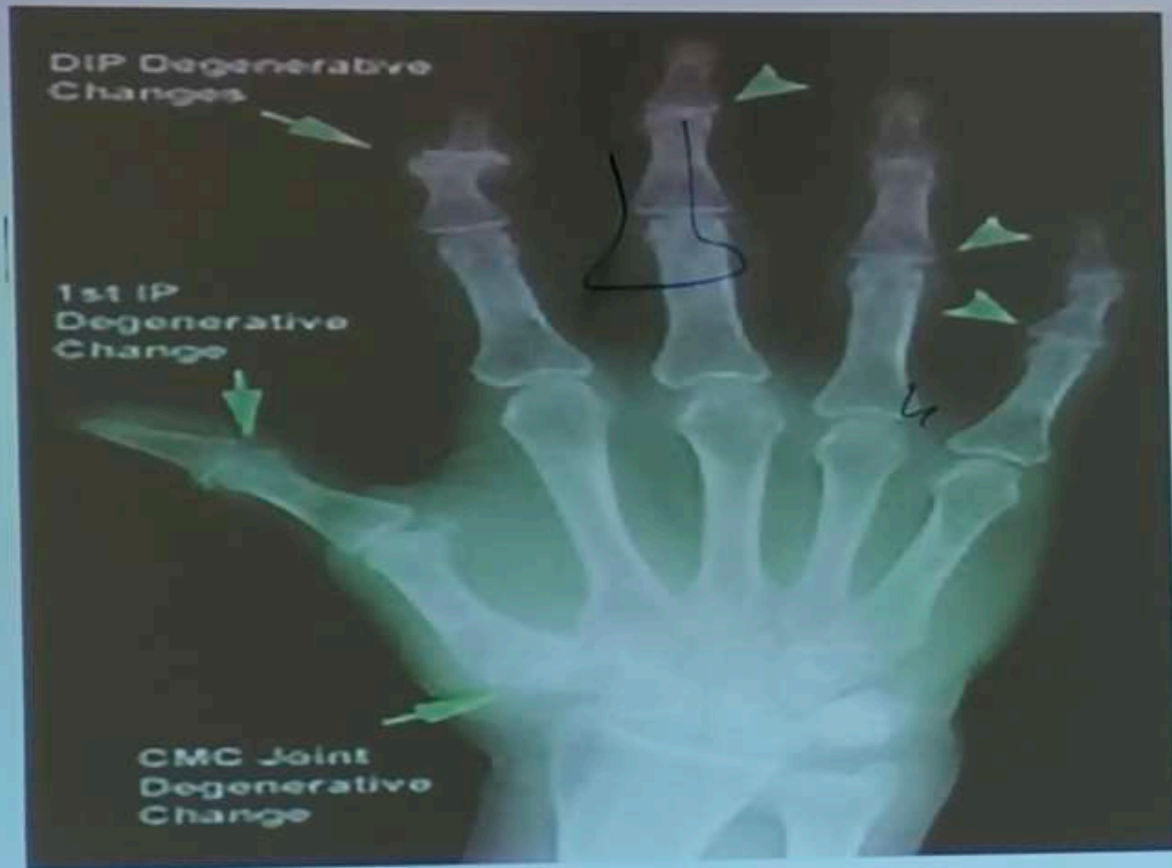
IMAGING STUDIES:

- ▶ Joint space narrowing
- ▶ Osteophytes
- ▶ Subchondral cysts
- ▶ Bony sclerosis



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HAND OA:



KNEE OA:



Synovial Fluid Analysis

	NORMAL	Non-Inflammatory	Inflammatory	Septic	Hemorrhagic
Clarity	Transparent	Transparent	Translucent	Opaque	Bloody
Colour	Clear	Yellow	Yellow	Dirty/Yellow	Red
Viscosity	High	High	Low	Variable	Variable
WBC/mm ³	<200	200-2,000	2000-10,000 (up to 100,000)	>80,000	200-2,000
PMNs%	<25%	<25%	>50%	>75%	50-75%

Depending on the clinical scenario, synovial fluid is analysed for:

- Cell count and differential
- Crystals
- Culture and sensitivity (if septic arthritis suspected)
- Cytology (if malignancy suspected)

SPECIAL TESTS:

▶ ARTHROCENTESIS:

WBC count is less than 2000 cells/mcl

No crystals

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Treatment:

- ▶ Non pharmacological:
 - assistive devices
 - quadricep strengthening
 - aerobic exercises
 - fitted valgus braces 4
 - wedged insoles in shoes

COMPLICATIONS:

- ▶ Osteonecrosis
- ▶ Bleeding within joint
- ▶ Septic joint
- ▶ Ruptured ligaments and tendons



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