

\* OA  $\Rightarrow$  degenerative joint disease / **commonest form of arthritis**

Characterized by  $\rightarrow$  erosion of the articular cartilage  
 $\rightarrow$  Hypertrophy of bone at margins  
 $\rightarrow$  subchondral sclerosis  
 $\rightarrow$  Alterations of synovial membrane & joint capsule.

- Age: elderly  $> 50$

- F  $>$  M

- Affect: spine / Knee / Hip / PIP-DIP / <sup>Hand</sup> 1<sup>st</sup> MTP

Primary  $\leftarrow$  OA  $\rightarrow$  Secondary

- most common type

- No cause

- causes  $\rightarrow$  Metabolic  
 $\rightarrow$  Trauma  
 $\rightarrow$  anatomic factors  
 $\rightarrow$  inflammatory

\* Risk factors for OA  $\Rightarrow$

1] **Intrinsic** joint vulnerabilities

$\leftarrow$  previous damage  
 $\leftarrow$   $\uparrow$  bone density  
 $\leftarrow$  proprioception def.  
 $\leftarrow$  malalignment

2] **systemic** factors affecting joint

$\leftarrow$   $\uparrow$  age  
 $\leftarrow$  gender F  
 $\leftarrow$  genetics  
 $\leftarrow$  nutritional

3] **loading** factors

$\leftarrow$  obesity  
 $\leftarrow$  injurious physical activity

\* Cartilage is destructed  $\rightarrow$   $\uparrow$  bone proliferation  $\rightarrow$  formation of osteophytes

$\downarrow$   
joint space narrowing

\* Approach to the diagnosis

History

- M/C joints: **Asymmetrical** / hands, knees, hips, spine

- Hand OA  $\Rightarrow$  more common in **women with fam. history** of hand OA.

- symptoms :-

common symptom  $\Rightarrow$  joint pain, worse with (1) activity especially following period of rest (gelling phenomenon)

(A) joint swelling

(C) joint locking

(D) joint instability

(E) Morning stiffness (< 30 min)

(F) Night symptoms only in advanced OA

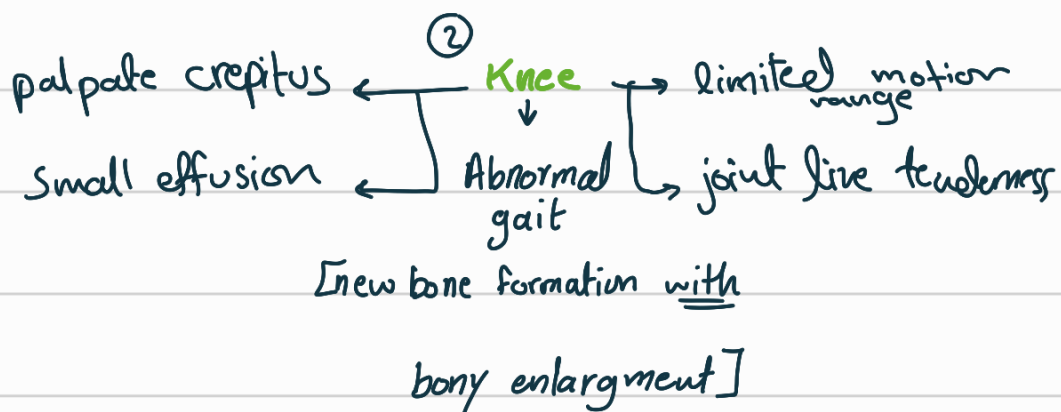
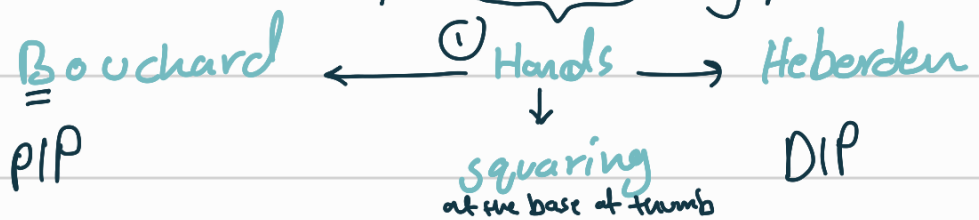
(G) limitation of daily activity

physical exam

✓ weight & BMI imp. for (knee OA, lesser degree Hip OA)

✓ limitation of range motion & pain

✓ swelling may be observed / bone deformity / malalignment



x-ray

▶ In moderate to advanced OA, to confirm the diagnosis => Imaging (not imp.)

- 1- Narrowing of joint space <- To see
- 2- Osteophyte formation

▶ Labs not required to make a diagnosis  
Inflammatory markers should be ordered to exclude [inflammatory arthritis].

### ▶ Treatment

- core treatment <- exercise, weight loss, education

- Mild - intermittent pain (No limitation) <- acetaminophen / low-dose Aspirin, intra-articular corticosteroids, Topical NSAIDs (NOT for hip)

- Frequent pain (limitation) <- intra-articular corticosteroid, NSAIDs (oral, topical), cane, Duloxetine

- Moderate - severe pain (night pain + limitation) <- NSAIDs (oral, topical), intra-articular corticosteroid, cane, Duloxetine, opioids if needed, refer to orthopedist