Lecture 2

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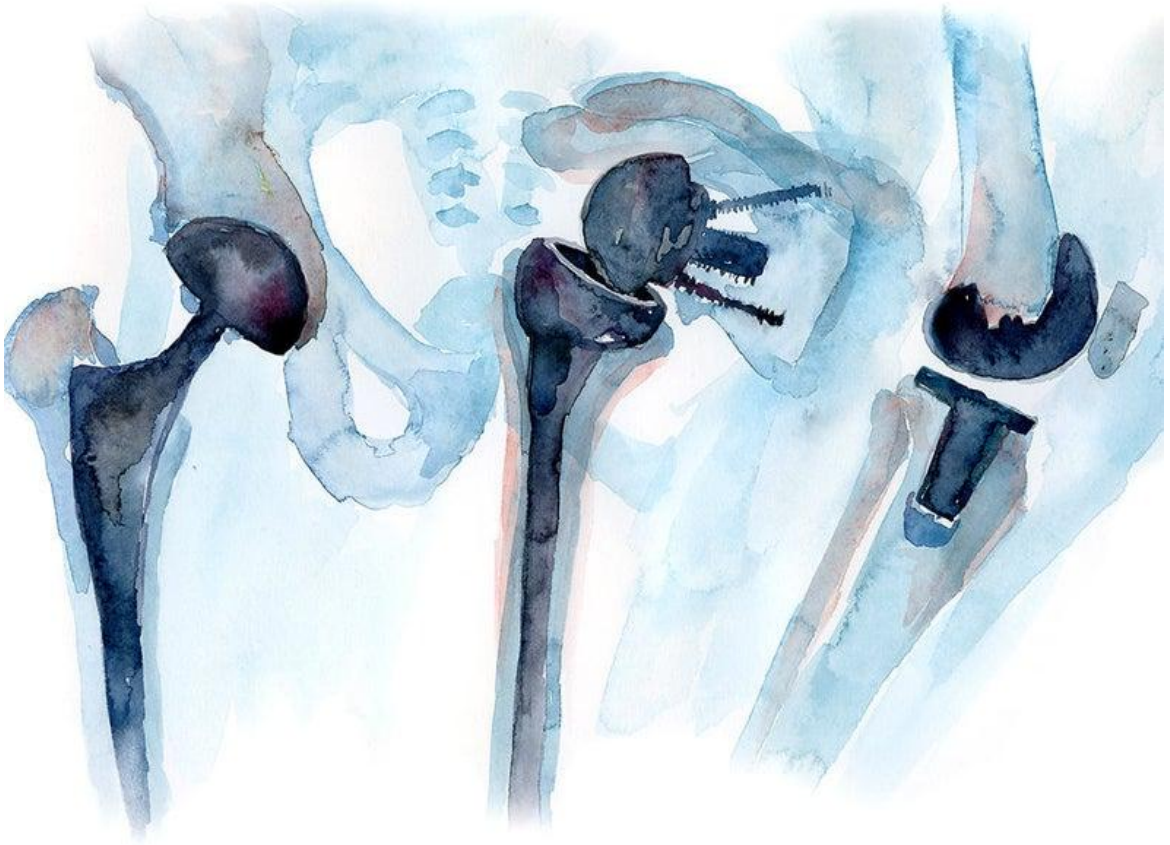

Orthopedic History Taking

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Objectives:

- ➔ Know how to take a MSK relevant history, along with the knowledge of the characteristics of the major musculoskeletal conditions.

Color Index:

Original text | Doctor's notes | Text book
Important | Golden notes | Extra

History taking skills:

1. It is the most important step in making a diagnosis.
2. History taking can either be of a traumatic or non-traumatic injury. (you need to ask about trauma while taking an orthopedic history)
3. A clinician is **60% closer** to making a diagnosis with a thorough history; the remaining 40% depends on a combination of examination findings and investigations.

History structure:

1. Demographic features.
2. Chief complaint.
3. HPI.
   - Ask about MOI (Mechanism of injury)
   - **Functional level**.
4. MSK systemic review.
5. Systemic enquiry
6. PMH
7. PSH
8. Drug Hx
9. Occupational Hx.
10. Allergy.
11. Family Hx.
12. Social Hx.

MSK Systemic Review:[1]

- ❑ **Pain**
- ❑ **Stiffness**
- ❑ **Swelling**
- ❑ **Instability**
- ❑ **Deformity**
- ❑ **Limp**
- ❑ Altered Sensation
- ❑ Loss of function
- ❑ Weakness

For pain we need to ask: (**WWQQAA**)

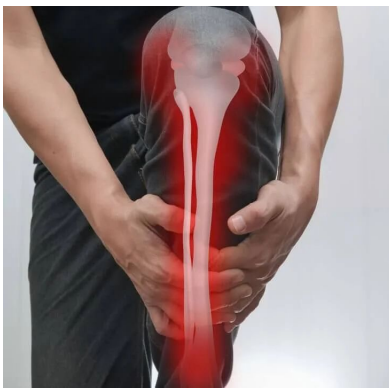
- **W**here? (location/radiation)
- **W**hen? (onset/duration) (How did it start? Mechanism?)
- **Q**uality? (characteristic)
- **Q**uantity? (intensity, degree of disability)
- **A**ggravating and Alleviating factors
- **A**ssociated Symptoms

1- The bolded complains are the most common complaints in orthopedics

Cont. MSK SYS Review:

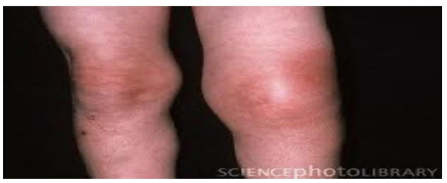
Pain

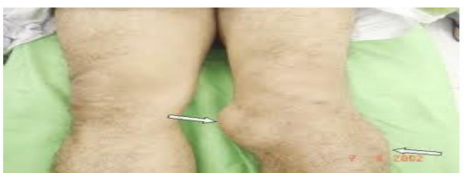
- **Location:**
-Point with a finger to where it is?
- **Radiation:**
-Does the pain go anywhere else?
- **Type:**
-Burning, sharp, dull?
- **How long have you had the pain?**
- **How did it start?**
-Injury or insidious? If injury:
A- Mechanism of injury?
B- How was it treated?
- **Progression**:
- Is it better, worse, or is it the same?
- **When:**
-Mechanical (while walking)
-Rest
-Night (very concerning)
-Constant (indicates advanced pain) (even with analgesia)
- **Aggravating & Relieving Factors**
-Stairs
-Start up, mechanical (Mechanical pain is noted to increase with movement)
-Pain with twisting, turning Up or down hills
-Kneeling
-Squatting



Swelling

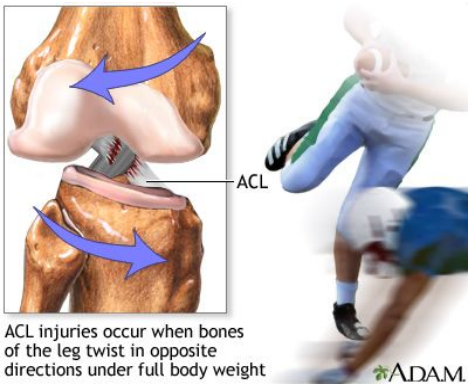
- **Duration**
- **Onset**
- **Painful or not**
(painless swelling is bad sign that goes with tumors)
- **Local vs. generalized**
- **Constant vs. comes and goes**
- **Progression**
- **Rapidly or slowly?**
- **Aggravating & relieving factors?**
- **Associated with injury or reactive?**
- **Soft tissue, joint, or bone?**





Instability

- **Onset?**
- **How does it start?**
- **Any Hx of trauma?**
- **Frequency?**
- **Trigger/aggravated factors?**
- **True Giving way**
- **False Giving way**
- It is caused by pain (Or secondary to quadriceps inhibition).
- **I cannot trust my leg!**
- **Associated symptoms:**
-Swelling
-Pain



1- Aggravating and relieving factors are usually related to movement

Cont. MSK SYS Review:

Deformity

- **When did you notice it?**
- **Progressive or not?**
- **Associated symptoms:**
  - pain, stiffness, etc....
- **Impaired function or not?** (important to ask)
- **Past Hx** of trauma or surgery
- **PMHx** (neuromuscular like polio)

Limping

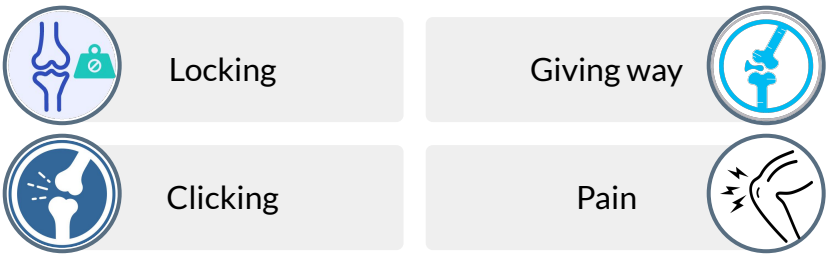
- **Painful vs. painless.**
  - **First** thing to ask in limping
- **Onset:**
  - acute or chronic (<2 wks= acute)
- **Progressive or not?**
- **Use walking aid?**
- **Functional disability?**
- **Traumatic or non-traumatic?**
- **Associated with:**
  - swelling, deformity, fever, and night sweats

Loss of function

- **How has this affected the patient's life**
- **Home (Activities of Daily Living [ADL])** (score to see how much functional demand the patient has)
  - Prayer .
  - Squat or kneel for gardening.
  - Using toilet.
  - Getting out of chairs / bed.
  - Socks .
  - Stairs.
  - Walking distance.
  - Go in & out of the car.
- **Work**
- **Sport**
  - Type & intensity
  - Run, jump

Mechanical Symptoms:

- **Locking** / clicking: [1]
  - ➢ Loose body[2], meniscal tear.
- **Knee buckling** or "Giving way": [3]
  - ➢ **Buckling 2°pain**. (false)
  - ➢ ACL injury (true)
  - ➢ Patellar injury



1- Locking is a condition in which the knee lacks full extension and flexion because of internal derangement, while clicking is a popping sound made by the joint.
2- Loose body is the term applied to small fragments of articular cartilage that break off in the knee joint as a result of a knee injury or degeneration. Loose bodies float around within the knee joint and cause pain, catching, locking, or swelling depending upon where the fragments migrate.
3- Buckling is a sensation of giving way where the knee bends involuntary. This can happen either due to "true" ACL injury or "false" caused by quadriceps inhibition or secondary to pain.

Red Flags 🚩:

01 Weight loss

02 Fever

03 Loss of sensation

04 Loss of motor function

05 Sudden difficulties with urination or defecation

Risk Factors:

- **Age** (the extremes) (**older** patients have a higher risk to develop degenerative diseases, while Trauma and sport are seen in **younger** age.)
- **Gender** (DDH is more common in females)
- **Obesity**
- **Physical inactivity**
- **Inadequate dietary calcium and vitamin D**
- **Smoking**
- **Occupation and Sport**
- **Family History** (as: SCA) (In sickle cell anemia patients are more prone to develop **hip osteoarthritis and spine problems**)
- **Infections**
- **Medications** (steroids) leads to osteoporosis [1])
- **Alcohol**
- PHx **MSK injury/condition**
- PHX of **Cancer**

Current And Previous Treatments:

Non-operative:

- **Medications:**
  - Analgesia
    - How much, How long
  - Antibiotic
  - Patient's own
- **Physiotherapy**
- **Orthotics**:
  - Walking sticks
  - Splints

Operative:

- What, where, and when?
- Perioperative complications
  - Whether intra or post operative

1- Common locations of avascular necrosis are the hip, talus and navicular bone.

Knee History:

Knee History	
I. Pain	**Done**
Location: • Can you point exactly at its location? • Does the pain go anywhere else? (radiation)	☐ ☐
Type: • Can you describe the pain? Is it burning, sharp, dull?	☐
How long have you had this pain?	☐
How did it start? • Was it an injury? If YES: ➔ What was the mechanism of the injury? ◆ What was the position of the leg at the time of injury? ◆ Was it direct or indirect injury? ◆ Have you heard any audible pop? ◆ Were you able to continue playing or did you stop? ➔ If you suspect ACL injury be sure to ask: ◆ Did it swell at the time? - Immediately? - Delayed → traumatic synovitis ◆ Hemarthrosis ◆ How was it treated? • Was it insidious?	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
II. Progression	
• Is it getting better, worse or is it remaining stable?	☐
III. When	
• Does the pain come when you walk, at rest, at night or is it just constant?	☐
IV. Aggravating and Alleviating factors	
• Does any of the following make the pain better or worse? ➔ Stairs? ➔ Twisting, turning up and down hills? ➔ Start up → indicates mechanical pain ➔ Kneeling? ➔ Squatting?	☐ ☐ ☐ ☐ ☐

Spine History:

Spine History	
I. Pain	**Done**
Location: • Can you point exactly at its location? • Does the radiate anywhere else? (you need to determine the root L4/L5/S1?)	 ☐ ☐
What makes the pain better or worse? • Neuropathic causes: ➔ Extension and walking down hill? ➔ Walking uphill and sitting • Vascular causes: ➔ Walking uphill → generates more work ➔ Rest → standing is better than sitting due to pressure gradient • Stairs. • Shopping trolleys. • Coughing, straining. • Sitting. • Forward flexion.	 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
II. Associated Symptoms	
• Paresthesia? • Numbness? • Weakness? • Bowel and bladder incontinence? • Cervical myelopathy? ➔ Clumsiness of hand ➔ Unsteadiness ➔ Manual dexterity → (skills in performing tasks especially with the hands)	☐ ☐ ☐ ☐ ☐ ☐ ☐
III. Red flags	
• Constitutional Sx (loss of weight, fever, night sweats…) • Night pain/ Rest pain • History of trauma • Immunosuppression	☐ ☐ ☐ ☐

Determine the involved root L4/L5/S1?

Shoulder History:

Shoulder History	
I. Demographic Characteristics	**Done**
Age of the patient: • **Young**: shoulder (anterior) instability and acromioclavicular joint injuries are more prevalent • **Elderly**: rotator cuff injuries and degenerative joint problems are more common.	☐ ☐
II. Pain	
Location: • Can you point exactly at its location? ➔ Anterolateral and superior (deltoid insertion) → Rotator cuff - Usually radiates to middle arm ➔ Referred to the elbow? → Bicipital tendonitis • Is it a referred pain? → **referred pain can be due to mediastinal and cardiac causes** • Is the pain related to neck pain? ➔ Is it really shoulder pain, or is it radiating from the neck? ASK about radiculopathy	☐
Aggravating / Relieving factors: • What are the positions that increase the symptoms? ➔ **Rotator cuff impingement**: appears in window cleaning positions ➔ Instability: when arm is overhead	☐
Mechanism of injury: • Abduction and external rotation → **shoulder dislocation** • Direct fall onto the shoulder → **acromioclavicular joint injuries** • Chronic pain upon overhead activity or at night time → **rotator cuff problem**	☐
II. Associated Symptoms	
• Stiffness? • Instability/Give way? → **comes when the arm is held over head** - Can be either severe feeling your joint is dislocated or subtle presenting with clicks/jerks - You need to ask about the position, initial trauma, how often and ligamentous laxity • Clicking, catching or grinding? (if so what position?) • Weakness? → rotator cuff especially if it is a large tear • Pins, needles or numbness?	☐ ☐ ☐ ☐ ☐ ☐
III. Loss of Function	
• Home ➔ Dressing → wearing coats or bras ➔ Grooming → while brushing hair ➔ Lifting objects ➔ Difficulty raising arm → when reaching top shelves or hanging washing • Work • Sport	☐ ☐ ☐ ☐ ☐ ☐

THANK YOU

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