



# 433 Teams

# ORTHOPEDICS

## History

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This is the standard history for any case then if you want to ask more questions we provide you with Differential Diagnosis below:

Demographics: Name - age - gender - occupation

- Chief complain: start with one mentioned in history then ask about others:

1-Pain (SOCRATS)

2-Instability (Locking – Giving way)

3-weakness

4-swelling (Painful or painless - Onset and discharge)

5-loss of function (motor and sensation)

6- limping (painful or painless and onset)

- Constitutional symptoms

Then based from information of the patient above you have to pick one of the following to start with:

\* Trauma (previous pain - previous fracture or dislocation - mechanism of trauma)

\* Infection (previous infections-contact - family history of infection - Travel - IV drug - drinking raw milk)

\* Cauda equina syndrome (urine and fecal incontinence - saddle anesthesia)

\* Tumor (previous history of cancer)

Then to narrow your differential ask about:

- Medical history (diseases, drug and allergy)

- Surgical history

- Family history

- Social history (Smoking – Occupation - Diet)

**# for child you have to ask about: (Normal Development – Pregnancy – Delivery – Vaccination)**

## Infection:

General symptoms you might see infectious disease:

Pain, fever, malaise, restlessness, loss of function

Locally: swelling at a limb usually near a joint like knee or hip or shoulder with increased local temperature.

## TB

\*Personal information:

Ask about **job** ( maybe he/she is a doctor and didn't take precaution )

\*Hx:

Weight loss/anorexia

Fever

Night sweats

may present with pain ( depends on the location )

\*Past medical h

History of infections ( TB )

\*Surgical h

\*Past drug h

\*family h

History of **infection in the family**

\* Social h

Living situation

\***Travel h**

## -TB Spine (Pott's disease)

\*may present with back pain! The rest of symptoms are above,

TB could occur in the spine:

Thoracic (50%) – lumbar (25%) and **might cause Equine Equine** – cervical (25%)

## -Brucellosis

\*Personal information:

Ask about **job** ( **farmer who drinks raw milk** )

\*Hx:

Back pain

Fever

Wight loss

Sweats

## Osteomyelitis-

Risk factors:

Increasing age, obesity, family history, female.

\*Hx:

Pain (worse with exercise, morning < 30min)

Fever

Malaise

Restlessness

Loss of function

Swelling

## -Chronic OM

\*Common in:

Inappropriately treated acute OM

Trauma

Immunosuppressed

Diabetics

IV drug abusers

## -Septic Arthritis

\*Hx:

Pain

Swollen, red and warm joint.

Fever.

Risk factors:

Existing joint problems.

Weak immune system

Joint trauma

## **Pediatric:**

### **Developmental Dysplasia of the Hip (DDH)**

Mechanical causes:

1-Pre natal

Breach , oligohydrominus , primigravida , twins  
(Torticollis, metatarsus adductus )

2-Post natal

Swaddling, strapping

Other causes:

First pregnancy

Large baby

**Infants at risk:**

Positive family history: 10X

A baby girl: 4-6 X

Torticollis: CDH in 10-20% of cases

Foot deformities:

Calcaneo-valgus and metatarsus adductus

Knee deformities:

Hyperextension and dislocation

Hx:

You might notice that one leg is longer than the other.

One hip may be less flexible than the other.

### **-Slipped capital femoral epiphysis (SCFE)**

Typical:

8-12 yr. ↑ in males, ↑ in obese, ↑ in black, ↑ If other side affected

\*Hx:

Hip pain /? Knee pain (only)

Minor trauma

No trauma

Limping (painful) Problems walking.

Less movement than usual in the hip.

### **-Perthes**

\*Hx:

Hip pain or knee pain

Minor trauma or no trauma

Painful limping

Limited range of motion of the hip joint.

## -Leg Aches

\*Hx:  
 At long bones of L.L (Bil)  
 Dull aching, poorly localized  
 Can be without activity  
 At night  
 Of long duration (months)  
 Responds to analgesia

## -Limb Length Inequality

\*Hx:  
 Gait disturbance  
 Equinus deformity  
 Pain: back, leg  
 Scoliosis (secondary)

## Compartment syndrome:

Risk factors (causes):

- Trauma
- Burns
- Injection
- Bleeding within the compartment
- Prolonged vascular occlusion
- Venomous bite
- Intra-osseous fluid replacement
- IV fluid extravasation
- Tight bandage
- Post-surgery

\*Hx:

**Most important sign is PAIN** (Pain that seems greater than expected for the severity of the injury).

It increases while stretching the involved compartment  
 Presence of Risk Factors: like tibia fracture DM and hypertension.

**4 Ps: Paralysis, Paresthesia, Pallor and Pulslessness**

Tight, woody compartment

## Peripheral nerves:

### -Peripheral nerves over view:

Symptoms:

Dropping of objects

Clumsiness

Weakness

Rule out systemic causes

### -Carpal Tunnel Syndrome

Risk Factors:

Obesity - Pregnancy - Diabetes - Thyroid disease -Chronic renal failure - Inflammatory arthropathy - Vitamin deficiency - Storage diseases - Alcoholism - Advanced age

\*Hx:

Paresthesias and pain, often at night on the volar aspect (thumb - index - long - radial half of ring)

Affected first → light touch + vibration

Affected later → pain and temperature

Late findings: Weakness - loss of fine motor control - abnormal two point discrimination

### -Cubital Tunnel Syndrome

Symptoms:

Pain and numbness in the elbow

Tingling, especially in the ring and little fingers

History of sport and soft tissues injuries

It will be swelling or pain take history- then ask about bruises or discolorations.

## Shoulder:

Pain (OLD CARTS)

Again, Ask how did he/she fall down (mechanism)? He/she might had Stroke for example, or just slipped

### Subacromion impingement Syndrome:

Nocturnal pain, exacerbated by lying on the involved shoulder or sleeping with the arm overhead

– Exacerbation of symptoms with:

- Shoulder elevation at or above 90°
- With lifting items Away from the body. (**Overhead activity**)

### Rotator cuffs tear:

Pain (more pain in partial tear) + stiffness

### Adhesive capsulitis:

Gradual stiffness and pain (not related to overhead activity) in the Shoulder + ask about history of **DM**

Risk factors:

Women 40-60 years.

Thyroid dysfunction (hypo & hyper)

Cervical spondylosis (arthritis).

Breast cancer treatment (tamoxifen).

Cerebrovascular accident.

Cardiovascular disease

Diabetes mellitus



## Metabolic bone diseases:

Hx:

Pain  
Constitutional symptoms

Risk factors:  
Sun exposure + previous history of pain or fracture at any site or same site

Past medical: steroids?

Social: smoking? Drinking? Drug abuser?

Family Hx Inheritance disorders? (**Important**)

Child: crying with no obvious reason, Ask mother if child is growing or not.

Adults: generalized bone pain mainly backache (ask about previous episodes of the same presentation) ask about pain, then ask about (past medical history and surgical of fractures) most fracture appears in femoral head (stress fracture) OA at wrist (colles).

### Osteoporosis:

Look at the age first (female after menopause, decrease estrogen).  
Ask about smoking /alcohol/ drug abuse - ask about history of fractures or trauma, ask about pain and previous pain at the site to differentiate with other pathological

Bone disease because no pain in osteoporosis.

If it happens in young age group 45yo role out these causes:

Drug induced: steroids, alcohol, smoking, phenytoin, and heparin. Hyperparathyroidism,

Hyperthyroidism, Cushing syndrome, gonadal disorders, malabsorption, malnutrition.

Chronic diseases: RA, renal failure, tuberculosis.

Malignancy: multiple myeloma, leukemia, metastasis.

## Foot and ankle pain or swelling:

Presenting illness:

Pain (OLD CARTS)  
Swelling: when? Discharge? Color?  
Constitutional symptoms

Risk factor:  
athletes

### Plantar Fasciitis :

pain, character is stabbing pain when he put his weight while walking.

Pain usually in **morning and become less after walking**.  
Pain is localized in heel.

### Ankle sprains:

Pain + Swelling + Bruise or redness  
Ask about previous activities or history of same condition before.  
(Q/ MOST COMMON ? Ant. Talofibular ligament lateral side)

Don't forget in pain ask if it's associated with rest and activity and daytime or nighttime.

### Osteochondral defect:

Ask about recent trauma and pain if present in REST.

If patient came with cuts in his or her leg with **no pain** think of **DM Foot**.

Ask about **associated symptoms (neuropathic) senseless and tingling + specific DM symptoms like polyuria, weight loss, thirst and hunger**.

Remember in your differential don't forget to say Charcot foot. Because it's resulted from neuropathy in the foot.

Always ask about history of DM and if it was controlled or not.

## Bone tumors:

Hx:

Gender + Age + job

Presenting illness:

Pain, Swelling? when +onset + character if change in color or with discharge.  
constitutional symptoms (**important**)

### Risk factors of tumors:

Radiation - Age - Alcohol - Chronic Inflammation - Diet - Hormones -  
Immunosuppression - Infectious Agents - Obesity - Sunlight - Tobacco  
Female: Metastasis from breast mostly  
Males: usually from prostate

Past medical hx is **important**

Family history **very important**.

Swelling or Pain, it might be just pain from a fracture that is caused by tumor  
(Pathological fracture)

### Osteoid osteoma:

(Pain more **at night prevent the patient from sleep**) IMP to ask

### Endochondroma:

**Mostly affect digits** and in the history the patient mostly will complain that  
he or she can't put a (ring)

### Ewing sarcoma:

Same presentations of osteomyelitis (swelling, pain) ask about previous history of  
trauma and previous medical history.

But always make the first differential is infection before tumors.

## Back pain history:

### Differential Diagnosis

Spinal	Extra-spinal
<ul style="list-style-type: none"> <li>▪ Muscular strain</li> <li>▪ Vertebral fracture</li> <li>▪ Lumbar disk herniation</li> <li>▪ Tumor</li> <li>▪ Spinal infection</li> <li>▪ Cauda equina syndrome</li> <li>▪ Spinal Stenosis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Abdominal aortic aneurysm</li> <li>▪ Renal: pyelonephritis, nephrolithiasis</li> <li>▪ Gastrointestinal: pancreatitis, perforating peptic ulcer</li> <li>▪ Urogenital: endometriosis, pelvic inflammatory disease.</li> </ul>

- Demographic: **Name, Age and Occupation**
- Pain (SOCRATES)
- Constitutional symptoms
- Trauma history
- **Rule Out Red flags first then start with others:**
  - **Cauda Equina Syndrome** (Urinary retention with overflow – fecal incontinence – saddle anesthesia).
  - **Tumor** (previous history of cancer and presence of constitutional symptoms).
  - **Infection** (previous history of infection, family history of infection, Drug abuse, Travel history and constitutional symptoms).
  - **Spine fracture** (History of recent trauma and history for other fracture).
- **Rule Out other diseases:**
  - **No Menstrual Cycle changes** (endometriosis and PID).
  - **No History of renal colic or UTI** (pyelonephritis, nephrolithiasis).
  - **No GI Symptoms** (pancreatitis, perforating peptic ulcer).
- Medical history
- Surgical history
- Family history
- Social history (Smoking – Allergy – Occupation – Alcohol – IV drug abuse - Travel)
- **Lumber Disk herniation:** Increase with flexion – lifting heavy weight - radiculopathy
- **Spinal Stenosis:** Bilateral radiculopathy
- **Osteoarthritis:** Look for risk factors (Smoking – Family history – previous trauma – Old Age – Obesity)

## Fracture History:

- Pain (SOCRATES)
- Previous pain at the site of injury
- Constitutional symptoms
- Trauma history.
  - What is the **Mechanism**? (RTA – Syncope – Falling – Slipping – Or minor trauma)
  - If RTA: Speed – Seatbelt – Ejection – Site in the car – What happened to others?
  - If Falling: Height? Position of the falling?
- History of other previous fracture.
- Medical history
- Surgical history
- Family history
- Social history (Smoking – Allergy – Occupation)

## History of trauma in any activity

Ask how did he/she fall down (**mechanism**)? He/she might had Stroke for example, or just slipped

Take history of pain (**OLD CARTS**)

KNEE:

- 1- Patellar or quadriceps tendon rupture:  
Knee pain – steroid intake – chronic diseases.
- 2- Meniscal and ACL injury:  
ask about pain, previous trauma, swelling.

If swellings progress and appears slowly **with locking** it indicates **meniscal injury**

If it appears directly after the trauma then it's usually **ACL injury** (few hours) – Giving way episodes.

3- MCL:

Pain in medial side, trauma in lateral aspect. Take full history of pain.

4- PCL:

Dashboard injury (Mostly car accident) so ask about trauma.

Ask about pain (OLD CARTS), swelling after the fall, ask about usual activities if he is an athlete.