

Symptoms of Bone, Joint, and Muscle Disorder

- Pain
- Swelling and Crepitus
- Locking
- Stiffness
- Wasting and Fasciculation
- Cramps

Causes of Bone Pain

FOCAL PAIN:

- Fracture/trauma
- Infection
- Malignancy
- Paget's disease
- Osteoid osteoma

DIFFUSE PAIN:

- Malignancy
- Paget's disease
- Osteomalacia
- Osteoporosis
- Metabolic bone disease

Causes of Joint Pain

- Inflammatory
- Mechanical
- Infective
- Traumatic
- Rheumatoid arthritis
- Ankylosing spondylitis
- Osteoarthritis
- Pyogenic Tuberculosis and Brucellosis

Causes of Muscle Pain

- Inflammatory
- Infective
- Traumatic
- Polymyalgia rheumatica
- Neuropathic
- Polymyositis
- Dermatomyositis
- Pyogenic
- Cysticercosis
- e.g., Guillain-Barre' Syndrome

Causes of Joint Pain – Questions to Ask

- Where is the maximal site of pain?
- Does the pain change during the course of the day?
- Has the pain been there for a short or long time?
- Does the pain get better or worse as the patient moves about?

Examination – The General Principles

Bone and Joint

Inspection:

- Swelling
- Deformity
- Skin changes
- Changes of adjacent structures

Examination – The General Principles

Bone and Joint

Palpation:

- Swelling
- Tenderness
- Temperature
- Joint movement

Muscle Weakness – Questions to Ask

- Is the weakness global or focal?
- Is the weakness secondary to a painful limb?
- Does the weakness fluctuate in degree?
- Is the weakness increasing in severity?

Examination – The General Principles Muscle

Inspection:

- Wasting
- Increased muscle bulk
- Spontaneous contractions

Palpation:

- Testing muscle power

Regional Examination

- Temporomandibular Joints
- Spine
 - Cervical, Thoracic, Lumbar, Sacro-iliac joints
 - Nerve stretch tests (Straight leg raising, Femoral stretch test)
 - Prolapsed intervertebral disc

Back Pain – Questions to Ask

- Is the pain confined to the back or does it radiate to the upper or lower limb?
- Is the pain exacerbated by coughing or sneezing?
- Did the pain begin suddenly or gradually?

Regional Examination Continued

- Shoulder (Inspection and Palpation)
- Elbow (Inspection and Palpation)
- Forearm and Wrist (Inspection and Palpation)
- Hand/Hand Joints (Inspection and Palpation)
- Hand Muscles (Inspection and Palpation)

Weakness of the Hand – Questions to Ask

- Is the weakness associated with joint pain?
- Is the weakness confined to the muscles supplied by the median or ulnar nerve?
- If the weakness is global, are both hands or just one hand affected?
- Is there accompanying sensory loss?

Regional Examination Continued

- Hip (Inspection and Palpation)
 - Measurement of limb length
 - Joint movement
 - Muscle function
- Knee (Inspection and Palpation)
- Ankle and Foot (Inspection and Palpation)

Foot Deformities – Questions to Ask

- Has the deformity been present from birth?
- Does it affect both feet?
- Is it associated with joint pain or tenderness?

Patterns of Weakness – Questions to Ask

- Is the weakness associated with sensory symptoms or signs?
- Is there a family history of muscle disease?
- Is the weakness symmetrical?
- Is the weakness predominantly proximal or distal?

Gait – Questions to Ask

- Does the patient trip?
- Is one shoe worn out more readily than the other?
- Does the patient stagger to one particular side?
- Does the patient, despite apparently severe ataxia, seldom sustain injury?