

## CURRICULUM OF UNDERGRADUATE

(a) **KNOWLEDGE:**

The students shall be able to:

1. Explain the principles of recognition of bone injuries and dislocation;
2. apply suitable methods to detect and manage common infections of bones and joints.
3. Identify congenital skeletal anomalies and their referral for appropriate correction or rehabilitation.
4. Recognize metabolic bone diseases as seen in this country;
5. Explain etiogenesis, manifestations, diagnosis of neoplasm affecting bones;

(b) **SKILLS:**

At the end of the course, the student shall be able to:

1. Detect sprains and Deliver first aid measures for common fractures and sprains and manage uncomplicated fractures of clavicle, colles's forearm, phalanges etc.;
2. Use techniques of splinting plaster, immobilisation etc.
3. Manage common bone inspections, learn indications for sequestration, amputation and corrective measures for bone deformities;
4. Advise aspects of rehabilitation for polio cerebral palsy and amputation.
5. Splinting (plaster slab) for the purpose of emergency splintage, definitive splintage and post operative splintage and application of thomas splint;
6. Manual reduction of common fractures-phalangeal, metacarpel, metatarsal and colles's fractures;
7. Manual reduction of common dislocations-interphalangeal, metacarpophalangeal, elbow and shoulder exdislocations.
8. Plaster cast application for undisplaced fractures of arm, forearm, leg and ankle;
9. Emergency care of multiple injury patient;
10. Precautions about transport and bed care of spinal cord injury patients.
11. Advise about prognosis of poliomyelitis, cerebral palsy, CTEV and CDH;
12. Advise about rehabilitation of emputees and mutilating traumatic and leprosy deformities of hand;
13. Drainage for acute osteomyelitis;

14. Sequestrectomy in chronic osteomyelitis;
15. Application of external fixations;
16. Internal fixations of fractures of long bones.

(c) **APPLICATION:**

Be able to perform certain orthopedic skills, provide sound advice of skeletal and related conditions at primary or secondary health care level.

(d) **INTEGRATION:**

Integration with anatomy, surgery, pathology, radiology and forensic medicine be done.

(e) **ORTHOPEDICS:**

A. Didactic lectures-trauma.

1. Introduction including definition of Various Terms; Scope of Subject; Brief History; Classification of Conditions and introduction to latest developments.
2. Bone and Joint Injuries-fractures; Dislocation and Sprains, Definitions; Terminology; Epiphyseal Injuries; Healing of Fractures.
3. Principle of Management of Severe Trauma-Aims of Management and Life Saving Measures; Limb Saving Measures.
4. Treatment of Fractures-Principles; Aims of Treatment; Operative Management and Rehabilitation and Prevention of Joint Stiffness; Compound Fractures (Open Fractures); Principles and Management.
5. Complications of Fractures-(A) Injury To Blood Vessels (B) Injury To Nerves (C) Delayed Union; Nonunion (D) Myositis Ossificans (E) Avascular Necrosis (F) Budeck's Atrophy (G) Fat Embolism.
6. Joint Injuries and Soft Tissue Injuries-Sprains; Ruptures of Ligaments and Dislocation; Traumatic Synovitis; Tendon Ruptures and Hemarthrosis.
7. Fractures of Upper Limb-Supracondylar Fractures of Humerus; Colles Fracture.
8. Fractures of Lower Limb-Fractures of Femoral Neck, Fractures of Ankle Joint and Ligament injuries.
9. Injuries of Spine-Cervical Spine, Dorsal and Dorsolumbar Spine; Paraplegia.
10. Injuries of the knee joint-ligament injuries; Meniscus Injuries and Internal Derangement.

11. Peripheral Nerve Injuries-Anatomy; Effects; Nerve Degeneration and Regeneration; Classification and Management.
  12. Fracture-Clavicle, Forearm Bones, Femur, Tibia, Fibula.
  13. Dislocation-Shoulder; Elbow and Hip; Habitual and Recurrent Dislocation of Shoulder and Patella.
  14. Specific Nerve Injuries-Brachial Plexus; Radial Nerve; Median Nerve; Plexus Nerve; Sciatic Nerve; Thoracic Outlet Syndrome.
- B. Didactic Lectures-Non-Trauma:
1. Osteomyelitis-Acute; Chronic and Pyoarthrosis.
  2. Osteomyelitis Tuberculosis-Introduction; Pathology; Principles of Management.
  3. Tuberculosis-Hip Joint and Knee Joint; Tuberculosis of Spine and Pott's Paraplegia.
  4. Arthritis-Types and Classification; Rheumatoid Arthritis-Pathology; Diagnosis, Treatment.
  5. Osteoarthritis-Pathology; Diagnosis and Management-Osteoarthritis of Hip and Knee.
  6. Rickets-Osteomalacia; Hyperparathyroidism; Genu Valga.
  7. Poliomyelitis-Cerebral Palsy and Spina Bifida.
  8. Spondylosis-Lumbar and Prolapsed intervertebral Disc; Lumbar Spinal Canal Stenosis and Spondylolisthesis.
  9. Cervical Spondylosis.
  10. Perthes diseases and Epiphysitis-slipped upper femoral Epiphysis; Congenital Subluxation and Dislocation of Hip.
  11. Congenital-Club Foot, Flat Foot.
  12. Bone Tumours-Classification; General Principles of Management and Secondary Deposits in Bones; Amputation.
  13. Tuberculosis-Compound Palmar Ganglion.
  14. Still's Disease; Other Condition Related to Rheumatoid Arthritis.
  15. Neuropathic Joint Shoulder Hand Syndrome; Tennis Elbow. Tunnel Syndrome, Trigger Finger;
  16. Scoliosis.
  17. Flat Foot-Painful Planter Fasciculities; Calcaneal Spur; Calcification at Tendoachilies Insertion.

18. Traction-Splints (Bohler and Thomas); Application; Splints; Arthrodesis etc.
19. Plaster of Paris-Plaster Cast Application; General Principles.
20. Surgical Instruments-Pertaining to Bone Surgery and General Set only (Nospecialized Instruments).
21. Common Fractures and Demonstration of Common Clinical Problems.
22. Covering of Important and Common Topics From the Ones Listed in Clinical Term