Nerve Injuries Associated with Fractures – High-Yield MCQ Notes

Upper Limb

Bone / Fracture	Associated Nerve Injury	Key MCQ Points
Clavicle (middle 1/3)	Brachial plexus (rare)	Usually lateral compression, mostly subclavian vessels at risk
Humerus – Proximal (surgical neck)	Axillary nerve	Weak deltoid, loss of shoulder abduction ≥15°, sensory loss over lateral shoulder ("regimental patch")
Humerus – Midshaft	Radial nerve	Most common nerve injury in humerus fracture; wrist drop, sensory loss over dorsum of hand
Supracondylar humerus (children)	Median nerve	Especially flexion type; ape hand deformity possible
Medial epicondyle	Ulnar nerve	Clawing of 4th & 5th fingers, sensory loss in medial hand
Distal radius	Median nerve	Acute carpal tunnel syndrome, thenar atrophy if chronic

Lower Limb

Bone / Fracture	Associated Nerve Injury	Key MCQ Points
Hip (proximal femur / neck)	Femoral nerve	Weak hip flexion, knee extension, sensory loss in anterior thigh
Posterior hip dislocation / acetabulum fracture	Sciatic nerve	Foot drop, sensory loss in dorsum of foot; peroneal division more commonly affected
Femoral shaft fracture	Rare femoral or sciatic injury	Usually iatrogenic during fixation
Tibial plateau / proximal tibia	Peroneal nerve	Foot drop, sensory loss in dorsum of foot; common peroneal wraps around fibular neck
Fibular neck fracture	Common peroneal nerve	Most classic association; foot drop, numbness over dorsum of foot

Key Points for MCQs

1. Most common nerve injury in humerus fracture → Radial nerve (midshaft)
2. Most common nerve injury in distal humerus fracture (supracondylar, kids) → Median nerve

3. Most commonly injured nerve in fibular neck fracture → Common peroneal nerve
4. Nerve affected in surgical neck of humerus fracture → Axillary nerve

Presentation Clues

- Wrist drop → Radial nerve
- Foot drop → Peroneal division of sciatic / common peroneal
- Ape hand → Median nerve
- Claw hand (4th–5th finger) → Ulnar nerve
- Weak shoulder abduction → Axillary nerve

MCQ Tips

- Upper limb fractures → Radial/Median/Ulnar/Axillary
- Lower limb fractures → Sciatic / Peroneal / Femoral
- Association by location is the most tested point
- Children vs adults may differ (supracondylar fracture → median nerve in kids)
- Sensory + motor deficits help localize nerve injury