SAWA UNIVERSITY

RADIOGRAPHIC TECHNIQUE-1

FEMUR RADIOGRAPHY

Sawa University

College of health and medical techniques

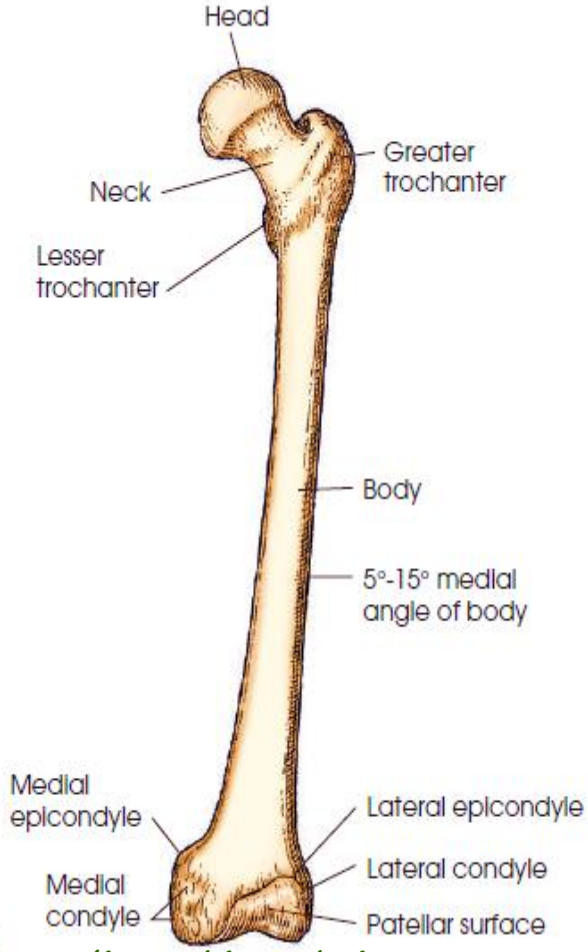
Department of Radiology Tech.

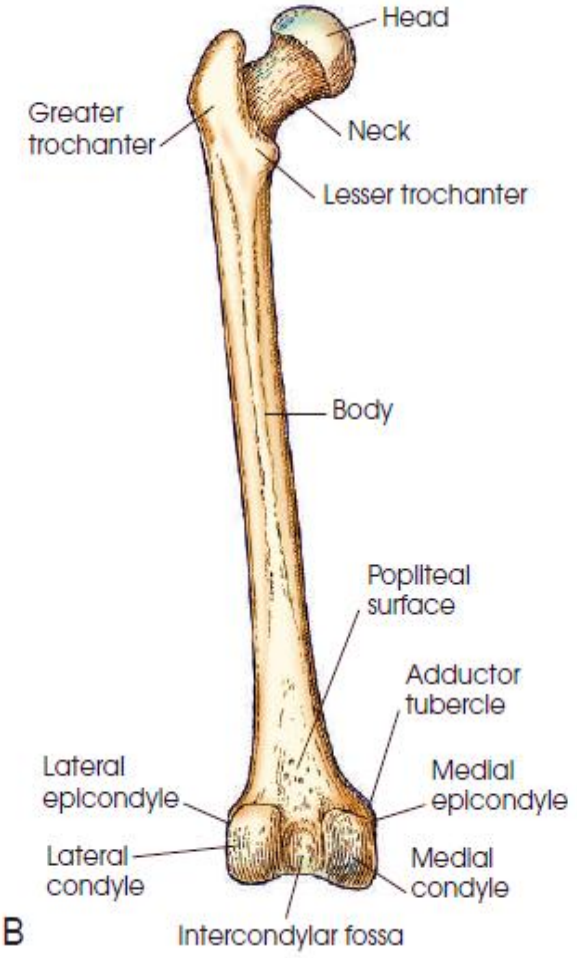
2nd Academic year

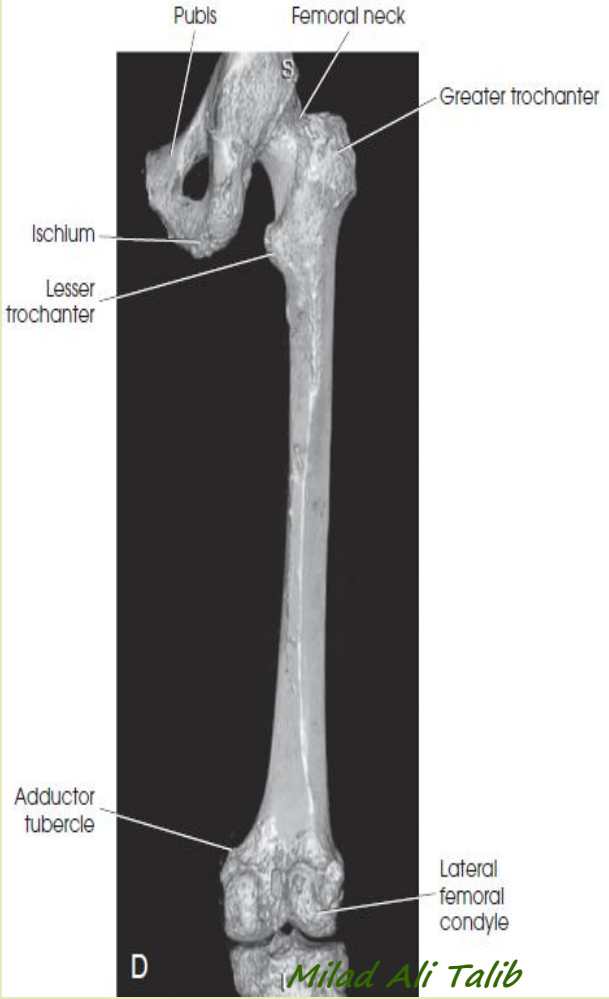
LEC.4

THEORTICAL

Milad Ali Talib
M.Sc Radiology Technology


Head
Neck
Greater trochanter
Lesser trochanter
Body
5°-15° medial angle of body
Medial epicondyle
Lateral epicondyle
Lateral condyle
Medial condyle
Patellar surface
A


Head
Greater trochanter
Neck
Lesser trochanter
Body
Popliteal surface
Adductor tubercle
Lateral epicondyle
Medial epicondyle
Lateral condyle
Medial condyle
Intercondylar fossa
B


Pubis
Femoral neck
Greater trochanter
Ischium
Lesser trochanter
Adductor tubercle
Lateral femoral condyle
D

Femur Radiography

NOTE:

- If the site of interest is in the area of the proximal femur, a unilateral hip routine or pelvis is recommended.
- Always in all projections try to Includes both the hip and knee joint.

Routine projection:

1. AP
2. Lateral

- **AP projection:**

Clinical Indications:

- Detection evaluation of fractures and/or bone lesions.

AP projection

Position

- Supine, femur centered to midline of IR
- Rotate entire lower limb internally ≈5° for AP of mid femur and distal femur, and 15° internally for true AP to include hip (the femoral neck is in profile).
- Lower border of IR ≈5cm below knee to include knee joint.

Central Ray: Perpendicular to the mid-femur and the center of the IR

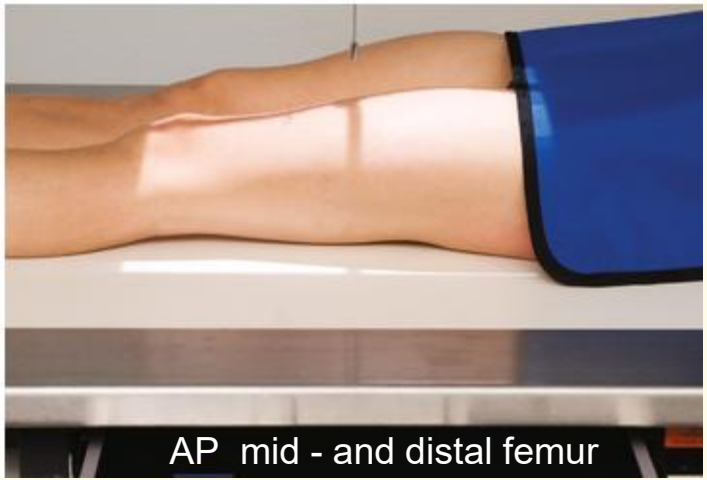
Collimation: Long, narrow collimation to femur area

Technique:

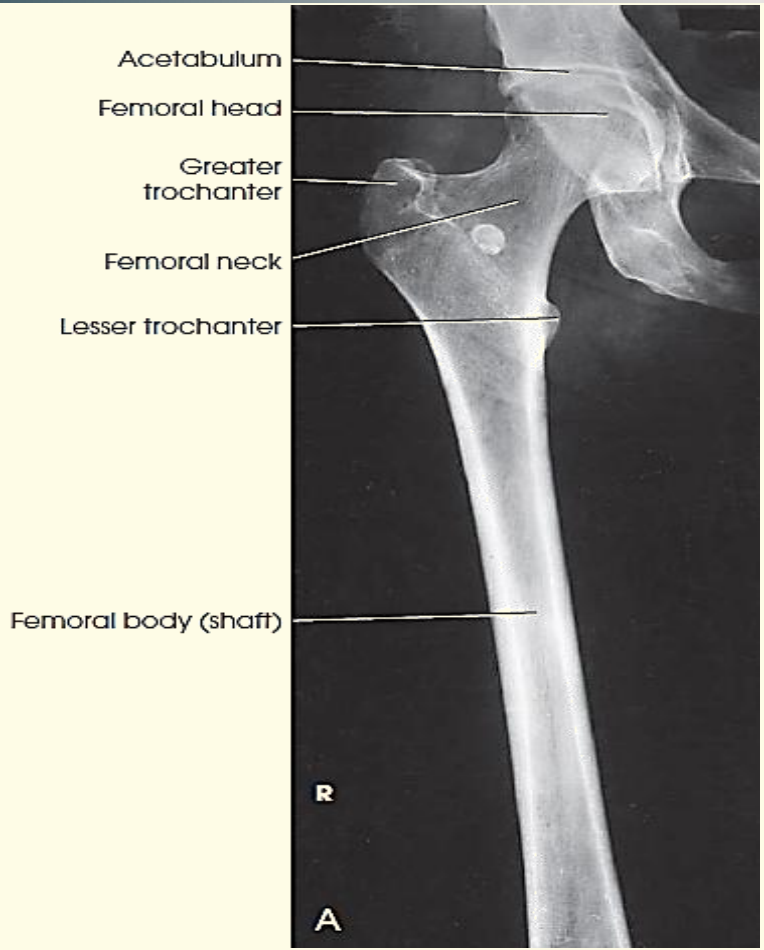
IR: 14 x17″ LW **Grid**: YES

SID: 102 cm

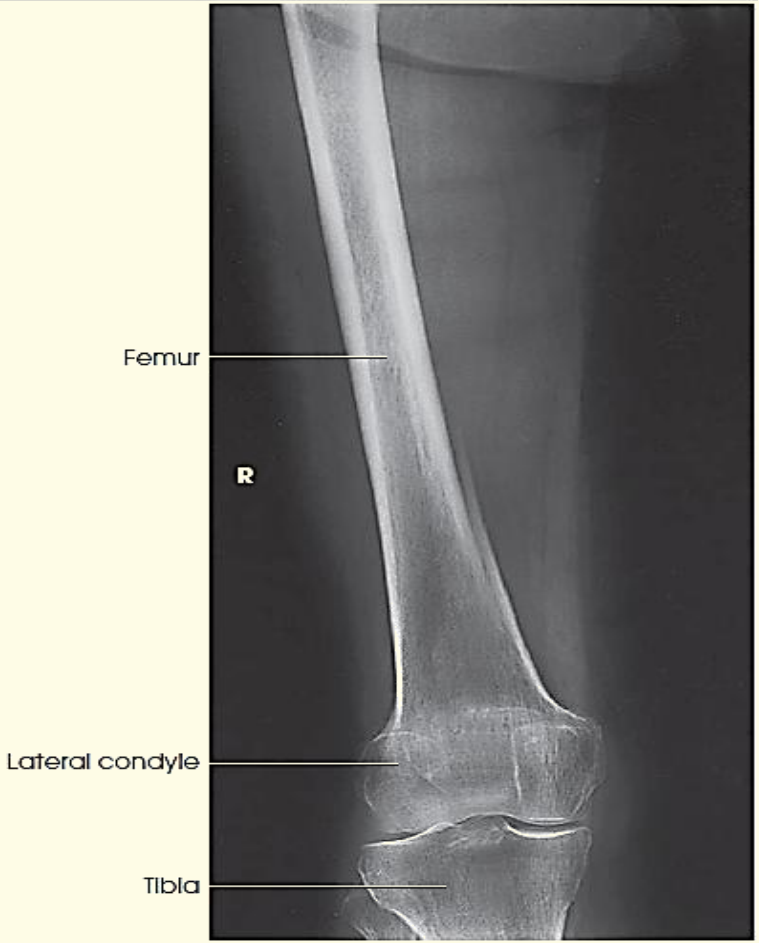
kVp:87 **mAs**: 3.6



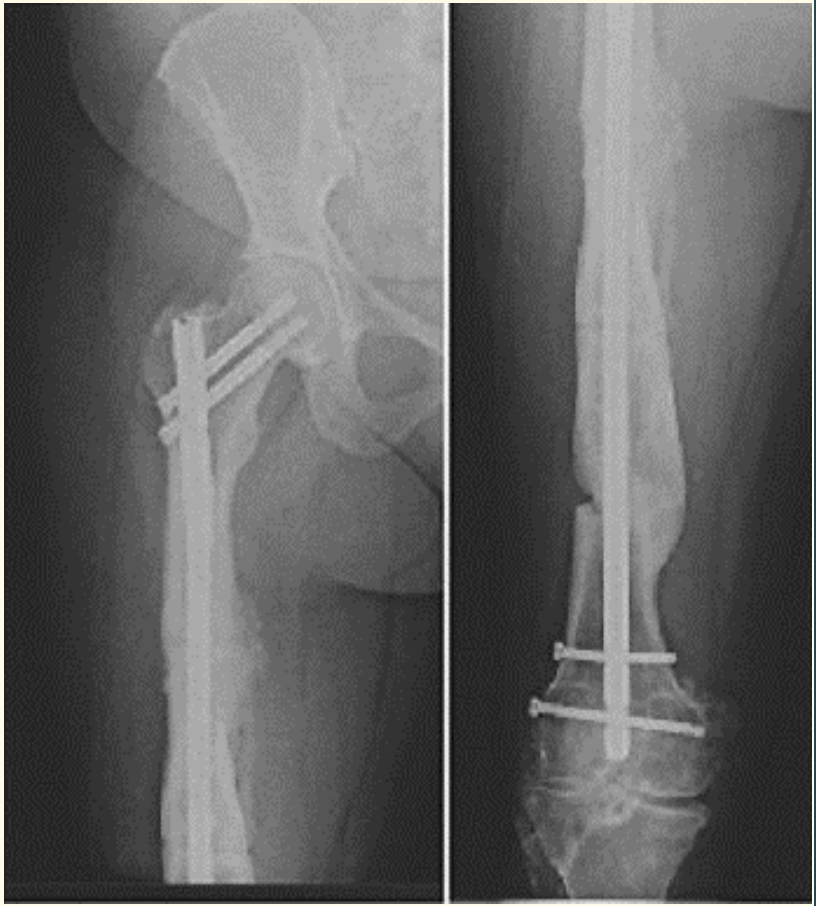
AP mid - and distal femur



AP proximal femur



AP mid - and distal femur



Femur fractures

Lateral projection

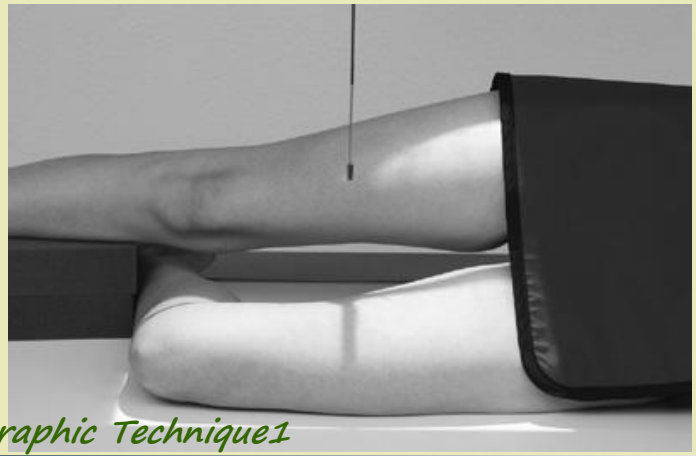
Lateral - (Mediolateral or Lateromedial Projections):

Clinical Indications:

For detection and evaluation of fractures and/or bone lesions

Position:

- Lateral recumbent, with unaffected leg placed behind to prevent over-rotation.
- Include sufficient amount of either knee or hip at one end of IR.



Lateral projection

Lateral distal femur

Trauma lateromedial (horizontal beam) projection.

Central Ray: Perpendicular to the mid-femur and the center of the IR

Collimation: Long, narrow collimation to femur area

Technique:

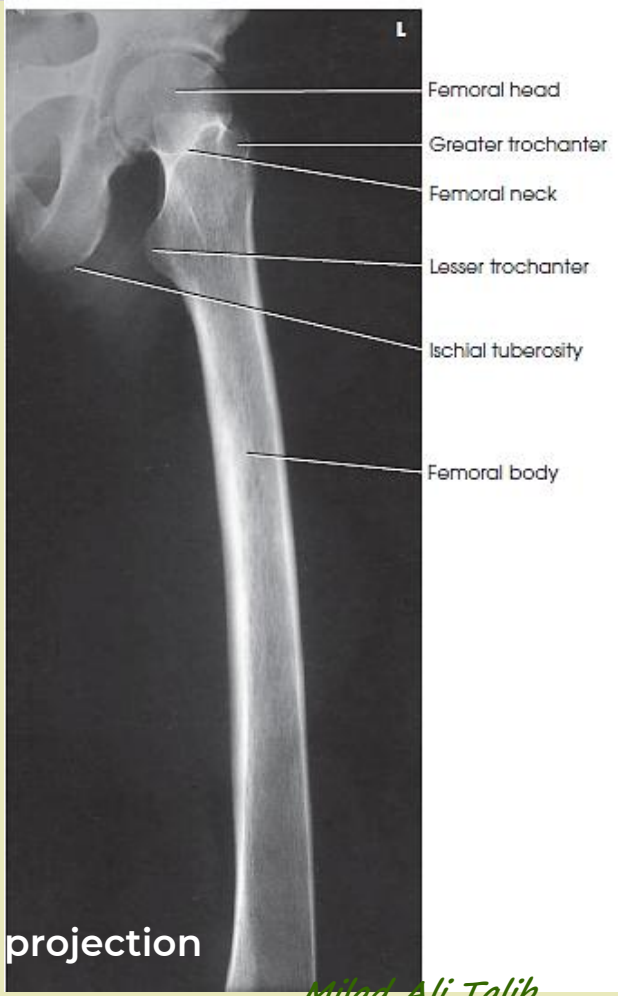
IR: 14 x17″ LW

Grid: YES

SID: 102 cm

kVp:87

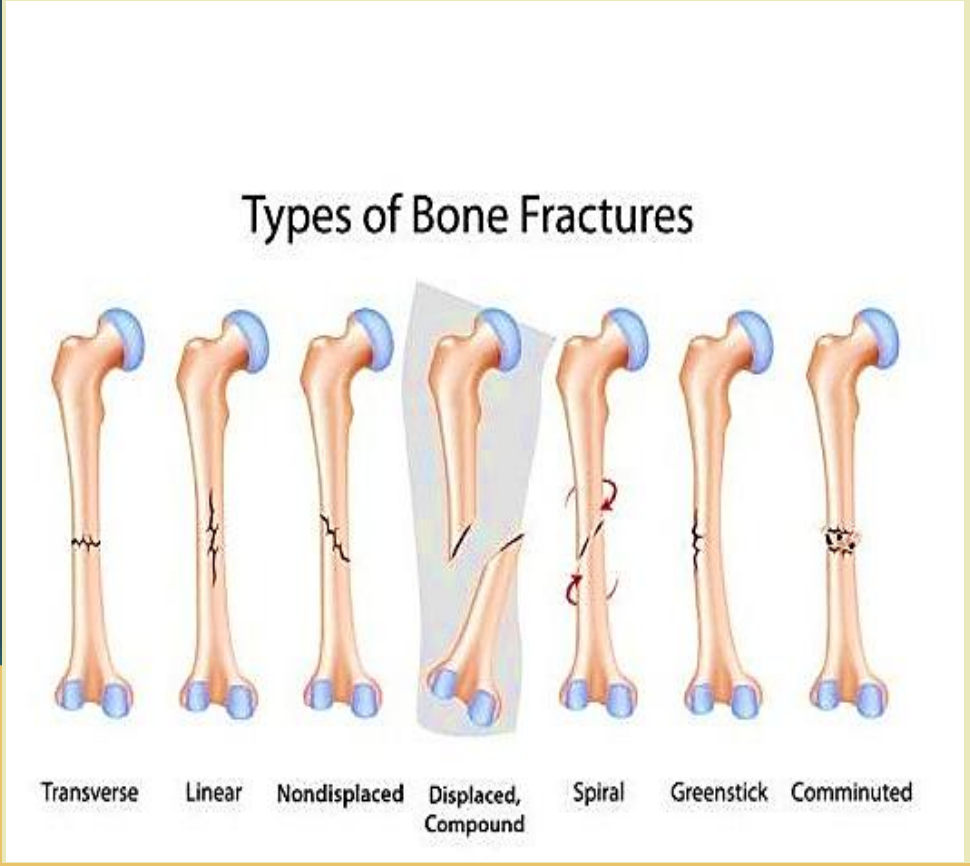
mAs: 7.1

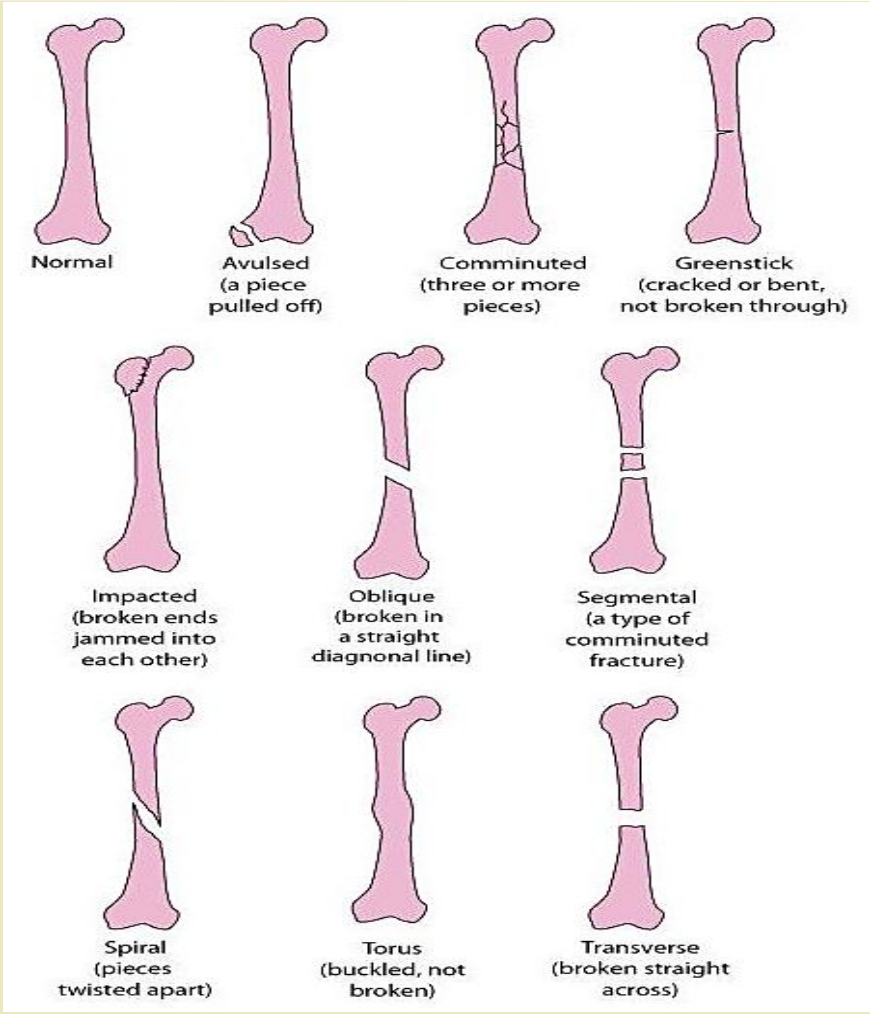


Lateral projection

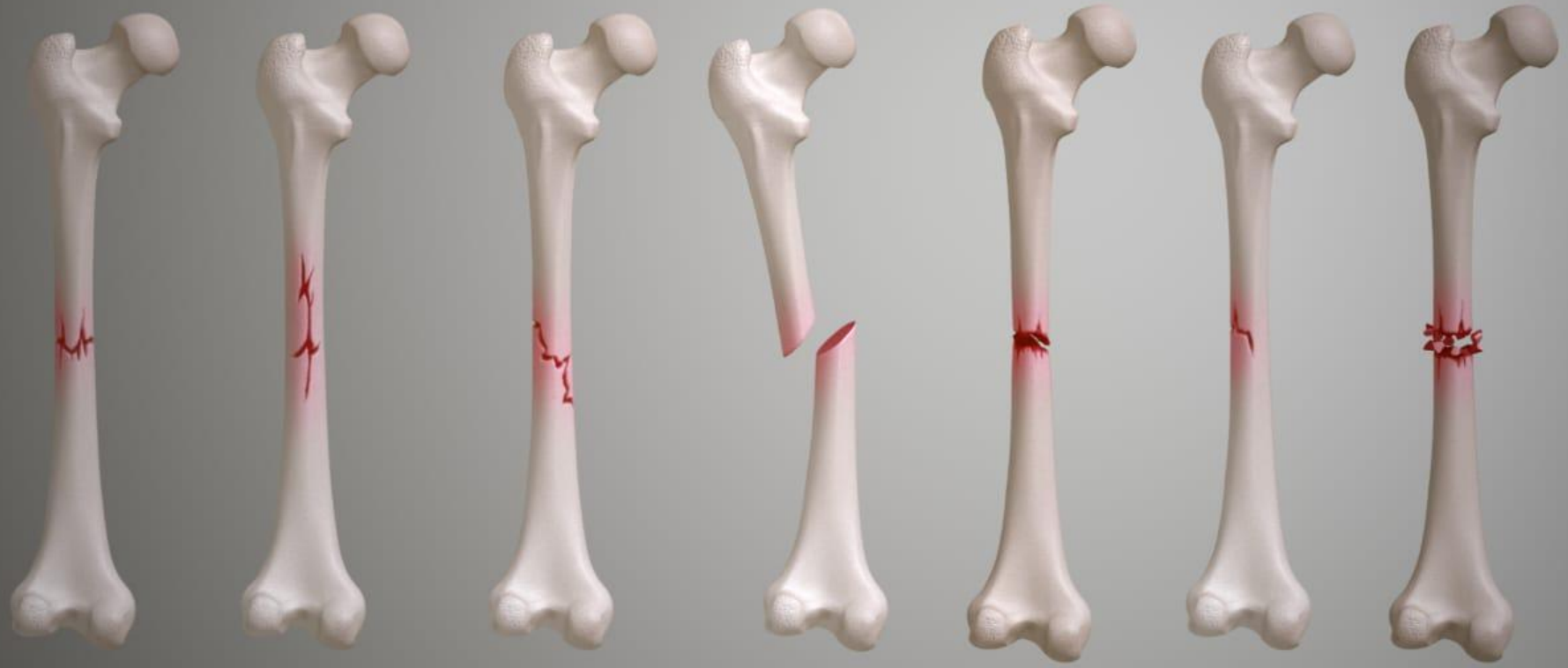

A
B
C


R
R


Types of Bone Fractures
Transverse
Linear
Nondisplaced
Displaced, Compound
Spiral
Greenstick
Comminuted


Normal
Avulsed (a piece pulled off)
Comminuted (three or more pieces)
Greenstick (cracked or bent, not broken through)
Impacted (broken ends jammed into each other)
Oblique (broken in a straight diagnonal line)
Segmental (a type of comminuted fracture)
Spiral (pieces twisted apart)
Torus (buckled, not broken)
Transverse (broken straight across)

Bone Fractures



وأعلموا أن مهمتكم ليست درجة تنالونها ...

إنما مهمتكم أمة تحيونها ...