



# Fractures, Sprains, and Dislocations



# Fractures

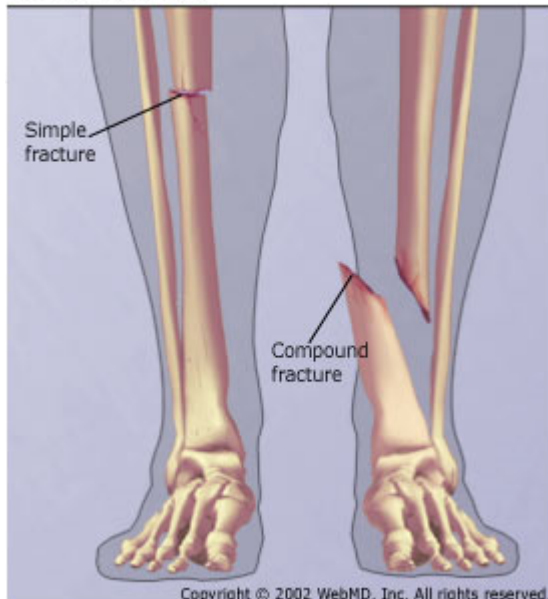
- A break or a crack in a bone is called a fracture.
- Many types of fractures are difficult to determine.
- If a fracture is suspected, it's wise to get it checked out

# Fracture Categories

- All fractures are one of two types

- 1) Closed – skin over fracture is not broken

Bone Fractures



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- 2) Open/Compound – where the skin over the fracture is broken. The bone may be visible.



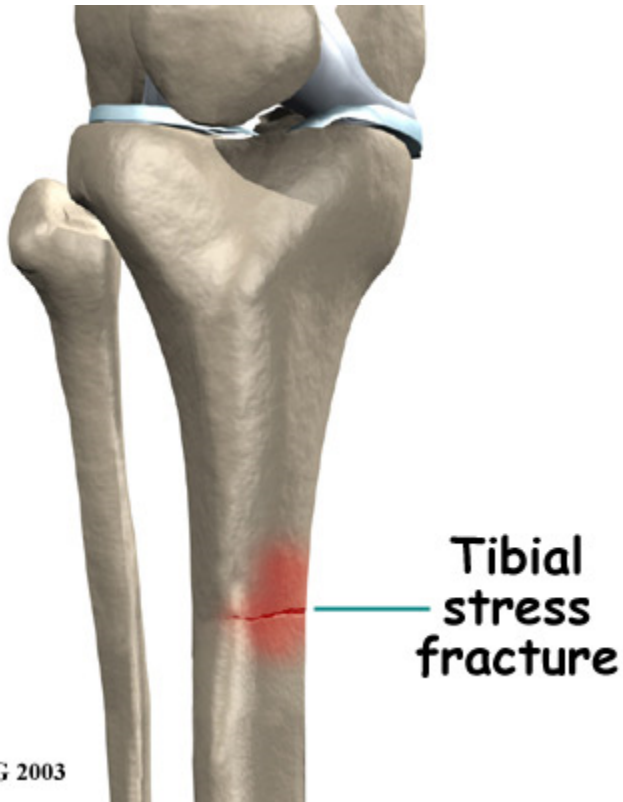
# Types of Fractures

- Hairline
- Stress
- Complete
- Greenstick
- Comminuted
- Depression
- Complicated
- Transverse
- Oblique
- Spiral

# Hairline Fracture



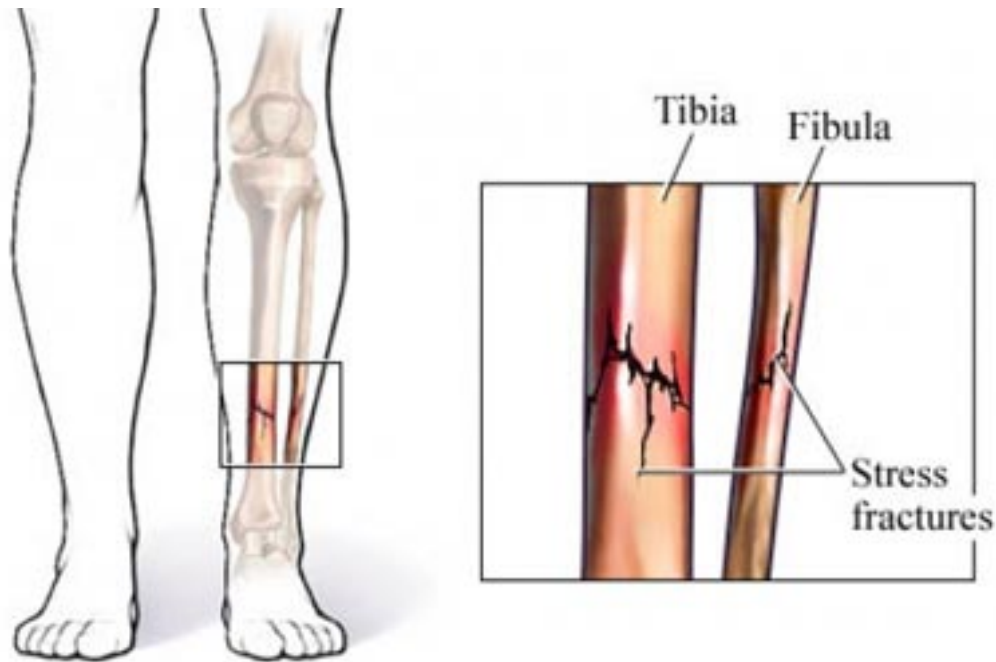
- A very thin crack or break in the bone



Hairline fracture of the foot

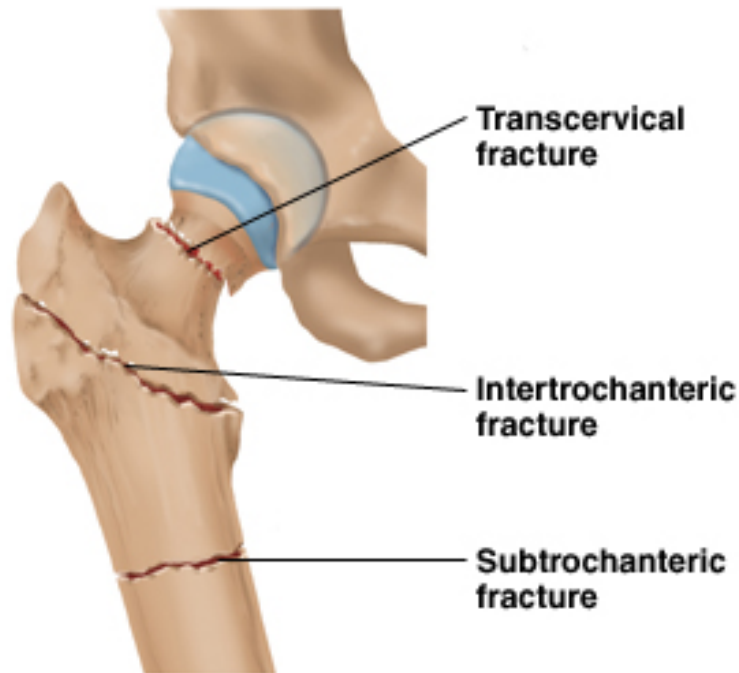
# Stress Fracture

- Fracture caused by repetitive stress to a bone



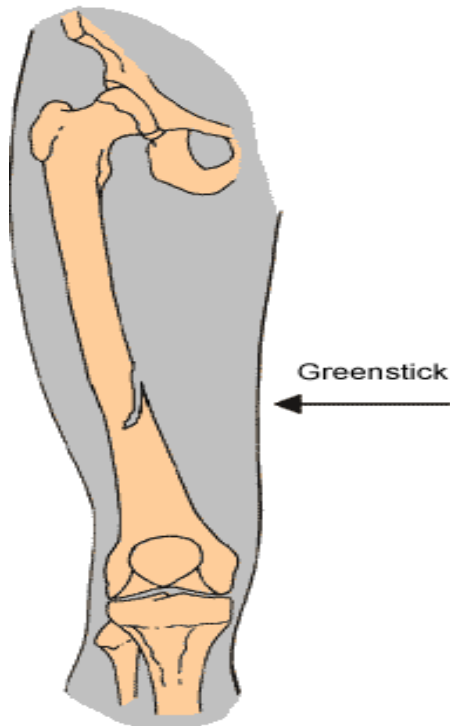
# Complete Fracture

- When a bone breaks into two separate pieces



# Greenstick Fracture

- When the bone cracks on one side only, not all the way through



Ulnar greenstick fracture



# Comminuted Fracture

- When the bone is broken into more than two pieces or is crushed

Simple fracture



Comminuted fracture

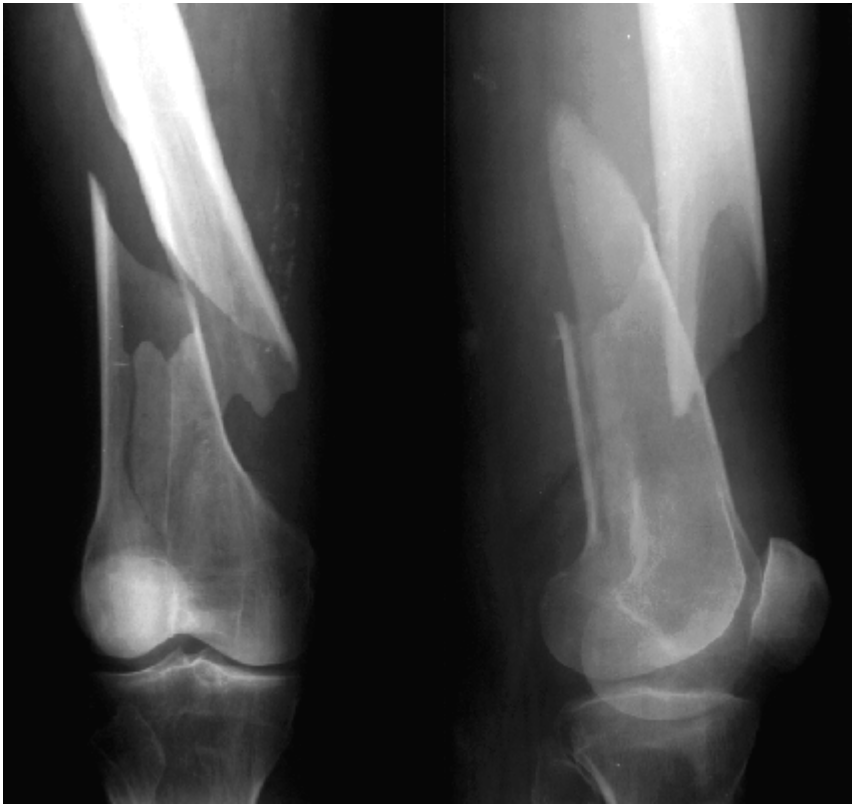


Open fracture

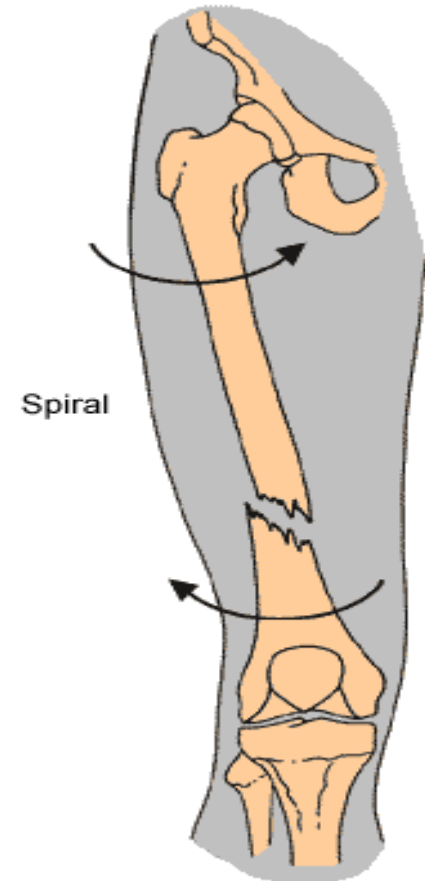


# Spiral Fracture

- Bone is broken by twisting

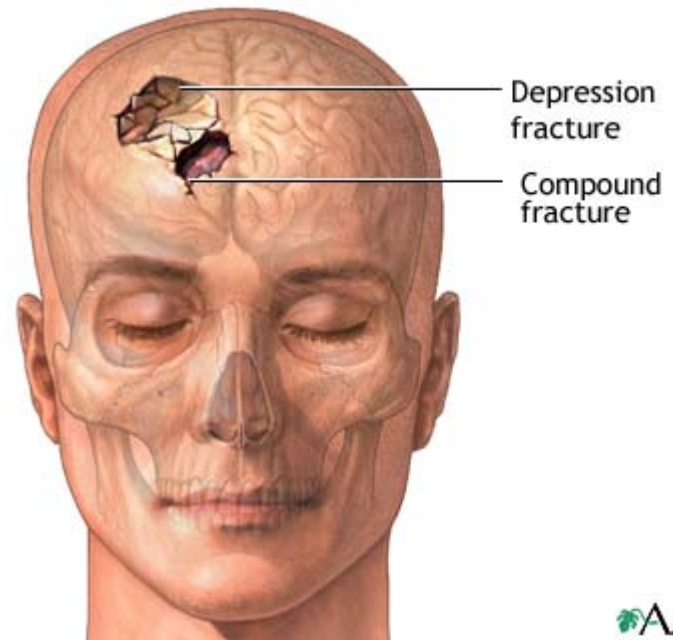
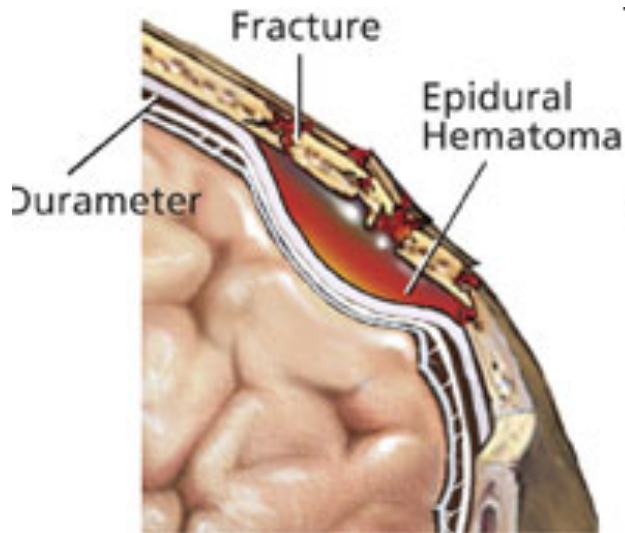


Spiral fracture of femur



# Depression Fracture

- When the skull is fractured inward



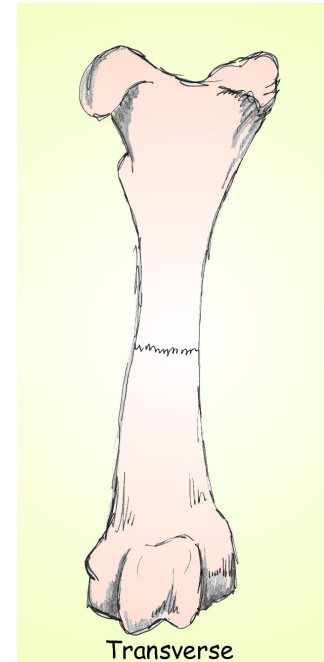


# Complicated Fracture

- When a broken bone may have caused damage to internal organs
- There is more concern than the fracture itself

# Transverse Fracture

- When the bone is broken straight across

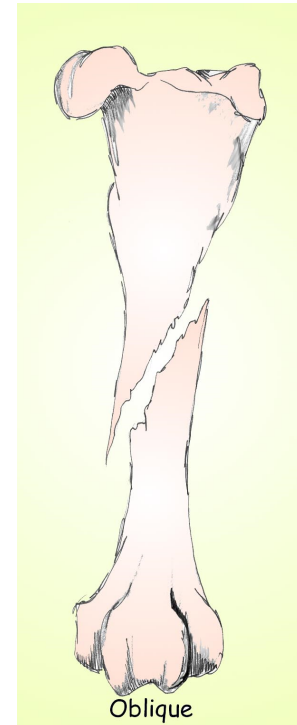


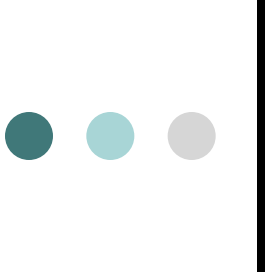
# Oblique Fracture

- When the bone is broken on a steep angle



fibula





# Signs or Symptoms of a Fracture

- Pain and tenderness
- Loss of function
- A wound (with bone sticking out)
- Deformity
- Unnatural movement
- Shock
- Crepitus (grinding) (don't test for this)
- Swelling and bruising

● ● ● Sprains





# What is sprain?

- The bones at a joint are held together by tough bands called ligaments.

A sprain is an injury to a ligament

- 1<sup>st</sup> degree – stretched
- 2<sup>nd</sup> degree – partially torn
- 3<sup>rd</sup> degree – completely torn
- Most common are the fingers, wrist, ankle, and knee



# Signs and Symptoms of a Sprain

- Pain that may be severe and increase with the movement of the joint
- Loss of function
- Swelling and discoloration



# Dislocations

# What is a dislocation?

- When the bones at a joint are no longer in proper contact.
- Can be caused by severe twisting or indirect force, or even a muscular contraction
- Most frequently dislocated joints
  - Shoulder
  - Elbow
  - Thumb
  - Finger
  - Jaw
  - Knee





# Signs and Symptoms of a Dislocation

- Deformity or abnormal appearance
- Pain and tenderness aggravated by movement
- Loss of normal function
- Joint may be locked in one position
- Swelling of the joint



# General Treatment Principles

- Stop the activity.
- Survey the injured area.
- First Aid if qualified.
- Get help if not.
- Determine if additional medical attention is necessary.



# RICE

- R - Rest
- I - Immobilize
- C - Cold
- E - Elevate