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
  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
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
Comminuted Fracture

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