

6.1 Injury Assessment + Hand Injuries

Injury Classification

How Serious?	Examples:	What to do?
1)		
2)		
3)		

Injuries are also defined as either:

- a)
- b)

In this unit, we are talking about injuries that are manageable OR have already had medical attention. For more serious injuries, follow the first aid principles you have learned.



Remember First Aid Steps:

Following First Aid procedures, you automatically assess a patient for any **life-threatening** conditions after any incident or injury. (Spinal injury, Breathing, Medical Conditions, Shock, etc.) If no life or limb-threatening issues are obvious, then proceed to assessing the injury. At any time, if the patient's condition warrants, you may need to stop and **9-1-1**.

Injury Assessment (HOPE)**H -**

Position: where?
Provokes: what worsens it?
Quality: sharp? dull? etc.
Radiating: spreading?
Relieves: what helps it?
Severity: scale of 1-10?
Timing: when did it start?

Other Useful Questions:

- What were you doing at the time?
- What position was your body in?
- Where was the direction of the force?
- What type of noises did you hear at the time of injury? (ex. snapping, grating, popping, etc.)
- Did you continue playing after the injury?
- Do you hurt anywhere else?

O -

Expose the injured area and look for any visible signs of injury. Compare the injured area to the opposite limb or joint. You are looking for:

P -

Begin touching away from the injury where you do not suspect any pain. Gradually feel toward the injury. Avoid touching the injury directly if it causes pain or tenderness. If the patient allows your touch on the injury, begin very **gently** and progress to deeper touch.

E -

If fracture does not seem likely and the patient is willing to attempt movement within a few minutes of injury, then begin to assess the range of motion.

Start with _____ movement (patient relaxes and you gently move the joint for them) through the range of motion. Stop if there is resistance or sharp pain. Compare to uninjured joint.

Then assess _____ range of motion (patient resists the gradual pressure that you apply) in each direction. Stop if there is resistance or sharp pain. Compare to uninjured joint.

Types of Bone & Joint Injuries

Fracture

Definition =

Example:



Open/Compound –

Closed/Simple –

Signs and Symptoms

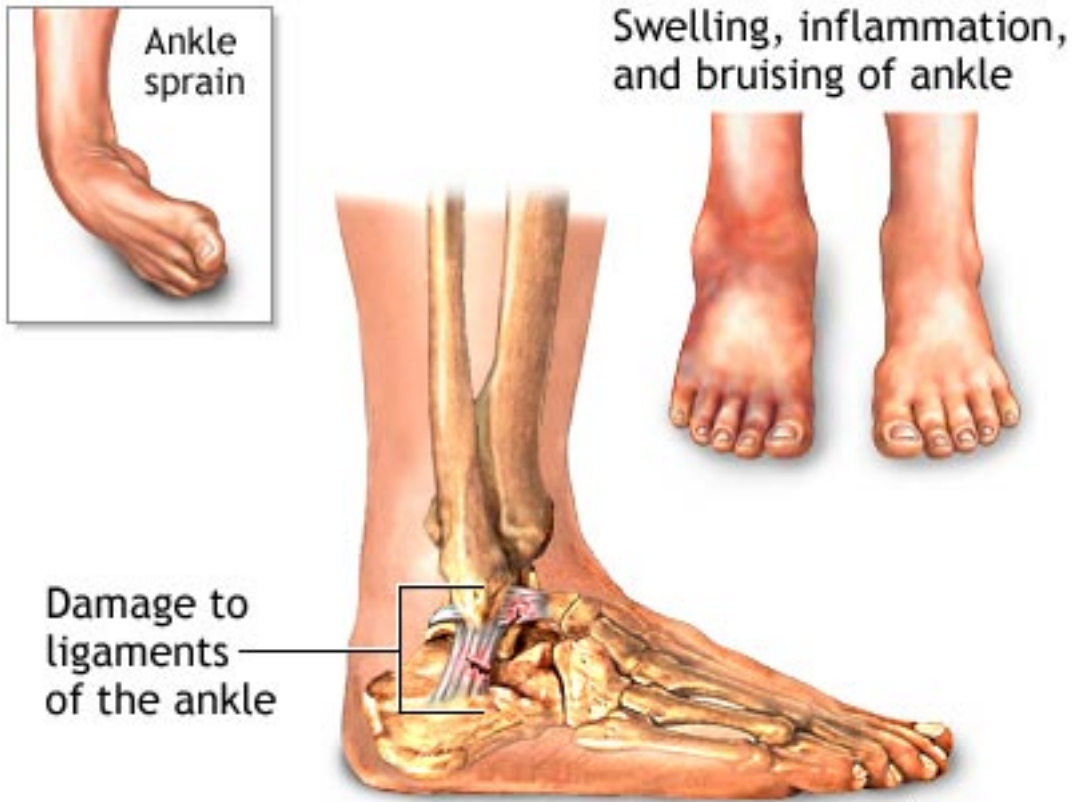
General Treatment

Neurological Assessment

Sprain

Definition:

Example:



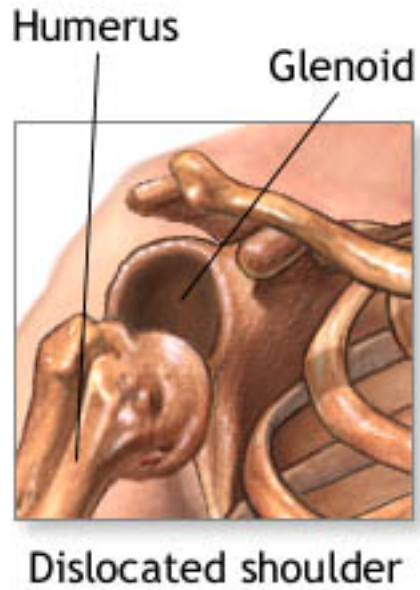
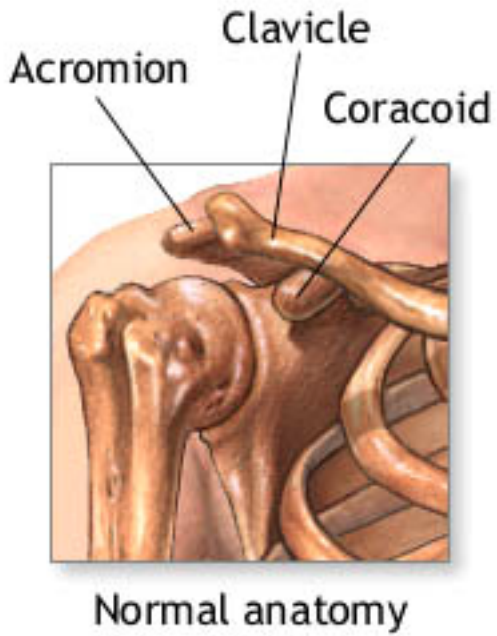
Signs and Symptoms

If unsure between sprain and fracture, also treat as fracture

Dislocations

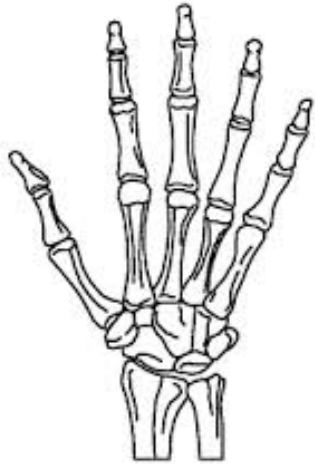
Definition =

Example:



Signs and Symptoms

Hand Anatomy



Injury Examples

Finger Sprain	Buddy Taping
Finger Fracture	Finger Splint
Finger Bleed	Steri-Strips and Tube Gauze
Thumb Sprain	Thumb Tape

4.1 Sports Injury Management

Injury Classification

How Serious?	Examples:	What to do?
1) Life or Limb Threatening		Call 9-1-1
2) Immediate Medical Attention Required		Call 9-1-1 or Drive to Emergency
3) Manageable		Go to Clinic or See Doctor later

Injuries are also defined as either:

- c) Acute or Traumatic (from a sudden incident)
- d) Chronic or Non-Traumatic (gradual injury over time)

In this unit, we are talking about injuries that are manageable OR have already had medical attention. For more serious injuries, follow the first aid principles you have learned.



Common Sports Injuries

Not including some covered already in Standard First Aid

1) Achilles Tendon Rupture

Description: The exact cause of rupture of the Achilles tendon is not known. As with Achilles tendonitis, tight or weak calf muscles may contribute to the potential for a rupture.

2) Ankle Sprains

Description: The most common of all ankle injuries, an ankle sprain occurs when there is a stretching and tearing of ligaments surrounding the ankle joint.

3) Anterior Cruciate Ligament (ACL) Injuries

Description: ACL partial or complete tears can occur when an athlete changes direction rapidly, twists without moving the feet, slows down abruptly, or misses a landing from a jump

4) Blisters

Description: A fluid-filled sack on the surface of the skin that commonly occurs on the hands, or the feet.

5) Concussion

Description: A concussion is typically caused by a severe head trauma where the brain moves violently within the skull so that brain cells all fire at once, much like a seizure.

6) Hamstring Pull, Tear, or Strain

Description: Hamstring injuries are common among runners. The hamstring muscles run down the back of the leg from the pelvis to the lower leg bones, and an injury can range from minor strains to total rupture of the muscle.

7) Knee Pain

Description: Knee pain is extremely common in athletes. In order to treat the cause of the pain, it is important to have an evaluation and proper diagnosis. Common reasons for knee pain in athletes include the following.

8) Iliotibial (IT) Band Friction Syndrome

Description: Knee pain that is generally felt on the outside (lateral) aspect of the knee or lower thigh often indicates Iliotibial (IT) Band Friction Syndrome.

9) Plantar Fasciitis

Description: Plantar fasciitis is the most common cause of pain on the bottom of the heel and usually defined by pain during the first steps of the morning.

10) Shin Splints

Description: Shin Splints describes a variety of generalized pain that occurs in the front of the lower leg along the tibia (shin bone). Shin Splints are considered a cumulative stress injury.

11) Shoulder Tendinitis, Bursitis, and Impingement Syndrome

Description: These conditions are similar and often occur together. If the rotator cuff and bursa are irritated, inflamed, and swollen, they may become squeezed between the head of the humerus and the acromion.

12) Stress Fracture

Description: Stress fractures in the leg are often the result of overuse or repeated impacts on a hard surface

13) Tendonitis

Description: Tendonitis is a common sports injury that often occurs from overuse. Tendonitis can cause deep, nagging pain that is caused by inflammation of tendons. Treating tendonitis consists of rest, medication, physical therapy or changes to equipment or technique

14) Tennis Elbow (Lateral Epicondylitis)

Description: the number one reason people see their doctor for elbow pain. It is considered a cumulative trauma injury that occurs over time from repeated use of the muscles of the arm and forearm that lead to small tears of the tendons.

15) Torn Rotator Cuff

Description: A common symptom of a rotator cuff injury is aching, and weakness in the shoulder when the arm is lifted overhead.

Following First Aid procedures, you automatically assess a patient for any life-threatening conditions after any incident or injury. (Spinal injury, Breathing, Medical Conditions, Shock, etc.) If no life or limb-threatening issues are obvious, then proceed to assessing the injury. At any time, if the patient's condition warrants, you may need to stop and call 9-1-1 or arrange transportation to medical aid.

Injury Assessment (HOPE)

H - History

Position: where?
Provokes: what worsens it?
Quality: sharp? dull? etc.
Radiating: spreading?
Relieves: what makes it better?
Severity: scale of 1-10?
Timing: when did it start?

Other Useful Questions:

- What were you doing at the time?
- What position was your body in?
- Where was the direction of the force?
- What type of noises did you hear at the time of injury? (ex. snapping, grating, popping, etc.)
- Did you continue playing after the injury?
- Do you hurt anywhere else?

O - Observation

Expose the injured area and look for any visible signs of injury. Compare the injured area to the opposite limb or joint. You are looking for:

- Deformity
- Bleeding
- Swelling
- Discoloration

P - Palpation (=touch)

Begin touching away from the injury where you do not suspect any pain. Gradually feel toward the injury. Avoid touching the injury directly if it causes pain or tenderness. If the patient allows your touch on the injury, begin very gently and progress to deeper touch.

E - Evaluate Function

If fracture does not seem likely and the patient is willing to attempt movement within a few minutes of injury, then begin to assess the range of motion.

Start with **passive** movement (patient relaxes and you gently move the joint for them) through the range of motion. Stop if there is resistance or sharp pain. Compare to uninjured joint.

Then assess **resisted** range of motion (patient resists the gradual pressure that you apply) in each direction. Stop if there is resistance or sharp pain. Compare to uninjured joint.

Fractures

A broken or cracked bone

Example:



Open/Compound – **surface of skin is broken. Worry of deadly bleeding and infection**
Closed/Simple – **surface of skin is not broken**

S&S

- History – mechanism of injury
- Pain – sudden and extreme
- Deformity
- Point Tenderness
- Swelling
- Loss of stability/usage of limb
- Discolouration/bruising
- Crepitus

General Treatment

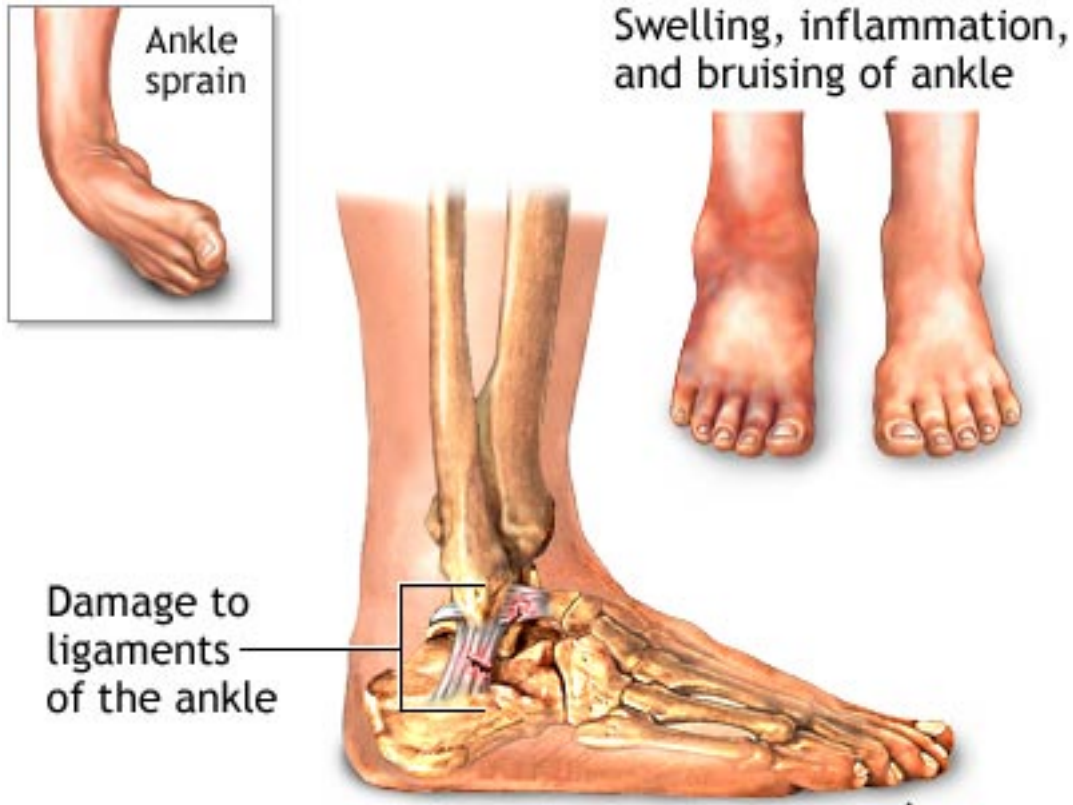
- 1) Control Bleeding
- 2) Hold still during assessment
- 3) EMS if necessary
- 4) Immobilize ABOVE and BELOW site of injury (splint, sandbags, manual, etc.)
- 4) Ice if distal circulation is ok.
- 5) Assess and treat for shock

** Never splint directly over fracture

Sprain

A stretching, partial, or complete tear of a ligament at a joint. If unsure between sprain and fracture, also treat as fracture

Example:



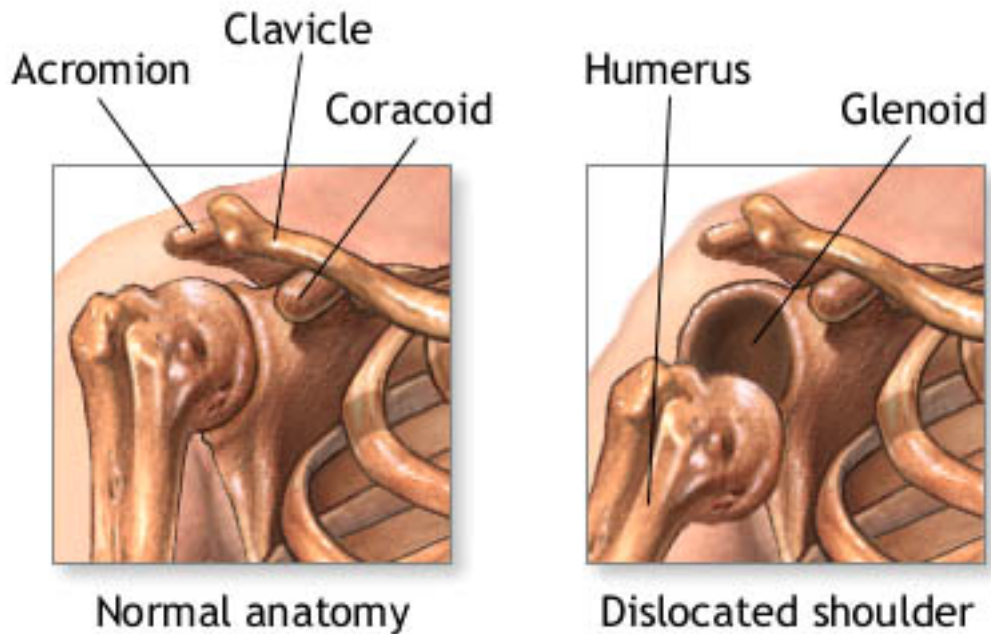
S&S

- **History of twisting or stretching of a joint beyond normal movement range**
- **Swelling and pain**
- **Point tenderness**

Dislocations

A displacement of one or more bones so that joint surfaces are no longer in contact. Common displacements are shoulders and hips.

Example:



Signs and Symptoms

- Severe pain
- Obvious gross deformity and irregularity
- Complete or near-complete inability to move joint
- Often locked in deformed position
- NEVER REPLACE DISLOCATION!