Trauma, shoulder pain
AC Joint Injury

• Background

  – Young active population
  
  – 9% of all shoulder girdle injuries
  
  – 8% of all joint dislocations throughout the body
  
  – 5 to 1 male to female predominance
AC Joint Injury

- **Mechanism**
  - Most commonly direct blow to scapula with shoulder adducted
  - Scapula pushed downward and forward with respect to the clavicle
  - Tensile failure of AC ligament, CC ligament, and then trapezius, usually in this order
AC Joint Injury

AC Joint Injury

Grade 1
Incomplete tear of Superior AC Ligament

Grade 2
Complete tear of AC Ligament
Low grade sprain CC Ligaments

AC Joint Injury

Grade 3
Complete tear of AC and CC ligaments

Grade 4
Complete tear of AC and CC ligaments with posterior displacement of clavicle

AC Joint Injury

**Grade 5**
Complete tear of AC and CC ligaments
More superior displacement, tearing of trapezius/deltoid

**Grade 6**
Inferior displacement with tearing of AC ligament

AC Joint Injury

- Grade 4 injury
  - Also called anterior dislocation of the scapula
  - Often no vertical displacement on frontal radiograph
  - Axillary best view

AC Joint Injury

• Grade 4 injury
  – “Buttonholing” can occur with clavicle piercing the trapezius muscle

AC Joint Injury

• Grade 4 injury
  – Higher association with anterior dislocation of sternoclavicular joint
AC Joint Injury

- **Treatment**
  - Most grade 4 require surgery
  - Grade 1-2 non surgical
  - Grade 3 controversial (trend to no surgery)

1. Quinn SF. Acromioclavicular Joint Trauma. MRI Web Clinic. Radsource. April 2010


