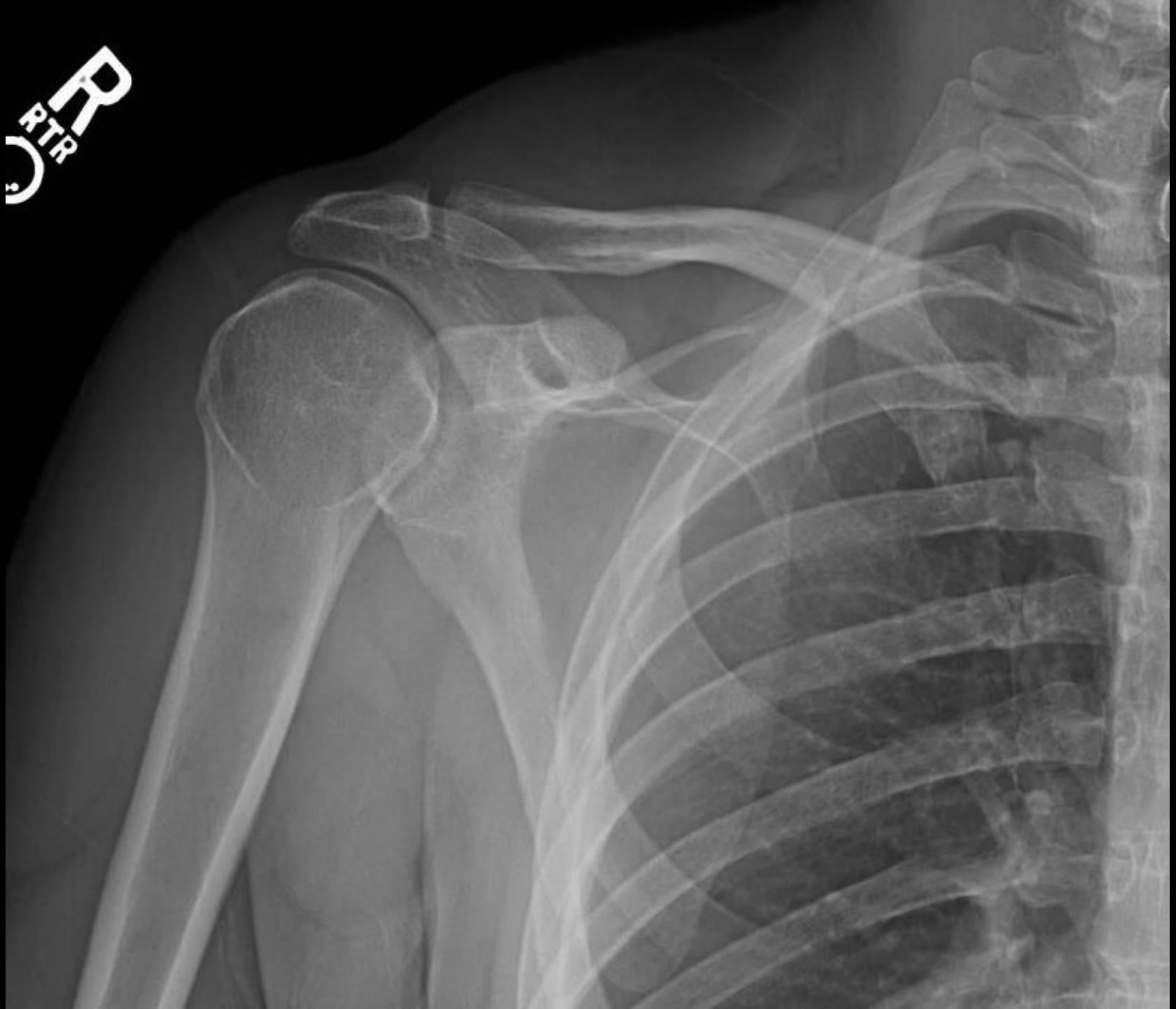
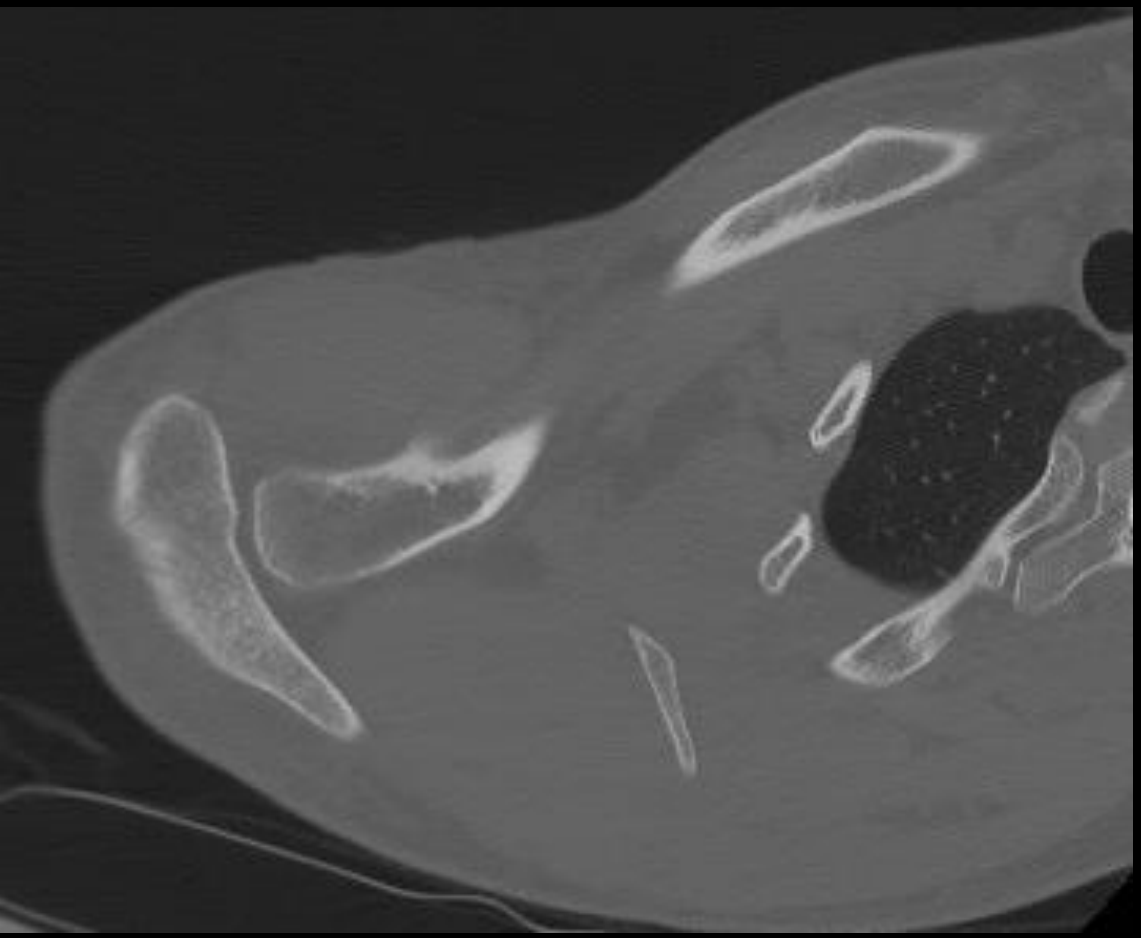
Trauma, shoulder pain


R
RTR

Unable to perform exam with weights



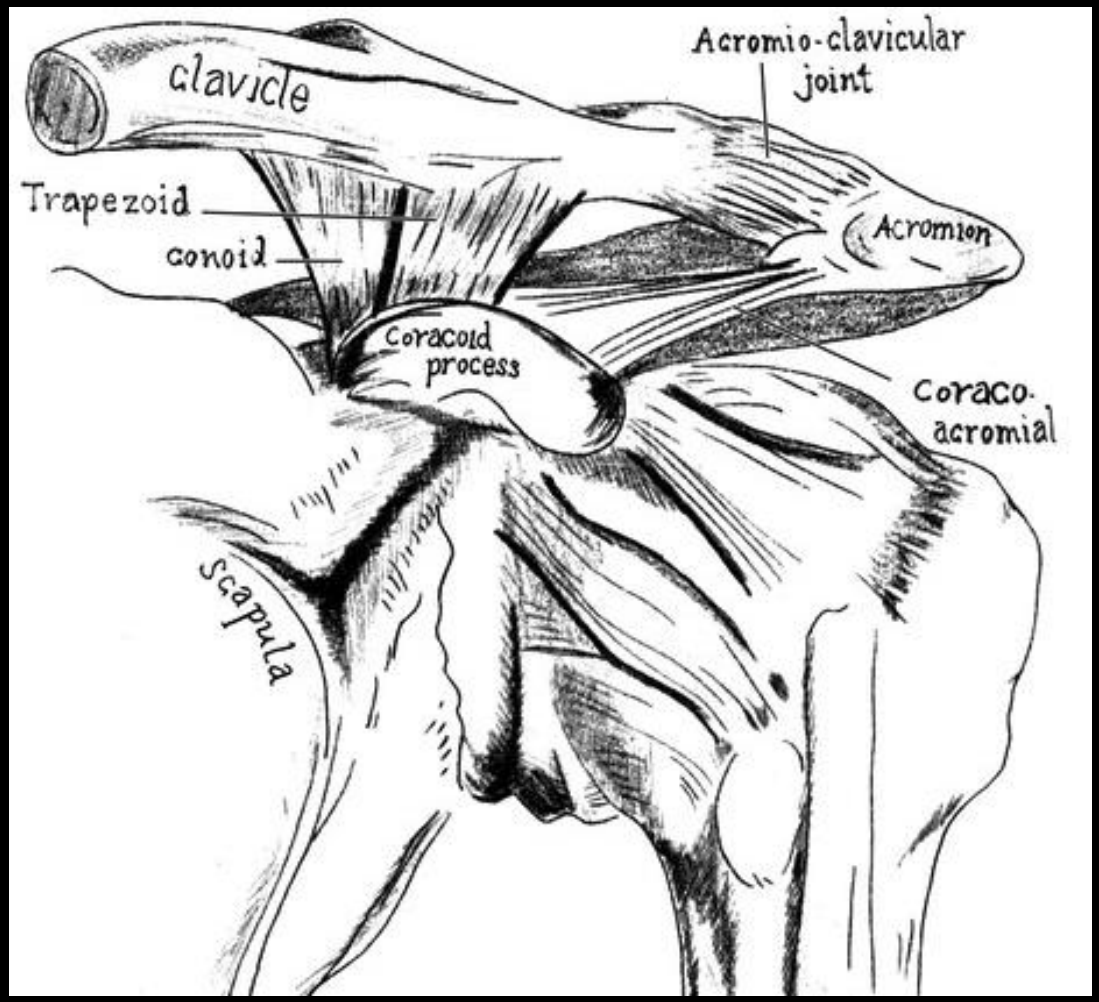
AC Joint Injury

- 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

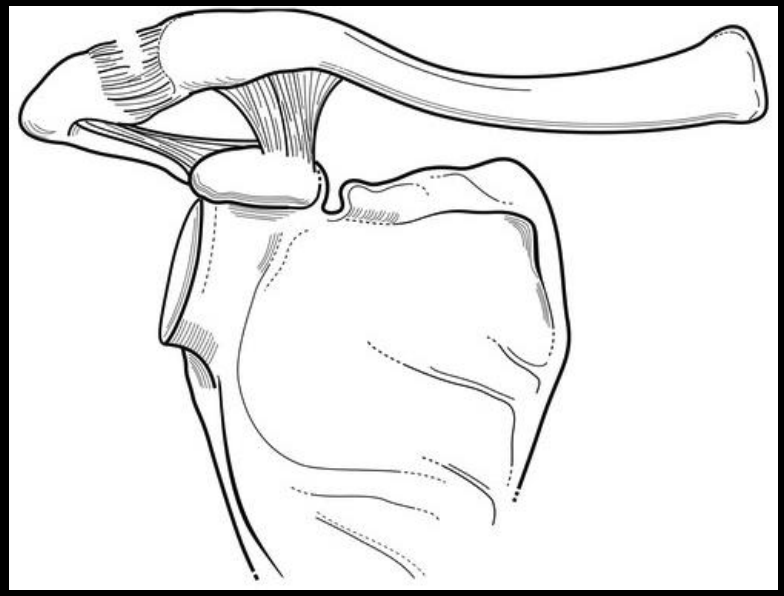
- Mechanism
  - Most commonly direct blow to scapula with shoulder adducted
  - Scapula pushed downward and forward with respect to the clavicle
  - Tensile failure of AC ligament, CC ligament, and then trapezius, usually in this order

AC Joint Injury

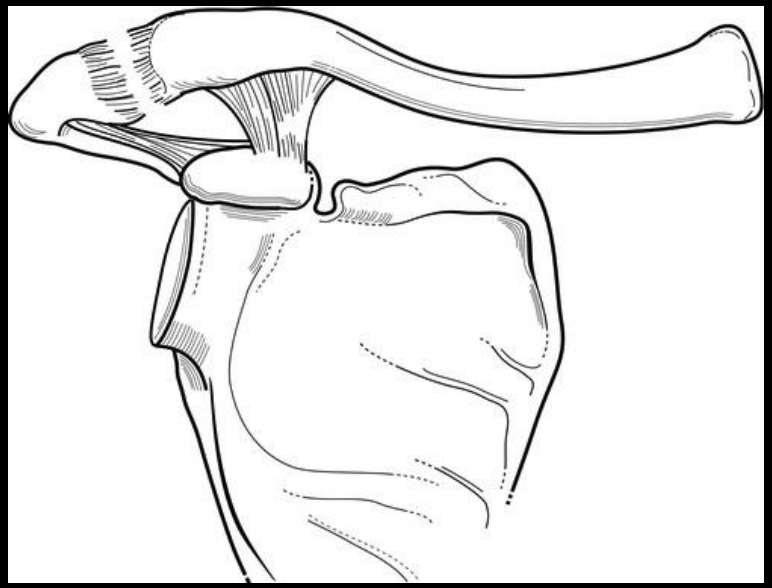


Alyas F, Curtis M, Speed C, Saifuddin A, Connell D. MR imaging appearances of acromioclavicular joint dislocation. Radiographics 2008; 28:463-479

AC Joint Injury



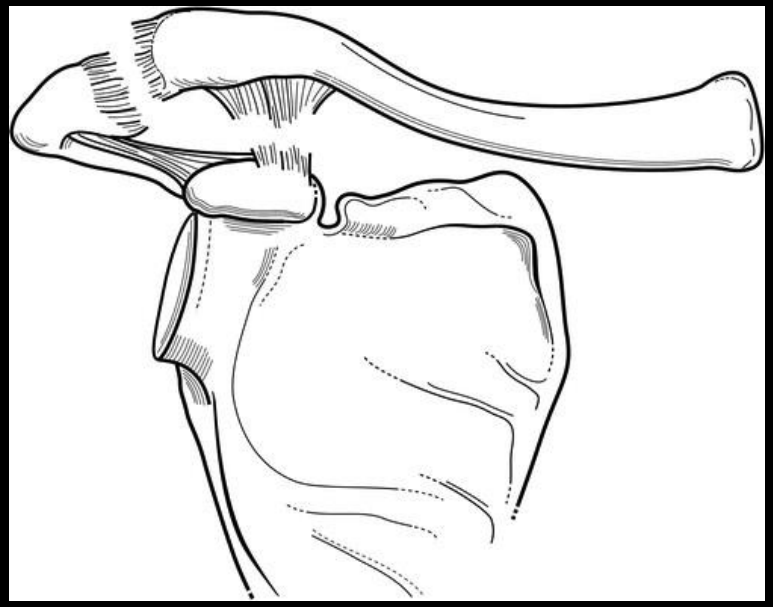
Grade 1
Incomplete tear of Superior AC Ligament



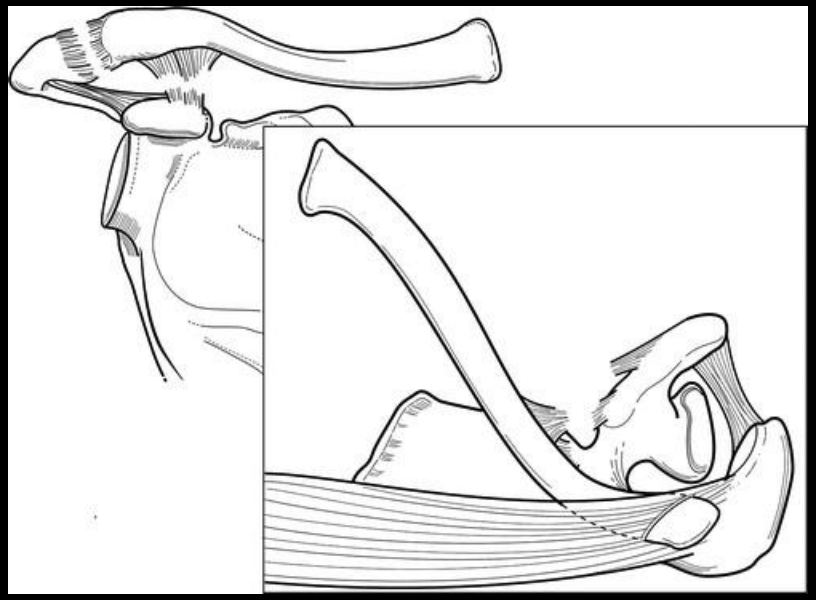
Grade 2
Complete tear of AC Ligament
Low grade sprain CC Ligaments

Alyas F, Curtis M, Speed C, Saifuddin A, Connell D. MR imaging appearances of acromioclavicular joint dislocation. Radiographics 2008; 28:463-479

AC Joint Injury



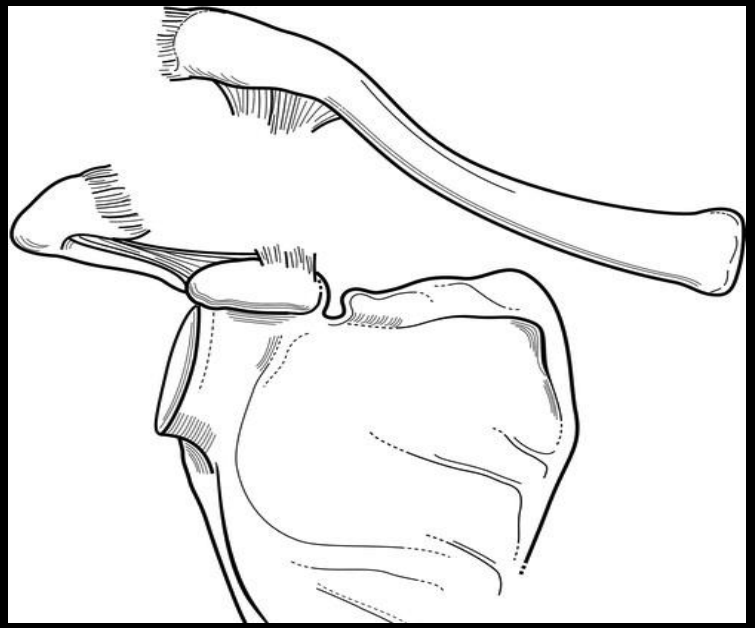
Grade 3
Complete tear of AC and
CC ligaments



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

Alyas F, Curtis M, Speed C, Saifuddin A, Connell D. MR imaging appearances of acromioclavicular joint dislocation. Radiographics 2008; 28:463-479

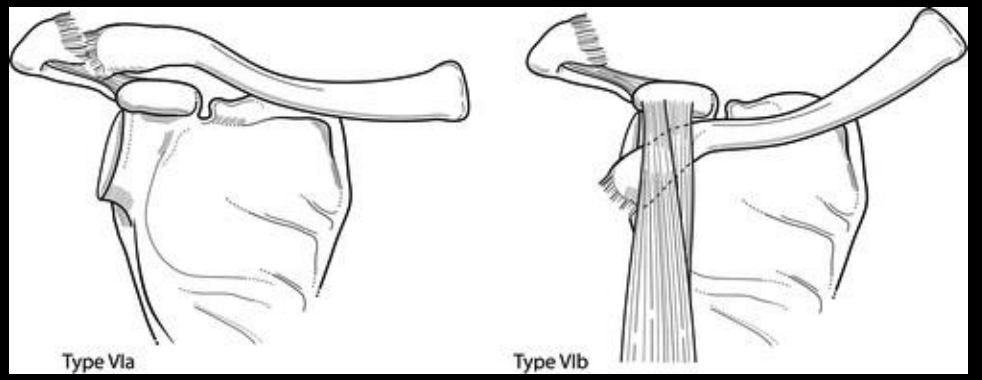
AC Joint Injury



Grade 5

Complete tear of AC and CC ligaments

More superior displacement, tearing of trapezius/deltoid



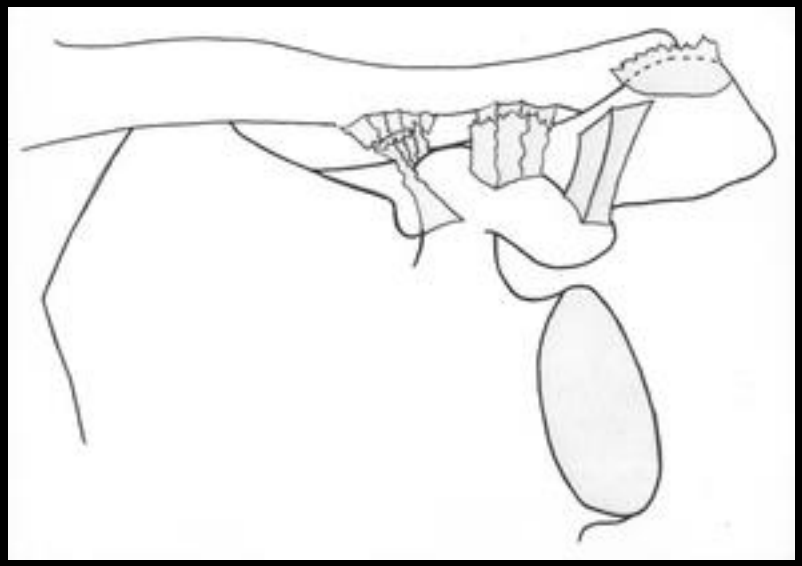
Grade 6

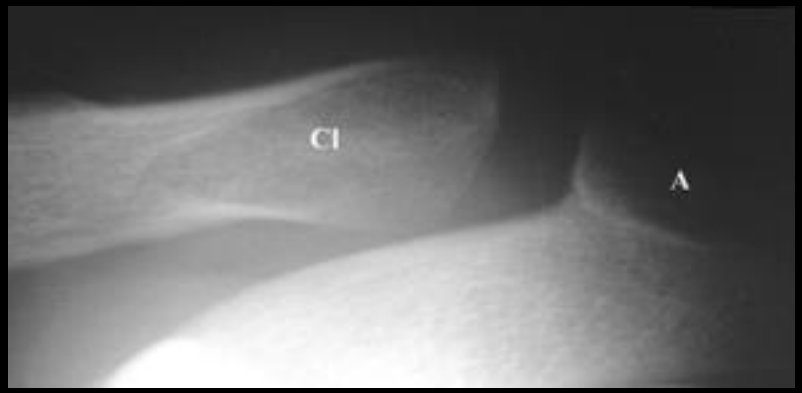
Inferior displacement with tearing of AC ligament

Alyas F, Curtis M, Speed C, Saifuddin A, Connell D. MR imaging appearances of acromioclavicular joint dislocation. Radiographics 2008; 28:463-479

AC Joint Injury

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

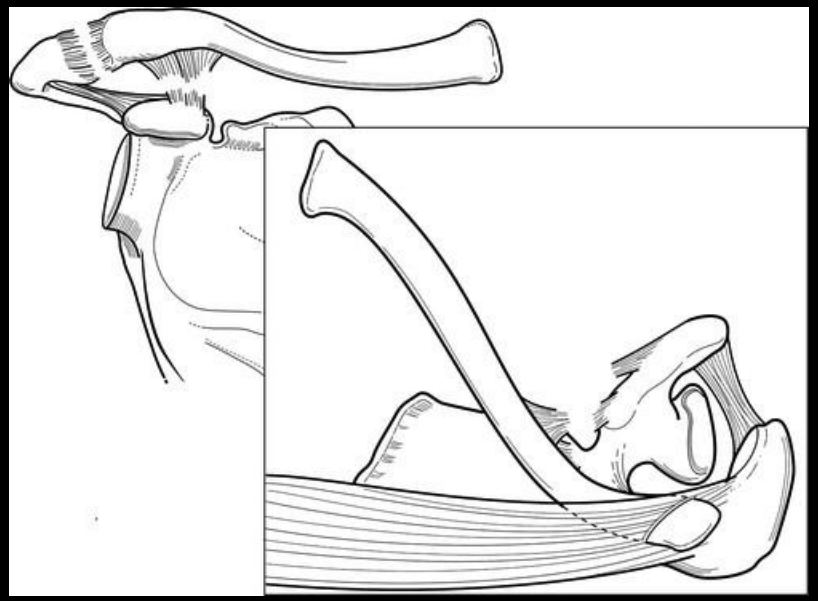




Antonio GE, Cho JH, Chung CB, Trudell DJ, Resnick D. Pictorial essay. MR imaging appearance and classification of acromioclavicular joint injury. AJR Am J Roentgenol 2003; 180:1103-1110

AC Joint Injury

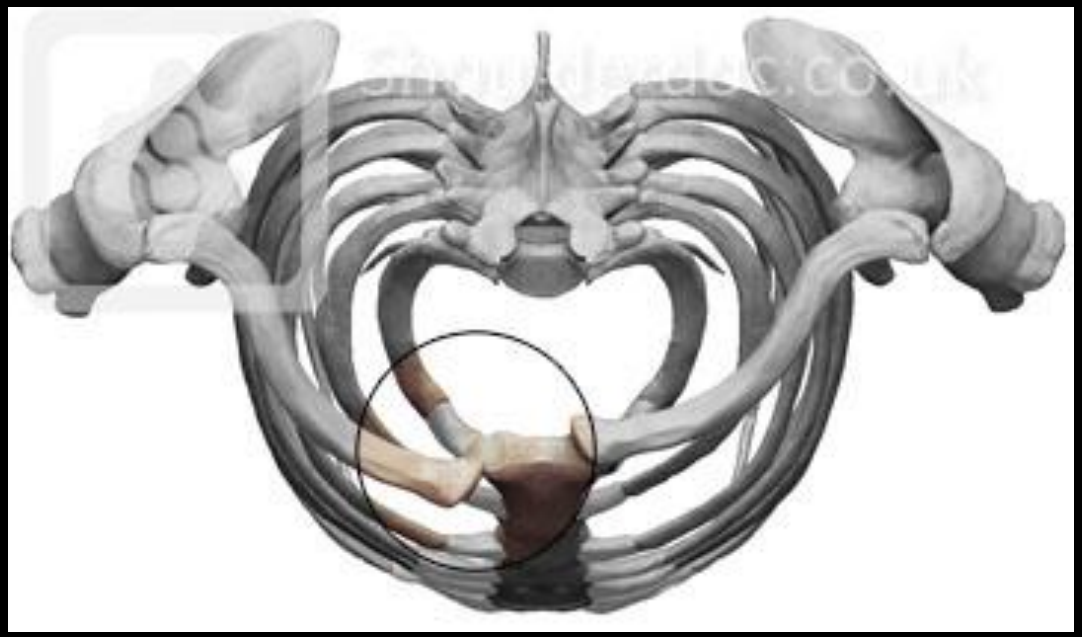
- Grade 4 injury
  - "Buttonholing" can occur with clavicle piercing the trapezius muscle



Rockwood CA, Young DC. Disorders of the acromioclavicular joint. In: Rockwood CA, Matsen F III, eds. *The shoulder*. Philadelphia: WB Saunders, 1990:446

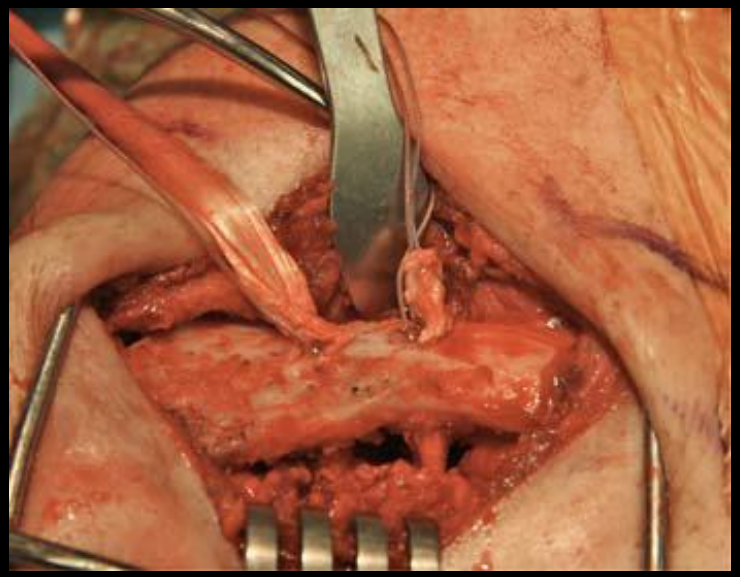
AC Joint Injury

- 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)



Provencher MT, Mazzocca AD, Romeo AA. Injuries to the Acromioclavicular Joint in Adults and Children. In: DeLee JC, David Drez D, Miller MD, eds. DeLee: DeLee and Drez's Orthopaedic Sports Medicine, 3rd ed. Philadelphia: Saunders, 2009

References

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

1. Antonio GE, Cho JH, Chung CB, Trudell DJ, Resnick D. Pictorial essay. MR imaging appearance and classification of acromioclavicular joint injury. AJR Am J Roentgenol 2003; 180:1103-1110

2. Alyas F, Curtis M, Speed C, Saifuddin A, Connell D. MR imaging appearances of acromioclavicular joint dislocation. Radiographics 2008; 28:463-479

3. Rios CG, Mazzocca AD. Acromioclavicular joint problems in athletes and new methods of management. Clin Sports Med 2008; 27:763-788

4. Mazzocca AD, Arciero RA, Bicos J. Evaluation and treatment of acromioclavicular joint injuries. Am J Sports Med 2007; 35:316-329

5. Provencher MT, Mazzocca AD, Romeo AA. Injuries to the Acromioclavicular Joint in Adults and Children. In: DeLee JC, David Drez D, Miller MD, eds. DeLee: DeLee and Drez's Orthopaedic Sports Medicine, 3rd ed. Philadelphia: Saunders, 2009

6. Rockwood CA, Young DC. Disorders of the acromioclavicular joint. In: Rockwood CA, Matsen F III, eds. *The shoulder*. Philadelphia: WB Saunders, 1990:446