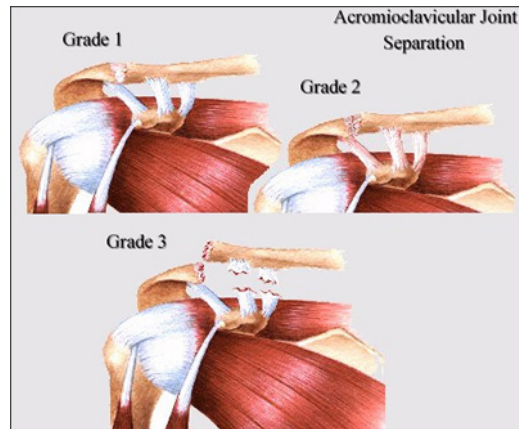


SHOULDER INJURIES

Acromioclavicular (AC) Joint Separation in Lacrosse Players

- Lacrosse is a physical sport with a prevalence of injuries
- Acromioclavicular (AC) separations are the **most common** shoulder injuries in colligate lacrosse.
- The AC joint is where the Clavicle (collar bone) meets the acromion (part of the shoulder blade)
- Separations vary in severity from a grade 1 to 6. The image below depicts the primary separations
 - **Grade 1:** All ligaments are intact with micro tears
 - **Grade 2:** AC ligaments are torn, but coracoclavicular (CC) ligaments are intact.
 - **Grade 3:** Complete tear of AC and CC ligaments
 - **Grades 4-6:** Very similar to 3 where all ligaments are torn. Differ in the displacement of the clavicle and involvement of other associated ligaments
- Signs and Symptoms of the Injury:



- Tenderness over the AC joint
- Pain with shoulder mobility, greatest with cross body reaching
- Increased joint spacing between the clavicle and acromion (seen in image below)
- "Piano Key Sign" (when placing pressure over the end of the clavicle it will depress then rebound once released.)

- Treatment for grades 1-2 at **Fox Valley Lacrosse Team Doctors - PRO Sports & Spinal Rehab:**
 - pt. can be treated with mild pain medication, a sling, and/or physical therapy
 - Slings should not be worn more than 7-10 days without completing light exercises (pendulums)
 - Therapy will focus on increasing ROM to normal and eliminating pain
 - Prognosis varies from person to person and severity. Typically it is 2-12 weeks
- Treatment for grade 3 at **Fox Valley Lacrosse Team Doctors - PRO Sports & Spinal Rehab:**
 - Grade 3s are the most controversial on whether to treat conservatively (therapy) or with surgery.
 - Research suggest completing conservative management initially, but if chronic pain and weakness continue surgery will be needed
- Treatment for grade 4-6 at **Fox Valley Lacrosse Team Doctors - PRO Sports & Spinal Rehab:**
 - Surgery is inevitable with these cases
 - After surgery individuals typically are placed in a sling for the first 6 weeks
 - Prognosis for return to play is a minimal of 4 months of therapy
- Injury Prevention: Based on the nature of the game there are limited preventative measures, however several are listed below:
 - Upper extremity (UE) strengthening
 - UE flexibility
 - Wearing properly fit equipment
 - Learning and utilizing proper technique
 - Endurance training.
 - Once an injury occurs additional protective equipment, as displayed, can be placed under the pads to decrease aggravation of issues.



If there are any questions regarding this topic or other topics of interest, please reach us at prorehab.max@gmail.com



815-267-6263

prosportschiro.com



- Gardner EC, Chan WW, Sutton KM, Blaine TA. Shoulder Injuries in Men's Collegiate Lacrosse, 2004-2009. *The American Journal of Sports Medicine*. 2016;44(10):2675-2681.
- Engebretsen L Steffen K Alonon JM, et al. Sports injuries and illnesses during the winter Olympic Games 2010. *Br J Sports Med* 2010;44:772-80
- Agel J Dompier TP Dick R, et al. Descriptive epidemiology of collegiate men's ice hockey injuries: National Collegiate Athletic Association Injury Surveillance System, 1988-1989 through 2003-2004. *J Athl Train*2007;42:241-8
- <http://www.sportsandortho.com/UserFiles/SeparatedShoulder2.jpg>
- <http://upl.stack.com/wp-content/uploads/2016/05/05152647/Shoulder-Seperation-STACK1.jpg>
- Buttaravoli, P. MD, & Leffler, S.M., MD. (2012). Acromioclavicular (Shoulder) Separation. In *Minor Emergencies* (pp. 367-371). Philadelphia, PA: Elsevier Saunders.
- Tuominen M Stuart MJ Aubry M, et al. Injuries in men's international ice hockey: a 7-year study of the International Ice Hockey Federation Adult World Championship Tournaments and Olympic Winter Games. *Br J Sports Med*. 2014:bjsports-2014-093688.
- <http://i.ebayimg.com/images/i/272276146699-0-1/s-11000.jpg>