

The Painful Shoulder

Common causes of shoulder pain and treatment
Options

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Overview

- Personal Background
- Orthopedic surgeons are detectives
- Soft tissue Disorders
- Arthritis
- Bony injuries
- Other causes of shoulder pain
- Q&A

Personal Background

- + Hometown: West Lafayette, IN
- + Undergraduate Education: Purdue University
- + Medical Education: Indiana University
- + Orthopedic Residency: Loyola (Chicago)
- + Sports Medicine Fellowship: University of Chicago

= 27 Years of
Education!

= Lots of late nights!

Practice Focus

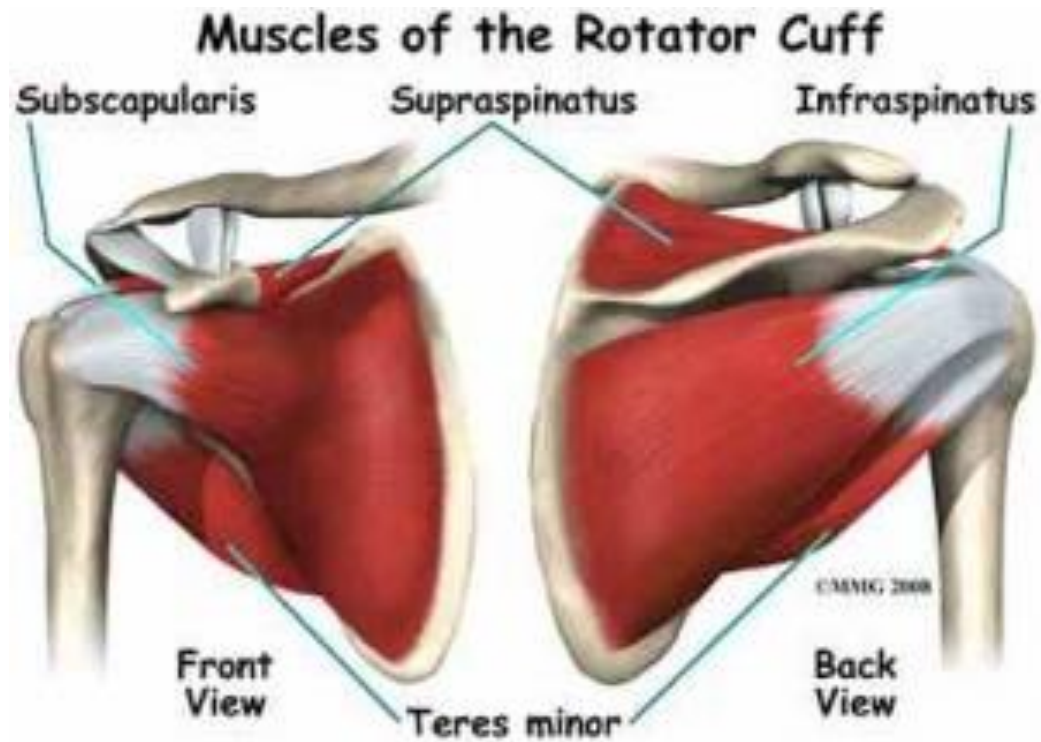
- Shoulder
 - Rotator Cuff Injuries
 - Instability/Dislocations
 - Other Soft Tissue Injuries of the Shoulder
- Knee
 - Ligament Injuries
 - Meniscus Injuries
 - Cartilage repair and restoration

Presentation of patient with shoulder pain

- Age
- Characteristic
- Onset
- Location
- Duration
- Exacerbating
- Related
- Relieving

The Rotator Cuff

Rotator Cuff Anatomy

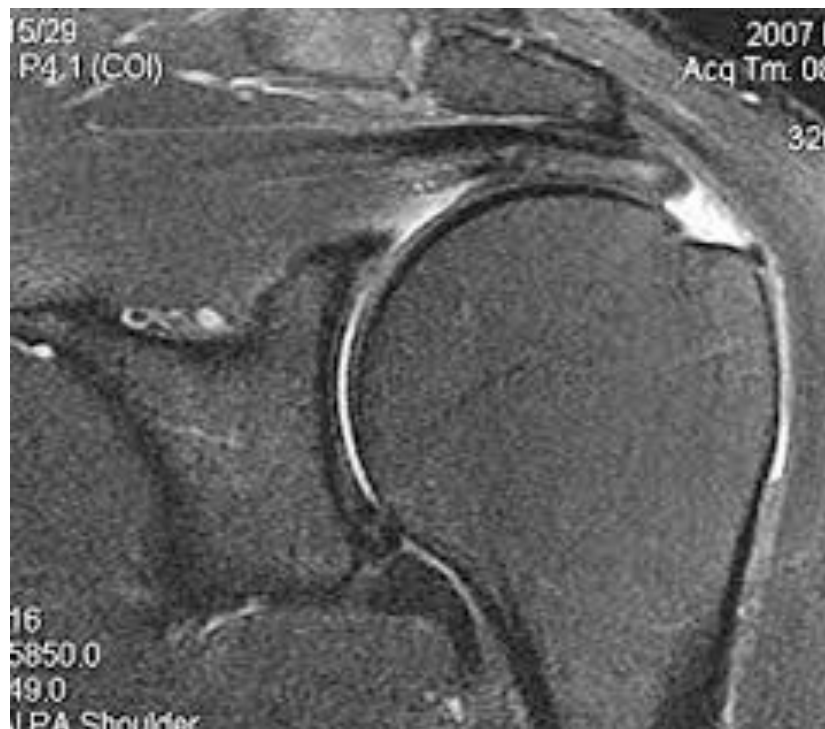


Rotator Cuff Disease

- Normal Rotator Cuff Function
- Typical Location of Pain
- Characteristics of Pain
- Spectrum of disease
 - Tendonitis
 - Partial Tears
 - Complete Tears

Evaluation of Rotator Cuff Injuries

- History
- Exam
- X-Rays
- MRI (Gold Standard)
- Other: CT Arthrogram or Ultrasound

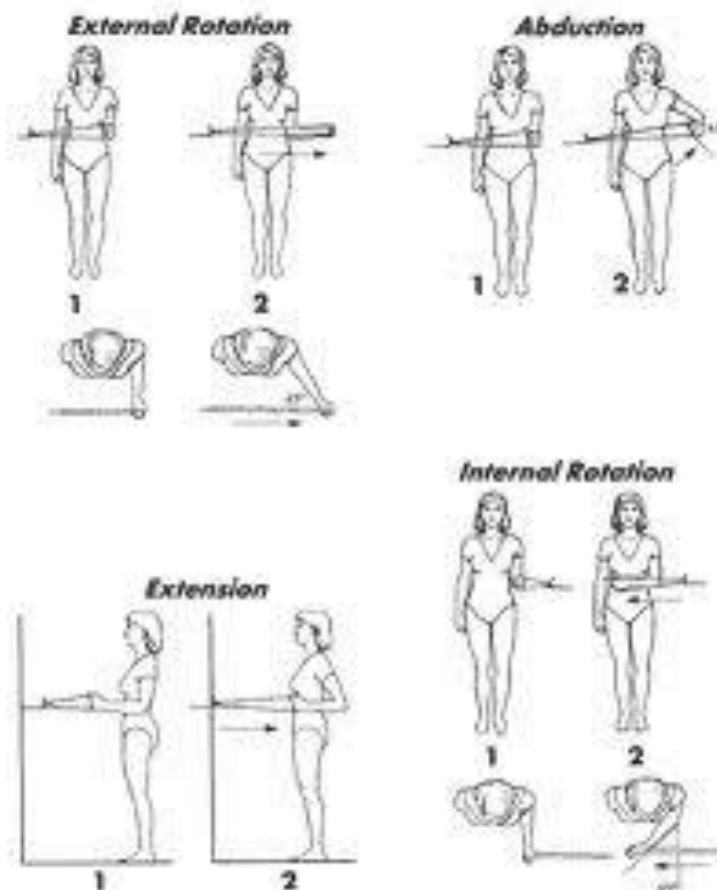


Rotator Cuff Tendinitis

- NSAIDS
- Physical Therapy
- Heat
- Ice
- Injections
 - Cortisone
 - Biologic Injections: “Stem Cells”

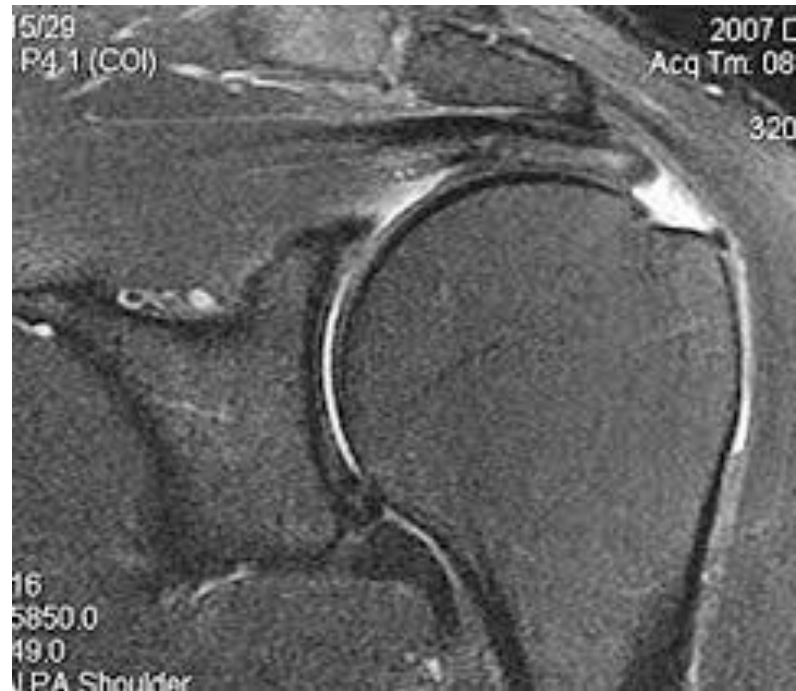
Non-operative Treatment

- Therapeutic Exercise
 - Normalize Shoulder Rhythm
 - Rotator Cuff strengthening
 - Deltoid Strengthening
 - Biofeedback
 - Maximize ROM



Rotator Cuff Tears

- Does Everyone Need Surgery?
- Surgical Timing
- Open to Arthroscopic Evolution
- Overview of Surgical Technique



Transition to Modern Repair Techniques



- Arthroscope initially used as an adjunct to make diagnosis before open repair
- Progressed to arthroscopic SAD and Mini-open repairs
- Arthroscopic cuff repairs popularized in the 1990s
- Tendon transfers, Graft Jackets & Augments

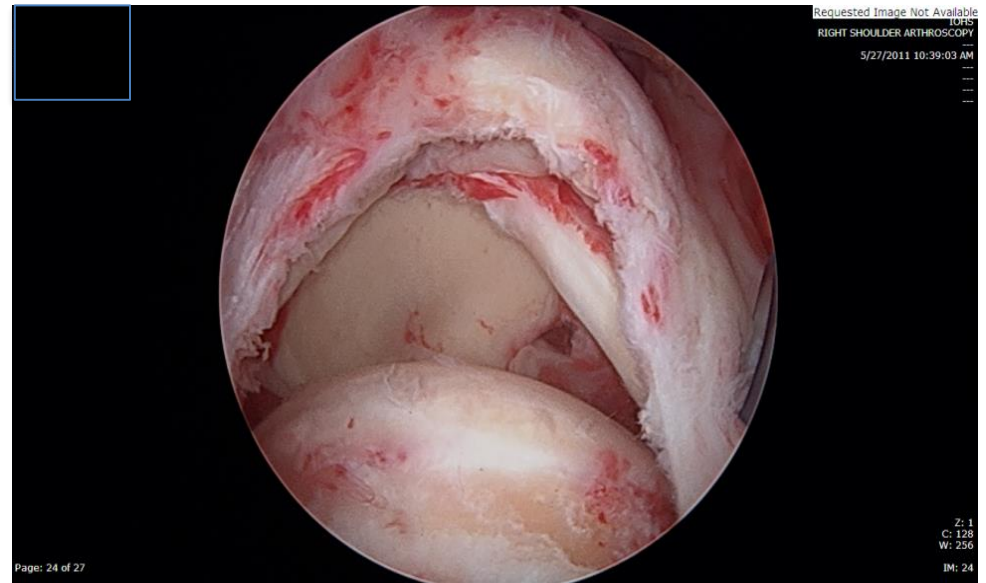
Rotator Cuff Surgery



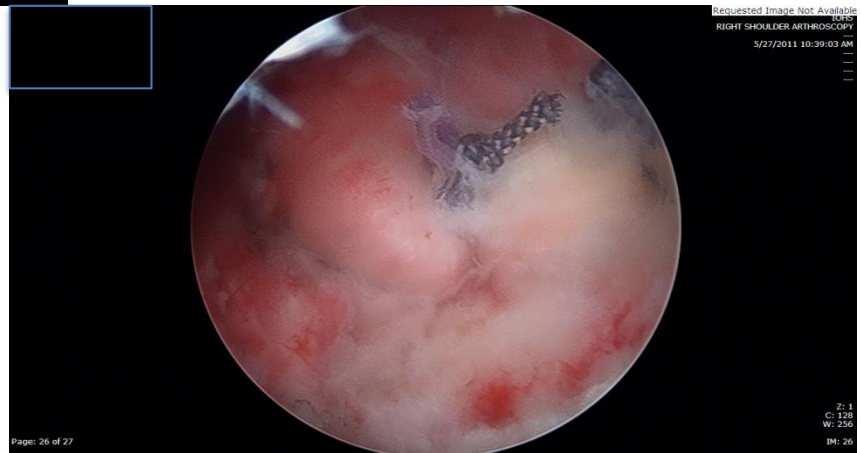
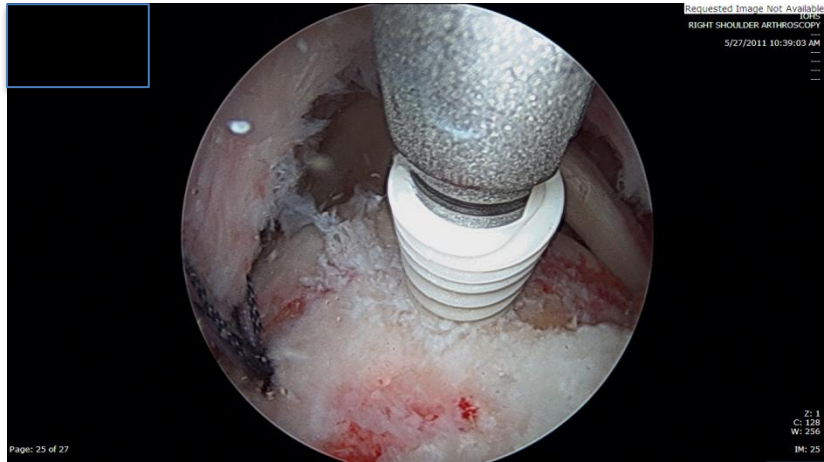
- General Anesthesia + Regional
- 3-4 Small Incisions
- Saline Flowing through Joint
- Use of Anchors
- Dissolvable Stitches
- Arm Sling

Rotator Cuff Repair

- Anchors in Bone
- Suture in Tendon
- Blood flow to healing tissue
- The Extras
 - Dermal Graft
 - PRP
 - Stem Cells



Rotator Cuff Repair



Recovery

- Size of Tear
- Age of Patient
- Co-Morbidities
 - Tobacco Use
 - Diabetes
 - Other Health Conditions
- “The Average Recovery”



Shoulder Arthritis

Shoulder Arthritis

- Normal Cartilage Function
- Location of Pain
- Pain Characteristics
- Motion Loss
- Spectrum of Disease



Shoulder Arthritis

- Non-operative Treatment
 - Stretching
 - NSAIDs/Tylenol
 - Injections (guided?)
 - Activity Modification
- Operative Treatment
 - Arthroscopy?
 - Shoulder Replacement



Shoulder Replacement

- Similar to Hip/Knee Replacement
- Technically challenging operation (golf tee)
- Requires a Functioning Rotator Cuff



Arthritis + Rotator Cuff Tear

- Special Pattern of Arthritis
- Unique Challenges
- European Experience
- Surgical Indications



Reverse Shoulder Replacement

- Appearance of shoulder
- Range of Motion Expectations
- Higher risk of complications
- Salvage Operation



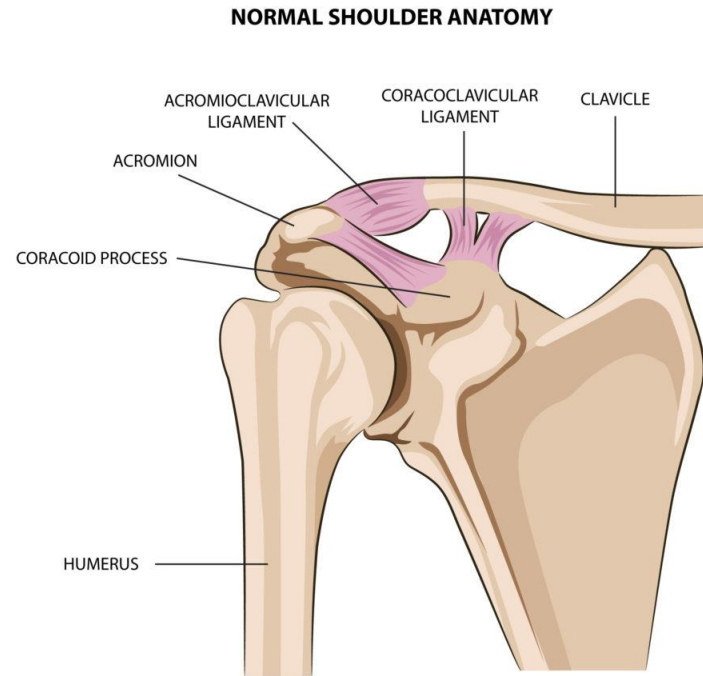
Recovery from Shoulder Replacement



- Sling Use
- Driving
- Dinner forks and Coffee cups
- Lifting
- Full Recovery

AC Joint Arthritis

- Small Joint at the end of collarbone
- Pain with pressing and overhead activities
- Bump on shoulder
- Weight-lifters
- Treatment
 - Activity Modification
 - Injections
 - Surgery

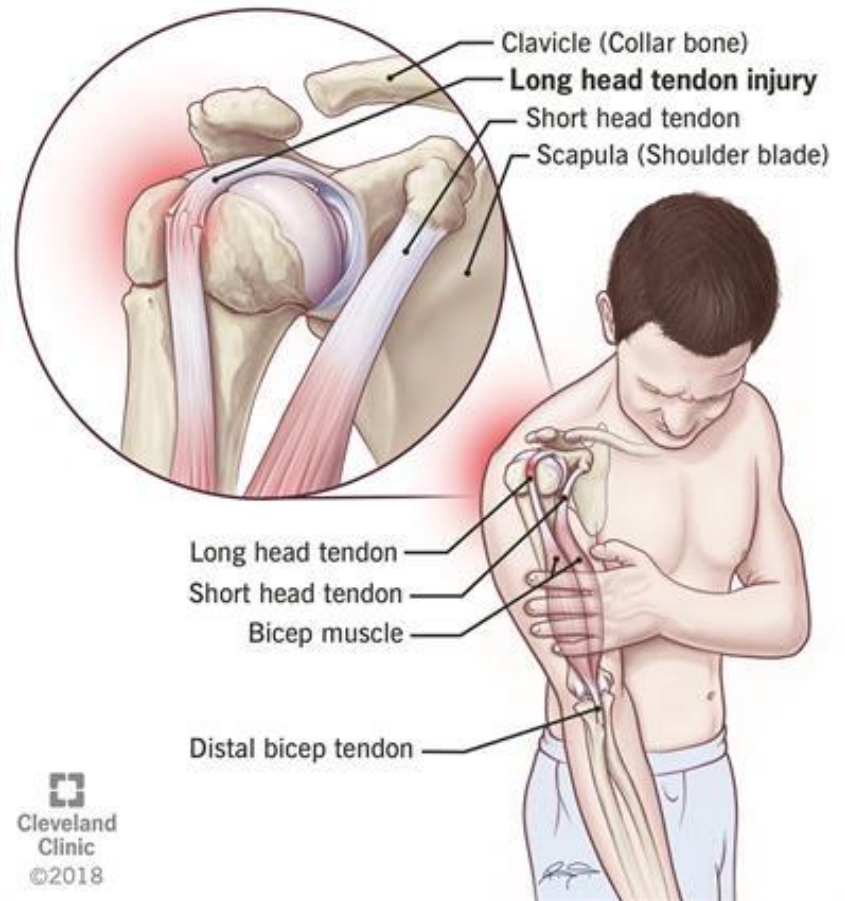


The Bicipital-Labral Complex

(Don't worry, I'll explain!)

Biceps + Shoulder Labrum

- Biceps Muscle Function
- Tendon Anatomy
- Unique features of Long Head of biceps
- Labral Attachment

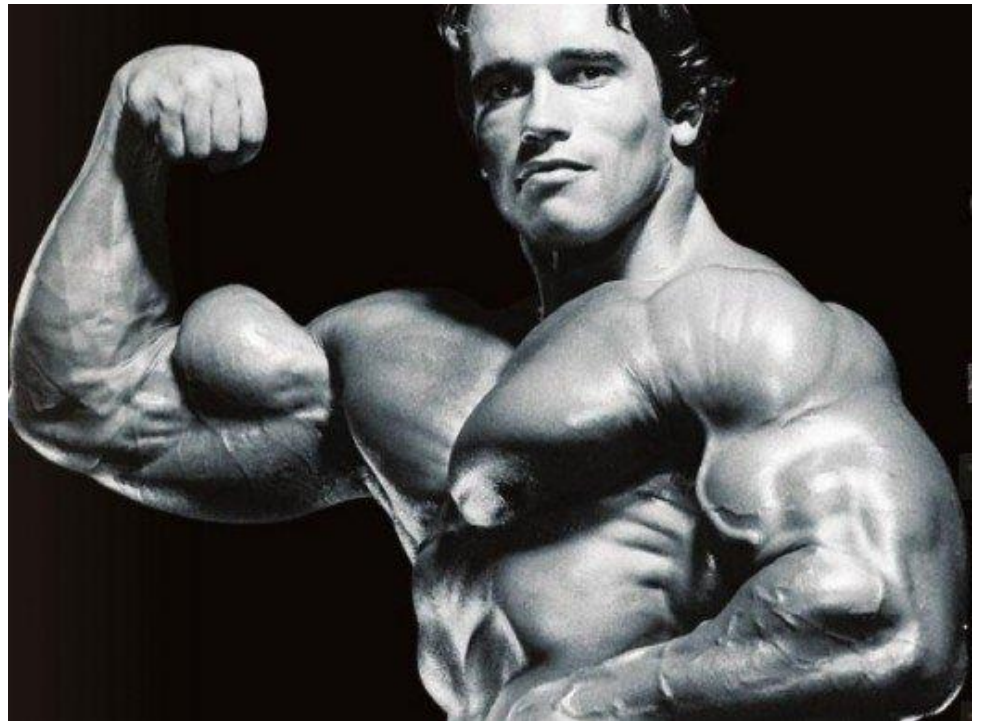


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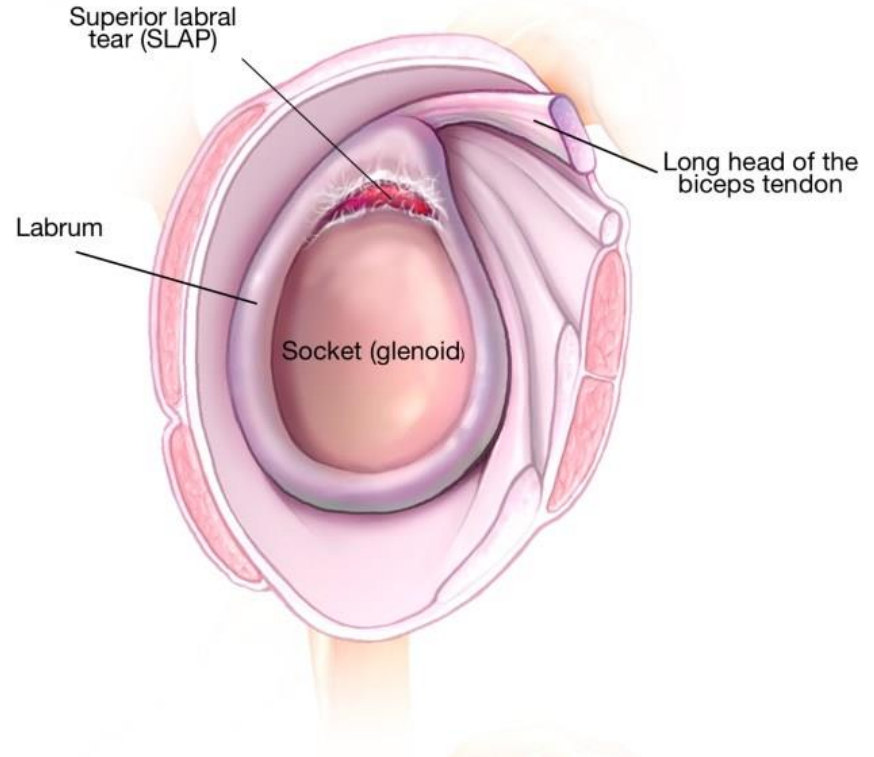
The Biceps Tendon

- Tendonitis
- Partial Tears
- Dislocations
- Ruptures



Labral Tears

- Traumatic
 - Sports
 - Falls
 - Lifting
- No Trauma
 - Degeneration
 - Early sign of DJD



Treatment of Biceps & Labrum

- Tenotomy (cut it)
- Tenodesis (transfer it)
- Repair (fix it)



Frozen Shoulder

(aka Adhesive Capsulitis)

Key Features of Frozen Shoulder

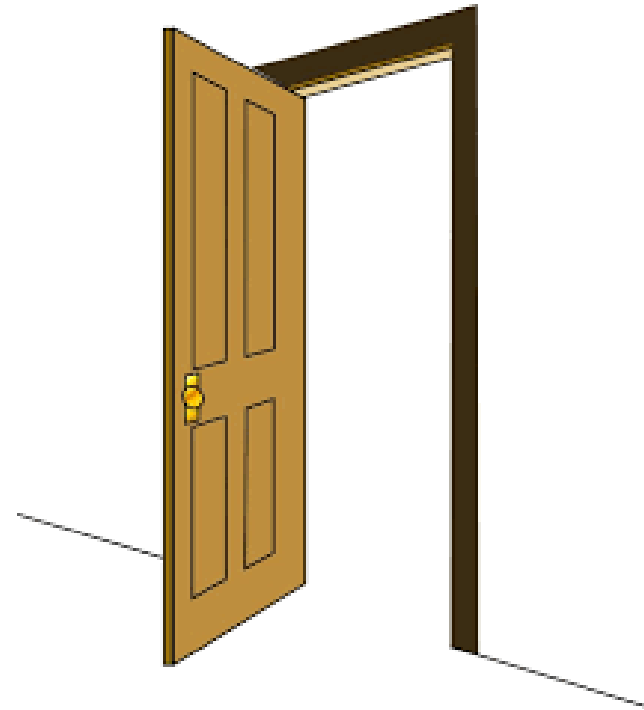
- Progressive loss of motion
- Pain
 - Extremes of motion
 - Sudden motion
 - Night-time pain
- Demographics
 - Sex
 - Age
 - Co-morbidities (associated conditions)

Treatment of Frozen Shoulder

“Let’s Make a Deal”

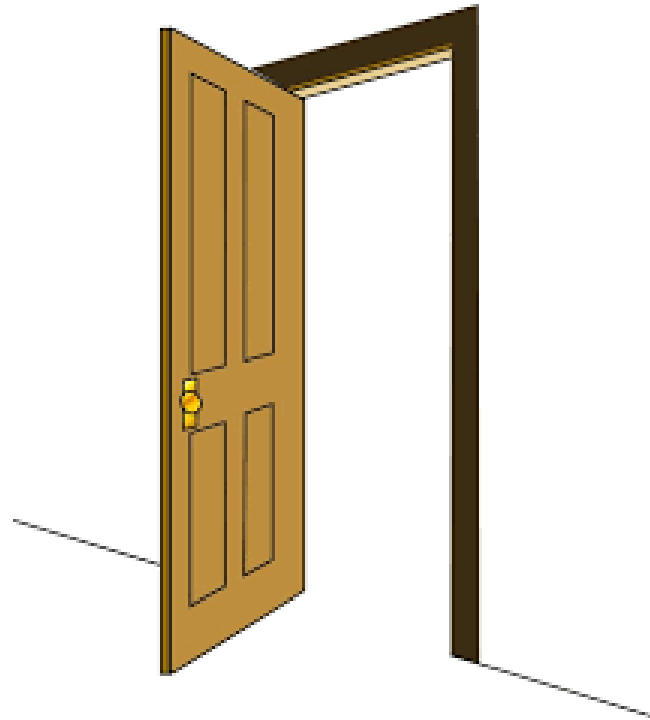
Door #1

- Home stretches
- Medication
- Physical Therapy (pros v cons)
- Injections
- Natural History/Resolution of Symptoms

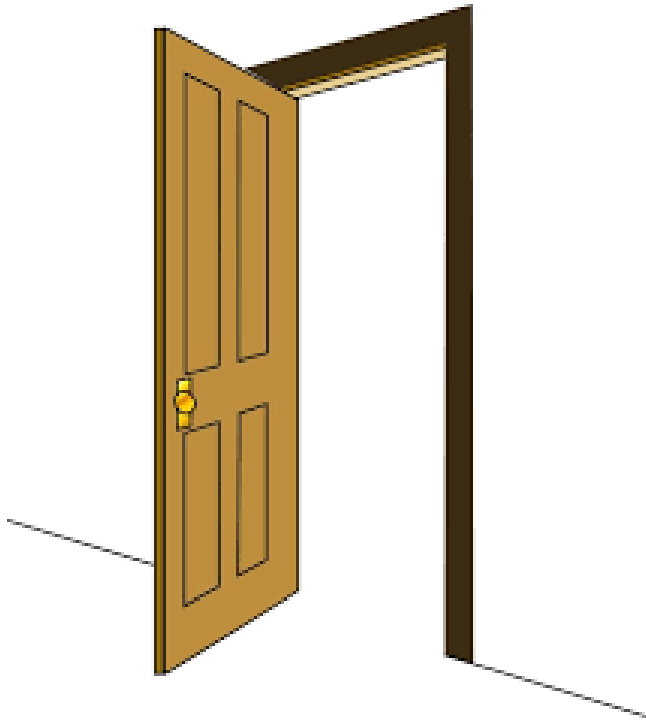


Door #2

- Manipulation + Injection
- Post-procedure PT
- Activity Modification
- Full Recovery



Door #3

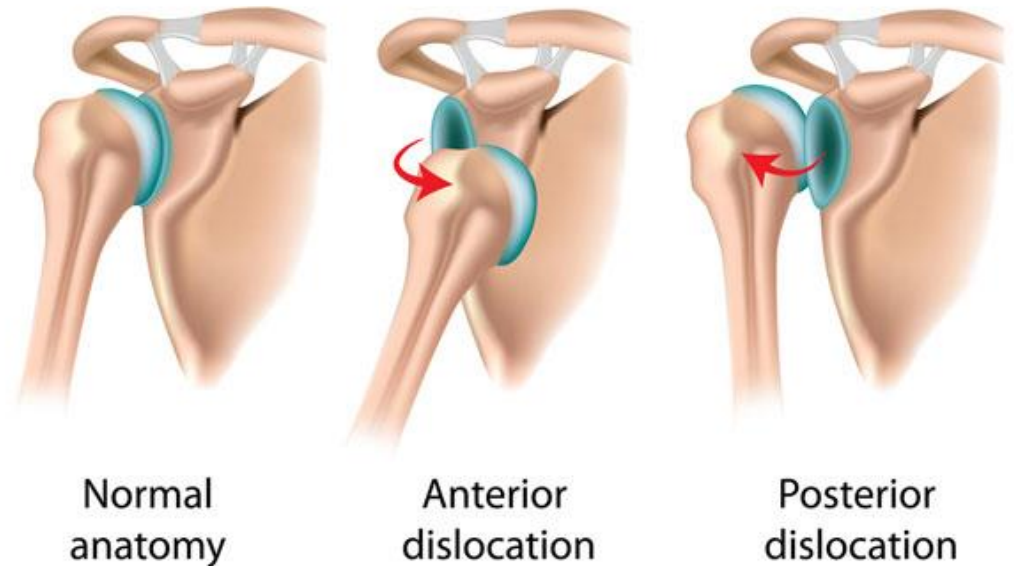


- Manipulation
- Arthroscopic Removal of Scar Tissue
- Therapy
- Activity Modification

Shoulder Instability

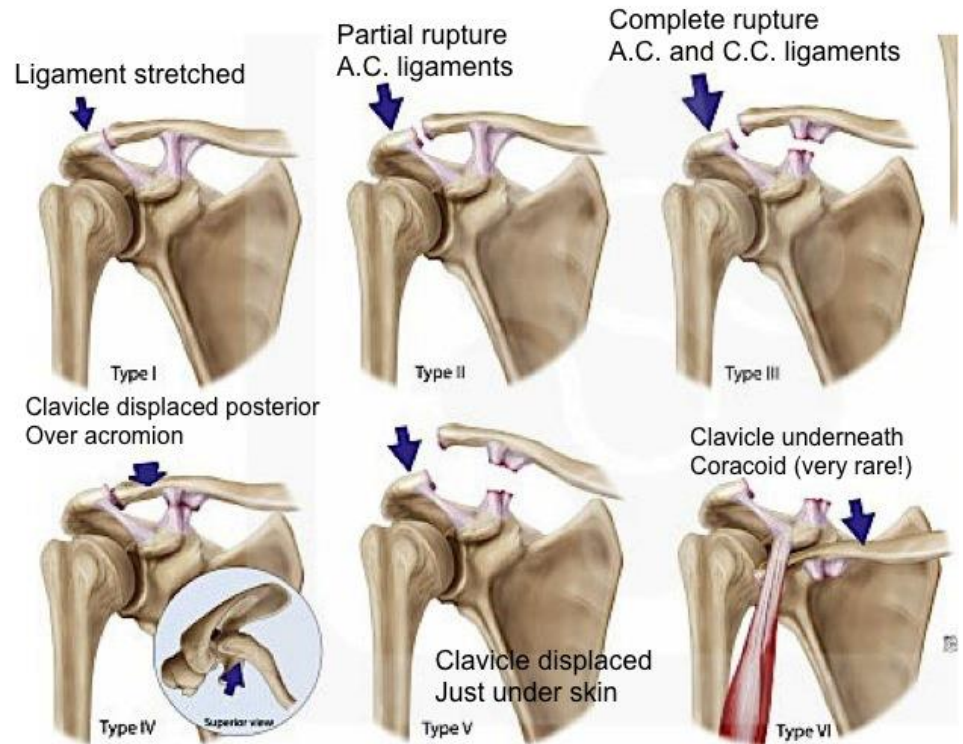
Shoulder Dislocations

- Trauma
- Non-traumatic
- Age
- Recurrence Rates
- Braces
- Therapy
- Surgery



AC Joint Separations

- Sprain of ligaments at the end of the collarbone
- Contact Athletes
- Falls
- Most are treated without surgery
- Surgery in High-grade Injuries



Other Causes of “Shoulder Pain”

Other Causes

- Fracture
- Infection
- Tumors
- Inflammatory Arthritis (e.g. RA)
- Calcium deposits
- Referred Pain from Neck
- Cardiac
- Respiratory
- Internal Organs (e.g. spleen)

Q & A

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