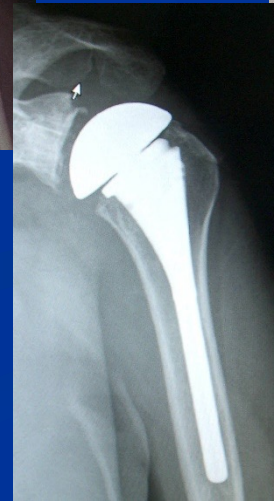
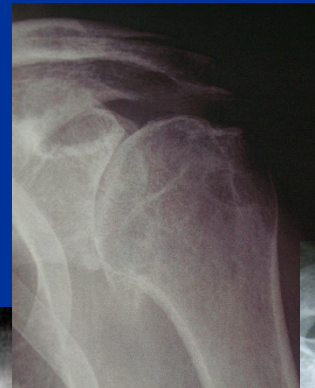
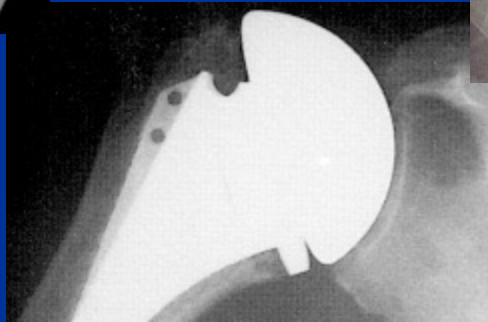
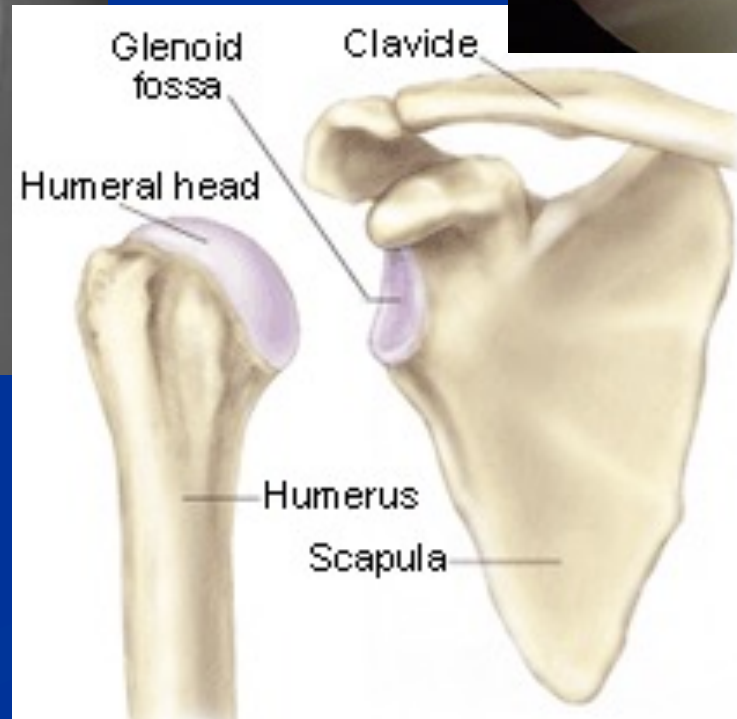
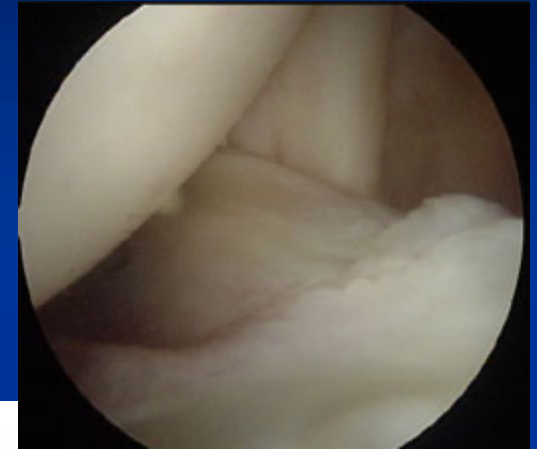


Shoulder Replacement



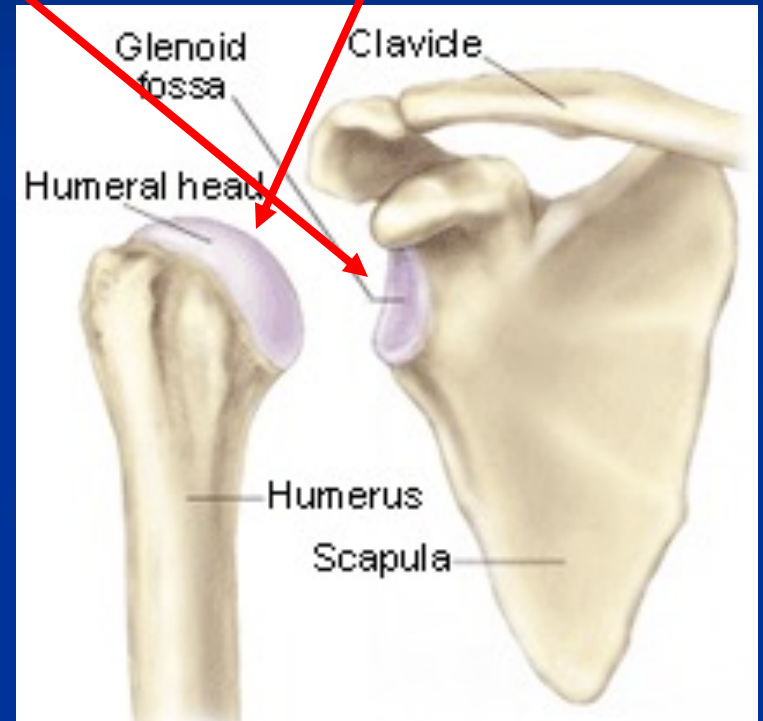
Normal Anatomy



Normal Anatomy

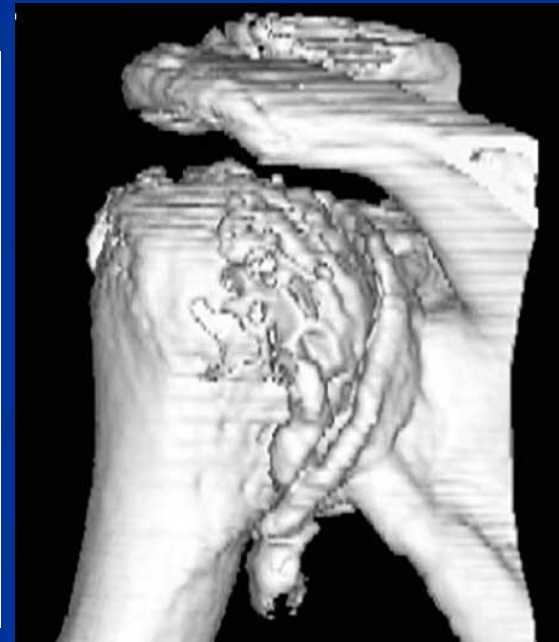
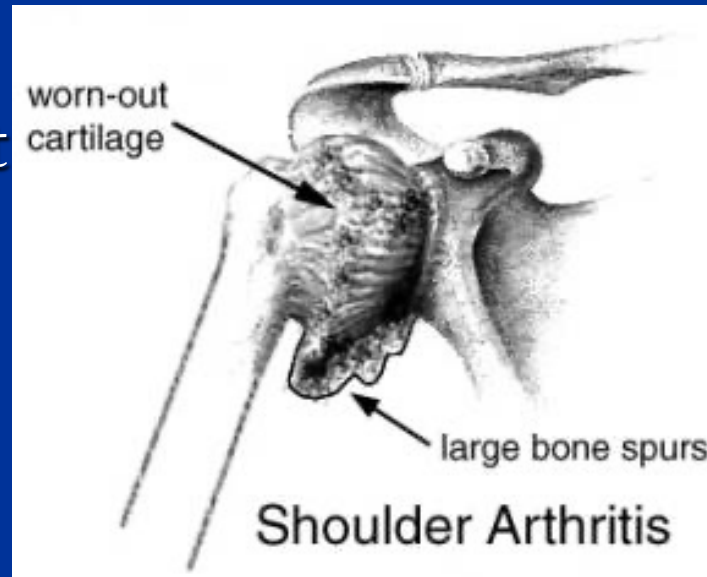
■ Cartilage

- Lines ends of bones
- Cushions impact between bones
- Provides a smooth gliding surface for movement.



Development of Arthritis

- Breakdown of cartilage
- Loss of smooth surfaces
- Loss of joint space
- Bone Spurs

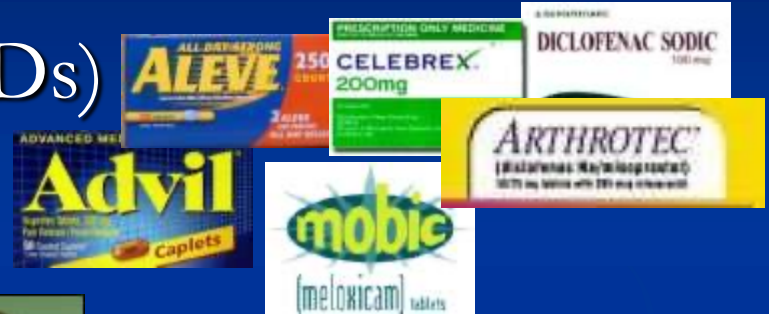


Symptoms

- Pain
 - Progress over time
 - Worse with activity
 - Interferes with sleep
- Loss of Motion
- Atrophy (wasting) of muscles
- Swelling
- Crepitus (clicking, popping or crunching sound)
- Tenderness to touch

Treatment – non-operative

- Anti-Inflammatories (NSAIDs)



- Cortisone Injection

- Physical Therapy

- Activity Modification



When to consider surgery

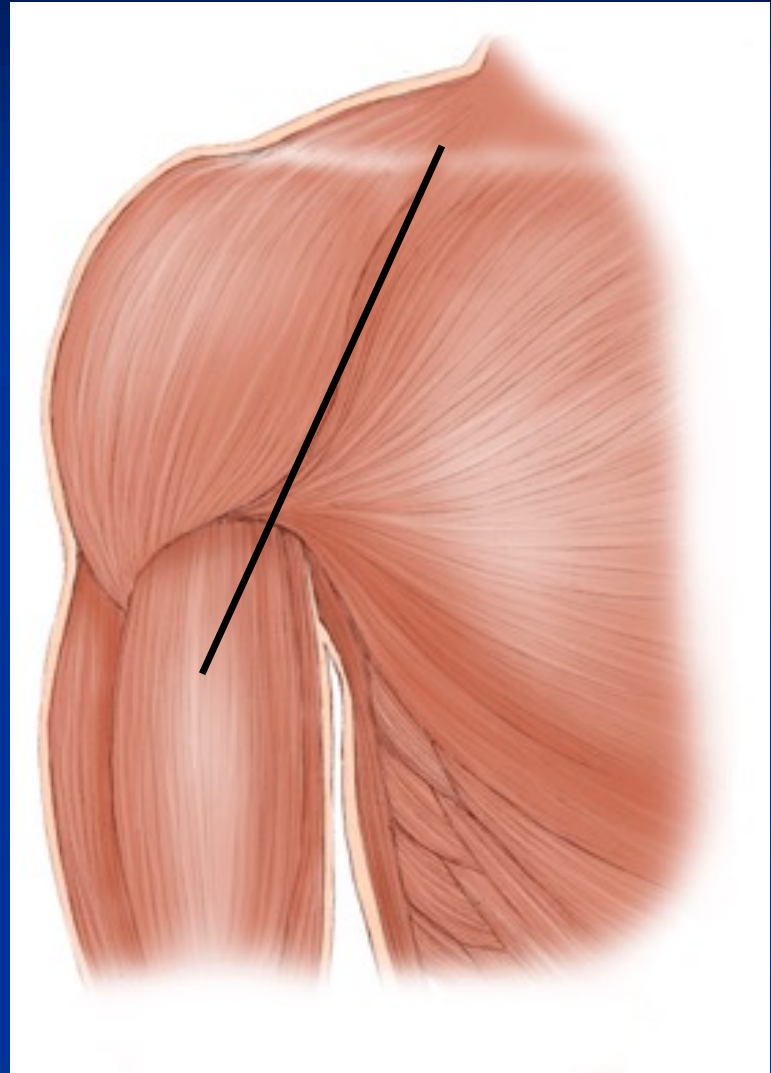
■ Quality of Life Decision

- Interferes with activities
- Loss of independence
 - Grooming
 - Bathing
 - Dressing, etc.
- Interferes with sleep
- Interferes with work

Operation

■ Incision

- from collar bone down the arm



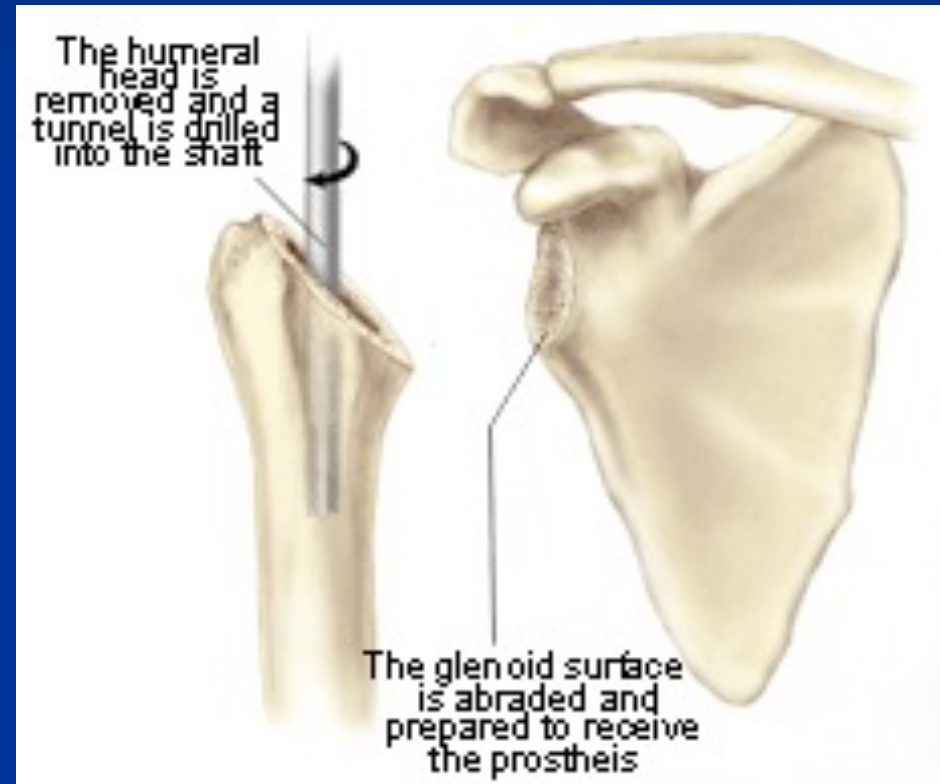
Operation

- Release Subscapularis Tendon
 - Rotator Cuff Tendon
 - Allows visibility of joint
 - MUST BE REPAIRED AND PROTECTED



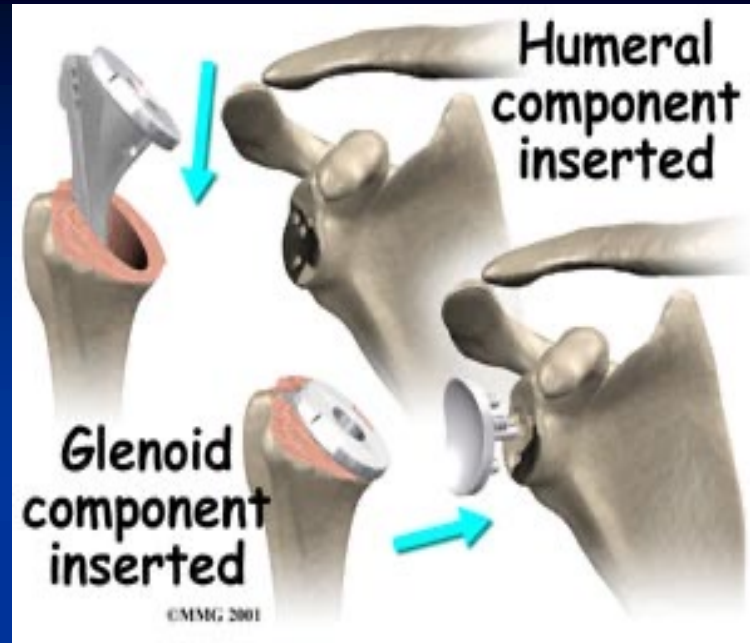
Operation

- Remove arthritis from humeral head
- Remove arthritis from glenoid



Operation

- Replace humeral head with metal ball connected to stem
- Replace glenoid with plastic socket

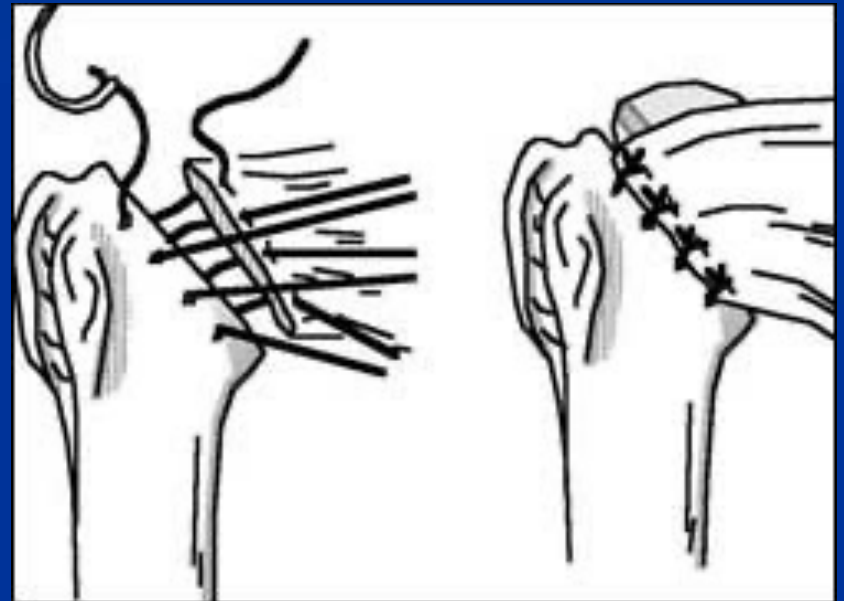


Operation



Operation

- Subscapularis Tendon Repaired
 - Takes 3 months to heal
 - Must be protected
 - Shoulder Immobilizer for 6 weeks



Post-operative Rehabilitation

■ Phase 1 (0-6 weeks)

- Shoulder Immobilizer
- Pendulum exercises only
- Pool therapy



Post-operative Rehabilitation

- Phase 2 (6-12 weeks)
 - Stretching
 - Sling when out of house
 - Begin to use arm
 - Golf put, no swing
 - No lifting



Post-operative Rehabilitation

- Phase 3 (3 months+)
 - Strengthening
 - Activities as tolerated at 6 months

Appointments

- Pre-operative Visit
- Post-operative Visit (1 week)
- 1st Follow-up (6 weeks)
- 2nd Follow-up (12 weeks)
- 3rd Follow-up (6 months)
- 4th Follow-up (1 year)
- Annual Visits

What to expect

- 90-95% successful
- Pain Relief
- Improvement in function
 - Increased range of motion
 - Increased ability to perform activities
 - Improved quality of life
- Return of Independence

What can I do?

Activity after Total Shoulder Arthroplasty—1999 American Shoulder and Elbow Society Survey

Recommended/Allowed	Allowed with experience	Not recommended	No conclusion
Cross-country skiing	Golf	Football	High-impact aerobics
Stationary skiing ^a	Ice skating	Gymnastics	Baseball/softball
Speed walking and jogging	Shooting	Hockey	Fencing
Swimming	Downhill skiing	Rock climbing	Handball
Doubles tennis			Horseback riding
Low-impact aerobics			Lacrosse
Bicycling, road and stationary			Racquetball, squash
Bowling			Skating, roller/inline
Canoeing			Rowing
Croquet			Soccer
Shuffleboard			Tennis, singles
Horseshoes			Volleyball
Dancing: ballroom, square, and jazz			Weight training

^a NordicTrack.

Complications

- Infection
- Wound problems
- Excessive blood loss
- Injury to nerves and blood vessels
- Failure of Subscapularis Repair
- Fracture
- Weakness
- Stiffness
- Subluxation or dislocation of the humeral head
- Implant loosening
- Requirement for additional surgery
- Anesthetic risks