

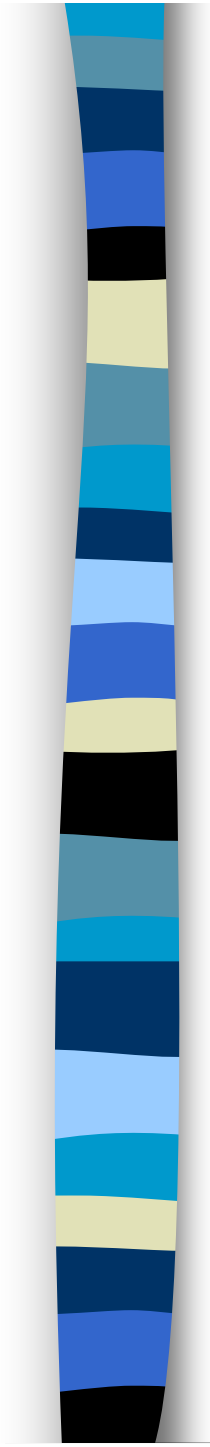
Shoulder Pain



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- Shoulder pain is an extremely common complaint, and there are many common causes of this problem.
 - It is important to make an accurate diagnosis of the cause of your symptoms so that appropriate treatment can be directed at the cause.



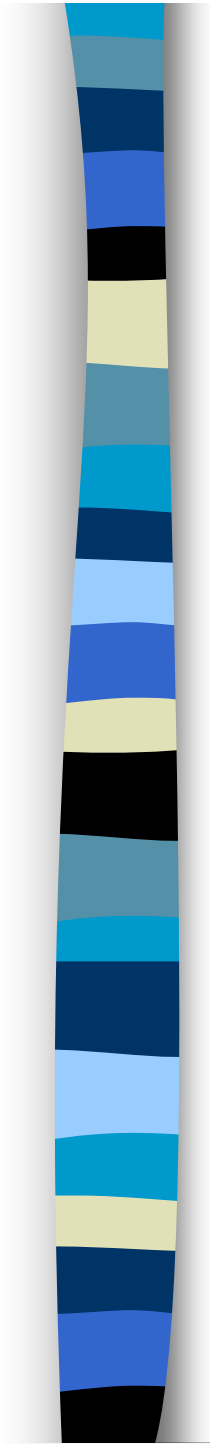
anatomies

- The main joint in the shoulder is formed by the arm bone and the shoulder blade.
- The joint socket is shallow, allowing a wide range of motion in the arm.
- The rotator cuff is made up of 4 muscles that surround the arm bone.
- This cuff keeps the shoulder steady as the arm moves.



The rotator cuff comprise

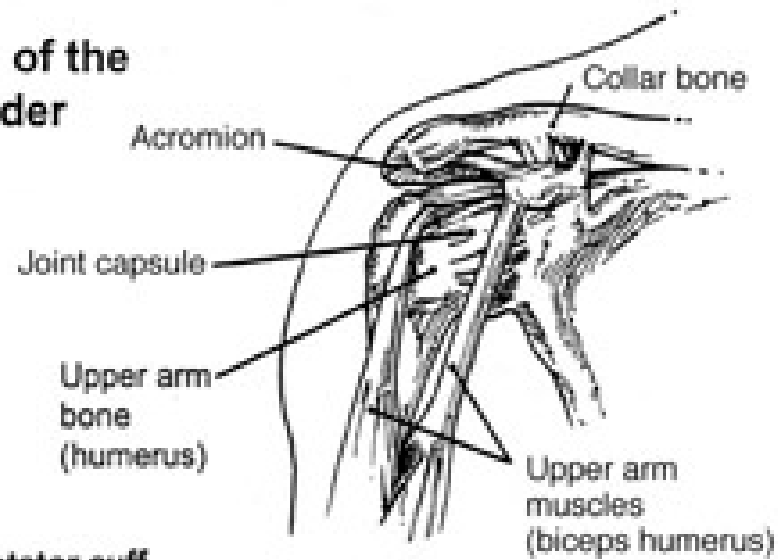
- Supraspinatus
- Infraspinatus
- teres minor
- subscapularis

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- A common cause of shoulder pain is soreness of the tendon of the rotator cuff.
 - Another common cause is soreness of the subacromial bursa (a sac of fluid under the highest part of the shoulder).
 - might have soreness after activities such as painting, lifting or playing a sport, which require someone to lift his arms.
 - may not remember any specific injury.

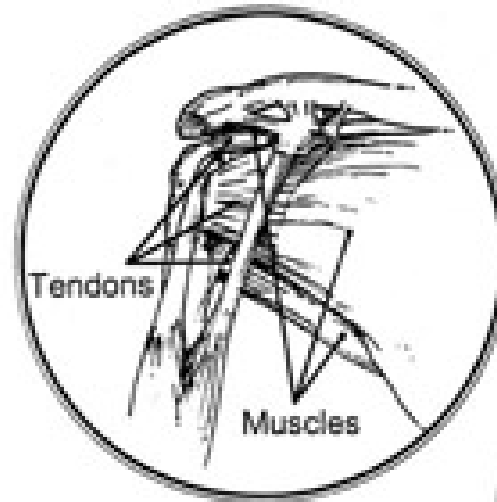
Shoulder joint



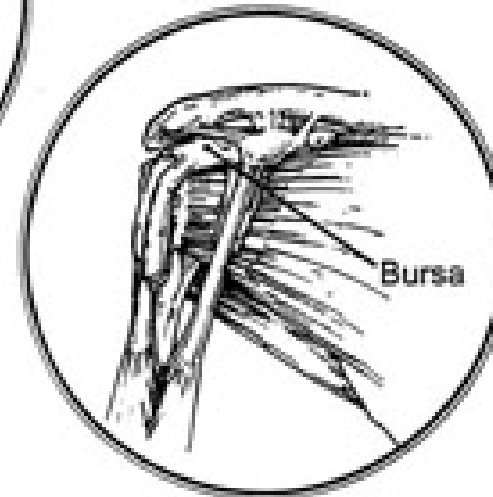
Anatomy of the Shoulder



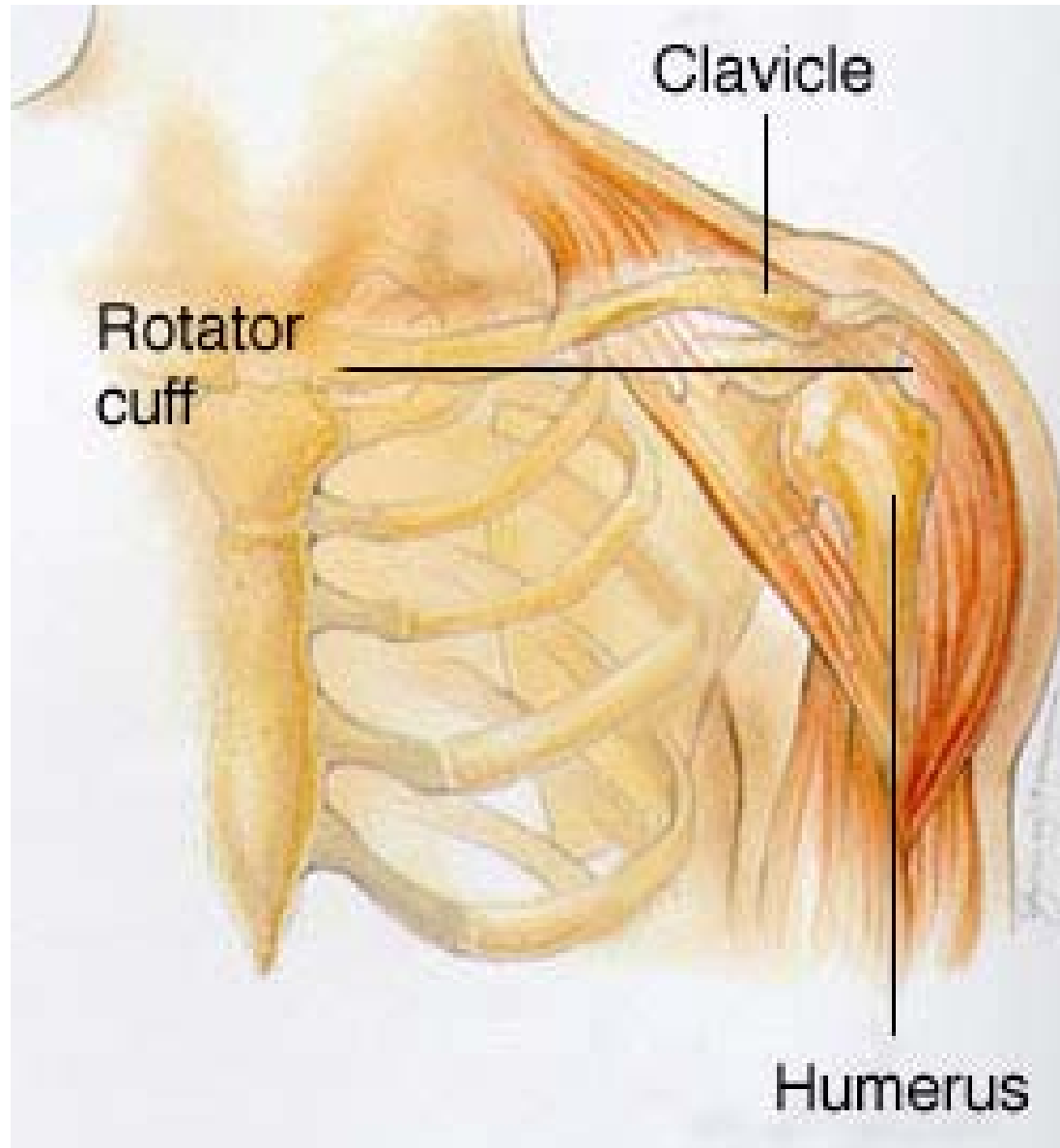
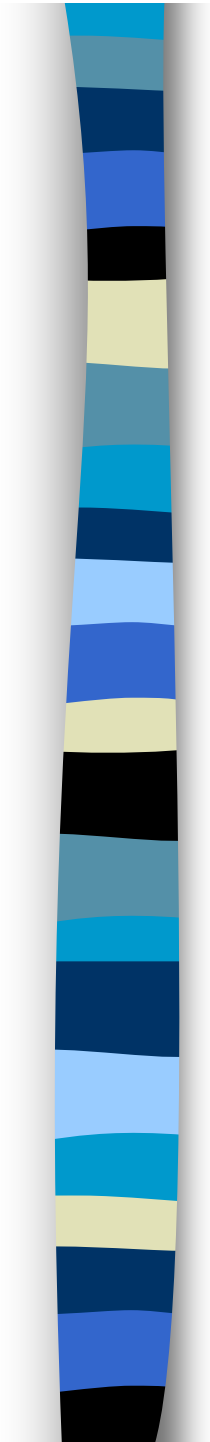
Rotator cuff



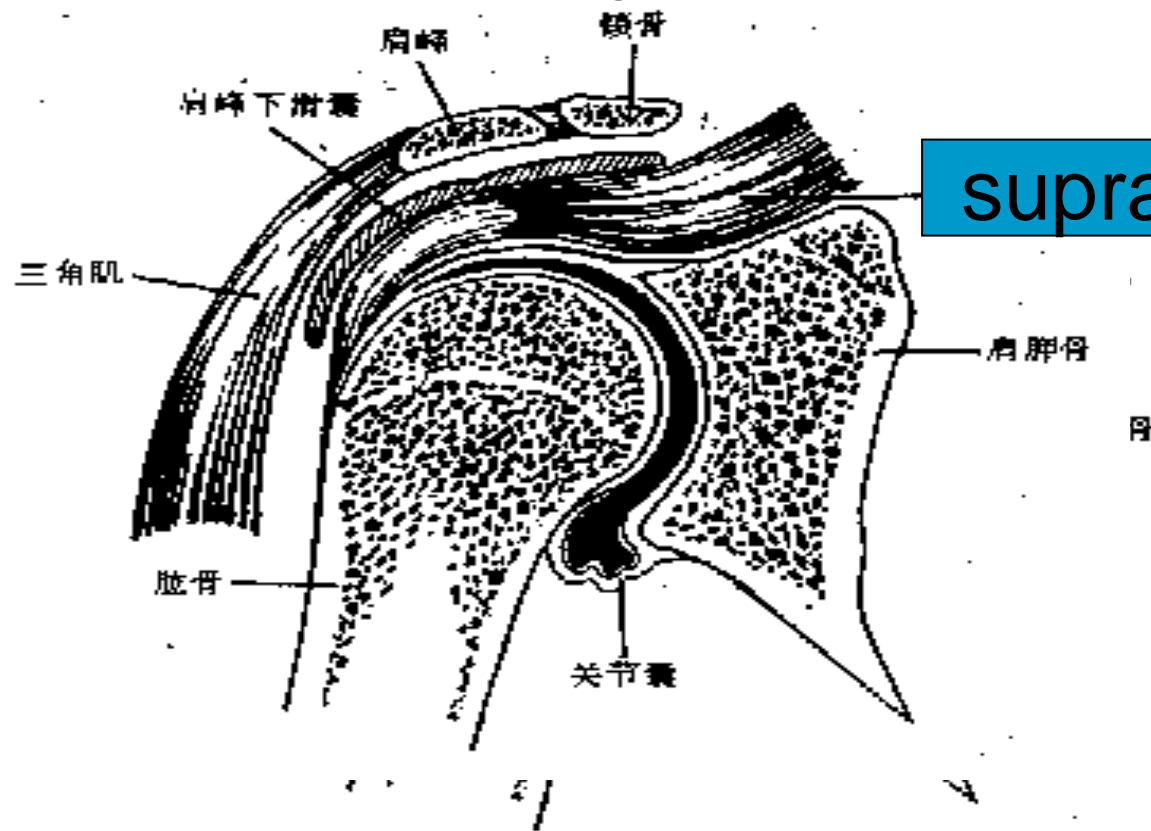
Bursa of the Shoulder



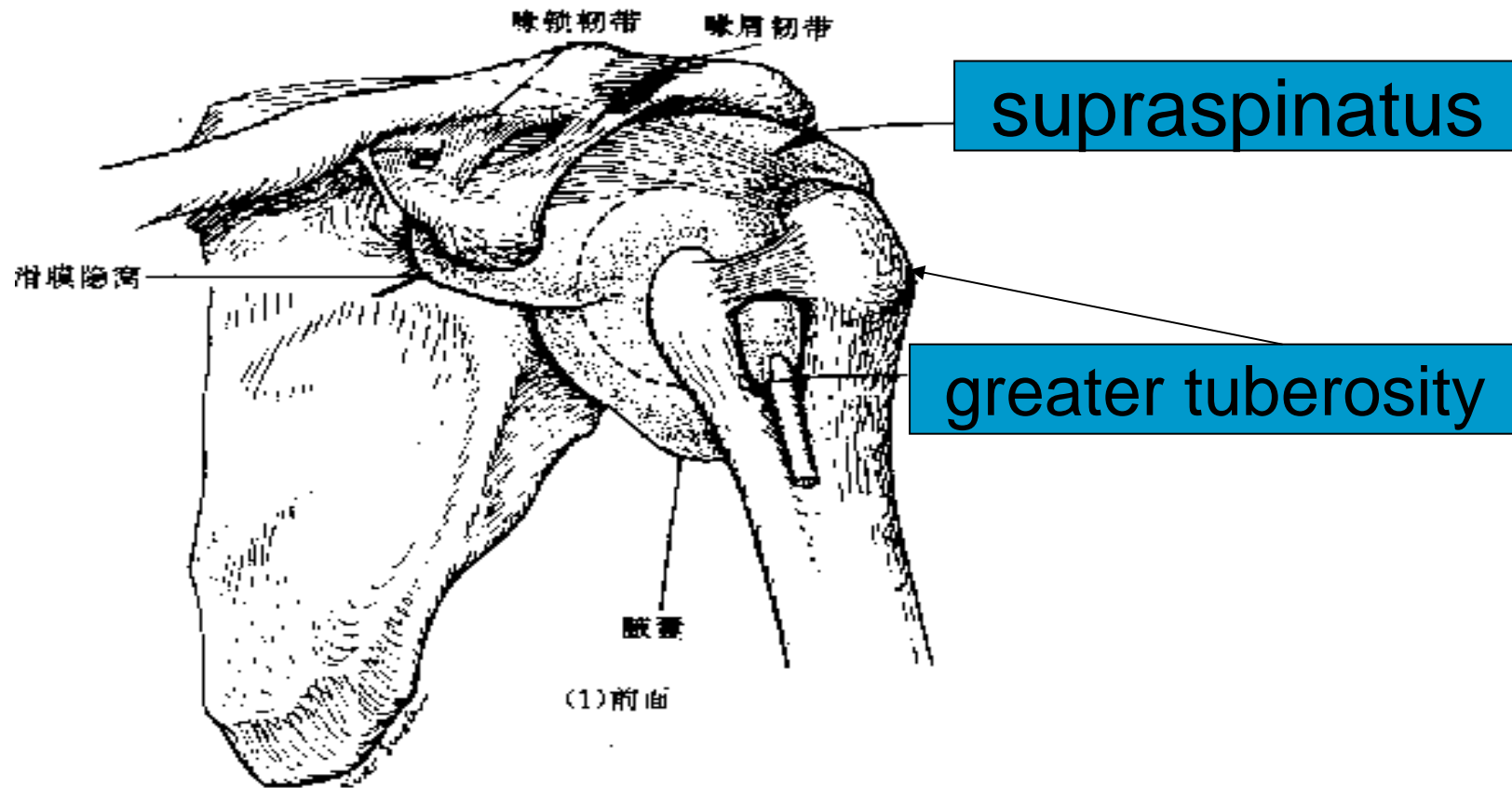
Source: American Academy of Orthopaedic Surgeons



subacromial bursa



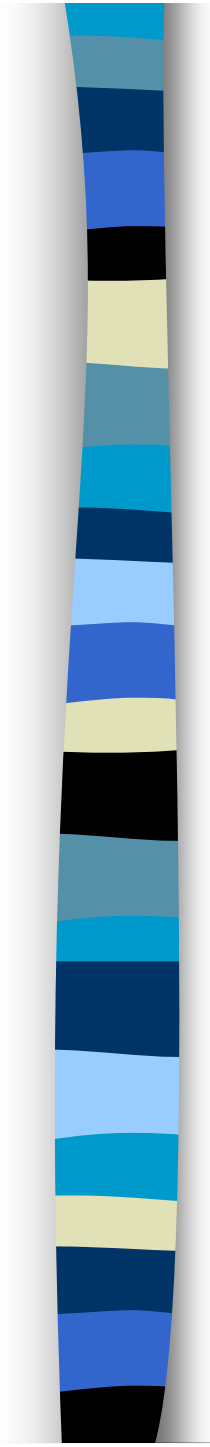
Abduction pain





some common causes

- **Bursitis / Rotator Cuff Tendinitis**
Rotator Cuff Tear
shoulder bursitis/impingement syndrome
- **Frozen Shoulder**(periarthritits or adhesive capsulitis)
Calcific Tendinitis

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- **Shoulder Instability**
Shoulder Dislocation
Biceps Tendon Rupture
 - **Arthritis**
 - **others**



Rotator Cuff Tears

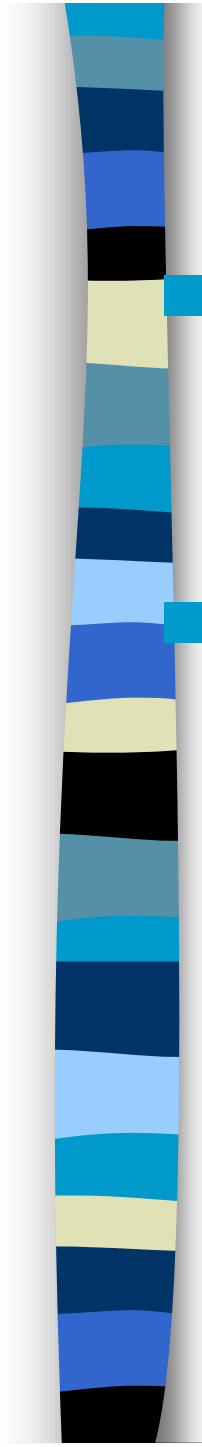
Description

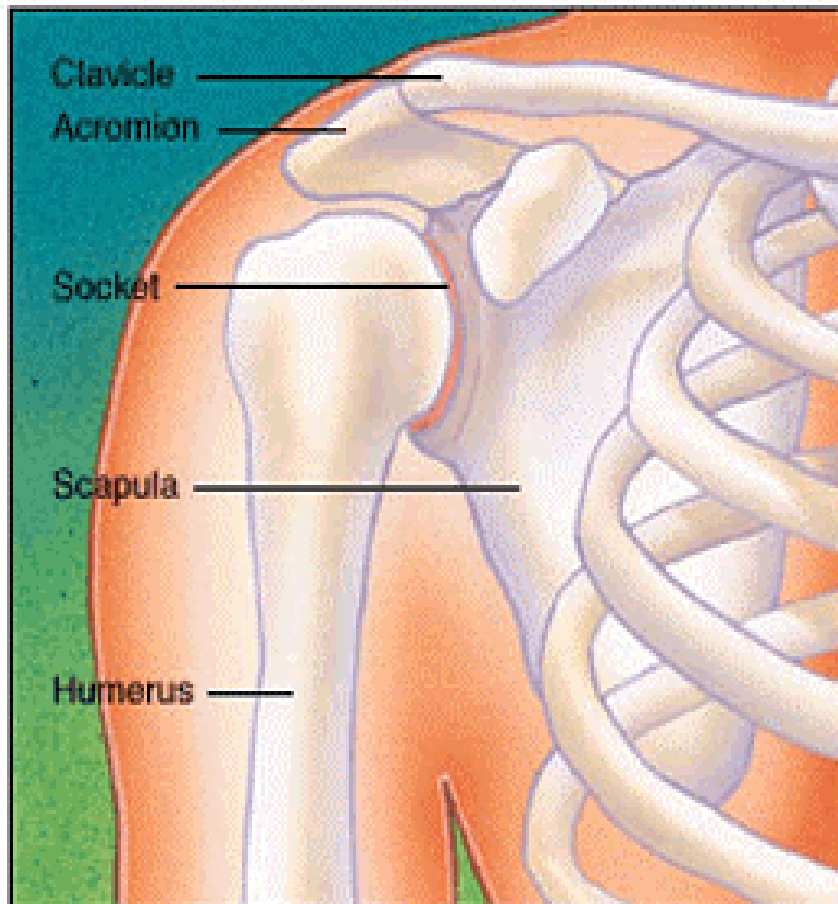
Rotator cuff tear is a common cause of pain and disability in the adult population.

Rotator cuff tear is most common in people who are over the age of 40.

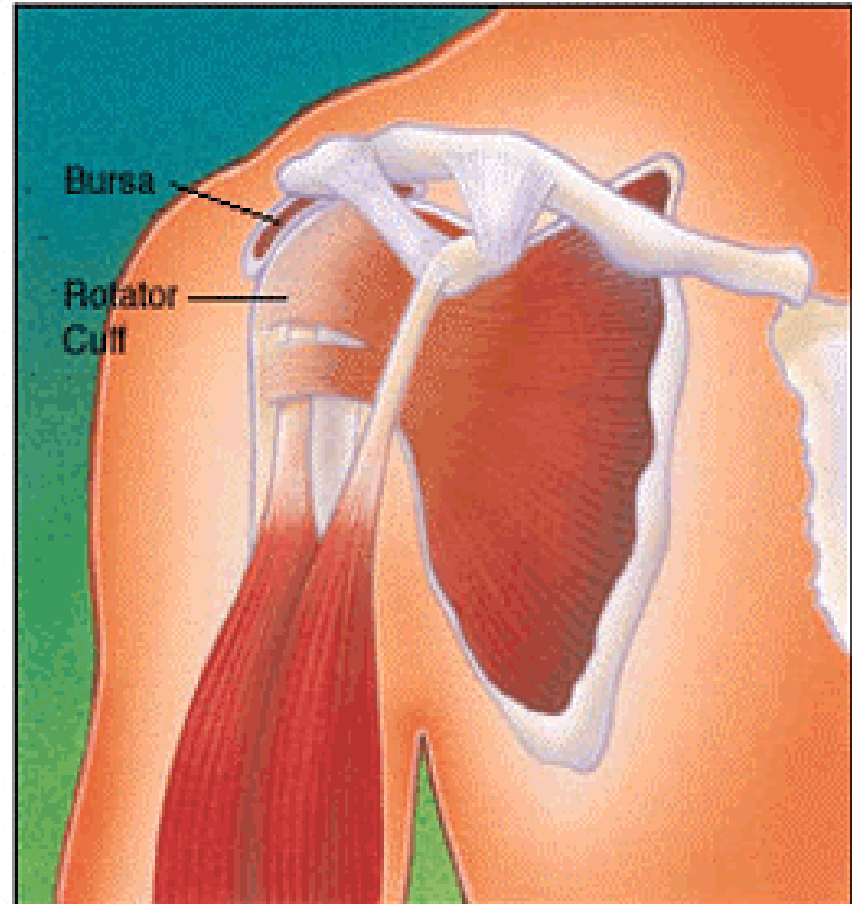
It may occur in younger patients following acute trauma or repetitive overhead work or sports activity.

A cuff tear may also happen with another injury to the shoulder, such as a fracture or dislocation

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- The rotator cuff helps to lift and rotate the arm and to stabilize the ball of the shoulder within the joint.
 - Most tears occur in the supraspinatus but other parts of the tendon may be involved



Normal Shoulder Joint



Normal Shoulder Muscles and Tendons

Figure 1: Normal anatomy of the shoulder

Rotator Cuff Tears

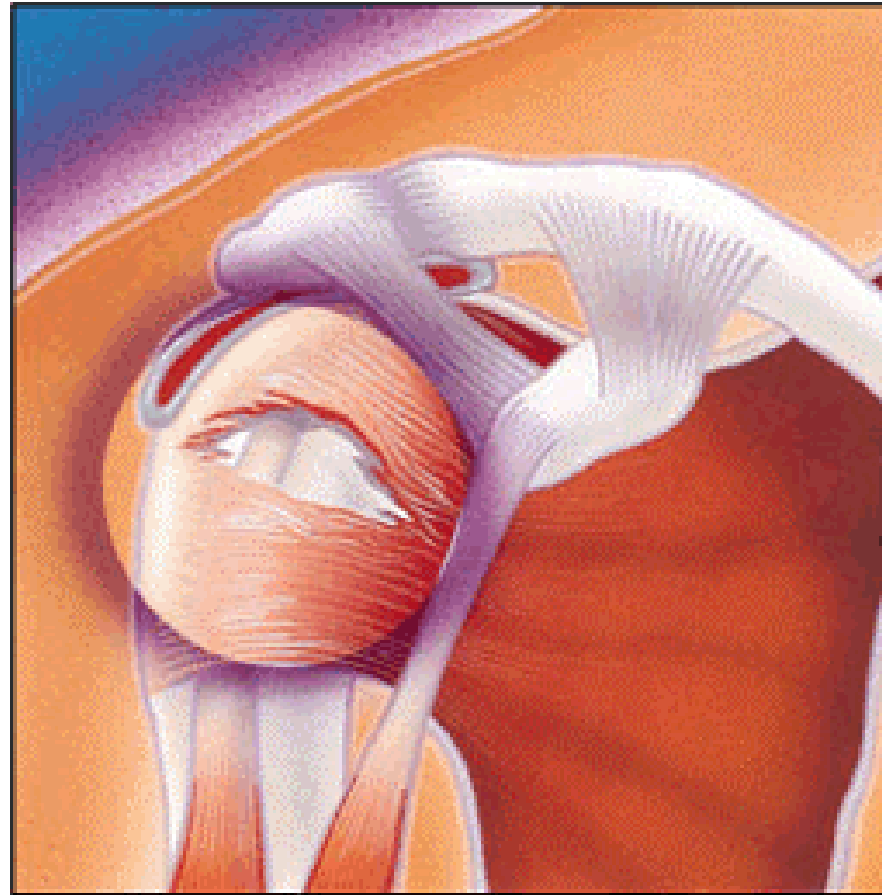
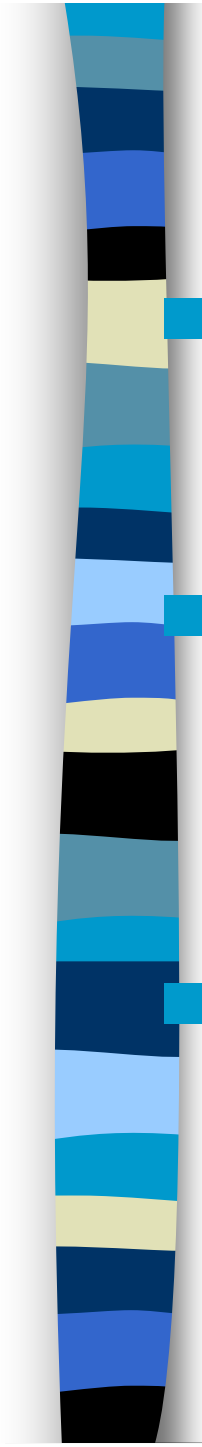
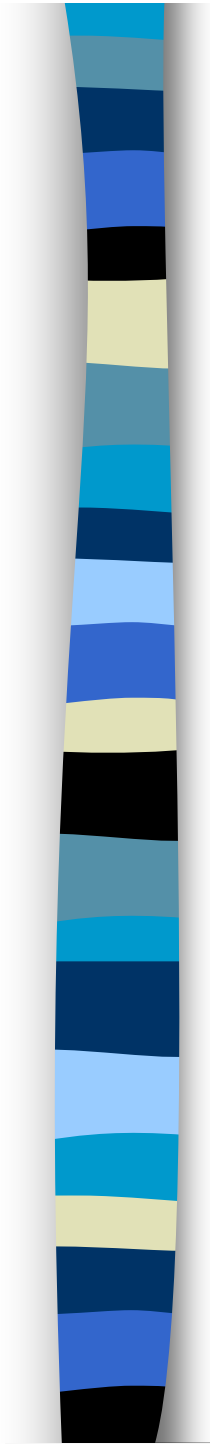
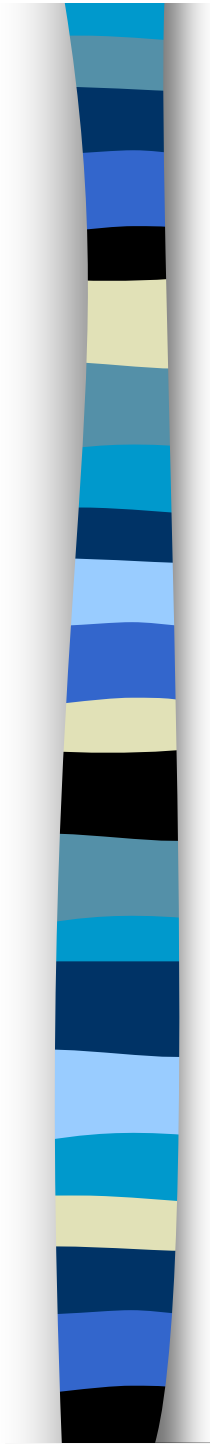


Figure 2: Rotator cuff tear

Symptoms

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- Symptoms of a rotator cuff tear may develop acutely or have a more gradual onset.
 - commonly, the onset is gradual and may be caused by repetitive overhead activity or by wear and degeneration of the tendon.
 - You may feel pain in the front of your shoulder that radiates down the side of your arm.

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- At first the pain may be mild and only present with overhead activities such as reaching or lifting.
 - It may be relieved by medication such as aspirin or ibuprofen.
 - Over time the pain may become noticeable at rest or with no activity at all.
 - There may be pain when you lie on the affected side and at night.

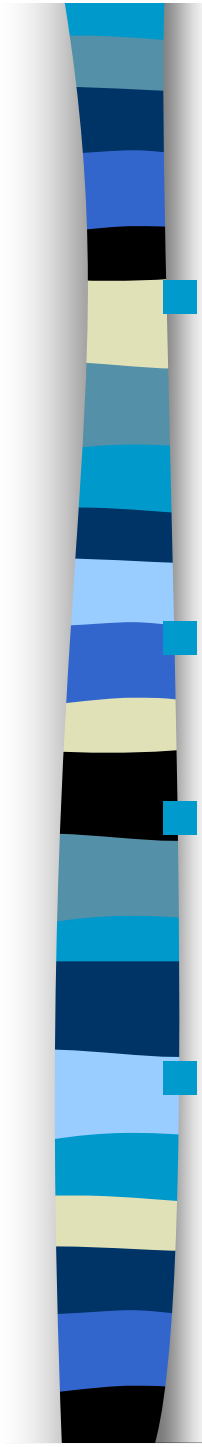
- 
- Other symptoms may include stiffness and loss of motion.
 - may have difficulty using arm to reach overhead to comb hair or difficulty placing behind your back to fasten a button.
 - When the tear occurs with an injury, there may be sudden acute pain, a snapping sensation and an immediate weakness of the arm.



Common examples

- Workers who do overhead activities such as painting, stocking shelves or construction
- Athletes such as swimmers, pitchers and tennis players

Diagnosis

- 
- Diagnosis of a rotator cuff tear is based on symptoms, examination, X-rays, and imaging studies such as MRI (magnetic resonance imaging).
 - examine shoulder to see if it is tender in any area or if there is a deformity.
 - measure the range of motion of shoulder in several different directions and test the strength of arm.
 - The doctor will also check for instability and problems with the (acromioclavicular) joint.



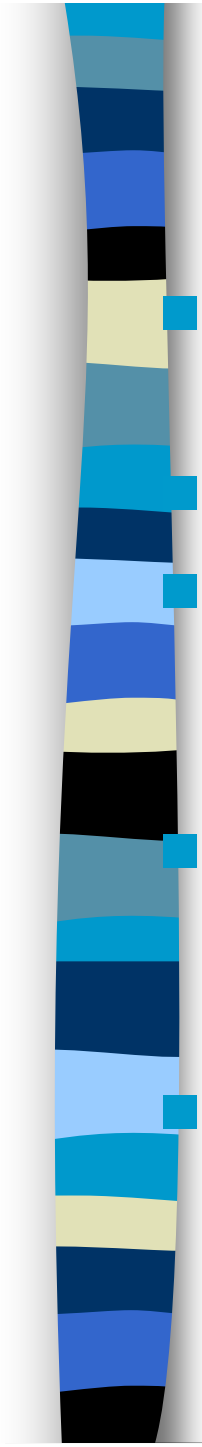
rule out

- also examine neck to make sure that ones pain is not coming from a "pinched nerve" in cervical spine
- to rule out other conditions such as osteoarthritis or rheumatoid arthritis.



Some of the signs of a rotator cuff tear

- Atrophy or thinning of the muscles about the shoulder
- Pain when someone **lift** his arm
- Pain when someone **lower** his arm from a fully raised position
- **Weakness** when someone lift or rotate his arm
- crackling sensation when someone move his shoulder in certain positions

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- Plain X-rays of a shoulder with a rotator cuff tear are usually normal or show a small spur.
 - ultrasound or MRI.
 - An MRI can sometimes distinguish between a full thickness (complete) tear of the tendon and a partial tear.
 - It can show the doctor if the tear is within the tendon itself, or if the tendon is detached from bone.
 - In some circumstances, an Arthrogram, in which local anaesthetic and dye is injected into the joint, may also be helpful.

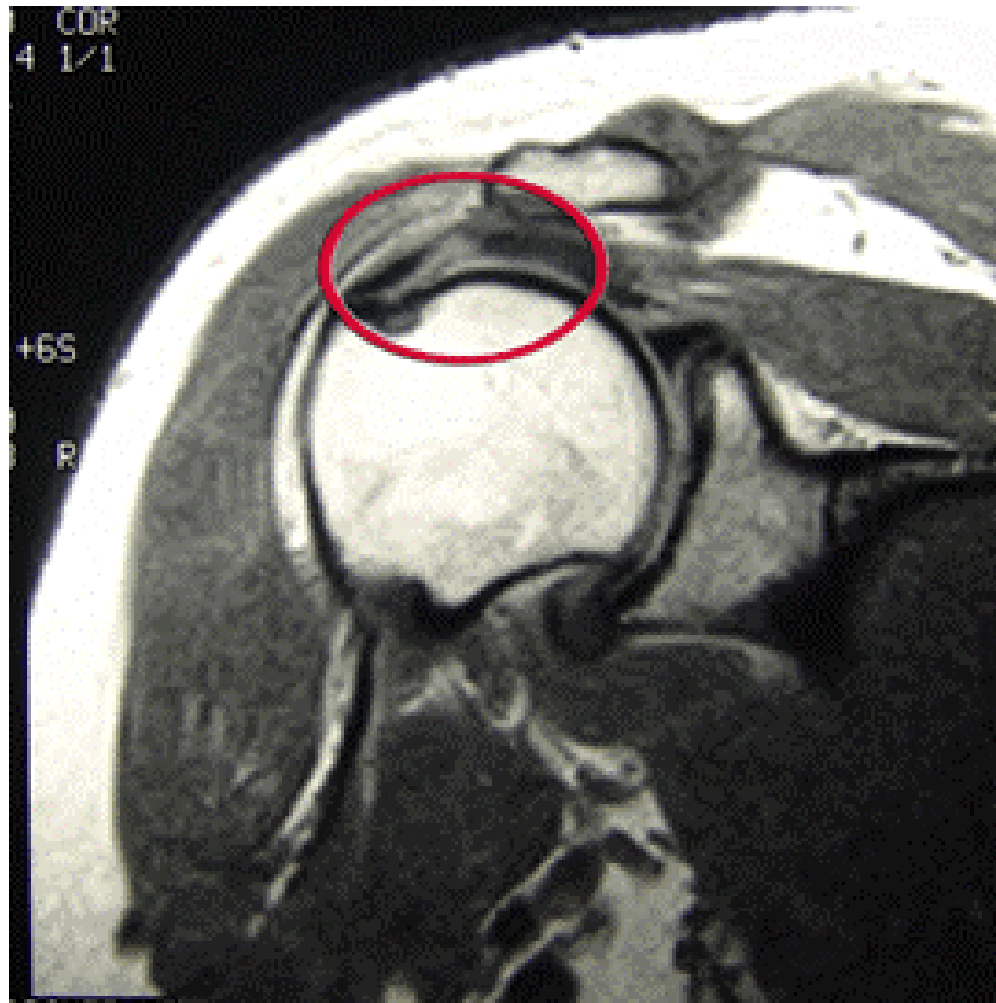
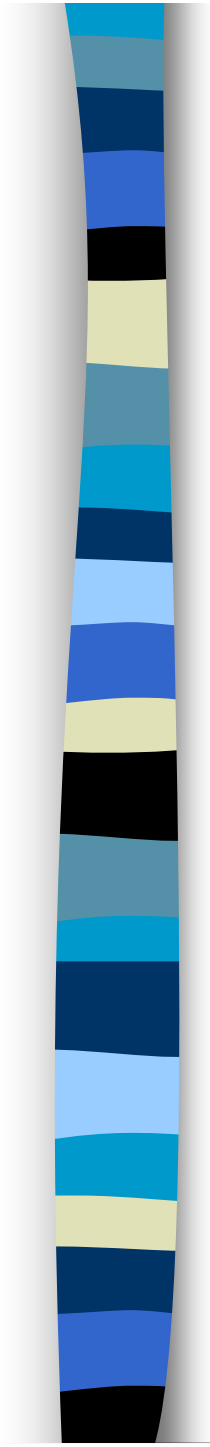


Figure 3: MRI shows a full thickness rotator cuff tear within the substance of the tendon



Treatment Options

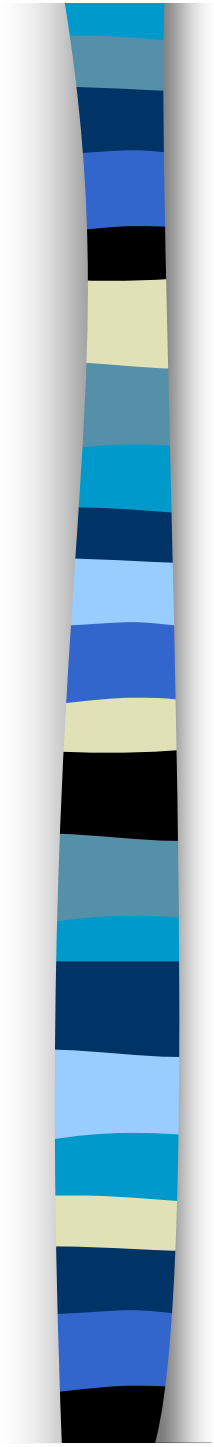
- pain relief
- improve the function of shoulder.
- It may take several weeks or months to restore the strength and mobility to ones shoulder.

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- Rest and limited overhead activity
 - Use of a sling
 - Anti-inflammatory medication
 - Steroid injection
 - Strengthening exercise and physical therapy



Rehabilitation

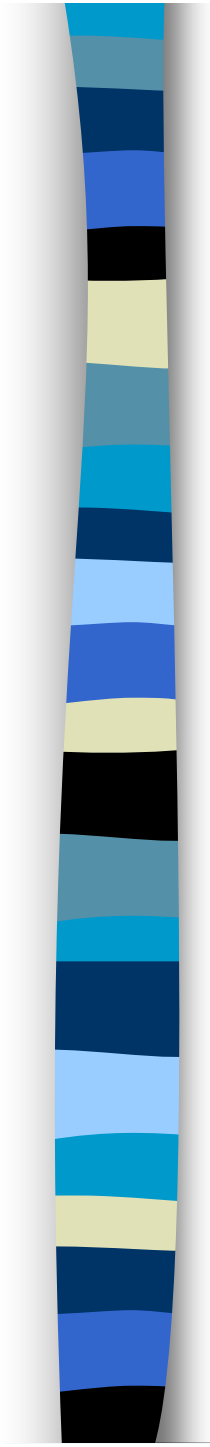
- After surgery, the arm is immobilized to allow the tear to heal.
- The length of immobilization depends upon the severity of the tear.
- You will be given an exercise program to help regain motion and strength in the shoulder.
- This begins with passive motion.
- It advances to active and resistive exercises.
- Complete recovery may take several

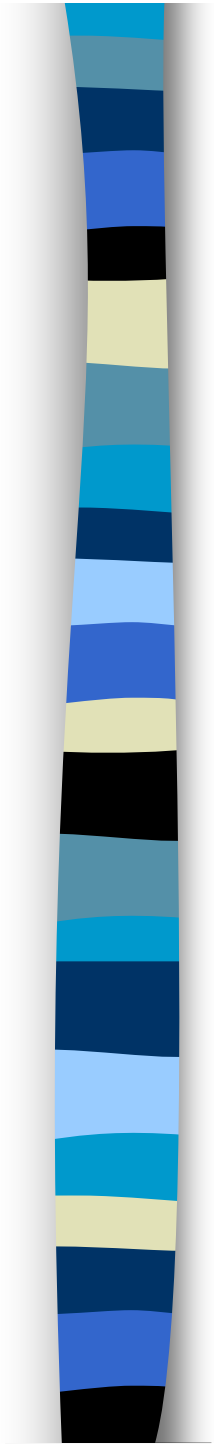


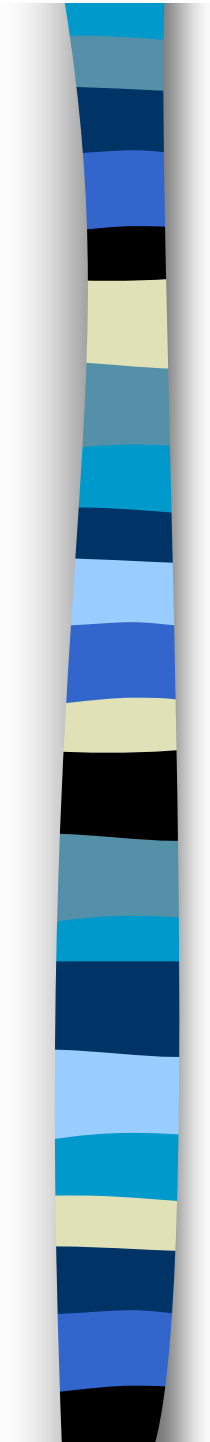


Basic Shoulder Strengthening Exercise:

- Attach elastic tubing to a doorknob at home.
- Gently pull the elastic tubing toward your body.
- Hold for a count of 5. Repeat 5 times with each arm. Perform twice a day.
- Wall Push-Up Exercise: Stand facing a wall with your hands on the wall and your feet shoulder-width apart.
- Slowly perform a push-up. Repeat 5 times. Hold for a count of 5. Perform twice a day.

- 
- **Shoulder Press-Up Exercise:** Sit upright on a chair with armrests; your feet should be touching the floor.
 - Use your arms to slowly rise off the chair. Hold for a count of 5.
 - Repeat 5 times.
 - Perform twice a day.

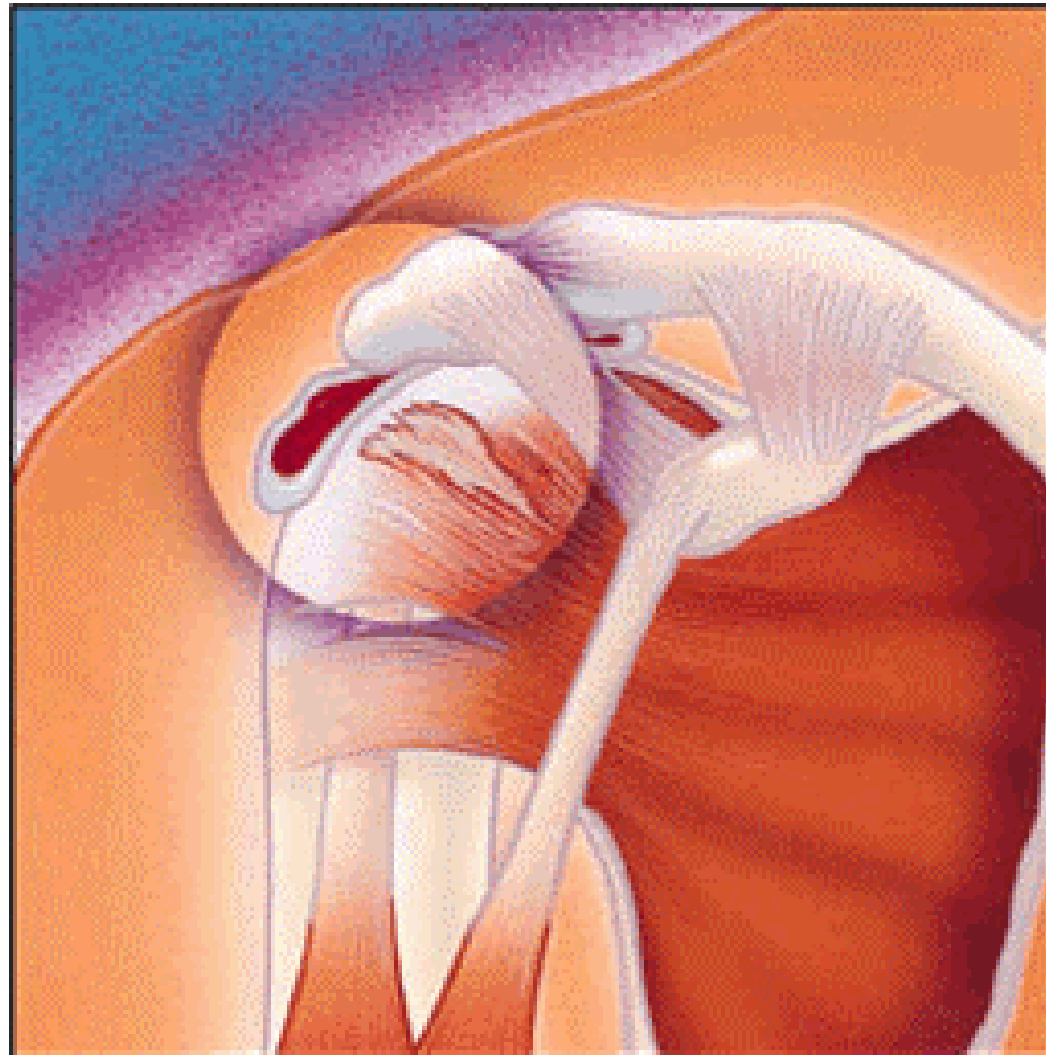




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Shoulder Impingement

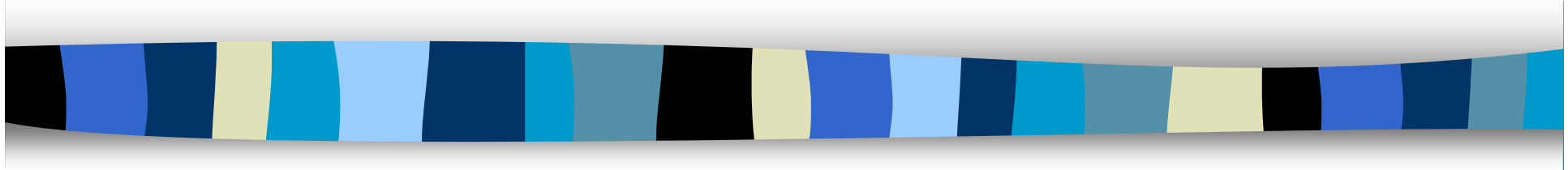




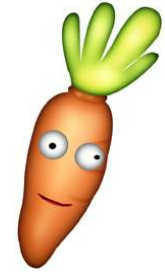
Impingement and Partial Rotator Cuff Tears

Figure 2: Impingement lesion.

Frozen Shoulder



Description



- Frozen shoulder (adhesive capsulitis) is a disorder characterized by pain and loss of motion or stiffness in the shoulder.
- It affects about two percent of the general population.
- It is more common in women between the ages of 40 years to 70 years old.



causes

- The causes of frozen shoulder are not fully understood.
- The process involves **thickening** and **contracture** of the capsule surrounding the shoulder joint.



Risk Factors

- Frozen shoulder occurs much more commonly in individuals with diabetes, affecting 10 percent to 20 percent of these individuals.
- Other medical problems associated with increased risk of frozen shoulder include: hypothyroidism, hyperthyroidism, Parkinson's disease, and cardiac disease or surgery.
- Frozen shoulder can develop after a shoulder is injured or immobilized for a period of time.



Prevention

- Attempts to prevent frozen shoulder include early motion of the shoulder after it has been injured.



the normal course of a frozen shoulder

- **Stage one:** In the "freezing" stage, which may last from six weeks to nine months, the patient develops a slow onset of pain. As the pain worsens, the shoulder loses motion.
- **Stage two:** The "frozen" stage is marked by a slow improvement in pain, but the stiffness remains. This stage generally lasts four months to nine months.
- **Stage three:** The final stage is the "thawing", during which shoulder motion slowly returns toward normal. This generally lasts five months to 26 months.



diagnose

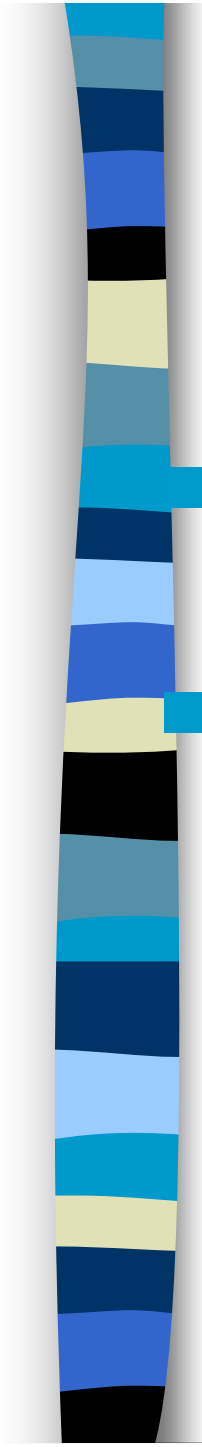
- based on the history of the patient's **symptoms** and **physical examination**.
- X-rays or MRI (magnetic resonance imaging) studies are sometimes used to **rule out** other causes of shoulder stiffness and pain, such as rotator cuff tear (**liver, gallbladder, heart**).



Symptoms

- Pain due to frozen shoulder is usually dull or aching.
- It can be worsened with attempted motion.
- The pain is usually located over the outer shoulder area and sometimes the upper arm.
- The hallmark of the disorder is restricted motion or stiffness in the shoulder.

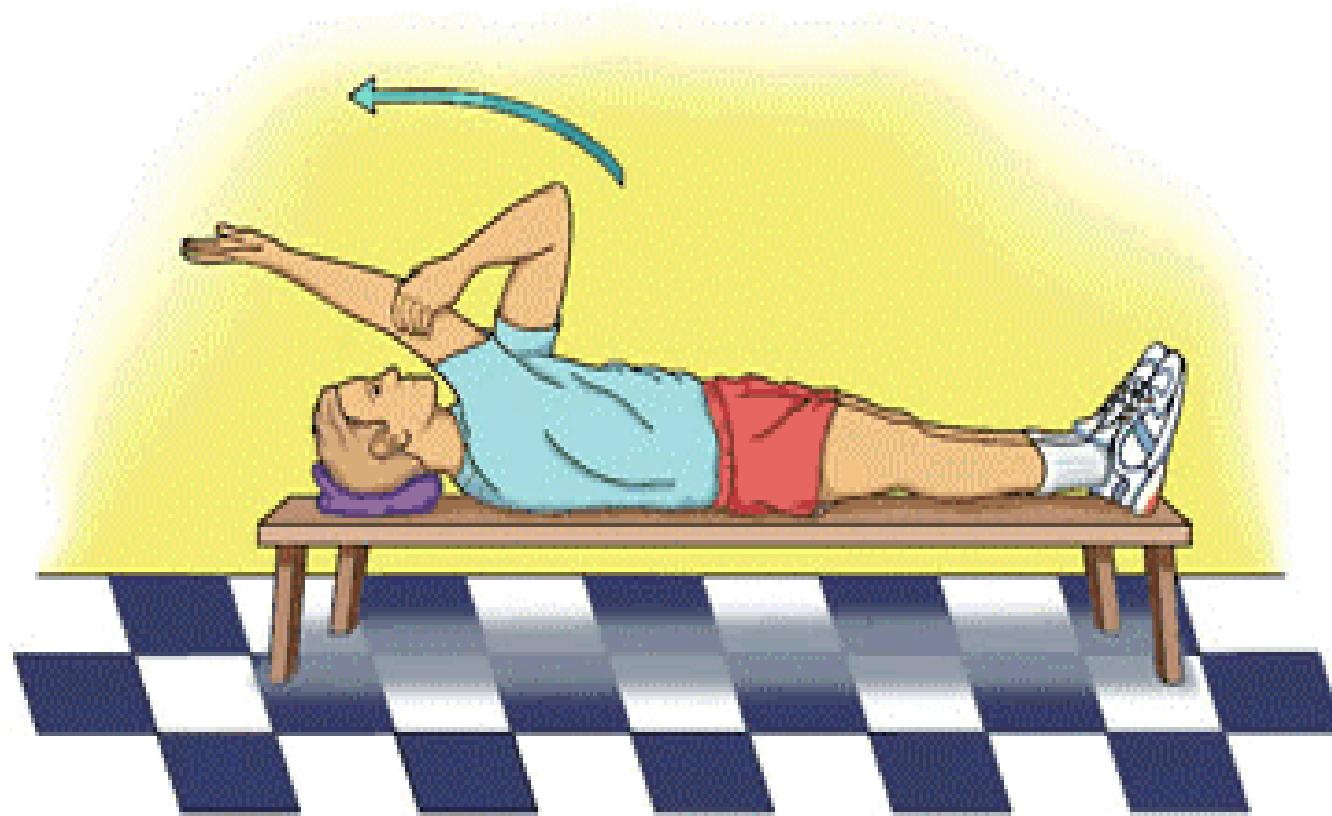
Treatment

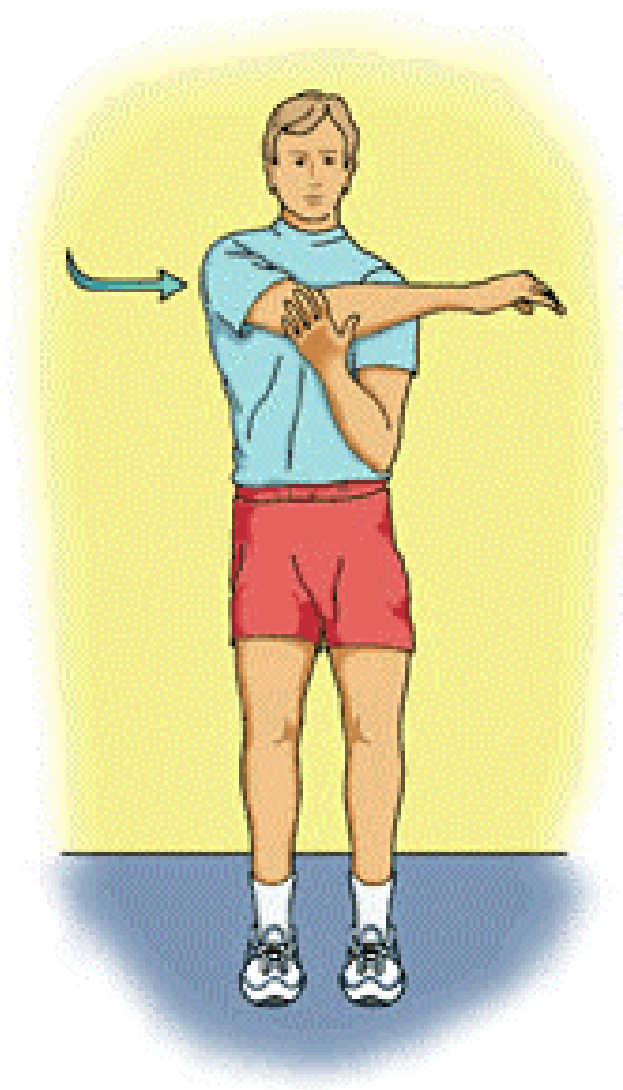
- 
- Frozen shoulder will generally get better on its own.
 - However, this takes some time, occasionally up to two to three years.

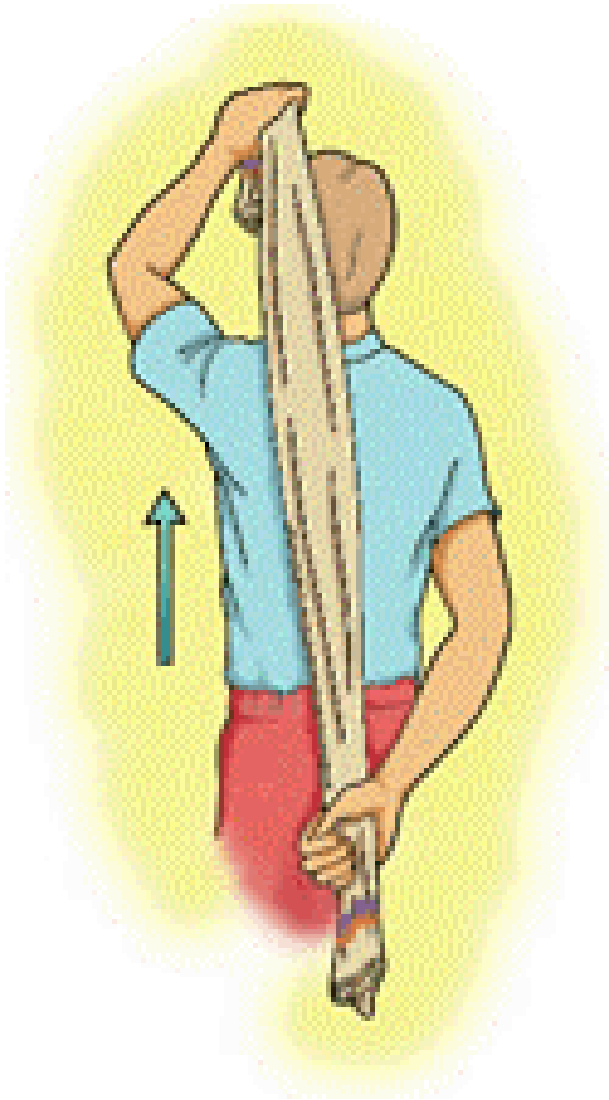
Aim of treatment



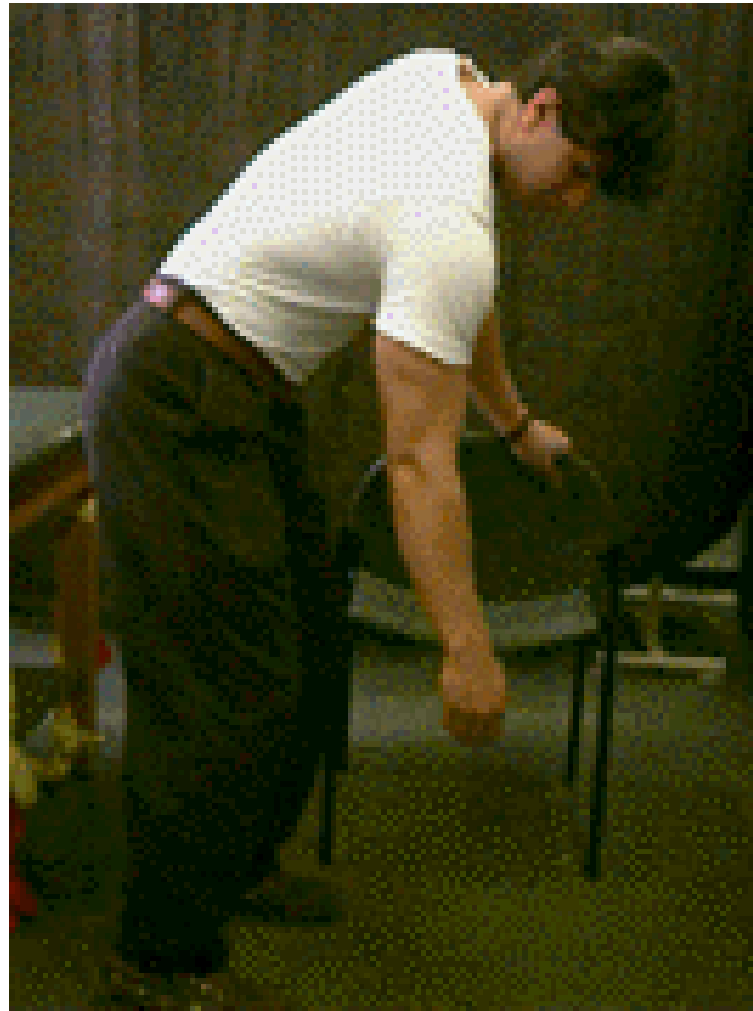
- The first goal is pain control.
- To restore motion, physical therapy is usually started. This may be under the direct supervision of a therapist or via a home program.
- Therapy includes stretching or range-of-motion exercises for the shoulder. Sometimes heat is used to help decrease pain.

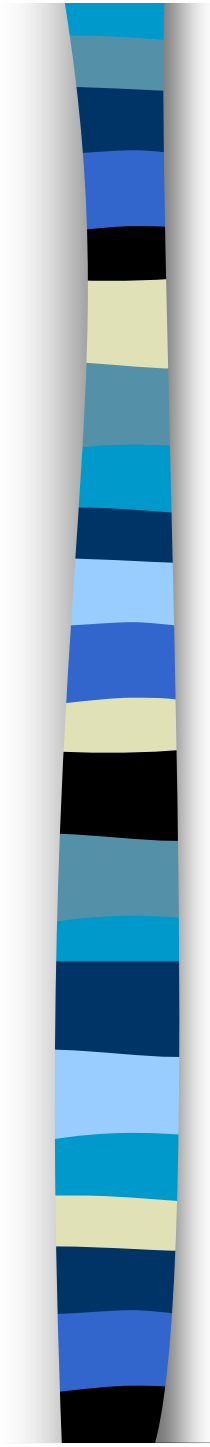






Codman's movement



- 
- Yoga 、 taiji
 - Heat
 - **Electrical stimulation**
 - Acupuncture
 - More than 90 percent of patients improve with these relatively simple treatments.





other methods

- **nerve blocks :Suprascapular nerve block**
- **Surgical : manipulation under anesthesia and shoulder arthroscopy**
- **Often, manipulation and arthroscopy are used together in combination to obtain maximum results.**
- **After surgery, physical therapy is important to maintain the motion that was achieved with surgery.**



After surgery

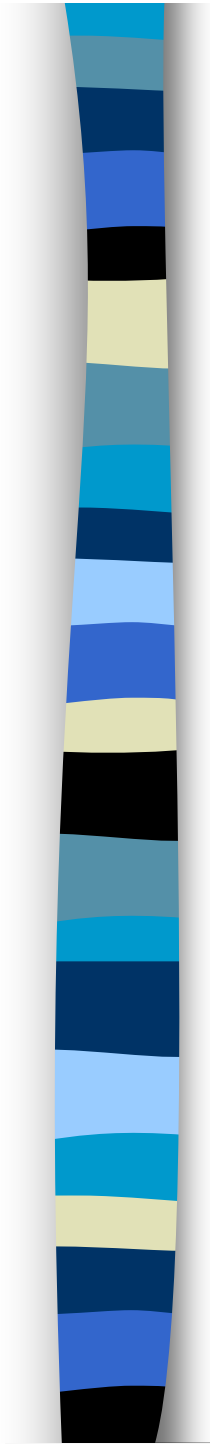
- **Recovery time varies.**
- **Some patients require six weeks to three months off of work depending on their occupation and speed of recovery.**



Chinese manipulation

- 1. Rolling, grasping(jianjin)
- 2. knead and pinch
- 3. Trundle, point(fufen, tianzong)
- 4. Traction(neck, shoulder)
- 5. shake, vibration, movement
- 6. relax



- 
- Pinch the arm with nipping and kneading,
 - knead the arm with holding and grasping,
 - pull the arm and knead points