



Take A Weight Off Your Shoulders

Improve your understanding of
upper limb injuries

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Social Status of the Shoulder

- Rub shoulders
- Stand shoulder to shoulder
- Shoulder arms
- Straight from the shoulder
- Looked over one's shoulder
- Someone lookover over your shoulder

Shoulder Joint

- The most unstable joint in the body
- The most versatile joint in the body

Shoulder Problems

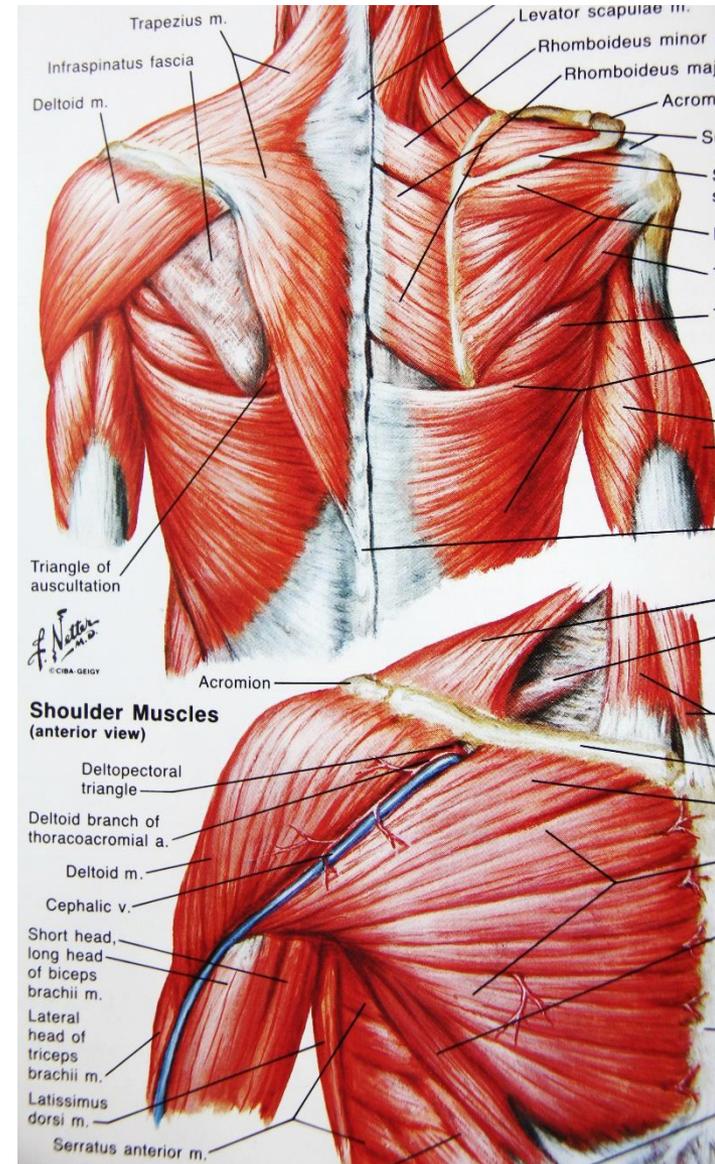
- 3rd most common cause of treatment for m/s pain
- Self reported shoulder pain 16–28% per annum
- Prone to recur
- Prone to become chronic

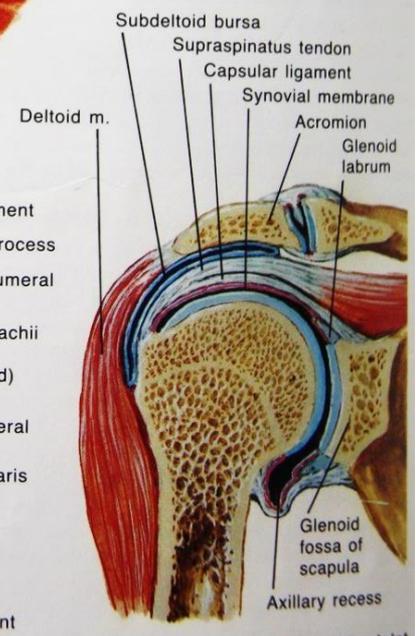
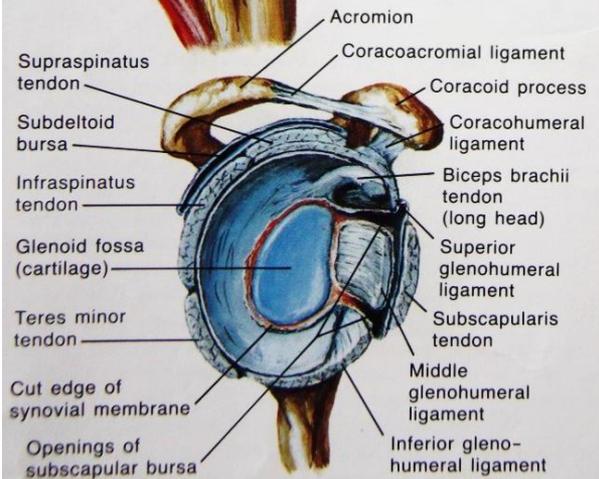
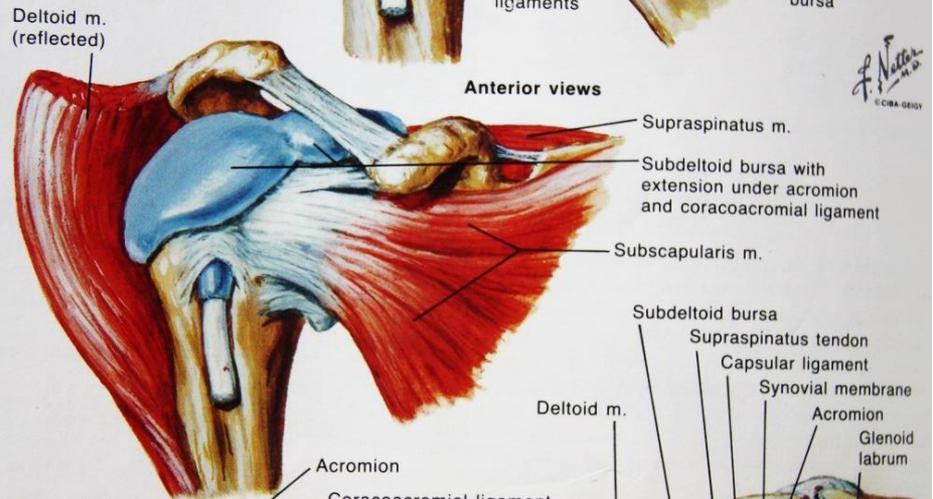
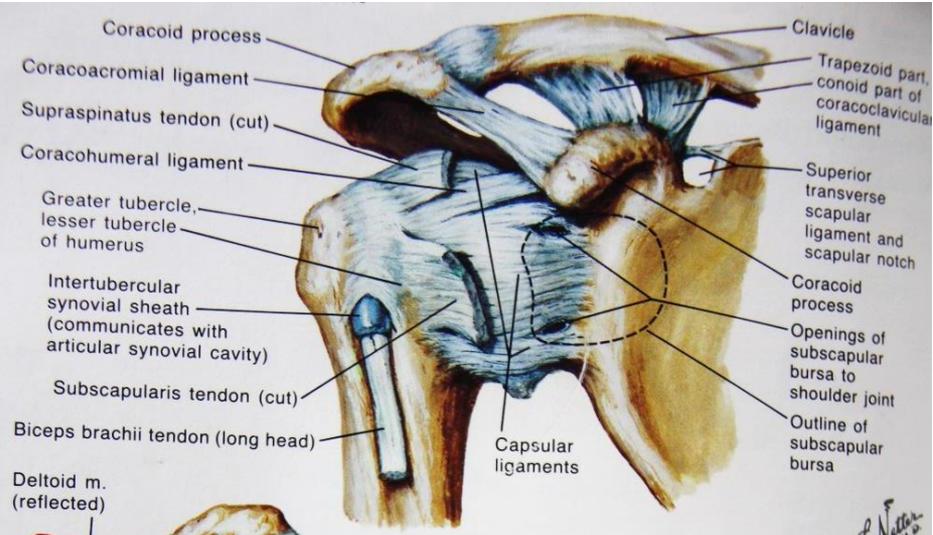
Shoulder Problems

- Workers compensation or litigation incurs
 - Higher cost
 - Poorer outcomes
 - Worse prognosis

Anatomy of Shoulder Girdle

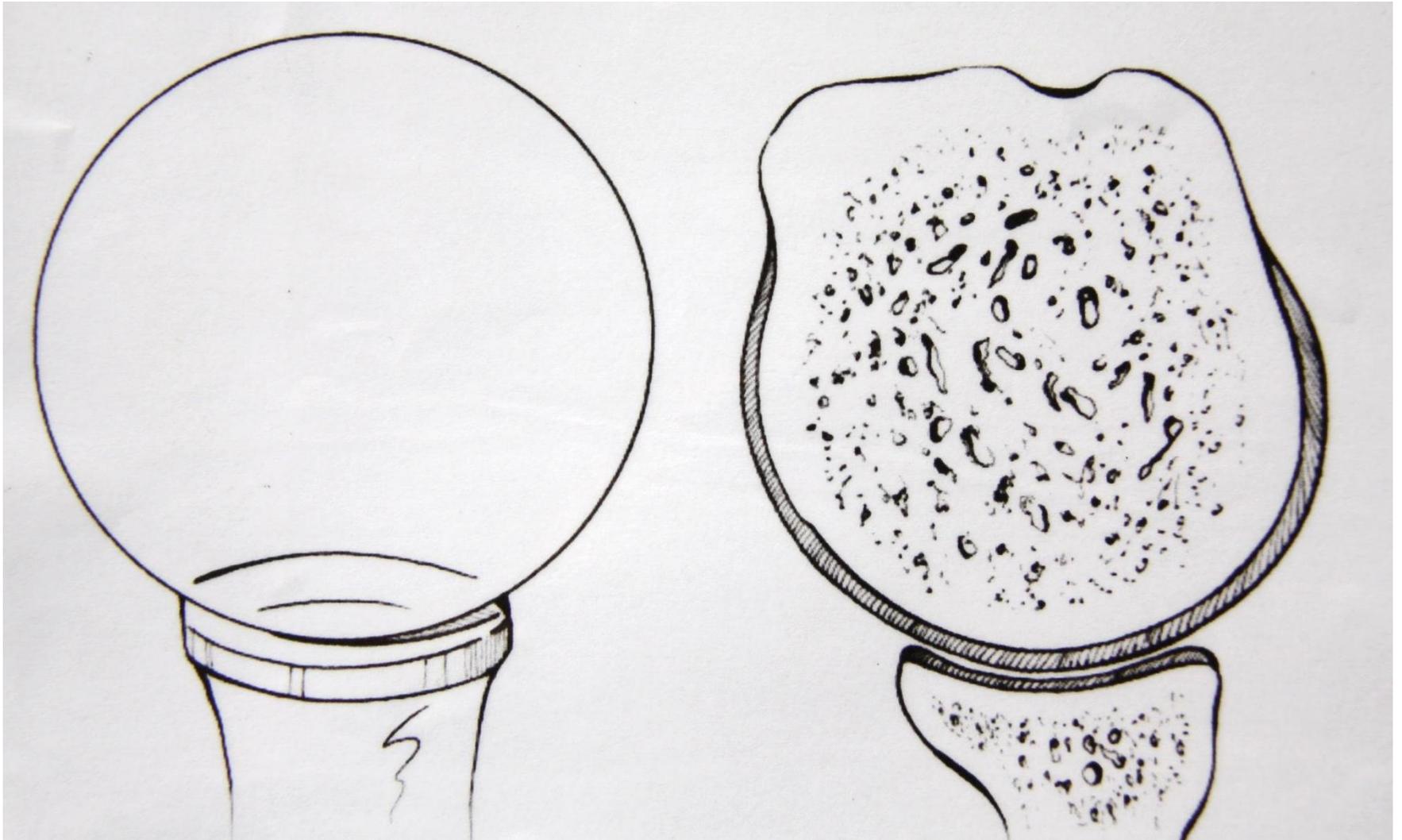
- Gleno-humeral
- Acrominoclavicular
- Scapulo-thoracic

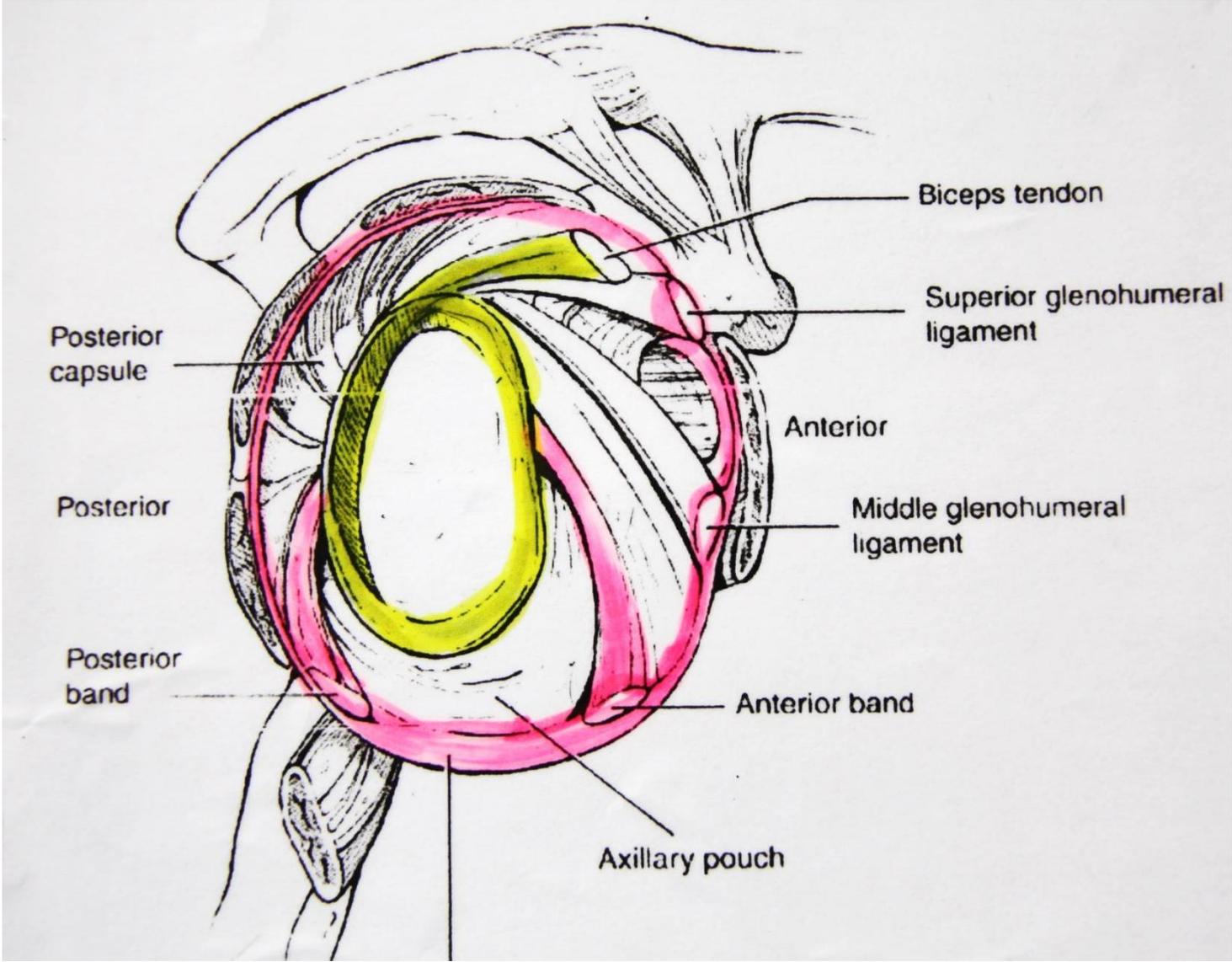


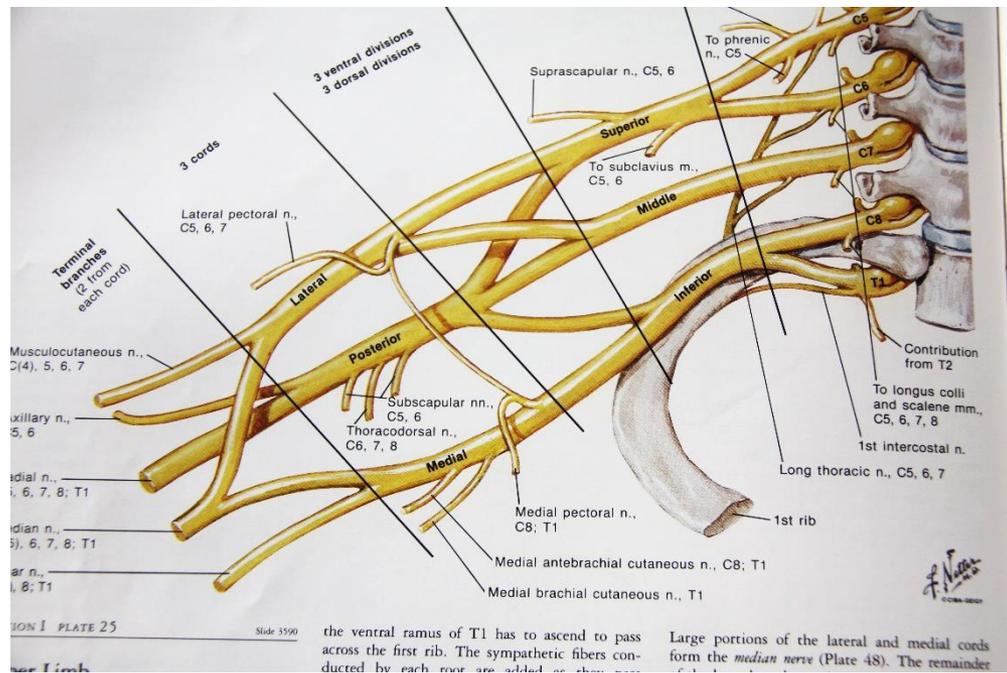
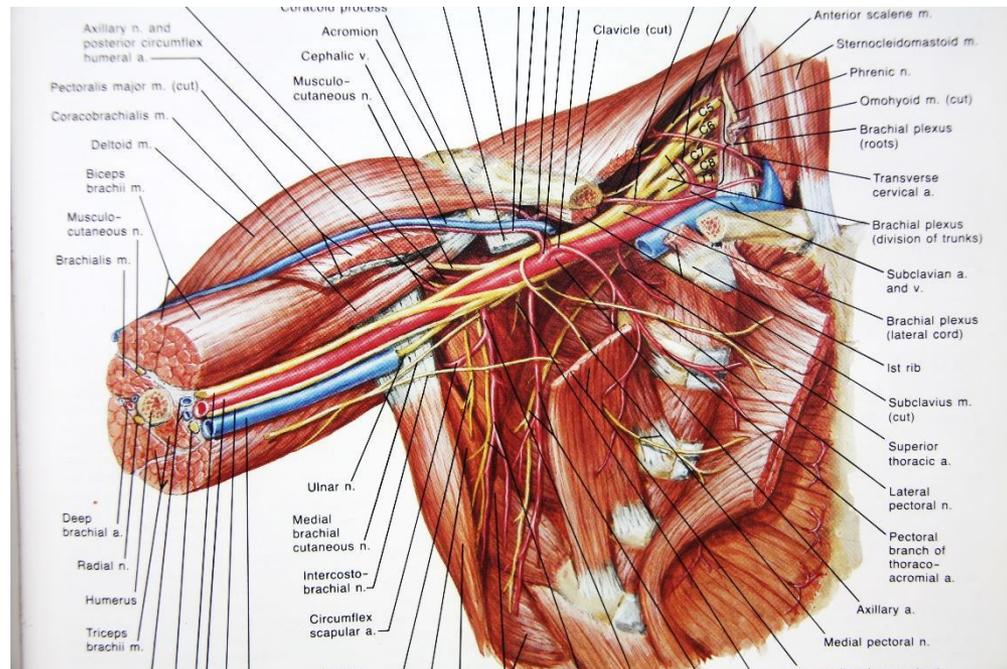


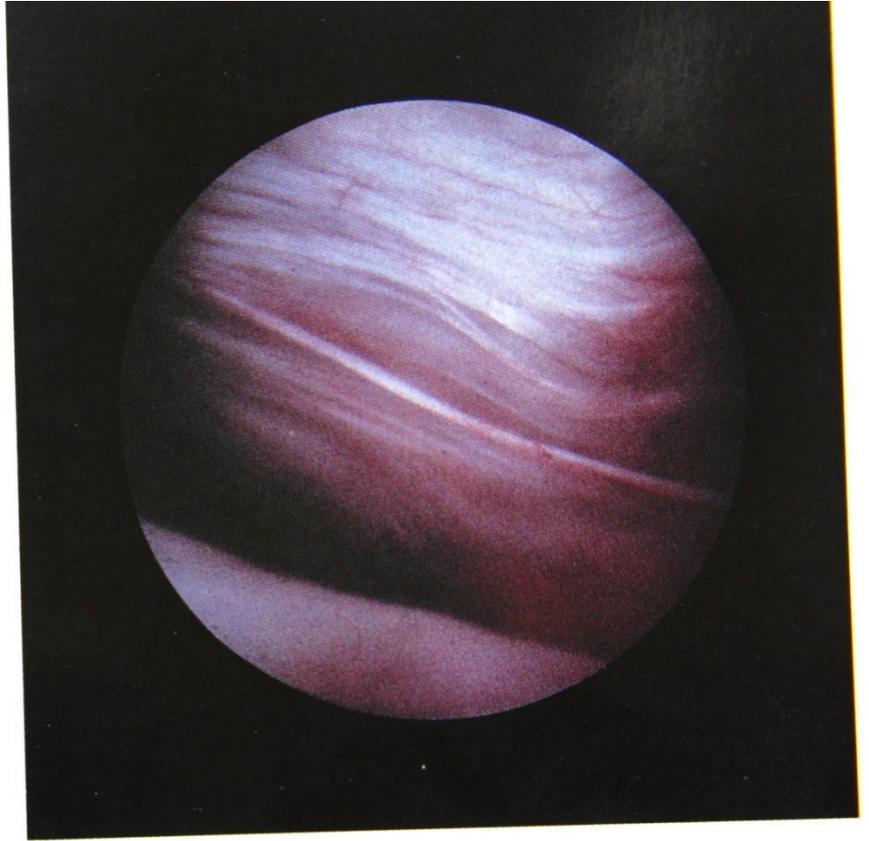
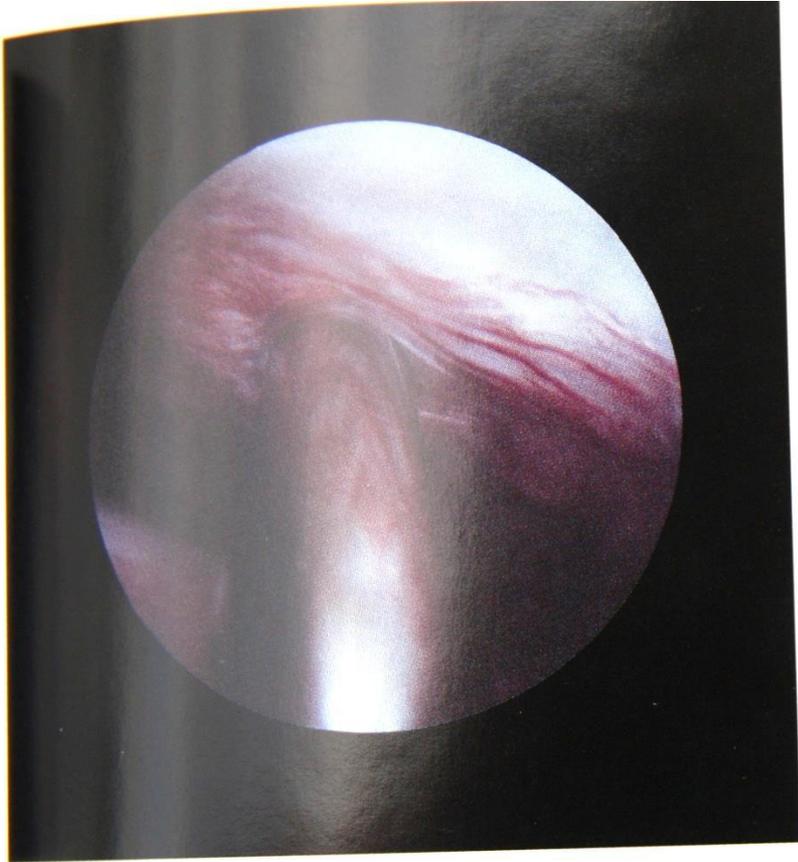
Shoulder joint opened (lateral view)

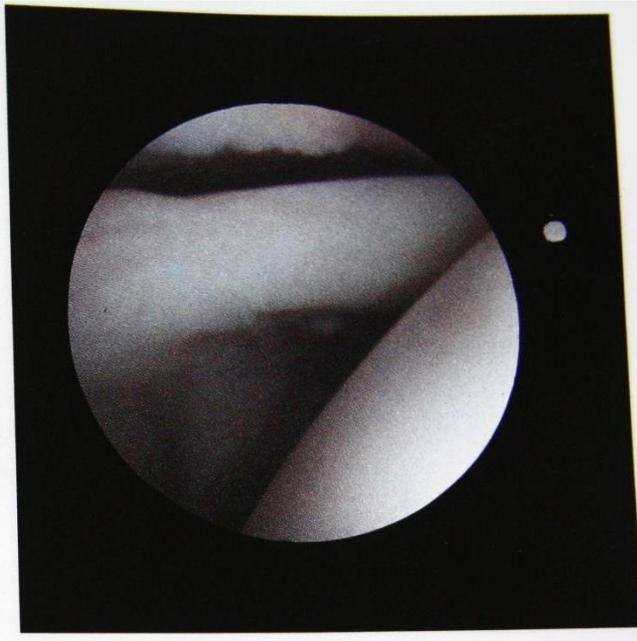
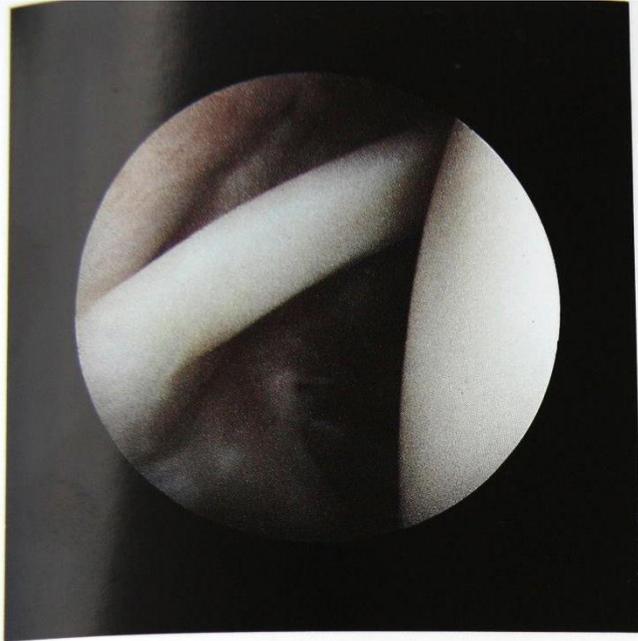
Coronal section through shoulder joint

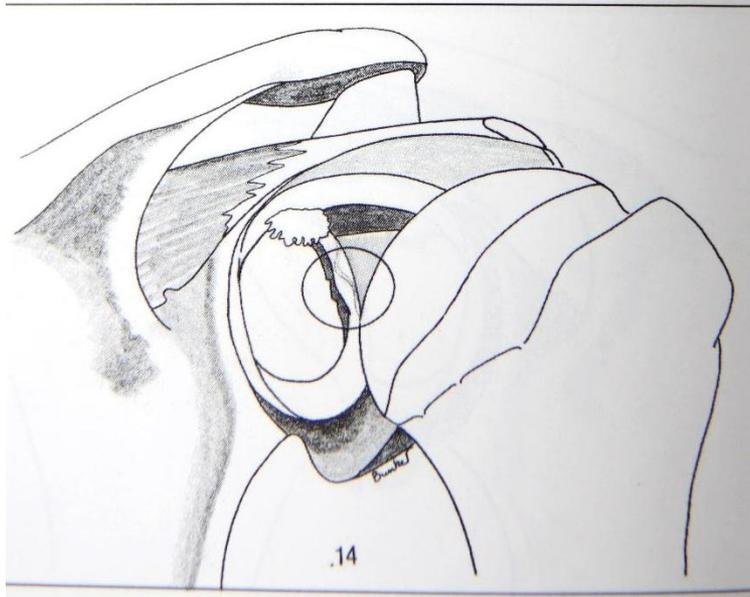


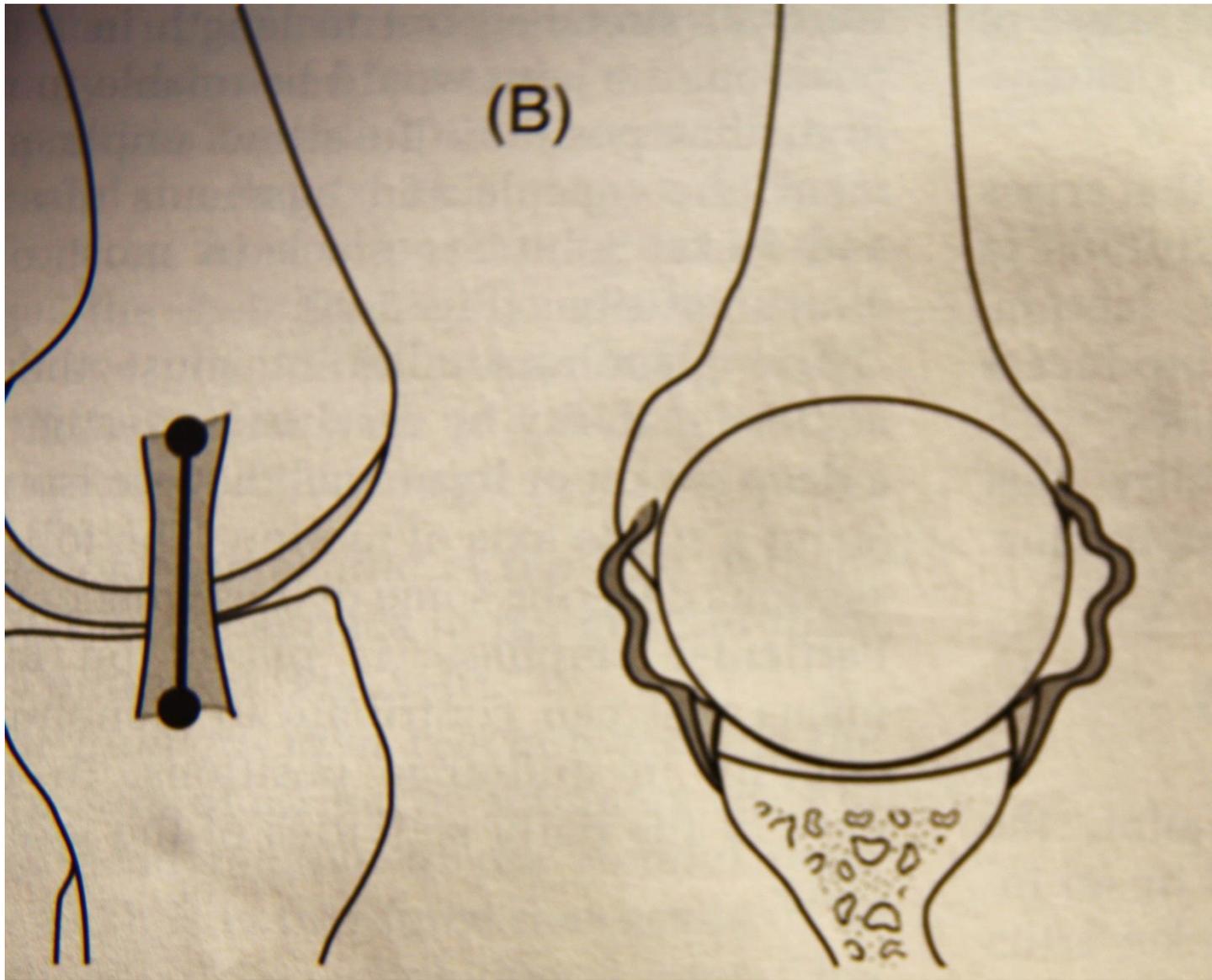










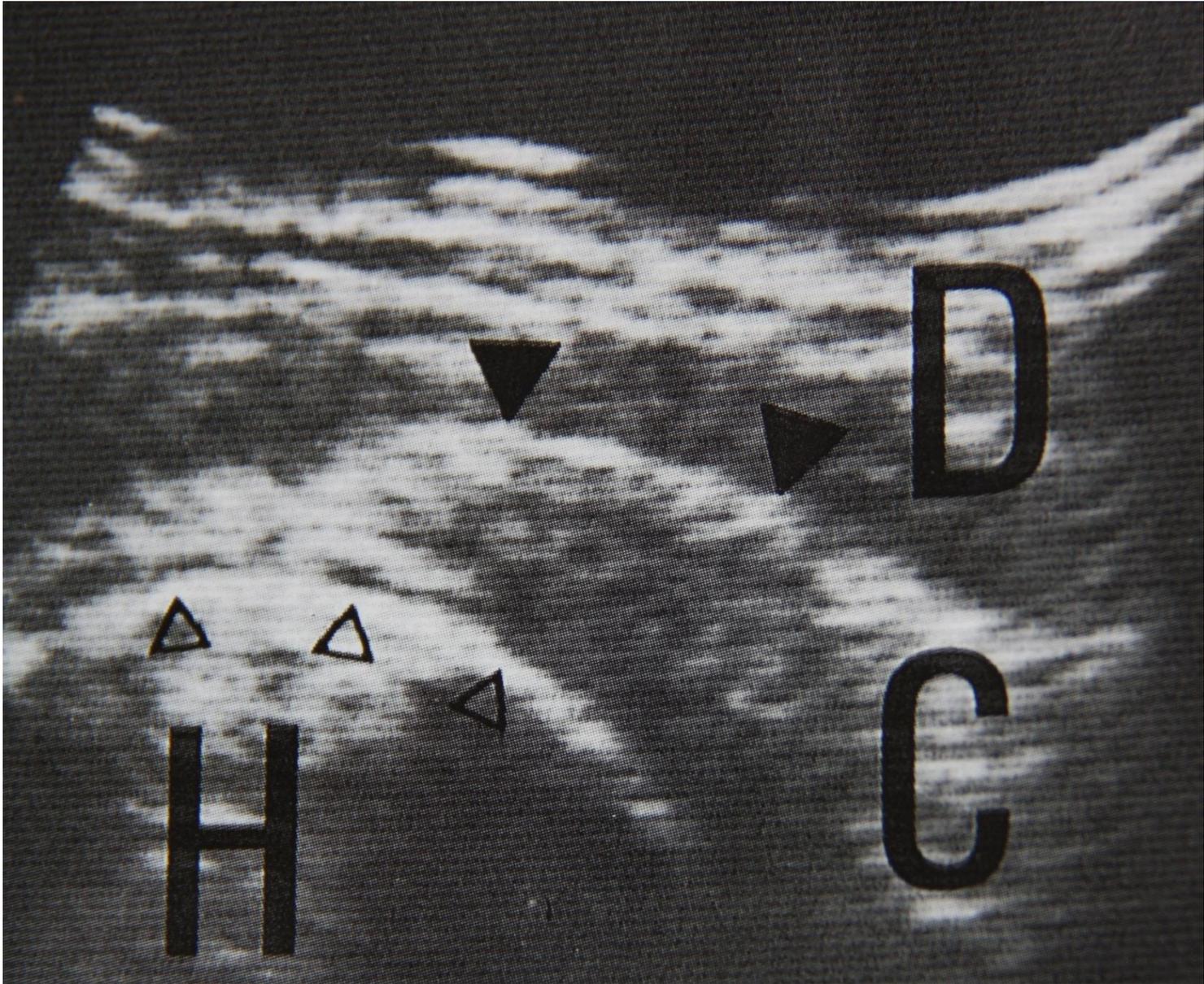


Audience Participation

- Slump
- Elevate
- Sit up

Conundrum of Management

- The treatable shoulder
- The diagnosable but untreatable shoulder
- The un-diagnosable shoulder



Rotator Cuff Tear

- Injury
- Injury and degeneration
- Degeneration



Age Related Changes–Degeneration

- Visible



Age Related Changes

- MRI Shoulder
- Normal Adult 20 y.o.
 - Intact cuff tendons
 - Normal muscles
 - Non distended bursa
 - Normal bones
 - Normal AC Joint

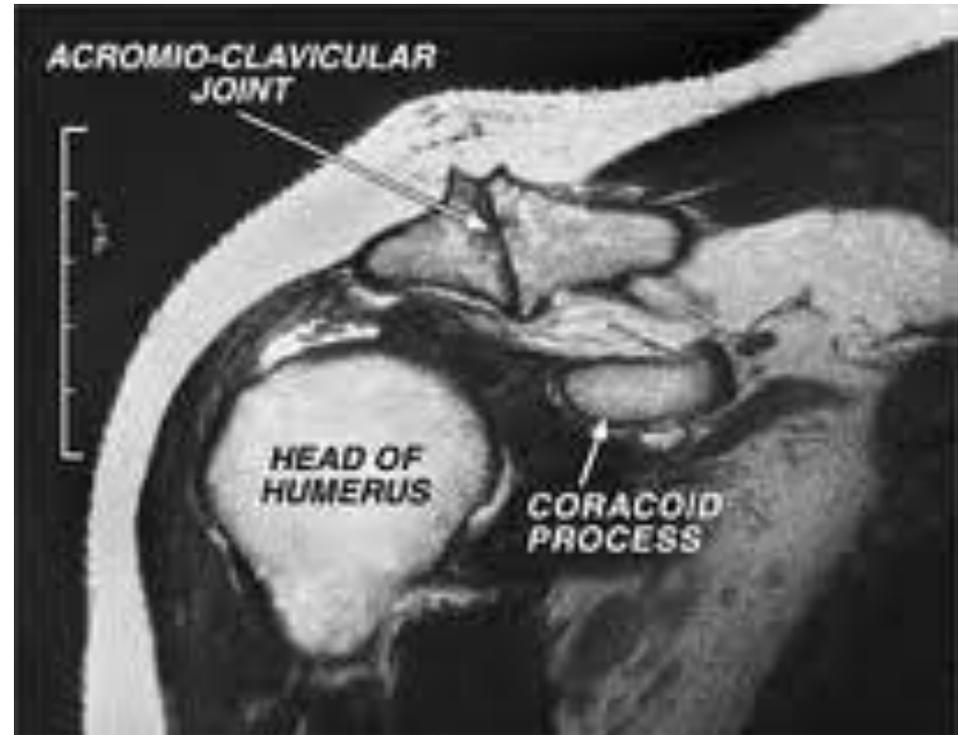


Age Related Changes

- 58 y.o. Male
- “Sore shoulder”
 - AC Joint OA
 - Cuff Tear
 - Muscle Atrophy
 - Bursitis

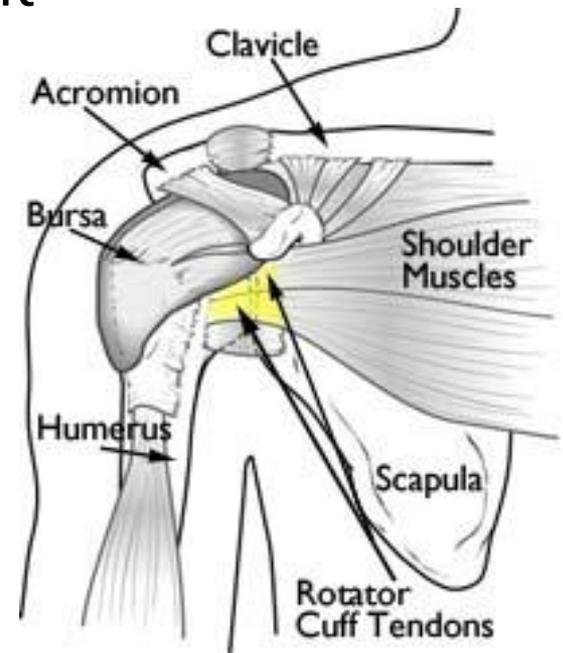
Many causes for pain

What is Acute/Chronic?



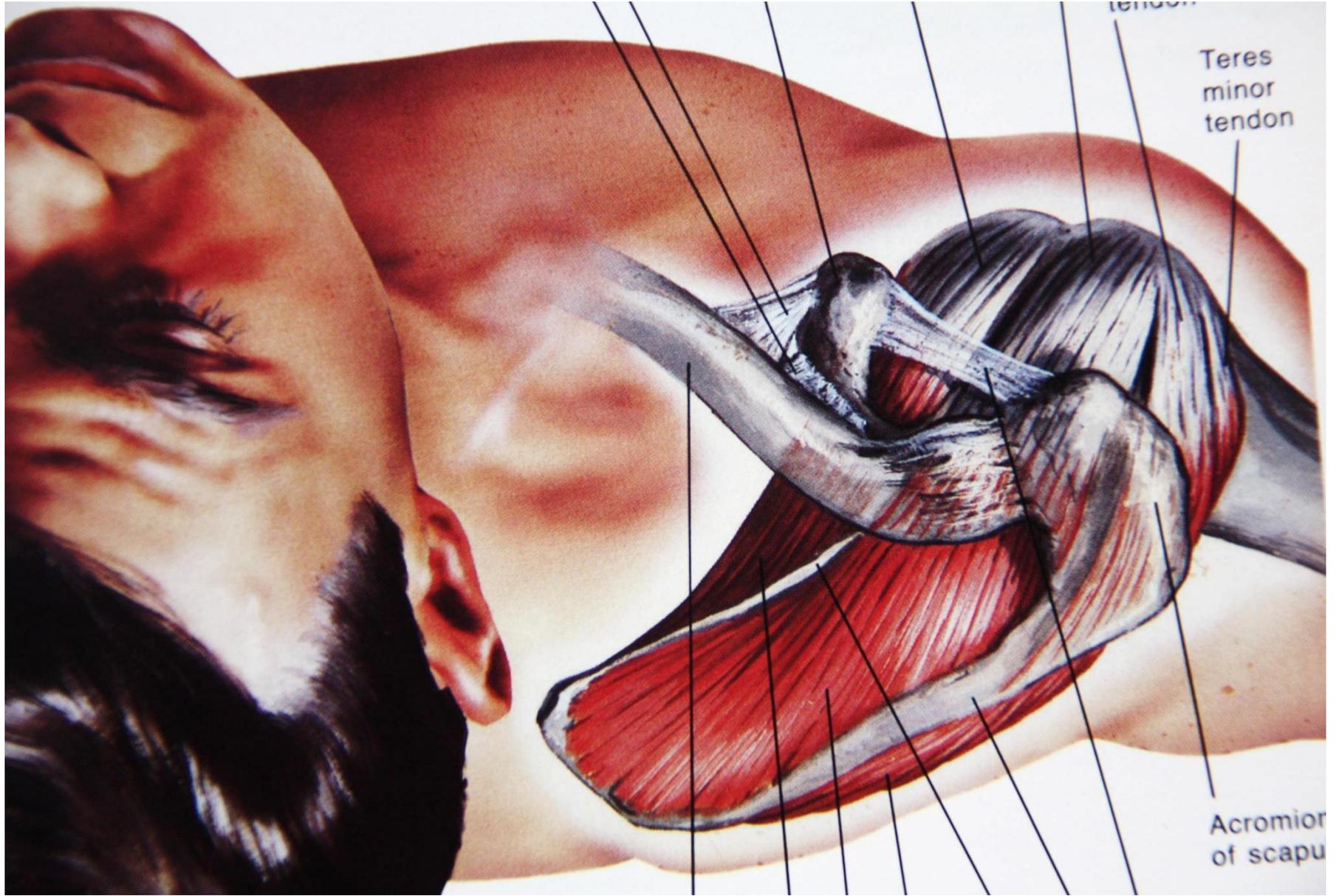
Bursitis/Tendonitis

- Bursitis/Tendonitis
 - Usually secondary to impingement
 - May be related to position of use
 - Very common
 - Middle age
 - Partial cuff tear often



Impingement = 'pinching'

- Tests
 - Neer's
 - Hawkin's
 - Yocum's

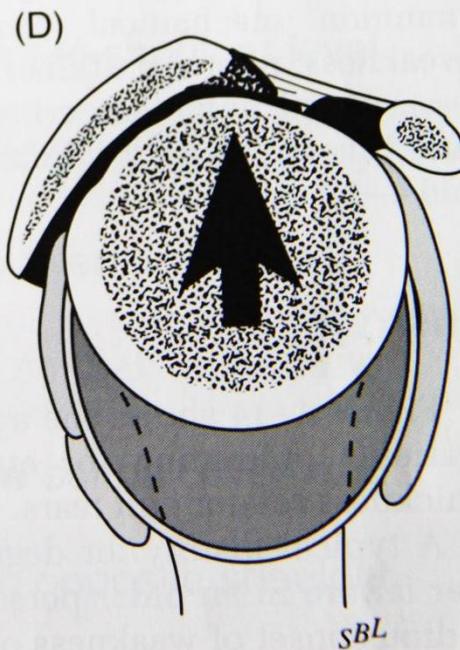
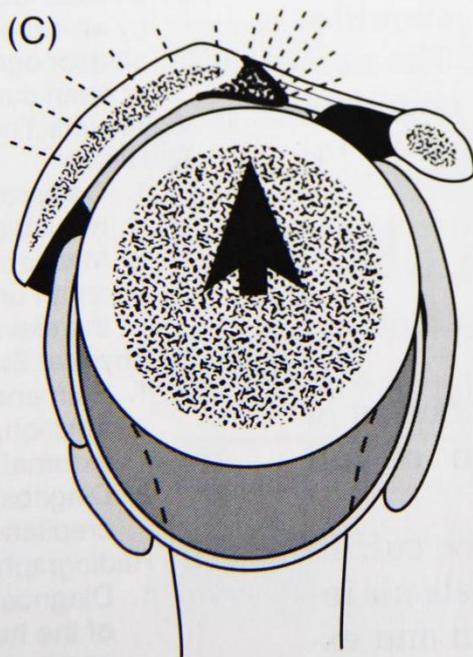
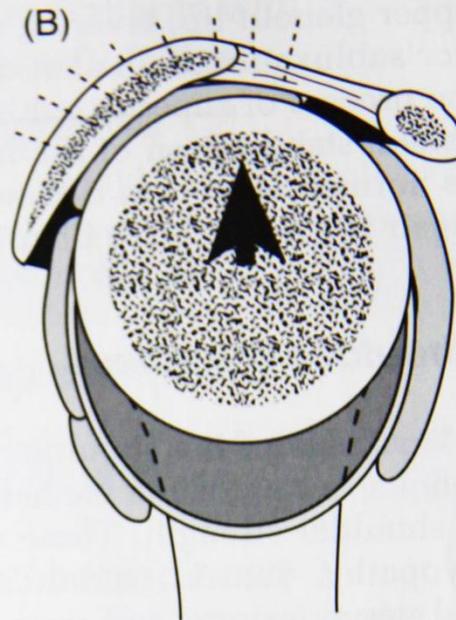
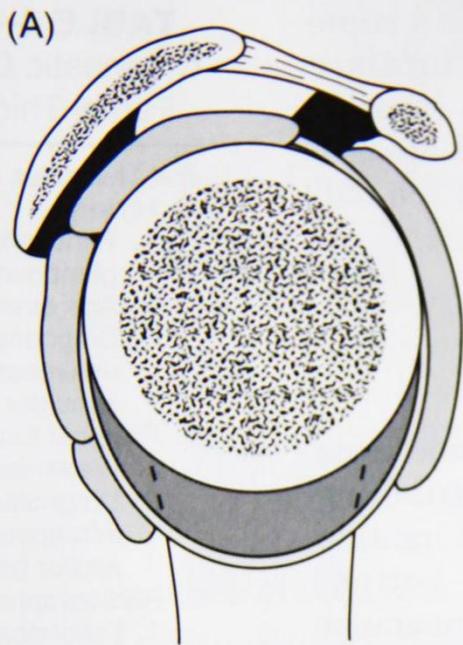


Teres
minor
tendon

Acromion
of scapu

Shoulder Facts to Note

- Cuff defects are relatively rare under age 40
- Cuff defects must to a certain extent be regarded as normal degenerative attrition not necessarily causing pain or functional impairment
- Many cuff defects are seen in individuals ages 50=60 who have lead sedentary lives without a history of injury or heavy use
- 40% of those with cuff defects have never done strenuous physical work
- Cuff defects are frequently bilateral
- Many heavy laborers never develop cuff defects

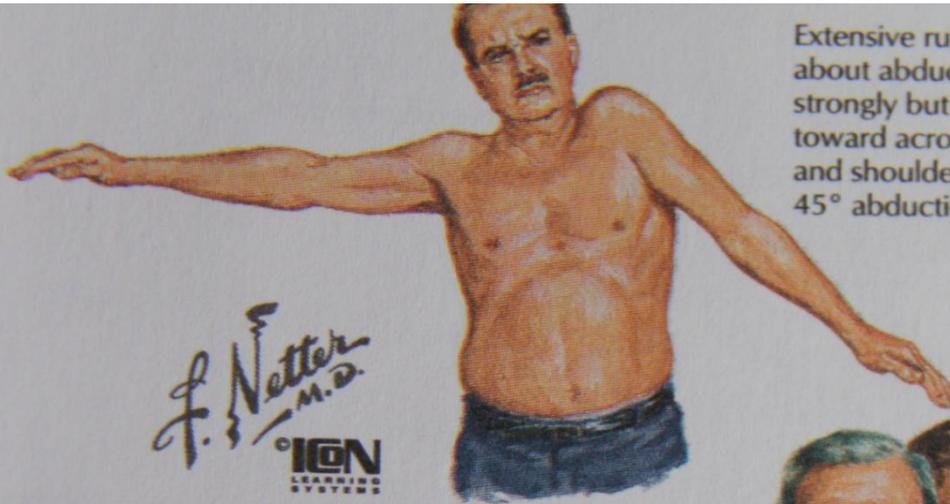


AC Joint Arthritis

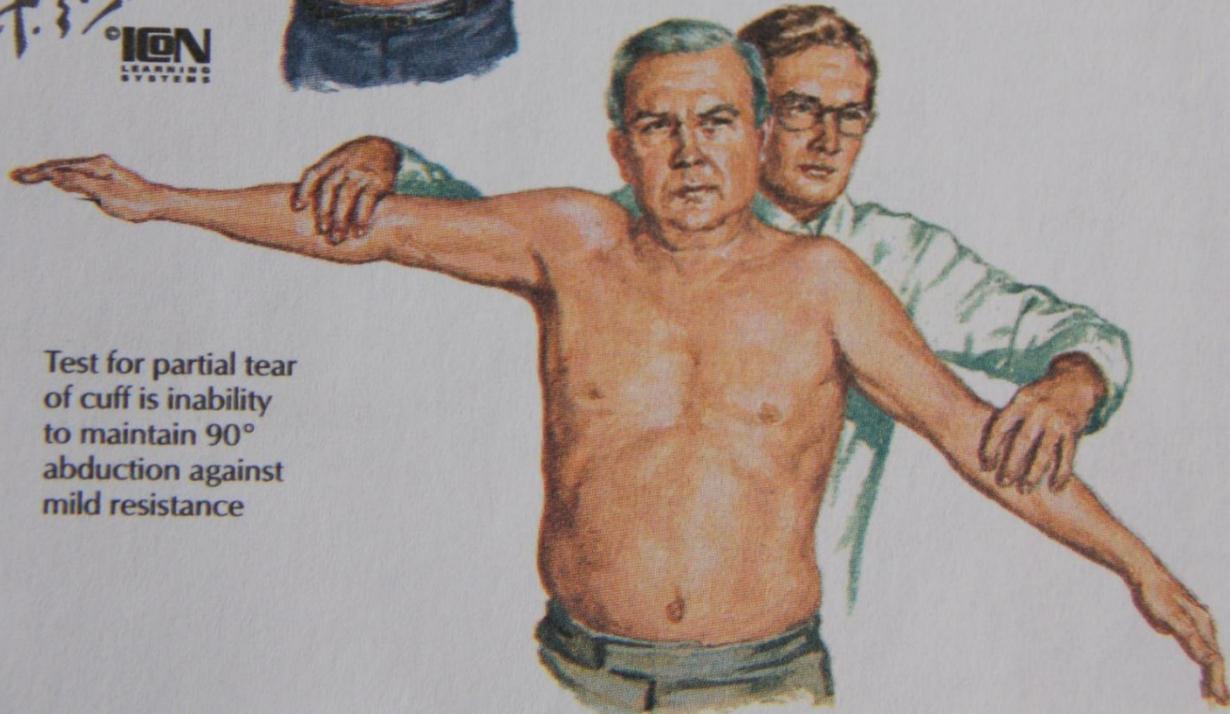
- Symptoms very similar to cuff
- Can be aggravated by fall, work
- May need to be addressed to achieve a successful cuff surgery

- Often excised

Extensive rupture of left cuff. To bring about abduction, deltoid muscle contracts strongly but only pulls humerus upward toward acromion while scapula rotates and shoulder girdle is elevated. 45° abduction thus possible



Test for partial tear of cuff is inability to maintain 90° abduction against mild resistance



Frozen Shoulder

- Idiopathic disease featuring pain and contracture
- Only one cause of shoulder pain
- 11% in diabetes
- Type 1 diabetes : –risk of Frozen Shoulder in lifetime = 40% cf hyperthyroidism and hypertriglyceridemia
- Trauma simply makes the patient conscious of the insidious underlying disease process

Frozen Shoulder (Adhesive Capsulitis)

- Important medico-legally
- Likely to (almost) resolve over 18–24 months
- If assessed too early – very high impairment rating

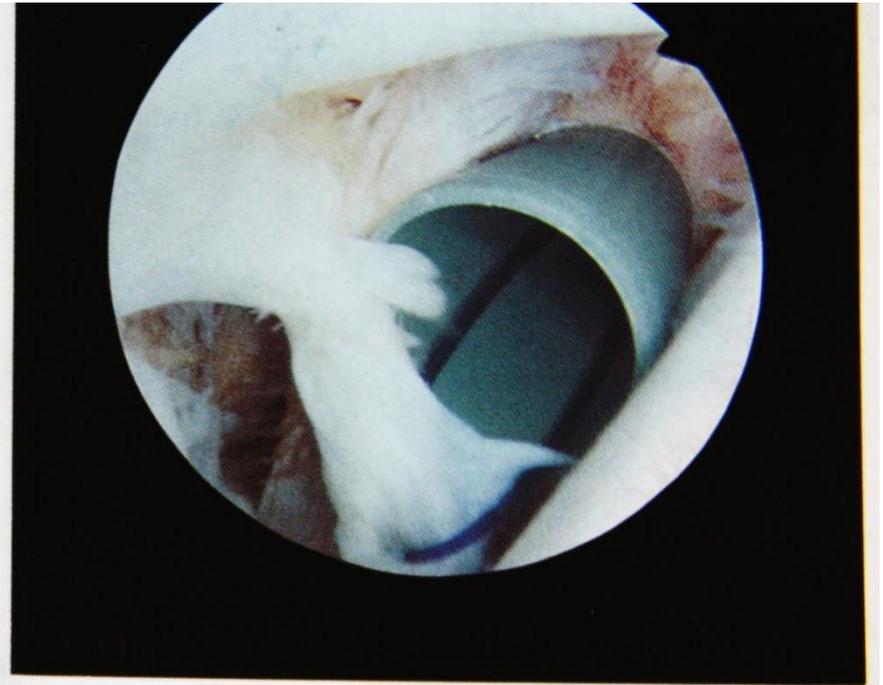
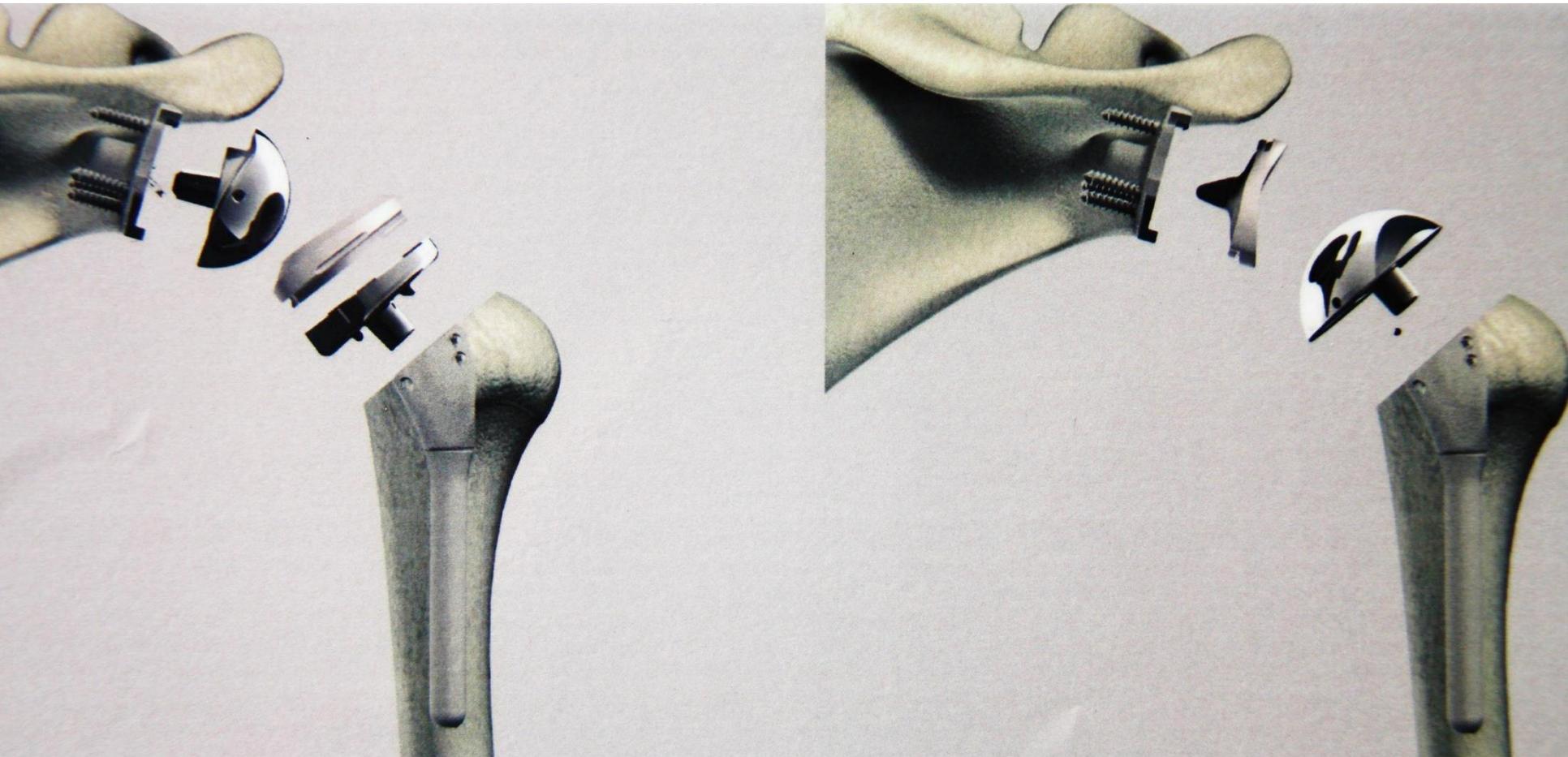


Figure 9.20

The suture placed through the labrum and exiting the cannula.





AMA Guides® to the Evaluation of
DISEASE AND INJURY
Causation



SECOND EDITION

J. Mark Melhorn, MD | James B. Talmage, MD
William E. Ackerman III, MD | Mark H. Hyman, MD



Non-occupational risk factors for

- Shoulder tendinopathy,
 - Impingement
 - Rotator Cuff tears
-
- Age: very strong evidence
 - BMI: strong evidence
 - Gender: insufficient evidence
 - Biopsychosocial factors: strong evidence
 - Diabetes: strong evidence
 - Dominant hand: insufficient evidence
 - Anatomy: low risk evidence
 - Co-morbidities: insufficient evidence (eg other shoulder pathology)
 - Genetic: insufficient evidence

Occupational Risk Factors for S.I.S.

- Combination of risk factors

$\left. \begin{array}{l} \text{Force + repetition} \\ \text{Force + posture} \end{array} \right\} \text{:some evidence}$

- Vibration: insufficient evidence
- Highly repetitive work alone or in combination with other factors: some evidence
- Forceful work: insufficient evidence
- Awkward postures: strong evidence; sustained shoulder postures with more than 60° of flexion or abduction
- Cold environment: insufficient evidence
- Length of employment: insufficient evidence
- Keyboard activities: insufficient evidence
- Smoking: low risk evidence

Favouring

- “The concept that “favoring” one upper limb can result in an injury to or illness in the other is not supported by scientific evidence: instead it is an unsupportable myth”

Acronyms

Victim

Of

Medical

Imaging

Technology

Brainless

Application of

Radiological

Findings

Questions

