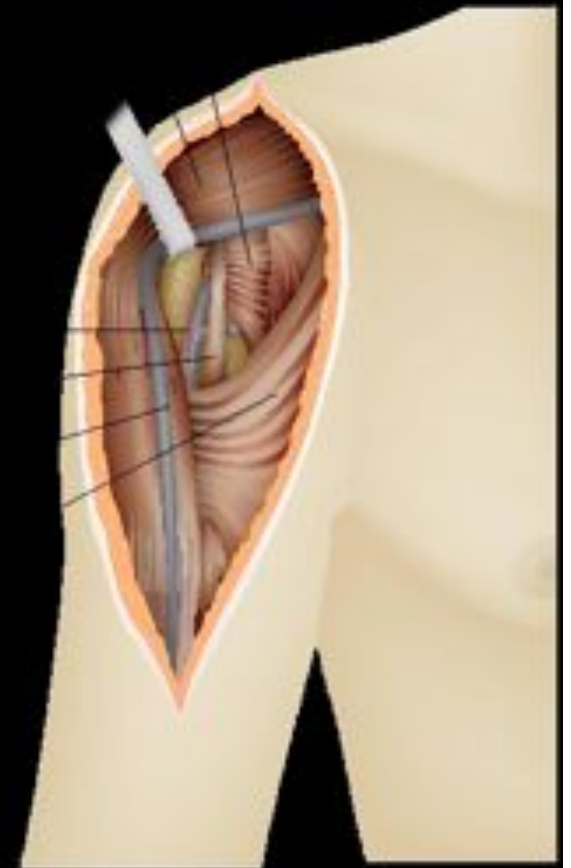


Deltopectoral Approach to the Shoulder

Lennard Funk
Manchester



Utility Approach



Suitable for:

1. Arthroplasty
2. Anterior Stabilisation procedures
3. Proximal Humeral Fractures
4. Glenoid Fractures
5. Combined procedures

Not Suitable for:

1. Rotator Cuff Surgery
2. Posterior Stabilisations
3. AC Joint

Advantages

- Potential for extension
- Exposure
- Little bleeding (betw. Muscle planes)
- Internervous plane

Disadvantages

- Difficulty exposing glenoid
- Access to greater tuberosity & Cuff

Preparation

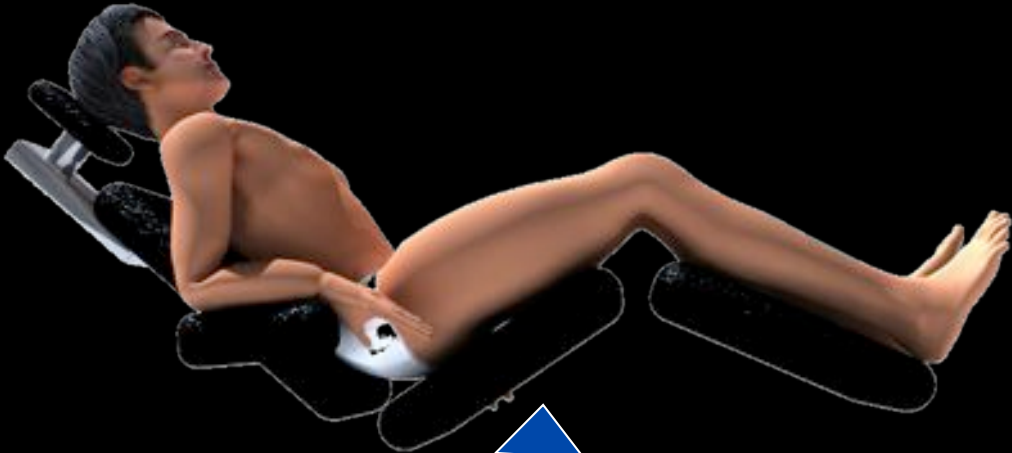


Instruments

- Retractors
 - Norfolk-Norwich
 - Richards
 - Gelpi
 - Kolbel
- Humeral Head Retractors
 - Fukuda
 - Skid

Position

Head & Neck Secured



Knees bent
30 degrees



Scapula Wedge



Arm free

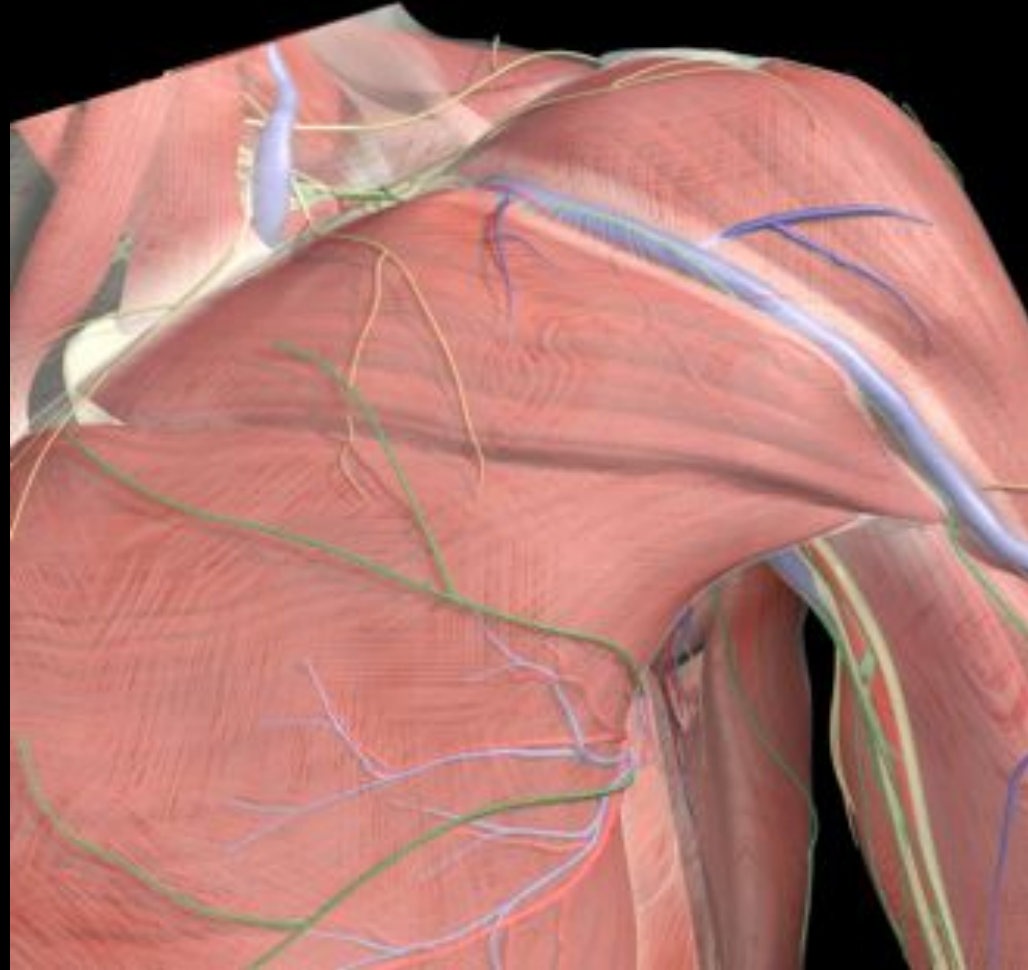




Incision

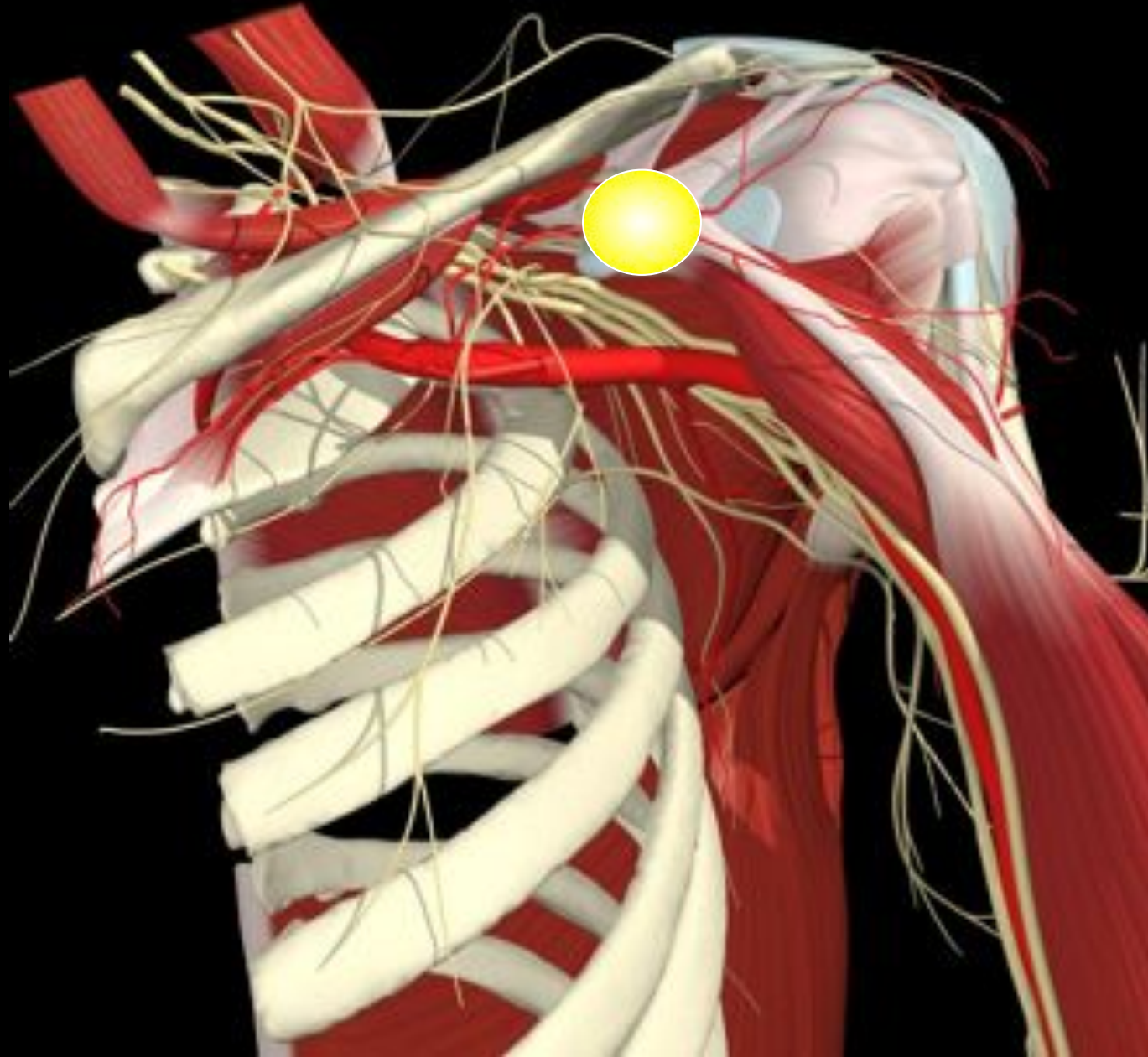


Cephalic vein



Radkowski et al. An Anatomic Study of the Cephalic Vein in the Deltopectoral Shoulder Approach. CORR. 442:139-142, January 2006.

Coracoid is the 'lighthouse' to the shoulder



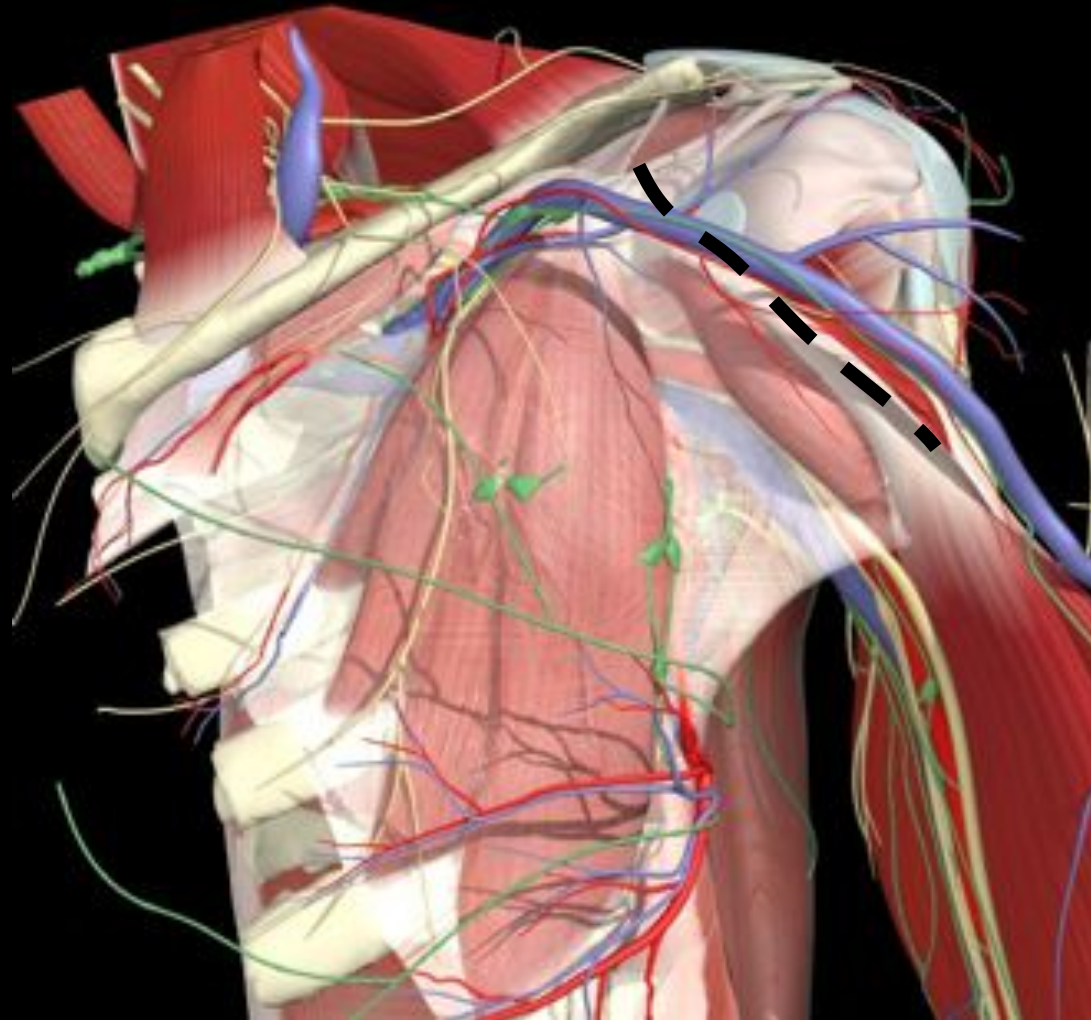


Subdeltoid & Subpectoral Spaces

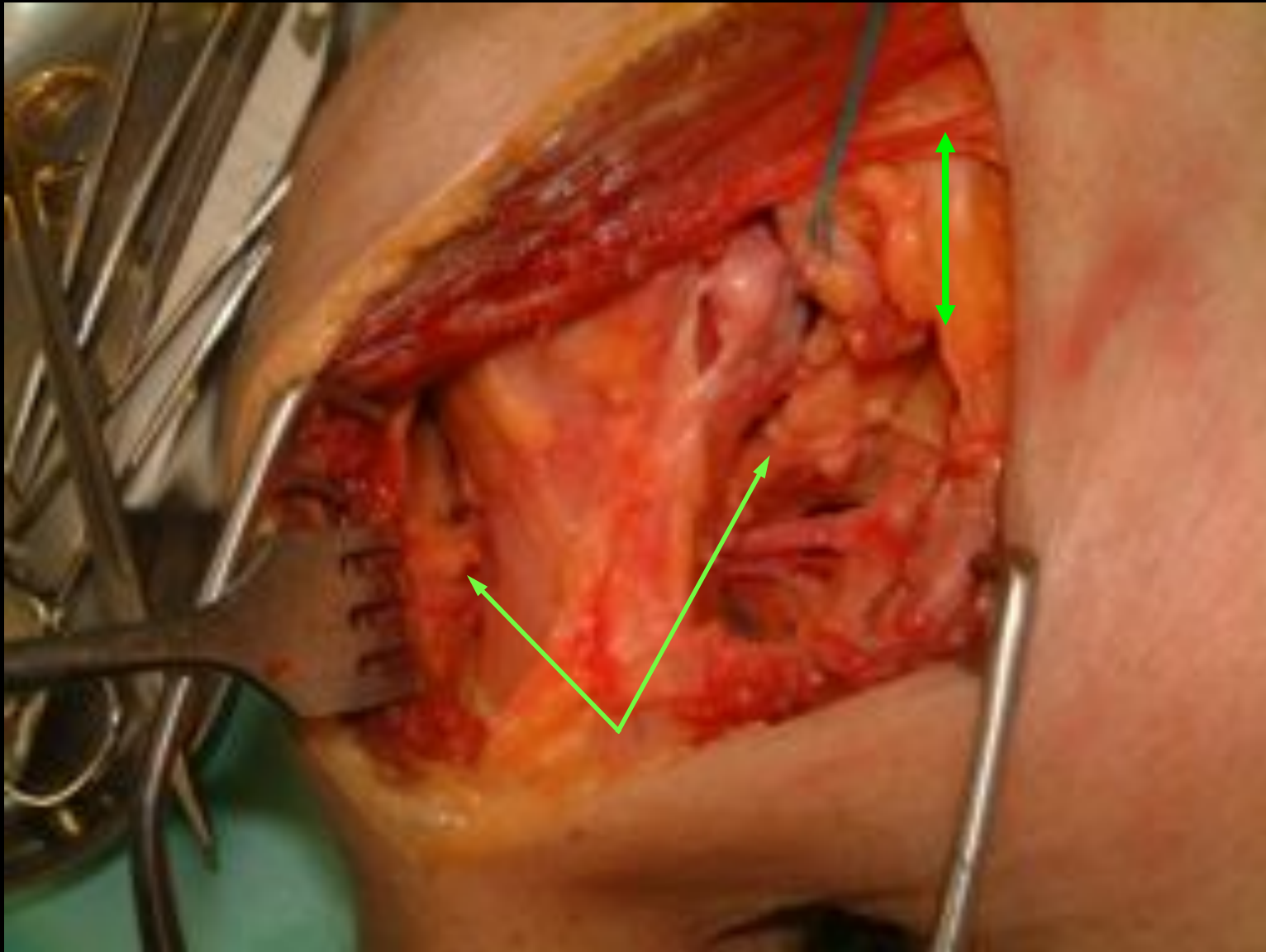


thoracoacromial
artery

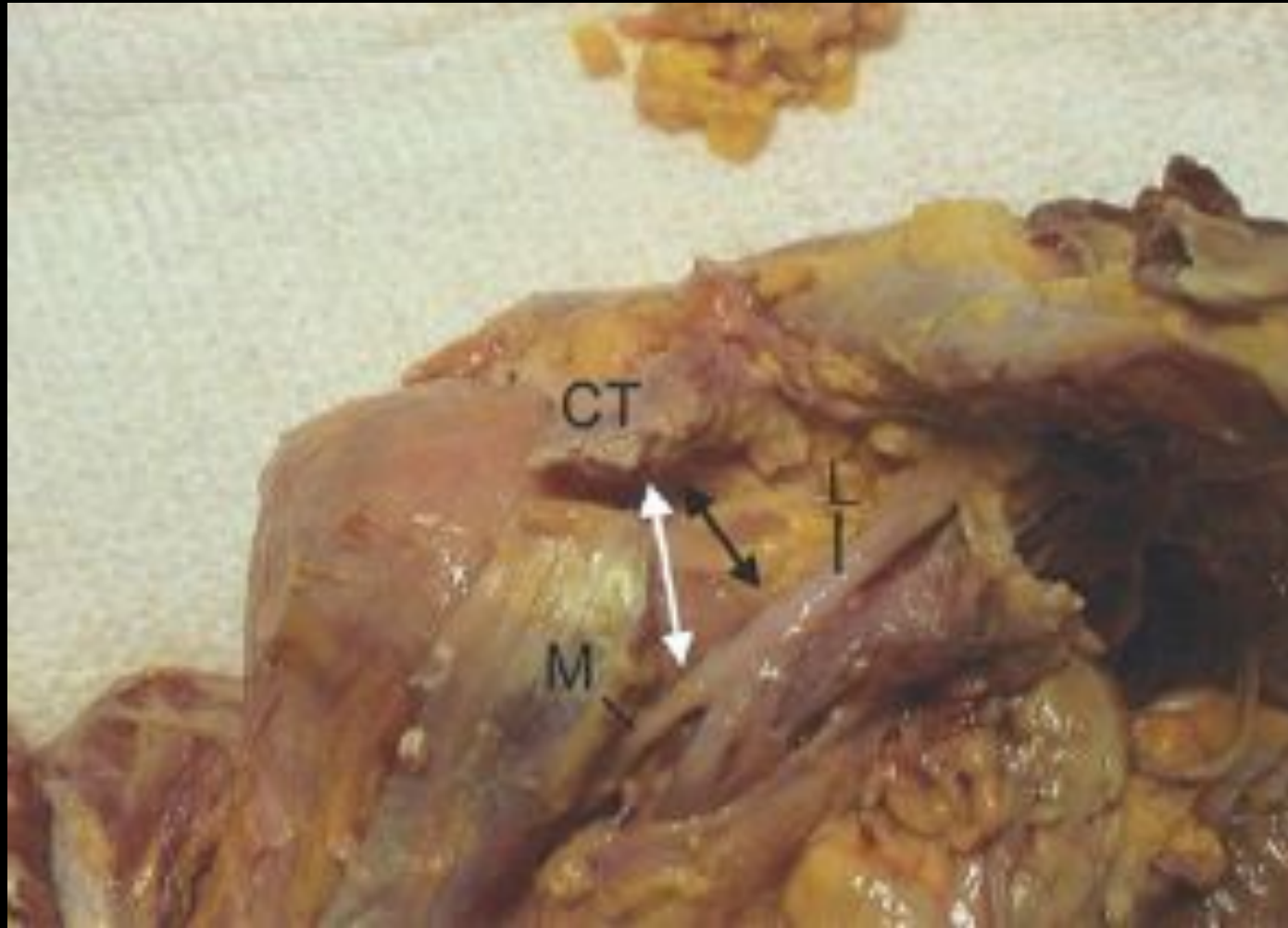
Clavipectoral Fascia

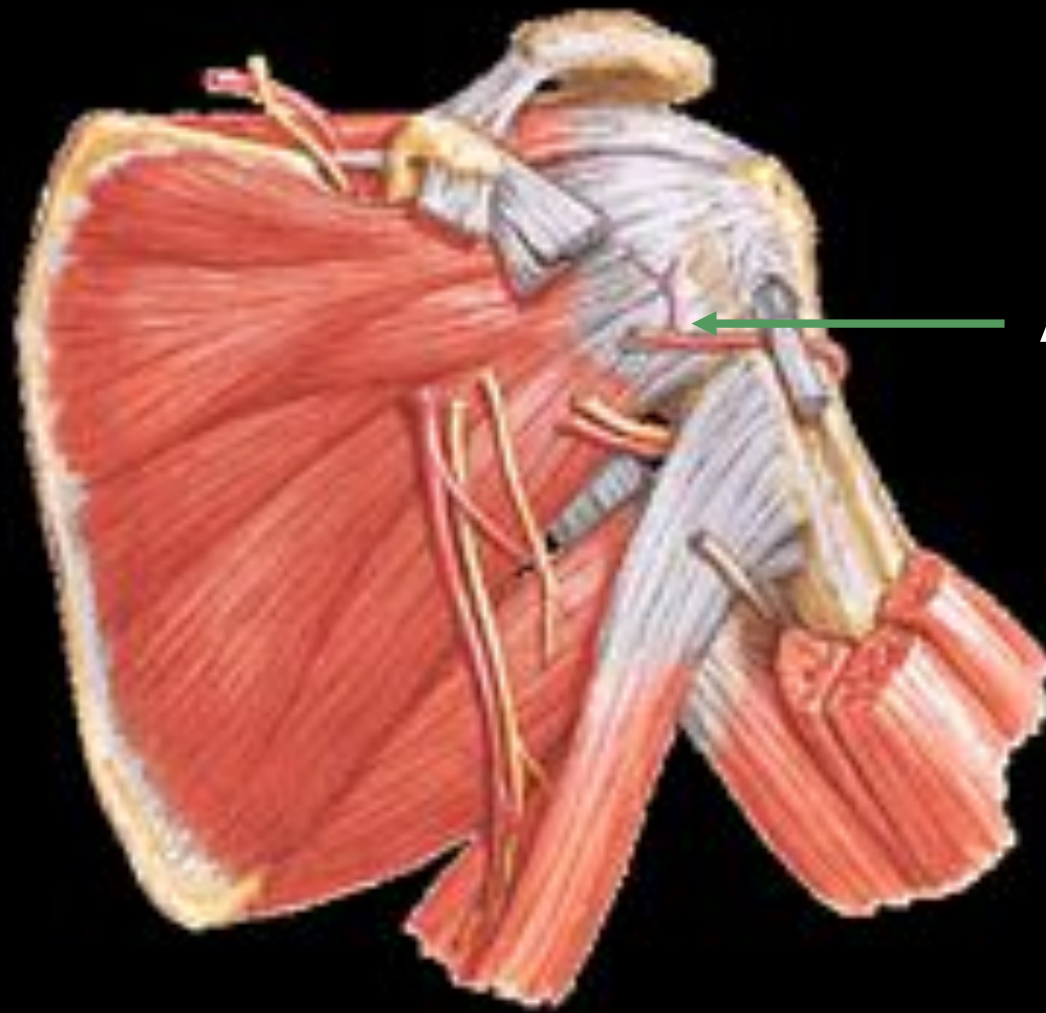


Axillary & Musculocutaneous Nerves



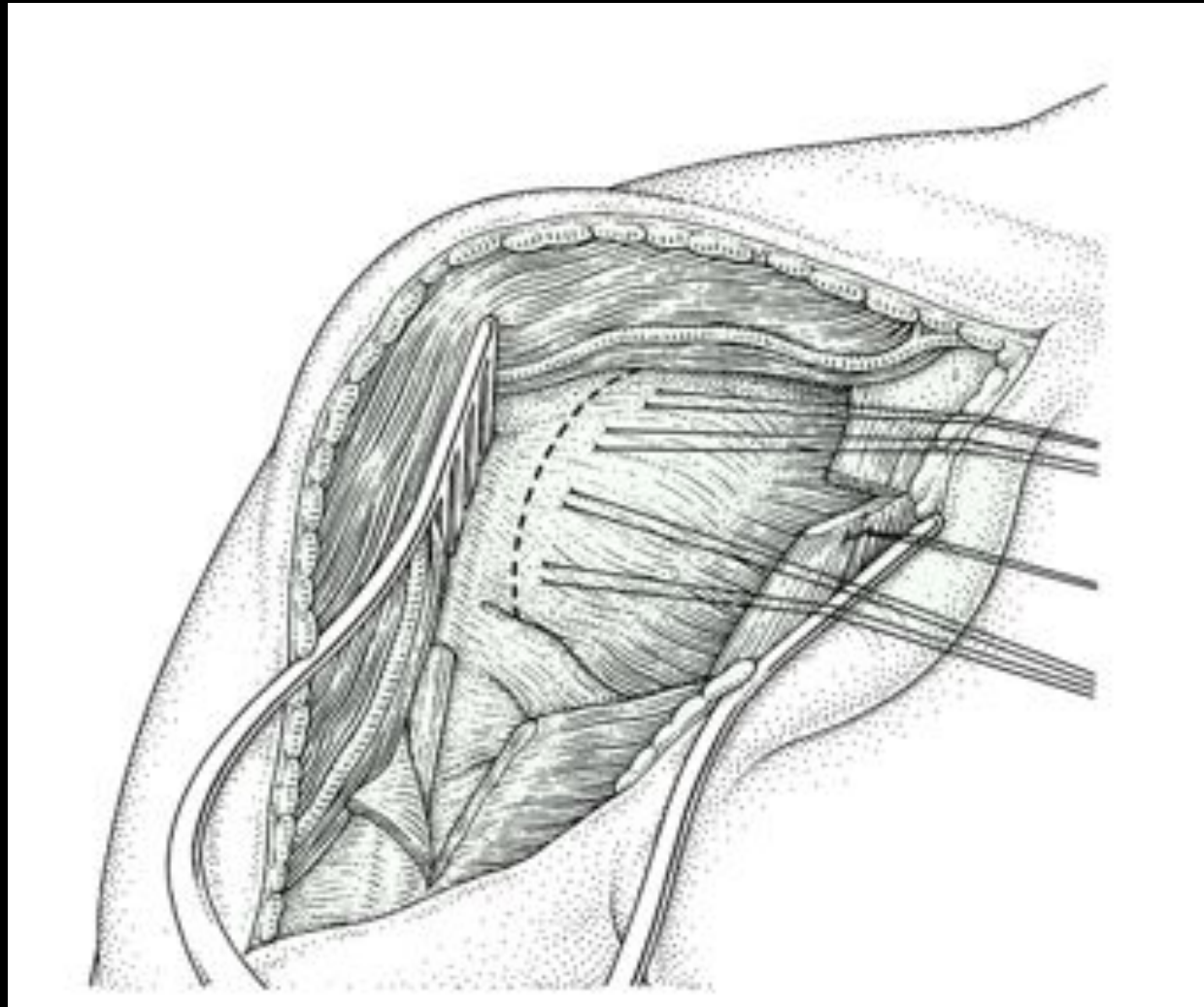
Musculocutaneous Nerve



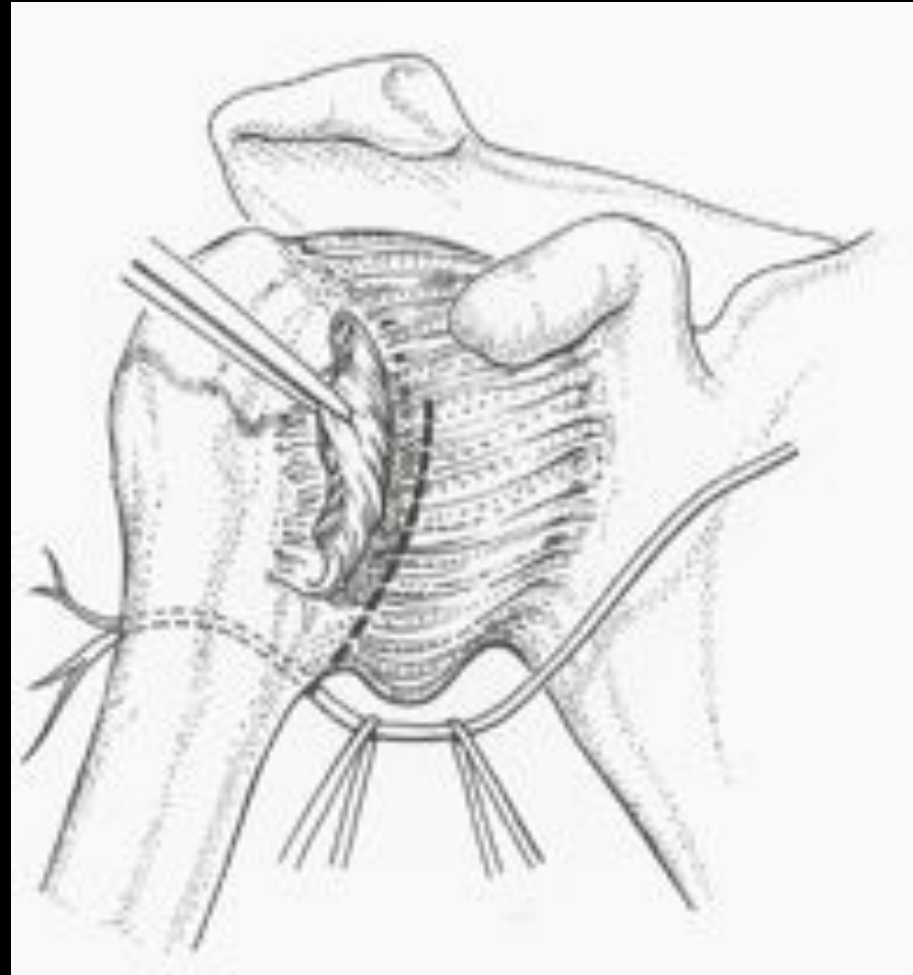


Anterior Circumflex

Subscapularis



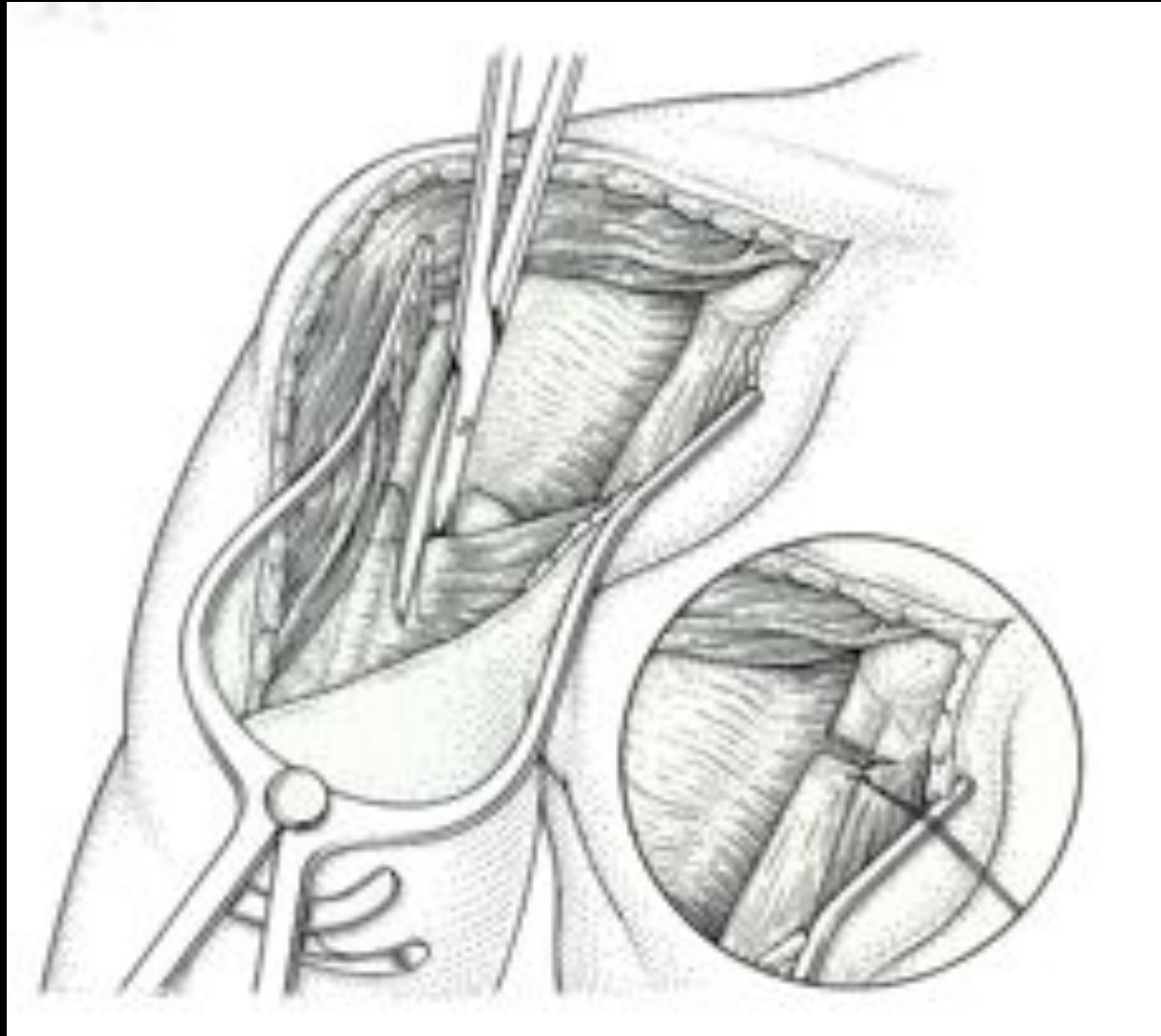
Anterior Capsule



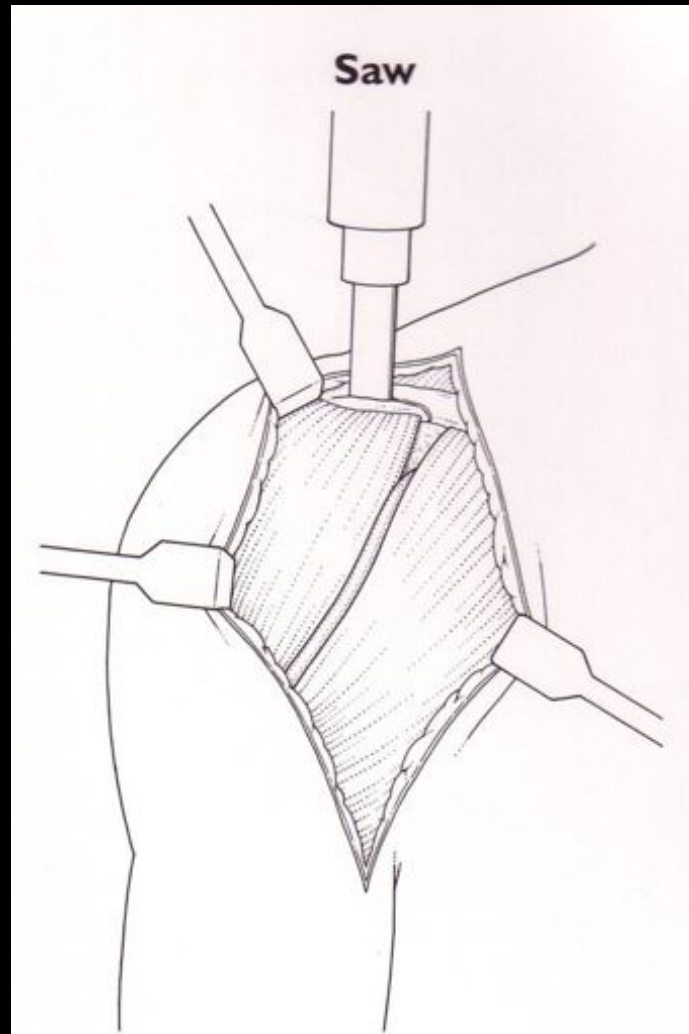
Extensions

- Inferior:
 - pec major release
 - Medial deltoid from clavicle superiorly
- Superior:
 - Detach Deltoid from acromion
 - Clavicle osteotomy
- Medial
 - Conjoined tendon release

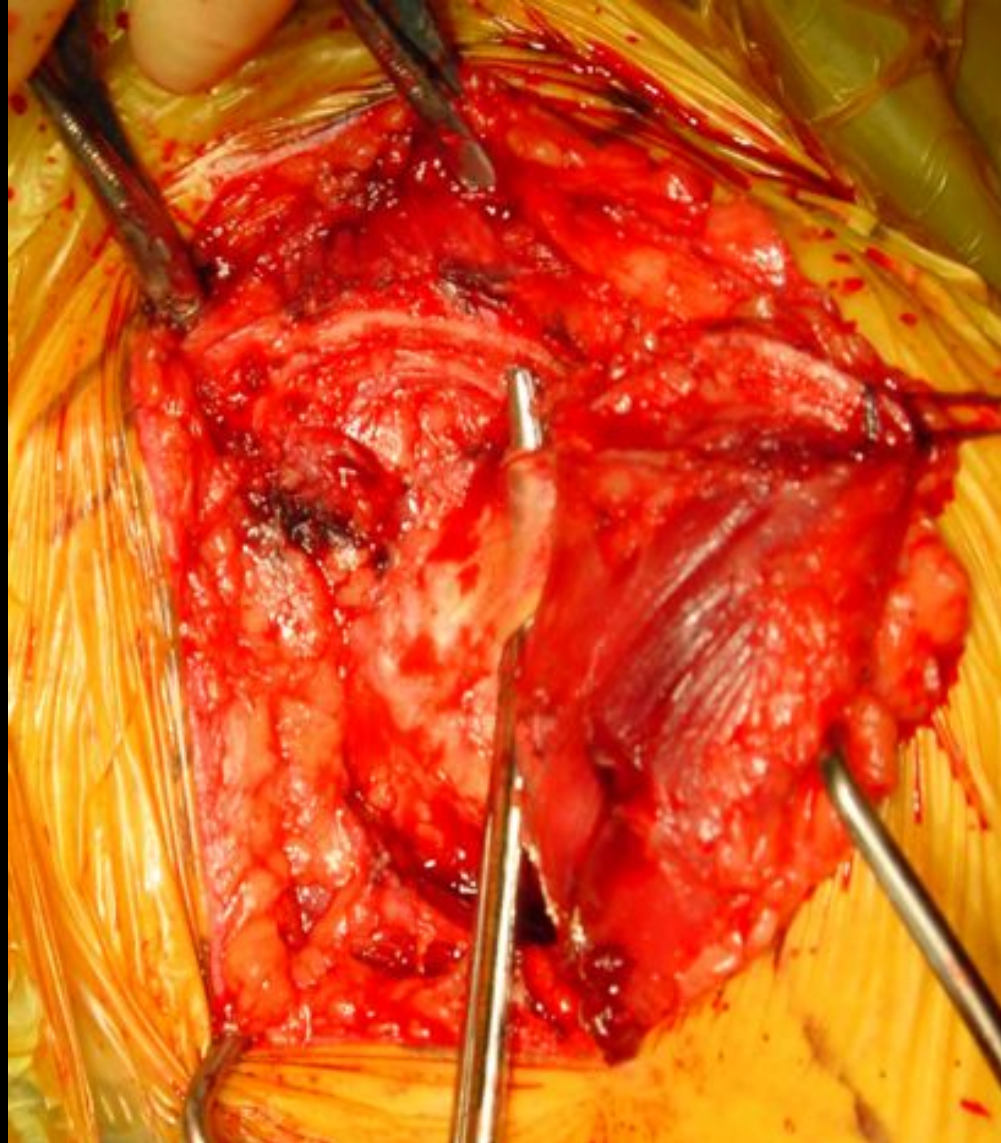
Pec major & Conjoined Tendon Releases



Clavicle Osteotomy



Clavicular Osteotomy



Combined Approach



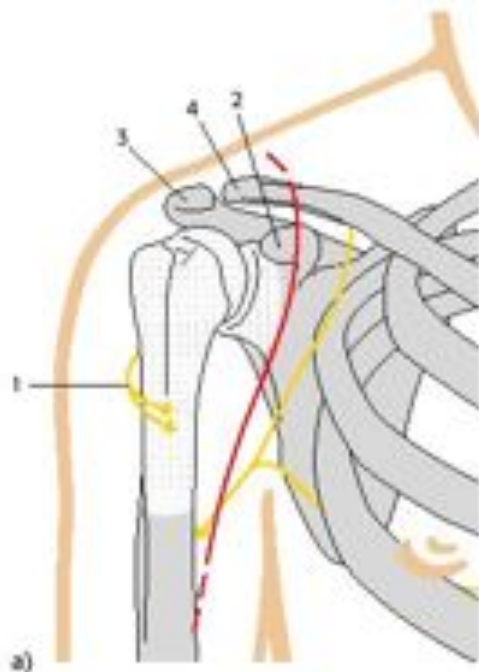
Levy et al. JSES 1999

THANK YOU

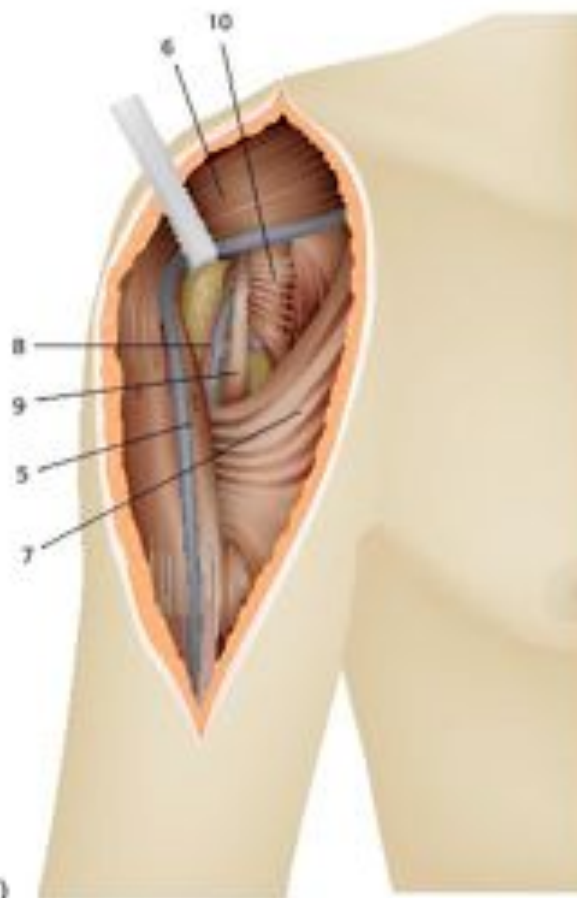
Images courtesy of:

- Operative Shoulder Surgery – Copeland
- Primal Pictures
- Lars Neumann, Nottingham

Presentation published in the Education Section at
www.shoulderdoc.co.uk



a)



b)

Fig. 4.2.1-5: Deltopectoral approach:

a) The skin incision starts from the coracoid process and runs slightly convex towards the medial side, as far as the insertion of the deltoid muscle on the lateral humeral shaft. 1) Axillary nerve, 2) coracoid process, 3) acromion, 4) lateral end of clavicle.

b) Retraction of the deltoid muscle to the lateral side looking for the humeral head. 5) Cephalic vein, 6) deltoid muscle, 7) pectoralis muscle, 8) anterior circumflex humeral artery, 9) long head of the biceps muscle, 10) subscapularis muscle.