

CLINICAL PRACTICE GUIDELINE – QUICK REFERENCE GUIDE¹

Managing chronic painful shoulder without instability in adults

Scope

Extra-articular disorders of the shoulder, ie all types of chronic degenerative or calcific tendinitis affecting the rotator cuff.

Exclusions: instability, extraregional disorders, local neurogenic and acromioclavicular disorders, mechanical, inflammatory or infectious glenohumeral joint disorders, and adhesive capsulitis.

Clinical examination

- **Take case history**
- **Examine/palpate**
- **Test active and passive range of motion** (to check there is no restriction of the glenohumeral joint and to rule out adhesive capsulitis)
- **Test rotator cuff**

Observation	Implication
Muscle atrophy in the supraspinatus or infraspinatus fossa	Supraspinatus and/or infraspinatus tendons probably torn
Full passive mobility (patient lying down) and limited active mobility (patient in a sitting position)	Rotator cuff tear
Abnormal bulging of the biceps muscle	Biceps long head tear
Weakness:	
- Jobe test (empty can test)	Supraspinatus tear (sensitivity 77-95%, specificity 65-68%)
- External rotation with the elbow close to the body	Infraspinatus tear
- External rotation with the arm abducted 90°	Infraspinatus and teres minor tear
- Internal rotation with the hand on the abdomen (belly-press test) ^a	Subscapularis tear

^a More common than the lift-off test which is painful for the patient

¹ For full guidelines (in English) and supporting scientific evidence (in French), see *Modalités de prise en charge d'une épaule douloureuse chronique non instable chez l'adulte* (July 2005) - www.has-sante.fr

- Classic tests for biceps tendinitis (palm-up test, etc.) → not specific.
- Neer and Hawkins impingement tests → sensitive but not very specific.

First imaging test: Standard radiography

- **Purpose**
 - to rule out other diagnoses
 - to reveal any extra-articular calcification
 - to suggest the presence of an extensive degenerative tear if the subacromial space is < 7 mm
- **Useful views**
 - anteroposterior (AP) views in three rotations
 - lateral view of the cuff, showing tendon insertion sites
 - visualisation of the acromioclavicular joint may reveal the presence of other conditions.
- **Ultrasound cannot replace standard radiography** but may be used to complement the clinical examination if there is uncertainty whether the patient has a full-thickness tendon tear.

Second-line imaging tests

- To be considered:
 - when first-line treatment has failed
 - earlier if the patient is under 50
 - if there is any suspicion of a traumatic lesion in a patient of any age.
- The following tests **DO NOT** provide all the prognostic factors needed to decide on surgery:
ultrasound, arthrography alone, and CT scan without contrast medium.
- When assessing degenerative tendinitis of the rotator cuff **PRIOR TO SURGERY**, use either:
 - Magnetic resonance imaging (MRI)
 - CT arthrography
 - MR arthrography.

Medical and surgical treatment of tendinitis

Calcific tendinitis (for symptomatic forms only)	
First-line treatment	Refractory cases
<p>Analgesics</p> <p>Oral non-steroidal anti-inflammatories (NSAIDs)</p> <p>Subacromial cortisone injections^a</p> <p>Ultrasound physiotherapy (grade B)</p>	<p>Percutaneous needle aspiration and lavage for large, radiographically homogeneous calcifications (grade C)</p> <p>Lithotripsy(grade B)</p> <p>Arthroscopy (grade C): last resort</p>

^a Injections under radiological or ultrasound guidance are more effective than unguided injections (grade C).

Tendinitis without cuff tear	Tendinitis with cuff tear
<p>Analgesics, NSAIDs and subacromial cortisone injections (grade B)</p> <p>Physiotherapy for recovering and maintaining range of motion in the joint and to make full use of muscular capacity (grade B)</p> <p>Acromioplasty as a last resort in mature adults; not indicated in young sports players (grade C)</p>	<p>Drug therapy as first-line therapy (grade C)</p> <p>If no improvement after 6 months, consider surgery. Cuff tears vary in severity, from a partial tear of 1 tendon to extensive tearing of 3-4 tendons. How they are tolerated depends on the functional stress put on each tendon. Not all tears require surgical repair (grade C).</p> <p>The risk of fatty degeneration of the muscle compromises the prognosis of surgery and functional therapy (grade C).</p>

For tendonitis with cuff tear requiring surgery, two types of surgery are possible:

- (i) repair surgery, if anatomical conditions and general situation permit: tendon reattachment, tendon transfer, muscle flaps etc. (grade C)
- (ii) pain-reducing surgery for rotator cuff lesions that cannot be repaired, involving the subacromial bursa, biceps long head tendon and/or the acromion (grade C).