

Pathophysiology

Not entirely clear

Thought to be syndrome that begins as overuse injury with tendinopathy of supraspinatus (undersurface near bicep)

Age at presentation

Primary (External)	>35
Secondary (External)	<35
Internal (Glenoid)	<35

Epidemiology

Repetitive overhead activities (handball, volleyball, swimming, carpenters, painters, hairdressers)

Risk factors: heavy loads, infection, smoking, and fluoroquinolone antibiotics.

Types

Primary (External)	Narrowing of subacromial space. Abnormal acromion anatomy (hooked class III acromion) or swelling of soft tissues
Secondary (External)	Normal anatomy at rest and onset of impingement during shoulder motion, secondary to RC weakness (uncontrolled cranial translation of humeral head), or weak traps and SA muscles (limiting ER and rise of scapula w abd).
Internal (Glenoid)	Impingement of the articular surface of the RC against the glenoid labrum.

Complications

Altered biomechanics and atrophy

Rotator cuff/bicipital tendonitis or tear

Adhesive capsulitis

Prognosis

~2 years w physio, NSAIDs, corticosteroid injections and other conservative interventions

Clinical Presentation

Pain lifting arm or lying on affected side

Functional restrictions, specifically overhead

Pain during night

Weakness and stiffness secondary to pain

Subjective Markers

Onset is usually gradual or insidious, typically developing over weeks to months

Patients unable to describe direct trauma or inciting event

Pain described as being located over the lateral acromion, frequently with radiation to the lateral mid-humerus

Inquire about overhead and repetitive activities

Relief may be noted with rest, anti-inflammatory meds, and ice, but symptoms often recur upon return to activity

Describe "Dead Arm": weakness after throwing, slipping of shoulder

Popping, clicking, catching, sliding

Creech and Silver, 2021

Objective Assessment

Observation Observe neck and shoulder height. Muscular asymmetry.

Palpation Tenderness when palpating over coracoid process

AROM/PROM Loss w abd. and ER. Scapular dyskinesia seen with forward elevation. GIRD loss of IR & loss of total rotational motion. May have increased laxity.

Strength Weakness with abduction and ER.

Functional Throwing, reaching overhead

Rehab

Equal effectiveness of physiotherapy led sessions and surgery in long term (Kromer, 2009)

Conservative, NSAIDs, subacromial cortisol injections, treatment of choice for first 3-6 months

Focus on rotator cuff strengthening (supraspinatus and infraspinatus), trap and SA strengthening

Retraining exercises to minimize scapular dyskinesia

Correct strength imbalances

Hyperthermia (short-term relief) moderate evidence

Special Tests (Positive Sign Combined)

Neer's

Hawkins-Kennedy

Empty Can (Jobe's)

Painful Arc (btwn 70-120 degree)

Negative sulcus sign, anterior apprehension, and relocation: shoulder instability

