

Swimmer's Shoulder

PATHOLOGY

Underlying pathology is Rotator Cuff tendonitis / bursitis due to:

- Impingement of Rotator Cuff tendons during swimming stroke.
- Rotator Cuff fatigue due to overuse – contributes to impingement.
- Imbalance between internal and external rotators, resulting in impingement.
- Joint laxity often plays some role.

STROKE FLAWS ASSOCIATED WITH SHOULDER PAIN

- Hand entry that crosses midline
- Impingement exacerbated by thumb-first hand entry
- Lack of body roll
- Breathing only on one side may lead to compensatory cross-over on non-breathing side
- Improper head position (eyes forward is WRONG > this impedes normal scapulothoracic motion)
- New freestyle teaching is to use early hand exit
- Proper balance in water comes from pushing the center of buoyancy (sternum) and head into water in order to float the legs

STROKE ALTERATIONS TO DECREASE PAIN

- Avoid straight arm recovery
- More body roll
- Breathe bilateral
- Early catch, early recovery
- Don't keep head up (look down)
- Little finger first hand entry

TREATMENT FOR EARLY PHASE

- Ice BEFORE and AFTER practice
- Proper warm-up before hard training sets
- Identify and minimize / avoid strokes which precipitate pain. Train with different strokes. Decrease use of hand paddles. Do more kicking sets to provide shoulder rest.
- Stretching shoulder and periscapular muscles. Emphasize posterior shoulder capsule stretching.
- Specific strengthening exercises for external rotators, scapular stabilizer muscles. Perform exercises below horizontal (below eye level).

BASIC PRINCIPLES

- Rotator Cuff and scapular stabilizer strengthening
- Avoidance of impingement positions during rehabilitation
- Restoration of muscle strength, balance, and flexibility
- Emphasis on Serratus Anterior and Subscapularis

STRENGTHENING EXERCISES

General Principles: Start with low loads. As endurance improves, may progress to sport-mimicking exercise, such as swim bench. Maintain proper scapulohumeral rhythm during exercises. Exercises should begin in the scapular plane. Start with open chain exercises.

If Pain Progresses:

- Reduction in training volume and dryland training. Eliminate painful strokes for 2-3 weeks, then gradually resume.
- Continue icing, stretching.
- Anti-inflammatory medication (non-steroidal anti-inflammatory medication)
- Consider subacromial injection (only if refractory)
- X-Ray