



## Treatment for Primary Rotator Cuff Disorder

### First Aid

During the early stages, easy self-management measures can assist in decreasing inflammation and pain and promoting early healing.

- **Medications:** Nonsteroidal antiinflammatory medications may be prescribed by the physician to assist in reducing inflammation to the acromial and subacromial tissues.
- **Rest:** The patient avoids postures or movements that trigger pain and inflammation. This may require absolute restriction of overhead activity, reduced activity, or modification of the technique used during overhead activity.
- **Resting position:** This position provides the greatest amount of volume in the shoulder joint, assisting in blood flow and decreasing pain. The patient should use pillows to support the arm in slight elevation, abduction, and neutral rotation while sitting, driving, or sleeping. The patient should avoid sleeping on the involved side. If sleeping on the uninvolved side, pillows should be used to support the shoulder as described.
- **Ice:** Ice can reduce inflammation and relieve pain. Choices include cold packs, bags of chipped ice, or ice massage. Ice should be applied directly to the affected tissues. This may require special positioning to expose the affected tissues.<sup>73</sup>

### Supervised Treatment

After a thorough examination and evaluation, a plan of care is developed based on the presenting functional limitations and related impairments.

- **Pain and inflammation:** In addition to instructing the patient in first aid self-management, the physical therapist can use physical agents such as ultrasound, phonophoresis, or interferential stimulation.<sup>7</sup>
- **Range of motion, muscle length, joint mobility:** Exercise and joint mobilization can be prescribed to increase mobility in periarticular tissues and improve muscle extensibility. Education and exercise can be prescribed to normalize length-tension properties of adaptively shortened and lengthened muscles.

- **Muscle performance:** Exercise can be prescribed to improve force or torque capability, length-tension properties, and endurance of the rotator cuff and scapular upward rotators. Dosage parameters should be adjusted according to the goal of the exercise as outlined in Chapter 2.
- **Posture and movement:** For the tissue to heal and to prevent recurrence, the mechanical causes of the impingement must be eliminated. During the early phases of intervention, posture and movement must be addressed to the greatest possible extent given the presenting impairments in force or torque, endurance, and mobility. After the physiologic capabilities have improved, long-term management requires specific training in posture and movement habits, and underlying motor control of the integrated function of the scapular rotators and deltoid–rotator cuff mechanism, to eliminate the mechanical cause of impingement during function. This should include ergonomic modifications, specific movement retraining during activities of daily living and instrumental activities of daily living, and alterations in athletic training techniques.

### Surgery

If supervised treatment fails, surgery to remove subacromial spurring and increase space for the subacromial tissues may be necessary. Surgery should be considered only when symptoms have persisted despite conservative treatment for more than 1 year. Anterior acromioplasty is the recommended choice for decompression of the rotator cuff in primary impingement.<sup>133</sup> The posterior half of the acromion is not involved in the impingement process and, therefore, lateral or complete acromionectomy is thought to weaken the deltoid unnecessarily.<sup>7</sup> In many cases, repair of the rotator cuff is necessary.

### Prevention

Prevention lies in early recognition and prompt and comprehensive treatment of the presenting functional limitations and related intrinsic and extrinsic impairments, particularly those related to motor control of the scapula rotators and deltoid–rotator cuff mechanism.