

Ohio Orthopaedics & Sports Therapy, Inc.
The Four Phases of Healing During Rehabilitation
Following Rotator Cuff Surgery
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PHASE I: IMMEDIATE POST-OPERATIVE PERIOD (Weeks 0-6)

Goals

Maintain/protect integrity of repair
Gradually increase PROM
Diminish pain and inflammation
Prevent muscular inhibition
Become independent with modified ADLs

Precautions

Maintain arm in abduction sling/brace, remove only for exercise
No shoulder AROM, lifting of objects, shoulder motion behind back, excessive stretching or sudden movements, supporting of any weight, lifting of body weight by hands
Keep incision clean and dry

Criteria for Progression to Phase II

Passive forward flexion to ≥ 125 degrees
Passive ER in scapular plane to ≥ 75 degrees (if uninvolved shoulder PROM > 80 degrees)
Passive IR in scapular plane to ≥ 75 degrees (if uninvolved shoulder PROM > 80 degrees)
Passive abduction to ≥ 90 degrees in the scapular plane

Days 1 to 6

Abduction brace/sling
Pendulum exercises
Finger, wrist, and elbow AROM
Begin scapula musculature isometrics/sets; cervical ROM
Cryotherapy for pain and inflammation

Days 1-2

As much as possible (20 min/h)

Days 3-6

Post-activity, or for pain
Sleep in abduction sling
Patient education on posture, joint protection, positioning, hygiene

Days 7-28

Continue with abduction sling/brace

Pendulum exercises

Begin PROM to tolerance (done supine; should be pain free)

Flexion to 90 degrees

ER in scapular plane to ≥ 35 degrees

IR to body/chest

Continue elbow, wrist, and finger AROM/resisted

Cryotherapy as needed for pain control and inflammation

May resume general conditioning program (eg, walking, stationary bicycle)

Aquatherapy/pool therapy may begin 3 weeks postoperative

PHASE II: PROTECTION AND ACTIVE MOTION (Weeks 6-12)

Goals

Allow healing of soft tissue

Do not overstress healing tissue

Gradually restore full PROM (weeks 4-5)

Decrease pain and inflammation

Precautions

No lifting

No supporting body weight with hands and arms

No sudden jerking motions

No excessive behind the back movements

Avoid upper extremity bike and ergometer

Criteria for Progression to Phase III

Full AROM

Weeks 5-6

Continue with full-time sling/brace until end of week 4

Between weeks 4 and 6, use sling/brace for comfort only

Discontinue sling/brace at end of week 6

Initiate AAROM flexion in supine position

Progressive PROM until approximately full ROM at weeks 4-5

Gentle scapular/glenohumeral joint mobilization as indicated to regain full PROM

Initiate prone rowing to neutral arm position

Continue cryotherapy as needed

May use heat before ROM exercises

Aquatherapy okay for light AROM exercises

Ice after exercise

Weeks 6-8

Continue AROM, AAROM, and stretching exercises

Begin rotator cuff isometrics

Continue periscapular exercises

Initiate AROM exercises (flexion scapular plane, abduction, ER, IR)

PHASE III: EARLY STRENGTHENING (Weeks 10-16)

Goals

Full AROM (weeks 10-12)
Maintain full PROM
Dynamic shoulder stability
Gradual restoration of shoulder strength, power, and endurance
Optimize neuromuscular control
Gradual return to functional activities

Precautions

No lifting objects > 5 lbs, sudden lifting or pushing activities, sudden jerking motions, overhead lifting
Avoid upper extremity bike and ergometer

Criteria for Progression to Phase IV

Ability to tolerate progression to low-level functional activities
Demonstrated return of strength/dynamic shoulder stability
Reestablishment of dynamic shoulder stability
Demonstrated adequate strength and dynamic stability for progression to more demanding work- and sport-specific activities

Week 10

Continue stretching and PROM, as needed
Dynamic stabilization exercises
Initiate strengthening program
ER and IR with exercise bands/sport cord/tubing
ER side-lying (lateral decubitus)
Lateral raises*
Full can in scapular plane* (no empty can abduction exercises)
Prone rowing
Prone horizontal abduction
Prone extension
Elbow flexion
Elbow extension

Week 12

Continue all exercise listed above
Initiate light functional activities as permitted

Week 14

Continue all exercise listed above
Progress to fundamental shoulder exercises

PHASE IV: ADVANCED STRENGTHENING (Weeks 16-22)

Goals

Maintain full non-painful AROM
Advanced conditioning exercises for enhanced functional use
Improve muscular strength, power, and endurance
Gradual return to full functional activities

Week 16

Continue ROM and self-capsular stretching for ROM maintenance
Continue progression of strengthening
Advance proprioceptive, neuromuscular activities
Light sports (golf chipping/putting, tennis ground strokes) if doing well

Week 20

Continue strengthening and stretching
Continue stretching if motion is tight
Initiate interval sport program (eg, golf, doubles tennis) if appropriate

**Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonic; if unable, continue glenohumeral joint exercises*

AAROM = active-assisted range of motion, ADL = activity of daily living, AROM = active range of motion, ER = external rotation, IR = internal rotation, PROM = passive range of motion, ROM = range of motion