

# **Post-Operative Shoulder Rehabilitation**

Phase 1: Immediate postoperative period (weeks 0-6)

# Goal

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

### Precautions

Maintain arm in KnappSak2, remove only for exercise No shoulder AROM, lifting of objects, shoulder motion behind the back, excessive stretching or sudden movements, supporting of any weight, lifting a body weight by hands Keep incision clean and dry

# **Criteria for Progression to Phase 2**

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

# Days 1 to 6

KnappSak2 Pendulum exercises Finger, wrist, and elbow AROM Begin scapula musculature isometrics / sets; cervical ROM Cryotherapy for pain and inflammation

# Days 3 to 6

Begin pulley exercises in forward flexion and abduction < 90° Maintain proper posture, joint protection, positioning and hygiene

# Days 7 to 28

Continue with KnappSak2 at night and day for comfort

Pendulum / pulley exercises Begin PROM to tolerance (done supine; should be pain free) Flexion to 90° ER in scapular plane to > 35° IR to body / chest Continue elbow, wrist, and finger AROM / resisted Cryotherapy is needed for pain control and inflammation May resume general conditioning program (e.g., walking, stationary bike) Aquatherapy / pool therapy may begin three weeks postoperative

Phase 2: 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 3**

Full AROM

#### Weeks 5-6

Discontinue KnappSak2 at night Between weeks 4-6, use KnappSak2 for comfort only Discontinue KnappSak2 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 to regain full PROM Initiate prone rowing to the neutral arm position Continue cryotherapy as needed May use heat before ROM exercises Aquatherapy OK 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) \* Please note: Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonics; 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

Phase 3: Early strengthening (weeks 10-16)

#### Goals

Full AROM (weeks 10-16) 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 pounds, sudden lifting or pushing activities, sudden jerking motions, overhead lifting Avoid upper extremity bike and ergometer

### Criteria for progression to Phase 4

Ability to tolerate progression to the 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 /sports 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 exercises listed above Initiate light functional activities as permitted

#### Week 14

Continue all exercises listed above Progress to fundamentals shoulder exercises

\* **Please note:** Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonics; if unable, continue glenohumeral joint exercises

Phase 4: Advanced strengthening (weeks 16-22)

#### Goals

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

#### Week 16

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

#### Week 20

Continue strengthening and stretching Continue stretching if motion is tight Initiate interval sports program (e.g., golf, doubles tennis) if appropriate