Thomas Sanders MD

Rotator Cuff Repair Protocol

Overview

a. No shoulder range of motion for 6 weeks after surgery (weeks 1 – 6)
b. Passive shoulder ROM beginning week 7 after surgery (weeks 7-8)
c. Active assist ROM beginning week 9 after surgery (weeks 9-10)
d. Active ROM beginning week 11 after surgery (weeks 11+)

Weeks 0-6:

a. Precautions:
    i. No lifting of objects no matter the size or weight.
    ii. No excessive shoulder extension.
    iii. No excessive arm motions.
    iv. Do not push thru pain with range of motion exercises.
    v. Keep incision clean and dry.
    vi. No shoulder range of motion for 6 weeks after surgery
b. Goals:
    i. Maintain integrity of repair.
    ii. Promote tissue healing.
    iii. Diminish pain and inflammation.
    iv. Prevent muscular inhibition.
c. Bracing:
    i. Shoulder immobilizer will be placed on patient in surgery.
    ii. Immobilizer should be used 24/7 and removed only for hygiene and exercises for 6 weeks.
d. Exercises:
    i. Active assistive range of motion of the involved elbow, wrist and hand.
    ii. Scapular retractions.
    iii. Core training:
        1. If patient is interested in core training, this may be started approximately 2-3 weeks after surgery assuming that passive range of motion is progressing. The exercises should place no stress on the involved rotator cuff (Immobilizer on)

2. Examples:
    a. Bridging exercise (arms folded across chest).
    b. Ankle band walks.
    c. Step up exercise.
    d. Crunches.

iv. Aerobic conditioning:
1. Stationary bike.
2. Avoid elliptical trainer due to stress on shoulder.

v. PRICE:
1. Ice pack 5-7 times per day.

II. <u>Weeks 7-16:</u>

a. Goals:
i. Full AROM (active) of the shoulder at 12 weeks post-op.
ii. Normal scapular mechanics at 12 weeks post-op.
iii. Ready to begin sports specific training at 16-20 weeks post-op.

b. Bracing:
i. Immobilizer is worn at night for sleep until 8 weeks post-op.
ii. Sling is worn for comfort during the day after six weeks and weaned from as tolerated. (weeks 7-8)

c. Exercises:
i. Patient may begin passive ROM of the shoulder at 7 weeks post-op. (weeks 7-8)
ii. Patient may advance to active-assist ROM at 9 weeks post-op assuming that full passive ROM has been achieved. (weeks 9-10)
iii. Shoulder isometrics may be started at 8 weeks.
iv. Rhythmic stabilization drills may be started at 8 weeks.
1. IR/ER at 45 degrees in the plane of the scapula.
2. Flexion at 100 degrees.
v. Shoulder scapular stabilizer and rotator cuff exercises may be started at 12 weeks assuming the following:
1. The isometric strengthening has been going well.
2. The patient does not demonstrate shoulder or scapular hiking with active range of motion.
vi. Patient may advance to active ROM at 11 weeks post-op (weeks 11+)
vii. Core/Lower extremity training:

1. Training should not place any stress on the rotator cuff.
2. Multi-planar training.
    a. Begin with mat-based and advance to weight bearing exercises as able.
    b. No weight bearing thru the involved shoulder until 16 weeks post-op.
    c. Examples:
        i. 8 weeks:
            1. Single leg stance/stork exercise.
            2. Sagittal plane lunge.
            3. Frontal plane lunge.

        ii. 16 weeks:
            1. Quadruped leg extension.
            2. Prone plank.
            3. Quadruped arm and leg diagonals.

d. Aerobic conditioning:
    i. Bike.
    ii. May start elliptical trainer or Stairmaster at 12 weeks post-op.

e. PRICE

III. <u>Weeks 17-24</u>

a. Goals:
    i. Gradual return to strenuous work activities.
    ii. Maintain full, pain free range of motion.
    iii. Improve upper extremity, lower extremity, and core muscular strength and power.
    iv. Maintain integrity of rotator cuff repair.
    v. Return to sport at 5-6 months. May take up to 12 months.
    vi. Return to interval sports program at 5 months.
        1. Patient must have met milestones:
            a. Strength.
            b. Mobility.
        2. Entrance into throwing program, golf program, running program.
b. Milestones:
    i. Full active range of motion of the involved shoulder in all planes.

ii. Normal scapular mechanics of involved shoulder.
iii. Isokinetic strength testing:
    1. 80% strength on involved to uninvolved side.
iv. Other testing:
    a. Weight bearing vs non-weight bearing scapular mechanics.
    b. Upper extremity Y-balance.
    c. Accuracy of throwing.
    d. Lower extremity power test (vertical jump).
    e. Medicine ball side-toss for distance.
    f. FMS screen.
    g. Coaching drills (ie; throwing and hitting mechanics).

c. Exercises:
    i. Patient needs to understand that strength training cannot aggravate their rotator cuff.
        1. Upper extremity plyometrics cannot be started prior to five months.
    ii. Exercise examples:
        1. Lower extremity strength training that is sports specific.
        2. Continued core training.
            a. May progress core training to planks assuming that quadruped weight bearing pressure has gone well.
            b. Incorporate physio ball exercises as able.
            c. Multi-planar core training as able.

d. Aerobic/anaerobic training:
    i. Begin aerobic interval and/or anaerobic interval training if appropriate for patient's sport.

e. PRICE principles.
f. Outcome tools
    i. PSFS: Patient Specific Functional Scale
    ii. QuickDASH