Sports & Orthopaedic Specialists
HEMIARTHROPLASTY PROTOCOL

This protocol provides appropriate guidelines for the rehabilitation of patients following hemiarthroplasty. The protocol draws evidence from the current literature and accounts for preferences of the surgeons at Sports & Orthopaedic Specialists. The program may be modified by the referring provider for an individual patient. If questions arise regarding the application of the protocol or the progress of the patient, contact Sports & Orthopaedic Specialists:

Main line: (952) 946-9777 Physical therapy: (952) 914-8631

PRECAUTIONS:
Always adhere to subscapularis precautions:

Subscapularis Repair

ER (0 abduction):	0^{o} max for 4 weeks post-op. 20^{o} max for 8 weeks. Striving toward symmetrical ER ROM at 6-8 months.
ER (90 abduction):	0^{o} max for 6 weeks post-op.
IR:	No IR behind the back for 6 weeks post-op. No resisted IR for 12 weeks post-op.
Extension:	No extension behind mid-axillary line for 6 weeks post-op.

If a biceps tenodesis/transplantation was completed, adhere to the additional precautions below:

Biceps Tenodesis/Transplantation
No elbow flexion or supination against resistance for 6 weeks post-op.

LIFETIME RESTRICTIONS
-Lifting maximum of 25 pounds
-No repetitive overhead reaching. Max of 1-3 pounds for overhead reaching.
-No jarring activities (hammering) or contact sports

PT FREQUENCY & DURATION
-Eight to ten physical therapy visits over 4-5 months
-Begin physical therapy 4+ weeks after surgery or as instructed by surgeon

HEMIARTHROPLASTY PROTOCOL

REHAB PRINCIPLES

-Focus on active engagement of the patient through patient education and therapeutic exercise. Establish a home exercise program that can be progressed gradually throughout the postoperative period.

-Respect tissue healing**.** The surgeons at Sports & Orthopaedic Specialists uniformly prefer a slow progression of postop patients with minimal postoperative pain.

-Postoperative pain may be experienced. However physical therapy, including the home exercise program, should result in minimal to no symptom exacerbation. The patient should call the PT for recommendations if pain increases during or after exercise.

-The therapeutic exercises listed in this protocol convey the appropriate load for the shoulder given the time elapsed since surgery in regards to tissue healing. It is acceptable for a patient to progress more slowly. However, it is not acceptable for a patient to progress more quickly unless expressly indicated by the surgeon.

-Recommended max of 6 exercises for home exercise program. Select a well-rounded program that targets each area of insufficiency identified during physical exam.

MODALITIES

Cold Therapy / Ice**:** Instruct patient to use ice daily until pain free or 8 weeks after surgery.
Other Modalities**: DO NOT USE**

MANUAL THERAPY

-**NO** passive range of motion (physiologic/long arc).
-**NO** joint mobilization.
-Soft tissue techniques to upper trapezius/levator scapula/pect minor are permitted

THERAPEUTIC ACTIVITY AND PATIENT EDUCATION

Patient education is very important in getting the patient to take an active role in therapy and recovery. Educate the patient at the appropriate level regarding:

-Anatomy of the shoulder girdle
-Basics of surgical procedure in layman's terms
-Surgical precautions
-Lifetime lifting restrictions (see page 1)
-Shoulder girdle mechanics: Typical and pathomechanical
-The inhibitory effect of pain on the rotator cuff
-Avoidance of pain provoking activities
-Effect of posture on shoulder girdle mechanics
-Preferred positioning of the shoulder during sleep

THERAPEUTIC EXERCISE

-Free Weights: Use **only** as directed throughout protocol.

-Exercise Band: **DO NOT USE**

The use of Yellow Theraband®, the least resistive color in the Theraband series, results in 2.9 pounds of resistance when elongated by 100%. In addition, length-tension principles of muscle function do not align with exercise band properties; the muscle is asked to provide maximum force at a shortened and inefficient length. Therefore, exercise band use is not permitted for use during rotator cuff conditioning.

-Pulleys: **DO NOT USE**

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REHABILITATION PROGRESSIONS

For the hemiarthroplasty, the surgeon determines the length of time in a sling based on basic principles of tissue healing and tissue quality. Four weeks in a sling is typical after a hemiarthroplasty. However, the surgeon may extend the time in sling to protect the anterior shoulder if the tissue quality is poor. If the patient is instructed to wear a sling for more than 4 weeks, the therapist should delay this protocol by the number of weeks in a sling beyond 4.

A PDF file containing instructions and pictures for each exercise referenced in this protocol can be printed from the Sports & Orthopaedic Specialists website. "Therapeutic Exercise Handout"
www.sportsandortho.com/minneapolis/rehabilitation-center

WEEK 0-4+ (CONTINUOUS USE OF SLING):

-Patient receives postop instructions after surgery that include:

-Wear sling continuously for 4+ weeks as instructed by surgeon. Sling may be removed to shower & dress.

-Begin pendulum exercises the day after surgery. Ten reps in each direction four times per day.

-AROM of the elbow, wrist, and hand.

-Application of ice with shoulder ice wrap (Bird & Cronin).

-Remove wound dressing 2 days after surgery (or as instructed). Leave steri-strips in place.

-Ok to drive once off narcotic pain medication. Check with auto insurance regarding driving in sling.

-Ok to write, type, eat, shave, wash face, brush teeth within pain tolerance.

WEEK 5-6:

-Begin physical therapy 0-2 weeks after discontinued use of sling

-Educate the patient regarding:

-Allowable ADL's (writing, typing, self-cares, not to lift anything heavier than a coffee cup).

-No overhead reaching.

-Surgical precautions (see page 1)

-HEP 5-7x/week (up to two days off per week to allow for good/bad days)

-Ice after PT/HEP

-Appropriate exercises:

Page	Exercise	Dose
20	Ceiling punch (active assisted → active)	2x10 with goal of 2x20
22	Reverse Codman (active assisted → active)	2x10 with goal of 2x20
17	Seated ER to neutral	2x10 with goal of 2x30
18	Wings	2x10 with goal of 2x30
22	Table circles	10 with goal of 20 clockwise and counterclockwise
9	Prayer stretch	5x10" with goal of 10x10"

WEEK 7-11:

-Continue physical therapy

-Educate the patient regarding:

-Allowable ADL's, not to lift anything heavier than one pound.

-Limited overhead reaching – max of one plate/cup

-Surgical precautions (see page 1)

-HEP 5-7x/week (up to two days off per week to allow for good/bad days)

-Ice after PT/HEP

-Appropriate exercises (if exercises from week 5-6 result in a max of 3/10 pain):

Gentle self-stretching to promote gradual improvement in ROM:

Page	Exercise	Dose
4	Golfer stretch	3x30"
5	Behind the back stretch	3x30"
7	ER stretch with door	3x30" Adhere to surgical precautions.
9	Prayer stretch	3x30"

Early strengthening and proprioception:

Page	Exercise	Dose
20	Ceiling punch (active)	2x10 with goal of 2x20
22	Reverse Codman (active)	2x10 with goal of 2x20
12	Supine protraction	2x10 with goal of 2x20
17	Seated ER	2x30 Pain free ROM adhering to surgical precautions.
18	Wings	2x30
22	Table circles	20 clockwise and counterclockwise
13	Table press	20x3"
20	Isometric adduction	20x3" if compensatory shoulder hiking is noted

3-4 MONTHS:

-Continue physical therapy.

-Educate the patient regarding:

-ADL's as pain free

-Gradual return to activities as directed by surgeon

-HEP 3-4x/week (every other day)

-Ice after PT/HEP as needed

-Continue gentle self-stretching if goal of 10% improvement in ROM is not achieved.

-Appropriate exercises (if exercises from week 7-11 result in a max of 3/10 pain):

Page	Exercise	Dose
20	Ceiling punch (active)	2x20 with max 2#
22	Reverse Codman (active)	2x20 with max 2#
17	Side lying ER Neutral → full ROM	2x30 with goal of 2x50. NO weight.
19	Bear hug	20x3 seconds with gentle pressure
13	Table press	20x3"
14	LTR	20
14	Prone I	20
23	Wall circles	20 CW and CCW with towel

5+ MONTHS

-Continue physical therapy.

-HEP 3-4x/week (every other day)

-Ice after PT/HEP as needed

-Appropriate exercises (if exercises from month 3-4 result in a max of 3/10 pain):

Page	Exercise	Dose
17	Side lying ER	2x50. NO weight.
19	Bear hug	20x3 seconds with moderate pressure
19	Belly press	20x3 seconds
21	Full can	2x30 only when scap mechanics are good
23	Wall circles	20 CW and CCW with ball

-After discharge from formal physical therapy, continue HEP 2x/week until one year anniversary of surgery.

RETURN TO SPORT

WEIGHT TRAINING

-Return to modified program when **cleared by physician**.

-Upper body weight training no more than 2x/week
-First do rehab exercises as part of upper body warmup
-Lift appropriate weight for 2-3 sets of 15

ONLY the following exercises are acceptable after Total Shoulder Arthroplasty:

Acceptable Upper Body Lifts

Biceps	Curls with free weights, elbows at sides, scap set throughout
Triceps	Press down with V rope on cable column
	Bent over kick back with free weights
	No 'skull crusher' variations
Row	Seated row with cable column
	Bent over row with free weights
	Scap set during pull phase, elbows never behind body

GOLF

-Putting and chipping at 3+ months once **cleared by physician**.
-Driving at 4+ months once **cleared by physician**. Work down through irons (9→3) before using woods/driver.

YOGA

-Patient may begin a modified yoga practice consisting of non-weight bearing movement patterns when scapular mechanics are good and AROM is pain free and without compensatory shoulder hiking.
-Limited to no weight bearing postures. Must be **cleared by the physician**.

OTHER SPORTS

When cleared by physician