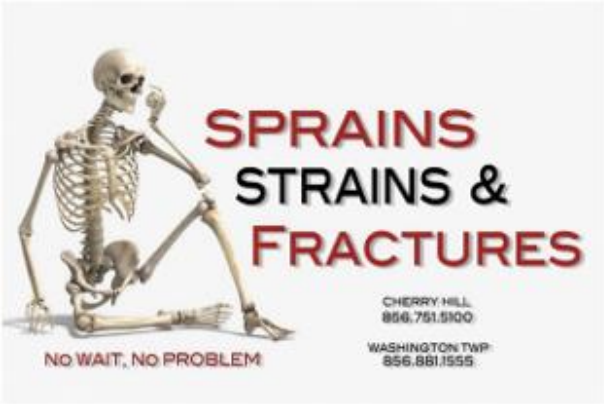


Elizabeth Ford, DO
Orthopedic Sports Medicine Specialist
2090 Springdale Rd. Suite C
Cherry Hill, NJ 08003
(856)751-5100

556 Egg Harbor Rd. Suite C
Sewell, NJ 08080
(856)881-1555

Reverse Shoulder Arthroplasty Rehabilitation Protocol

Introduction

This rehabilitation protocol is designed for patients recovering from reverse shoulder arthroplasty (rTSA).

Reverse shoulder replacement is commonly performed for:

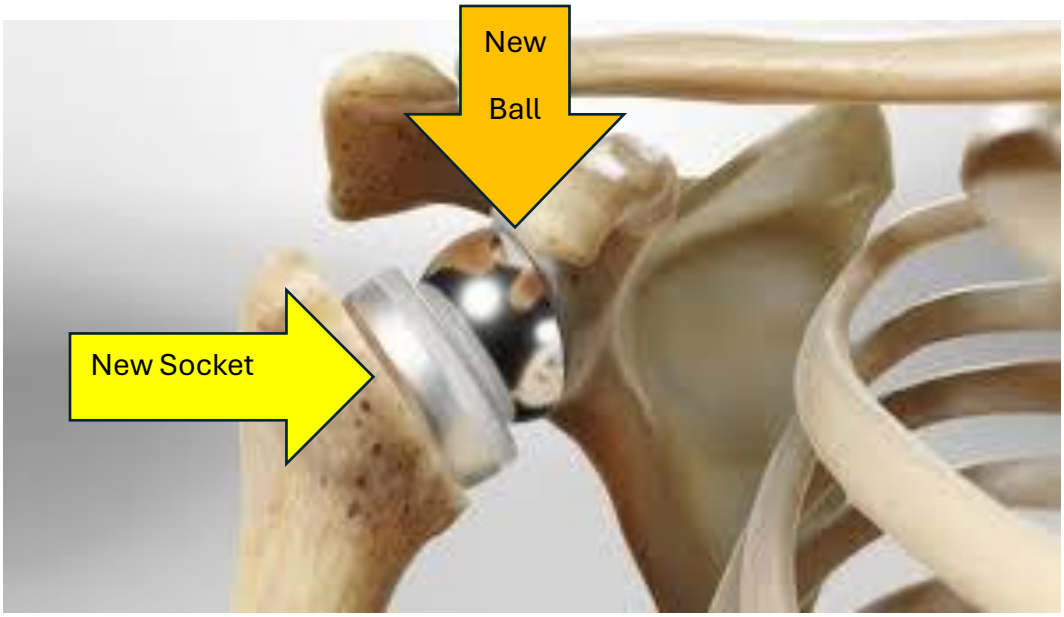
- Rotator cuff arthropathy
- Massive irreparable rotator cuff tears
- Advanced shoulder arthritis
- Complex proximal humerus fractures
- Failed prior shoulder surgery
- Revision shoulder arthroplasty

Unlike a traditional shoulder replacement, a reverse shoulder replacement changes the mechanics of the shoulder joint by reversing the ball-and-socket orientation. This allows the deltoid muscle and surrounding shoulder musculature to compensate for deficient rotator cuff function and improve arm elevation, function, and pain control.

The primary goals of surgery are to:

- Reduce pain
- Improve shoulder function
- Restore independence with activities of daily living
- Improve arm elevation and overhead reach

- Improve quality of life and shoulder endurance



Successful recovery requires a gradual, criterion-based rehabilitation progression focused on protecting the joint replacement, restoring mobility, rebuilding deltoid and periscapular strength, and improving functional movement quality.

This protocol follows a conservative progression designed to minimize instability risk and safely restore functional shoulder performance.

Progression should always be individualized based on:

- Surgical complexity
- Bone quality
- Revision versus primary procedure
- Soft tissue integrity
- Pain and inflammatory response
- Functional demands
- Movement quality and strength progression

Communication between the patient, physical therapist, caregivers, and surgical team is strongly encouraged throughout recovery.

Understanding Reverse Shoulder Arthroplasty

How Is a Reverse Shoulder Different?

In a reverse shoulder replacement:

- The normal socket is replaced with a ball component
- The humerus receives a socket component
- The center of shoulder rotation is shifted
- The deltoid muscle becomes the primary elevator of the arm

This change improves shoulder mechanics in patients with rotator cuff dysfunction and allows many patients to regain arm elevation that was previously impossible.

Why Are Precautions Important?

Following reverse shoulder replacement, shoulder stability depends heavily on the deltoid and surrounding musculature.

The shoulder is at greatest risk for instability with:

- Combined shoulder extension
- Adduction
- Internal rotation

Movements such as reaching behind the body, tucking in a shirt, pushing off a chair, or reaching into a back pocket can place excessive stress on the joint during early healing.

General Rehabilitation Principles

Early Priorities

- Protect the joint replacement
- Control pain and inflammation
- Prevent stiffness within safe ranges
- Restore elbow, wrist, and hand mobility
- Initiate scapular and deltoid activation
- Maintain safe movement patterns

Long-Term Priorities

- Improve shoulder elevation and function
- Restore independence with daily activities
- Rebuild deltoid and periscapular endurance
- Improve upper extremity strength and control
- Restore functional reach and lifting capacity

Postoperative Expectations

Common Early Symptoms

The following are common during early recovery:

- Shoulder soreness and tightness
- Swelling and bruising
- Fatigue with arm positioning
- Temporary weakness
- Sleep discomfort
- Difficulty with reaching and dressing

Contact Dr. Ford If You Experience:

- Fever greater than 101°F
- Increasing redness or drainage
- Progressive swelling
- Severe uncontrolled pain
- Sudden loss of shoulder function
- Numbness or weakness
- Shortness of breath or calf pain

Rehabilitation Timeline Overview

Phase	Timeline	Primary Goals
Phase I	Weeks 0-6	Protection, passive mobility, pain control
Phase II	Weeks 6-12	Active motion and early strengthening
Phase III	Months 3-4	Functional strengthening and endurance
Phase IV	Months 4-6+	Return to functional activity (golf, tennis, pickleball etc)

Important Reverse Shoulder Precautions

These precautions are critical during the early recovery period and often remain important long-term:

- No shoulder extension past neutral
- Avoid combined internal rotation, adduction, and extension
- Avoid reaching behind the body
- Avoid pushing up from a chair with the operative arm
- Avoid sudden pulling or jerking motions
- Avoid supporting body weight through the operative arm

Patients should always keep the elbow and hand in front of the body during early recovery.

PHASE I — PROTECTION & PASSIVE MOBILITY

Weeks 0-6

Goals

- Protect the shoulder replacement
- Control pain and inflammation
- Restore protected passive mobility
- Prevent stiffness within safe ranges
- Maintain elbow, wrist, and hand motion
- Initiate deltoid and scapular activation

Sling Use

- Sling worn consistently during this phase
- Sleep in sling for ***approximately 2 weeks*** or as directed
- Sling may be removed for exercises and hygiene

Precautions

- No active shoulder motion initially
- No lifting with operative arm

- No supporting body weight through the arm
- Avoid shoulder hyperextension
- Strictly follow instability precautions

Recommended Interventions

Mobility

- Pendulum exercises
- Supine forward elevation within protected range
- Supine external rotation within surgeon-directed limits
- Elbow, wrist, and hand ROM

Muscle Activation

- Scapular retraction drills
- Deltoid isometrics in protected positions
- Gentle periscapular activation

Pain & Swelling Management

- Cryotherapy
- Positioning education
- Sleep modification strategies

Movement Quality Focus

- Maintain elbow in front of the body
- Avoid compensatory trunk extension
- Emphasize controlled movement patterns

Criteria to Progress

- Pain controlled
- Incisions healing appropriately
- Tolerates passive ROM program
- Good compliance with precautions
- Appropriate deltoid activation

PHASE II — ACTIVE MOTION & EARLY STRENGTHENING

Weeks 6-12

Goals

- Gradually restore active shoulder motion
- Improve dynamic shoulder stability
- Rebuild deltoid and periscapular control
- Improve functional arm use
- Maintain safe shoulder mechanics

Precautions

- Continue instability precautions
- Avoid sudden loading
- Avoid forceful reaching behind the body
- No heavy lifting

Recommended Interventions

Mobility

- Progressive active-assisted ROM
- Forward elevation progression
- External and internal rotation progression within tolerance
- Gentle mobility restoration

Early Strengthening

- Deltoid strengthening progression
- Scapulothoracic stabilization
- Rhythmic stabilization drills
- Alternating isometrics
- Light isotonic strengthening

Functional Training

- Feeding and grooming activities
- Controlled reaching patterns
- Light activities of daily living
- Postural retraining

Cardiovascular & Lower Body Conditioning

- Walking progression
- Stationary bike
- Lower extremity strengthening
- Core and trunk stability training

Movement Quality Focus

- Avoid upper trapezius dominance
- Emphasize scapular control
- Encourage smooth shoulder mechanics
- Avoid compensatory trunk lean

Criteria to Progress

- Improved active shoulder function
- Tolerates strengthening progression
- Good scapular mechanics
- Improved deltoid activation
- Minimal reactive inflammation

PHASE III — FUNCTIONAL STRENGTH & ENDURANCE

Months 3-4

Goals

- Improve functional shoulder strength
- Increase muscular endurance
- Restore independence with daily activities
- Improve reaching and carrying tolerance
- Enhance movement efficiency

Recommended Interventions

Strengthening

- Progressive resisted flexion and elevation
- Theraband strengthening progression
- Functional carrying drills
- Deltoid endurance training
- Scapular endurance exercises

Neuromuscular Training

- Closed-chain stabilization drills
- Dynamic scapular control
- Functional reach progression
- Reactive balance and posture integration

Functional Activity Training

- Household task simulation
- Functional reaching
- Light lifting progression
- Modified recreational activity training

Precautions

- No sudden jerking movements
- Avoid heavy overhead lifting
- Avoid forceful extension behind the body
- Progress loading gradually

Criteria to Progress

- Pain-free functional motion
- Improved endurance
- Good movement quality
- Independent ADL performance
- Improved shoulder mechanics

PHASE IV — ADVANCED FUNCTION & LONG-TERM MAINTENANCE

Months 4-6+

Goals

- Maximize functional shoulder performance
- Improve endurance for daily activities
- Return to recreational activity within safe limits
- Maintain long-term implant protection

Advanced Training

- Continued strengthening progression
- Functional endurance training
- Carry and lifting progression
- Light recreational activity progression
- Long-term shoulder maintenance program

Long-Term Considerations

Patients with reverse shoulder arthroplasty should generally avoid:

- Heavy repetitive overhead lifting
- Sudden forceful pulling
- High-impact loading
- Aggressive weight training
- Heavy pushing activities

Exercise progression should prioritize endurance, movement quality, and joint protection over maximal loading.

Functional Expectations

Most patients achieve:

- Significant pain reduction
- Improved shoulder elevation
- Improved independence with daily activities

- Better overhead reach
- Improved quality of life

Functional gains may continue improving for up to 12 months following surgery.

Physical Therapy Communication Notes

Please contact the surgical team regarding:

- Persistent stiffness
- Significant pain escalation
- Concerns regarding instability
- Sudden loss of shoulder function
- Delayed recovery progression
- Difficulty restoring functional mobility
- Concerns regarding implant integrity

Final Notes for Patients

Recovery after reverse shoulder replacement is a gradual process focused on restoring safe, functional shoulder movement.

Although many patients notice meaningful pain relief early after surgery, rebuilding strength, endurance, and movement confidence takes several months.

Long-term success depends on:

- Consistent physical therapy
- Deltoid and scapular strengthening
- Safe movement mechanics
- Avoiding excessive overload
- Maintaining a long-term exercise program

The rehabilitation process should prioritize movement quality, endurance, and joint protection rather than aggressive strengthening.
