Humerus fractures generally take 6-8 weeks to heal. Severity of humerus fractures can vary and affect time to healing and stability of the repair. The rehab protocol below relates to fractures that have a strong and stable surgical repair. Less stable fractures may require more protection and a less aggressive protocol.

The intent of this protocol is to provide the clinician with a guideline for the postoperative rehabilitation course of a patient that has undergone a surgical repair of a humerus fracture. This protocol is no means intended to be a substitute for one's clinical decision making regarding the progression of a patient’s post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring surgeon.

**Phase 1 (1-3 weeks)**

**Appointments**
Begin physical therapy at 1 week post op, 2 x/week
Follow up with MD 10-14 days post op

**Rehabilitation Goals**
Protect repair
Minimize pain and swelling
Maintain ROM of surrounding joints
Prevent adhesive capsulitis
Minimize cardiovascular deconditioning

**Precautions**
Sling at all times or per MD
No AROM, lifting, pushing, pulling x 6 weeks
No ER > 40 degrees or excessive shoulder EXT x 6 weeks
No supporting of body weight

**Suggested Therapeutic Exercises**
PROM of shoulder:
Flexion to 90 degrees, ER to 30 degrees, IR to tolerance (no behind back)
Scapular clocks: Elevation, depression, retraction, protraction
Pendulums (Codman’s)
Incision mobilization
Cervical, hand, wrist, elbow
AROM: thumb to shoulder, make fist Cardiovascular Exercises
Stationary bike in sling

Progression Criteria
Per X-ray evidence of healing
PROM flexion to 90 degrees, ER to 30 degrees

**PHASE II (WEEKS 3-6)**
Rehabilitation Goals
Regain PROM
Gentle functional use
No resistance Precautions
Sling and ROM limitations per MD
No IR/ER
No driving
No pushing, pulling, lifting
No cuff strengthening

Suggested Therapeutic Exercises
PROM in scapular plane (no hand behind back IR)
AAROM: - flexion to 90 degrees - ER to 40 degrees, Pulleys
AROM of elbow, wrist and hand
Continue scapular isometrics and clocks
Grade I-II GH and scapular mobilizations

Cardiovascular Exercises
Cardiovascular conditioning in sling per MD
UBE no resistance
Stationary bike
ROM limits

Progression Criteria
Per X-ray evidence of healing
AAROM flexion to 90 degrees, ER to 40 degrees

**PHASE III (WEEKS 6-12)**
Rehabilitation Goals
Regain full PROM Precautions
Sling use per MD based on x-ray evidence of healing
May begin driving
20 lb weight limit
No pushing or pulling
No overhead activity

Suggested Therapeutic Exercises
Continue PROM/AAROM/AROM cervical, shoulder, elbow, wrist and hand
Pec minor stretching to minimize scapular protraction with flexion
Submaximal isometric RTC exercises at 6 weeks
Progressive isotonic RTC exercises at 8 weeks, low weights, high reps
Grade III-IV GH and scapular mobilizations at 8 weeks
Posterior scapular stretching at 8 weeks if needed
General UE strengthening at 10 weeks

Cardiovascular Exercises
UBE with light resistance
Stationary bike
Swimming per MD

Progression Criteria
Advance to work/sport specific conditioning once
AROM is = bilateral and strength is 4+/5 in all directions

**PHASE IV (WEEKS 12 +)**
Rehabilitation Goals
Full ROM in all planes
Transition to HEP Precautions
Per MD but generally no lifting, pushing or pulling precautions at this point
No overhead lifting until 4-6 months post op

Suggested Therapeutic Exercises
AROM of cervical shoulder, elbow, wrist and hand emphasizing end ROM
GH and scapular joint mobilizations as needed
Pec minor stretching
Posterior capsule stretching
Anterior deltoid strength and scapular stabilization
General UE strengthening Cardiovascular Exercises
No restrictions Progression Criteria
DC to HEP