Rehabilitation of the proximal humeral fractures is essential because adequate motion is needed for optimum function. If a fracture or fracture repair is stable, then therapy should be started early. The most useful rehabilitation protocol is the three-phase system. The **first phase** consists of passive-assistive exercises. In the **second phase**, active- and early-resistive exercises are started. The **third phase** is a progressive advanced program aimed at end-range stretching and strengthening exercises. Application of this system is variable and depends on the type of fracture, the stability of the fracture or fracture repair, and the ability of the patient to comprehend the exercise program. The exercises are performed three to four times per day for 20 to 30 minutes. A hot pack applied 20 minutes before the exercise session is beneficial. Early in the program an analgesic may be needed to control pain and thus allow sufficient stretching. Often it is advisable to involve a physical therapist for guidance and management of the exercise program.

**DOS:**

**Phase 1 Begin Date:** are exercises that are started early in the post-fracture or postoperative period. If a fracture is minimally displaced or has been treated by closed reduction and is stable, then exercises are generally started between days 7 and 10 after fracture.

1. Passive ROM of shoulder and elbow is initiated by physical therapist 24-48 hours after **surgical** repair.
2. The first exercise is usually a pendulum exercise (the arm is rotated both outwardly and inwardly in small circles).
3. The second exercise is supine external rotation with a stick (elbow supported and distal humerus supported in slight abduction 15-20 degrees). Ensure painfree ROM and good stability through fracture site.
4. Three weeks after fracture, assisted forward elevation is initiated either with assistance from PT of use of dowel in opposite hand. Start with elbow bent.
   a. If fracture is stable without ORIF, pulley exercises can be added at three weeks (flex, abd, IR/ER). Do not initiate forward flexion with
pulleys until 6 weeks after ORIF to reduce risk of tuberosity avulsion.

5. Extension can be added shortly later.
6. Isometric exercises are generally started at 4 weeks.

**Phase II** **Begin Date:** _____ has exercises that involve early active, resistive, and stretching exercises

1. Initiate active supine elevation and progress to sitting/standing. Start with elbow flexed and arm close to midline.
2. Light Theraband are used to strengthen the internal and external rotators, and anterior, mid, and posterior deltoids. (3 sets of 10-15 reps are recommended for each exercise)
3. Stretching for forward elevation on the top of a door or wall
4. Stretching for external rotation against door jam, or overhead with hands behind head with shoulder external rotation and abduction
5. Stretch for internal rotation using other arm

**Phase III** **Begin Date:** _____ are exercises that are generally started at 3 months. Progressive Theraband and weights are used to increase resistance.

1. End-range forward elevation stretch by leaning torso through door with arm on door jam
2. Stretch end-range internal rotation with towel behind back or sleeper stretch
3. Light weights can be used after 3 months
   a. Start with 1 lb and increased by 1 lb increments with limit of 5 lbs.
   b. Decrease or eliminate weights if pain is persistent
4. Light weight-bearing can be initiated after 3 months against wall or tall counter top and progressing to low chair or floor as tolerated and appropriate functionally
5. Strength can be achieved with functional activity

A well–supervised rehabilitation regimen is essential for successful fracture treatment. Even a perfect fracture reduction or surgical repair will not achieve a good result without proper rehabilitation efforts.