

Distal Radius Fracture Repair Rehabilitation Protocol

By James L Chen, MD

Phase	Time	Exercises/Activities/RESTRICTIONS	Goals
Phase I	0-6 weeks	<ol style="list-style-type: none"> 1. Use pain medication as needed. 2. Keep operated hand strictly elevated in foam arm cradle for 3-5 days postop. 3. Cast immobilization for 2-6 weeks postop depending on the severity of the fracture and the rigidity of the fixation. Cast is changed every 3 weeks. <p><u>Begin formal physical therapy</u> <i>Active and Passive Finger Motion</i></p> <ul style="list-style-type: none"> • Actively bend your fingers into the palm, making a tight fist, then extend the fingers straight. You may use the non-operated hand to aid in full range of motion of the fingers. Repeat 5-6 times per day. <p><i>Shoulder Range of Motion</i></p> <ul style="list-style-type: none"> • Begin progressive active shoulder range of motion in all planes, 10 repetitions, repeat 3 times per day. 	Pain and swelling control Prevent shoulder and elbow stiffness
Phase II	7-12 weeks	<ol style="list-style-type: none"> 1. Transition from cast to removable short-arm splint. 2. Discontinue removable short-arm splint at 8 to 10 weeks postop depending on xray findings 3. Scar massage for scar sensitivity as needed. <p><u>Formal physical therapy</u> Continue all Phase I exercises Maintain full active shoulder ROM and finger ROM.</p> <p><i>Elbow Range of Motion</i></p> <ul style="list-style-type: none"> • Begin active ROM by flexing and extending the elbow, 10 repetitions, repeat 3 times per day. <p><i>Forearm Rotation</i></p> <ul style="list-style-type: none"> • Rotate your forearm by bringing palm upward (supination), then palm downward (pronation). You may assist this forearm motion with the opposite hand if necessary. <p><i>Wrist Range of Motion</i></p> <ul style="list-style-type: none"> • Begin progressive active ROM of the wrist by bringing the wrist back, then flexing the wrist 	Maintain shoulder/finger ROM Improve elbow and wrist ROM

		<p>toward the palm. Complete 10 repetitions and repeat 3 times per day. You may assist wrist motion with the opposite hand.</p> <p><i>Grip Strengthening</i></p> <ul style="list-style-type: none"> • Begin grip strengthening by squeezing rubber ball, Silly Putty or Nerf ball. May progress to hand exerciser if desired. 	
Phase III	13-26 wks	<p>1. Continue scar massage if needed.</p> <p><u>Formal Physical Therapy</u> Continue Phase I and II exercises.</p> <p><i>Grip Strengthening</i></p> <ul style="list-style-type: none"> • Continue hand strengthening with a squeeze ball or hand exerciser. <p><i>Wrist flexion curl</i></p> <ul style="list-style-type: none"> • Sit with operated forearm resting on a table, hand extended over the edge of the table. Grasp a one pound dumbbell weight. With palm up, flex your wrist, curling the weight inward. Hold for 2 seconds, 5 repetitions. <p><i>Wrist extension curl</i></p> <ul style="list-style-type: none"> • Sit with operated forearm resting on a table, hand extended over the edge of the table. Grasp a one pound dumbbell weight. With palm downward, extend your wrist backward. Hold for 2 seconds, 5 repetitions. 	<p>Maintain wrist ROM Improve upper extremity strength</p>

Post Operative Instructions

Wound Care: In most cases, a combination of a metal plate with screws and/or pins is used to repair the fracture. These maintain the bones in the correct alignment until the fracture heals. Immediately after surgery most patients are placed into a fiberglass splint that is wrapped in a bulky dressing to protect the fracture that has just been repaired. This splint is not removable and you must keep it clean and dry. Please cover splint with a plastic bag when bathing.

Activity: Finger motion is encouraged in order to prevent stiffness. Try to completely bend and straighten your fingers 5 to 6 times a day. Remember to exercise your shoulder several times a day to prevent stiffness. Also, keep your arm elevated to help decrease swelling, which can cause increased pain and joint stiffness.

Ice: You may use an ice pack over the surgical dressing to help reduce swelling in your hand. Place a thin cloth between the ice pack and your skin or dressing.

Restrictions: No lifting or working with any object heavier than a pencil until the sutures have been removed. Please do not begin any weight/lifting or strengthening exercises without discussing this with your surgeon or therapist.

Patients can do some typing or writing immediately after surgery but because of swelling or stiffness in the hand, this may be difficult for 3/4 weeks.

Students are encouraged to bring a letter of disability to the appropriate office at their school or college in order to provide documentation for the school and assist them with writing/typing chores.

Driving: You may not drive while on narcotic medication. You must be able to grip the wheel with both hands.

Pain Management: Any type of fracture surgery can have a significant amount of postoperative pain. Please carefully review the instructions with the recovery room nurse regarding the timing of medications.

Results: Most patients take approximately 3 months to get the majority of their strength and motion back, and may require therapy during this time. After distal radius fractures have healed, patients can resume their sports activities and return to their activities at work. Patients frequently lose some motion, especially in terms of the flexion and extension of the wrist. In general, most patients recover well after the treatment of distal radius fractures, and are able to return to their work and recreational activities.

In some cases patients want to have their hardware removed electively 3-12 months after surgery because the metal becomes prominent or because the metal pins or screws irritate some of the tendons. This is an elective procedure for most patients that may be scheduled at your convenience when necessary.

Post Operative Instructions: Wrist Surgery

WRIST REHABILITATION EXERCISES FOR THE IMMOBILIZED WRIST

While your wrist fracture is healing you should do exercises to keep the tendons moving, otherwise they will get stiff. The following 5 positions done sequentially several times a day will allow the tendons about the wrist to glide and maintain their motion.

TENDON GLIDING EXERCISES

- A. Straight Position**
- B. Platform Position**
- C. Straight Fist**
- D. Hook Fist**
- E. Full Fist**

