



ORTHOPEDICS & SPORTS MEDICINE

BAYCARE CLINIC®

Dr. Zehms

Distal Radius Fracture Post-Surgical Volar Plating

Phase 1 - Early Protective Phase (2-4 weeks)

Goals for Phase 1

- Protect and immobilize fracture repair
- Edema and pain control
- Promote scar tissue mobility to decrease scar adherence after incision healing

Other Considerations

- Care should be taken to position the wrist in neutral for volar displaced fractures and 20-30° of extension for dorsally displaced traditional Colle's fractures to prevent stress over the fracture site during the healing phase. If unsure, splint in neutral to be safe.
- Patient to follow 5lb lifting restriction for 6 weeks

Splint

- Patient is usually casted until 2 weeks
- At 2 weeks, a volar thermoplastic wrist hand orthosis (WHO) with wrist in neutral position or the same as the post-operative mold.

Modalities

- Ice to reduce pain and swelling
- Heat modalities to promote flexibility of tissues
- Ultrasound as needed for scar (beginning 3 weeks)

Manual Therapy

- Manual Edema Mobilization (MEM) to promote edema reduction
- Issue compressive stocking and/or glove for edema management
- Begin scar massage no sooner than 2 days after suture removal and after scar is fully closed with no scabbing present. Begin with light massage using lotion. Apply scar remodeling products as needed.

AROM

- Initiate gentle active motion to wrist and forearm gradually advancing to AAROM as tolerated unless MD orders or progress notes state otherwise
- AROM of uninvolved joints: Shoulder, elbow, digits/thumb

PROM

- PROM of digits if needed



Phase 2 – Progressive Range of Motion (4-6 weeks)

Goals for Phase 2

- Restore flexibility
- AROM improving
- Improvement in functional abilities

Criteria for Progression to Phase 3

- AROM in pain free range

Splint

- Continue splint at all times between exercise sessions
- Begin weaning from splint at 6 weeks post-op for non-resistive and limited-resistive activities

Modalities

- Ice to reduce pain and swelling
- Heat modalities to promote flexibility of tissues
- Other modalities as needed

Manual Therapy

- Continue MEM to promote edema reduction
- Continue edema garments as needed
- Kinesio taping for edema as needed
- Continue scar management

AROM

- AROM of uninvolved joints as needed
- AROM of wrist and forearm

ROM

- Gradually advance to gentle PROM wrist and forearm

PROM

- PROM of digits as needed



Phase 3 – Progressive Stretching & Strengthening (6-12+ weeks)

Goals for Phase 3

- Maximum ROM pain free wrist and forearm; full motion uninvolved joints
- Increase strength while not increasing pain level
- Full use of extremity by 3 months, depending on work demands or sports

Criteria For Return to Work, Function, Sport

- Return to heavy work or sports as per MD approval

Splint

- Discontinue except for activities involving resistance; discontinue after 12 weeks unless wrist support needed for heavy activities and sports activities
- Transition to wrist widget if patient has ulnar-sided wrist pain; obtain MD approval if patient has an associated distal ulna fracture
- Initiate progressive splinting if needed (6 weeks)

Modalities

- Ice as needed to reduce pain/inflammation
- Heat modalities as needed to promote flexibility of tissues
- Other modalities as needed

Manual Therapy

- MEM as needed
- Scar massage/mobilization as needed
- Joint mobilizations for wrist and forearm to promote maximal motion, if needed

A/AAROM

- Continue A/AAROM of wrist, forearm, digits, AROM of uninvolved joints as needed

PROM

- PROM of wrist/forearm to promote maximum end range motion

Strengthening (7-8 weeks)

- Grip and pinch strengthening with putty
- Progressive strengthening of wrist, forearm, elbow and shoulder
 - Isometrics to Isotonics
- Stabilization and proprioception activities: Flexbar for wrist strength and oscillations, weighted alphabet, gyroball, smart phone games, tilt maze game, progress to rebounder ball throwing

Work Conditioning (Initiate 12 weeks)

- Initiate a comprehensive work conditioning program for patients with high-demand, heavy manual labor occupations

This protocol was reviewed and updated by Chad Zehms, MD and Rebecca Donnay, PT, DPT on September 14, 2026.



References

1. Brou, KE, Henry, MH, Smith, DW. Early active rehabilitation for operatively stabilized distal radius fractures. Journal of Hand Therapy (2004); 17:43-49.
2. Bruder, AM, Dodd, KJ, Shields N, Taylor, NF. Physiotherapy intervention practice patterns used in rehabilitation after distal radius fracture. Physiotherapy 99 (2013); 233-240.
3. Valdes, K. A retrospective pilot study comparing the number of therapy visits required to regain functional wrist and forearm range of motion following volar plating of a distal radius fracture. Journal of Hand Therapy (2009); 22:312-318.