

Metacarpal Fracture ORIF, Rigid Fixation Therapy protocol

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- 3 to 5 days post-op:
 - Remove post-operative dressings
 - Wound care and sterile dressings to incision
 - Fabricate wrist/forearm-based thermoplastic ulnar or radial gutter orthosis in intrinsic plus position
 - Specific attention to position the affected PIP joint in full extension
 - If unable to achieve full extension, orthosis will need to be adjusted at each therapy visit. Consider use of a second finger-based orthosis for PIP joint extension, to be worn under hand-based orthosis for maximum PIP joint extension
 - Begin early active motion, including blocking exercises for active flexion, and reverse blocking exercises for PIP joint extension. Include both isolated IP joint flexion with hook fist exercises, and gentle composite digit flexion.
 - NO PASSIVE RANGE OF MOTION until 6 weeks postop.
 - Thorough instruction in home exercise program, including edema reduction
- 2 weeks post-op:
 - First post-operative visit with surgeon.
 - Sutures removed.
 - Continue active range of motion, with focus on PIP joint extension
 - Begin scar management
- 4-6 weeks post-op:
 - Continue active range of motion,

- o Continue scar management, including scar massage and use of paper tape or Kinesiotape to decrease dorsal scar adhesions, if needed
- o Orthosis adjustments
- 6 weeks post-op:
 - Early strengthening exercises with light resistance can be initiated at 6 weeks (at the beginning of the remodeling phase)
 - The patient is released to work at light duties, lifting less than 25 pounds. Progressive resistant exercises are instituted for strengthening. Sports level activities are allowed within protective splinting.
 - o Return to surgeon for post-op visit, repeat X-rays
 - o Begin passive range of motion, with medical clearance and fracture healing
 - o Continue active range of motion, with focus on PIP joint extension
 - o If PIP joint extension lag is present, consider use of relative motion orthosis to provide constant reverse blocking exercises
 - o Discontinue gutter orthosis, continue IP joint extension orthosis at night to prevent/decrease extensor lag.
- 8-12 weeks post-op:
 - o Continue active and passive range of motion
 - o Begin strengthening with medical clearance.

S/P K-wire fixation: therapy will begin at 2 to 6 weeks post-op, based on surgeon preference and stability of fracture/hardware. All treatment will be the same as with plating, but delayed up to 6 weeks from time of surgery.