REHABILITATION PROTOCOL - TOTAL WRIST ARTHROPLASTY

0-14 Days Post Op:

The postoperative dressing and plaster splint are removed on day 10 and a supervised exercise program is begun, including gentle active flexion, extension, radial and ulnar deviation, pronation, supination, and digital motion. Strengthening is added at week 4. The patient is advised against impact loading of the wrist and repetitive forceful use of the hand. Although the time required for rehabilitation varies, as a guideline, recovery from wrist replacement surgery takes up to three months.

First few Physical Therapy treatments will focus on controlling the pain and swelling from surgery. PT may use heat treatments, gentle massage and other types of hands-on treatments to ease muscle spasm and pain.

Begin gentle range-of-motion exercises. Strengthening exercises are then used to give added stability around your wrist joint. Teach patient ways to grip and support items in order to do tasks safely and with the least amount of stress on wrist joint.

Post-operative Management Guidelines:

- Initial wrist immobilization in neutral alignment or in position of greatest stability
- Elevation of limb
- Mobilization of adjacent joints
- If patient experiences significant pain which is exacerbated by forearm rotation then the application of a sugar tong splint to block rotation and provide pain relief may be indicated.
- ROS / wound check at 2 weeks

Day 10:

Once Wrist is stable Begin ROM: active, active assisted flexion / extension of the wrist. NO Rotation

If Unstable, Immobilize until stability is achieved.

Irrespective of when mobilization is commenced all patients should proceed back to functional use of the wrist and mobilization through a graduated mobilization program which protects any soft tissue rebalancing and joint capsule

Early mobilization:

- **Active / active assisted:** flexion / extension wrist; radial / ulnar deviation wrist
- Splint to be worn between exercises and at night
- Active / passive movement of digits as appropriate
- Functional use of hand in splint and avoiding transmitting power across wrist joint

Weeks 2-4 of mobilization

- Increase number of exercise sessions and repetitions as necessary
- Introduce functional use of hand / wrist out of splint e.g. dressing, hygiene, feeding but avoid power and weight bearing activities.

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Weeks 4-6 of mobilization

- Introduce strengthening of wrist extensors and digits as necessary and appropriate for the individual.
- Increase functional activity out of splint applying joint protection principles and activity modification (if the wrist extensors cannot maintain the wrist at neutral alignment whilst holding an object then the object is too heavy and should be avoided or the activity performed with splint in situ).

Weeks 6-12 of mobilization

- Continue active / active assisted exercise
- Increase function applying joint protection principles

Patient Education:

Total wrist replacements are non-weight bearing joints, heavy activity (household or occupational), use of a walking aid or repetitive movements (hammering), will increase the speed and incidence of loosening of the implants stems and the ultimate failure of the implant.