IMMOBILIZATION PROTOCOL FOR EXTENSOR TENDON REPAIR STATIC METHOD, ZONES V, VI, VII

FREQUENCY: 1-2 times per week.

DURATION: Up to 12 weeks post-op.

GOALS:

1. Prevent tendon rupture and extensor lag
2. Promote tendon healing
3. Edema control
4. Scar management
5. Maintain full range of motion of all uninvolved joints of the affected extremity
6. Restore range of motion of affected joints
7. Fabricate static extension splint
8. Instruct patient in home exercise program
9. Educate patient on diagnosis and activities/postures to avoid
10. Return to previous level of function

Post-Operative Therapy – For Finger Extensors V, VI, VII:

1. On first post-operative visit, fabricate static volar extension splint with wrist at 40-45° extension, MP joints 0-20° flexion according to physician preferences, IP joints at full extension.* (*Simple laceration to EIP and EDM requires immobilization of only repaired tendons. If laceration of EDC is proximal to juncturae tendinum, all fingers to be splinted in extension. If it is distal to juncturae tendinum, adjacent fingers to be splinted in 30° of flexion.)
2. During first three post-operative weeks, the therapist should assess digital joints for stiffness during dressing changes/splint rechecks.
   - The therapist should manually place the wrist in full extension supporting all digital joints at 0°.
   - Gently move index and long finger MP joints from slight hyperextension to 30° flexion.
   - Repeat for ring and small fingers but to 40° of flexion.
   - Each IP joint can be passively moved through full range of motion with wrist and MP joints held in extension.
   - If there is excessive IP stiffness secondary to arthritis or edema, the splint can be cut away under the PIP joints to allow active and passive range of motion. However, the joints should be allowed to rest in extension between exercise sessions. A removable volar splint component can be added to the splint.
3. At three weeks post-operatively, guarded active motion can begin.
   - Gentle active and active assistive range of motion should emphasize MP extension with wrist in neutral to slight flexion.
   - MP active joint flexion to 40-60° should be completed with wrist held in an extended position.
   - IP joints can be taken through complete active range of motion with wrist and MP joints held in extension.

7 Marsh Brook Drive, Suite 101, Somersworth, NH 03878 Tel: 603-749-6686 Fax: 603-749-9270

4. At four weeks, composite flexion can be attempted with wrist extended.
   - Individual finger extension and the claw position can be completed.
   - Dynamic splinting for flexion can be initiated at 3-4 weeks post-op for stiff MP or PIP joints with less than 30-40° of movement with a hard end feel.
5. By six weeks post-operatively, composite finger and wrist flexion exercises can be initiated.
6. Light strengthening can be initiated at six weeks post-operatively including wrist strengthening.
7. Strong resistive exercises should be delayed until 10-12 weeks post-operatively.

References:

Evans, R: Clinical Management of Extensor Tendon Injuries. Hunter: Rehabilitation of The Hand, ed. 5. Mosby, St. Louis, 2002, p. 563-567.

Rabinowitz, B: Extensor Tendon Repair. Hand Rehabilitation a Practical Guide. Churchill Livingston, Inc. 1993, p. 89-96.

ML/aoc
9/04, Rev. 2009