



Frisbie Memorial Hospital

Marsh Brook Rehabilitation Services

Wentworth-Douglass Hospital

CLINICAL PROTOCOL FOR FLEXOR TENDON AFTER DOLLS REPAIR

PRECAUTIONS: DOLLS procedure **only**. The patient must be cognitively aware, adult.
Must be tidy wound with no evidence of infection.

FREQUENCY: 1-3 times per week.

DURATION: Up to 12 visits over 4-5 weeks based on Occupational Therapy evaluation findings.

DOCUMENTATION: Progress Note to physician at each follow-up appointment. Follow treatment calendar for daily requirements. Discharge Summary within 2 weeks of discharge.

VISIT ONE – INITIAL EVALUATION (3-7 DAYS POST-OP):

GOALS:

- 1) Tendon Evaluation:
 - Assess wound status.
 - Assess passive flexion and active extension within splint boundaries.
 - Assess edema.
- 2) Fabricate dorsal block splint as follows:
 - Digit Injury: Wrist: 25 degrees flexion
MP's: 45 degrees flexion
IP's: Full extension
 - Thumb Injury: Wrist: 30 degrees flexion
Thumb: 60 degrees palmar abduction
MP/IP: Full extension
- 3) Instruct patient in home exercise program to perform hourly – all in splint:
 - Full passive flexion of PIP's and passive/active extension to splint.
 - Full passive flexion of DIP's and passive/active extension to splint.
 - Composite passive flexion with passive/active extension to splint.
 - Active composite flexion and extension simultaneously.
 - Fisting to a gentle "tight feeling" lasting 3-5 seconds.

} Duran's passive motion
- 4) Instruct patient in elevation to decrease edema.
- 5) Patient education regarding precautions, early mobilizations, protocol, and splint.

If patient presents with the following Self-Management Criteria:

- No limitations in passive flexion or extension of digits;
- Minimal to no edema with minimal to no pain;
- Independent with home exercise program following instruction;

then the patient can be placed on a home exercise program with one time per week rechecks to upgrade program as per Protocol until Discharge Criteria have been met. The patient will be evaluated regarding adherence/understanding of precautions. (Refer to handout for home exercise program instructions/exercises.) If patient does not meet above criteria, then a course of formal rehabilitation will be initiated 2-3 times per week until above criteria have been met.

Rehab 3: One High Standard, Three Local Partners

For more information go to www.rehab-3.com

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DISCHARGE CRITERIA:

- 1) Active/Passive range of motion full or per physician expectations.
- 2) Functional hand strength.
- 3) No greater than moderately firm scar.
- 4) Patient is independent with comprehensive home exercise program.
- 5) Failure to progress.
- 6) Failure to comply.

-TREATMENT GUIDELINES-**WEEK ONE:****GOALS:**

1. The patient will demonstrate proper home exercise program techniques.
 2. Full passive flexion and extension (to splint) of digits.
 3. No greater than moderate edema.
 4. Review precautions.
- Patient education regarding anatomy.
 - Check wound and hygienic care.

WEEK TWO:**GOALS:**

1. Decrease edema if present by at least 10%.
 2. Begin scar massage.
 3. Begin blocking exercises, sides of digit only (in splint) at 2 ½ weeks.
- Continue with Week One exercises/treatment.
 - Coban/Cowrap.
 - Continued education.

WEEK THREE:**GOALS:**

1. Increase active range of motion by at least 25%.
 2. Improve scar mobility to no greater than moderately firm.
- Continue with previous weeks' treatment.
 - Begin wrist motion.
 - Begin light functional tasks in clinic only.
 - Differential glides.
 - SA to wrist neutral; splint off for light functional exercises in clinic only.

WEEK FOUR:**GOALS:**

1. Improve scar mobility to no greater than moderately firm.
 2. Increase functional use of injured upper extremity to use during light, non-resistive self-care tasks.
- Ultrasound if necessary.
 - Discontinue splint during low risk activities; continue to wear splint for high risk activities.

WEEK FIVE:**GOALS:**

1. Increase functional use of injured upper extremity to use during all light, non-resistive ADL.
 - Discontinue splint at night.

WEEK SIX:**GOALS:**

1. Increase any limited range of motion if due to decreased glide.
2. Strengthening **if** heavy scarring.
 - Light putty.
 - **AVOID:** Heavy lifting and full extension of wrist and digits.

WEEK EIGHT:**GOALS:**

1. Return to work full time, regular duty.

REFERENCES:

- 1) Lee H. Double Loop Locking Suture: A Technique of tendon repair for early active mobilization, Part II; J. Hand Surgery 1990; 15A: 953-950.
- 2) Lee H. Double Loop Locking Suture: A Technique of tendon repair for early active mobilization, Part I; J. Hand Surgery 1990; 15A: 945-52.
- 3) Silfverskioldkl, May EJ, Tornvali AH. Tendon Excursions after flexor tendon repair in Zone II: Results with a new controlled motion program. J. Hand Surgery 1993; IEA: 403-10.