

GUIDELINES FOR FLEXOR TENDON REPAIRS OF THE HANDS

Tendon injuries are among the more common types of hand injuries. Rehabilitation of patients with tendon injuries is often “tough and go” as tendon rupture and tendon adhesions are possible complications from early on in treatment. These guidelines were prepared for you to emphasize the importance of therapy and the limitations that you need to follow to avoid the above complications and to resume normal hand functioning. The guidelines have been clarified by your hand surgeon to give you an overall look at what you should expect over the next 12 weeks. Full use of hand functioning is expected at about 12 weeks post-op.

The following are common techniques and descriptions used following tendon repairs:

MODIFIED KLEINERT TECHNIQUE – early controlled motion via dorsal blocking splint with a rubber band traction device and early active extension of the digit against the tension of the passive rubber band flexion.

POSITION OF HAND –

- ◆ **WRIST** – splint blocks wrist at 45 degrees of flexion and the MCP joints at 10-20 degrees.
- ◆ **DIGITS** – dynamic traction provided by rubber bands between the fingertips and volar aspects of the wrist maintaining the digits in flexion to further relax the tendon and prevent inadvertent active flexion. The line of pull of the rubber band traction into the palm increases DIP joint motion.

MODIFIED DURAN TECHNIQUE – 3 to 5 mm of extension of the repaired tendon done in a controlled, passive exercise program is generally enough to prevent the formation of firm adhesions in the hand. Early passive controlled motion to both involved and noninvolved digits continued for 4-5 weeks after surgery with the hand being placed in a dorsal protective splint between exercise periods.

POSITION OF HAND –

- ◆ **WRIST**- Dorsal blocking splint holding wrist in 20-40 degrees of flexion
- ◆ **MCP's** blocked in 35-40 degrees of flexion **IP's** positioned at 0 degree of extension to prevent PIP flexion contractures. Cement hook fastened onto nail of repaired digit(s) and attached to wrist with safety pin in passive flexion to allow tendon gliding. There should not be any tension on the elastic while the finger is flexed.

I. EARLY POST-OP PHASE

Postop 0 – 5 days:

Postoperative dressing

Education on edema control tech.

**GOAL: Maintain clean suture area.
 Edema management**

II. PROTECTION PHASE

- ◆ The post-operative dressing is removed
- ◆ A light dressing and edema control is applied as needed
- ◆ Full Dorsal Blocking splint is fitted to the wrist and digits for controlling wear in the above stated positions depending on the method uses

WEEKS 1-3

**GOAL: Avoid tendon adherence
 Facilitate tendon gliding
 Minimize scarring**