

## Flexor Tendon Zone 1-4 Repair - Early Active Protocol

Initial considerations
<ul style="list-style-type: none"> <li>Unless otherwise noted by the physician, early active protocols are utilized for tendon repairs.</li> <li>This includes initial splinting, passive range of motion, short arc active range of motion to facilitate tendon gliding, and minimization of scar tissue adhesions.</li> </ul>

Phase 1	1 to 3 weeks
Appointments	<ul style="list-style-type: none"> <li>1-3x week OT</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>No lifting</li> <li>Splint on at all times except bathing               <ul style="list-style-type: none"> <li>When the brace is off for bathing purposes, the patient should be educated to avoid excessive extension at the wrist and digits which places tension on repair site</li> </ul> </li> <li>For exercises, patient should complete passive range of motion first, followed by the active range of motion</li> <li>Care should be taken during this time to minimize edema and scar tissue formation</li> </ul>
Suggested Therapeutic Exercise/Treatment	<ul style="list-style-type: none"> <li>During the first visit, the patient is created a custom dorsal blocking splint               <ul style="list-style-type: none"> <li>Splint places the wrist in neutral with MP of second through fourth digits in approximately 45 degrees flexion with PIP and DIP in full extension</li> <li>To apply the splint, Velcro straps were placed at the forearm level, 1 through the palm, and elastic tubing is utilized over the digits</li> </ul> </li> <li>Exercises are initiated. These should all be done within the support of the splint               <ul style="list-style-type: none"> <li>Passive range of motion of second through fifth digits into isolated MP flexion, PIP flexion, hook fist, composite fist</li> <li>After passive range of motion, short arc active range of motion should be completed pain-free. During short arc active range of motion all digits should be moved at the same time up to 50% of a fist.                   <ul style="list-style-type: none"> <li>Avoid full fist as this will create unneeded tension to the repair site</li> </ul> </li> </ul> </li> <li>Patient should complete reverse blocking within the restrictions of the splint placing a pen or dowel behind the proximal phalanx</li> <li>Tenodesis motion</li> </ul>

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Phase 2	3 to 5 weeks
Appointments	<ul style="list-style-type: none"> <li>• Continue at 1-3x week               <ul style="list-style-type: none"> <li>○ Patient is usually seen more frequently if scar adhesions are starting to become present, or if motion is significantly limited</li> </ul> </li> </ul>
Suggested Therapeutic Exercise/Treatment	<ul style="list-style-type: none"> <li>• Continue with splint until physician clearance</li> <li>• If physician approves, a Manchester short splint can be created for use instead of the current forearm-based dorsal blocking splint</li> <li>• Continue with the current exercises patient be able to add in gentle pain-free functional grasp activity such as wrapping/grasping fingers around a water bottle or pop can, or attempting to bend their fingers on a tissue or towel.</li> <li>• Patient will be able to focus on obtaining pain-free, full active fist</li> </ul>

Phase 3	6 to 8 weeks
Suggested Therapeutic Exercise/Treatment	<ul style="list-style-type: none"> <li>• Discontinue splint at 6 weeks</li> <li>• Patient will continue to focus on full active and passive range of motion</li> <li>• If patient demonstrates an extension lag or flexion contracture, a nighttime extension orthosis such as thermoplastic or LMB splint may be utilized</li> <li>• Patient will be able to start incorporating their hand into light normal daily activities, but avoid heavy or forceful gripping and lifting activities</li> <li>• Patient can be educated on light strengthening activities for wrist, grip and pinch.</li> <li>• Initiate gentle joint blocking exercises in second through fifth digit if needed. Joint blocking to the small finger DIP should NOT be completed</li> </ul>

Phase 4	8 to 10 weeks
Suggested Therapeutic Exercise/Treatment	<ul style="list-style-type: none"> <li>• Progress upper extremity strengthening</li> <li>• Continue stretching/PROM as needed</li> <li>• Return to work program if needed can be initiated at this time</li> </ul>