Sports Medicine and Rehabilitation
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Flexor Tendon Zone 1-4 Repair - Early Active Protocol

Initial considerations
• Unless otherwise noted by the physician, early active protocols are utilized for tendon repairs. • This includes initial splinting, passive range of motion, short arc active range of motion to facilitate tendon gliding and minimization of scar tissue adhesions.

Phase 1	1 to 3 weeks
Appointments	• 1-3x week OT
Precautions	• No lifting • Splint on at all times except bathing. o When the brace is off for bathing purposes, the patient should be educated to avoid excessive extension at the wrist as well as digits. This places tension on the repair site. • When completing the exercises patient should complete passive range of motion first followed by the active range of motion • Care should be taken during this time to minimize edema and scar tissue formation.

Suggested Therapeutic Exercise/Treatment	• During the first visit, the patient is created a custom dorsal blocking splint
	    o 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.
	    o To applying the splint, Velcro straps were placed at the forearm level, 1 through the palm, and elastic tubing is utilized over the digits.
	• Exercises are initiated. These should all be done within the support of the splint.
	    o Passive range of motion of second through fifth digits into isolated MP flexion, PIP flexion, hook fist, composite fist.
	    o 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.
	        ▪ Avoid full fist as this will create unneeded tension to the repair site.
	• Patient should complete reverse blocking within the restrictions of the splint placing a pen or dowel behind the proximal phalanx.
	• Tenodesis motion

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Phase 2	3 to 5 weeks
Appointments	• Continue at 1-3x week. ○ Patient is usually seen more frequently if scar adhesions are starting to become present, or if motion is significantly limited.
Suggested Therapeutic Exercise/Treatment	• Continue with splint until physician clearance • If physician approves, a Manchester short splint can be created for use instead of the current forearm based dorsal blocking splint. • 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. • Patient will be able to focus on obtaining pain-free full active fist

Phase 3	6 to 8 weeks
Suggested Therapeutic Exercise/Treatment	• Discontinue splint at 6 weeks • Patient will continue to focus on full active and passive range of motion • If patient demonstrates an extension lag or flexion contracture, a nighttime extension orthosis such as thermoplastic or LMB splint may be utilized • Patient will be able to start incorporating their hand into light normal daily activities, but avoid heavy or forceful gripping and lifting activities • Patient can be educated on light strengthening activities for wrist, grip and pinch. • Initiate gentle joint blocking exercises in second through fifth digit if needed. Joint blocking to the small finger DIP should NOT be completed

Phase 4	8 to 10 weeks
Suggested Therapeutic Exercise/Treatment	• Progress upper extremity strengthening • Continue stretching/PROM as needed • Return to work program if needed can be initiated at this time

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