

Sagittal Band Repair

This protocol is intended to provide the clinician with a guideline for the postoperative rehabilitation course of a patient who has undergone Sagittal band rupture. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, comorbidities, pre-surgical range of motion, strength, health/functional status, rehabilitation compliance, learning barriers and complications. Specific time frames, restrictions and precautions are given to protect healing tissues.

Sagittal band injuries present with the metacarpal phalangeal joint (MCPJ) in a flexed position with the extensor tendon on the radial or ulnar side of the joint. Radial subluxation of extensor tendon is more common than ulnar. This can be caused trauma or chronic inflammatory process, like arthritis. Diagnosis can be made clinically with the inability to initiate MCP extension but the ability to hold MCP in extension once passively extended. Imaging like an ultrasound or MRI can help to determine the injury as well. Acute injuries can be treated with an orthosis while chronic injuries often will need surgical intervention.

Guidelines

Indication

- Chronic (>3 weeks) sagittal band rupture (complete or partial)
- Inability to initiate MCP extension but the ability to hold MCP in extension once passively extended
- Arthritis factor present

Return to Work

The timeline for returning to work can vary depending on the type of work performed, various accommodations that may be available within your work environment, and any postoperative complications. Your surgeon will discuss the timeline for returning to work after consideration of these factors.

Sagittal Band Repair

Phase I (3-5 days post op)

Rehabilitation appointments	<ul style="list-style-type: none"> • 1x/week or per therapist discretion
Rehabilitation goals and priorities	<ul style="list-style-type: none"> • Post op dressings removed • Activities of daily living (ADLs) within orthosis • Fabricate orthosis • Edema management • Scar/wound management
Suggested therapeutic exercises	<ul style="list-style-type: none"> • AROM within the orthosis • Wrist AROM prn
Precautions	<ul style="list-style-type: none"> • No lifting, pushing, or pulling more than 5 pounds with involved upper extremity • No weightbearing of the involved upper extremity
Orthotic management	<ul style="list-style-type: none"> • Fabricated a relative extension motion orthosis with the involved finger in MCP 10-20 degrees of hyper extension • Wear all the time. Can remove for safe hygiene at the sink while keeping the MCPJ in extension

Sagittal Band Repair

Phase II (4 weeks)

Rehabilitation appointments	<ul style="list-style-type: none"> • 1x/week or per therapist discretion
Rehabilitation goals and priorities	<ul style="list-style-type: none"> • Activities of daily living within orthosis • Edema management • Scar management • Monitor for extensor lag with unresisted AROM
Suggested therapeutic exercises	<ul style="list-style-type: none"> • Remove orthosis 5x/day for unresisted AROM
Precautions	<ul style="list-style-type: none"> • No lifting, pushing, or pulling more than 5 pounds with involved upper extremity • No weightbearing of the involved upper extremity
Orthotic management	<ul style="list-style-type: none"> • Wear all the time except for bathing and exercises
Progression criteria	<ul style="list-style-type: none"> • No extensor lag present

Sagittal Band Repair

Phase III (6 weeks)

Rehabilitation appointments	<ul style="list-style-type: none"> Per therapist discretion
Rehabilitation goals and priorities	<ul style="list-style-type: none"> Activities of daily living without orthosis in place Full ROM of digits
Suggested therapeutic exercises	<ul style="list-style-type: none"> Initiate PROM is needed
Precautions	<ul style="list-style-type: none"> No lifting, pushing, or pulling more than 5 pounds with involved upper extremity No weightbearing of the involved upper extremity
Orthotic management	<ul style="list-style-type: none"> Wear orthosis at night and with heavy activities, leisure activities, and unsafe activities
Progression criteria	<ul style="list-style-type: none"> No extensor lag

Sagittal Band Repair

Phase IV (8 weeks)

Rehabilitation appointments	<ul style="list-style-type: none"> Per therapist discretion
Rehabilitation goals and priorities	<ul style="list-style-type: none"> Return to all activities of the daily living. Progressively get back to leisure and heavy work activities
Suggested therapeutic exercises	<ul style="list-style-type: none"> Initiate strengthening
Precautions	<ul style="list-style-type: none"> No lifting, pushing, or pulling more than 5 pounds with involved upper extremity No weightbearing of the involved upper extremity
Orthotic management	<ul style="list-style-type: none"> Discontinue orthosis May wear for heavy activities, leisure activities, and unsafe activities
Progression criteria	<ul style="list-style-type: none"> No extensor tendon lag

Sagittal Band Repair

Phase V (10 weeks)

Rehabilitation appointments	<ul style="list-style-type: none">• As needed
Rehabilitation goals and priorities	<ul style="list-style-type: none">• Return to all daily activities and progressively get back to heavy activities and leisure activities
Suggested therapeutic exercises	
Precautions	<ul style="list-style-type: none">• No restrictions• Perform activities within pain tolerance
Orthotic management	<ul style="list-style-type: none">• Discontinue orthosis
Progression criteria	<ul style="list-style-type: none">• No extensor lag

References

- Hirth, M. J., Howell, J. W., & O'Brien, L. (2017). Two case reports-Use of relative motion orthoses to manage extensor tendon zones III and IV and sagittal band injuries in adjacent fingers. *Journal of hand therapy : official journal of the American Society of Hand Therapists*, 30(4), 546–557.
- Merritt W. H. (2014). Relative motion splint: active motion after extensor tendon injury and repair. *The Journal of hand surgery*, 39(6), 1187–1194. <https://doi.org/10.1016/j.jhsa.2014.03.015>
- Peelman, J., Markiewitz, A., Kiefhaber, T., & Stern, P. (2015). Splintage in the treatment of sagittal band incompetence and extensor tendon subluxation. *The Journal of hand surgery, European volume*, 40(3), 287–290. <https://doi.org/10.1177/1753193414530591>
- Wu, K., Masschelein, G., & Suh, N. (2020). Treatment of Sagittal Band Injuries and Extensor Tendon Subluxation: A Systematic Review. *Hand (New York, N.Y.)*, 1558944719895622. Advance online publication. <https://doi.org/10.1177/1558944719895622>

These rehabilitation guidelines were developed collaboratively between UW Health and UnityPoint Health - Meriter Rehabilitation and the UW Health Orthopedic Surgeons.

Content is for informational purposes only and does not replace the guidance, diagnostic or treatment options or educational materials your healthcare provider gives you. Call your health provider immediately if you think you may have a medical emergency. Always seek the advice of your health provider prior to starting any new treatment and contact them immediately with any medical emergency.