ORTHOPEDICS & SPORTS MEDICINE
BAYCARE CLINIC®

Dr. Klika & Dr. Kirkpatrick
SCAPHOLUNATE LIGAMENT REPAIR
Phase 1- Early Protective Phase
0-6 weeks

Goals for phase 1
- Edema control
- Protect surgical repair

Other considerations
- No use of the surgical hand

Splint
Fabrication of a thermoplastic radial forearm-based thumb spica orthosis with IP free

ROM
- Tendon gliding exercises and intrinsic stretching for fingers
- Thumb IP active/passive motion
- Forearm supination/pronation
- Elbow/shoulder active motion

Manual Therapy
- Manual edema mobilization as needed
- Scar mobilization 3x/day; 3 minutes each session

Phase 2 – Intermediate Phase 6-10 weeks

Goals for phase 2
- Edema control
- Pain control
- Progress motion

Other considerations
- FCR, FCU, ECRB and APL support the SL ligament
- Do NOT target ECU as this will stress the repair
- Expected 90-degree arc of motion
- Consider referencing the Conservative Scapholunate Ligament injury guideline handout for progression of proprioceptive input.

Splint
- 6 Weeks: Begin to wean from orthosis with light ADL tasks during the day with recommendation from MD.

ROM
- Begin with mid-range AROM, 25 repetitions with prolonged end-range holds; progress to full range as tolerated
- Begin with Dart Thrower motion
- Wrist flexion / extension, radial / ulnar deviation
- Forearm supination/pronation
- Thumb MP/CMC all planes of motion
- If patient tolerates AROM, progress to gentle, pain-free AAROM
- If patient tolerates AAROM, progress to gentle, pain-free PROM

Strengthening
- 8 weeks – can begin gentle pinch/grip with a foam block or towel; progress to putty or hand exercises with bands (no power grip until 4 months)
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Manual Therapy
- Soft tissue mobilization
- Initiate scar mobilization
- Desensitization as needed

Proprioception
- Begin light proprioceptive tasks
  - Muscle sequencing
  - Vision occlusion exercises
  - Wrist maze; perplexus, marble in cup, labyrinth
  - Hand to hand ball toss with tennis ball
  - FCR, FCU, ECRB and APL support the SL ligament
  - Do NOT target ECU as this will stress the repair

Modalities
- Fluidotherapy for heat, ROM and desensitization, as needed
- Paraffin may be used for deep heat, as needed
- Ultrasound for scar/pain

Phase 3–Intermediate Phase 10-16 weeks

Goals for phase 3
- **90-degree arc of motion**

Other considerations
- Use caution with strengthening and consider pain. Progress slowly.
- No weight bearing until 6 months
- No loading or power grip until 6 months
- Expected 90-degree arc of motion

Orthosis:
- Orthosis can be fully discontinued

ROM
- Continue with hand/wrist A/PROM

Manual Therapy
- Soft tissue mobilization
- Scar mobilization
- Desensitization as needed

Strengthening
- 12 weeks – can begin light strengthening working up to 2-5# only

Proprioception
- Continue with proprioceptive tasks
- Begin reactive muscle activation at 12 weeks
- Flexbar, Powerball, body blade
- Progress plyometric work: ball drop, Throw progression – begin with throw phase, add in catch phase as tolerated

Modalities
- Fluidotherapy for heat, ROM and desensitization, as needed
- Paraffin may be used for deep heat, as needed
- Ultrasound for scar/pain

Phase 4 – Return to Function 16+ Weeks

Goals for phase 4
- Return to full functional use
- Return to Sport

Other considerations
- Use caution with strengthening and consider pain. Progress slowly.
- No weight bearing until 4 months
- No loading or power grip until 4 months

ROM
- Continue to progress A/PROM

Manual Therapy
- Soft tissue mobilization
- Scar mobilization
- Desensitization as needed

Strengthening
- Progress static to dynamic strengthening
- Incorporate full upper extremity strengthening

Proprioception
- Advance as they relate to required functional use, work and sport

Modalities
- Fluidotherapy for heat, ROM and desensitization, as needed
- Paraffin may be used for deep heat, as needed
- Ultrasound for scar/pain

Work related activities
- Return to light duties at work
- Begin to progress into heavy duties at work

Sport related activities
- After 16 weeks and with MD consent a comprehensive work conditioning program for patients with high demand / heavy manual labor occupations may be appropriate

References

Neumann, D. A. (2010). *Kinesiology of the Musculoskeletal System* (second edition ed.). St. Louis, Missouri: Mosby, Inc.

Skirven , T. M., Ostermans, A. L., Fedorczyk, J. M., & Amadio, P. C. (2011). *Rehabilitation of the Hand and Upper Extremity* (Vol. 1). Philadelphia, PA: Elsevier.

This protocol was reviewed and updated by Brian Klika, MD, Lacey Jandrin, PA, Andrew Kirkpatrick, MD, Tiffany Terp, PA and the Hand Therapy Committee August 2022.