SANFORD
ORTHOPEDICS
SPORTS MEDICINE

Surgical Repair of OCD of Talus

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following surgical repair of OCD of Talus. Modifications to the protocol may be necessary dependent on location and size of repair, age, weight, comorbidities, and concomitant injuries or procedures performed. This evidence-based surgical repair of OCD of Talus is criterion-based and time frames in each phase will vary depending on many factors including patient demographics, goals, and individual progress. This protocol is designed to progress the individual through rehabilitation to full sport/ activity participation. The therapist must modify the program appropriately depending on the individual's goals for activity.

This protocol is intended to provide the treating clinician with a guideline for rehabilitation. It is not intended to substitute for making sound clinical decisions regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

General Guidelines/ Precautions:

- NWB for first 2-4 weeks (physician's preference) in younger, athletic population, smaller lesions (less than 1 cm) of central or posterior talus.
- Patients who have anterior talar lesion, smokers, high BMI, increased age, lesion greater than 1 cm may be NWB up to 6 weeks.
- Ankle range of motion limited to gentle active range of motion in sagittal plane for 6 weeks
- Running typically occurs around 12 weeks – initiate running protocol at 12 weeks
- Expect slower progressions with larger lesions greater than 1 cm and if micro-fracture procedure was performed.
- Return to sport timeframe expected around 4-6 month – refer to return to sport assessment appendix

Updated 4/23/2019

Postoperative Guidelines

Phase	Suggested Interventions	Goals/ Milestones for Progression
Phase I *Patient Education Phase*	*Discuss:* Anatomy, existing pathology, post-op rehab schedule, racing, and expected progressions *Instruct on Pre-op exercises*: NWB gait *Immediate Post-Operative instructions*: RICE and gait training	1. Sufficient upper extremity and non-surgical Strength to perform non-weight bearing.

Phase II
 	
Acute phase
Weeks 0-6 weeks
 	
Expected visits: 1-6 visits
	Specific Instructions:
	• Non-weight bearing on surgical LE x 2-6 weeks
	  ○ 2-4 weeks for younger athletic population and central/posterior lesion less than 1 cm
	  ○ Up to 6 weeks for non-athletic population, lesions greater than 1 cm, and anterior lesions.
	Suggested Treatments:
	• Modalities as indicated: Edema controlling treatments
	• ROM: active range of motion within tolerance in sagittal plane
	• Manual Therapy: soft tissue mobilization for edema management
	Exercise Examples:
	• Ankle pumps
	• Gentle belt assisted gastroc/soleus stretching
	• Non weight bearing proximal hip and knee strengthening
	• Airdyne biking in walking boot start at 3 weeks with skin healing complete.
		1. Provide environment of proper healing of repair site
		2. Control of post-operative pain (0-1/10 with ADL's in brace)
		3. Resolution of post-operative effusion (trace to 1+)
		4. Prevention of post-operative complications
		5. Ankle DF 10 deg or greater actively

Phase III *Post-acute phase* Weeks 6-12 Expected visits: 6-24 visits	*Specific Instructions:* • Continue with previous exercise program • Progress to WBAT in normal shoe wear with lace up ankle brace. • Airdyne bike in normal shoe wear • Progress to resistance training as tolerated within available ROM *Suggested Treatments:* • Modalities Indicated: Edema controlling treatments • ROM: gentle passive range of motion, weight bearing gastroc/soleus stretching • Manual Therapy*:* gentle talocrural joint mobilization if needed for capsular mobility	1. Full active range of motion 2. 90% single leg heel raise rep compared to non-surgical LE (reps till failure or compensations noted) 3. Reduction of post-operative swelling and inflammation (no to trace effusion) 4. Level ground ambulation without compensations

	• Static proprioception training (double to single leg) with perturbation on variable surfaces (rocker board, air-ex pads, air discs, etc.) & emphasis on proper hip/knee stability and hip strategy. *Exercise Examples:* • 4 way ankle theraband resistance • Ankle mobility with BAPS, fitter, wobble board • Heel raise progressions • Single limb stance progressions • Core strengthening/challenges • Squats, step ups/downs, lunges as tolerates (depth modifications as needed) *Other Activities: pool therapy, seated biking, elliptical, treadmill.*	
Phase IV *Advanced strengthening phase* Weeks 12-24 Expected visits: 8-16	*Specific Instructions:* • Sport specific movements patterns (16-24 weeks post-op) • Initiate running protocol at 12 weeks *Suggested Treatments:* • ROM: continue with manual techniques as needed for ROM impairments • Cardio: increasing bike/elliptical with progression into running (return to run clearance) • Power/strength: increased resistance/sets on LE strength program • Agility training: cone/ladder drills • Jump and land assessment: assessing mechanics on single and double limb jumping. *Exercise Examples:* • Functional movements (carioca, lateral shuffling, skips, jog, back pedal, etc.) • Drop squats, box jumps, squat progressions, split squat, lunge progressions • Advanced proprioception program	1. Pain free single limb hop 2. Compensation/pain free running 3. Equal single leg heel raise rep in 30 sec bilat 4. Full ankle range of motion 5. Return to sport testing * (see below)

Return to activity functional testing:

1) Dorsiflexion lunge test (less than 9-10 cm considered restricted and tibial shaft angle less than 35-38 degrees considered restricted)
2) Y-balance testing (anterior, posteromedial, and posterolateral)
3) Single limb triple jump for distance (10% or less discrepancy on surgical LE vs non-surgical LE)
4) T-test (8.9-13.5 sec)
5) Vertical jump test/single limb vertical jump test

**NOTE: Progression of functional activities should be performed only as pain and proper biomechanics allow. Emphasis should be on proper shock absorption and control of dynamic valgus stress at knee (hip medial rotation with knee valgus) with each task performed. Progression to single limb based tasks (deceleration, hopping, and cutting) should not be performed until double limb activities have been mastered. Activities requiring dynamic control of rotational stress at the knee (cutting, multiple plane lunges/jumps/hops) should not be performed until sagittal and frontal plane control has been mastered. Return to sport may occur at any time during this stage as cleared by physician and as progress and goal achievement occurs.

REFERENCES:

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