



Brian B. Gilmer, MD US Ski Team Physician

Karly M. Dawson PA-C Teaching Associate

## REHABILITATION GUIDELINES FOR TIBIAL PLATEAU FRACTURE

PHASE I (WEEKS 1-6)

DATES:

Appointments	<ul> <li>MD follow up visit at 2 weeks post op</li> <li>Begin physical therapy for knee ROM at 2 weeks post op</li> </ul>
Rehabilitation Goals	<ul> <li>Maintain knee EXT to allow incisions to heal and prevent knee flexion contracture</li> <li>Maintain NWB x 6 weeks (okay to place foot on ground for balance in standing) or as cleared by MD</li> <li>90 degrees flexion by 6 weeks post op</li> <li>Pain and edema control</li> </ul>
Precautions	<ul> <li>WB:</li> <li>NWB (okay to place foot down for balance in standing) x 6 weeks</li> <li>TTWB at weeks 6-12</li> <li>Brace:</li> </ul>
	<ul> <li>hinged brace unlocked 0-90 degrees x 6 weeks</li> <li>DC brace at 6 weeks but maintain TTWB for weeks 6-12</li> </ul>
Suggested Therapeutic Exercises	<ul> <li>Knee PROM and AAROM to 90 degrees flexion</li> <li>Quad strengthening to gain full knee extension; use of NMES if indicated</li> <li>Global LE stretching</li> <li>CKC hip strengthening on uninvolved side</li> <li>Multi-plane ankle strengthening NWB</li> <li>Core strengthening</li> </ul>
Cardiovascular Exercises	Upper body ergometer
Progression Criteria	<ul><li>90 degrees knee flexion</li><li>Full knee extension</li></ul>

# REHABILITATION GUIDELINES FOR TIBIAL PLATEAU FRACTURE

PHASE II (	WEEKS 6-12)
------------	-------------

DATES:

Appointments	MD follow up at week 6     Continue physical thereasy 2 yearsals
	Continue physical therapy 2 x week
Rehabilitation Goals	Regain full knee ROM
	Normalize gait out of brace
	Strengthening of LE's and core
	Pain and edema control
Precautions	TTWB weeks 6-12 (unless otherwise indicated by MD)
Suggested Therapeutic Exercises	AROM knee flexion
	Aggressive gait training IF cleared by MD at week 8 as follows:
	- Week 8: TTWB
	- Week 9: 25% WB
	- Week 10: 50% WB
	- Week 11: 75% WB
	- Week 12: FWB
	<ul> <li>Progressive LE strengthening including quads, hamstrings, hips</li> <li>Total Gym</li> </ul>
	- Bridges
	- Calf raises
	- SLS
	- Core strengthening
	- Pool exercises for strengthening
Cardiovascular Exercises	Pool walking
	Upper body ergometer
	Stationary bike
	Treadmill when FWB
Progression Criteria	Full ROM of knee

#### PHASE III (12 WEEKS - 6 MONTHS)

DATES:

Appointments	MD follow up at 6 months
	Continue physical therapy 1-2 x week

# REHABILITATION GUIDELINES FOR TIBIAL PLATEAU FRACTURE

(Phase III continued) Rehabilitation Goals	<ul> <li>Full ROM knee flexion and extension</li> <li>Strength 80% of uninvolved leg by week 16</li> <li>Normalize gait without AD</li> <li>pain and edema control</li> </ul>
Precautions	<ul> <li>None unless otherwise indicated by MD</li> </ul>
Suggested Therapeutic Exercises	<ul> <li>Progress ankle, knee, hip strength</li> <li>Total Gym to leg press; double leg to single leg</li> <li>4 way hip progression</li> <li>Bridges, ball curls, deadlifts, stool scoots</li> <li>Lunges, squats</li> <li>Core strengthening</li> <li>Progress balance exercises once WB</li> <li>Begin pool running at week16, progress to land as able</li> </ul>
Cardiovascular Exercises	<ul> <li>Pool</li> <li>UBE</li> <li>Treadmill walking, progress to running in pool at week 16 then running on treadmill as able</li> </ul>
Progression Criteria	<ul> <li>Gait normalized without AD</li> <li>Strength 80% of uninvolved leg</li> <li>Progress to Phase IV at 6 months post op</li> </ul>

PHASE IV (6 MONTHS – 12 MONTHS)

DATES:

Appointments	<ul> <li>Follow up with MD at 6 months</li> <li>Continue physical therapy as needed 1-2 x/week for progression to independent gym/HEP</li> </ul>
Rehabilitation Goals	Return to sport
Precautions	None unless otherwise indicated by MD
Suggested Therapeutic Exercises	<ul> <li>Implement sport specific, multidirectional drills</li> <li>Begin bilateral plyometrics, progress to unilateral</li> <li>Continue with aggressive LE strength progression</li> </ul>

### **REHABILITATION GUIDELINES FOR TIBIAL PLATEAU FRACTURE**

Cardiovascular Exercises	Treadmill running, bike, UBE
Progression Criteria	<ul> <li>Independent with HEP</li> <li>Passing score on return to sport test with low risk of re-injury reported</li> <li>Return to sport</li> </ul>

References:

Rubin, Amy, PT. Brigham and Women's Hospital Department of Rehabilitation Services. *Standard of Care: Tibial Plateau Fracture.* Retrieved from <u>http://www.brighamandwomens.org/Patients\_Visitors/pcs/rehabilitationservices/Physical-Therapy-Standards-of-Care-and-Protocols/Knee%20-%20Tibia%20plateau%20fracture.pdf.</u>

Lind, Charles, MD. Rosenberg Cooley Metcalf Clinic at Park City. *Tibial Plateau Fracture Post-Operative Protocol.* Retrieved from <u>https://www.rcmclinic.com/patient-info/knee/rehab-instruction/dr-lind/144-tibial-plateau-fracture-post-op</u>

PT name and date: Erin Stansbury, PTA 6/13/16

MD name and date: Approved by MD 6/13/2016

#### MAMMOTH ORTHOPEDIC INSTITUTE

85 Sierra Park Road • Mammoth Lakes, CA 93546 • 760.924.4084
 162 South Main Street • Bishop, CA 93514 • 760.872.7766
 SIERRA PARK PHYSICAL AND OCCUPATIONAL THERAPY
 85 Sierra Park Road • Mammoth Lakes, CA 93546 • 760.934.7302
 162 South Main Street • Bishop, CA 93514 • 760.872.2942