

# Tibial Spine Fracture Arthroscopic Fixation Protocol

	<b>Phase I: Weeks 0-4</b>	<b>Phase II: Weeks 5-8</b>	<b>Phase III: Weeks 9-12</b>
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> <li>• Toe-touch weight bearing with brace locked in full extension</li> <li>• Brace locked in full extension while ambulating and sleeping but may be unlocked while sitting</li> </ul>	<ul style="list-style-type: none"> <li>• Continue TTWB for 6 weeks after surgery and then gradually progress to WBAT</li> <li>• Unlock brace when minimal edema, no extension lag, and excellent quadriceps control</li> </ul>	<ul style="list-style-type: none"> <li>• WBAT</li> <li>• Discontinue brace when quadriceps strength adequate for stable ambulation</li> </ul>
Aerobic	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Stationary bike (low resistance, elevated seat height initially, and normalize height as ROM allows)</li> </ul>	<ul style="list-style-type: none"> <li>• Advance stationary bike (increase resistance, normalize seat height as ROM allows)</li> </ul>
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> <li>• Isometric quad sets</li> <li>• Patellar mobility</li> <li>• Straight-leg raises with brace</li> <li>• Ankle pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Continue Phase I exercises</li> <li>• Begin PROM/AAROM/AROM progression</li> <li>• Weight shifts</li> <li>• Heel slides</li> <li>• Heel raises</li> <li>• Hip and core exercises</li> <li>• Proprioceptive and balance training</li> </ul>	<ul style="list-style-type: none"> <li>• Continue Phase II exercises</li> <li>• Closed-chain exercises in sagittal and frontal planes (i.e. mini-squats, knee extension, no transverse plane exercises)</li> <li>• Begin leg press progression (body weight, two legs, single-leg, single-leg eccentric)</li> <li>• Begin step-up / step-down programs</li> <li>• Continue leg press progression (body weight, two legs, single-leg, single-leg eccentric)</li> <li>• Lunges (initially body weight only)</li> <li>• Aquatic therapy if incisions fully healed (flutter kicks only, no whip kicks)</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Modalities as needed to reduce swelling and for muscle re-education</li> <li>• Home Exercise Program (HEP) per discretion of Physical Therapist</li> </ul>		
Goals	<ul style="list-style-type: none"> <li>• Pain control</li> <li>• Protection of tissue healing</li> </ul>	<ul style="list-style-type: none"> <li>• Continue protection of tissue healing</li> <li>• Begin ROM program</li> <li>• Proprioception and balance</li> </ul>	<ul style="list-style-type: none"> <li>• Full ROM if not already achieved</li> <li>• Progress strengthening exercises</li> <li>• Work to passing Leg Press Test</li> </ul>

	<b>Phase IV: Months 3-5</b>	<b>Phase V: Months 5-6</b>	<b>Phase V: Months 6-9+</b>
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> <li>• WBAT</li> <li>• Discontinue brace when quadriceps strength adequate for stable ambulation</li> </ul>	<ul style="list-style-type: none"> <li>• Discontinue brace when quadriceps strength adequate for stable ambulation</li> </ul>	
Aerobic	<ul style="list-style-type: none"> <li>• Begin walk-jog-run progression</li> <li>• Progress to forward straight-line running when adequate 8" step-down (no cutting, pivoting, or lateral movement)</li> </ul>	<ul style="list-style-type: none"> <li>• Continue walk-jog-run progression</li> </ul>	
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> <li>• Continue Phase III exercises</li> <li>• Advance closed-chain exercises</li> <li>• Progressive squat program</li> <li>• Progress with strengthening, motion, proprioception, and balance</li> <li>• At 4 months begin exercises involving low-speed cutting and pivoting motions</li> </ul>	<ul style="list-style-type: none"> <li>• Continue Phase IV exercises</li> <li>• Begin general plyometric program</li> <li>• Begin general agility program</li> </ul>	<ul style="list-style-type: none"> <li>• Advance to sport-specific plyometric program after completing general program and passing Leg-Press and Single-Hop Tests</li> <li>• Advance to sport-specific agility program after completing general program</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Modalities as needed to reduce swelling and for muscle re-education</li> <li>• Home Exercise Program (HEP) per discretion of Physical Therapist</li> </ul>		
Goals	<ul style="list-style-type: none"> <li>• Progress strengthening exercises</li> <li>• Begin more advanced exercise including jogging and more dynamic motions</li> </ul>	<ul style="list-style-type: none"> <li>• Work to passing Leg-Press Test</li> <li>• Work to passing Single-Hop Test</li> </ul>	<ul style="list-style-type: none"> <li>• Progress to sport-specific plyometric and agility programs</li> <li>• Return to sports 6-9 months after surgery</li> </ul>