## Patellar or Quadriceps Tendon Repair

|   | Phase I: 0-2 weeks  | Phase II: 3-4 weeks   | Phase III: 5-6 weeks  |
|---|---|---|---|
| Weight-Bearing<br>and<br>Immobilization | <ul> <li>Progress to WBAT in brace locked in full extension</li> <li>Discontinue crutches as tolerated</li> <li>Brace locked in full extension while ambulating and sleeping</li> </ul>   | WBAT in brace locked in full extension     Brace locked in full extension while ambulating and sleeping   |   |
| Aerobic                                 | • None  | • None  | • None  |
| Range of Motion (ROM) and Strengthening | <ul> <li>PROM 0-30° with emphasis on full extension</li> <li>No AAROM or AROM</li> <li>Patellar mobilization</li> <li>Ankle pumps</li> <li>After first week begin isometric quadriceps exercises</li> <li>"quad sets" with VMO focus</li> <li>straight leg raise with brace locked in full extension</li> </ul> | <ul> <li>Continue Phase I exercises</li> <li>PROM 0-60° with emphasis on full extension</li> <li>Begin AAROM 0-60° with knee flexion only (no AAROM extension)</li> </ul> | <ul> <li>Continue Phase II exercises</li> <li>PROM 0-90° with emphasis on full extension</li> <li>Begin AAROM 0-90° with knee flexion only (no AAROM extension)</li> <li>Progressive straight leg raise probgram</li> </ul> |
| Other                                   | Modalities as needed to reduce pain and swelling and improve muscle recruitment     Home Exercise Program (HEP) per discretion of Physical Therapist  |   |   |
| Goals                                   | <ul><li>Pain control</li><li>Reduce effusion</li><li>Protect healing tissue</li></ul>   | <ul> <li>Pain control</li> <li>Reduce effusion</li> <li>Protect healing tissue</li> <li>Achieve ROM 0-60°</li> </ul>  | Protect healing tissue     Achieve ROM 0-90°  |

|   | Phase IV: 7-8<br>weeks   | Phase V: 9-12 weeks   | Phase VI: 13-16 weeks   |
|---|--|---|---|
| Weight-Bearing<br>and<br>Immobilization | WBAT in brace locked in full extension     Brace locked in full extension while ambulating and sleeping                            | WBAT     Open brace to full ROM     Discontinue brace when no extension lag, excellent quadriceps control, and quadriceps strength adequate for stable ambulation   | • WBAT  |
| Aerobic                                 | • None   | <ul> <li>Stationary bike progression to improve<br/>ROM (begin with minimal resistance and<br/>elevated seat height)</li> <li>Begin treadmill walking and elliptical<br/>machine as tolerated</li> </ul>  | <ul> <li>Increase stationary bike,</li> <li>elliptical, and treadmill</li> <li>intensity</li> <li>Begin pool running</li> </ul>   |
| Range of Motion (ROM) and Strengthening | Continue Phase III     exercises     Begin AROM 0-90°  | <ul> <li>Continue Phase IV exercises</li> <li>Progress from full PROM → full AAROM         → AROM as tolerated (begin with short         arc quadriceps 0-30°)</li> <li>Begin light closed chain quadriceps and         hamstring strengthening when full ROM         achieved</li> <li>Begin balance and proprioception         training (double-leg stance)</li> <li>Begin 4-inch step-ups and step-downs         when appropriate and progress in 2-inch         increments per week as tolerated</li> </ul> | <ul> <li>Continue Phase V         exercises</li> <li>Progress closed chain         strengthening</li> <li>Begin open chain         strengthening (gravity only         → bands → light weights)</li> <li>Begin plyometrics         progression</li> </ul> |
| Other                                   | Modalities as needed to improve motion and muscle recruitment     Home Exercise Program (HEP) per discretion of Physical Therapist |   |   |
| Goals                                   | <ul><li> Progress ROM</li><li> Begin AROM</li><li> Begin strengthening</li></ul>   | <ul> <li>Advance to full and symmetric ROM</li> <li>Normalize gait</li> <li>Begin aerobic exercise</li> <li>Begin balance and proprioception</li> </ul>   | <ul><li>Advance strengthening</li><li>Advance aerobic exercise</li><li>Begin plyometric program</li><li>Advance balance and proprioception</li></ul>  |

|                 | Phase VII: 17+ weeks  |  |
|-----------------|---|--|
| Weight-Bearing  |   |  |
| and             | • WBAT  |  |
| Immobilization  |   |  |
|                 | Continue Phase VI aerobic exercise  |  |
| Aerobic         | Begin walk-jog-run progression  |  |
| Range of Motion | Continue Phase VI exercises   |  |
| (ROM)           | Advance plyometric exercises  |  |
| and             | Advance strengthening exercises   |  |
| Strengthening   | Begin multi-directional cutting and pivoting drills   |  |
| Other           | Modalities as needed to improve motion and muscle recruitment     Home Exercise Program (HEP) per discretion of Physical Therapist    |  |
| Goals           | Gradual return to running when necessary criteria met     Return to sport-specific drills and full sports when necessary criteria met |  |

| Activity  | Criteria for Participation  |
|---|---|
| Supervised running. Light sport-specific drills.  | No pain or swelling. AROM 0° to >125°. Good control on jump downs. Quadriceps strength >75% contralateral side.  Functional Hop Test >70% contralateral side. |
| Home running program. Backwards jogging. Figure-<br>of-Eights. Zig-zags. Lateral shuffles. Progress to<br>hops, jumps, cuts, and sport-specific drills. Begin to<br>wean supervised PT. | Full ROM. Quadriceps strength >80% contralateral side. Functional Hop Test >85% contralateral side.   |
| Full sports   | Full ROM. Completion of running program. Functional Hop Test >90% contralateral side. Quadriceps and hip external rotators strength >90% contralateral side.  |