

### Tibial Tubercle Transfer and MPFL Reconstruction - Rehabilitation protocol

| Postop                                                                          | weeks |       |           | months |        |        |
|---------------------------------------------------------------------------------|-------|-------|-----------|--------|--------|--------|
|                                                                                 | 1-3   | 4-6   | 6-12      | 3-6    | 6-9    | 9+     |
| <b>Weight-bearing</b> (normal gait pattern)                                     | WBAT  | WBAT  | FWB       | FWB    | FWB    | FWB    |
| <b>Brace</b> hinged ROM brace whilst mobilising                                 | 0     | 0-90  | brace off |        |        |        |
| <b>ROM goal</b>                                                                 | 0-90  | 0-120 | 0-135     | full   | full   | full   |
| <b>Oedema management</b> (RICE)                                                 | ✓     | ✓     | ✓         | p.r.n. | p.r.n. | p.r.n. |
| <b>ROM exercises</b> (remove brace for exercises)                               |       |       |           |        |        |        |
| Active knee ROM (foot slides/no resistance)                                     | 0-90  | 0-120 | ✓         | ✓      | p.r.n. | p.r.n. |
| Passive knee ROM                                                                | 0-90  | 0-120 | 0-135     | ✓      | p.r.n. | p.r.n. |
| <b>Stretching</b>                                                               |       |       |           |        |        |        |
| Heel hangs                                                                      | ✓     | ✓     | ✓         | p.r.n. | p.r.n. | p.r.n. |
| Hamstrings, calf, ITB (no quads till 3mths)                                     | -     | ✓     | ✓         | ✓      | ✓      | ✓      |
| Patellar Mobilisations                                                          | ✓     | ✓     | ✓         | p.r.n. | p.r.n. | p.r.n. |
| <b>Strengthening</b>                                                            |       |       |           |        |        |        |
| SLR / Isometric quads & hams co-contractions                                    | ✓     | ✓     | ✓         | p.r.n. | p.r.n. | p.r.n. |
| Closed chain (gait ed, mini-squats, leg press)                                  | -     | ✓     | ✓         | ✓      | p.r.n. | p.r.n. |
| Hamstring curls (no resistance until 3mths)                                     | -     | -     | ✓         | ✓      | p.r.n. | p.r.n. |
| Open chain knee extension                                                       | -     | 90-30 | 90-0      | ✓      | ✓      | p.r.n. |
| Hip extension, abduction, adduction                                             | ✓     | ✓     | ✓         | p.r.n. | p.r.n. | p.r.n. |
| <b>Cardiovascular</b>                                                           |       |       |           |        |        |        |
| Stationary bicycle (no toe straps until 3mths)                                  | -     | ✓     | ✓         | ✓      | ✓      | ✓      |
| Step machine/swimming with straight kicks                                       | -     | ✓     | ✓         | ✓      | ✓      | ✓      |
| Jogging - straight                                                              | -     | -     | -         | ✓      | ✓      | ✓      |
| <b>Proprioception</b><br>(eg, balance board, mini tramp)                        | -     | ✓     | ✓         | ✓      | p.r.n. | p.r.n. |
| <b>Dynamic stability</b><br>(eg on/off different surfaces, in all directions)   | -     | -     | ✓         | ✓      | ✓      | p.r.n. |
| <b>Sport specific/agility drills</b><br>(eg. Shuttle runs, cariocas, figure 8s) | -     | -     | -         | ✓      | ✓      | ✓      |
| <b>Plyometrics</b><br>(eg bounding, hopping, jumping)                           | -     | -     | -         | ✓      | ✓      | ✓      |
| <b>Activities</b>                                                               |       |       |           |        |        |        |
| Work – sedentary                                                                | -     | ✓     | ✓         | ✓      | ✓      | ✓      |
| Work - heavy                                                                    | -     | -     | -         | ✓      | ✓      | ✓      |
| Driving                                                                         | -     | -     | ✓         | ✓      | ✓      | ✓      |
| Sport (contact and cutting activities)                                          | -     | -     | -         | train  | play   | ✓      |