**Runners Knee (ITB Syndrome)**

**TREATMENT AND REHABILITATION PROTOCOL**

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| **STAGE** | **AIMs** | **TREATMENT** | **HOME EXERCISE** | **CLINICAL PILATES PROGRAM****(see attachments)** | **ACTIVITY MODIFICATION** |
| 1 | Settle pain and de-load tendon | -Deep tissue techniques/ dry needling gluts/ TFL/ ITB/iliopsoas | - Quad stretches in prone - Piriformis stretch -Activation intrinsic hip muscle sitting/ standing-Spikey ball massage to deep hip muscles and gluteal Isometric gluteal in side lying with pillow (clam level 1) |  -Non weight bearing clinical Pilates program (see sheet) | -Avoid hip adductions postures (x leg sit/standing ‘hanging on one hip’-Sleeping with pillow under knees in supine or side lying with pillow-No running especially downhill running- If competitive runner allow sprints (knee angles are different) **as long as painfree.** |
|  | **CRITERIA TO PROGRESS** | **-Decrease in night pain****-Correct activation of stability muscles (deep abdominals/ deep hip stabilisers/ pelvic floor** |
| 2 | -Continue to settle pain-Sustained isometric contractions to enhance tendon analgesic effects-Begin muscle hypertrophy gluteus medius/min | -Continued soft tissue therapy/ dry needing if required to achieve optimal tissue tension-Assessment and treatment of lumbar spine and adjacent areas causing altered hip kinematics | -Clam Level 2-Lying Banded hip abduction-Standing banded hip abductionISOMETRIC DAILYHIGH TENSILE EXS 3X WEEK-Double bridge 10 x 10 sec holds-Foot/ ball/ wall glut max activation-Sitting on ball with gluteal activation-Static standing posture with band around feet-banded wall squats | -Focus on low velocity/ high tensile load in NON COMPRESSIVE POSITION with weight bearing stimulus. -Platformer excellent -Pool rehab/ hydrotherapy | -Continued avoidance of static and dynamic compressive loading postures as per stage 1.-Able to do walking on flat surface BUT no increase in pain and definitely NO increase night pain |
| **CRITERIA TO** **PROGRESS** | **-Standing Hip abduction 10 x 10 secs (no compensation)****-Banded wall squat without femoral adduction and with good lumbopelvic alignment** |
| 3 | -Continued strengthening hip abductors-Begin movement retraining control of pelvic/ femoral alignment during -Focus on load bearing control exercises | -General progress to exercise therapy/ Clinical Pilates in this phase-Video movement analysis of SLS and treatment walking | -SLS with core and gluteal control-Lunge with band around knee-SLS with ball control on wall (10 sec holds)🡪 progress with small squat (0-30 deg)-One leg standing on side of step (eccentric glut med in weight bearing + hip circles-Side plank static hold (elbow)+progress to leg holds | -Focus on weight wearing exercises to simulate walking/ running/ activity postures-Gradually increase loads/ hold and instability during this phase | -Increased walking tolerance up to 30 mins (flat ground) |
| **CRITERIA TO** **PROGRESS** | **-Single bridge 10x10****-SLS 30 sec hold nil Trendelenburg****-SLSq with good alignment (No increase femoral adduction)****VIDEO ANALYSIS TO CONFIRM** |
| 4 | -Improve lumbopelvic control-Graduate return to activity | -1/1 Clinical Pilates-Video running analysis and correction if needed | -Exercise to improve Lx pelvic control (front plank/ praying mantis/ side plank (raised)-Single leg box squat-Single leg landing with lumbopelvic and hip control | Progression to Semi supervised Clinical Pilates with individualised program to target specific weaknesses | Return to running program as per guideline (start 30 sec ON 2.5 mins OFF) |
| **CRITERIA TO** **PROGRESS** | **-Y Balance test within normal Limits** |
| 5 | Return to high level activities | Functional movement screen to assess contributing factors/ altered movement patterns that may cause increased loading and therefore risk factor for re-injury | -High level core stability exercises-Raised side plank with leg lift hold 🡪 progress to leg raise and lower-Physioball side lying pelvis raise and lower-Activity/ sport specific | Progression to performance Pilates | Graduated progression to full running and hills |
| **CRITERIA TO** **PROGRESS** | -FMS score >14-No major faults in running pattern-Normal single hop score |