



NORTH PARRAMATTA PHYSIOTHERAPY PLANTAR FASCIOPATHY PROTOCOL

STAGE	AIMs	TREATMENT	HOME EXERCISE	CLINICAL PILATES	ACTIVITY MODIFICATION
 <p>1 ISOMETRIC</p>	<ul style="list-style-type: none"> Settle pain and offload fascia ISOMETRIC LOADING (unloaded then progress to loaded) Improve dorsiflexion, 1st MTPJ extension, reduce pronation 	<ul style="list-style-type: none"> Deep tissue techniques/dry needling plantar fascia/tib anterior/calf Stretching calves/plantar fascia – as required Heel Raise – as required NSAID's as appropriate to down- regulate cell activity Low dye taping/orthotics Patient Specific Functional Scale 	<ul style="list-style-type: none"> ISOMETRIC PLANTARFLEXION WITH FIRST TOE FLEXION WITH BLUE OR BLACK THERABAND (5 x 45 seconds - no pain, no worse 24 hours later) ISOMETRIC HEEL RAISE with small towel under first toe Spikey ball massage to plantar fascia & Ice before bed Watch response; repeated 2-3x day 	<ul style="list-style-type: none"> Hydrotherapy program Non-weight bearing clinical Pilates program 	<ul style="list-style-type: none"> Incidental walking only Avoid wearing new/flat shoes, preferably supportive shoes & limit time spent barefoot Advise to wear supportive shoes - ie that reduce windlass mechanism Aim to reduce time on feet significantly Non-weight bearing exercise

CRITERIA TO PROGRESS - Decrease in night pain, first few steps no pain

 <p>2 ISOTONIC Pain still an issue</p>	<ul style="list-style-type: none"> Continue to settle pain Sustained isometric contractions to enhance tendon analgesic effects Begin muscle hypertrophy gluteus ISOTONIC STRENGTHENING 	<ul style="list-style-type: none"> Continued soft tissue therapy/dry needling if required to achieve optimal tissue tension Video analysis of heel raises DL initially Assessment and treatment of lumbar spine/hip/knee/ankle from altered kinematics 	<ul style="list-style-type: none"> ISOMETRIC 2x DAILY ISOTONIC HIGH TENSILE EX- HEAVY SLOW 4x15 down to OR ECCENTRIC 3x15 TWICE DAILY OR COMBINED (3 seconds up, 2 seconds hold, 1 second down) Big toe on small towel/sock with unilateral heel raises 	<ul style="list-style-type: none"> Focus on low velocity/high tensile load in NON COMPRESSIVE POSITION with weight bearing stimulus Pilates; legs in straps, stomach pull flat, tendon stretch 	<ul style="list-style-type: none"> Continue avoidance of static and dynamic compressive loading postures Able to walk on flat surfaces with no increase in pain and definitely no increase in night pain/first steps If pain increases 24 hours after, too much load Wean off tape
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CRITERIA TO PROGRESS - Maximum VAS 3/10 pain in aggravating factors and single leg heel raises, no worse 24 hours later

3 Functional Strength Pain less of an issue

- Continued strengthening plantarflexors and dorsiflexors
- Begin movement retraining of the L-spine/hip/glute/knee focusing on control and alignment
- Focus on load bearing control exercises

- General progress to exercise therapy/ clinical Pilates in this phase
- Postural screening
- Video analysis of SLS and walking

- Heel raise with toe extension, progress by using a step/snatch
- Bent knee heel raise; knee control and quad strength
- SL stability, balance and strength
- SL squats; progress step/incline
- Improve postural control
- CONTINUE WITH LOADED ISOMETRIC AS PER STAGE 2 1x daily

- Focus on weight bearing exercises to stimulate walking/running/activity postures
- Gradually increase loads/hold and instability during this phase

- Increase walking tolerance (up to 30 minutes on flat ground)

CRITERIA TO PROGRESS

- Able to Single Leg (SL) raise with correct technique according to age bracket Norms
- VIDEO ANALYSIS TO CONFIRM

4 ENERGY STORAGE AND RELEASE PLYOMETRICS

- Graduate return to activity
- Improve lower limb alignment (lower limb; kinetic chain)

- 1/1 clinical Pilates
- Video running analysis and correction if needed
- Core assessment

- Exercises to improve core and lower limb control
- Minimal or no support for heel raises; progress to eyes closed
- Jumping and landing drills
- SL hopping / landing
- Change of direction
- Heavy loaded squat, deadlift

- Progression to semi supervised clinical Pilates class with individualized program
- Jump-board SL and DL, plies

- Return to running program as prescribed for the individual

CRITERIA TO PROGRESS

- Y-balance test within normal limits / biomechanical assessment

5 RETURN TO SPORT

- Return to high level activities

- Functional movement screening; assess contributing factors/ altered movement patterns that may cause ↑ loading, thus risk factor of re injury

- High level lower limb stability and motor control exercises
- Heel raises and landing on uneven surfaces

- Progression to advanced Pilates

- Graduate progression to full running and activities of daily living

CRITERIA TO PROGRESS

- FMS score > 14, No major faults in running assessment
- Coaching if necessary. Melbourne return to sports
- Plyometric testing example triple hop test, box jump