

Observation: L calcaneus slight varus; Achilles tendon slightly bowed convex laterally; Achilles tendon thickened in middle third. ↓ L glut max bulk

Lumbar Spine:

Active/Combined Movements:

- Forward flexion – full – pattern of excessive lumbar flexion and relatively reduced hip flexion - reproduces P2 (L hamstring tight sensation)
- Extension - $\frac{3}{4}$ range – no pain
- Left side flexion - $\frac{3}{4}$ range – no pain
- Right side flexion – full – no pain
- Left extension quadrant (combined extension/left side flexion) – $\frac{3}{4}$ range – no pain
- Right flexion quadrant (combined flexion/right side flexion) – full – reproduces P2

Passive Mobility Testing (PPIVMs and PAIVMs):

PPIVMs:

- Decreased combined extension/L side flexion/L rotation $\frac{3}{4}$ ROM at L5/S1 with capsular endfeel. No reproduction of pain
- Combined flexion/R side flexion/R rotation at L5/S1 normal ROM and endfeel; reproduces local soreness at left L5/S1

PAIVMs:

- Decreased inferoposterior glide of left L5/S1 with an early capsular end feel. No reproduction of pain
- Superoanterior glide of left L5/S1 normal range and endfeel; reproduces local soreness at left L5/S1

Neurological Examination (conduction):

- Dermatomes – within normal limits (WNL)
- Key Muscles –WNL
- Reflexes – WNL

Neurodynamic Tests: (√ = normal response)

- SLR – reproduced P2 at 60° + ankle dorsiflexion to 0° ↑ P2 + cervical flexion further ↑ P2
- Slump test – thoracolumbar flexion √ + cervical flexion √ + L knee extension reproduced P2 at 45° knee extension + ankle dorsiflexion to 0° ↑ P2; release of cervical flexion ↓ P2

Stability Tests:

- Passive – WNL
- Dynamic - +ve ASLR with abdominal bracing and L leg subjectively heavier; improved with PSIS external manual compression

Muscle Strength/Length: poor activation of Left multifidus lower L spine

Palpation: ↓ multifidus bulk left L5/S1. No tenderness on palpation

SIJ: clear

Hip and knee:

Active, Passive ROM, stability testing: clear

Muscle Strength/Length:

- L hamstring length – knee extension 45° when hip flexed to 90° reproduces P2
- L Glut max grade 4+

Palpation: ↑ tone L hamstring muscle belly

Foot and ankle:

Talocrural AROM / PROM: WNL

Subtalar (talocalcaneal) AROM / PROM/Accessory movements:

- ↓ pronation/eversion to 5° with early firm capsular endfeel
- ↓ medial glide of posterior joint with early firm capsular endfeel

Muscle Strength/Length:

- L gastroc short
- Eccentric loading of left gastroc /Achilles with single leg heel drop on a stair reproduces P1 at 8 reps

Palpation:

- Tenderness on palpation of thickened Achilles tendon middle third. Lateral side more tender than medial side
- ↑ tone L gastroc belly

Functional testing:

- P1 and P2 reproduced with brisk walking on treadmill with elevation grade at 6%
- Squat and standing body torque test to the right – decreased L calcaneal pronation/eversion observed