

Concord Sport & Spine Newsletter



Examination in LBP: Lumbar rotation-extension impairment

The following is based on the work of Dr Shirley Sahrman (see reference). This is the third in the series on lumbar spine presentations. This patient presentation is similar to that described for the extension impairment in the last newsletter. However, these patients will have a rotation or side-flexion component to their dysfunction. As mentioned with previous presentations, examination findings will direct treatment.

Examination

Subjective

There will often be pain with prolonged standing and walking. There may or may not be a referred or radicular component. Movements involving twisting will often be painful.

Objective

When observing gait there may be excessive lumbar side flexion or pelvic drop to one side during stance phase. This may be accompanied by increased lumbar lordosis.

In standing they may have a sway back or excessive lumbar lordotic posture. If observed standing for a while, they may demonstrate a tendency to rotate the pelvis or hitch a hip to one side.

Forward flexion or posterior pelvic tilt in standing may relieve symptoms. However, return from forward flexion may be initiated using lumbar extension in preference to hip extension. This may be accompanied by pain.

Lateral flexion will be restricted on one side. This may be a general restriction, or the patient may 'hinge' at one level, with all lateral flexion occurring above this level.

Lumbar extension, and extension combined with side flexion to the affected side, will be

symptomatic.

Bilateral shoulder flexion in standing or supine lying is often accompanied by excessive lumbar extension and may be painful.

When standing on one leg, there will often be increased lumbar side flexion on the affected side.

When sitting and extending alternate knees, there will often be increased lumbar side bending with knee extension on the affected side.

There will often be increased hip flexor restriction on one side. Stretching the affected muscles will usually produce early anterior pelvic tilt. Muscles affected may include psoas/iliacus, TFL &/or rectus femoris.

Lying supine with the legs straight may be uncomfortable due to the extended lumbar position. SLR testing may be positive for pain or restricted on the affected side. However, this is often due to muscle rather than neural tension. Tightness in the hip flexors may 'pre-tension' the hamstrings due to the associated anterior pelvic tilt.

In prone lying, passive or active knee flexion is often tight on the affected side and accompanied by early anterior pelvic tilt. Similarly, prone straight leg raise often produces excessive anterior pelvic tilt to one side.

Palpation will usually reveal localized tenderness over the facet joints at the affected segments.

Reference: Sahrman, S (2002). Diagnosis and Treatment of Movement Impairment Syndromes. Mosby, Missouri.

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