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## Timing and Magnitude of Lumbar Spine Contribution to Trunk Forward Bending and Backward Return in Patients with Acute Low Back Pain

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### Abstract

Alterations in the lumbo-pelvic coordination denote changes in neuromuscular control of trunk motion as well as load sharing between passive and active tissues in the lower back.

Differences in timing and magnitude aspects of lumbo-pelvic coordination between patients with chronic low back pain (LBP) and asymptomatic individuals have been reported; yet, the literature on lumbo-pelvic coordination in patients with acute LBP is scant. A case-control study was conducted to explore the differences in timing and magnitude aspects of lumbo-pelvic coordination between females with (n=19) and without (n=19) acute LBP. Participants in each group completed one experimental session wherein they performed trunk forward bending and backward return at preferred and fast paces. The amount of lumbar contribution to trunk motion

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