MECHANICAL LOW BACK PAIN

REHABILITATION SCIENCES SPINE RESEARCH LAB

PROJECTS

Recurrent Low Back Pain: Linking Mechanism to Outcomes

Investigators

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Summary / Overview

The objectives of the grant are to gain a better understanding of how trunk movement and stability are coordinated. A component of this process will be to determine reliability and responsiveness of novel measures of trunk control, and begin to clarify the relationship between poor control, low back pain (LBP) and physical therapy outcomes. Studies have been designed to test the general hypothesis that, in patients with LBP and clinical findings of lumbar instability, altered neuromuscular control strategies are associated with poor movement patterns and clinical symptoms. The proposed studies go on to test the hypothesis that poor movement strategies can be improved through exercises emphasizing trunk stabilization. Experiments are being conducted to (1) characterize alterations in neuromuscular control in patients LBP, (2) determine the measurement properties of our methods, (3) identify which aspects of trunk neuromuscular control can be improved with therapeutic intervention and (4) begin to investigate mechanism underlying improvement in pain and disability with a neuromuscular rehabilitation program. Collectively, the experimental outcomes from this grant will have a substantive impact on treatments for patients with LBP, improve our ability to identify patients who might respond this trunk muscle training approach and provide strategies for reducing the recurrence of low back symptoms.

Funding


Participating Sites

Drexel University Physical Therapy Services

Physiotherapy Associates, West Chester, PA

Articles


**Presentations**


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If you are interested in learning more about current low back pain studies being conducted through the Rehabilitation Sciences Spine Research Lab at Drexel University, please contact Dr. Sheri Silfies at 215.762.3589 or silfies@drexel.edu.