Clinical Pearl: Lumbar Eccentric Muscle Training

Submitted by: John Gray, DPT, OCS, FAAOMPT

Technique:	Lumbar eccentric muscle training to improve strength and reduce fear of forward bending during activities of daily living and work.
Indication:	Suspected weakness in lumbar and pelvic girdle muscles, a fear of forward bending, and/or a limitation in lumbar flexion AROM.
Positioning:	The client starts in a kneeling position against a chair without arms, bench, ottoman, or similar furniture. Upper thighs are in direct contact with the furniture and the client's hands are on the top surface of the furniture supporting the weight of their upper trunk.
Instruction:	Client slowly lowers their upper trunk towards the top surface of the furniture as low as they are comfortable - using as little hand support as necessary to accomplish the task. After reaching their "full flexion" the client will return their upper trunk to full starting position.
Note:	The hardest part of this exercise is when the client reaches their maximum comfortable flexion ROM and starts to return to the upright starting posture. Many times, the client will be able to initiate forward flexion without hand support, and finish returning to full upright without hand support, but they will need assistance (from their hands or fingers) as they near the transition point going from flexion to extension. The client can vary the support they give themselves from two full hands, to one or two fingers, to no support at all.