

# Treatment of Chronic Low Back Pain using the MYK System

*Brody, K, MA, ATC, LAT, EMT; Baker, RT, DAT, ATC, LAT; Nasypany, A, EdD, ATC, LAT; May, J, DAT, ATC, LAT: University of Idaho, Moscow, Idaho*

## BACKGROUND:

The patient, an otherwise healthy 22-year-old male ROTC student, presented with low back pain (LBP) of approximately two years duration. Pain was isolated to the lumbar spine and along the quadratus lumborum bilaterally. Physical examination revealed pain-free active and passive range of motion within normal ranges, a positive Slump test bilaterally, and pain during sitting (5 out of 10) using the Numeric Rating Scale (NRS).

## DIFFERENTIAL DIAGNOSIS:

Disk herniation, facet joint dysfunction, spinal stenosis.

## TREATMENT:

The patient initially sought treatment in the emergency department at the time of injury. Conservative management consisted of medication and physical therapy treatments (i.e. heat, massage, and electrical stimulation) for two years without symptom resolution. Magnetic Resonance Imaging (MRI) and x-rays, completed about 10 months post-injury, revealed mild disk herniations at L3-4, L4-5, and L5-S1. Due to a lack of progress with physical therapy treatments, the patient underwent a rhizotomy one year and four months following the initial onset on pain. The patient reported pain relief for two months following the procedure, but pain eventually returned to levels equal to pre-surgery status. At eight months post-surgery, the patient reported to our clinic for a second opinion and additional treatment. The patient was evaluated and treated with the MyoKinesthetic™ (MYK) System. Following the initial MYK treatment, the patient's pain was reduced from a 3 to a 0 on the NRS, which was a minimal clinically important difference (MCID). The patient also exhibited MCIDs on the Disablement in the Physically Active (DPA) scale and Patient-Specific Functional Scale (PSFS) at a one-week follow-up visit. The patient had full resolution of pain after 7 treatments in 14 days and his Slump test normalized by the fourth visit. He was discharged after 10 treatments over the course of 21 days, with each treatment lasting 15 minutes. Reduction in pain and disability allowed the patient to progress from sitting for less than 10 minutes to sitting for an unlimited amount of time without any pain or discomfort.

## UNIQUENESS:

Due to the complex nature of LBP, treatment based solely on pain presentation is not always effective. The MYK System is a global model, which contains a broad assessment focused on classifying the body's primary dysfunctions. The MYK System evaluation is used to detect compensations within the nervous system that are displayed by postural abnormalities and result in physical impairment. The theoretical underpinnings of the paradigm are that standing, static posture underlies all movement patterns; therefore, if posture is not symmetrical, movement will be dysfunctional. The primary goal of the MYK System is to balance posture by treating muscles bilaterally along a specific nerve pathway (e.g., C5, L5, S1), thereby producing changes in the nervous system. An advantage of the MYK System is the ability to match a treatment to identified dysfunction and asymmetry revealed in the evaluation.

## CONCLUSION:

Clinicians currently have many treatment options for treating patients with LBP, but support for effective treatment of LBP is limited. The results of this case report demonstrated that the MYK System was associated with clinically significant improvements in pain and function in a patient with multiple lumbar disk herniations. Nearly one third of patients with lumbar disk herniations seek surgery after approximately six months of unsuccessful non-surgical treatments. In this case report, the patient had already experienced failed surgical and conservative treatment, and then experienced outcomes that far exceeded the mediocre outcomes seen in other conservatively managed cases. As clinicians search for the most effective strategies to evaluate and treat pain, the MYK System may be a valuable addition to their practice.



**MYKINESTHETIC  
SYSTEM™**

[www.mykystem.com](http://www.mykystem.com)