

# Effects of LSVT Big Concepts on Patients with Low Back Pain and a Concomitant Diagnosis of Parkinson's Disease

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## Background & PURPOSE:

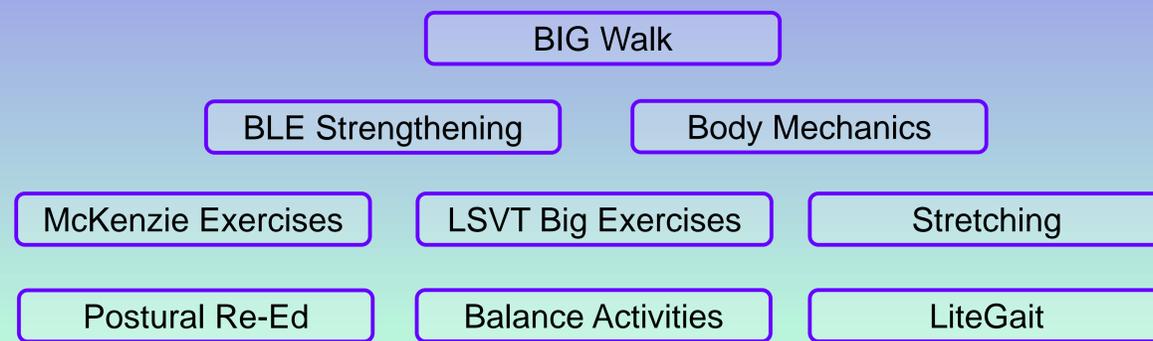
Chronic low back pain is one of the main reasons individuals seek health care intervention. Approximately 12% of adults over 60 years of age experience chronic low back pain. The term chronic low back pain has been defined as continuous low back pain for a period equal to or greater than three months and is responsible for high treatment costs, sick leave, and the presence of patient suffering. For individuals with Parkinson's Disease, the prevalence of low back pain increases. Approximately 40-85% percent of individuals with Parkinson's Disease have concomitant musculoskeletal dysfunctions.

**The purpose of this case report is to identify the effects of LSVT Big concepts on low back pain in individuals with Parkinson's Disease classified as stage I on the Hoehn and Yahr scale.**

## Case Description:

The patient was a 62-year-old male with a concomitant diagnosis of Parkinson's Disease referred to physical therapy by his primary care physician with complaints of low back pain and muscle stiffness.

## Interventions:



## Results:

	Initial Evaluation	Discharge	Difference	% of Change
<i>Timed Up and Go</i>	7.35 seconds	8.91 seconds	+ 1.56 seconds	1%
<i>Dynamic Gait Index</i>	17/24	21/24	4 points	16%
<i>Oswestry Disability Index</i>	32%	26%	3 points	6%
<i>Numeric Pain Rating Scale</i>	4/10	0/10	4 points	40%

\*MDC TUG: 3.5 seconds; MDC DGI: 2.9 points; MCID ODI: 9.5 points ; MCID NPRS: 1.7 points

## Conclusion:

The patient requested discharge one day ahead of schedule due to his perceived improvement in lumbar range of motion, the increased ability to perform activities of daily living, and the reduction in lumbar pain. His improvement on the Oswestry Disability Index indicated an improvement in perceived disability due to low back pain which translated to the improved quality of his gait pattern and improved cardiopulmonary endurance upon discharge.

The patient reported he was able to retrieve mail from the floor without fear of falls, was able to perform showering with less difficulty, and reported an improvement in his ability to maintain balance while washing his hair. Following d/c, the patient was able to resume exercises at his preferred gym with a goal to continue improvements of his general endurance.

## Clinical Application:

The results of this case report suggest that utilizing McKenzie theory concepts in addition to LSVT Big concepts decreased low back pain and improved quality of life in patients with low back pain and a concomitant diagnosis of stage I Parkinson's Disease.

