## Spinal Manipulative Therapy and Other Conservative Treatments for Low Back Pain: A Guideline From the Canadian Chiropractic Guideline Initiative

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Abstract

**Objective:** The objective of this study was to develop a clinical practice guideline on the management of acute and chronic low back pain (LBP) in adults. The aim was to develop a guideline to provide best practice recommendations on the initial assessment and monitoring of people with low back pain and address the use of spinal manipulation therapy (SMT) compared with other commonly used conservative treatments.

**Methods:** The topic areas were chosen based on an Agency for Healthcare Research and Quality comparative effectiveness review, specific to spinal manipulation as a nonpharmacological intervention. The panel updated the search strategies in Medline. We assessed admissible systematic reviews and randomized controlled trials for each question using A Measurement Tool to Assess Systematic Reviews and Cochrane Back Review Group criteria. Evidence profiles were used to summarize judgments of the evidence quality and link recommendations to the supporting evidence. Using the Evidence to Decision Framework, the guideline panel determined the certainty of evidence and strength of the recommendations. Consensus was achieved using a modified Delphi technique. The guideline was peer reviewed by an 8-member multidisciplinary external committee.

**Results:** For patients with acute (0-3 months) back pain, we suggest offering advice (posture, staying active), reassurance, education and self-management strategies in addition to SMT, usual medical care when deemed beneficial, or a combination of SMT and usual medical care to improve pain and disability. For patients with chronic (>3 months) back pain, we suggest offering advice and education, SMT or SMT as part of a multimodal therapy (exercise, myofascial therapy or usual medical care when deemed beneficial). For patients with chronic back-related leg pain, we suggest offering advice and education and education and stabilization exercises).

**Conclusions:** A multimodal approach including SMT, other commonly used active interventions, self-management advice, and exercise is an effective treatment strategy for acute and chronic back pain, with or without leg pain. (J Manipulative Physiol Ther 2018;xx:1-29)

Key Indexing Terms: Practice Guideline; Low Back Pain; Chiropractic; Disease Management; Conservative Treatment

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Class 0	Class I	Class II	Class III	Class IV	Class V
No or minimal spine-related symptoms, no interference with function, no neurological deficits, no severe pathology	Mild pain, no or minimal interference with function, no neurological deficits, no severe pathology	Moderate or severe pain, interference with function or activities of daily living, no neurological deficits, no severe pathology	Spine-related symptoms with neurological symptoms or deficits, interference with function or activities of daily living, focal pathology compromising neural structures	Spine-related symptoms with stable, severe deformity, with or without interference with function or activities of daily living, with or without neurological deficits	Serious spine-related symptoms with severe or systemic pathology, interference with function or activities of daily living, with or without neurological deficits
Class 0a: No evident risk factors Class 0b: One or more risk factors	Class Ia: Acute or subacute Class Ib: Chronic or recurrent	Class IIa: Moderate acute or subacute pain	<b>Class IIIa:</b> Minor and nonprogressive	<b>Class IVa:</b> Stable spine pathology, no correlation with symptoms	Class Va: Severe, acute spinal pathology, requires immediate intervention (emergency
		<b>Class IIb:</b> Moderate chronic or recurrent pain	<b>Class IIIb:</b> Acute, major, and progressive		
				Class IVb: Symptoms	Class Vb: Severe,
		<b>Class IIc:</b> Severe acute or subacute pain	Class IIIc: Chronic and stable	related to pathology (eg, acute, fracture; chronic, scoliosis	slowly progressive spinal pathology (nonemergency)
		Class IId: Severe		or instability)	
		chronic or recurrent pain			Class Vc: Spine symptoms originating from nonspine pathology (emergency)

 Table 1. Classification System for Spine-related Concerns<sup>36</sup>

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## INTRODUCTION

In 2015, musculoskeletal (MSK) disorders were the largest contributor to global years lived with disability (YLDs) (18.5% [16.4%-20.9%] of all YLDs).<sup>1</sup> Approximately half (49.6%) of the YLDs stem from low back pain (LBP).<sup>1,2</sup> The point prevalence of LBP is estimated at nearly 20%, the 1-year prevalence is around 50%, and the lifetime prevalence is about 85% in the general population.<sup>3</sup> Despite the availability of many clinical interventions to manage LBP,<sup>4</sup> a nearly 3-fold increase in the prevalence of chronic LBP was observed between 1992 (3.9%, 95% confidence interval [CI] 3.4%-4.4%) and 2006 (10.2%, 95% CI 9.3%-11.0%).<sup>5</sup>

Affecting more than 630 million people worldwide,<sup>6</sup> LBP results in significant physical, psychological, and social burden and high cost to society.<sup>7</sup> People with LBP tend to experience a higher proportion of functional disability, dysfunctional family relationships, depression, social isolation, work absence, and poor work productivity.<sup>8-14</sup> They have a lower socioeconomic status and a lower quality of life, but tend to be higher users of health care services.<sup>8,11,15</sup> Chronic LBP is associated with significant comorbidities, including diabetes, coronary heart disease,<sup>16-18</sup> and depression.<sup>19</sup>

The economic burden of LBP is significant.<sup>7,20,21</sup> In the United States, the direct and indirect costs of LBP are estimated to exceed 100 billion dollars per year.<sup>5,22</sup> In Canada, the LBP-

related estimate of the medical costs ranges between 6 and 12 billion dollars annually.  $^{23}$ 

Nearly 60% (95% CI 32%-83%) of people with LBP choose to consult a health care provider, including providers of manual therapy such as physiotherapists and chiropractors.<sup>24</sup> However, care-seeking is more common in women and in individuals with previous LBP, poor general health, and more disabling or more painful episodes.<sup>24</sup> Detailed reviews on nonspecific LBP (NSLBP) are available elsewhere.<sup>25</sup>

Approximately 90% of all LBP cases are nonspecific in nature<sup>26</sup> (ie, the pain cannot be attributed to any specific pathology of the spine<sup>27</sup>). In contrast, about 5% of LBP cases present as pain that follows a specific nerve root distribution from a compression,<sup>28</sup> a prolapsed lumbar disk, spinal stenosis, or surgical scarring.<sup>29</sup> Nonspecific LBP and back-related leg pain (sciatica) with neurological deficit can be further subdivided into the following: (1) acute, defined as pain that restricts daily activities and could last from 1 day to 12 weeks<sup>30</sup>; and (2) chronic or persistent, defined as pain that restricts daily activities longer than 12 weeks.<sup>5,31-35</sup>

The recent Global Spine Care Initiative  $(GSCI)^{36}$  classification system covers the spectrum of spine disorders and provides a common language for different types of health providers interested in spine care worldwide. Under this new classification, spine disorders can be classified into 6 classes (class 0 to class V). The classes are distinguished

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