

## Spine rehabilitation: secondary and tertiary nonoperative care

Tom Mayer, MD<sup>a,\*</sup>, Peter Polatin, MD<sup>b</sup>, Barry Smith, MD<sup>c</sup>, Robert Gatchel, MD<sup>b</sup>,  
David Fardon, MD<sup>d</sup>, Stanley Herring, MD<sup>e</sup>, Charlotte Smith, MD<sup>f</sup>  
Ronald Donelson, MD<sup>g</sup>, David Wong, MD<sup>h</sup>

North American Spine Society Committee: Contemporary Concepts Review Committee

<sup>a</sup>Departments of <sup>a</sup>Orthopedic Surgery and <sup>b</sup>Psychiatry, University of Texas Southwestern Medical Center, 5701 Maple Avenue, 100, Dallas, TX 75235, USA

<sup>c</sup>Department of Physical Medicine and Rehabilitation, Baylor University Medical Center, 411 N. Washington Avenue, 4000, Dallas, TX 75246-1713, USA

<sup>d</sup>Knoxville Orthopedic Clinic, 1128 Weisgarber Road, Knoxville, TN 37909, USA

<sup>e</sup>Puget Sound Sports and Spine Physicians, 1600 E. Jefferson, 401, Seattle, WA 98122-5698, USA

<sup>f</sup>PO Box 685226, Austin, TX 78768-5226, USA

<sup>g</sup>Department of Orthopedic Surgery, 13 Gibson Road, Hanover, NH 03755-3202, USA

<sup>h</sup>Institute for Spinal Microsurgery, Denver Orthopedic Clinic, 1601 E. 19th Avenue, 5000, Denver, CO 80218-1216, USA

### Introduction

Spine rehabilitation is the discipline of medicine that guides physical, psychological and social recovery of people who have become partially or totally disabled because of spinal disease or injury. Physical recovery of people so afflicted requires reconditioning in ways that are analogous to the recovery of motion, strength and functional capability after, for example, knee injuries. Because the muscles and joints of the spine are not easily observed, the need for rehabilitation from spinal disorders has been recognized more slowly than that for disorders of the extremities and the gains from rehabilitation have been more difficult to measure by objective standards. Also, appreciation of the complex interrelationship between physical, psychological and social effects of spinal disorders is relatively new and incompletely explored.

Spine rehabilitation has evolved rapidly over the past two decades because of progress in standardization of methods and terminology, flow of information, definition of treatment guidelines and attention to outcomes and costs. This report provides information on spine rehabilitation by focusing on current definitions and concepts. It upgrades information and references provided in the original report. That report was published in 1995 and represented work performed by the Texas Spine Treatment Guideline Task Force, along with the North Ameri-

can Spine Society Committees on Nonoperative Care and Contemporary Concepts Review [1]. The Contemporary Concepts Review information was to be updated every so often, and this report represents the first revision since 1995.

We discuss methods of spine rehabilitation that have emerged from experience with work-related disorders, because they have the greatest economic implications for society. Specific socioeconomic outcomes, such as return to work, are of great importance. A compensation environment ties financial benefits to medical benefits, thus complicating responses to medical treatment. However, the reader should not believe that such influences are unique to worker's compensation. Compensation disability that is not directly related to work (short- and long-term disability, personal injury-related disability, Social Security Disability Income and so forth), often hidden from the medical provider, may produce psychosomatic behaviors detrimental to productivity and treatment costs. Design of modern spine rehabilitation is being driven by measures of outcome relative to costs. Such evaluations require attention to quality of patient care, and that long-term and multifocal reduction in costs follow quality care, even though short-term or narrowly focused evaluations may not reflect immediate savings.

Treatments of chronic pain derive from concepts about pain and methods of evaluating pain. Traditionally, doctors have focused on causes of pain, assuming a physical basis for pain that, once identified, could be eliminated or blocked. Assessment focused on identifying the physical basis or "pain generators." This cause-and-effect approach remains popular in some pain management circles, often leading to multiple operations, injections or prolonged reli-

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\* Corresponding author. 5701 Maple Avenue, Suite 100, Dallas, TX 75235, USA. Tel.: (214) 351-6600; fax: (214) 351-6958.

E-mail address: tmayerpestes50@aol.com (T. Mayer)