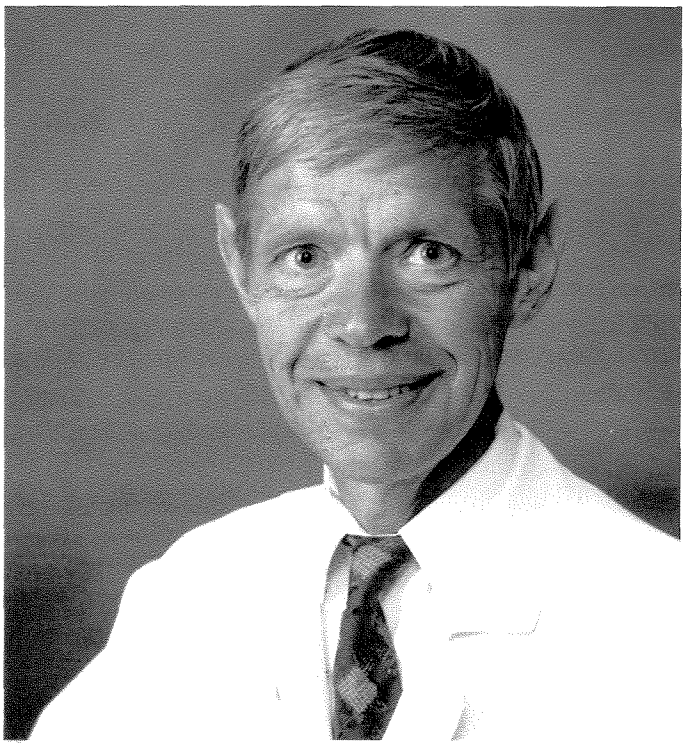
GUEST EDITORIAL

Gunnar B.J. Andersson, MD, PhD

Low back pain is one of the most common conditions afflicting man. At least 75 percent of all people will, at some time in life, have low back pain and about 30 percent of the adult population has a back problem on any given date. It is not surprising, therefore, that low back pain is the most common cause of activity limitation in people below the age of 45, the second most frequent reason for physician visits, the fifth ranking reason for hospitalization, and the third most common reason for surgical procedures. About 2 percent of the work force has compensable back injuries each year and the estimated direct cost for the medical care of back pain in the U.S. is $30 to $40 billion a year, a figure that doubles when indirect costs are included.

The prognosis for back pain is excellent with 90 percent or greater recovery over a 3-month period. Unfortunately, the remaining few percent recover very slowly, placing significant demands on the health care system and contributing to more than 75 percent of the cost. Disability trends in the U.S. and elsewhere indicate large increases in disability over recent decades. Different factors contributing to disability (legal, socioeconomic, and psychological) are well-documented, and thus the problem cannot be viewed as a pure medical problem. Surgical rates have increased dramatically over the past 15 years. In general, they are much higher in the U.S. than in other western countries, but there are large variations among regions of the U.S. and even between small areas within regions. To reduce the back pain problem, and the associated disability and costs, preventive measures must be explored. Unfortunately, there has been little success in preventing back pain from occurring in the first place. Preventing negative consequences of back pain for those who develop a problem seems to be a more fruitful avenue, in other words, providing appropriate care.



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Research relating to back pain is badly needed. We still do not know, in the majority of cases, the cause of the person's pain nor have treatment methods been rigorously tested. This issue of the *Journal of Rehabilitation Research and Development* provides examples of a number of different avenues that should be pursued. Will better immediate care following an injury result in reduced disability? Is aggressive spine rehabilitation an effective means of reducing the chronicity? What is the role of manual therapy in the treatment of back pain? These are questions in need of answers.

Several of the papers in this issue deal with the role of muscles in low back pain, an

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area of controversy. Electromyography promises to shed further light on how muscles are affected by spinal conditions. However, we still do not know whether or not any findings are primary or secondary. While much effort was placed on studying back muscle strength in the mid and late eighties, efforts to study endurance have lagged behind and are appropriately highlighted in this issue. Biomechanical modeling of the spine remains an important method of studying the effect of different external loads on the different tissues of the spine. These models have been significantly refined over the last 15 or so years and closely mirror the real-life situation. For 40 years, we have known that individuals with back pain, when in a fully bent-over posture, do not exhibit the traditional flexion silence phenomenon. Studies using electromyography and motion monitoring at the same time will shed further light on the reason for this and how it relates to disability and pain.

The developers of this issue, Drs. De Luca and Roy, have done an outstanding job of pulling information together. They are to be congratulated for focusing our attention on this important topic.

This guest editorial is an invited opinion

The Editor