

## How Can Rehabilitation Help You Get New Patients and Keep Them?

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Chiropractors are positioned as the number one alternative for back pain. The major reason more MDs don't refer patients to us or people don't come to us for back, neck or extremity pain is that they perceive we will make them come back over and over again.

The solution is to provide two types of care: pain relief and preventive management. Pain relief is where chiropractic adjustments thrive; preventive management is where rehabilitation thrives.

To begin using active care techniques, such as rehabilitation with a passive care approach (i.e., chiropractic adjustments), you will need to understand the scientific basis and the practical application of rehabilitation. Chiropractic has always focused on restoring function, but we have primarily done this by mobilizing stiff areas or treating various signs of adverse tension (i.e. trigger points). However, modern management of neuromusculoskeletal (NMS) conditions requires a "sports medicine" approach which addresses the key "weak link" in the kinetic chain, while teaching patients that hurt does not necessarily equal harm.

Sedentary individuals typically are deconditioned and therefore require identification of physical performance deficits and activity intolerances as much as (or even more than) athletes. By adding rehabilitation to your practice, you will position yourself as a chiropractor who provides pain relief and helps patients learn how to care for themselves.

### The Scientific Basis for Incorporating Rehabilitation with Chiropractic

#### Acute Care

Recent studies have shown that simple advice to continue or resume normal activities is therapeutic for acute low back pain.<sup>1</sup>

Erhard and Delitto reported that acute low back pain patients can be classified by a set of physical examination procedures (SI motion palpation and McKenzie evaluation) into subgroups which responded better to assessment matched manipulation alone, exercise alone, or combination therapy than to random unmatched treatments.<sup>2</sup>

#### Subacute Care

Lindstrom demonstrated that rehabilitation given to those off work for six weeks was more effective than a traditional treatment group.<sup>3</sup>

A recent randomized, controlled clinical trial evaluated the effectiveness of a specific exercise program aimed at training the TA and multifidus muscles in chronic low back pain patients with a radiologic diagnosis of spondylolisthesis.<sup>4</sup> Exercises were progressed slowly with low load. Once the patients could correctly perform the coactivation pattern without synergist substitution and

hold it for 10 seconds with 10 repetitions, load was then added through the limbs (i.e., dead bug). Patients were encouraged to perform the co-contractions throughout the day, "particularly in situations where they experienced or anticipated pain or felt 'unstable.'"

Research has validated this approach in one of the most challenging patient groups: patients who had failed back surgery (laminectomies).<sup>5</sup> In the lumbar radiculopathy group, nearly 100 sciatica patients who had failed conservative care and had objective documentation of relevant pathoanatomy were referred for surgery, but instead were given spinal stabilization exercises. Nearly 90% of them responded favorably.

The failed back surgery study was a randomized, controlled clinical trial with two groups of patients receiving passive care and two receiving active care. The active care groups outperformed the passive care groups. Also, the spinal stabilization/McKenzie low-tech exercise group responded better than the high-tech isokinetic trained group.

Another study has shown that immediately after onset of acute low back pain, atrophy begins in the multifidus muscle at the same segment and unilateral to a joint blockage.<sup>6</sup> This atrophy does not spontaneously go away even if pain relief is achieved.<sup>7</sup> Specific spinal stabilization training is necessary to restore the muscle to its normal cross sectional analysis (CSA).<sup>7</sup> Long-term followup has shown at both one and two years followup, a lesser recurrence of pain in those who had the multifidus CSA restored than in those who did not.<sup>8</sup>

In another study, poor endurance of all the spinal extensors was shown to predict future recurrences.<sup>9</sup> This test has been shown to predict first time onset of back pain in asymptomatic individuals.<sup>10</sup>

In summary, the scientific evidence of best practice scenario shows convincingly that manipulation and exercise are the two best treatments for back pain. These treatments should be given within a biopsychosocial context wherein patients are reassured that they don't have "red flags" of serious disease and that early resumption of normal activities is the goal. In fact, the purpose of manipulation in the acute phase is to reduce mechanical factors which may increase activity intolerance. However, if patients are told to "let pain be your guide," chiropractic care may unwittingly reinforce the "sick role" and promote deconditioning.

Exercises can be incorporated very early in care without significant risk of iatrogenesis. Exercise is safe and promotes "well behaviors" while preventing deconditioning from establishing itself. Therefore, the combination of manipulation and exercise is the ideal "best practice" strategy for managing not only back pain, but all neuromusculoskeletal conditions.

### Message for Your Practice

To gain increased referrals from MDs, send brief progress reports on all patients to their MDs stating that your treatment approach includes:

- 1) Pain relief strategies, including time-limited spinal manipulation and McKenzie exercises; and 2) Preventive management, including spinal stabilization exercises.

### How to Incorporate Rehabilitation into Your Practice

Rehabilitation of the motor system is concerned with restoration of function, not merely relief of

pain. This begins with reduction of activity intolerances associated with pain. According to the AHCPR, "The panel's overall intent was to change the paradigm of focusing care exclusively on the pain of low back problems to one of helping patients improve their activity tolerance."<sup>11</sup> The ultimate goal of care is to improve a patient's physical performance capacity so that they can handle the demands of their activities of daily life (ADL) or job demands. Therefore, we should begin with the end in mind.

Any acute or subacute patient is a candidate for rehabilitation. However, in the acute stage of care, manipulation may take a primary place, while in the subacute stage (after the first month), rehabilitation may predominate. A continuum of care has been elaborated which integrates manipulation and exercise in your case management.<sup>12-20</sup> This continuum of care progresses being a patient from a passive recipient of care to an active partner (See Table I).

Table I: The continuum of care.

- 1) Give appropriate activity modification advice: pain relief
- 2) Adjust/mobilize areas of stiffness or adverse tension: pain relief
- 3) Prescribe simple exercises which improve awareness of postural control: pain relief
- 4) Progress exercises by adding unstable surfaces (i.e. gym balls, rocker boards): prevention of recurrences

The simplest way to think about rehabilitation of the motor system is that there are three basic modalities of care: advice for postural control, manipulation for mobilization, and exercise for stabilization. To avoid wasting time, it is essential to see a pattern of dysfunction responsible for the patient's pain. Often there is a clear relationship between hypomobile and hypermobile areas as, for instance, in the low back (hypermobile in extension) and hip (hypomobile in extension) in facet syndrome patients. Manipulation may be needed for the hip joint, hip flexor muscles and femoral nerve. Stabilization exercises may be needed for the deep abdominal and gluteal muscles.

It is far more time consuming to keep adjusting an unstable low back and giving temporary pain relief than it is to treat the source of the instability - a related area of hypomobility. Remember, movement follows the path of least resistance, so to achieve a lasting relief of your patient's symptoms, it is essential to take a holistic approach and find the source of the patient's repetitive strain.

One of the most important types of advice to give patients is to correct faulty sitting posture. The effects on a patient's spinal column of kyphotic sitting posture include approximation of the sternum and symphysis; compressing the diaphragm; end range flexion overstress of the thoracic and lumbar spines; rounded and shrugged shoulders; and a forward head posture. This has been termed the stenohyphyseal syndrome and can be a perpetuating factor of pain syndromes anywhere in the body which are encouraged by the kyphotic posture.

A simple exercise developed by a Swiss neurologist named Brugger called the postural relief position realigns the spine by centering key joints at the cervicocranial, cervicothoracic, T4-5, thoracolumbar and lumbosacral regions.<sup>21</sup> This should be recommended as a "micro-break" to be performed for 20-30 seconds every half hour to hour. The exercise activates inhibited and deconditioned muscles which help maintain an upright posture such as the finger, hand and wrist extensors; forearm supinators; shoulder abductors and external rotators; mid-dorsal extensors; toe extensors; ankle dorsiflexors and evertors; and hip/thigh abductors, extensors and external

rotators.

Agonist and antagonist muscles work together to promote dynamic joint stability. Muscle imbalances form as a result of overstrain which can happen in both sedentary individuals and athletes. The Brugger postural relief position not only helps facilitate muscles which have a tendency to become inhibited or weak, it also helps relax overactive muscles which become shortened by the sternosymphyseal syndrome. These include the flexors of the upper extremity; shoulder adductors and internal rotators; shoulder girdle elevators; short cervicocranial extensors; hip flexors and adductors; and ankle plantarflexors. By combining chiropractic adjustments with muscle balancing exercises such as the Brugger postural relief position, patients begin to learn the postural awareness necessary to prevent recurrences.

Rehabilitation does not require much space or costly equipment. Motivation provided by a videotape can improve patient compliance.<sup>22-27</sup> Rehabilitation can be used in your practice very simply. McKenzie type exercises or the Brugger position can be utilized in acute care for pain relief. A few minutes spent on patient education with each visit is all that is required to introduce new exercises and correct errors which arise. Many exercises can be performed unsupervised by having a small rehabilitation space made up of a floor mat, gym ball, rocker board and VCR/TV available. Patients can progress to gradually more challenging exercises when they demonstrate appropriate form and control of neutral posture while training endurance (10 repetitions/10 second holds).

### Summary

The benchmark chiropractors of the future will be experts in all types of conservative care for NMS conditions. We are the acknowledged experts in spinal manipulation, but to capture a greater number of patients from an ever more educated consumer pool, we must also demonstrate a willingness to educate our patients about self-care. Rehabilitation is the key. It is relatively simple to put into practice, and any chiropractor can begin to incorporate active care without much expense. Patients are highly motivated when their chiropractor shows an interest in customizing exercises that will help adjustments go easier and last longer.

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