



INPRACTICE

PHYSIOSOUTH'S technical newsletter for physiotherapists,
general practitioners and specialists

Welcome to INPRACTICE, the PHYSIOSOUTH Technical Newsletter

This newsletter is intended for all those physiotherapists, general practitioners and specialists who are too tired at the end of the day to read enough scientific material relating to musculoskeletal medicine and related disciplines. The volume of scientific material published every month is now so overwhelming that even full-time academics struggle to keep abreast of the latest evidence for and against the diagnostic and therapeutic procedures frontline clinicians use every day. We are all constantly exhorted to read extensively with a critical eye and to continually update our knowledge and skills. In fact, New Zealand law requires it as part of retaining the right to practice. Apparently this is necessary because the primary function of the various licensing authorities is to 'protect the safety of the New Zealand public', and one of the many requirements in support of this regulatory objective is that we must all engage in continuing education. While this is all very praiseworthy, the fact is that at the end of the day or week seeing patients in order to make a living, it is difficult to develop the enthusiasm to read scientific papers when all one wants to do is spend time with family, get some sleep or exercise, listen to some music or read a novel. After all, we are constantly expected to do these things as well, you know, to maintain balance in our lives; to keep fit, be good parents and citizens and so on.

Graeme and Marie Nuttridge, the founding directors of PHYSIOSOUTH, have managed to achieve some lifestyle balance of the sort referred to above, and are aware that staff and colleagues often struggle with this balancing act. Four years ago they persuaded me to move from Auckland to Christchurch to take up a senior clinician role in order to assist staff with continuing professional education and managing difficult patients. I also work part time as an academic for Auckland University of Technology and continue to engage in ongoing clinical research. As a consequence many scientific articles cross my desk, and some are actually read in full, rather than just receiving the simple abstract scan. Having direct access to the AUT library and a complex network of professional connections internationally, I can get most papers and articles of interest electronically i.e. in PDF format. While some articles are available free online, most are not, and for most non academic practitioners, \$20–40 per article is quite a hurdle. There are copyright issues and this newsletter will respect these of course. However copyright law does allow for single copies of papers to be

made for individual study purposes. The means by which we can achieve dissemination of relevant articles referred to in these newsletters is to have each issue available online at PHYSIOSOUTH'S website www.physiosouth.co.nz. On the website copy of this newsletter, each article will have a hyperlink that will take the reader to the relevant PubMed citation, journal or publisher website. The editor will retain a copy of each article featured and where appropriate the reader can request it by email.

So where to start with our first issue?

This first paper is selected for a variety of reasons, and not just because the editor wrote it himself. The first reason is that the subject matter is a common complaint: acute low back pain – with a common presentation – the acute 'lateral shift' or lumbar scoliosis. This paper was recently published in a journal that has increasing influence and its editors agreed to publish an online video as accompanying material. The technique of manual correction of the acute lateral shift was first described by Robin McKenzie in the New Zealand Medical Journal in 1972, but no publicly available video of the procedure has been available until now. The online video covers about 15 minutes of the management spread over the initial acute treatment sessions, follow ups to 9 months post injury, and provides the essence of the approach. For those who are interested in more detail, Mark Laslett can provide a full DVD of this in better quality to a 12 month follow up, and management of another case.

+ Laslett M. Manual correction of an acute lumbar lateral shift: maintenance of correction and rehabilitation: A case report with video. *Journal of Manual & Manipulative Therapy* 17[2], 78-85. Abstract: The acute onset lumbar lateral shift, otherwise known as a list or acute scoliosis, is a common clinical observation associated with low back pain. In general orthopaedics, the presence of a lateral shift is associated with a poor prognosis; however, a manual correction method devised by McKenzie is claimed to produce rapid reversal of the deformity and reduction in pain. This single-case report presents the details of the McKenzie Mechanical Diagnosis and Treatment (MDT) management of a major right-sided lateral shift, which includes the manual correction technique, self-correction and management, prophylaxis, pain ablation, and rehabilitation to a high level of athletic function, with long term follow-up at 9 months. The lateral shift is widely accepted as being associated with disc pathology, but the exact mechanism of shift production remains speculative. Hypotheses include muscle spasm, avoidance

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of irritation of a spinal nerve, and space-occupying or space-deficient disc mechanics. The hypotheses used to explain the lateral shift phenomena are discussed.²

FIND IT ON THE WEB AT: [HTTP://JMMTONLINE.COM/CURRENT/INDEX.PHP#3#IXZZOLO8HONRL&C](http://jmmtonline.com/current/index.php#3#IXZZOLO8HONRL&C)

The second paper of interest is one that refers to those patients who are always difficult to manage. In the paper they are referred to as having fibromyalgia – itself a term not favoured by many. Regardless, the patient presentation will be familiar to all those in clinical practice for longer than a month: widespread pain in the cervical, thoracic and lumbar spine, somatic referral into the shoulders, buttocks and limbs. These patients complain of trigger points, general malaise, are often depressed, dependent on medication and other treatments, and rarely get long term benefit from anything. The paper reports a randomized trial comparing various exercise options and self help course combinations. Exercise and a standardized self help program are well tolerated and beneficial for this difficult-to-manage patient group, and the paper is well worth a read.

+ Rooks DS et al. Group exercise, education, and combination self-management in women with fibromyalgia. *Arch Intern. Med* 2007; 167: 2192-200. Abstract: *Background:* Self-management has increasingly been recommended as part of standard care for fibromyalgia, a common, poorly understood condition with limited treatment options. Data that assess popular self-management recommendations are scarce. We evaluated and compared the effectiveness of 4 common self-management treatments on function, symptoms, and self-efficacy in women with fibromyalgia. *Methods:* A total of 207 women with confirmed fibromyalgia were recruited from September 16, 2002, through November 30, 2004, and randomly assigned to 16 weeks of (1) aerobic and flexibility exercise (AE); (2) strength training, aerobic, and flexibility exercise (ST); (3) the Fibromyalgia Self-Help Course (FSHC); or (4) a combination of ST and FSHC (ST-FSHC). The primary outcome was change in physical function from baseline to completion of the intervention. Secondary outcomes included social and emotional function, symptoms, and self-efficacy. *Results:* Improvements in the mean Fibromyalgia Impact Questionnaire score in the 4 groups were -12.7 for the ST-FSHC group, -8.2 for the AE group, -6.6 for the ST group, and -0.3 for the FSHC group. The ST-FSHC group demonstrated greater improvement than the FSHC group (mean difference, -12.4; 95% confidence interval [CI], -23.1 to -1.7). The ST-FSHC (mean difference, 13.6; 95% CI, 2.3 to 24.9) and AE (mean difference, 13.1; 95% CI, 1.6 to 25.6) groups had similar improvements in physical function scores on the 36-Item Short-Form Health Survey. Bodily pain scores on the 36-Item Short-Form Health Survey improved in the ST-FSHC (14.8), AE (13.2), and ST (5.7) groups. Social function, mental health, fatigue, depression, and self-efficacy also improved. The beneficial effect on physical function of exercise alone and in combination with education persisted at 6 months. *Conclusions:* Progressive walking, simple strength training movements, and stretching activities improve functional status, key symptoms, and self-efficacy in women with fibromyalgia actively being treated with medication. The benefits of exercise are enhanced when combined with targeted self-management education. Our findings suggest that

appropriate exercise and patient education be included in the treatment of fibromyalgia.³

FIND IT ON THE WEB AT: [HTTP://WWW.NCBI.NLM.NIH.GOV/PUBMED/17998491?DOPT=CITATION](http://www.ncbi.nlm.nih.gov/pubmed/17998491?DOPT=CITATION)

The third paper is of the type (a systematic review) guaranteed to put the practicing clinician to sleep after dinner. Nonetheless it is important in the respect that it is the first to specifically review the literature on the ability of the clinical examination to make a patho-anatomic diagnosis in low back pain cases. Contrary to the last 20 years of academic and political polemic that continues to this day, a patho-anatomic diagnosis is possible for many patients, or at least, there is some preliminary evidence that it may be possible. In order to help you avoid having to read it, the bottom line is that using non invasive clinical examination methods, a subset of discogenic pains and pain arising from the sacroiliac joint can probably be identified. Lumbar facet joint pain cannot be identified using a clinical examination at least with current knowledge.

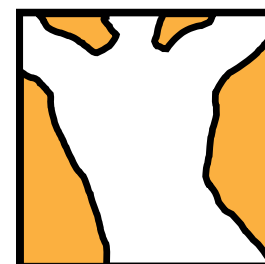
+ Hancock MJ et al (2007). Systematic review of tests to identify the disc, SIJ or facet joint as the source of low back pain. *Eur. Spine J*, 16, 1539-1550. Abstract: Clinical practice guidelines state that the tissue source of low back pain cannot be specified in the majority of patients. However, there has been no systematic review of the accuracy of diagnostic tests used to identify the source of low back pain. The aim of this systematic review was therefore to determine the diagnostic accuracy of tests available to clinicians to identify the disc, facet joint or sacroiliac joint (SIJ) as the source of low back pain. MEDLINE, EMBASE and CINAHL were searched up to February 2006 with citation tracking of eligible studies. Eligible studies compared index tests with an appropriate reference test (discography, facet joint or SIJ blocks or medial branch blocks) in patients with low back pain. Positive likelihood ratios (+LR) > 2 or negative likelihood ratios (-LR) < 0.5 were considered informative. Forty-one studies of moderate quality were included; 28 investigated the disc, 8 the facet joint and 7 the SIJ. Various features observed on MRI (high intensity zone, endplate changes and disc degeneration) produced informative +LR (> 2) in the majority of studies increasing the probability of the disc being the low back pain source. However, heterogeneity of the data prevented pooling. +LR ranged from 1.5 to 5.9, 1.6 to 4.0, and 0.6 to 5.9 for high intensity zone, disc degeneration and endplate changes, respectively. Centralisation was the only clinical feature found to increase the likelihood of the disc as the source of pain: +LR = 2.8 (95%CI 1.4-5.3). Absence of degeneration on MRI was the only test found to reduce the likelihood of the disc as the source of pain: -LR = 0.21 (95%CI 0.12-0.35). While single manual tests of the SIJ were uninformative, their use in combination was informative with +LR of 3.2 (95%CI 2.3-4.4) and -LR of 0.29 (95%CI 0.12-0.35). None of the tests for facet joint pain were found to be informative. The results of this review demonstrate that tests do exist that change the probability of the disc or SIJ (but not the facet joint) as the source of low back pain. However, the changes in probability are usually small and at best moderate. The usefulness of these tests in clinical practice, particularly for guiding treatment selection, remains unclear.¹

FIND IT ON THE WEB AT: [HTTP://WWW.NCBI.NLM.NIH.GOV/PUBMED/17566796?DOPT=CITATION](http://www.ncbi.nlm.nih.gov/pubmed/17566796?DOPT=CITATION).

'The volume of scientific material published every month is now so overwhelming that even full-time academics struggle to keep abreast of the latest evidence for and against the diagnostic and therapeutic procedures frontline clinicians use every day.'

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