



## Advances in Low Back Pain Management

### An evidence based update

Low Back Pain (LBP) is a significant and disabling problem in today's society and is likely the most common reason an individual will visit your office next to the common cold.<sup>1</sup> LBP will be experienced by 65% to 90% of individuals at some point in their lifetime.<sup>2</sup> Acute LBP will typically resolve within 6 weeks in 80% to 90% of episodes, but recurrence rates are as high as 79% to 84%.<sup>2,3</sup> In those with acute LBP, 2% to 3% will go on to develop disabling chronic LBP.<sup>4,5</sup> The physical therapists at Hands on Physical Therapy would like to share with you recent valuable evidence on the role of Physical Therapy (PT) in the management of low back disorders. We hope that this information will facilitate dialogue and decision making to better serve those with LBP.

#### **Physical Therapy Management of LBP**

Physical therapy has been shown to be effective in the management of acute<sup>6,7</sup> and chronic LBP.<sup>8,9</sup> Specific PT interventions have been shown to reduce the rate of recurrence as well as intensity of recurrent LBP by 67% and 59% respectively when compared to medicine, rest and advice.<sup>3</sup> Patients with earlier access to physical therapy also return to work sooner than when referral is delayed.<sup>4,12</sup> Evidence suggests that therapeutic outcomes are maximized when patient presentation is classified into specific subgroups and treatment is based on this classification.<sup>6,10,11</sup> Individuals meeting select criteria within treatment based classification approach can experience as high as 95% successful reduction in disability with just a few visits through a combination of manual physical therapy and exercise.<sup>6</sup>

Another important consideration in the treatment and prevention of chronic LBP (and consequent disability) are the effects of fear-avoidance behaviors.<sup>13</sup> Fear-avoidance beliefs are a primary factor determining whether an individual utilizes avoidance or confrontation as a strategy to recovery.<sup>17</sup> Fritz et al<sup>14</sup> found work-related fear was highly predictive of return to work. Also, George et al<sup>15,16</sup> found that recognition of fear-avoidance beliefs and treatment according to those beliefs yielded less disability at 4 weeks and 6 months than standard care. A treatment based categorization approach in combination with fear-avoidance interventions can maximize outcomes in these individuals.<sup>15,16</sup>

**Based on evidence from high quality clinical trials, the treatment based classification approach including manual physical therapy, exercise and fear-avoidance considerations (when appropriate) will benefit many of your patients with LBP. In acute LBP cases, delaying PT treatment may result in LBP recurrence or future disability despite initial resolution of symptoms. The professional team at Charlie Company Physical Therapy will honor the privilege of consulting and collaborating with you and your patients with acute, chronic or recurrent LBP. We look forward to the opportunity to partner with you in an effort to improve the health of your patients and enable their return to optimal function during work, daily and leisure activities.**

## References:

1. Deyo RA, Phillips WR. Low back pain. A primary care challenge. *Spine*. 1996;21:2826-32.
2. Manchikanti L. Epidemiology of low back pain. *Pain Physician*. 2000 Apr;3(2):167-92.
3. Hides JA, Jull GA, Richardson CA. Long-term effects of specific stabilizing exercises for first-episode low back pain. *Spine*. 2001 Jun 1;26(11):E243-8.
4. Coste J, Delecoeuillerie G, et al. Clinical course and prognostic factors in acute low back pain: an inception cohort study in primary care practice. *BMJ*. 1994;308(6928):577-580.
5. Lehmann TR, Spratt KF, et al. Predicting long-term disability in low back injured workers presenting to a spine consultant. *Spine*. 1993;18:1103-12.
6. Childs JD, Fritz JM, Flynn TW, Irrgang JJ, Johnson KK, Majkowski GR, Delitto A. A clinical prediction rule to identify patients with low back pain most likely to benefit from spinal manipulation: a validation study. *Ann Intern Med*. 2004 Dec 21;141(12):920-8.
7. Wand BM, Bird C, McAuley JH, Doré CJ, MacDowell M, De Souza LH. Early intervention for the management of acute low back pain: a single-blind randomized controlled trial of biopsychosocial education, manual therapy, and exercise. *Spine*. 2004 Nov 1;29(21):2350-6.
8. UK BEAM Trial Team. United Kingdom back pain exercise and manipulation (UK BEAM) randomised trial: effectiveness of physical treatments for back pain in primary care. *BMJ*. 2004 Dec 11;329(7479):1377.
9. Aure OF, Nilsen JH, Vasseljen O. Manual therapy and exercise therapy in patients with chronic low back pain: a randomized, controlled trial with 1-year follow-up. *Spine*. 2003 Mar 15;28(6):525-31.
10. Hicks GE, Fritz JM, Delitto A, McGill SM. Preliminary development of a clinical prediction rule for determining which patients with low back pain will respond to a stabilization exercise program. *Arch Phys Med Rehabil*. 2005 Sep;86(9):1753-62.
11. Fritz JM, Lindsay W, Matheson JW, Brennan GP, Hunter SJ, Moffit SD, Swalberg A, Rodriquez B. Is there a subgroup of patients with low back pain likely to benefit from mechanical traction? Results of a randomized clinical trial and subgrouping analysis. *Spine*. 2007 Dec 15;32(26):E793-800.
12. Ehrmann-Feldman D, Rossignol M, Abenhaim L, Gobeille D. Physician referral to physical therapy in a cohort of workers compensated for low back pain. *Phys Ther*. 1996;76(2):150-6.
13. Grottle et al. Clinical course and impact of fear-avoidance beliefs in low back pain. Prospective cohort study of acute and chronic low back pain II. *Spine*. 2006;31(9):1038-1046.
14. Fritz JM, George SZ. Identifying psychosocial variables in patients with acute work-related low back pain: The importance of fear avoidance beliefs. *Physical Therapy*. 2002; 82(10):973-983.
15. George et al. Physical therapy management of a patient with acute low back pain and elevated fear-avoidance beliefs. *Physical Therapy*. 2004;84:538-549.
16. George et al. The effect of a fear-avoidance-based physical therapy intervention for patients with acute low back pain: Results of a randomized clinical trial. *Spine*. 2003; 28(23):2551-2560.
17. George SZ, Fritz JM, Childs JD. Investigation of elevated fear-avoidance beliefs for patients with low back pain: a secondary analysis involving patients enrolled in physical therapy clinical trials. *JOSPT*. 2008;38:50-58.