

MANAGING CHRONIC LOW BACK PAIN WHILE MINIMIZING USE OF DANGEROUS PRESCRIPTION OPIOIDS



OTHER TREATMENTS

- *Prescription Opioids ~ An Overview*
- *Prescription Opioids 2 ~ Self-Management*
- *Prescription Opioids 3 ~ Acupuncture*
- ✓ *Prescription Opioids 4 ~ Other Treatments*



Over the past 10 years, the number of prescriptions written for opioid, or narcotic, medications has risen steadily (Centers for Disease Control and Prevention, 2011). This has led to an over threefold increase in fatal overdoses and an epidemic of people addicted to these powerful prescription pain relievers (Centers for Disease Control and Prevention, 2011). Opiate pain medications, such as oxycodone and hydrocodone, are generally not recommended to treat mild-to-moderate chronic low back pain (CLBP). They may be prescribed if other therapies do not give sufficient pain relief (Bogduk, 2004; Chou & Huffman, 2007a).

This is the last in a series of four fact sheets on ways to cope with CLBP without using opioid pain relievers. The first fact sheet explains the causes of CLBP and some proven approaches for treatment that do not require taking opiate pain medications. The second fact sheet describes self-management methods to reduce pain. The third fact sheet describes the method of acupuncture as a possible way to relieve CLBP.

This fact sheet summarizes the results of recent literature reviews on the usefulness of some commonly used approaches to reduce the discomfort caused by CLBP: cognitive-behavior therapy (CBT), spinal manipulation therapy (SMT), exercise, massage, and other nonmedication treatments.

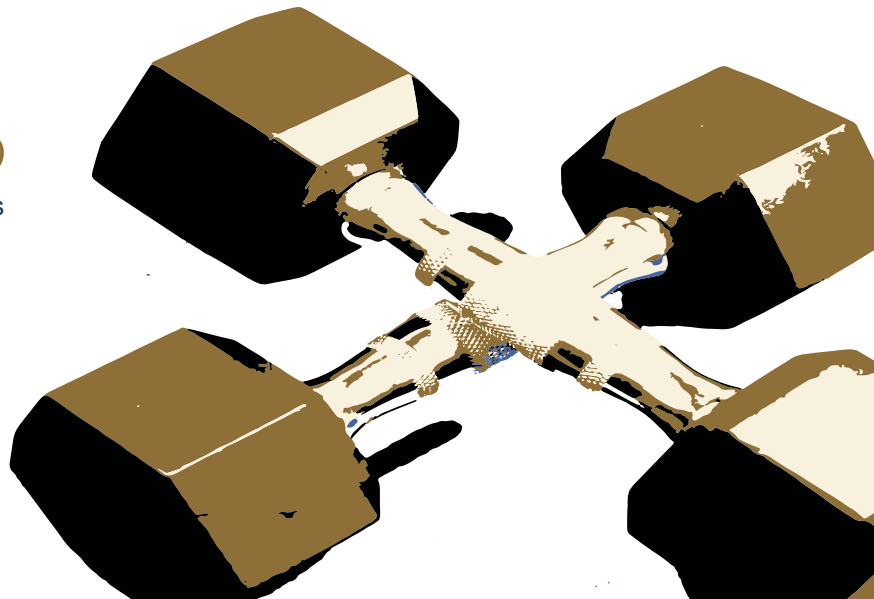
■ *Cognitive Behavioral Therapy (CBT)*

A person's response to psychosocial stressors and his or her thoughts and beliefs about pain can affect his or her CLBP symptoms. CBT focuses on patterns of beliefs, attitudes, and values that influence thinking. CBT helps people understand how their responses to life's stressors can make pain better or worse. The CBT therapist teaches specific skills that people can use to cope with pain. Practicing these skills can help people change their thinking patterns, which affects

their perception of, and response to, pain. There is good evidence that CBT is moderately effective for CLBP (Chou & Huffman, 2007b; Schonstein et al., 2003).

■ *Spinal Manipulation Therapy (SMT)*

SMT aims to adjust the spine and move the vertebrae into alignment using direct force. Adjustments can involve twisting, pulling, or pushing on the back. The movements are thought to loosen and move spinal bones into a better position and thereby reduce or eliminate pain. These manipulations can be carried out by a chiropractor, osteopathic doctor, physiatrist, or physical therapist. Therapy is typically provided in a limited number of treatment sessions. In controlled studies, SMT has produced small-to-moderate clinical benefits (Harvey, Burton, Moffett, & Breen, 2003). There is no overwhelming evidence that SMT is either superior or inferior to other effective treatments for relieving pain and improving function in patients with CLBP (Assendelft et al., 2003; Barclay, 2011; Rubinstein et al., 2011).



■ Exercise

Exercise therapy, including physical therapy and recommended exercises, also has fair-to-good evidence supporting its usefulness in treating CLBP (Nutter, 1988). This includes individualized plans, supervised exercise, stretching, and muscle-strengthening therapy (Nelson et al., 1999). Viniyoga has been found to be slightly superior to conventional exercise in one higher-quality study (Sherman et al., 2005).

■ Massage

Therapeutic massage also is a useful option that helps some people and may be an important part of a treatment package for CLBP. Massage that was done by a trained massage therapist has been shown to be more effective in trials than massage done by an untrained massage therapist (Chou & Huffman, 2007b). There is fair evidence that massage of various types can improve CLBP (Cherkin et al., 2011). This recommendation is based on a small number of studies.

■ Other Therapies

Although transcutaneous electrical nerve stimulation exists for the treatment of pain, intermittent or continuous traction has not been proven effective for CLBP (Wright, 2012; Jeffrey, 2009). Insufficient evidence exists to recommend interferential therapy, low-level laser, shortwave diathermy, or ultrasound for CLBP (Chou et al., 2007).

Often the best way to manage CLBP is to use several therapies at once under the guidance of a skilled and specialized team. This is called **interdisciplinary rehabilitation**. This team usually includes a physician, psychologist, physical therapist, social worker or vocational counselor, and sometimes other health care professionals.

As with other approaches, before seeking these therapies, it is important to work with a primary health care provider and other allied health professionals to develop an overall treatment plan. By working with a health care practitioner, a person can find the best combination of available therapies based on his or her individual needs.

■ Resources

- Assendelft, W. J., Morton, S. C., Yu, E. I., Suttorp, M. J., & Shekelle, P. G. (2003). Spinal manipulative therapy for low back pain. A meta-analysis of effectiveness relative to other therapies. *Annals of Internal Medicine*, 138(11), 871–881.
- Barclay, L. (2011). Spinal manipulative therapy provides limited benefit for low back pain. *Medscape Clinical Education Briefs*, July 7, 2011.
- Bogduk, N. (2004). Management of chronic low back pain. *Medical Journal of Australia*, 180(2), 79–83.
- Centers for Disease Control and Prevention. (2011). Prescription painkiller overdoses in the US. Retrieved from <http://www.cdc.gov/vitalsigns/PainkillerOverdoses/index.html>
- Cherkin, D. C., Sherman, K. J., Kahn, J., Wellman, R., Cook, A. J., Johnson, E., et al. (2011). A comparison of the effects of 2 types of massage and usual care on chronic low back pain: A randomized, controlled trial. *Annals of Internal Medicine*, 155(1), 1–9.
- Chou, R., & Huffman, L. H. (2007a). Medications for acute and chronic low back pain: A review of the evidence for an American Pain Society/American College of Physicians clinical practice guideline. *Annals of Internal Medicine*, 147(7), 505–514.
- Chou, R., & Huffman, L. H. (2007b). Nonpharmacologic therapies for acute and chronic low back pain: A review of the evidence for an American Pain Society/American College of Physicians clinical practice guideline. *Annals of Internal Medicine*, 147(7), 492–504.
- Chou, R., Qaseem, A., Snow, V., Casey, D., Cross, J. T., Jr., Shekelle, P., et al. (2007). Diagnosis and treatment of low back pain: A joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Annals of Internal Medicine*, 147(7), 478–491.
- Harvey, E., Burton, A. K., Moffett, J. K., & Breen, A. (2003). Spinal manipulation for low-back pain: A treatment package agreed to by the UK chiropractic, osteopathy and physiotherapy professional associations. *Manual Therapy*, 8(1), 46–51.
- Jeffrey, S. (2009). AAN guideline recommends against TENS for chronic low-back pain. *Medscape Medical News*, December 31, 2009.
- Nelson, B. W., Carpenter, D. M., Dreisinger, T. E., Mitchell, M., Kelly, C. E., & Wegner, J. A. (1999). Can spinal surgery be prevented by aggressive strengthening exercises? A prospective study of cervical and lumbar patients. *Archives of Physical Medicine and Rehabilitation*, 80(1), 20–25.
- Nutter, P. (1988). Aerobic exercise in the treatment and prevention of low back pain. *Occupational Medicine*, 3(1), 137–145.
- Rubinstein, S. M., van Middelkoop, M. M., Assendelft, W. J., de Boer, M. R., & van Tulder, M. W. (2011). Spinal manipulative therapy for chronic low-back pain: An update of a Cochrane review. *Spine (Phila Pa 1976)*, 36(13), E825–E846.
- Schonstein, E., Kenny, D., Keating, J., Koes, B., & Herbert, R. D. (2003). Physical conditioning programs for workers with back and neck pain: A cochrane systematic review. *Spine (Phila Pa 1976)*, 28(19), E391–E395.
- Sherman, K. J., Cherkin, D. C., Erro, J., Miglioretti, D. L., & Deyo, R. A. (2005). Comparing yoga, exercise, and a self-care book for chronic low back pain: a randomized, controlled trial. *Annals of Internal Medicine*, 143(12), 849–856.
- Wright, D. V. (2012). Non-narcotic options for pain relief with chronic neuropathic conditions. *Journal for Nurse Practitioners*, 4(4), 263–270.



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