About 80% of the population will have at least one episode of disabling low back pain. It is the second most common problem presenting to primary care after colds and flu. While not life-threatening, low back pain can cause considerable disability. Recurrence of back pain is common.

While the understanding of the causes of low back pain has improved\(^1,2,3\) and evidence for conventional and complementary and alternative medicine (CAM) treatments accumulates\(^4,5,6\), precise diagnosis and definitive treatment remain elusive. Current evidence based clinical practice guidelines\(^7\) and systematic reviews\(^8,9,10\) provide support for spinal manipulation\(^11\), “combined chiropractic interventions,”\(^12\) and exercise.\(^13\) Evidence of cost effectiveness of conservative interventions such as chiropractic has begun to demonstrate the value that these treatment strategies provide.\(^14\)

Given the relative equivalence in terms of effectiveness and efficacy of conventional and CAM treatments for low back pain, consideration of adverse effects and patient preference should guide treatment planning.\(^15,16\)

**Subjective Findings and History**

- Macro trauma: Onset of pain and paraspinal muscle spasm begins either immediately after the injury or gradually over the next 24 hours.
- Micro trauma: Repetitive traumatic events not singularly capable of producing injury.
- Local pain, sometimes accompanied by referred pain, diffuse (scleratogenous pain distribution).
- Loss of flexibility.
- Pain is usually relieved by rest and aggravated by motion.

**Objective Findings**

- Postural evaluation reveals: Decrease of normal spinal curvature, may present with antalgic list (forward, laterally).
- Decrease/loss of normal spinal ROM.
- Palpation for segmental joint dysfunction/subluxation, tenderness over involved tissues, muscle spasm or tautness, myofascial trigger points.
- Orthopedic and neurological examination directed at differentiating neurogenic from other sources of pain\(^17\) including absence of nerve compression signs (e.g. absence of...
muscle weakness) and provocative orthopedic tests may reproduce the pain (e.g. straight leg raise and other tests that cause spinal motion may increase back pain.)

- Diagnostic imaging: depending on age, history of prior episodes and “red flags” (see radiographic guidelines). Correlation of diagnostic imaging findings and the cause of low back pain remain weak.  

**Assessment**
- Assess for “red flags” of serious disease and refer as appropriate.
- Identify factors that may be obstacles to recovery or promote prolonged disability.
- The clinical impression should indicate the specific anatomical structures involved and clinically correlate them with the mechanism of injury, history, subjective complaints, and objective findings.
- Clinical prediction rules may assist in forming a prognosis.

**Plan**

*Passive Care:*
- Spinal manipulation
- Physical Therapy Modalities
- Medications: Analgesics, NSAIDS
- Supplementation
- Braces/supports

*Active Care:*
- Rest from inciting activities, avoid bedrest
- Active exercises/stretches for mobility and strength
- Ice/heat application at home
- Posture training, ergonomic evaluation
- Activity/work restrictions, if appropriate

**Length of Treatment**
- Estimated duration of care: 1-6 weeks.
- Evaluate progress on an on-going basis.
- Risk factors for chronicity: Significant trauma, co-morbidity (degenerative disc disease, spondylolisthesis, segmental instability, osteoporosis, spine deformity), obesity, deconditioning, age, socio-economic factors.

**Outcome Assessment Tools:**
- Visual analog and numeric pain rating scale (VAS, NRS)
- Oswestry low back pain disability index
- Patient specific functional scale
- MYMOPS

**Referral Criteria:**
- “Red flags” of serious disease
- Referral to an appropriate specialist may be appropriate after 4-6 weeks of care without symptomatic or functional improvement or upon onset of (progressive) neurologic deficit
Practitioner Resources


Patient Resources

http://www.annals.org/cgi/reprint/147/7/I-45.pdf

Simple steps can put an end to unnecessary suffering. TimesOnline. Sept 19, 2005. http://www.timesonline.co.uk/tol/life_and_style/health/expert_advice/article567626.ece

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Spinal manipulative therapy for low-back pain (Cochrane Review)
From The Cochrane Library, Issue 1, 2005. Chichester, UK: John Wiley & Sons, Ltd. All rights reserved. Spinal manipulative therapy for low-back pain (Cochrane Review - abstract) Assendelft WJJ, Morton SC, Yu Emily I, Suttorp MJ, Shekelle PG Order full...

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Gordon McMorland, DCa, Esther Suter, PhDb Chiropractic management of mechanical neck and low-back pain: A retrospective, outcome-based analysis. Journal of Manipulative and Physiological Therapeutics June 2000 • Volume 23 • Number 5 • p307 to p311


Clinical Pathway Feedback

CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please use the e-mail address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Chuck Simpson, DC, CHP Medical Director: csimpson@chpgroup.com


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20 Field JR, Newell D, McCarthy PW.; Preliminary study into the components of the fear-avoidance model of LBP: change after an initial chiropractic visit and influence on outcome. Chiropr Osteopat. 2010 Jul 30;18:21.