

Do All Soft Tissue Injuries Heal Within 6-8 Weeks?

A Review of the Scientific Literature

Recently a new study published in the British Medical Journal dispelled the myth that 80%-90% of patient attacks of low back pain recover in about 6 weeks. According to the article, low-back pain is aptly redefined as "*a chronic problem with an untidy pattern of grumbling symptoms,*" with only 25% of patients consulting about the problem reporting full recovery 12 months later. Instead, most patients appear to be enduring their pain but not telling their primary care physician about it.

In fact, after seeing the results, the authors made the following statement:

"By three months after the index consultation with their general practitioner, only a minority of patients with low back pain had recovered. However, most patients with low-back, pain did not return to their doctor about their pain within three months of their initial consultation, and only 8% continued to consult for more than three months."

The authors found that consulting a doctor is not a direct measure of the presence of pain and disability. While patients may stop consulting their doctor, the vast majority will still have some pain and disability 12 months later. Therefore, the authors concluded:

"We should stop characterizing low back pain in terms of a multiplicity of acute problems, most of which get better, and a small number of chronic long term problems. Low back pain should be viewed as a chronic problem with an untidy pattern of grumbling symptoms and periods of relative freedom from pain and disability interspersed with acute episodes, exacerbations, and recurrences. This takes account of two consistent observations about low back pain: firstly, a previous episode of low back pain is the strongest risk factor for a new episode, and secondly, by the age of 30 years almost half the population will have experience a substantive episode of low back pain. These figures simply do not fit with claims that 90% of episodes of low back pain end in complete recovery."

Croft P, Macfarland GJ, Papageorgiou AC, Thomas E, Silman AJ.
Outcome of Low Back Pain in General Practice: a Prospective Study
British Medical Journal 1998;316:1356-1359 (Emphasis Added)

Based on this research and the studies cited below, back pain is clearly not going to be cured by a pill, muscle relaxant, or most single-visit interventions. As such, the spine (like teeth, muscles and many other highly functional parts of the human body) requires care on an ongoing basis, rather than just reacting to acute episodes of pain. In the near future, **spinal hygiene** to improve function will be the accepted norm instead of episodic care to alleviate only pain that supposedly has a natural recovery time of 6-12 weeks.

Please consider the following additional research, which clearly refutes the erroneous notion that most back pain is caused by self-limiting simple sprains and strains.

(page 2, Soft tissue injuries, cont'd)

The Recurrent Nature of Back Pain

Frank, MD. British Medical Journal 1993; April 3:901-9.

*Review of a study in which 373 patients less than 40 years old, with their first onset of back pain, are followed for 10 years. 89% had recurrences and only 33% had no lost time from work from future back problems. **Strategies to manage low back pain must be long term and preventive.** [Emphasis added.]*

Waddell, MD. JMPT 1995;18(9):590-596

Traditional teaching is that 90% of LBP attacks recover within six weeks, but recent natural history studies suggest that this is overly optimistic and over-emphasizes RTW. It now seems that 50% of attacks settle within 4 weeks, but 15-20% have some symptoms for at least 1 year. 70% of patients who have acute back pain will suffer 3 or more recurrences. 20% will continue to have some back symptoms over long periods of their lives.

Jayson, MD, FRCP. Spine 1997;22(10):1053-1056.

At 3 months, only approximately 27% were completely better, 28% improved, 30% had no change, and 14% were worse or much worse. It may well be that in the many studies of acute low back pain, there has been very carefully selected clinical material so that only those patients with acute pain of recent onset and no other confounding factors were included, with the result that these studies do not reflect what actually happens in practice.

Saal JA, MD. Spine 1997;22(14):1545-1552

*The major premise used in the managed care system for the primary care of LBP is based upon the assumption that 90% of patients improve in 6-12 weeks. However, a natural history study by Von Korff found that approximately 60% will recur. In a study of BP in primary care, Von Korff and Saunders found that 60% to 75% improve within the first month, 33% report intermittent or persistent pain at one year, and 20% of patients describe substantial limitations at one year. **The premise for the AHCPR guidelines and Managed Care for back pain is not valid.** [Emphasis added.]*

The previous four studies cast serious doubt that there is a predictable "natural" six-week healing time for back pain. Non-complicated conditions and patients typically chosen for studies on acute low back pain are not the same types of patients who typically visit a physician for care. Complicating factors must be considered to determine medical necessity and healing "averages" should not outweigh the documented facts of a case.

Waddell, MD. The Chiropractic Report 1993; July:1-6

Traditional medical treatment according to the disease model has failed. Bed Rest: should die as soon as it can. Avoid bed rest if possible. Physical Therapy: There is no adequate evidence of effectiveness. Spinal manipulation: one of two treatments of proven value. The last 10 years produced a lot of solid scientific evidence to support the value of manipulation. Early active exercise: Is the other treatment supported by good evidence.

(page 3, Soft tissue injuries, cont'd)

Waddell, MD. (Cont'd)

Relief of pain and restoration of function must occur at the same time. Failure to restore function means any pain relief will be temporary and reinforces chronic pain. In the management of occupational back pain, the chiropractic profession is leading the way. The problem is weakness and loss of function, not disease.

Weisel, MD. Backletter 1996; 11(7): 84 Back pain is a recurrent illness.

Carey's study emphasizes that BP is typically recurrent and sometimes disabling – in a substantial minority.

Back Pain-More Important Facts

Kuritzky, MD. Physician and Sports Medicine 1997;25(1):56-64

97% of BP seen by primary care physicians is mechanical in origin. There is something wrong with the muscles, ligaments, or connective tissues. Most patients with low back pain do not have ruptured discs, but it is notorious, partly because imaging studies dramatically overestimate the frequency.

Eisenberg, MD. Annals of Internal Medicine 1997;127(1):61-69.

More than 70% of patients who used alternative therapy never mentioned it to their MDs.

Like the British study, this research demonstrated that even though patients no longer consult their medical provider, it does not mean that the problem has resolved. The myth of "natural healing time" must be reconsidered given the extended nature of pain and the fact that patients continue to seek out the advice of other providers when the primary care giver does not successfully treat the condition.

Cowley. Going Mainstream. Newsweek 1995;June 26:56-57.

There is a growing awareness among health insurers that patients seeking unconventional care represent a huge potential market and that alternative care does not cost the insurer very much. As one managed care executive said, "3 visits to a DC are a lot less expensive than an MRI or back surgery."

Concerning chronic pain, it makes a lot more sense to treat a patient with a periodic chiropractic adjustment than to allow the condition to degenerate to the point of requiring dangerous medication (impairing function, thus productivity at work) or surgery. Many times, daily exercise and self-management are not enough to control a chronic back problem.

Haldeman, DC, PhD, MD. Spine 1990;15(7):718-723.

The pathology model cannot explain back pain or disability. It is not possible to look at pathology and determine the symptoms a patient may be suffering. It also is not possible to look at a patient with back pain with no neurologic deficits and determine the nature of the pathology. About 30% of asymptomatic subjects show abnormalities in the lumbar spine by myelogram, CT and MRI. There is a large percent of symptomatic patients with severe complaints in whom testing fails to reveal any structural lesion.

(page 4, Soft tissue injuries, cont'd)

A study by Jensen, which appeared in the New England Journal of Medicine 1994;331(2)July 14:69-73, produced similar results.

As a result of these and other studies there has been a shift in thinking away from the traditional "symptom" approach, towards contemporary thinking of "function". For many patients with recurrent back pain, staying functional is a "process" more so than a "result" based on a predictable healing time or average.

Jonsson MD. Journal of Spinal Disorders 1991;4(3):251-263.

Study of cervical spine of 22 patients who died of fatal skull fractures in MVAs. X-rays were evaluated by an expert orthopedic radiologist. Only 1 of 10 gross ligamentous disruptions were even suspected on X-rays. 198 lesions were missed. Multilevel soft-tissue injuries were common. Very few injuries were detected or even suspected on radiograms. The vast majority was not recognized. Plain radiograms cannot detect soft-tissue lesions unless they are associated with vertebral body malalignment. Conclusions: the majority of lesions are soft-tissue injuries. Plain radiograms show virtually no soft-tissue lesions.

As a result of these types of studies, it has become apparent that a thorough physical examination is more important, in combination with functional assessments, than traditional diagnostic evaluations to determine the presence or absence of soft-tissue injuries.

Liebenson, DC, Oslance. Rehabilitation of the Spine. Williams and Wilkins, Baltimore. 1996:73.

*80% of patients have no identifiable structural pathology and require treatment based on evaluation of functional deficits. In the majority of cases, patients have soft tissue injuries and functional changes are the only objective findings on which to base treatment and judge progress. Outcomes assessments including objective functional tests give the third party payers, patients and doctors a way to measure progress over time, and evaluate the prescribed treatment. **Overemphasis on treatment of structural pathology results in a failure to identify or focus on functional losses and work demands.** [Emphasis added.]*

In other words, the reduction of pain alone is not an accurate indicator of the need for additional treatment. There has been a shift away from treatment based only on pain relief to treatment based on the desire to improve function and return to the patient to the original form of employment. The improvement of function in a person with a "complicated" soft tissue injury in combination with a physically demanding job is an ongoing process more so than an endpoint based on pain reduction alone.

Mooney, MD. J. Musculoskeletal Medicine 1995; Oct:33-39.

Common acute back pain is due to chemical abnormalities created by soft tissue tear. The tear represents a mechanical disruption, which is usually microscopic. X-rays demonstrate no changes before and after an acute back injury.

Again, function is more important in the evaluation and treatment of back pain than structural pathology. A "negative" x-ray has limited value in the determination of medical necessity since one cannot evaluate "function" from an x-ray. Similar findings concerning other imaging findings was also demonstrated in a paper by Davis, DC. JNMS 1996;4(3):102-115.

(page 5, Soft tissue injuries, cont'd)

In general, imaging studies are not useful in determining the origin of pain. However, they are a useful diagnostic tool used in the detection of structural deformities or pathology, which may prevent the application of appropriate manipulative procedures.

What about exercise? Is it a cure-all?

Several studies compared McKenzie (exercises) protocols with spinal manipulation.

See **Wiesel, MD (Cherkin, PhD) McKenzie Protocol versus Chiropractic Care for LBP. Backletter 1995:10(11):121, 130, 131.** And **Wiesel, MD. (Cherkin, PhD) Mckenzie versus Manipulation. Back letter 1996;11(12)Dec: 133, 139.**

McKenzie and spinal manipulation were equivalent in symptoms, function, disability, and satisfaction, and were superior to booklet in terms of symptoms and satisfaction. However, McKenzie did not reduce recurrences or long-term utilization of health care.

In other words, exercise is no cure in and of itself for the treatment of low back pain. Consider the following study.

Bronfort. DC et al. JMPT 1996; 19(9): 570-582

This was a randomized controlled study with a one year follow-up in 174 chronic low back pain patients (age 20-60) that compared the efficacy of five weeks of: (1) spinal manipulation (SM) with trunk strengthening exercises (TSE); (2) SM combined with trunk stretching exercises; and (3) NSAIDs with TSE all followed by 6 weeks of supervised exercise alone.

Results: Outcomes at 5 and 11 weeks revealed no significant group differences. Continuance of exercise during the follow-up year, regardless of the type of treatment, was associated with a better outcome.

Conclusion: All three treatment regimens were associated with similar and clinically important improvement over time and the treatment was considered superior to the expected natural history of long-standing chronic low back pain. **For the management of chronic low back pain, trunk exercise in combination with spinal manipulation** or NSAIDs seems beneficial and worthwhile.

What About Costs?

There are numerous studies demonstrating the treatment and cost effectiveness of chiropractic care. In general, because of the all-inclusive nature of a chiropractic practice (everything is generally done in-house versus the ala-carte method of medical management), chiropractic can return a patient to work in half the time, with half the cost, and half the disability. An exciting new study was reported in 1996 in the *American Journal of Managed Care*.

(page 6, Soft tissue injuries, cont't)

Mosley, Cohen, DC, Arnold, MD. American Journal of Managed Care 1996;2:280-282.

Retrospective study of patients at an independent physician model HMO in Louisiana evaluating cost of care for acute low back pain or neck pain for patients who sought chiropractic care or other treatment. Also looked at surgical rates, use of diagnostic imaging (MR and CT) and patient satisfaction on claims paid Oct. 1, 1994 – Oct. 1, 1995.

Results: *Cost of care for BP and NP was substantially lower for DC patients than non-DC patients. Use of prescription drugs and diagnostic imaging were significantly greater in non-DC group whereas surgical rates and patient satisfaction were nearly identical.*

Conclusion: *DC care outcomes are equal to those of non-DC care at substantially lower costs. MD patients got 2x as many prescriptions. Study demonstrates that DC services were well integrated in an HMO and has proven satisfactory to patients and providers as well as cost-effective for BP and NP. The system offered self-referral for DC services.*

If half of the patients treated by traditional care received DC care, annual savings would have exceeded \$215,000. We recommend its wider application by the managed care industry and physician community. [Emphasis Added.]