

EVIDENCE BASED CHIROPRACTIC CARE FOR LOWER BACK PAIN

Texas Chiropractic Association
2018

Chronic Lower back pain is the 3rd most expensive medical condition to treat

- Diabetes \$101.4 billion/year
- Heart Disease \$88.1 billion/year
- Chronic Lower Back and neck pain \$87.6 billion/year

U.S. Spending on Personal Healthcare and Public Health 1996-2013, JAMA, 2016;316(24):2627-2646

**USA spends about \$250 billion a
year on Chronic Back pain**



Lower Back pain is now the most disabling disease in the world

- Lower back pain, neck pain, and arthritis affect 1.7 billion people around the world. It is more debilitating than HIV/AIDS, all tropical diseases, the forces of war and nature, and all neurological conditions combined.

- What lower back pain is and why we need to pay attention, Lancet special series March 21, 2018

\$Costs\$

- 6% of US adults sought care for back pain from 1998-2008

The costs to treat has risen 94%.

- Most of the costs are due to specialty care
Chiropractic and Physical therapy costs remained relatively stable during this time frame.

- Where the United States spends its spine dollars: expenditures on different ambulatory services for the management of back and neck conditions. Spine 2012 Sept 1;37(19):1693-701.

Spine Related Diagnosis

- If you are diagnosed with a spine problem, your average health care costs are almost double what someone without a diagnosis of neck or back pain.
- Total healthcare cost w/back problems = \$6096
Total costs without back diagnosis = \$3516
- These increased costs were not associated with improved health status

• Expenditures and health status among adults with back and neck problems. JAMA 2008 Jun 11;299(22):2630

Is More Treatment More Effective

- Richard Deyo, orthopedic surgeon, reported in the Journal American Board of Family Medicine, 2008 states from the years 1997 to 2004 ESI increased over 600%, opioid prescriptions increased over 400%, MRI increased over 300%, and lower back surgery increased over 250%. While at the same time functional limitations and disability are on the rise. The utilization of chiropractic services did not change significantly over this time period.

Washington State Workers Compensation Study

- In a Study on Washington State workers compensation claims if a patient saw a orthopedic surgeon first he/she had a 42.7% chance of having lower back surgery. If the first person the injured worker saw was a DC he/she had a 1.5% chance of surgery
- Early Predictors of lumbar spine surgery after occupational injury: results of a prospective study of workers in Washington State: Spine 2013 May 15;38(11):953-64

Guidelines

- Most major medical guidelines recommend spinal manipulative therapy as an early intervention for acute and chronic back pain.

Cochrane Database Syst Review 2011 Feb 16

- Spine J 2010 Jun; 10(6):514-29
- Ann of Intern Med 2017 April 4;166(7):493-505
- Lancet, 2018 March 21 special edition

Epidural steroid injections not effective for

- Seems to work best for radicular pain with systematic reviews rating it as good

Does not seem to be as effective for DJD or stenosis, with systematic reviews rating it as fair.

- Epidural steroid injections are associated with less improvement in patients with lumbar spinal stenosis: a subgroup analysis of the Spine Patient Outcomes Research Trial. Spine 2013 Feb 15;38(4) 279-91.
- Effectiveness of therapeutic lumbar transforaminal epidural steroid injections in managing lumbar spinal pain. Pain Physician 2012 May-Jun 15(3):E1999-245.

NSAID, Spinal Manipulation, Exercise

- Most every Major Medical Guideline has recommended these three procedures for lower back pain and should be done within the first 2-4 weeks of seeing a patient
- Only about 50% of current PCP follow guidelines.
- 73% of chiropractors adhere to current guidelines with 62% of physiotherapist
- Adherence to clinical practice guidelines among three primary contact professions: a best evidence synthesis of the literature for the management of acute and subacute low back pain. Can Journal of Chiro 2014 Sept;58(3):220-37

Lumbar Spine Surgery

- While surgery for herniated disc has shown improved results in pain and disability these results seem to disappear within 2-8 years.
- The rate of lumbar spine surgery has decreased but the rate of complex fusion surgeries has **increased** which has not improved disability and has lead to an increase in complication rates and costs.

- What Are Long-term Predictors of Outcomes for Lumbar Disc Herniation? A Randomized and Observational Study. Clinical Orthopedics and Related Research, 2014 Jul 24

It's All In The Research

- In one study, utilizing clinical practice guideline, in a hospital setting for acute lower back pain, found that by adding spinal manipulative therapy to usual medical care were associated in significant greater improved function after 8,16, and 24 weeks.

- The Chiropractic Hospital-based Interventions Research Outcomes (CHIRO) study: a randomized controlled trial on the effectiveness of clinical practice guidelines in the medical and chiropractic management of patients with acute mechanical low back pain. Spine 2010 Dec10(12):1055-64

It's All In The Research

- This study in JAMA states that spinal manipulation therapy was associated with modest improvements in pain and function at up to 6 weeks, with transient mild musculoskeletal harms. This level of evidence is equivalent to NSAID.
- Association of Spinal Manipulation Therapy with Clinical Benefit and Harm for Acute Lower Back Pain. JAMA 2017;317 (14):1451-1460

It's All In The Research

- Another study shows that chiropractic spinal manipulative therapy CMT combined with standard medical care SMC offered significant advantages of decreased pain and improved function over SMC alone.
- Adding chiropractic manipulative therapy to standard medical care for patients with acute low back pain: results of a pragmatic randomized comparative effectiveness study. Spine 2013 Apr 15;38(8):627-34

It's All In The Research

- Another Study at Jordan Hospital in Massachusetts triaged patients into spinal care pathways. Of 518 consecutive patients 83% were seen by chiropractors. The average number of visits was 5.2 the average cost was \$302. Mean VAS on intake was 6.2 on dismissal 1.9 and 95% of patients rated their care as excellent.
- A hospital-based standardized spine care pathway: report of a multidisciplinary, evidence-based process JMPT 2011 Feb;34(2):98-106

**If it's all in the Research.... what
does the Research suggest?**

The Research Speaks

- For acute lower back pain
- 6-12 sessions over a 2-4 weeks period achieves equivalent or superior results than other physical modalities, medication, education, or exercise for short, medium, and long term follow up.

• NASS Contemporary Concepts in Spine Care: spinal manipulation therapy for acute low back pain. Spine 2010, Oct;10(10):918-40

The Research Speaks

- For Chronic lower back pain spinal manipulation with the addition of lumbar stabilizing exercises is suggested.

The Research Speaks

- Evidenced based care has been tied to increase Quality of Care. Increase Quality adds value to the service or plan.

Safety of Manipulation

- One study suggests the rate of serious complications of spinal manipulation for lumbar disc herniation is 1 in 3.7 million

- Safety of spinal manipulation in the treatment of lumbar disk herniations: a systematic review and risk assessment. JMPT 2004 Mar-Apr;27(3):197-210

Stroke Incidence Exaggerated

- The largest study to date on cervical manipulation (studying 100 million lives) adverse events was published in JMPT in 2009 and found that the risk of stroke following cervical manipulation was the same as that of visiting a PCP. There theory is that the patient that presents to a provider was in the process of having a VAS.
- Risk of vertebrobasilar stroke and chiropractic care: results of a population-based case-control and case-crossover study. JMPT 2009, Feb32(2 supplement):S201-8

- Most doctors of chiropractic pay less in malpractice insurance in a month than most people pay on their new model car insurance.

Summary

- Utilizing evidence-based chiropractic services can help reduce costs, improve outcomes, and add value to patients with acute and chronic lower back pain.