What Do Medical Doctors Think About Chiropractic Care?

What Percent Of Family Medical Doctors Believe Chiropractic Works?

91%

Data taken from:
Managing low back pain--a comparison of the beliefs and behaviors of family physicians and chiropractors.
How Cost-Effective Is Chiropractic Care?

How Much More Cost-Effective Is Chiropractic Care for LBP Compared to Medical Care?

$919

Chiropractic Treatment: $282

Chiropractic Care Is 70% Less Expensive!

Cost Of Treatment In Dollars

Data taken from:
Costs and recurrences of chiropractic and medical episodes of low-back care.
Smith M, Stano M. J Manipulative Physiol Ther 1997 Jan;20(1):5-12
Health Services Research Program, School of Public Health, St. Louis University, MO, USA.
What Do Patients Think About Chiropractic Care?

Patients Are Highly Satisfied With The Care Provided By Chiropractors

- 90% of chiropractic patients would seek chiropractic care for similar problems in the future
- 97% of chiropractic patients would refer a friend or family member for chiropractic care

Data taken from:
Carey TS, Garrett JM, Jackman A, Hindler N. Med Care 1999 Feb;37(2):157-64
Department of Medicine, University of North Carolina at Chapel Hill, 27599-7590, USA.

Patient satisfaction with chiropractic care.
Center for Clinical Studies, Northwestern College of Chiropractic, Bloomington, MN 55431.
Does chiropractic spinal manipulation increase arm strength?

What is the average increase in arm strength following neck manipulation in chronic neck pain patients?

![Graph showing 25% increase in arm strength]

Data taken from:
Faculty of Kinesiology, The University of Calgary, 2500 University Drive NW, T2N 1N4, Calgary AB, Canada
Decrease in elbow flexor inhibition after cervical spine manipulation in patients with chronic neck pain.
Suter E, McMorland G. Clin Biomech (Bristol, Avon) 2002 Aug;17(7):541-4
Faculty of Kinesiology, The University of Calgary, 2500 University Drive NW, T2N 1N4, Calgary AB, Canada

**Background:** Joint dysfunction is typically associated w/ "reflex-type muscle inhibition" of the local mm. Does it extend to peripheral mm when a spinal joint is involved?

**Study background:** 16 chronic neck pain pts (14 females/34 yoa, avg.) were studied. They had neck pain for 5 yrs, on avg., w/ an avg. pain severity of 3.6/10 at the time of the study. The location of pain was as follows: mainly right-sided - 11 subjects, mainly left-sided - 2 subjects, equal bilaterally - 3 subjects.

All underwent evaluation for: 1) right and left biceps mm torque (biceps maximal voluntary contraction was measured); 2) right and left biceps mm inhibition (biceps maximal voluntary contraction was measured, then testing was repeated w/ a brief electrical stimulation applied during the maximal contraction; the diff. between the values = % of mm inhibition).

**Tx description:** The "mobility of the neck joints was assessed by palpation by an experienced chiropractor." "C5/6 and C6/7 were the levels that demonstrated the restricted mobility." All then received 1 "spinal manipulative treatment of the cervical spine" w/ diversified technique.

**Results (ss):** 1) biceps mm inhibition: a) right arm: before - 16.8%, after - 5.7%; b) left arm: before - 9.7%, after - 5.4%; 2) biceps torque: a) right arm: before - 34.6 Nm, after - 45.5 Nm (a 32% increase); b) left arm: before - 35.9 Nm, after - 43.2 Nm (a 17% increase).

**Conclusion:** "Spinal manipulation decreased muscle inhibition and increased elbow flexor strength..." "Cervical spine manipulation resulted in a statistically significant" decrease in biceps muscle inhibition and increase in biceps torque. "...chronic neck pain may have long-lasting effects on upper extremity muscle function."

**Theory:** A "change in afferent input elicited by the [SMT] may help to restore excitatory function of upper extremity muscles..." "It is also possible that...the decrease in pain contributed to the decrease in muscle inhibition observed after spinal manipulation."

**Bonus note comment:** The "25%" number is the average of the right and left arm torque increase.
Chiropractic provides rapid relief for disabling low back pain

Average decrease in low back pain disability following just 9 chiropractic treatments

Data taken from:
Effectiveness of four conservative treatments for subacute low back pain: a randomized clinical trial.
Research Division; and Professional Affairs, Los Angeles College of Chiropractic, Southern California University of Health Sciences, Whittier, California, USA. jhsieh@ix.netcom.com
Effectiveness of four conservative treatments for subacute low back pain: a randomized clinical trial.


Research Division; and Professional Affairs, Los Angeles College of Chiropractic, Southern California University of Health Sciences, Whittier, California, USA. jhsieh@ix.netcom.com

Study background: 200 LBP pts (48 yoa, avg./ 65% male) recruited via radio/TV ads and brochures were studied. They had 11 wks of LBP, on avg. (LBP duration had to be 3 wks - 6 mths, or LBP w/ a "pain-free period of at least 2 months in the preceding 8 months for recurrent LBP"). It was the first LBP episode for only 23% of the pts, and roughly 1/3 had tried DC or PT care previously: 1) DC - 41% (69% had "satisfactory" results); 2) PT - 28% (69% had "satisfactory" results).

All pts were told to avoid: 1) "any unusual activity over the 3-week treatment period"; 2) using other txs (including pain meds); 3) lifting heavy objects, lifting/working bent over, prolonged sitting/standing w/o position changes.

Pts were randomly assigned to 1 of 4 groups (all txs took place at LACC and the University of California-Irvine Medical Center): 1) Back school: Instruction was provided by "experienced licensed" PTs and DC's 1x/wk for 3 wks. Instruction description: a) 1st visit: Pts watched 3 videos ("The Back Care Program" by Saunders) on "spine anatomy, common causes of LBP, and body mechanics for daily activities." Pts then "received individual instructions and supervised practice of their home program" (sitting and standing neutral postures, body mechanics, home exercises consisting of "lumbar flexion, extension, stretching, and stabilization" exercises). Pts were also told to undertake daily walking for 20 min's; b) 2nd visit: Pts "received individual instructions and supervised practice of their home program". Pts were also told to increase walking time to 30 min/s/day; c) 3rd visit: Pts "received individual instructions and supervised practice of their home program". Pts were told to maintain their 30 min's of daily walking; 2) Myofascial release therapy (MFR): Tx was provided by "trained" PT's and DC's 3x/wk for 3 wks. Tx was directed at the "involved lumbar paraspinal or gluteal muscles". No self-care recommendations were allowed except "ice if the pain flared up after treatment". Tx description: intermittent Flouri-Methane sprays and 5 to 10 stretches after 3 to 5 seconds of each isometric contraction at 50% to 70% of their maximal effort," "ischemic compressions using a massage finger," "stripping massage along the orientation of the taut bands by the two thumbs for 3 to 5 strokes," and "hot packs for 10 minutes at the completion of therapy; 3) Joint manipulation (SMT): Tx was provided by "experienced licensed chiropractors with a 5-year minimum of clinical experience" 3x/wk for 3 wks. No self-care recommendations were allowed except "ice if the pain flared up after treatment". Tx description: Used Diversified technique (drop-table techniques were also allowed), but no flexion-distraction or mobilization. They tx'd "the lumbar and/or sacroiliac regions" (i.e., the tender locations...or other levels clinically deemed by chiropractor to need therapy.); 4) SMT + MFR (combo): Tx was provided 3x/wk for 3wks. No self-care recommendations were allowed except "ice if the pain flared up after treatment".

Results (blinded examiners provided all assessments): 1) % improvement in pain (on a 0-10 VAS during the past wk): a) after 3 wks of tx: back school - 49% better (from 4.14 to 2.13), combo - 46% (from 3.75 to 2.04), SMT - 30% (from 3.66 to 2.58), MFR - 31% (from 4.05 to 2.78); b) 6 mths after tx: back school - 45% (from 4.14 to 2.29), combo - 40% (from 3.75 to 2.24), SMT - 33% (from 3.66 to 2.40), MFR - 26% (from 4.05 to 2.99); 2) % improvement in the Roland Moris disability questionnaire (24 "check-off" questions on LBP effects; max score is 24): a) after 3 wks of tx: back school - 46% better (from 7.92 to 4.26), combo - 51% (from 7.62 to 3.73), SMT - 47% (from 8.40 to 4.42), MFR - 31% (from 8.35 to 5.80). b) 6 mths after tx: back school - 56% (from 7.92 to 3.48), combo - 53% (from 7.62 to 3.56), SMT - 61% (from 8.40 to 3.29), MFR - 39% (from 8.35 to 5.06).

Conclusion: "...back school therapy and specific manual procedures yielded equally effective outcomes." "The effectiveness of back school was particularly surprising..." (it was supposed to be the control group).

Comments: "...the potential for a 'global treatment act' was greatly diminished in this study" since the manual therapy "clinicians were instructed to refrain from giving advice" (no self-care recommendations were allowed except "ice if the pain flared up after treatment").

Other: Follow-up rate: 3 wks - 92%, 6 mths - 89%. Compliance: manual therapy groups - 90% (compliance = attended all 9 txs), back school group - 69% (compliance = did exercises at least 5 days/wk during the 3 wk study period). Other txs: a) during 3-wk tx period 10% of pts used OTC pain meds and 1% saw another health care provider for LBP; b) during the 6-mth follow-up period: combo pts - 10% were "continuing care for LBP", myofascial - 6%, back school - 7%, manipulation - 3%. Complications: 23 patients reported adverse effects: combo - 7, SMT - 6 (2 "claimed that [SMT] had aggravated their condition"), MFR - 4 (1 case of constant tinnitus), back school - 6.
How effective is chiropractic care for pregnancy LBP?

What percent of pregnant women get relief from back pain with chiropractic care?

Data taken from:
Back pain during pregnancy and labor.
Division of Chiropractic Science, Canadian Memorial Chiropractic College, Toronto.
Low back pain impacting your work?
Chiropractic can help

On average, what percent of chronic low back pain patients have to change jobs each year?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Chiropractic Patients</th>
<th>Medical Patients</th>
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<tr>
<td>8%</td>
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<td>23%</td>
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Data taken from:
A descriptive study of medical and chiropractic patients with chronic low back pain and sciatica: Management by physicians (practice activities) and patients (self-management).
Nyiendo J, Haas M, Goldberg B, Lloyd C. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):543-51
Western States Chiropractic College, Division of Research, Center for Outcomes Studies, Portland, Ore.
Are chiropractic patients taught more about their back problems than medical patients?

What percent of medical and chiropractic patients felt that they “knew what to do to take care of my back” after their consultation?

- **Chiropractic Patients**: 89%
- **Medical Patients**: 56%

*Data taken from:*

A descriptive study of medical and chiropractic patients with chronic low back pain and sciatica: Management by physicians (practice activities) and patients (self-management).

Nyiendo J, Haas M, Goldberg B, Lloyd C. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):543-51

Western States Chiropractic College, Division of Research, Center for Outcomes Studies, Portland, Ore.
A descriptive study of medical and chiropractic patients with chronic low back pain and sciatica: Management by physicians (practice activities) and patients (self-management).
Nyiendo J, Haas M, Goldberg B, Lloyd C. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):543-51
Western States Chiropractic College, Division of Research, Center for Outcomes Studies, Portland, Ore.

Study background: A practice-based, observational study of DC & MD self-referred CLBP pts. Study period was 12-94 through 6-96. 268 chronic LBP pts w/ pain radiating below the knee were studied (LBP duration => 6 wks, 57% female, 44 yoa, avg., first time visiting this particular physician). 121 were medical pts (from 111 practices), 147 were chiropractic pts (from 60 practices). They were followed for 1 yr, and pt & physician data were obtained from self-administered questionnaires.

Results:
1) pain severity:
   MD - 57/100,
   DC - 53/100;
2) disability (Oswestry) at baseline (ss):
   MD - 56,
   DC - 45;
3) # of visits (ss):
   MD - 3.5,
   DC - 8.7;
4) txs used the most:
   MD: meds - 81%, exercise plan - 42%, self-care education - 30%, PT referral - 18%;
   DC: SMT - 92%, modalities - 66% (massage - 52%, electrotherapy - 47%, ultrasound - 25%), exercise plan - 56% (ss),
   self-care education - 57% (ss);
5) "I knew what to do to take care of my back after the visit with my doctor" (% who “agree” or “strongly agree” at 1 yr – ss):
   MD - 56%,
   DC - 89%;
6) % of pts who changed jobs between episodes (ss):
   MD - 23%,
   DC - 8%;
7) % who requested work modification between episodes (ss):
   MD - 28%,
   DC - 8%.

Conclusion: "...we cannot determine with certainty which variables were most responsible for the finding of better pain and disability outcomes for the DC patients..." "The chiropractic encounter may have enhanced patients' self-efficacy motivation, leading to...better outcomes."

Comments: At baseline, 12.5% of MD pts and 9.3% of DC pts were Workers Comp cases.
Chiropractic care vs. medical care: Which do patients feel is more effective?

What percent of chronic low back and leg pain patients believe their chiropractic or medical treatment is working?

Data taken from:
Pain, disability, and satisfaction outcomes and predictors of outcomes: a practice-based study of chronic low back pain patients attending primary care and chiropractic physicians.
Western States Chiropractic College, Division of Research, Center for Outcome Studies, Portland, OR 97230, USA.
Pain, disability, and satisfaction outcomes and predictors of outcomes: a practice-based study of chronic low back pain patients attending primary care and chiropractic physicians.

Western States Chiropractic College, Division of Research, Center for Outcome Studies, Portland, OR 97230, USA.

Study background: A practice-based, observational study of DC & MD self-referred CLBP pts. The study period was 12-94 through 6-96. 835 chronic LBP pts were studied (LBP duration => 6 wks, first time visiting this particular physician). 309 were medical pts (from 111 practices), and 526 were chiropractic pts (from 60 practices). They were followed for 1 yr, and pt data was obtained from self-administered questionnaires.

Results:
1) general:
   a) leg pain present - 73% of MD pts, 59% of DC pts (ss);
   b) overall avg. pain (0-100 VAS) - 54 for MD pts, 48 for DC pts (ss);

2) pain on 0-100 VAS:
   a) BASELINE:
      MD pts: LBP only - 48.5, +pain above knee - 56.1, + pain below knee - 57.1;
      DC pts: LBP only - 43.3, + pain above knee - 48.6, + pain below knee - 53.0;
   b) AFTER 6 MTHS (56-62% follow-up rate):
      MD pts: LBP only - 24.5 (50% better), +pain above knee - 27.7 (51%), + pain below knee - 43.5 (24%);
      DC pts: LBP only - 18.5 (57%), + pain above knee - 21.6 (56%), + pain below knee - 25.1 (53% - ss);
   c) AFTER 1 YEAR (60-61% follow-up rate):
      MD pts: LBP only - 27.8 (43%), + pain above knee - 24.1 (57%), + pain below knee - 43.1 (25%);
      DC pts: LBP only - 18.4 (57%), + pain above knee - 23.7 (51%), + pain below knee - 21.8 (59% - ss);

3) Pt satisfaction (evaluated at 1 yr - % who felt “very satisfied” or “satisfied”):
   a) Pt confident treatment was working: MD - 36%, DC - 74%;
   b) Pt given sufficient info about the cause of pain: MD - 40%, DC - 73%.

Conclusion: There is “an advantage for DC care over MD care for patients with pain below the knee.” “Much better pain and disability outcomes were realized for chiropractic patients...”

Comments: ss diff’s held even after authors controlled for general health and mental status, depression, income, baseline pain & disability, sex, age, etc.
What do patients think about chiropractic care?

What percent of patients give an "excellent" rating to their overall satisfaction with chiropractic care?"

83%

Data taken from:
Patient satisfaction with chiropractic physicians in an independent physicians' association.
Gemmell HA, Hayes BM. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):556-9
Director of Research, Oklahoma State Chiropractic Independent Physicians' Association, and private practice of chiropractic, Tulsa, Okla.
Are patients highly satisfied with the care provided by chiropractors?

What percent of chiropractic patients would refer a friend or family member for chiropractic care?

96%

Data taken from:
Patient satisfaction with chiropractic physicians in an independent physicians' association.
Gemmell HA, Hayes BM. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):556-9
Director of Research, Oklahoma State Chiropractic Independent Physicians' Association, and private practice of chiropractic, Tulsa, Okla.
Patient satisfaction with chiropractic physicians in an independent physicians' association.
Gemmell HA, Hayes BM. J Manipulative Physiol Ther 2001 Nov-Dec;24(9):556-9
Director of Research, Oklahoma State Chiropractic Independent Physicians' Association, and private practice of chiropractic, Tulsa, Okla.

Study background: 150 DC pts were sent a satisfaction survey between 3-00 through 6-00. They were randomly chosen from a database of pts from the Oklahoma State Chiropractic Independent Physicians' Association. They had all sought care in 1-00 or 2-00. 44% responded (46 yoa, avg., 68% female).

Results (% who answered "excellent"): 1) length of time to get an appointment - 85%; 2) length of wait at the office - 76%; 3) time spent with the DC - 74%; 4) explanation of what was done - 73%; 5) technical skills of the DC - 83%; 6) personal manner of the DC - 92%; 7) the visit overall - 83% (100% rated it as "very good" or "excellent"); 8) would definitely rx the DC to family/friends - 96%.

Conclusion: “The findings are consistent with previous studies that show a high level of satisfaction among chiropractic patients.”
Is chiropractic care effective for chronic neck pain?

On average, how much do just 8 chiropractic treatments decrease chronic neck pain?

Decreases pain by 58%

Data taken from:
A pilot randomized clinical trial on the relative effect of instrumental (MFMA) versus manual (HVLA) manipulation in the treatment of cervical spine dysfunction.
Wood TG, Colloca CJ, Matthews R. J Manipulative Physiol Ther 2001 May;24(4):260-71
Department of Chiropractic, Technikon Natal, South Africa.
A pilot randomized clinical trial on the relative effect of instrumental (MFMA) versus manual (HVLA) manipulation in the treatment of cervical spine dysfunction.

Wood TG, Colloca CJ, Matthews R. J Manipulative Physiol Ther 2001 May;24(4):260-71

Department of Chiropractic, Technikon Natal, South Africa.

Study background: 30 chronic neck pain pts (pain for at least 1 mth) were studied. They all had painful cervical extension, local tenderness, restricted intersegmental motion on palpation, and hypomobility on C/S ROM testing.

They were randomly assigned to (C/S tx only, a max of 8 txs over 1 mth, pts did not receive any other form of tx): 1) Activator (Il unit set to max force); 2) Diversified rotary/lateral break. The SMT location was determined by: pain and mvmt restrix on motion palpation, localized tenderness, pain w/ axial loading w/ neck ext. & rot., and Activator leg length checks.

Results (avg. decrease in pain on 0-100 VAS): 1) after 1 mth of tx: Activator - 55% (from 52.5 to 23.5), Diversified - 61% (from 48.0 to 18.7); 2) 1 mth after tx had ended (only median #'s available): Activator - 55% (from 50 to 22.5), Diversified - 53% (from 42.5 to 20).

Conclusion: 1) "...the 2 treatment methods acted with equal effectiveness..." 2) Diversified neck txs "show no benefit over MFMA instrumental thrusts..." 3) "...research must continue to identify SM techniques that maximize therapeutic outcomes while minimizing patient risk."

Bonus Note Comments:
The "58%" number comes from the average improvement in both the Activator and the Diversified groups combined (after the 1 mth of care, which involved a max of 8 txs).
How satisfied are chiropractic patients with the care they receive?

What is the average level of satisfaction among chiropractic patients?

87%

Reflects an average rating of 6 on a 7-point scale:
6 = "Excellent"
7 = "The Best"

Data taken from:
Patients using chiropractors in north america: who are they, and why are they in chiropractic care?
Veterans Affairs Health Services Research and Development Service, Los Angeles, California.
Patients using chiropractors in north america: who are they, and why are they in chiropractic care?
Veterans Affairs Health Services Research and Development Service, Los Angeles, California.

Study background: 185 established DC's (in practice for at least 2 yrs) from 5 different regions (San Diego, CA, Portland, OR, Vancouver, WA, Minneapolis-St. Paul, MN, Miami, FL, and Toronto, Ontario, CA) were randomly chosen to participate in a survey study. Ten consecutive pts from each practice were invited to participate in the study (if the DC saw 20 or more pts/day, then every 2nd pt {or 3rd, or 4th, etc.} was asked to participate). Pts filled out/returned their survey to the DC's office staff in a sealed envelope. The survey included questions about the pt's current health problem, questions about that day's visit, other forms of care, satisfaction w/ DC care, etc. An on-site research assistant ensured that study protocols were followed.

Results:
1) response rate: 71% (131/185) of the DC's chose to participate, and 97% (1275/1310) of the pt surveys were returned;
2) general info on pts: 59% had not had other care before DC care for their current problem, 34% had been "seeing the chiropractor for longer than 24 months", level of satisfaction w/ DC care - 87% (based on a 14-item "Chiropractic Satisfaction Questionnaire");
3) pt-specified reason for chiropractic tx: LBP - 41% ("Back or low back sprain/strain, injury, subluxation, pinched nerve, or simply 'back' or 'low back'"), NP - 24% ("Neck sprain/strain, injury, subluxation, pinched nerve, or simply 'neck'"), HA - 4%, disc problems - 3%, scoliosis - 2%, upper/lower extremity sx - 13%, "strains, disks, injury, pinched nerve, site not specified" - 4%, other musculoskeletal prob's - .4%, non-musculoskeletal prob's - 6% (allergies, intestinal parasites, etc.; 69% of these pts came from just 9% of the DC's), not mentioned - 3%.

Conclusion: Pts "seeking chiropractic care did so for musculoskeletal symptoms almost exclusively." However, "...our data may be specific to the sites we studied" (they didn’t sample randomly from across the country).
Can chiropractic help restore the normal curves in your spine?

Average improvement in the normal curvature of the cervical spine after a course of chiropractic care

85%

Data taken from:
A new 3-point bending traction method for restoring cervical lordosis and cervical manipulation: a nonrandomized clinical controlled trial.
University of Southern California Medical School, 1339 Luna Vista Drive, Pacific Palisades, CA 90272, USA.
A new 3-point bending traction method for restoring cervical lordosis and cervical manipulation: a nonrandomized clinical controlled trial.


University of Southern California Medical School, 1339 Luna Vista Drive, Pacific Palisades, CA 90272, USA.

Study background (a prospective, non-RCT): 54 subjects (35 yoa, avg.) from Deed Harrison's chiropractic practice in Elko, NV were studied. All had chronic neck pain (how long -?). All had a lordosis of <25°, which is 1 SD below the avg. of 34° as measured using Ruth Jackson stress lines (the intersection of the posterior body tangents of C2 & C7, aka absolute rotation angle, or ARA).

Tx description: A) 30 pts (25 women) received Chiropractic BioPhysics (CBP) tx: All passed a "screening protocol that established their tolerance to cervical distraction and extension." They then received C/S SMT for 3-4 wks (tx frequency -?) consisting of "global lateral bending combined with a small amount of axial torsion of the head and neck." Following their course of SMT, they then received C/S traction 3-5x/wk for 8-10 wks using "Pope's 2-way" traction.

Description of "Pope's 2-way" traction: 1) pt sitting; 2) the 1st "way" = a head halter connected to the wall (behind the pt) w/ a strap at a 45° angle which provides distraction, retraction, and extension; 3) the 2nd "way" = a strap around the neck (connected to a pulley and weight in front of the pt) provides an anterior pull to the midneck. Traction protocols: started at 3 min's (added 1 min/tx session to a max of 20 min's), started at 15 lbs (increased to a max of 35 lbs over consecutive visits); B) 24 control pts from Deed's practice (13 women) did not receive any tx.

Results (ss): 1) LORDOSIS: a) treatment pts were checked 3 mths after study start (& 35 traction sessions, avg.): C1-7 Cobb angle - +12.1° (from 4.8 to 16.9, a 2.5-fold improvement), C2-7 Cobb angle - + 12.4° (from 12.4 to 26.6, a 115% improvement), Chamberlain's line (from the post. hard palate to post. foramen magnum) - + 8.0° (from 1.4 to 9.9, a 6-fold improvement); b) control pts were checked 8 mths after study start: C1-7 Cobb angle ++.4° (from 37.9 to 37.7), C2-7 Cobb angle - .4° (from 6.0 to 5.6), Chamberlain's line - +1° (from 1.7 to 2.7); 2) % CHANGE IN PAIN (0-10 VAS): a) tx pts - 63% better (from 4.3 to 1.6); b) control pts - 6% worse (from 3.6 to 3.8).

Conclusion: CBP tx produced “clinically significant increases in cervical lordosis for neck pain subjects.” CBP also produced “statistically significant changes in pain scales...”

Comments: Long-term follow-up: 25/30 of the tx pts volunteered for a long-term follow-up (18.5 mths after study start, on avg.): 1) lordosis: C1-7 Cobb angle - lost 4.5° of 12.8° improvement (an overall improvement from baseline of 20%), C2-7 Cobb angle - lost 3.2° of 12.1° improvement (an overall improvement from baseline of 185%), C2-7 ARA - lost 3.7° of 14.2° improvement (an overall improvement from baseline of 85%), Chamberlain's angle - added .5° to 8.5° improvement (an overall improvement from baseline of 6.4-fold); 2) pain - ?.

How did they do the x-rays? “Subjects were asked to nod their heads twice and assume a comfortable resting position” (w/ eyes closed -?).


What was the traction screening protocol? The study doesn’t say, but the following protocol taken out of Stephan Troyanovich’s book (Structural Rehabilitation of the Spine & Posture) may be similar: 1) PT history (assess for conditions which may increase risk of an adverse reaction): a) stroke - hx of or predisposition to stroke, HTN, atherosclerosis, diabetes, smoking, oral contraceptives, etc; b) cord damage - posterior osteophytic spurring, disc protrusion, spinal stenosis, etc; 2) George's test: a) check BP bilaterally (a 10mm Hg difference may = subclavian stenosis); b) check the carotid arteries: auscultate for bruits, palpate for thrills; c) position head in extension and rotation (vertigo, nystagmus, dizziness, nausea or other neuro sx may indicate VBI); 3) Traction tolerance (traction is contraindicated if dizziness, headache, nausea, radiating pain, numbness, muscular weakness, loss of coordination, visual disturbances, etc., are elicited during testing): a) compression/ distraction tolerance (pt seated w/ neck in neutral position for testing): compression - press down on vertex of head, distraction - pull up on sides of head; b) "head hanging" traction tolerance: pt rests supine for 3-5 min's w/ head hanging off the end of the table; c) 1-wk trial of extension traction: pt supine on a 30° incline w/ head hanging off end of table, a "supine-type traction halter" provides traction, 3 pounds for 3 min's on 1st visit, increase time by 1-2 min's over 5 tx sessions.

Bonus note comments: The “85%” number is the long-term (18.5 mth) improvement in the C2-7 absolute rotation angle (ARA), which changed from 12.4° to 22.9°.
Surgery vs. Manual Therapy for arthritic knee pain

Percent decrease in chronic, arthritic knee pain
4-6 weeks after treatment

Arthroscopic Surgery* 21%
Sham Surgery* 29%
Manual Therapy^ 56%

Data taken from:
*A controlled trial of arthroscopic surgery for osteoarthritis of the knee.
Houston Veterans Affairs Medical Center, Baylor College of Medicine, Houston, TX 77030, USA.

^Effectiveness of manual physical therapy and exercise in osteoarthritis of the knee. A randomized, controlled trial.
Brooke Army Medical Center and US Army-Baylor University, Fort Sam Houston, Texas 78234-6200, USA. gail.deyle@amedd.army.mil
A controlled trial of arthroscopic surgery for osteoarthritis of the knee.
Houston Veterans Affairs Medical Center, Baylor College of Medicine, Houston, TX 77030, USA.

Background: In the US ea. yr, over 650,000 arthritic knees undergo "arthroscopic lavage or debridement". Each procedure costs roughly $5k (resulting in $3+ billion being spent on such procedures ea. yr). Uncontrolled trials have shown that about half of pts have some benefit from the procedure. How would the procedures do in the first-ever RCT? Study background: 180 OA knee pain pts were studied. All were Veterans Affairs pts (52 yoa, avg., 93% were male). Knee OA was present on x-ray (mild - 29%, moderate - 46%, severe - 25%), knee pain >= 4 (0-10 VAS), and all had failed "maximal medical treatment for at least six months." They were randomly assigned to 1 of 3 tx groups: 1) arthroscopic debridement: general anesthetic was used, diagnostic arthroscopy was performed, joint was lavaged with at least 10 liters of fluid, rough articular cartilage was shaved, loose debris was removed, all torn or degenerated meniscal fragments were trimmed, and the remaining meniscus was smoothed; 2) arthroscopic lavage: general anesthetic was used, diagnostic arthroscopy was performed, and joint was lavaged with at least 10 liters of fluid; 3) placebo surgery: "a short-acting intravenous tranquilizer" was used, 3 1-cm incisions were made in the skin (but no instruments were inserted), doctor went through the motions of doing an arthroscopic debridement in case the pts did not have total amnesia of the procedure. Note: Pts and outcome evaluators were blinded to tx assignment.

Results (pts were followed for 2 yrs w/ a 92% follow-up rate): 1) what % of pts thought they got the placebo tx? placebo pts - 13.8%, tx pts - 13.2%; 2) % decrease in knee pain (the 1st outcome measure; used the "Knee-Specific Pain Scale [0-100]"); a) 1 yr: debridement - 18% (from 63 to 51.7), lavage - 14% (from 64 to 54.8), placebo - 25% (from 65 to 48.9); b) 2 yrs: debridement - 18% (from 63 to 51.4), lavage - 16% (from 64 to 53.7), placebo - 21% (from 65 to 51.6). Conclusion: "This study provides strong evidence that arthroscopic lavage with or without debridement is not better than... a placebo." "At no point did either arthroscopic-intervention group have greater pain relief than the placebo group." "The billions of dollars spent on such procedures might be put to better use."

Bonus Note Comments: The "21%" and "29%" numbers are from the "6 weeks post-surgery" follow-up (not reported above).

Effectiveness of manual physical therapy and exercise in osteoarthritis of the knee. A randomized, controlled trial.
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Study background (placebo-controlled RCT): 83 knee OA pts who were referred for PT were studied. They were 62 yoa on avg., had knee pain for 5+ yrs on avg., and 81% were on meds for their pain. They were randomly assigned to receive tx 2x/wk for 4 wks with either manual therapy + exercise (tx group) or sham-US. The manual therapy (30 min's for eval., tx, and re-eval.) consisted of passive ROM & joint play mobilization to the knee, lumbar spine, hip, and ankle. The exercise (40 min's - performed in-office & at home) consisted of 3 x 30s stretches (calf, hamstring, and quad), 2 x 30s ROM exercises (knee flexion and extension), 5 min's riding a stationary bike (increased over time), 10 rep's of knee extensions (hold for 6s), and a closed chain knee exercise (30s static knee extension or 30s seated leg press or 30s dips or 30s step-ups). Sham-US (30 min's for eval., tx, & re-eval.) consisted of 10 min's at .1W/cm2 - 10% on. Results (evaluated by a blinded evaluator): 1) Percent increase in distance walked in 6 min's: Manual therapy - 12% at end of tx, 13% 4 weeks later, 11% after 1 year, Sham-US - 0% at end of tx, 2% after 4 weeks later, -4% after 1 year; 2) Percent decrease in WOMAC score (24 questions on function, pain, and stiffness): Manual therapy - 52% at end of tx, 56% 4 weeks later, 36% after 1 year, Sham-US - 16% at end of tx, 15% 4 weeks later, 8% after 1 year. Conclusion: Manual therapy + exercise produced "clinically and statistically significant improvements..." "The beneficial effects of treatment persisted at 4 weeks and 1 year after" treatment ended. Comments: These results are roughly 2x as good as those seen from studies on exercise alone. Exercise studies have also used roughly 4x more clinical visits. Other: This same journal has a shoulder impingement syndrome study "in-press" that compares manual therapy + exercise vs. exercise alone. It reportedly shows that the combination is superior to exercise by itself.

Bonus Note Comments: The "56%" number is from the "4 weeks after the end of tx" follow-up.
How effective is manual therapy for sacroiliac (SI) pain?

What percent of SI pain patients are significantly improved after a course of manual therapy + exercise?

Data taken from:
Sacroiliac joint dysfunction: a long-term follow-up study.
Sasso RC, Ahmad RI, Butler JE, Reimers DL. Orthopedics 2001 May;24(5):457-60
Indianapolis Neurosurgical Group, Indiana University School of Medicine, 46260, USA.
Sacroiliac joint dysfunction: a long-term follow-up study.
Sasso RC, Ahmad RI, Butler JE, Reimers DL. Orthopedics 2001 May;24(5):457-60
Indianapolis Neurosurgical Group, Indiana University School of Medicine, 46260, USA.

Study background: 69 subjects (40 yoa, avg., 80% female) suffering from SI pain (LBP primarily below L5-S1 in the post. iliac area) were studied. All had + exam for SI dysfunction - provocation tests repro’d sx (Patrick’s, palpation, Fortin, etc.), abnormal SI joint motion was present (PSIS’s don’t move up and out as pt flexes, for ex.). The pain duration breakdown was: 10 pts - acute (<7 days), 26 - subacute (7-49 days), 23 - chronic (49+ days).

All underwent a “structured physical therapy program” (by the same PT), which consisted of: 1) mobilization of the affected SI joint, 2) pelvic stabilization exercises (esp. for the rectus), 3) pt education on lifting, bending, etc.

Results (a min. of 2-yrs post-tx): 95% rated their results as “good or excellent” (on a 4-pt scale where 1 = excellent, 2 = good, 3 = fair, 4 = poor).

Conclusion: “A structured [PT] program can produce good long-terms results in most patients.”

Comments: How much tx did the pts receive? The authors don’t say. Also, 8 pts were lost to follow-up, but the authors don’t say how they did.
How effective is chiropractic care for chronic LBP?

What percent of chronic LBP patients note "definite improvement" within just 4 treatments?

50%

Data taken from:
Recovery pattern of patients treated with chiropractic spinal manipulative therapy for long-lasting or recurrent low back pain.
Private Practice, Arendal, Norway.
Recovery pattern of patients treated with chiropractic spinal manipulative therapy for long-lasting or recurrent low back pain.


Private Practice, Arendal, Norway.

Study background: 164 chronic LBP pts (w/ the present episode lasting at least 2 wks, w/ at least 4 wks of LBP in past year, and no SMT 6 mths prior to start of study) were studied. The data was taken from 19 Norwegian DC practices, w/ each DC allowed to enroll 10 consecutive pts.

The pts answered this question before each tx - “Do you feel that you have improved since you began receiving chiropractic treatment? Possible answers included “definite improvement”, “some improvement”, “no change”, “maybe some worsening”, and “I am worse now than when the tx started”.

Results: 50% of the pts noted “definite improvement” by the 4th visit (within 14 days) and 75% noted “definite improvement” by the 12th visit (within 35 days).

Conclusion: CLBP pts “report 'improvement' within a short period of time and after a few treatments.”