

## Nonmusculoskeletal Patients Report Improvement With Chiropractic

Dynamic Chiropractic Staff

A recent international study involving 5,607 chiropractic patients, cared for by 385 DCs in seven different countries, investigated the "possible link between spinal adjustments and changes in nonmusculoskeletal conditions."<sup>1</sup> Part of the goal of this research was to determine if the findings of a previous Swedish study<sup>2</sup> could be replicated in a much larger international sample.

Through the initiative of the World Federation of Chiropractic, the means and manpower were made available to conduct the international multicenter study. The study design was nearly identical to the previous study. A group of volunteer chiropractors was selected, with each DC responsible for one country (Hong-Kong, Japan, Mexico, South Africa, and the United States) or one study site (three sites in Australia and four in Canada).

A total of 385 doctors of chiropractic collected data. The number of patient questionnaires per country ranged from 276 in Hong Kong to 1,855 in Australia. Ultimately, a total of 5,607 questionnaires were analyzed.

According to the investigators, "75% of the participating chiropractors believed that it was always or often more important to correct a subluxation than to relieve a patient's symptomatic complaint, and 74% of chiropractors claimed to have - in the past 3 months - told all or most of their patients that chiropractic adjustments might have nonmusculoskeletal effects on their bodies."

Patients With Nonmusculoskeletal Complaints: Responses to Chiropractic Treatment

Nonmusculoskeletal Complaint (number of patients reporting complaint)	Response Following Treatment	
	Definitely Better (%)	Definitely Worse (%)
Allergies (638)	11%	2%
Asthma (293)	17%	2%
Breathing (460)	27%	1%
Circulation (660)	21%	1%
Digestion (1058)	26%	1%
Hearing (245)	13%	2%
Heart function (244)	11%	1%
ringing in ears (312)	19%	1%
Sinus problems (551)	3%	1%
Urination (235)	10%	1%
Vision (326)	13%	1%

The two most common reasons patients sought chiropractic care were not nonmusculoskeletal complaints, but low back pain (60%) and neck problems (51%). According to the chiropractors participating in the study, the three most common nonmusculoskeletal complaints reported were

problems with digestion (19%), circulation (12%), and allergies (11%). The DCs reported that 69% of patients took medically prescribed drugs.

Fifty-six percent of the patients experienced one to six "treatment visits." Four areas were treated in at least half of the patients (listed in order of frequency): occiput to C3; T1 to T6 (including ribs); T7 to T12; and L1 to L5. Most commonly, the total number of spinal areas treated was three (in 26% of patients). "Manual adjustments were given in 83% of patients, 52% received soft tissue therapy, and 35% were treated with mechanically assisted adjustments."

While patients without nonmusculoskeletal complaints also reported changes, the most significant changes were seen in patients with nonmusculoskeletal complaints. In relation to their specific nonmusculoskeletal complaint, 9% to 56% reported some degree of improvement, while only 1% to 6% reported some degree of worsening (see chart above).

Interestingly enough, there were no significant differences reported relative to the number of areas treated, and regardless of whether patients were treated with traditional adjustments, mechanically assisted adjustments, with mobilization, soft-tissue treatment or other methods. However, relative to the number of visits over the previous three months, an increase in the number of patients reporting at least one nonmusculoskeletal response was noted, "going from 14% (for 1 visit), 22% (for 2-3 visits), and 26% (for 4-11 visits) to 31% (for at least 12 visits) (P = .000)." Differences in outcomes were also noted in relation to the area treated. The upper cervical spine was most often associated with a specific nonmusculoskeletal response, followed by the upper and lower thoracic regions, and the pelvic/sacrum/coccyx area.

While the study suggests some exciting relationships, it does have obvious limitations, according to the authors. One such limitation is the "absence of a control group to compare the results against, which would be necessary to investigate treatment effects. It is therefore not possible to establish whether patients improved (or worsened) because of the treatment, despite the treatment or regardless of the treatment."

But the authors counter that "practice-based research is more likely to reflect everyday clinical practice than the procedures used and results obtained in 'gold standard'-controlled clinical trials, in which highly selected clinicians and patients participate."

Needless to say, a substantial amount of additional research is required before chiropractic can stake a scientific claim on being effective for nonmusculoskeletal ailments, but this may be a start.

### *References*

1. Leboeuf-Yde C, Pedersen EN, Bryner P, et al. Self-reported nonmusculoskeletal responses to chiropractic intervention: a multinational survey. *J Manipulative Physiol Ther* 2005;28:294-302.
2. Leboeuf-Yde C, Axén I, Ahlefeldt G, et al. The types and frequencies of improved nonmusculoskeletal symptoms reported after chiropractic spinal manipulative therapy. *J Manipulative Physiol Ther* 1999;22:559-64.

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