

# More People Utilize And Are Satisfied With Chiropractors

Research is showing that more and more people are using chiropractic to regain and maintain their health and they are very satisfied with the care they are receiving. Following is some recent research that supports this conclusion.

According to the November / December 2001 issue of the *Journal of Manipulative and Physiological Therapeutics*, patient satisfaction surveys show that people are very happy with their experience at their chiropractor's office; 83.3% rated their experience as excellent. An astounding 92.5% stated they would definitely recommend their chiropractor to others.

The February 1, 2002 issue of *Spine* reports that the number of people utilizing the wellness disciplines for their health care has greatly increased. In 1990, 34% of Americans utilized wellness care from outside mainstream medical care. By 1997, this percentage increased to 42%. In 1997, chiropractic accounted for 31% of those visits. This represents a 100% increase in the number of people seeing chiropractors in the last 20 years.

The May 1997 issue of the *Journal of Manipulative and Physiological Therapeutics* reports that "patients positively endorsed all items on the satisfaction questionnaire, indicating a high level of satisfaction with the care they received."

A study reported as far back as the January 1993 issue of the same journal concluded "Patients expressed high levels of satisfaction with their doctors and the care they received. Although women were slightly more satisfied than men, other patient characteristics such as level of education, income, employment status or previous chiropractic care did not influence [patient's] response [to the surveys]."

Commentary: Chiropractic care is being used by more and more people every day, is effective and everyone is very satisfied with it regardless of their social, educational or economic status. Share the word with your friends and family about the benefits you and your family have experienced under chiropractic care.

## ■ Chiropractic patients use medical services less

The June 1996 issue of *Topics in Clinical Chiropractic* reports that older patients who use chiropractic health care services end up using less medical services such as hospitals, nursing homes and prescription drugs.

In a study of geriatrics by the Rand Corporation it was found that 96% of the population studied who use chiropractic had not used nursing home services in the three years before the study. 81% of those who had not received chiropractic care didn't need the use of a nursing home, a 15% less nursing home usage by the chiropractic patients.

In hospital use, chiropractic patients fared even better. 74% of the people under chiropractic care did not need the use of a hospital in the three years prior to the study versus 53% of the study group not under chiropractic care; a 21% difference.

87% of those patients under chiropractic care perceived themselves to be in good to excellent health. Only 68% of those not under chiropractic care thought their health good to excellent. Put simply, chiropractic works. ▲

## ■ Patient satisfaction higher with Chiropractors than others

A study published in the October, 1995 *New England Journal of Medicine* finds that patients are much more satisfied with the care given them by their Chiropractor than those who went to medical doctors were with their care.

42% of those patients who went to a Chiropractor for low back pain rated their care as “excellent” while only 27% of those who went to a medical doctor for the same problem rated their care as high. The Chiropractic patients also reported more satisfaction with their histories, examination and explanation of what was causing their problem.

The study also found that medical doctors were more inclined to order more expensive CT scans and MRIs. ▲

## ■ Medical research authors guilty of misrepresenting Chiropractic facts

An article in the May, 1995 issue of *Journal of Manipulative and Physiological Therapeutics* reports that numerous medical authors have misrepresented the facts when reporting on the incidence of injury related to chiropractic care. In many cases, the “chiropractic” care that caused injury was not even performed by a chiropractor yet the research author chose to report them as examples of chiropractic care anyway.

The article reports on some 40 cases of iatrogenic (literally, doctor caused) chiropractic injury that was incorrectly attributed to chiropractors either through medical misrepresentation of the literature, inaccurate reporting by medical authors or inaccurate reporting by medico-legal journalists.

Listed examples of injury to patients that were attributed to chiropractic were performed by individuals as varied as untrained medical doctors, osteopaths, naturopaths, physiotherapists, a Kung-Fu practitioner, a spouse, an Indian barber, a blind, unlicensed health club masseur, more than a few “unknowns” and a couple of the patients were even injured when they tried to adjust themselves. ▲

## ■ Chiropractic risks: What does the evidence say?

Ian Coulter, Ph.D. is the author of an article in the September 1998 issue of the journal *Integrative Medicine* that examines the risks associated with Chiropractic care. The article, entitled "Efficacy and Risks of Chiropractic Manipulation: What Does the Evidence Suggest?" points out some interesting facts:

- Chiropractors perform more than **90%** of spinal manipulations. (Manipulation is the generic, non-specific medical term for Adjustment).
- The risk of complication with cervical (neck) adjustments is **6.39 per 10 million** adjustments.
- The risk of complication with lumbar (low back) adjustments is **1 in 100 million** adjustments.

The risk of complication in some common medical procedures and medications were not near as good:

- The risk of complication with the use of NSAIDS (aspirin, Tylenol, ibuprofen, etc.) is **3.2 in 1000**.
- The risk of complication in cervical spine surgeries is **15.6 in 1000**.

By way of commentary, there has been a lot of news about the dangers of Chiropractic care over the past few months. This article clearly points out that Chiropractic procedures are significantly safer than many common medical procedures. For the best reflection of how safe Chiropractic is, ask your Chiropractor how much his/her malpractice insurance costs. Then ask your medical doctor the same question. The difference will surprise you. ▲

## ■ Integrating chiropractic care into health care system will reduce overall costs

A paper presented at the *1999 World Federation of Chiropractic Bi-Annual Assembly* reports that integrating chiropractic care into the health care system will lower overall costs. The paper was authored by Pran Manga, Ph.D. of the University of Ottawa in Ottawa, Canada.

According to Manga, "Chiropractic care is a cost-effective alternative to other professions' management of neuromusculoskeletal [NMS] conditions. It is also safer, increasingly accepted by the public as reflected in the growing [use] and high patient retention rates and there is much and repeated evidence that patients prefer chiropractic over other forms of care for the more common musculoskeletal conditions. The integration of chiropractic into the health care system should serve to reduce health care costs, improve accessibility to needed care, and improve health outcomes."

Manga also found that when studies compare the cost of chiropractic care with other disciplines "it is essential to include and [add up] all relevant treatment costs for the entire episode of illness or injury." A problem in some cost effectiveness studies, Manga says, is that the entire cost of the medical care is not included in the study. "Medical management is a lot more complex and costly involving one or more (and frequently repeat) prescription drugs, referrals to other caregivers including specialists and physiotherapists, several diagnostic tests, diagnostic imaging and sometimes hospitalization as well."

Since chiropractors tend to do most of the work themselves in the care of their patients, "the cost of chiropractic care [reported in studies] is likely to be all inclusive and accurate, whereas the cost of medical management of NMS cases is more likely to be understated." ▲

## ■ Chiropractic instruction helps prevent work injuries

A 1998 study reported in the journal *Australasian Chiropractic & Osteopathy* [issue 7(1);8-14] found that when chiropractors educated a group of manual-labor workers about proper spinal care, the average cost of work related spinal injuries dropped significantly.

Sixty workers were divided into two groups, one of which received a two hour educational training class conducted by a chiropractor. The other group received no instruction whatsoever. The training involved instruction in spinal anatomy, proper lifting, exercises, what causes back pain and injury and treatment options.

**In the six months before the training, the average cost of spinal injury cases was \$451.00. In the six months after the training program, the average cost per case dropped 40% to \$269. ▲**

## Chiropractic improves brain function

The sixteenth annual upper cervical conference was held at Life University in Marietta, Georgia in November 1999. A study presented at the conference found that patients under chiropractic care experienced a measurable increase in brain function.

Microcog is a computer administered and scored test that serves as a diagnostic tool to determine cognitive (brain) function. It measures activity in nine categories: attention/mental control, memory, reasoning/calculation, spatial processing, reaction time, information processing speed, information processing accuracy, general cognitive functioning and general cognitive proficiency.

A total of 40 patients had their brain function measured by Microcog. 30 of these patients received upper cervical (neck) chiropractic adjustments and 10 served as a control group receiving no adjustments. Four weeks later, all 40 patients were tested by the Microcog system again.

According to the study, "significant improvements were observed in neurocognitive [brain] function in the group receiving upper cervical care. The control group did not demonstrate a similar trend. This study suggests that upper cervical chiropractic care may positively affect neurocognitive function."

The World Health Organization defines "health" as 100% physical, mental and social well-being. A nervous system free of interference is vital to the full expression of all these aspects of your health potential. Chiropractic works to restore health by removing interference to your nervous system.

## ■ General Health Status Improves With Chiropractic

The Fall 1999 issue of the *Chiropractic Research Journal* (vol. 6, no. 2) reports that patients under chiropractic care reported an improvement in their general health status after receiving chiropractic adjustments.

The study used the RAND (SF-36) Health Survey and the global well-being scale (GWBS) as measures of improvement. Researchers also measured changes in misalignment of spinal vertebra by using X-rays before and after the adjustments. The GWBS survey was completed at each visit.

The SF-36 survey was given at the beginning of the patient's care, at the four week mark and at the end of the care plan when their initial complaint reached Maximum Chiropractic Improvement, (MCI).

The SF-36 measures such areas as physical function, bodily pain, general health, vitality, social function, emotional and mental health. While all areas showed improvement the area which showed the most improvement was the physical area with an average improvement of 39 points on a scale of 100.

By way of commentary, it comes as no surprise that patients reported a general improvement in health after beginning chiropractic care. Chiropractic has long maintained that a body free of interference is able to function at and maintain a higher level of health than one that is afflicted with vertebral subluxation. ▲

# ■ Chiropractic Care Increases “Quality Of Life”

Research performed at the New Zealand School of Chiropractic and reported in the *Journal of Vertebral Subluxation Research* [3(2), 1999] shows that patients under chiropractic care experienced an increased “Quality of Life”.

Quality of Life was determined by asking patients to fill out a survey and assess their own health in four areas; Physical State, Emotional/Mental State, Stress and Life Enjoyment. These four areas made up a fifth area called Combined Wellness. Quality of Life was measured as a sixth area of the survey.

89 people participated in the study which was conducted over a five month period. The patients reported “significant positive perceived changes” in Physical State, Mental/Emotional State and Combined Wellness.

The researchers also found that the data from this study suggested that Health and Wellness may continue to increase over time while under chiropractic care.

By way of commentary, this research points out what chiropractors and their patients have been experiencing for years; that by improving body function chiropractic helps improve the health and wellness of you and your family.

Staying healthy is an active pursuit. We all need to do those things which help us maintain health. We need to get good food, water, air and exercise. We must have a positive mental outlook and maintain the integrity of our nervous systems through chiropractic care. We can’t hope we’ll stay healthy, we have to work at it. ▲

# ■ Research Highlights Improvements In Quality Of Life Of Chiropractic Patients

The website for the Children's Chiropractic Research Foundation has an excellent literature review of research going back as far as 1987 showing that chiropractic care can help people enjoy a higher quality of life.

Whenever research is done to see if a particular procedure has an effect on wellness, the question must be asked, "Is this intervention truly benefiting the overall health of the patient or are we just treating symptoms or having a minimal effect on this patient's life?" Concern must also be given to whether or not the procedure causes other problems to show up as a result of being used. For example, long-term aspirin use for chronic headaches eventually causing intestinal bleeding or kidney failure.

The eight studies revealed some interesting information and conclusions:

A New Zealand study of 89 patients showed improvement in Physical State, Mental/Emotional State and Combined Wellness. It also suggested that health and wellness may add up with time under chiropractic care.

A survey of 2818 patients in the U.S., Canada, Australia and Puerto Rico also found improvements in quality of life and found the benefits began as soon as 1-3 months after beginning care and showed no indication of reaching a point of maximum improvement. That is, things just kept getting better.

An Italian study of 17,142 patients under chiropractic care for at least two years indicated that having everyone under chiropractic care could reduce the number of hospitalized patients by 87.6% and daily absences from work could be reduced by 55-75%.

Commentary: Space limits our discussion of this article but we will provide more details in future issues. Suffice it to say that this research points out a very good reason why everyone needs to be under chiropractic care. We strongly encourage everyone to go visit the website of the Children's Chiropractic Research Foundation at <http://www.icpa4kids.org/index.htm>

# Health Benefits Of Chiropractic Adjustments Affect Entire Body

The April 26, 2004 issue of the Journal of Vertebral Subluxation Research highlights a literature review that documents the health benefits that people without symptoms experience under chiropractic care.

Vertebral subluxations are misalignments of the small bones of the spine that interfere with the nervous system, body function and health.

Chiropractors have long maintained that people should not wait until symptoms appear before seeking chiropractic care to address their aches and pains: that keeping the body free of subluxation interference is a good way to help the body function better with better health as a result.

One way to test this is to take people who have no symptoms, put them under chiropractic care and then monitor various body systems for improved function.

The author of this study reports that the available research does indeed “lend strong support to the popular contention that chiropractic adjustments, for the purpose of correcting subluxations, confer health benefits to people regardless of the presence or absence of symptoms.”

More than 20 research articles collectively documents “significant improvements in respiration, range of motion, heart rate variability and autonomic function, endocrine function, cardiovascular function, immune function, muscle strength and overall athletic ability of “health” or specific-function “normal” individuals.” Improvements were also noted in “reaction-time and information processing, visual acuity, stress and reproductive hormones, healing/recovery time, general health of senior citizens, and reduced labor times of pregnant women following or during chiropractic care.”

The author concludes that since “these initial findings document objectively measured physiologic changes and their associated health benefits in nearly every major system of the human body, it is plausible that chiropractic care may benefit every function of the body.”

# The Chiropractic Role In Emergency Response

The April 19, 2004 issue of the Journal of Vertebral Subluxation Research provides us with an interesting article on the emergency response of chiropractors and the ensuing coordination efforts with government agencies in New York and Washington, DC after the 9/11 terrorist attacks.

In the afternoon after the attacks, New York area chiropractors began showing up at the scene as the recovery process got underway. Initially, the chiropractors had to talk their way past security barricades and set up their adjusting tables wherever they could, often in the streets around Ground Zero. Similar efforts were also underway in Washington, DC.

Eventually, through the efforts of the New York Chiropractic Council and the International Chiropractors Association (ICA) an alliance with the American Red Cross allowed full access credentials to the chiropractic volunteers. The NY Council and the ICA established a huge network of chiropractors known as the Chiropractic Relief Effort at Ground Zero and the Pentagon.

How successful were the efforts? In New York, at the five official sites manned around the clock, 1,500 chiropractors donated \$1.5 million in services by adjusting up to 500 people per day during the formal chiropractic relief effort beginning September 28, 2001 through May 30, 2002 when all Ground Zero work was completed.

The Red Cross evaluation of the effort concluded “the most ‘successful’ volunteers...were those who were able to work with minimal supervision by official emergency workers. Far from requiring supervision, the chiropractor required only space in which to work and some pallets on which to place his [adjusting table]. In other words, the incorporation of these volunteers into the response required little or no effort on the part of emergency managers...”

The report goes on to say that chiropractors “allied themselves with the Red Cross initially in order to maintain access to the facility, but they were able to offer a specific skill, which even if not planned for in advance, seemed useful to those who already

# ■ Chiropractic improves brain wave patterns, brain function

A study presented at the *International Research And Philosophy Symposium* held at Sherman College of Straight Chiropractic in October, 2004 finds that Chiropractic adjustments have a positive effect on the Central Nervous System (CNS), specifically on the four primary frequencies of brain function.

Brain function is measured on four primary frequencies: Beta, Alpha, Theta and Delta. Alpha waves reflect the meditative, relaxing healing mode. Beta waves represent the active, busy brain. Theta waves reflect light sleep, relaxation and conceptual development. Delta waves represent the brain activity during deep sleep, repair mode and energy storage.

The study was conducted over a three year period. Approximately 100 volunteers were examined with an electroencephalogram (EEG) before and after chiropractic adjustments.

The EEG scans were examined to check the right/left balance, the amount of total activity, the primary regions of activity and the effect of the adjustment.

After receiving a chiropractic adjustment, post EEG scans revealed improvement in all areas of the volunteer's brain function. Particularly, the researchers noticed an increase in the meditative Alpha brainwave patterns that are associated with a greater degree of relaxation, health and healing.

The researchers noted that some of the volunteers already had balanced and active brain scans and the adjustments had little effect on their post scans. They felt this was a good indicator that the adjustments had no negative effects on brain activity.

Commentary: The implications of this study are profound indeed. Over and over research is proving that chiropractic care has the ability to positively affect body function on a far greater level than simple pain relief. Through the power of lifetime chiropractic care, we have the ability to transform people's lives into what they were meant to be. The possibilities of such transformation are only limited by our imagination.

# ■ Decrease In Health, Quality Of Life Relate To Chiropractic Leg Check Imbalances

The November 1, 2004 issue of the Journal of Vertebral Subluxation Research reports that people who show imbalances in leg length have a significant lower measure of general health. Measuring leg length is a common test chiropractors use to help determine the presence of vertebral subluxations.

In the study, fifty-five unscreened volunteers were given the SF-12 health questionnaire which is designed to measure health-related quality of life. They were told to answer the questions as best as they could and they were not allowed to ask the examining doctor any questions. The patient and their paperwork were then assigned a number.

The volunteers were then examined by a chiropractor using the leg length alignment test and the results were compared with their quality of life questionnaires.

After the data was collected, the researchers eliminated 5 of the volunteers because they were under the care of a D.C., M.D., D.O., P.T. or massage therapist for back pain. The volunteers ages ranged from 20-65 and consisted of 35 females and 15 males.

The results indicated that those people with leg length differences had significantly lower scores on the quality of life questionnaire than those without leg length differences. Surprisingly, people with leg length differences experienced lower scores in the mental health component than the physical. The mental component measured depression, stress and life satisfaction.

Specifically, the authors mention the question, "During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.?" Patients with leg length differences scored significantly lower on this question than those without.

Commentary: This study is one more indicator that subluxations can affect all aspects of health. More and more, research is making it clear that correcting vertebral subluxations can lead to increased health and function on all levels.

## ■ Long-Term Chiropractic Patients Have Higher Blood Levels Of DNA Repair Chemicals

The February 18, 2005 issue of the Journal of Vertebral Subluxation Research finds that patients under long-term chiropractic care have higher levels of the blood chemicals associated with effective DNA repair and overall wellness.

The test was a retrospective analysis of 46 patients, all over the age of 40 who had been under short-term chiropractic care for 8-52 weeks or long-term chiropractic wellness care for 52-312 weeks. Researchers assessed the levels of serum thiols, blood factors that have been found to help the body repair the damaging effects stress has on the structure of DNA. Serum thiols are measured in terms of 'nM cysteine'.

The authors found that non-chiropractic treated patients in the control group had serum thiol levels of 124 nM cysteine. Patients with active disease processes going on generally had levels below 90 compared to patients under long-term chiropractic care who had values of 146.

In their conclusion, the authors say, "some final observations should be noted. The results clearly support the recommendations being made for wellness care by chiropractors. In addition, it should be stated that these results occurred under normal practice conditions and indicate what most chiropractors are likely achieving when performing long-term care. Also, it refutes earlier views that five to seven years of care was necessary to optimize human health status, as indicated by serum thiol levels. Our sampling indicates that this can occur in a time frame approximately half that period. Finally, there is no doubt that chiropractic care was the dominant factor in being able to realize thiol values that in some cases have not been seen in nutraceutical testing, the only other intervention shown to improve thiol values."

## Chiropractic Care Improves Quality Of Life In Homeless

A study in the April 15, 2005 issue of the Journal of Vertebral Subluxation Research finds that homeless patients from a women's shelter who underwent a short course of chiropractic care reported higher quality of life scores on health surveys conducted at the end of their care program.

The study, a retrospective case series, examined the records of 10 female residents of a women's shelter. All of the women filled out the SF-36 health survey before and after care and underwent at least four weeks of chiropractic care. The SF-36 survey is designed to measure such areas as physical function, general health, body pain, vitality, social function, and emotional and mental health.

Health status and quality of life for the homeless are usually substandard. Many of the shelter residents are unemployed, chronically ill with a multitude of conditions, take numerous medications and make life choices based on survival rather than optimizing health.

The results of the survey after their chiropractic care showed the women experienced improvements in body pain (11.5 points), general health (14.7 points), vitality (22.0 points), and emotional health (13.4 points). The 22.0 point improvement in the vitality index was high enough to be considered statistically significant in spite of the small number of people in the study.

In the report, the authors point out that even though the results of this report must be viewed with caution because of the small sample size and lack of a control group, they were nonetheless encouraged by the findings. They conclude, "it appears that chiropractic care holds promise and merits further investigation as one means of enhancing the quality of life in the homeless population studied in this case series report."

# Chiropractic Offers Answers To Baby Boomers' Needs

An article in the April 22, 2005 issue of the Journal of Vertebral Subluxation Research points out how chiropractic is perfectly situated to meet the needs and demands of the upcoming "Age Wave" of baby boomers who expect to live healthier, happier, longer lives by breaking free of traditional approaches to health care.

"Age Wave" describes the sweeping effect that the 78 million baby boomers (born between 1946 and 1964) are having on our culture.

In the realm of health care, Age Wavers seem to be placing more importance on the mind-body connection that, in their view of the world, leads to a more optimal state of mind that is better able to cope with the stresses of our hectic world.

The Age Wavers are looking for health care providers that will help them learn to live rather than how to die, help them stay healthy and independent while steering them toward balance in life, comfort and an increase in their quality of life.

They want to be active and informed in their health care decisions and are less inclined to rely on one doctor to oversee their care. In their new worldview, traditional medical advice would be balanced with that of wellness and alternative practitioners.

The author points out that chiropractic is ideally suited to meet the demands and needs of the emerging cultural shift. While chiropractic has a foundation in science, it can also provide the philosophical concepts that traditional health care cannot; that the body is a self-healing, self-maintaining organism that tends toward health and wellness providing nothing interferes with that process.

By focusing on correcting vertebral subluxations, which interfere with health and wellness, chiropractic care is able to help people achieve the increase in quality of life, performance and potential that they demand.

## ■ Patients Under Chiropractic Care For Spinal Problems Improve Other Body Functions

The June 2005 issue of the Journal of Manipulative and Physiological Therapeutics reports that a multinational study conducted in seven countries finds that patients under chiropractic care for various spinal problems reported that other areas of body function improved as well.

The study nearly replicated a Swedish study from 1999 that found unexpected positive changes in various body functions that people experienced after beginning chiropractic care. The difference is that the latest study involved 385 chiropractors in seven countries collecting information on 5607 patients, a more statistically accurate and much larger sample.

The results? The percentage of patients who began chiropractic care without any neuromusculoskeletal problems (such as back and neck pain) reported the following complaints as “definitely better:” Allergies, 11%; Asthma, 17%; Breathing, 27%; Circulation, 21%; Digestion, 26%; Hearing, 13%; Heart function, 11%; Ringing in ears, 19%; Vision, 13%.

Not surprisingly, the longer patients were under chiropractic care, the more positive changes they experienced. The number of patients who reported at least one positive change ranged from 14% for those seen one visit, 22% for 2-3 visits, 26% for 4-11 visits and 31% for at least 12 visits.

Commentary: With other conditions showing improvement after chiropractic care was begun, it may be tempting to say that chiropractic is a cure for these problems. Chiropractic is not a cure for anything. By improving body function Chiropractic puts the body into a better position to heal itself. And, as evidenced by this study, long-term chiropractic care increases long-term health improvements.

## ■ Chiropractic Care Improves Quality Of Life In Chronic Low Back Pain Patient

The February 2005 issue of the Journal of Manipulative and Physiological Therapeutics reports on an interesting study that found a 26 year-old woman with chronic low back pain who utilized chiropractic care on a long term, maintenance basis experienced improvements in her quality of life measurements.

Before her care program began, she was given a number of tests that measure quality of life factors. The tests included the Short-Form-36 Health Survey questionnaire (SF-36), the Quality of Well-Being Scale, Visual Analog Scales (VAS) of pain intensity and ranges of movement and the number of tender spots over the spine.

After 9 months of chiropractic care she was retested. The SF-36 physical score improved from 23.4 to 43.7 and the SF-36 mental scores improved from 25.3 to 62.8.

The Quality of Well-Being Scale score improved from a mean score of 1.1 before care began to a mean score of 8.2 after.

The Visual Analog Scale improved from a score of 8 before care to 1.5 after and the mean number of tender spots over the spine decreased from 6.5 to 4.

In this case, the patient showed not only improvement in spinal function but in Quality of Life issues as well. The authors concluded that the improvements this patient experienced justify further research into the possible causal relationship between factors that indicate vertebral subluxation and quality of life.

## ■ Spinal Whiplash Injury Decreases Physical, Mental Function

A Canadian study reported in the September 2005 issue of the *Annals of Rheumatic Diseases* finds that spinal whiplash injuries suffered by people involved in automobile accidents lead to lower physical and mental functioning in as little as one month.

The investigators collected data on 7,462 people within one month of their accident: Patient demographics, collision-related factors, health histories previous to the accident and what kind and severity of symptoms were collected and examined. 45% of the patients involved agreed to fill out and follow up on the SF-36, a general health questionnaire.

Most of the people experienced a wide range of symptomatic malfunction after the initial injury including neck pain, low back pain, fatigue, dizziness, headache, spinal pain, nausea and jaw pain. One month after injury, the patients filling out the SF-36 form showed low physical and mental function.

According to the authors, the study was designed to describe, using a large population, “the clinical spectrum of initial symptom expression and health related measures of Whiplash Associated Disorders (WAD).”

They go on to say that as a result of their study, WAD “is best appreciated as a syndrome extending well beyond what can be labeled as a neck injury.”

Commentary: Chiropractors are certainly not surprised that spinal injury can result in body malfunction. We are surprised that the authors go on to conclude that “More research is needed for a better understanding of the underlying mechanisms involved so that treatment can be directed at the broad spectrum of the [symptoms] rather than focusing on finding a focal neck injury.”

While some may consider that this suggestion reflects an appropriate approach to health care, we feel it represents a fundamental fault in logic that seems to permeate modern medical health care on many levels. A localized injury of the spinal structures in the neck produces a myriad of symptoms and physical and mental malfunction. Rather than focus on the cause of the problem and repairing the damage to the spine (as occurs in chiropractic care), the authors suggest that we should ignore the cause and instead concentrate on treating the symptoms? With this kind of illogical thought process, if the authors sat on a tack, they would take pain medication rather than pull out the tack.

## Chiropractic Care Changes Spinal Muscle Activity

The September 2005 issue of the Journal of Manipulative and Physiological Therapeutics reports patients receiving chiropractic adjustments experienced significant changes in their spinal muscle activity.

The study involved 16 patients from two chiropractic offices. Surface electromyography (SEMG) was used to measure muscle activity before and after the adjustments.

After the patients were adjusted, muscle activity decreased by at least 25% in 24 of the 31 sites that were monitored. In 4 sites there was a more than 25% increase in muscle activity. There was less than 25% change in only 3 sites.

The authors concluded that chiropractic adjustments induce an almost immediate change, usually a reduction, in spinal muscle activity. In some cases, they noted the muscle activity increased and then usually decreased to a level lower than the levels before they were adjusted.

Commentary: It comes as no surprise that changes in muscle activity, increases or decreases, occur after the administration of an adjustment. As the process of spinal correction begins, some muscles in the spine will be required to work more and others to work less. As the correction process continues toward a more normal balance, muscle activity is more inclined to return to levels that are lower than when a spinal problem existed.

This study documents the changes in muscle activity that occur as spinal problems are corrected and normal function returns.