#### **Improved Brain Function**

Improved concentration, resistance to depression, reduced anxiety. (Initial studies have shown that chiropractic care may improve mental function. The chiropractic profession had for decades operated sanitariums for emotional wellness).

Chiropractic medicine for rejuvenation of the mind. Academy of Chiropractic Medicine Gorman RF, 8 Budgen Street, Darvin, Australia, 1983. Gorman, an MD with an interest in migraine, worked with Eric Milne, M.D., a general practitioner who had an interest in spinal manipulation. They discovered a wide range of physical and psychological conditions responding to chiropractic care and believed that most people are suffering from decreased brain functioning due to decreased flow of blood to the brain and that chiropractic spinal manipulation could relieve this problem. They feel that many people are functioning with diminished mental potential or are disabled by Òmental illness which has a simple physical causeÓ. The cause they refer to is a restriction in blood flow to the brain because of vertebral misalignment that creates stress on the vertebral arteries.

**Monocular visual loss after closed head trauma immediate resolution associated with spinal manipulation**. R. Frank Gorman. *Journal of Manipulative and Physiological Therapeutics*. Vol. 18, No. 3, June 1995. The author, a medical doctor discusses the relationship between spinal health and blood supply to the head. From the paper (p. 310) ÒI hold the opinion, based on two decades of dedication to the intricacies of the ÔCervical SyndromeÕ and from a person all experience of 6,000 spinal manipulations done under anaesthesia, that concentric narrowing of the visual fields indicates that the child has inferior brain function, which is a serious detriment in both the childÕs internal and external environmentÓ.

Monocular scotoma and spinal manipulation the step phenomenon. R. Frank Gorman, *Journal of Manipulative and Physiological Therapeutics* 1996; 19344-9. Dr. GormanÕs concluding remarks (below) discuss the brain blood flow/spinal column relationship.

#### From the abstract

**Objective** To discuss a case history wherein microvascular spasm of the optic nerve was treated by spinal manipulation.

**Clinical Features** A 62 year old man who developed a scotoma in the vision of the right eye during chiropractic treatment.

**Intervention and Outcome** Spinal manipulation treatment was continued with total resolution of the scotoma. The rate of recovery of the scotoma was mapped using computerised static perimetry. These measurements showed that significant recovery occurred at each spinal manipulation treatment, producing a stepped graph.

From the conclusion This case history suggests that spinal manipulation can affect the blood supply of localised areas of brain tissue.

### More important is the converse implication, that microvascular abnormality of the brain is caused by spinal derangement.

Dr. Gorman noted that each spinal manipulation resulted in a Ôstepped graphÕ (hence the title).

#### A pilot study of applied kinesiology in helping children with learning disabilities. Mathews MO, Thomas E, British Osteopathic Journal Vol. X11 1993; Ferreri CA (1986)

"All of the children in the treatment group made significant gains in IQ scores. An average increase of 8 Full Scale IQ points and 12 performance IQ points was obtained. Most children showed significant gains in visual perceptual organization. Some made significant gains in other important skills such as short-term auditory memory. Significant improvements were observed both at home and at school with regard to motivation, attitude and perforrhance." Reports from treatment included "Dyslexia teacher says he no longer needs help." "No more thumb sucking." "Asthma much better on the whole."

### The effects of chiropractic treatment on students with learning and behavioral impairments due to neurological dysfunction. Walton EV. International Review of Chiropractic 1975;294-5,24-26.

Twenty-four learning impaired students were placed under chiropractic care with many displaying dramatic results.

# Changes in brain stem evoked response as a result of chiropractic treatment. Shambaugh P, Pearlman RC, Hauck K. In" Proceedings of the 1991 International Conference on Spinal Manipulation, FCER; 227-229.

In this paper it is suggested that chiropractic adjustments, at least in patients with acute musculoskeletal problems, may enhance brain function. The research modality used was brain stem evoked response or BSER - a measure of how well brain waves travel (in this case following a sound through a headphone). Four patients with acute musculoskeletal complaints and seven patients with no acute problems were adjusted with diversified technique and cranial adjusting. The four acute patients showed a shorter BSER latency period, indicating that the neural messages were going through their brain stems and auditory nerves more quickly or with less delay. This study supports the hypothesis that brain stem function can be improved by chiropractic adjustments in patients with acute musculoskeletal complaints.

#### Upper cervical adjustments may improve mental function. Thomas MD, Wood J. Journal of Manual Medicine, 1992, 6215-216.

From the abstract This report describes abrupt improvement in mental and motor deficits in a 14-year-old girl after the initiation of specific upper cervical chiropractic care. Cessation of this care for several months was associated with a return to the patient's previous condition. Repeat manipulation was followed by recovery of the patient to the level of her previous improvement. The child exhibited staring spells, never made eye contact, left arm and hand was used and remained flaccid as she walked. She had the verbal ability of a 3-year-old, spoke rarely, using single words. She was medically diagnosed with psychomotor seizures and a degenerative neurological disorder. After chiropractic adjustments began she began to make eye contact. Within two weeks she was forming sentences, standing straighter, using her left arm and hand normally and began to engage in family conversation and activities.

#### Cerebral dysfunction A theory to explain some effects of chiropractic manipulation. Terrett AGJ. Chiropractic Technique; 1993; 5168-173.

From the abstract "This paper presents a theoryÉ to explain a possible mode of action of spinal manipulation in some patients with visual disorders, dizziness, depression, anxiety, memory problems, attention span problems, difficulty with concentration, irritability, tiredness, and clumsiness."

Terrett builds on the findings of Gorman (above) and others to advance the theory that diminished blood flow to the brain causes some areas to "hibemate" that is, remaining alive, but not function, resulting in diminished mental capacity. "I'm sure that this is exactly what happens to many people every day, and that this is why they suffer problems such as tiredness, headache, depression, irritability, difficulty concentrating, visual difficulty, etc.etc." (Letter to the editor, Chiropractic Technique, Vol.6 No.3, Aug. 1994).

### Impaired Arterial Blood Flow to the Brain as a result of a cervical subluxation a clinical report. Risley, WB. Journal of the American Chiropractic Association/June 1995. pp. 61-63.

From the abstract The author has witnessed impairment of the velocity of arterial blood flow of the occipital artery, unilaterally or bilaterally, as a direct result of a cervical subluxation in over 15,000 patients. This impairment is documented by Doppler examination and is the virtual 100 percent concomitant of a cervical subluxation. Clinical correction especially at the C-I,C-2 level, restores the blood velocity through the occipital artery, virtually 100 percent of the time. Failure to correct the subluxation commonly fails to relieve the impaired blood velocity in this artery. It is thus an effective monitor of the efficacy of the administered adjustment.

# Course of attention and memory after common whiplash a two-years prospective study with age, education and gender pair-matched patients. Di Stefano G and Radanov BP ActaNeurol Scand 1995; 91 346-352).

From the abstract "Attentional functional and memory of common whiplash patients were evaluated during the first two years after experiencing injury....All (117) patients had a similar socioeconomic background, all being injured in automobile accidents andfully covered by insurance plans. Twoyears following initial trauma, 21 patients remained symptomatic. "

#### Chiropractic treatment of mental illness a review of theory and practice. GoffPJ. Research ForumlAuturnn, 1987.

From the abstract Between 1920 and 1960, several residential programs for mental health treatment by chiropractors were in existence. This interest has been largely forgotten in the following years. The size of two Davenport institutions were remarkable, especially considering the varying economic climate during those years and that all payment was by individuals or their families. State-operated facilities were concurrently available at little or no cost. The length of existence of the chiropractic sanitaria, 40 years, is also remarkable, as is their demise at roughly the same time (c. 1960). W.H. Quigley, D.C., claimed successful treatment of 60% of the admitted population, while the state hospitals of that time reported a success rate of 30%.

# Chiropractic Success in a Reform School Report of State Supervisor of Chiropractors of Kentucky In Connection With Kentucky Houses of Reform, Greendale, Kentucky, Marshall L.T., Lexington, Kentucky (December 1, 1931).

This little known report documents chiropractic success in a Kentucky Reform School.244 boys were placed under chiropractic care. The Report is largely made up of cases histories of all the 244 boys many of whom undoubtedly suffered from various emotional and learning disorders. The success of chiropractic care is admirable. From the summary

- 1. Number of boys given chiropractic adjustments 244.
- 2. Number of cases dismissed completely recovered or greatly benefited, 155
- 3. Of the 244 cases 89 are still under treatment
- 4. Number of cases promoted in school grades 54
- 5. Number of cases paroled 144.

- 6. Number of boys at Greendale (Kentucky Houses of Reform) at beginning of chiropractic program (September 3, 1930) approximately 540.
- 7. Number of boys at Greendale Dec. lst,1931 approximately 335

State officials were so impressed that they wrote enthusiastic letters of endorsement. From B.W. Hubbard, Superintendent, Commonwealth of Kentucky. Kentucky Houses of Reform "I have been able to n