

UPPER CERVICAL RESEARCH

An Alternative for Chronic Fatigue Syndrome H Charles Woodfield¹, BSPharm, DC; Marshall Dickholtz², Sr., DC; B.M. Bell³, MD; L. I. Jacobs³, MD

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INTRODUCTION

Chronic Fatigue Syndrome (CFS), also referred Myalgic Encephalomyelitis (ME), is to as classified by the World Health Organization (WHO) as Post Viral Fatigue Syndrome (PVFS). It has an elusive etiology with diagnosis based on the incidence of symptoms. It is a disease of unknown origin affecting all racial-ethic groups across all socioeconomic levels. The condition affects young adults between 20 to 40 years of age with a female to male ratio of six to one Treatment is centered on the alleviation of symptoms while attempting to improve a patient's quality of life.

The study objective was to observe changes in the SF 36-Item Health Survey (SF-36) scores, before, and at three, and six months of continuous care following a National Upper **Cervical Chiropractic Association (NUCCA) atlas** correction.



CDC Diagnostic Criteria for Chronic Fatigue Syndrome

Greater than six months of unrelenting fatigue plus four symptoms below:

- 1. short-term memory or concentration
- 2. impairment
- 3. sore throat
- 4. tender lymph nodes
- 5. muscle pain
- 6. multi-joint pain without swelling or redness
- 7. headaches
- 8. unrefreshing sleep
- 9. post-exertional malaise lasting > 24 hours

NUCCA CORRECTION





METHODS

SUPINE LEG CHECK SCREENING TEST



ANATOMETER™

POSTURAL

ASSESSMENT WITH

NUCCA ATLAS ANALYSIS

 $APL = -\frac{1}{4}$ A/O = -1 C/A = +3At: R11/2 (R 2) Od: R11/2 BC: R11/2 RP 1¹/2

NUCCA protocol consists of a Supine Leg Screening test, posture assessment with the Anatometer, and a series of low exposure radiographs to determine atlas misalignment and correction strategy. Atlas assessments are repeated after the intervention to assure accurate alignment.

SF-36 Results



PF=Physical Functioning, RP=Role Physical, BP=Bodily Pain, GH=General Health, VT=Vitality, SF=Social functioning, RE=Role Emotional, MH=Mental Health

Before-After SF-36 data were analyzed by paired t-test. Change is noted in the General Health, from a baseline level of 30.3 to a six-month after correction 55.6 (p<0.003). In the Mental Health component, overall SF-36 scores improved from a before correction baseline level of 46.4 to 68.6 (p \leq 0.01) after six months of maintained atlas alignment. Two subjects showed no improvement in their SF-36 scores over six months.

	PF	RP	BP	GH	VT	SF	RE	МН
Before Correction	56.8	11.5	51.4	30.3	20.5	35.5	50.8	46.4
3-months After Correction	77.2 (p≤0.06)	38.5 (p≤0.6)	63.4 (p≤0.09)	53.2 (p≤0.003)	38.6 (p≤0.07)	61.3 (p≤0.03)	56.0 (p≤0.7)	63.1 (p≤0.02)
6-months After Correction	85.4 (p≤0.09)	51.5 (p <u><</u> 0.5)	71.5 (p≤0.09)	55.6 (p <u>≤</u> 0.001)	52.7 (p≤0.04)	70.6 (p≤0.04)	72.6 (p≤0.3)	68.6 (p≤0.01)
US Average	84.2	81.0	75.2	72.0	60.9	83.3	81.3	74.7

This study was conducted in accordance with the Good Clinical Practice and International Conference on Harmonization guidelines with mandatory informed consent signed by the subject.



PSQI Results



Lower scores reflect better quality sleep. The overall Pittsburgh Sleep Quality Index (PSQI) score decreased from 12.1 to 6.1 (p \leq 0.05). In none of **PSQI's seven categories did End of** Study scores meet or best scores of the U.S. average.

Conclusion

This chiropractic procedure may contribute to an improved quality of life of some subjects with CFS as demonstrated in improved SF-36. If correction of atlas misalignment in clinically diagnosed CFS patients is the single variable that appears responsible for self-reported improvement of functional and mental health status, further study is warranted to determine the utility of this intervention in patient care. The study was limited by the lack of a control group and that care was provided by only one practitioner.