

## EVALUATION OF A CHIROFLOW WATERBASE™ PILLOW AS A THERAPEUTIC COMPONENT OF CHIROPRACTIC TREATMENT OF PATIENTS WITH CHRONIC NECK PAIN AND DISABILITY.

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### Introduction

Chronic neck pain and related disability are common conditions seen in chiropractic practices. As part of the treatment and management of these conditions, cervical pillows are often utilized, despite the lack of significant evidence as to the therapeutic value of these pillows. Accordingly, this study was performed to determine the therapeutic value of the Chiroflow waterbase pillow for patients with chronic neck pain.

### Methods

Prior to enrollment of subjects, all aspects of the study were approved by the Institutional Review Board of Logan College of Chiropractic. Subjects with chronic neck pain who were currently undergoing chiropractic care for this condition were asked to participate in this study. The study was composed of two phases, a 30 day baseline period in which subjects kept a daily sleep diary while using their usual sleep pillow, and a second 30 day period in which subjects kept a daily sleep diary while sleeping with a waterbase pillow. The sleep diary, utilizing a 100mm visual analog scale, tracked quality of sleep, perception of being rested, and morning neck pain and quantitative measures of sleep. At the start of the baseline period, at the end of the baseline period, and at the end of the second 30 day period, each subject completed the Neck Pain Disability Questionnaire.

### Results

Thirty-eight subjects were initially enrolled in this study. Of these, 3 male and 31 female subjects ( $43.9 \pm 13.1$  years) with chronic neck pain (mean duration of  $3.6 \pm 2.1$  years) completed this study. The Tables below show the mean values of the data collected at the assessment points during the study.

Table 1: Neck Pain Disability

Start	33.6 ± 4.7
Baseline	30.6 ± 5.1
End	19.3 ± 3.8 p < 0.05

Table 2: Sleep Quality

Baseline	38.7 ± 12.3
End	74.6 ± 9.2 p < 0.014

Table 3: Morning Neck Pain

Baseline	50.2 ± 11.6
End	21.0 ± 7.6 p < 0.001

Table 4: Feeling Rested Upon Waking

Baseline	16.2 ± 7.8
End	46.1 ± 7.6 p < 0.001

Table 5: Waking During the Night

Baseline	2.1 ± 1.8
End	0.6 ± 1.2 p < 0.041

Table 6: Upon Waking, Trouble Going Back to Sleep

	YES	NO
Baseline	20	14
End	10	24 p < 0.028

### Conclusion

The findings obtained from this study provide evidence that the use of a Chiroflow waterbase pillow will result in a reduction of neck pain and disability and improve sleep quality in subjects with chronic neck pain.