

One Year Outcomes from Dynamic Splinting for Carpal Tunnel Syndrome, Following a Randomized, Controlled Trial

Stacey H. Berner, MD and F. Buck Willis, PhD

ABSTRACT

Carpal Tunnel Syndrome (CTS) affects more than 8 million Americans each year, and is considered the most costly health problem among the working population. One year ago a randomized, controlled trial was conducted to measure the effect of Dynamic Splinting on pain, parathesia, and weakness of CTS patients. The results of the study demonstrated significant differences (improvement) in Levine-Katz pain/functional scores and frequency of improved nerve conduction for experimental patients. The **purpose** of this one year outcome study was to determine if there was a reduction in surgery following treatment with Dynamic Splinting for CTS.

Fifty patients were enrolled in the initial randomized, controlled trial. Their medical records were reviewed to identify if surgery was required within one year following this trial. A Chi-square, Fischer analysis was calculated and showed a statistically significant difference between experimental patients' vs. control patients' occurrence of surgery.

Experimental patients treated immediately with the Dynamic Splinting had a 66% reduction in surgery as compared to only a 35% reduction in surgery for control patients. Therefore, two thirds of the patients fit with Dynamic Splinting avoided the expense and pain from surgery for CTS. The results from this study give conclusive evidence of the benefit from this effective, noninvasive modality. A cost comparison showed a substantial savings from employing Dynamic Splinting to avoid surgery, and this treatment method should now be included in the standard of care for treating CTS.