ABSTRACT

The Effectiveness of the FLEXTEND® in the Treatment of Carpal Tunnel Syndrome

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Carpal Tunnel Syndrome (CTS) is a repetitive disorder that is becoming common in the workplace. Jobs such as typing, meatpacking, computer programming and millwork can cause strain and repeated compression of the carpal tunnel.

This compression can lead to median nerve damage and the loss of function in the hand. Many treatments have been attempted for CTS, yet no known procedure has been highly effective to decrease symptoms associated with CTS and prevent the syndrome from reoccurring.

The FLEXTEND® glove has been designed to treat CTS while strengthening the extensor muscles of the hand, wrist and forearm.

Forty-nine hands were recruited to participate in the study. Subjects were divided into one of three groups: FLEXTEND® glove, control and medical group. Nine hands undergoing treatment prescribed by a physician were assigned to the medical group. The remaining 40 hands were randomly divided into either the FLEXTEND® or control group.

Six tests were used to identify subjects with symptoms of CTS. These include the Visual Analog Pain Scale (VAPS), A Self-Administered Questionnaire for the Assessment of Severity in Symptoms and Functional Status in Carpal Tunnel Syndrome, Phalen's test, Reverse Phalen's test, grip strength using a dynamometer and carpal compression using the Durkan compression device.

Evaluation tests were performed initially to set a baseline, with all subjects being retested at four and eight weeks.

Statistical analysis was run on the grip strength, VAPS and the questionnaire. No significance was found with grip strength, however significance was found in the analysis of the questionnaire and VAPS.

Subjects were found to improve in both the FLEXTEND® group and the medical group with the questionnaire. However, the FLEXTEND® group also improved with the VAPS. The control group did not show improvement in symptoms or grip strength.

This study presents evidence that the FLEXTEND® glove may be an effective treatment for CTS.
NOTE: Regarding Grip Strength Levels in FLEXEND® Users: Studies performed by Pacific University and others utilize a program consisting of only 3-sets of 10 repetitions 2x daily, 3-days per week. This program is suggested for the first week of use only as a “starting program”. FLEXEND® programs are 12-weeks long and are much more aggressive, with clinical and corporate studies showing huge improvements in grip strength.