

EFFECT OF OPTICALLY MODIFIED POLYETHYLENE TEREPHTHALATE FIBER SOCKS ON CHRONIC FOOT PAIN STUDY, DR. IAN GORDON (2008)

Overview

Celliant is a specially formulated material that is knit, woven or added to products to enhance oxygen levels in the body. Products with Celliant have been clinically proven to relieve pain, increase comfort and aid in healing by increasing oxygen levels and helping to regulate body temperature. Below is a summary of the results of a recently completed double blind study designed to measure the ability of Celliant to reduce pain and increase comfort.

Study Background

The study was conducted by Dr. Ian Gordon, M.D., Ph.D. at University of California Medical Center. Dr. Gordon is the Director of the University of California Wound Clinic, an Associate Clinical Professor of Surgery at the University of California, Irvine and Chief of the Vascular Surgery Section at the VA Long Beach Healthcare System as well as a member of the attending staff at the University of California Irvine Medical Center. The study was a single-center, prospective, double blind, randomized trial approved by the institutional review board. Fifty-five (55) subjects in total were enrolled, 26 with diabetic neuropathy and 29 with other causes of foot pain; 38 men and 17 women were enrolled, with an average age of 59.7 years. To be included in the study participants had to be older than 21 years of age and have persistent foot pain for at least six months prior to the study. The study has been published in the Journal of Alternative & Complimentary Medicine.

Participants in the study were asked to fill out McGill Short Form Pain Surveys—an industry accepted scale for measuring pain relief that is used in FDA trials for pain relief medications—for two consecutive weeks to measure pain and quality of life. In questions assessing pain, subjects were instructed to answer questions based solely on subjective foot pain. After completing the questionnaire the second week, subjects were given three pairs of socks in a closed container and asked to wear them exclusively for the next two weeks. One week (Week 3) and two weeks (Week 4) later they returned to again fill out the same questionnaires. The control group received socks made from standard Comfortrel XP® polyester fiber, while the Celliant group received socks in which the bottom of the sock was modified by having Celliant incorporated into the yarn. Subjects and study personnel were blinded to the randomization, and study personnel never saw the socks given to the subjects.

Results

All participants exhibited similar pain scores upon entry into the study. The changes between scores recorded before and after wearing socks showed improvements in both the control and Celliant groups. The fact that the control group demonstrated reduction in pain is consistent with the placebo effect often seen in studies like this one. However, significantly more reduction in pain was observed in the responses from the Celliant group than controls, based on comparisons of the median reduction in pain before and after starting treatment. Figures 1 and 2 below show **2.7x greater reduction in pain for participants wearing products enhanced with Celliant** than those wearing placebo products.