Dynamic Splinting for Pronation Contracture, following a Spinal Cord Injury
Tonya S. Kimbler, OTR/L and F. Buck Willis, PhD

ABSTRACT

Over 250,000 American currently live with Spinal Cord Injuries (SCI) and the incidence rate is approximately 11,000 new cases each year. The purpose of this Case Report was to reveal the benefit of adjunct Dynasplint for forearm contracture.

The patient was a 34-year-old, African American male who had suffered a SCI two years and eight months before the forearm contracture evolved. He presented with pronation contracture of only 12° PROM in supination of his left forearm, and 50° PROM in his right forearm. His daily occupational therapy utilized the following protocols: Supination Dynasplint 45 minutes, bid (5 days per week), Manual PROM and AROM training, Isometric strength training, Handwriting, Self feeding and grooming training, and Electrical stimulation for shoulder flexion and elbow extension.

The result of this combination of occupational therapy and forearm Dynasplint for three months was that the patient regained 130° in PROM for his left forearm, (end range at 142° Supination) and regained 115° PROM in his right forearm (end range at 165° Supination). This allowed the patient to regain the ability to use regular utensils for eating, improved handwriting skills, and he has regained the ability to use a urinal at night while in bed.