

# **Dupuytren's Contracture Reduced with Hand Therapy plus Dynasplint**

Greg Vigoren, DMD and Buck Willis, PhD

## *ABSTRACT*

Dupuytren's contracture is characterized by fibrosis of the palmar fascia leading to flexural contracture of the digits. The progressive nature of this pathology can affect the activities of daily living and could become financially devastating for a profession which requires delicate hand-eye-coordination. The purpose of this report is to examine Dynamic Splinting as an adjunct to hand therapy in regaining range of motion (ROM) for both the metacarpophalangeal (MCP) and the proximal interphalangeal (PIP) joints.

The patient was a 60 year-old, caucasian male oral surgeon. He received hand therapy twice a week for 8 weeks including deep soft tissue mobilization (hand to forearm) and manual stretching for both intrinsic and extrinsic musculature. The patient's ROM increased with this therapy but eventually plateaued. As an auxiliary treatment, the hand DS was prescribed for home therapy. The protocol for the use of the DS system was to implement use on alternate days for the MCP joint and the PIP joint. The hand Dynasplint was worn at night while resting or sleeping for 6-8 hours a day.

After using Dynamic Splinting as an adjunct with hand therapy for 5 weeks, the patient regained 50% ROM in the MCP of both 2<sup>nd</sup> and 5<sup>th</sup> fingers. Flexion was also substantially affected. This combined treatment of manual and Dynamic Splinting therapies allowed the patient to regain the manual dexterity necessary for his profession and served as a preventative measure to avoid the need for surgery.