This report describes the examination, intervention, and outcomes for a patient with Complex Regional Pain Syndrome I (CRPS I) treated with Strain Counterstrain (SCS). The patient was diagnosed with CRPS I following a Grade II ankle sprain. Treatment consisted of SCS once per week for six months with one additional session each week in Months 4 through 6 for strengthening, endurance, and gait training. A re-examination was performed monthly. A clinically significant decrease of 2 points in overall pain as measured with a numeric pain rating scale (NPRS) occurred as of Month 2; a 2-point decrease in tenderness on 10 of 13 SCS tender points also measured with an NPRS was documented as early as Month 1. Throughout the treatment period, an increase in function was noted by way of patient report and objective tests and measures. Gait improved with regard to cadence, use of an assistive device, and weight-bearing status. Single limb stance on the involved leg increased from 0 (s) to 40 (s) over the course of treatment and ankle active range of motion as measured with a goniometer and muscle strength as measured with manual muscle tests both returned to normal values. CRPS I remains a poorly understood and difficult-to-treat chronic syndrome. By way of its proposed effects on the neuromuscular system and facilitated segments, SCS may be an additional effective treatment tool in the management of some patients diagnosed with CRPS I.