

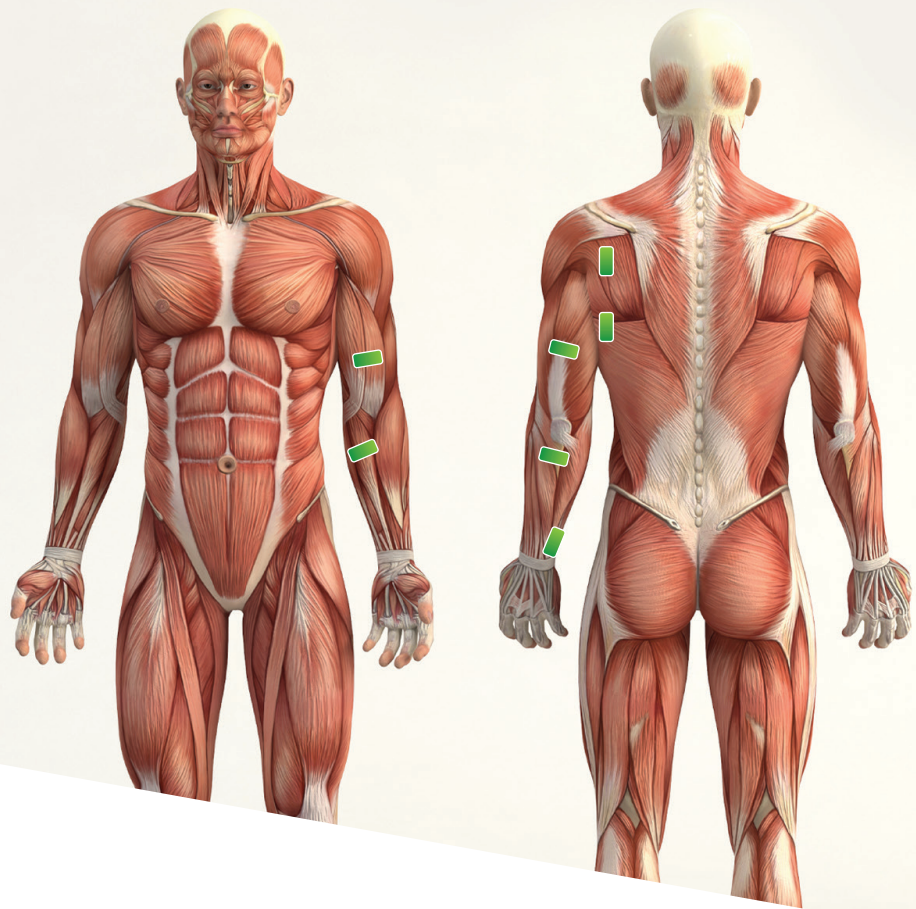
CASE STUDY

64 Year Old Male with Pain, Hemiplegia and Hemiparesis

*PERFORMED AT:
Competitive Edge Physical Therapy
in Tampa, Florida using
the NeuFit Method.*

DIAGNOSIS:

Patient had a Stroke (Cerebrovascular Accident, "CVA") two years before presenting for therapy. CVA occurred in the R brain, affecting function of his L Upper Extremity (LUE). His key remaining deficits were in distal LUE: reduced hand mobility, dexterity, and function. Tested via handheld dynamometer, his grip strength was only 15lbs on the L compared to 73 lbs on the R. He was unable to open his hand or extend any fingers or his thumb.



TREATMENT AND OUTCOME:

He performed twice per week NeuFit sessions at Competitive Edge Physical Therapy in Tampa, FL, utilizing the Neubie® device for neuromuscular re-education and to restore proper sensory-motor integration. The NeuFit® Mapping Process was used to identify sites of neurological dysfunction, which are shown in black in the image below. Once these spots are found, they are stimulated in combination with various movements and corrective exercises. The exercises performed included picking up marbles, gripping and twisting the TheraBand Flexbar, wrist flexion/extension, ball tosses, Kibler exercises, shoulder shrugs, shoulder flexion/extension, and more. Patient also performed several "hand bath" sessions, with one pad on his forearm and the other submerged in water. This distributes the sensory stimulation around his hand and wrist.

After his 4th session he was able to extend his thumb to give a "Thumbs Up!" while the stimulation was applied. At 3 months, significant changes were apparent. His left hand grip strength

had more than doubled to 35 lbs. He regained the ability to open his hand and his motor skills improved to the point where he could tear open a sugar packet, lift a cup, and twist a doorknob. He also “came out of his shell” socially. Where he had been more isolated, he is showing more prosocial tendencies and even began taking up new activities.

DISCUSSION:

This patient was very frustrated with his lack of progress using more traditional therapy, and had seen very little improvement over two years. His early progress, like being able to give a thumbs up in his 4th session on the NEUBIE, renewed his enthusiasm and his drive to continue treatment. His progress at 3 months was substantial, and he continues to notice further improvement in strength and fine motor skills.

¹ As part of the neuromuscular re-education process, areas of dysfunction are identified by scanning an electrode across the patient's body and observing the patient's reaction to the unique stimulation current of the Neubie®. Where there is dysfunction, such as the hypersensitivity associated with guarding after a traumatic injury or surgery, the body will fight strongly against this electric signal and it will feel significantly different to the patient.