



SmartStep™

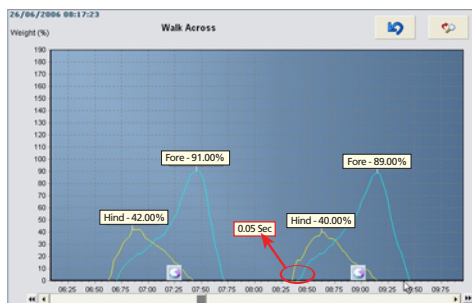
Significantly Improves Gait Patterns in Stroke Patients

Overview

C.S. is a 34-year-old woman who suffered a hemorrhagic stroke 6 years ago. She was diagnosed as suffering left hemiparesis with increased tone (2 on the Ashworth Scale) in her trunk as well as in her upper and lower limbs. Despite her condition, C.S. was independent in all B.A.D.Ls and I.A.D.Ls.

A Range of Positive Effects - Weight Bearing and Toe Relaxation

C.S. needed to improve both her walking pattern and her ability to relax her toes. An initial assessment with SmartStep™ revealed that she was able to bear only 41% of her body weight on the hindfoot and 90% on the forefoot. She also exhibited an extremely short heel-to-toe time period (0.05 Sec).

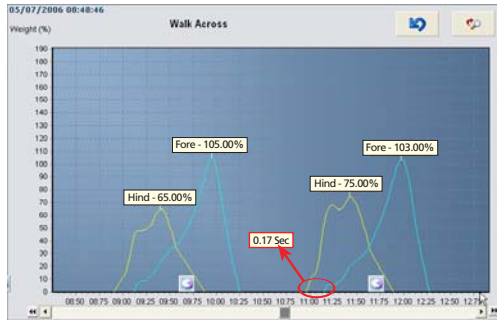


Initial assessment with SmartStep™ indicating a body weight bearing of 41% on the hindfoot and 90% on the forefoot

The SmartStep™ system provided an accurate, objective measurement of her entire weight-bearing status, with particularly useful precision on the heel-to-toe loading pattern. The SmartStep™ evaluation enabled C.S.'s physiotherapist to implement personalized biofeedback training program specifically designed to improve weight bearing on the hindfoot and to extend the heel-to-toe time period.

“SmartStep” definitely helped me to improve my gait pattern. It allowed me to relax my toes and helped me to shift the pressure toward them.
The system prevented my toes from contracting when I put weight on them, so muscle tone didn’t build up. This relieved the tension greatly and was a significant improvement for me.
Thanks to SmartStep”, walking feels so different — so much better.”

Patient - C.S.



Results after 10 days of training with SmartStep™

After ten days of training with SmartStep™ C.S. improved her weight-bearing capability to 75% on the hindfoot and 103% on the forefoot (as illustrated in the graph above). Moreover, her heel-to-toe time period was extended to 0.17 Sec.

A Visible Difference - SmartStep™ Relieves Clawing

The pictures below show the tension in C.S.'s toes prior to treatment with SmartStep™. After treatment, the signs of clawing in C.S.'s foot have decreased visibly and significantly.

Before



After



Conclusion

While SmartStep™ greatly enhances patients' weight-bearing capabilities, it is also highly effective across the entire range of gait pattern improvement therapy.

For C.S., SmartStep™ intervention dramatically improved her heel-to-toe time period, and significantly reduced the tension in her toes, ultimately improving her quality of life.

Great
Improvement
in Neurological
Rehabilitation