



# SmartStep™ Takes Neurological Rehabilitation One Step Further

## Overview

G.E.D. is a 69-year-old man with right hemiparesis secondary to left-middle cerebral artery infarction. G.E.D has been an outpatient in a daily rehabilitation center since 2002. Due to toe pain, he was unable to walk more than 30-50 meters. He attempted to alleviate the pain in various ways, including through a pain clinic consultation, alternative medicine treatments, etc.

## SmartStep™ – Goes the Distance in Relieving Ambulatory Discomfort

SmartStep™ was introduced as an additional rehabilitation tool to G.E.D.'s group therapy regimen. Upon initial examination, the patient was able to bear 70% of his body weight on the forefoot. The source of pain was unknown and it was unclear whether it was the pain that led to inability to walk, or the inability to walk that caused the pain.

Physical therapy included activities devised to improve functional mobility and motor control of push-off phases during ambulation. Although toe pain increased somewhat when practicing push-off during the gait training sessions, the pain ceased during resting.

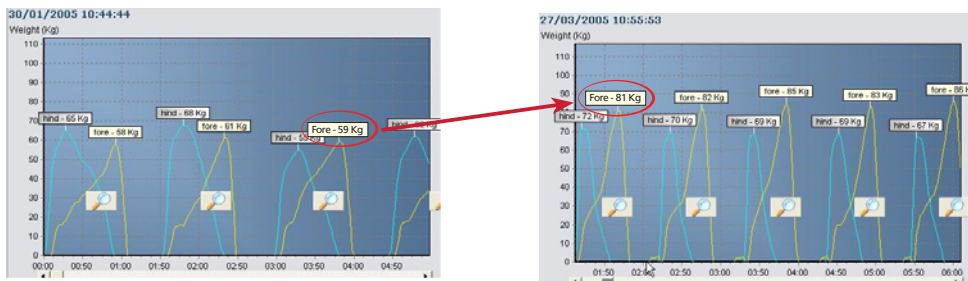
After two months of practicing with SmartStep™, G.E.D. reached a weight-bearing capability of 103% of his body weight on his forefoot. Pain was only noted in the third toe, after long distances (approx. 1km).

## Conclusion

Use of the audio biofeedback of SmartStep™ and responding to it enabled the patient to break out of the cycle of pain and get back to a normal, productive lifestyle.

SmartStep™ significantly improved the patient's ability to push-off using his toes, and regain a normal gait pattern.

**“ Up until now, there was no tangible walking improvement — and pain was a big impediment. SmartStep™ guided and motivated me, helping me achieve this wonderful result. Thank you! ”**



The graphs indicate the improvement within two months of practicing with SmartStep™. Noticeable improvement on the forefoot went from 70% to 103% of body weight on the forefoot.

