

HealthSouth Lakeshore SmartStep™ Therapy



Taking steps to relearn to walk after experiencing loss of lower limb function due to a stroke, neurological disorder, orthopedic injury or post-surgery can be a difficult and time-consuming process. But the SmartStep

rehabilitation system is advancing the rehabilitation process, helping patients improve weight-bearing and walking capabilities at a faster pace.

What is SmartStep™?

SmartStep is an innovative biofeedback and monitoring system, which enables physical therapists and clinicians to assess, treat, and monitor patients who have compensated lower limb functions.

How does SmartStep™ work?

The unique SmartStep insole measures the force applied by the heel and forefoot of the affected limb. The data is received and analyzed by the wireless miniature portable control unit worn around the patient's ankle.

Data is transmitted to a computer running the SmartStep software, which also maintains patient medical records and functions as an assessment and therapeutic tool. The interactive training software enables self-training and exercise in front of a multimedia display, increasing patient motivation and performance, and improving the effectiveness of each therapy session.

What does the SmartStep™ software analyze?

- Body Weight (BW) on the hind, fore and entire foot
- Heel-to-toe gait pattern
- The gait cycle temporal characteristics: stance and swing duration, cadence, and symmetry

What kind of feedback does the SmartStep™ control unit provide?

SmartStep's control unit can be programmed to provide the patient with real-time auditory indications of correct or incorrect gait performance as per the patient's specific prescribed regime.

SmartStep software provides immediate and long-term data about the patient's performance, allowing therapists to measure the patient's progress and plan future goals. It also helps therapists determine the type of facilitation desired in the treatment, the degree of physical independence, and the safest level of ambulation for the patient.

SmartStep can help patients with:

- Amputation
- Brain injury
- Hip fracture
- Joint replacement
- Lower limb trauma
- Multiple sclerosis
- Orthopedic or sports injuries
- Parkinson's disease
- Spinal cord injury
- Stroke
- Any neurological condition affecting balance or gait

SmartStep is also effective for short-term rehabilitation needed for simple fractures, sprained ankles and torn ligaments.

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

For more information or to make a referral, please call 205 868-2098.

A Higher Level of Care

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