

### **Inclusion Criteria**

1. Acquired brain injury  $\geq$  12 months
2. Male and female  $\geq$  18-70 years of age
3. Female patients that are not pregnant
4. Any racial/ethnic group (the use of translators may be used to assist non-English speakers)
5. Able to ambulate independently with or without braces (ankle foot orthosis) or assistive devices at least 10 meters at the minimum speed self-selected speed of 0.2 m/s
6. Self-selected maximum walking speed of 0.6 m/s
7. Cardio respiratory status sufficient to tolerate aerobic exercise protocol
8. Able to attend training sessions 3 times a week for 6 weeks or 18 sessions in 8 weeks
9. Comply with directions and cooperate with examiner

### **Exclusion Criteria**

1. Female patients who are pregnant
2. Currently receiving physical therapy for gait problems
3. Contractures or severe tone which prevents use of Lokomat
4. Use of Knee Ankle Foot Orthosis (KAFO) or need for assistance walking
5. Anticipated surgical or pharmacologic intervention for tone/contractures during the study period
6. Additional neurologic or musculoskeletal diagnoses that might impair gait (i.e., recent orthopedic interventions (6 weeks), unhealed fractures, significant degenerative joint disease, lower limb amputation, uncontrolled seizures)
7. Heterotopic Ossification that restricts motion for normal walking
8. Recent cardiac or active pulmonary disease, liable blood pressure
9. Back surgery
10. Pressure sores that interfere with brace, harness, Lokomat or walking