The Region’s Only Lokomat

Robotic Lokomat® therapy is available at St. Luke’s. This innovative therapy has been used effectively to treat patients who have been afflicted by a stroke, spinal cord, traumatic brain injury, or neuromuscular disease, (i.e., multiple sclerosis, or cerebral palsy) and have lost their ability to ambulate.

Optimized Therapy Sessions

A user interface allows a specially trained therapist to easily operate the system and adjust training parameters to suit the individual needs of the patient in real time. This is especially important for those more challenging patients who might benefit from more intensive functional locomotion therapy.

Sensory Locomotor Learning

Functional training helps patients recover faster. Lokomat allows patients to train beyond their present capabilities. Active patient participation combined with afferent feedback creates a stimulating reorganization of the central nervous system, which leads to longer training sessions and potentially greater gains.

Benefits of Lokomat Therapy

- Assessment tools allow easy and reproducible gait patterns for greater optimization of training sessions
- Optimized functional training to individually adjustable gait pattern and guidance
- Psycho-social motivation increases based on real-time biofeedback
- Better outcomes for spinal cord injury, multiple sclerosis, cerebral palsy, traumatic brain injury and non-ambulatory stroke patients
- Significant improvement in patient’s gait velocity, endurance and performance of functional tasks
- Leveraging supraspinal plasticity helps lead to improved, over-ground walking
- Lokomat training improves gait symmetry and body tissue composition compared to conventional physiotherapy in severely impaired stroke patients
- Potential to alter the response of various spinal pathways, which can impact neuromuscular function and behavior

“The staff at St. Luke’s are extremely competent, are extremely caring…and they do everything they can to assist an individual to achieve their maximum ability. I would strongly recommend St. Luke’s.”

Thomas Stewart, St. Luke’s patient

To refer your patient, contact: (509) 473-6869
fax (509) 473-6097

www.st-lukes.org
Q: **What is Lokomat?**

A: Lokomat is a robotic gait orthosis and an advanced body weight support system that assists ambulatory movements of gait-impaired patients. Its unique treadmill design combines intensive functional locomotion therapy with patient assessment and simultaneous feedback.

Q: **What types of patients is Lokomat indicated for?**

A: Stroke patients with hemiparesis or hemiplegia; Patients suffering from an acute spinal cord injury or traumatic brain injury; Patients diagnosed with late stage multiple sclerosis, cerebral palsy, muscle spasticity, or other neurological disorders; Patients with strength, endurance, range of motion, and gait abnormalities; and Patients regaining control over motor functions.

Q: **Who benefits?**

A: Administering intensive functional locomotion therapy by manual means is labor intensive; Lokomat allows longer training sessions, resulting in more rapid gains, so both the patient and the therapist benefit.

Q: **What makes it work so well?**

A: Six things:

   - **Its user interface** allows for immediate adjustment of training parameters to suit the individual needs of the patient, especially those more challenging patients who would benefit from more intensive functional locomotion therapy.
   - **Its technical design** reduces physical strain for both therapists and patients; which make therapy sessions longer, and more effective.
   - **Its low inertia suspension system** allows for precise patient unloading, promoting a more physiological gait for optimized sensory stimulation.
   - **Its body weight support system** can be adjusted precisely to the specific needs of the patient, assuring an optimal training environment.
   - **Its computer-controlled motors** precisely synchronize the speed of the treadmill, moving the patient’s legs through an anatomically correct trajectory, that mimic physiological gait pattern.

Q: **How many sessions does a patient need as proof that Lokomat is working?**

A: The changes can be immediate depending on the severity of the patient’s condition.

Q: **How much does it cost?**

A: Lokomat therapy is integrated with the overall therapy plan for appropriate patients. There is no additional cost to the patient.

Q: **Do any other facilities in our area offer this new technology?**

A: No St. Luke’s is the only facility offering this new technology.

Benefits of Lokomat based therapy include:

- It offers a wide range of training possibilities
- Physical strain on therapists is relieved
- Patient walking activity is easily supervised and assessed
- Gait pattern and guidance force are individually adjustable to the patient’s needs to optimize the functional training
- Assessment tools allow easy and reproducible measurements of the patient’s progress
- Capable of switching from automated to manual therapy
- Better outcomes through longer and more intensive functional training sessions compared to manual treadmill training.