Therapy Information
Lokomat® Training for Infantile Cerebral Palsy

Infantile cerebral palsy is caused by brain damage that is present from birth. As a result of this damage, the patient finds it difficult to coordinate certain movement sequences, or may not be able to coordinate them at all. These movements are observed to be sweeping, slow, angular, stiff, tense, or shaky. Without knowing the severity of the brain damage, no statements can be made about the type of movement dysfunction in any one individual case. Of course, it also depends on which areas of the brain have been damaged. Various symptoms may occur, such as hearing, visual or speech impairments.

The most common difficulties arising from infantile cerebral palsy are as follows:
- Spasticity
- Ataxia (inability to sit and stand up straight)
- Athetosis (slow, random, sweeping movements of hands and feet)
- Speech disorders
- Perception problems

How can Lokomat training help cerebral palsy patients?
Because of the brain damage, the natural process of learning to walk is flawed in children with infantile cerebral palsy. The complex movement sequences required for walking cannot be stored and accessed in the patient’s central nervous system. Therefore, these children need extra support in learning to walk. The intensive, repetitive training of the Lokomat system means that the child can be trained to walk. It is known that repetitive exercise encourages structural and functional changes in the nervous system, which greatly improve the patient’s ability to handle tasks presented to him or her. As a result, modern neurophysiological concepts of walking now focus on repetitive, task-specific exercises. In other words, “If you want to learn to walk, you have to walk”. Training with the Lokomat system is based on this concept, and enables repetitive training in complex walking cycles to take place as early as possible.

What are the expected effects of Lokomat training on cerebral palsy patients?
As yet, there are no available clinical studies on the Lokomat system’s effectiveness with cerebral palsy. However, the initial results are extremely promising and show generally improved movement and increased functional mobility.

Note: At this point, we would like to expressily state that these improvements are not due exclusively to training with the Lokomat system. They must always be regarded as a result of Lokomat training in combination with other physiotherapeutic measures.

How often should training take place?
In the early stages of rehabilitation, training should take place every day if possible (depending on the patient’s stamina and the therapy plan). In the later rehabilitation stages, we recommend that the patient train three times a week. For more information, please see the “Recommendations for clinical practice” in the Products/Lokomat/Interest Groups section of our website.

Who should not use the Lokomat system for training?
As with any form of therapy, there are known contraindications for the Lokomat system. For a list of these contraindications, please see “Purpose and contraindications of the Lokomat System” in the Products/Lokomat/Interest Groups section of our website.
Which clinics have experience with the Lokomat system?
If you have any questions about therapy with the Lokomat system, please contact your local clinic directly. For a list of reference clinics, see the Lokomat / References section on our website.