

How can my child benefit from Intensive Physical Therapy? Written by: Gena Livingston PT



Intensive physical therapy is an approach that combines various elements of rehabilitation into a treatment approach for neurological disorders including cerebral palsy, developmental delay, traumatic brain injury, hypotonia, post fracture/post surgical retraining, sensory integration disorder/ autism and developmental coordination disorder. The intensive physical therapy schedule is much more rigorous than traditional therapy. Children are seen for three hours a day three to five times a week for a one month time period. Through the use of a Therasuittm and *universal exercise unit (monkey/ spider cage)* children can maximize their physical potential and demonstrate results much faster than traditional outpatient physical therapy. With three hours of therapy a day, the PT is able to practice movement patterns with the child over and over. This repetition builds the child's strength and endurance leading to the development of new skills.

The Therasuittm was derived from a space suit created by Russian researchers to counteract the effect of weightless conditions in space. During the 90's a new use for the space suit was developed and modified for children with neurological diagnoses in Russia and Poland. Modifications

were made again in 2002 and the Therasuit[™] was brought to the U.S.A. and designed and patented by Richard and Isabela Koscielny.

The Therasuit[™] is a soft and dynamic support system with hooks and elastic bands that align the child's body as close to normal as possible. The bands assist in supporting weak muscles and normalizing muscle tone.

When the child is in the correct posture and alignment, he can learn proper movement patterns.

The Universal Exercise Unit (UEU) is a 400 lb metal structure that consists of a pulley suspension system. The child's limbs are suspended via pulleys and exercised in a straight plane of motion with gravitational forces eliminated. Children with neurological involvement often have difficulty isolating movement of one extremity from another and performing movement against gravity. The UEU or "monkey cage" allows for the strengthening of the appropriate muscle groups without the weight of gravity. The child will receive a specific strengthening protocol in the UEU that will result in reeducation of the nervous system, improved isolation of one limb from the other and increased independent movement.

After the monkey cage, the child is placed in the "spider cage." The spider cage uses the UEU with a system of eight bungee cords attached to a waist belt. The spider cage allows children to experience more independent

movements, weight shifting and assisted movements such as sit to stand, jumping and squatting. The pediatric physical therapist assists in guiding children through movement patterns that strengthen muscles and allow the child to perform the movement more independently.

Ninety four percent of all children who undergo intensive physical therapy demonstrate an improvement of gross and fine motor skills. Sixty four percent of all children show an improvement of speech and fluency, but the major improvement occurs in the vestibular system. The vestibular system, through the position of the body, records and analyzes the muscle tone necessary to execute movement. Gena Livingston PT has been certified in the Therasuittm method (intensive pediatric physical therapy) of treatment and is taking new candidates for intensive therapy at Kids Therapy Center.