

INTENSIVE PEDIATRIC THERAPY for CEREBRAL PALSY



TheraSuit
TheraSuit Method

www.suittherapy.com



TheraSuit™

Soft Dynamic Proprioceptive Orthotic

Many of our friends would say that our daughter Kaya is lucky. She was born at 28 weeks to a family where both parents are physical therapists. We started the earliest therapeutic intervention possible at the time. As soon as Kaya became medically stable, we initiated different therapeutic techniques.

We continued our intensive approach of her treatment for the following years. We started with the Vojta Method, Bobath, Doman-Delacato, PNF, Conductive Education as well as aquatic therapy, hippotherapy and daily massage. At age 6 Kaya was in a wheelchair and would use her K-walker for short distances. Nothing seemed to be bringing Kaya closer to independence.

One day we traveled to Europe to try therapy that utilized an older version of the “space suit.” At the end of the first session, Kaya took her first steps, which was a turning point in our lives. Since the old space suit was not available for sale and it was extremely cumbersome to use, we decided to work on our own improved and modified design. That was the missing piece in our therapy.

In 2001, we designed and patented the TheraSuit. It is the first suit in the United States used to rehabilitate neurological and sensory disorders. TheraSuit is a soft dynamic proprioceptive orthotic. It is FDA registered and currently utilized in over 50 different clinics and hospitals in the United States and other countries (including Easter Seals and Children’s Hospitals). TheraSuit is used to treat patients diagnosed with cerebral palsy, hemiplegia, stroke, developmental delays, ataxia, athetosis, traumatic brain injuries and many other neurological disorders. It is a tremendous help to patients suffering from sensory integration problems and autism.

Kaya Koscielny



Through the system of elastic rubber bands, a patient’s body is aligned as close to normal as possible. This restoration of posture and proper function of postural muscles allows the patient to learn (or re-learn) proper patterns of movement. The patient’s body is loaded with very specific and unique pressure that restores deep proprioception from joints, ligaments and muscles. The TheraSuit provides external stabilization to the trunk and therefore allows more fluent and coordinated movement for both upper and lower extremities.

Fine and gross motor skills improve in 94% of patients. Speech productivity and fluency is noted in 64%, 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 the movement.

When the TheraSuit is applied, very specific and precise placement of the elastic bands move the entire body back over one’s heels and into a more vertical position. The center of gravity moves back between the feet. Very noticeable changes in muscle tone take place. A more relaxed and upright posture with corrected alignment of lower and upper extremities is noted immediately. This is how the TheraSuit normalizes muscle tone through postural changes. Patients with ataxia and athetosis benefit from the use of the TheraSuit through the stabilizing effect to the trunk. They require more hours of use, but benefit from it the most.

The TheraSuit applies very specific pressure to the body. The nervous system is exposed to pressure from the second week of gestation. This unique pressure allows the nervous system to develop properly. Premature and neurologically impaired babies are drastically deprived of that crucial input. TheraSuit helps to restore nervous system function by providing both tactile stimulation and pressure all over the body. This is also why it helps so drastically with sensory integration problems.

What makes the TheraSuit unique is its ability to provide the dynamic correction. What this means is that it allows the error to occur, but at the same time facilitates the correct position or movement. We can learn based only through our own experience. The TheraSuit is not performing movement for the individual. It only guides and assists them.

Usually at the beginning the TheraSuit is used as a support system for the weak muscles. As the patient progresses the bands are tightened up and provide resistance, which leads to gains in strength.

Through the loading effects of the elastic bands, the skeletal system is loaded with mechanical force. It is very well documented that the proper ossification, calcification and strength of the bone is possible only through mechanical forces acting on the bones. Since mobility is so drastically limited, early weight bearing and therefore strengthening of the bones is impaired. Bone demineralization (including hip, calcaneus bone and spine) is very common.

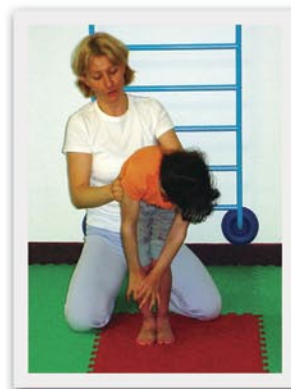
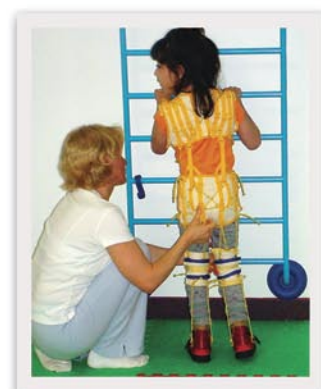
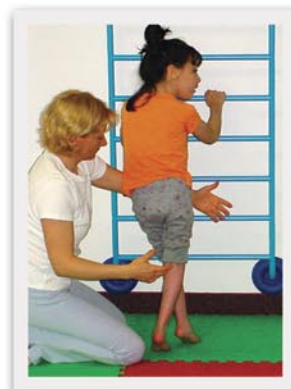
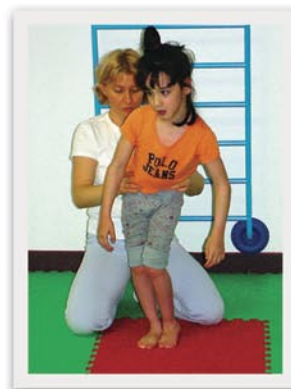
Case studies show that using the TheraSuit improves the density (strength) of the bone as well as helps to diminish subluxation in the hip joint.

The TheraSuit is part of the TheraSuit Method, an intensive physical therapy/exercise program. The TheraSuit accelerates functional progress. Children undergoing intensive therapy with the use of the TheraSuit achieved better results in a shorter amount of time.

The TheraSuit's effectiveness is proven by the dramatic progress of hundreds of children and adults. Several clinics using the TheraSuit serve as ongoing research centers to evaluate and document the benefits of the TheraSuit. The TheraSuit Method is becoming a standard method of treatment for neurological and sensory disorders.

BEFORE

AFTER

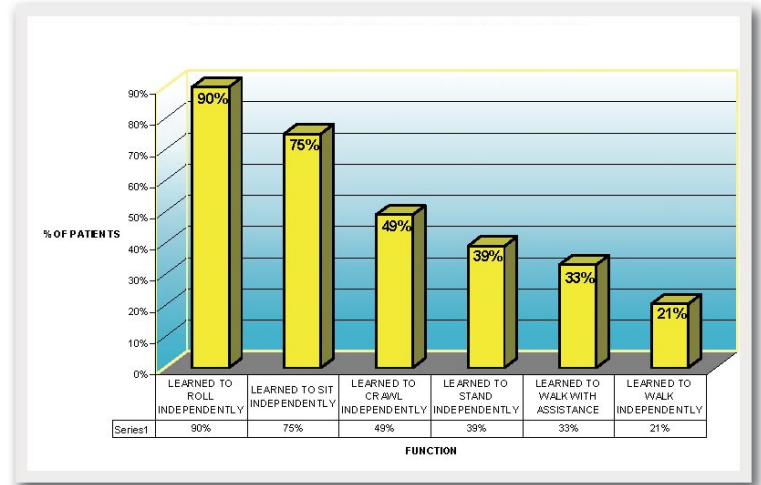


TheraSuit™ Applications:

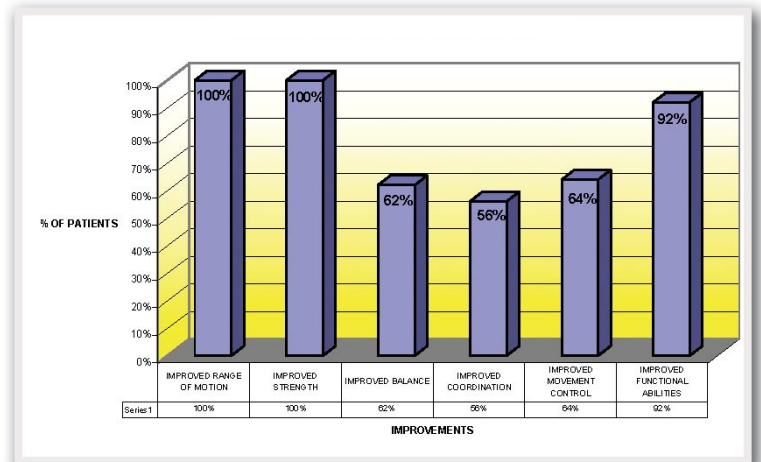
- Cerebral Palsy
- Developmental delays
- Traumatic Brain Injury
- Post stroke (CVA)
- Ataxia
- Athetosis
- Spasticity (increased muscle tone)
- Hypotonia (low muscle tone)

TheraSuit™ Benefits:

- Re-trains central nervous system
- Provides external stabilization
- Normalizes muscle tone
- Aligns the body to as close to normal as possible
- Provides dynamic correction
- Corrects gait pattern
- Provides tactile stimulation
- Influences the vestibular system
- Improves balance and coordination
- Decreases uncontrolled movements in ataxia and athetosis
- Improves body and spatial awareness
- Supports weak muscles
- Provides resistance to strong muscles to further increase strengthening
- Promotes development of fine and gross motor skills
- Improves bone density
- Helps improve hip alignment through vertical loading over the hip joint



Functional Progress After TheraSuit Method



Improvements After TheraSuit Method

Therasuit LLC offers:



TRAINING

- TheraSuit/Universal Exercise Unit training for parents
- TheraSuit Method training for therapists
- Training and consultations on site

www.suittherapy.com

EQUIPMENT

- Equipment imported from Europe
(TheraSuit, Universal Exercise Unit and splints)

www.suittherapy.com



TREATMENT

- TheraSuit Method program for children with CP
2-4 weeks intensive exercise program in the Pediatric Fitness Center (a model treatment facility)

www.cpfitnesscenter.com



INFORMATION

- Cerebral Palsy Magazine - International publication for individuals with CP, parents and professionals

www.cerebralpalsymagazine.com





IZABELA and RICHARD KOSCIELNY
Therasuit, LLC Owners

Parents and Innovative Therapists

- Parents of two daughters, Kaya (14-year-old with CP), and Maya (6-year-old)
- Both hold a Master's degree as Physical Therapists from the Academy of Physical Education in Poland
- Both have over 15 years experience with the special needs pediatric population
- Both are Certified Fitness Trainers
- Izabela is a Certified Yoga instructor for Special Children
- Richard is a Physical Education Trainer specialized in aquatic therapy
- Both established Therasuit LLC Company in 2002, which sells their TheraSuit, the Universal Exercise Unit and other special needs equipment
- In 2003 both created and published Cerebral Palsy Magazine
- In 2003 both established the Pediatric Fitness Center offering Intensive Exercise Programs for individuals with Cerebral Palsy, as well as a training/education center for therapists who want to adopt this method
- In 2004 they helped to establish the American Association of Intensive Pediatric Physical Therapy



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