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## *Intensive Therapy Program*



The **Genius Physical Therapy PLLC** is certified and authorized by TheraSuit LLC to provide Intensive Therapy Program (ITP). The Intensive Therapy Program is customized to fit the needs of each special needed child. The Intensive Therapy Program follows the "TheraSuit Method<sup>®</sup>" which is an intensive strengthening program to treat various neurological disorders such as *Cerebral Palsy, neuro-musculoskeletal or neuro-motor disorders, Global or Developmental Delays, and Traumatic Brain Injuries or Spinal Cord Injuries*. This method utilizes the TheraSuit<sup>®</sup> and Universal Exercise Unit combined with various treatment and handling strategies to combat the effects of de-conditioning and immobilization to promote the maximum potential of independence.

The TheraSuit Method<sup>®</sup> is based on an intensive and specific exercise program. The key elements are joint mobility free, muscle strengthening exercise program, and functional goal training to reflect in the activities of daily living (ADL). This Intensive Therapy Program established for the participant based on each individual's needs. With an intensive muscle strengthening exercise and a continuous home program by the parents, we can expect to see increase general muscle strength, tolerance, and endurance. The TheraSuit Method<sup>®</sup> also eliminates pathological reflexes. Moreover, it promotes and establishes a new and correct pathway for a functional movement pattern that is very important for children with special needs.

Our Intensive Therapy Program is performed on a one-on-one basis with a certified therapist. Different special program options are offered to suit the child's needs.

### **Typical Intensive Therapy Program (ITP) Treatment Session--**

#### **\* Preparation Phase**

This preparation period consists of warming up the muscles through hot packs and massage followed by muscle stretching and strengthening exercises so that they are ready for the second phase of the therapy.

- Moist Hot-Packs - Apply 10 - 15 minutes of local heat to areas of tight musculature.
- Therapeutic Massage - Apply 10 -15 minutes massage to prepare muscles (warming up muscles and increasing local circulation) for muscle stretching and strengthening exercises.
- Muscle Stretching and Range of Motion Exercises - 30-45 minutes of muscle stretching, and combined with passive range of motion exercises (PROM), active-assisted range of motion (A-AROM), active range of motion (AROM) and/or resisted range of motion (RROM) to prepare for muscle strengthening and functional activities training.
- Muscle Strengthening Exercises - Focus on weak single or muscle groups, often utilizes the Universal Exercise Unit (UEU) for muscle strengthening exercises.
- Manual Therapy - Consists of soft tissue and/or joint mobilizations to increase joint mobility or provide proper joint stability and prepare the body for movement/exercise.
- Sensory Management - Consists of manual techniques, therapeutic listening, and sensory integration program to provide proper proprioceptive, auditory, and visual inputs to promote engagement.

## **\* Second Phase**

During the second phase of treatment sessions with applying combination of TheraSuit<sup>®</sup> and floor activities, personally customized activities which include proximal trunk stability training, graded movement control in transitions, balance and coordination training, and integrating all training skills into functional activities such as head control, rolling, sitting up, crawling/creeping, and walking training with assistive device or independence are practiced.

- Applying TheraSuit<sup>®</sup> (if eligible per physician) - Applying TheraSuit<sup>®</sup> for muscle strengthening, balance and coordination control training, gait training and functional activities. TheraSuit<sup>®</sup> also provides a more ideal alignment in positions and proper proprioceptive awareness during these activities.
- Applying Universal Exercise Unit (UEU) - It provides proper *assistance and resistance* for weak single or muscle group muscle strengthening, as well as improving muscle endurance, enhances the single movement or the movement pattern learning, and promotes, develops, and accelerates functional skills learning.
- Proximal Trunk Stability and Graded Movement Control Training - It promotes foundation of the stability before the mobility.
- Balance and Coordination Training - These skills are essential in order to maintain different postures as well as to be able to move throughout different positions independently.
- Functional Activities Training - It includes activities such as head control in different upright positions, rolling, sitting up, crawling/creeping, kneeling, transfers, standing, and walking training with assistive device or independence, stair climbing, etc.
- Gait Training - With and without assistive devices.

## **\*Third Phase**

- Home Exercise Program - In the third phase of the therapy, home exercise programs and specific notices will be instructed to consumers or their parents for further enrichment of treatment. It contains detailed written home exercise program booklet with pictures and instruction, and video.

## **\*\*Glossary-**

### **\*Muscle Stretching and Range of Motion Exercises:**

Depends on the consumer's participation level and degree of muscle tightness, muscle stretching exercise (the proper muscle lengthening) is necessary to prevent the development of joint contractures in a grow process, to promote more freedom of movement, and to prevent loss of maintaining a proper posture in standing upright or in ambulation.

### **\* Muscle Strengthening Exercises:**

Muscle weakness is a major detriment to children with neuromuscular disorders as it hinders the achievement of gross motor skills. Muscle strengthening exercises can help the child to increase control over how their body moves. For example, if a child exhibits a scissor pattern when they are walking, by way of muscle stretching and strengthening exercises to their muscle group around hips, the child can display greater control movement to step properly. Muscle strength training coupling with muscle stretching exercise is the most effective in treatment strategy.

### **\*Balance and Coordination:**

Balance includes the ability to maintain positions, and to recover and react from forces that might throw you off balance, as well as the ability to safely fall, minimizing injuries. Coordination is the ability to smoothly execute a movement through space. These skills are essential in order to maintain different positions as well as to be able to move through different positions independently. Balance and coordination depend on the interaction of multiple body organs and systems including the eyes (visual system), ears (auditory system), spatial orientation (vestibular system), brain and nervous system (ability of motor learning and motor control, and motor processing), cardiovascular system and musculoskeletal system. Balance and coordination skills sometimes do not naturally occur in children with neuro-musculoskeletal or neuro-motor disorders, and they hinder their achievement of independent motor skills. These skills can be taught repeatedly, and

many children successfully learn balance strategies after proper and correct instructions and practices.

By using TheraSuit® Orthosis and Universal Exercise Unit (UEU) during Intensive Therapy Program treatment session, the children can learn graded balance and coordination control. Having good balance and coordination skills can be the difference between needing assistance and being able to complete a movement independently. It promotes better muscle strength, enhances the single movement or the movement pattern learning, and promotes, develops, and accelerates functional skills learning in proper correct postures.

### **\*Functional Activities**

Intensive Therapy Program focuses on functional activities training to promote and develop independence of graded control in movements, transitions, and functional skills. The children with neuro-motor or neuro-musculoskeletal disorders will practice or perform needed movements, transitions (side-sitting to quadruped position, side-sitting to kneeling, kneeling to standing via a half-kneeling, sitting to standing, and squatting to standing), or functional skill in different developmental positions (sitting, crawling/creeping, standing, walking, jumping, hopping, etc.) on their own after muscle stretching and strengthening, and balance and coordination enhancing training. Repetition is necessary to learn new motor skills, and providing instruction of the "Home Exercise Programs" to parents after treatment sessions allows for this practice to take place. Moreover, each child will receive an individually designed program to meet his or her specific needs and to ensure the accommodation of each child's goals.

### **\*Gait Training**

Practicing or performing walking or ambulation training can lead to final goals of independence. The children with neuro-motor or neuro-musculoskeletal disorders will practice and learn the concept of weight bearing on the lower extremities in standing and weight shifting from side to side or forward and backward (as a pre-ambulation training) along with the consequences in a safe way. We also uses a variety of assistive devices depending on each individual child's abilities and needs. This will enable children in all developmental levels to gain exposure to walking skills.