

The Importance of Strengthening

The concept of strength development for children, for example diagnosed with cerebral palsy (CP) has recently become very popular. The idea of intensive fitness therapy to treat patients with CP is supported by research. However, many professionals suffer from lack of the basic knowledge about strengthening physiology, strength training, and adaptation to exercise, etc. Therapist, fitness trainers, and wellness instructors are often not sure how to proceed, and they end up modifying adult versions of strength training program and applying them to children. Many professionals misinterpret pediatric strength training as a weight lifting, power lifting, and body building program.

To understand the role of strength in intensive fitness therapy, one needs to understand that strength is the most important element of life. ALL human movement-from the blinking of an eye to walking and running-depends on strength and proper functioning of skeletal muscles. Each basic activity is based on strength. It is impossible to develop endurance, speed, agility, balance, or coordination without it.

Research confirms that children with CP respond to external stimuli such as strengthening exercises the same way (neurologically) as non-disabled individuals. These findings allow us to use knowledge from sport medicine and exercise physiology to develop a new and effective fitness therapy program.

Strength is very important for patients with neuromotor disorder. It helps not only to initiate movement, but also to control or inhibit it. Some benefits of strength includes;

- Increases postural muscle tone
- Decreases spasticity
- Helps prevent contractor/deformities
- Improve trunk stabilization and control
- Improves fine and gross motor skills
- Improves balance, coordination, and movement control
- Improves endurance
- Decreases involuntary movements

To prepare an effective intensive fitness therapy program, we face many challenges related to the client/patient medical condition. We have to keep in mind that we are working with the special needs population. It requires us to take under consideration;

- Severity of central nervous system damage
- Spasticity and/or low tone of the muscle
- Pathological reflexes
- Contractures and deformities
- Cognitive and functional levels
- Motivation
- Medical history