

The Benefits of Aquatic Physical Therapy for Children

Intro:

Aquatic Physical Therapy integrates the unique knowledge, skills, and training of a physical therapist or physical therapist assistant and cannot be performed by an unlicensed individual, caregiver, personal trainer, or aquatic instructor.

Why it Works:

- Uniform support and fluid resistance of the water provides stability to the patient.
- Near zero gravity and buoyancy effectively reduce the patient's body weight, making it easier to move.
- Constant pressure supports body awareness to improve brain-body connection.
- Depending on how a therapist uses the aquatic environment, the multi-sensory environment can stimulate alertness or calming.

Research shows aquatic physical therapy for promotes a reduction in muscle tone, improved extensibility of soft tissue, and global relaxation in children with hypertonicity.^{1,2}

For children with respiratory impairment, the hydrostatic pressure of the water redirects blood flow from the extremities to the chest to improve efficiency in the cardiorespiratory system. Children with autism spectrum disorder have experienced calming and an improvement in socialization when participating in a group aquatic exercise program.

Additional Benefits:



- Aquatic PT provides opportunities for movement the patient may otherwise be unable to perform.
- Allows for efficient training of multiple systems during a single session.
- Aquatic PT introduces the patient to an activity that allows for life-long participation.
- Enables/promotes caregiver participation.

Time and Temperature Matters:

Thermodynamics refers to the effect the temperature of water has on the body. Research suggests the effect of exercise in the water is dependent upon such factors as the age of the patient, the type of intervention performed, the level of activity, the amount of time spent in the water, and the air temperature within the aquatic center or outdoors.^{1,5,6}

Because children have a lesser ability to regulate body temperature, passive interventions



may require water temperatures to be between 90-92 degrees to prevent chilling. For children who actively participate in water play, swim skills, and gait training, the water temperature may range from 87-89 degrees.^{1,5} The length of time a participant spends in the water also impacts their ability to dissipate heat. Most studies reported aquatic interventions lasted between 30-45 minutes.^{2,3,4,5,6}

References:

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