

Chapter 12

Pediatric Aquatic Therapy

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1. Understand differences between providing aquatic therapy for children and adults.
2. Describe program planning considerations, pediatric aquatic therapy (PAT) providers, practice settings, and service delivery models.
3. Delineate precautions and contraindications for PAT, evaluation procedures, documentation guidelines, and treatment planning.
4. Apply practical treatment principles related to moving and handling children; utilize current aquatic interventions and activities with logical treatment progressions.

DESCRIPTION OF PEDIATRIC AQUATIC THERAPY

Much of the credit for formalizing Pediatric Aquatic Therapy (PAT) should be given to innovative individuals in England who, following the lead of James McMillan (see Chapter 4), began as early as the 1950s to work in the water with children with disabilities. Today, we have various models of service delivery and a host of professionals providing PAT services as the beneficial outcomes of these programs are becoming more widely known. While we have made significant progress in demonstrating the effectiveness of our aquatic programs for children, our work continues to lack the scientific rigor needed to fully support our efforts. Due to the diversity of PAT providers, it is unlikely that a single, all-inclusive description of PAT will develop in the near future. Research findings must be applied cautiously to the pediatric population and it must be remembered that children are not small adults.

PHYSIOLOGIC DIFFERENCES BETWEEN CHILDREN AND ADULTS

Respiratory Differences

Most respiratory problems in children can be related to a single cause, such as a genetic predisposition, known defects, or an infection.¹ Due to the smaller cross-sectional area of a child's airway, small obstructions have the potential to create serious airway obstructions, higher resistance to airflow, and increases in the work of breathing. Respiratory rates decrease in childhood as lung volumes increase, from an average of 28 breaths/minute at 1 year to 18 breaths/minute at 10 years. Children have less ventilatory reserve than adults with less efficient ventilation.²