

Additional positive effects:

Aquatic therapy has been shown to promote body awareness, concentration, impulse control, and frustration tolerance in children with autism (Shema Kolainu-Hear Our Voices, 2012).

- Other benefits include increased attentiveness and improved water safety (Hulls et al., 2006).
- It has been reported that children with autism have improved abilities to follow directions upon an aquatic therapy session (Shema Kolainu-Hear Our Voices, 2012).
- Aquatic therapy has little risk factors or adverse affects (Franzen & Trynieszewki, 2013).
- Group aquatic therapy is an enjoyable alternative to land-based exercise (Fragala-Pinkham et al., 2008).
- It has been reported that children with autism enjoy water therapy (Hulls et al., 2006; Fragala-Pinkham, et al., 2008).



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Pediatric Aquatic Therapy for Children with Autism

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Advantages of Pediatric Aquatic Therapy for Children with Autism

The effects of Autism:

Children with autism have many social-related impairments which limit their abilities to communicate using eye contact, facial expression, or social gestures (Hulls, Walker, & Powell, 2006).

- These children may exhibit changing their daily routines (Hulls et al., 2006).
- An increase in self-stimulation such as hand flapping, rocking, or echolalia may be present (Hulls et al., 2006).
- Secondary health concerns can be present in children with autism due to a limitation of physical and social activities (Fragala-Pinkham, Haley, & O'Neil, 2008).
- Sensory processing difficulties are often noted in children with autism (Shema Kolainu-Hear Our Voices, 2012).



Physical effects of aquatic therapy:

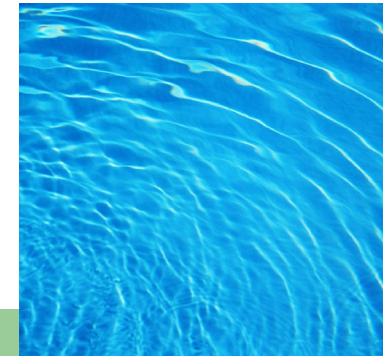
Moderate physical activity is recommended for children with autism (Fragala-Pinkham, Haley, O'Neil, 2011).

- Reported benefits of aquatic therapy in children with autism include improved strength and balance (Hulls et al., 2006; Fragala-Pinkham, et al., 2011).
- Other benefits include improvements in basic swimming skills (Hulls et al., 2006; Fragala-Pinkham, et al., 2011).
- Aquatic therapy has been shown to be effective in improving motor function in children with neuromotor impairments, including those with autism diagnoses (Franzen & Tryniszewski, 2013).
- Benefits also include improvements in cardiac and respiratory endurance (Fragala-Pinkham et al., 2008).
- Therefore, an aquatic exercise program has the potential to promote physical fitness and activity in children with autism spectrum disorders (Fragala-Pinkham, et al., 2011).

Sensory effects of aquatic therapy:

The warm water of an aquatic therapy environment can provide children with autism with a safe environment that surrounds the children with hydrostatic pressure which can benefit their sensory systems (Shema Kolainu-Hear Our Voices, 2012).

- Increases in toleration to touch and eye contact have been reported (Hulls et al., 2006).
- Clinicians reported a positive change in self-stimulation and participation in the water activities (Hulls et al., 2006).
- Aquatic therapy promotes social skills as it places children in a group environment and enhances sharing of toys and equipment (Shema Kolainu-Hear Our Voices, 2012).



Pediatric Aquatic Therapy

"Aquatic therapy is one of the many types of recreational therapy that can play a primary role in enhancing the quality of life and productivity of a child with autism"
(Shema Kolainu-Hear Our Voices, 2012).