

The Benefits of Swim Lessons in People with Down Syndrome

“Sometimes the things we can’t change end up changing us instead” -Unknown

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What is Down Syndrome?

Down Syndrome is a genetic condition, as well as a chromosomal abnormality where a child is born with 47 chromosomes instead of 46. Down Syndrome causes intellectual and physical delays. It can occur in 1 in every 792 live births. The average life expectancy is 47 years old. With increasing maternal age, the likelihood of this abnormality is greater.

- Cognitive challenges include
 - Hyperactivity and Impulsivity
 - Anxiety, OCD, and depression
 - Speech issues
 - Sleep disorders
- Physical challenges include
 - Heart defects
 - Physical weakness
 - Epilepsy
 - Obesity

Ways to Improve the Lives of People with Down Syndrome

- Sign language
- Music therapy
- Art therapy
- Swim lessons.
- Swim lessons benefit children with Down Syndrome
- Swim lessons help them overcome the challenges that may be presented.

Why Swim Lessons are Important

Joining a swim team impacts the behaviors of people with Down Syndrome in these ways:

- ▶ Improves family connections
- ▶ Improves social skills and temperament
- ▶ Builds confidence, spirit, and self-perception
- ▶ Improves coordination and functional skills

Benefits of People with Down Syndrome Joining a Swim Team

- Positive Behavior Changes
- Physical Health
- Self-Perception
- Greater Socialization
- Decreased Obesity

Research Studies

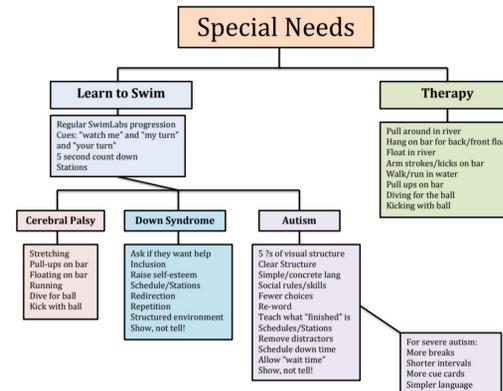
- **Study 1:** “The Effect of Swimming Program on Body Composition Levels in Adolescents with Down Syndrome” by Borja Suarez-Villadat, et al.
- This was a 36-week swim intervention which was put into place
- **Study 2:** “Adaptations to Swimming Training in Athletes with Down’s Syndrome” by Shaun M. Phillips, et al.
- This was an 18-week swimming intervention which was put into place
- **Study 3:** “The Effect of 8 Weeks of Freestyle Swim Training on the Functional Fitness of Adults with Down Syndrome” by P.H. Boer
- This was an 8-week freestyle swim training that was put into place as well

Results of the Studies

All 3 of the swim studies that were put into place found the following results:

- BMI decreased
- Aerobic capacity increased greatly
- Functional abilities increased
- Muscular and strength endurance increased
- Waist Circumference decreased
- Weight to height ratio decreased
- Weight of the triceps decreased
- Weight of the suprascapular area decreased

FLOW CHART



Rodriguez, Heather. *SwimLabs' Special Needs Swimming Lesson Types*, SwimLabs, 6 Mar. 2019, www.swimlabs.com/blog/swimlabs-special-needs-swimming-lesson-types.

Conclusions

1. Swim lessons minimize the obesity percentage in adolescents with Down Syndrome.
2. Swim lessons help to increase the functional abilities of children and adults with Down Syndrome.
3. Joining a swim team will positively influence the behaviors of people with Down Syndrome.

Overall, swim teams and swim lessons help people with Down Syndrome to overcome some challenges they may face throughout their lives.



<https://www.unicef.org/northmacedonia/campaigns>

What is still needed?

Swim lessons are a great way from people with Down Syndrome to overcome their physical and intellectual challenges, but more is needed to see how swimming influences:

- ▶ Physical, Speech, and Occupational Therapy
- ▶ Other interventions such as art or music therapy
- ▶ Family support systems

References

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