



The Benefits of Exercise for People with Autism Spectrum Disorders

1



Self-Regulation

- Improved: appropriate motor behavior or body movements
- Reduced: Stereotypy or repetitive behaviors and self-stimulation (body rocking, arm flapping, spinning, pacing), aggression, self-injury, elopement or running away

2



Emotional

- Improved: mood, self-concept, friendliness, acceptance, self-calming
- Reduced: depression, sleep disturbance, hyperactivity, anxiety, stress, frustration, tension, hostile and irritable mood

3



Physical

- Improved: fine and gross motor skills, endurance and strength
- Reduced: obesity, diabetes, sleep disturbance

Social



- Improved: social motivation, social interaction and cooperation with others
- Reduced: inappropriate sexual behavior, antisocial behavior and isolation

4

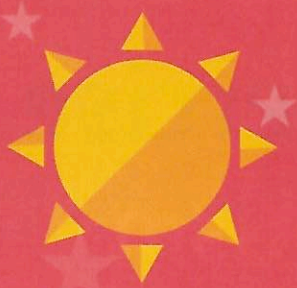


Academic

- Improved: attention, alertness, engagement, duration of participation, performance, on-task behavior, accurate responding to demands and questions, intellectual functioning, perception, cooperation and overall cognitive functioning
- Reduced: distractibility, disruptive behavior, off-task behavior

References for More Information

- Cannella-Malone, H.I., Tullis, C.A., & Kazee, A.R. (2011). Using antecedent exercise to decrease challenging behaviors in boys with developmental disabilities and an emotional disorder. *Journal of Positive Behavior Interventions*, 13, 230-239.
- Elliot, R.O., Dobbin, A.R., Rose, G.D., & Soper, H.V. (1994). Vigorous, aerobic exercise versus general motor training activities: Effects on maladaptive and stereotypic behaviors of adults with both autism and mental retardation. *Journal of Autism and Developmental Disorders*, 24, 565-576.
- Lang, R., Koegel, L.K., Ashbaugh, K., Regester, A., Ence, W., & Smith, W. (2010). Physical exercise and individuals with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, 4, 565-576.
- Sowa, M. & Meulenbroek, R. (2012). Effects of physical exercise on autism spectrum disorders: A meta-analysis. *Research in Autism Spectrum Disorders*, 6, 46-57.



The Benefits of Exercise for People with Autism Spectrum Disorders

Encouraging Exercise

- Make it fun!
- Use positive reinforcement: Verbal praise, an item or activity that they enjoy at the end of the session.
- Include choices of activity based on preferences, interests and strengths.
- Use short-term, achievable goals. Start where the individual is and slowly build up to more.
- Create a visual success board showing their progress.

The Timing of Exercise

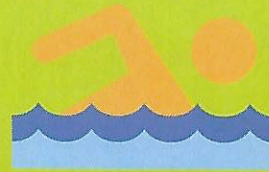
The timing of the exercise program or activity is important.

Schedule exercise before a task, activity or event
or

before problem behaviors are most likely to occur.

Provide exercise breaks between difficult tasks.

Ex. A short walk or 5 minutes on the trampoline
between homework assignments.



Structuring Exercise

- Routine is important.
- Schedule exercise as part of the individual's daily routine.
- Ex. Play a short game outside before snack time or take a walk after dinner each night.
- Consistency is key.
- Schedule individuals to engage in physical activity for a set period of time.
- For example: A 20 minute exercise session, 3 times a day, before school, after lunch, and after school.

Types of Exercise

Jogging

Strength & Weight Training

Aquatic Exercise & Swimming

Therapeutic Horseback Riding

Bike Riding/Cycling

Walking & Hiking

Trampoline Jumps

