



Physical activity: a multi-challenge asset

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We all know that physical activity is essential when it comes to child and youth health. It is recommended that they exercise at least one hour every day (Government of Canada, 2018). This is exactly why physical education periods, recess and extracurricular activities are so important; so students can be more active. Research also shows that physical activity has a positive impact on individuals with ASD.

- Physical activity helps reduce the frequency of stereotyped behaviours in children with ASD (Lang & al., 2010).
- Youth involved in physical activity programs designed specifically for individuals with ASD improved their social and motor skills (Healy & al., 2018).
- Short physical activity periods in the morning helps children with ASD focus on academic tasks later on during the day (Miramontez & Schwartz, 2016).

Note: This document does not constitute clinical advice, but rather serves as an example of an effective practice for a particular student. Intervention plans should be based upon assessment, and evidence-based teaching strategies should be carefully selected according to the child's needs, and learning profile.

It is therefore critical for learners with ASD to engage in any physical activity opportunity. However, some of these activities may become difficult, even unpleasant for our learners because of various ASD characteristics. Noise and light at the gym, for instance, could be very disruptive and physical education classes may become intimidating, even stressful for learners with ASD. On top of that, there are, for most sports or activities, many specific rules requiring participants to be able to adapt quickly. Also, it is challenging for our learners with ASD to prepare for the ever-changing situations of gym class and recess.

Teaching Strategies for Physical Activities

Here are a few strategies that teachers or other staff can use during gym class, extracurricular activities or at recess. Note that the strategies are general, and the learner's team should always consider the learner's specific strengths and needs in order to adjust interventions accordingly.

Social interactions

Children with ASD can face social interaction challenges such as reduced interest in peers, difficulty adjusting behaviour to social contexts, challenges respecting personal space, difficulty responding appropriately toward others in their personal space, sharing or taking turns, for example.

A few strategies:

- ✓ Let the learner practice some skills with a small peer group
- ✓ Reinforce the learner's appropriate social behaviours
- ✓ Use social stories to work on some concepts (i.e., win/lose a game, wait for their turn, be happy for the winning team)
- ✓ Use Behavioural Skills Training (BST)¹

¹ Read our article *Keep It Simple using Behavioural Skills Training*, published December 7 on our website, to learn more about this strategy.

Our piece of advice: Use natural environment opportunities to create occasions for your learners to practise these skills and abilities. These learning contexts are often more beneficial than any other adult-made or teacher-made context. Let's say for example that the learner's team is teaching a learner to "maintain appropriate personal space with others." In such a case, several opportunities that would help strengthen appropriate behaviours of a learner could arise during a gym class.

Communication

Individuals with ASD can face several communication challenges such as understanding verbal instruction, maintaining eye contact, understanding gestures, body language and facial expressions, or identifying abstractions, puns or sarcastic comments.

A few strategies:

- ✓ Use modelling yourself or have peers model the flow of an activity
- ✓ Break down a task or activity into smaller steps
- ✓ Use visual supports to explain instructions or game rules
- ✓ Avoid sarcasm or idiomatic phrases
- ✓ Give your learners time to get familiar with the instructions or rules ahead of time (i.e. read dodgeball rules during the English class)

Gross motor skills and coordination

Physical activity can be difficult or even unattainable because of challenges in gross motor coordination, endurance and agility, execution or imitation of movements and spatial awareness for individuals with ASD.

A few strategies:

- ✓ Before you offer prompting or adapt the activity, check what your learner is able to do
- ✓ Use appropriate prompting so that learners are successful
- ✓ Group a learner with one or more peers who will cheer for him, motivate him
- ✓ Adapt material or activities according to your learner's preferences

Our piece of advice: Professionals such as occupational therapists or physiotherapists can be of a great help for gross and fine motor skills. It is also important to communicate with the parents if you have any sort of concern regarding the learner's personal safety.

Rigidity

The ever-changing recess and gym class environments can be difficult for an individual with rigid preferences. Some learners could find it difficult to manage rules, manage something unexpected or transition from one activity to another. Others could find it difficult to spontaneously grasp the changes that are occurring during a game and the expectations caused by those changes (i.e., at a basketball game, once a teammate misses a shot and the opposing team takes control of the ball, it is important to move back and defend your zone so that the opposing team does not score).

A few strategies:

- ✓ Use a timer or a stopwatch to show the activity duration
- ✓ Tell the learner about routine changes
- ✓ Tell the learner in advance about planned activities for the gym class so that they can prepare
- ✓ Use a video to explain the different rules to the learner
- ✓ Try different exercises with the learner and a small peer group to model the expected behaviour ahead of time

Sensory challenges

Learners with ASD may encounter the following challenges: hypersensitivity or hypo sensitivity to heat, cold, textures, colours, light, sounds, smells, head or body position changes, speed changes or direction changes. These challenges can become barriers to activity participation during gym class or recess.

A few strategies:

- ✓ Communicate with parents/guardians to better understand your learner's sensory challenges
- ✓ Allow your learner to get comfortable with the area before the class
- ✓ Use low-level decibel sound signals (i.e. a pear whistle instead of a regular whistle)
- ✓ Offer the learner a sensory break in a quiet environment
- ✓ Choose the material according to your learner's sensory preferences

Restricted and repetitive interests

Learners with ASD sometimes show stereotyped behaviours or a preference for specific objects/activities.

A few strategies:

- ✓ Consider your learner's preferences and use their favourite objects/activities as reinforcers
- ✓ Pair favourite objects/activities with new objects/activities so they also become reinforcers
- ✓ Put away any extra material or potential distraction

References

Government of Canada. (2018). Physical activity and your health. [Online] Available at:

<https://www.canada.ca/en/public-health/services/being-active/physical-activity-your-health.html>

Healy et al. (2018). The Effect of Physical Activity Interventions on Youth with Autism Spectrum Disorder: A Meta-Analysis. *Autism Research*. 11 (2).

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.

Miramontez, S., & Schwartz, I. (2016). The Effects of Physical Activity on the On-Task Behaviour of Young Children with Autism Spectrum Disorders. *International Electronic Journal of Elementary Education*. 9 (2). 405-418

Sowa, M. and Meulenbroek, R. (2012). Effects of Physical Exercise on Autism Spectrum Disorders: A Meta-Analysis. *Research in Autism Spectrum Disorders*, 6 (1). 46-57

About Us

Autism Learning Partnership (ALP), a branch of the Department of Education and Early Childhood Development (EECD) in New Brunswick (Canada), is the sole provider of the Provincial Autism Training curriculum for preschool autism agencies and educational personnel in New Brunswick. The Autism Learning Partnership provides bilingual, evidence-based, high-quality professional learning and resources to support families, preschool agency personnel and educational personnel in the province, and has a mandate to establish partnerships with organizations nationally and internationally.