

Autism **MOVES**:

Supporting Gross Motor Skills in Children with Autism Spectrum Disorder

TIPS AND RESOURCES FOR PARENTS



What are gross motor skills?

Gross motor skills are those which involve the large muscles of the body to execute whole body movement such as standing, walking, running, jumping, balancing, ball skills, and even sitting upright at the table. Children with Autism Spectrum Disorder (ASD) have deficits in their gross motor abilities that start in early infancy and increase with age and severity. These deficits include decreased balance, core strength and bilateral coordination, as well as impaired motor planning, motor imitation and gait. Developmental Coordination Disorder (DCD) is a common co-occurrence that can increase the likelihood of these impairments. These deficits lead to decreased fitness and increased sedentary behaviors, which play a role in the increased rates of obesity, anxiety, and disordered sleep we see in children with ASD.

How do gross motor impairments affect children with ASD?

Studies show a direct link between motor skills and quality of life for children with ASD. Central to a child's development is their ability to play. Through play, Children learn to problem solve, to be creative, to connect with their peers and interact with adults.

It's where they develop social and communication skills, emotional capacity, and the physical motor skills necessary throughout their lifespan. Impairments in physical motor skills and subsequent health issues impede this cornerstone of childhood, by limiting children's participation. Complex motor play with peers is crucial in child development, and without the physical skills necessary to be fully involved in that, children miss out on important opportunities for overall development.

What can we do to improve Gross Motor Skills in children with ASD?

- Speak to your pediatrician *early* if you notice delays in achieving motor milestones. Research shows that early intervention is crucial in mitigating impactful deficits later into childhood.
- Consider a Physical Therapy (PT) evaluation. PTs are movement experts who can help your child develop their gross motor skills, provide helpful strategies for home, and screen for DCD.
- Promote a physically active lifestyle at home. Activities such as family hikes, walking the dog, and gardening are simple and cost-effective ways to incorporate gross motor activity into your child's routine

What are the best strategies to use when teaching motor skills?

- Visual schedules, PECS, social stories, first-then language, star charts and routines
- Positive feedback, "chaining", use of simple language and visual cues, increased wait time
- Partner with their PE teacher for increased repetition and consistency

What are the best recreational activities to improve motor skills in children with ASD?

Physical Activity has been shown to improve physical, behavioral, and emotional health, sleep, self-confidence, and overall quality of life. Research points to the following activities as having the most beneficial effects in children with ASD:

- Music Based Movement Therapy/Dance
- Aquatics (swimming, or therapy)
- Equine Therapy
- Martial Arts
- Yoga

Local Resources (Colorado)

Swimming/Aqua-Based

<https://www.safesplash.com/special-needs-swimming-lessons>
<http://www.poseidontherapy.com/>
<https://theraswimkids.com/services/aquatic-physical-therapy/>
<https://www.shandyclinic.com/services/aquatic-therapy/>
<https://www.adeoco.org/physical-therapy/aqua-strong/>
<https://ddrcco.com/recreational/warm-water-therapy>
<http://www.parkerrec.com/1942/Aquatic-Therapeutic-Recreation>

Yoga

<https://www.spectrumyoga.co/>
<https://www.popearth.org/nj> (pop ups in Boulder, CO)
<https://www.boulderkidspot.com/yoga-for-kids.html>
<https://calmingkids.org/>

Martial Arts

<https://katharotrainingcenter.com/news/helping-kids-autism-succeed-martial-arts/>
<https://rippleeffectmartialarts.com/martial-arts-on-the-spectrum/>
<https://martialartsfamily.com/martial-arts-for-children/martial-arts-for-children-with-autism/>

Equine Assisted Therapy

<https://www.prtr.org/>
<https://www.ctrcinc.org/>
<https://www.stablestrides.org/>
<https://www.heartsandhorses.org/>

Music-Based Movement/Dance

<https://feelthebeat.dance/>
<https://ccdance.org/adaptive-dance-program/>
<https://peakathletics.net/special-athletes/>
<https://coloradoballet.org/Adaptive-Programs>
<https://boulderballet.org/adaptive-dance/>
<https://adamscamp.org/>
<https://boec.org/program/camp-little-tree/>
<https://therapiesforhope.org/>
<https://www.ascendigo.org/>

Other Sports/Recreation

<https://www.allstarsclub.org/>
<https://www.coloradosoccer.org/topsoccer-program-overview>
<https://nscd.org/>
<https://www.miracleleaguedenver.com/>
<https://www.childrenscolorado.org/doctors-and-departments/departments/pediatric>
<http://www.parkerrec.com/892/Therapeutic-Recreation>

<https://www.lakewood.org/Government/Departments/Community-Resources/Programs-and-Activities/Therapeutic-Recreation>
<https://www.thesensoryclub.com/>
https://www.auroragov.org/things_to_do/recreation_sports_programs/adaptive_recreation_inclusion_services
<https://bouldercolorado.gov/services/expand>
<https://hrcaonline.org/classes-camps-activities/therapeutic-recreation/classes-events>

Winter Sports

<https://boec.org/>
<https://challengeaspen.org/>

National Resources

<https://www.specialolympics.org/get-involved/athlete?locale=en>
<https://www.autismspeaks.org/physical-fitness>
<https://www.nchpad.org/>
<https://www.autismspeaks.org/resource-guide>
<https://www.autismspeaks.org/sports>
<https://www.achillesinternational.org/national-chapters>
<https://www.autismspeaks.org/activities-children-autism>
<https://athletesforkids.org/about-us/>
<https://www.myautism.org/therapeutic-recreational-programs>

Virtual Resources

<https://www.youtube.com/c/NchpadOrg/search?query=autism%20fitness>
<https://www.gonoodle.com/>
<https://www.gympanzees.org/our-services/online-resource-hub/autism/7-great-adapted-workout-and-exercise-videos-for-autistic-children>
https://www.youtube.com/watch?v=DO-R5EfG_N4
https://www.youtube.com/watch?v=W1Q_462jDjw
https://www.youtube.com/watch?v=u_TrBtwiK6c
<https://www.youtube.com/watch?v=wu--9fOkOJM>
<https://www.youtube.com/watch?v=bS8LJJYjIZo>
<https://www.youtube.com/watch?v=Ern3JbLAm2I>
<https://www.autism.org/webinars/exercise-covid-19/>



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