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Autism Agenda



Linn Benton Lincoln ESD-Cascade Regional Autism Program

Promoting and Developing Fine Motor Skills in Children with Autism

Children with autism spectrum disorder (ASD) may face daily challenges in the areas of social interaction and engaging with others, communication, sensory processing, cognitive difficulties and motor planning and coordination skills.

Having your child work with an occupation therapist can help your child improve these areas. Occupational therapists are trained to determine if a delay in fine motor skills is due to motor planning, posture and low tone, visual motor integration skills or sensory processing difficulties. In addition to providing assessment, occupational therapists are also trained to provide intervention to address the individual's fine motor skills through activities which target these skill areas. All of these areas influence handwriting, as well as other occupations that we use fine motor skills for on a daily basis including dressing, self-care and grooming tasks and feeding skills.

Occupational therapists can help your child achieve goals during therapy sessions, but there are specific activities and strategies that can be done at home to help develop and strengthen your child's fine motor ability.

- Look for hidden objects in putty, Playdoh or clay
- Make slime or another resistive texture to allow the child to pull apart and squeeze
- Have the child look for hidden objects in different tactile media (i.e. reaching into the sand and pulling out a marble)

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PROMOTING AND DEVELOPING FINE MOTOR SKILLS CONTINUED....

- Put snacks in snack bags or other plastic containers that would allow the child opportunities to manipulate snaps.
- Use a squeeze toy.
- Use magnet tiles or construction blocks to pull apart and piece together.
- Put Velcro strips on the back pieces of puzzles for there to be some resistance when pulling.
- Use clothespins or tongs to pick up small manipulatives to sort.
- Use a squeeze bottle to water plants.
- Put coins into a piggy bank.
- Lace blocks/beads of various sizes onto string or pipe cleaners
- "Write" in clay, sand, dirt or other tactile media
- Use broken crayons to facilitate a proper pencil grasp
- Peel stickers
- Use a hole punch
- Cut out simple shapes or along a line
- Build letters out of wiki stix or pipe cleaners



Children with autism spectrum disorder typically require additional time to acclimate to new situations and accept changes in their typical routine. Fine motor skills may be challenging to address because children with ASD can become overwhelmed by the different aspects of an activity so continued exposure, persistence and success with a task can make children with ASD all the more willing to participate in different fine motor activities.

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FINE MOTOR SKILLS

Fine Motor Skills & 25+ Fine Motor Activities & Toys For Kids with Sensory Processing Disorder

What is fine motor?

Fine motor skills are when children begin to learn how to use their muscles in their hands, wrists, and fingers. Children use their fine motor skills most when they are cutting paper with scissors, doing up buttons on their clothes, playing with blocks, picking up items with their hands, eating and also writing or coloring.

There's so many fine motor activities for children to practice to develop fine motor skills. The more you have your child work on fine motor activities, the better their fine motor skills will become.

Fine motor skills are very important for academics, self care and play time

too because children need to be able to cut, draw, color and write, cut paper, zippers, buttons, belts, tying shoes, brushing teeth, brushing hair, using cutlery and playing with toys like building blocks too.

Please read the rest of this article at https://sensoryprocessingdisorderparentsupport.com/fine-motor-skills-and-activities.php

MOTOR DIFFICULTIES IN AUTISM, EXPLAINED

Motor difficulties in autism, explained

By Lauren Schenkman

Most autistic people — 87 percent, according to the latest estimate — have some sort of <u>motor difficulty</u>, ranging from an atypical gait to problems with handwriting. These issues are distinct from the <u>repetitive behaviors</u> considered to be a hallmark of autism. And yet, despite their prevalence, motor problems are not considered a core trait of autism, because they also occur with other conditions, such as Down syndrome, cerebral palsy and <u>attention deficit hyperactivity disorder</u>.

Here, we describe what experts know about the causes, characteristics and consequences of motor difficulties, which they say are among the least understood and most neglected aspects of autism. They also call on researchers to better assess motor difficulties in autistic people and for clinicians to treat these problems, especially because motor setbacks may have consequences far beyond simply impeding movement.

What types of motor issues do autistic people have?

They may have gross-motor problems, such as a clumsy, uncoordinated gait; and difficulties with fine-motor control, such as manipulating objects and writing. Some may have trouble coordinating movements between the left and right side of the body among different limbs, making it difficult to do actions like pumping their legs on a swing, jumping, skipping or hopping. Others may have <u>low muscle tone</u> and problems maintaining their posture or balance. Still others seem to have trouble with actions requiring hand-eye coordination, such as <u>catching a ball</u> or <u>imitating the movements</u> of others, and with planning a series of movements or gestures, known as praxis. These difficulties can range from mild to severe and can impact any motor system of the body².

At what age do motor issues start?

They can appear in infancy. For instance, 1-month-old infants who are later diagnosed with autism tend to move their arms less than typical infants do³. By about 4 months of age, a typical child can keep her head in line with her shoulders when pulled up into a sitting position, but a baby with autism often lacks that strength, and her head will flop back⁴. And at 14 months — an age when most typical children are able to walk — autistic children may still be unable to stand. Other motor issues can include struggling to grasp objects or sit up, and not clapping and pointing^{2,5}.

How are motor problems linked to genetic factors that influence autism?

Some mutations that predispose people to autism may also contribute to motor issues. For example, every one-month delay in beginning to walk increases a child's odds of having a spontaneous mutation in an autism gene by 17 percent, according to a 2017 study⁶. And some 'syndromic' forms of autism — those that have a single genetic cause — include particular motor issues among their defining characteristics: People with Phelan-McDermid syndrome often have low muscle tone, and Children with dup15q syndrome tend to have a characteristic gait.

Although motor issues tend to be most severe in autistic people who have <u>intellectual disability</u>, they can affect anyone on the spectrum. For example, people with autism who carry spontaneous mutations have an <u>increased likelihood of motor problems</u>, regardless of whether they have intellectual disability, according to a 2018 study. Other studies have found that children on the spectrum have more motor issues than do typical controls who are matched for intelligence quotient. Some researchers say that particular motor issues may help distinguish syndromic forms of autism from non-syndromic autism, but this idea remains unproven.

What could be going on in the brain?

<u>Differences in connectivity</u> between brain regions could help explain some autistic people's motor difficulties. For instance, children with autism have <u>decreased synchrony</u> in the activity between their visual and motor regions; the less synchronization there, the more severe their social deficits, based on a standard scale. Their motor issues may also stem from less connectivity between the inferior parietal lobe, a region involved in hand-eye coordination; and the <u>cerebellum</u>, which helps guide and correct movements. Other evidence implicates <u>weak connections</u> between sensory and motor regions and <u>atypical activity in a network</u> important for motor planning.

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MOTOR DIFFICULTIES IN AUTISM, EXPLAINED CONTINUED....

People with autism also seem to discount visual information and <u>rely more on proprioception</u>, or their internal sense of their body's position, than typical people do when learning to use a new tool. The more that people with autism rely on proprioception, the more severe their social deficits, although researchers are not yet sure why this is the case.

Can motor issues contribute to autism traits?

Perhaps. Motor issues in infancy have been tied to delays in babbling, gesturing and <u>acquiring new vocabulary</u>, and they <u>may have other 'cascading effects'</u> on cognitive, social and emotional development. That is because motor abilities, such as sitting up, reaching for objects and walking, give babies access to new experiences that prompt learning. Also, babies who do not move much or cannot grasp objects tend not to elicit interactions from their caregivers, thereby limiting opportunities to learn language and other skills from adults.

Poor motor skills later in childhood may make autistic children reluctant to engage in physical activities such as sports, limiting their opportunities to interact with other children and potentially hampering social development. In a more subtle way, having trouble coordinating head movements could make it difficult to follow social interactions in a large group, and trouble with handwriting could affect academic performance.

The visual-motor integration skills that autistic people struggle with the most are also crucial to imitating and learning from others and participating in social interactions.

Although motor issues undoubtedly hamper social and cognitive development, it's unlikely that they are the sole cause of social difficulties, some researchers say. Instead, motor and social differences in people with autism may have the same root cause in the brain, they say.

How do doctors and researchers measure motor skills?

A few standardized tests can reveal whether a child can do certain motor tasks. But these are <u>not precise enough</u> to capture and measure the motor impairments of children with autism. Also, the tasks, which were designed for typical children, may be difficult or impossible for children with intellectual disability or cognitive impairment.

Some researchers have been devising new ways to probe motor issues, <u>using handwriting</u>, <u>virtual reality</u>, motion capture with <u>sensors and infrared cameras</u>, accelerometers and gyroscopes (to measure the intensity and angle in limb movements), <u>mats equipped with pressure sensors</u> (to detect differences in gait), and electromyography (a technique that measures the electrical activity of muscles). But researchers say they are still a long way off from standardizing these measures. Finding measures that capture autistic people's motor differences is the first step.

How are motor problems treated?

The standard treatments typically include physical and occupational therapy, but these may not fully address autistic children's needs, researchers say. What's more, only 32 percent of children with autism get treatment for their motor issues¹. Some experts have begun trying out new treatments, such as adapted sports programs, yoga, martial arts and movement therapies involving music, although there is little evidence yet whether any of these approaches are effective.

Cite this article: https://doi.org/10.53053/OSZD5856

https://www.spectrumnews.org/news/motor-difficulties-in-autism-explained/#:~:text=What%20types%20of%20motor%20issues,as%20manipulating%20objects%20and%20writing.

10 FINE MOTOR ACTIVITY IDEAS

10 Fine Motor Activity Ideas Using Common Household Items

Sometimes, the best activities are the simplest! Given that many of us are spending a lot more time at home, I wanted to highlight some of my favorite easy fine motor activities you can do using materials you probably have in your home.

1. Color under the table

- What you need: paper, tape, crayons, child size table.
- What to do: This is just as easy as it sounds. Tape paper under the table and have your child lay on his/her back under the table to color. This activity is awesome for shoulder and core strength, which is really important for fine motor skills. And kids usually are more motivated to color this way because it is so novel!

2. Make a munching monster

- What you need: tennis ball, razor blade.
- What to do: Have an old tennis ball laying around? Use it to make a munching monster! Cut a slit in a tennis ball to make a 'mouth' (adults only!). If you have googly eyes, you can glue them on otherwise you can just draw some on. Kids LOVE squeezing the monster to make his mouth open to eat a variety of items. You can use pom poms if you have them, or even cheerios or beads. Students especially love when he eats too much and 'gets sick' and all of the items fall out of his mouth.





3. Use fingers to peel food

- What you need: food items clementines, string cheese.
- What to do: Anyone else have kids who are constantly hungry? Next time they
 are, ask them to peel their own food! I have found that clementines and string
 cheese can be a good challenge for little fingers.



4. Tape and chalk art

- What you need: painter's tape and chalk.
- What to do: Tape a design with painter's tape, and then color the sections with chalk. Then let the child peel off the tape for great fine motor work!

Make your own puzzle

- What you need: Cereal box, scissors, marker.
- What to do: Cut the front off of a cereal box. Draw lines on the back and then cut out the 'pieces'. Have fun putting them back together like a puzzle!



Continued on page 6.

10 FINE MOTOR ACTIVITY IDEAS CONTINUED...

6. Stringing straws

- What you need: Straws, scissors, string.
- What to do: Cut straws into small pieces and use them like beads! Use a flexible string for more of a challenge and a pipe cleaner to make the task a little easier.





7. Spaghetti and cereal towers

- What you need: Playdough, spaghetti, cereal.
- What to do: Put the playdough on the table. Stick spagnetti into the playdough. Stack cereal (cheerios or fruit loops) on top to make fun towers!

8. Playdough designs

- What you need: Playdough, toothpicks.
- What to do: Flatten out the playdough and have the child stick toothpicks all over! For extra fun, have the child try to make letters, lines or shapes with the toothpicks.





9. Egg carton snacks

- What you need: Egg cartons, small snacks like goldfish.
- What to do: During snack time, place one cracker in each slot and have the child reach into each egg slot to pick a cracker up. This is awesome for pincer grasp development!

10. Q-Tip painting

- What you need: q-tips, paint, paper.
- What to do: Cut q-tips in half, dip them in paint, and create designs! This is awesome for developing proper grasp patterns.



https://theautismhelper.com/10-fine-motor-activity-ideas-using-common-household-items/

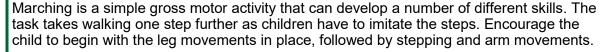
10 GROSS MOTOR ACTIVITIES

10 Gross Motor Activities for Autistic Children

Explore ten gross motor activities for autistic children that can strengthen muscles while developing valuable skills. Many choices are readily available for parents and professionals working on meeting gross motor goals in a child's treatment plan. Some activities are challenging while others are pure fun.

List of Ten Gross Motor Activities for Autistic Children

1. Marching





2. Jump on a Trampoline

A trampoline is the king of gross motor activities for kids with autism. The bouncing motion offers excellent sensory input that can be very helpful in alleviating sensory overload and anxiety in many cases. Some children may demonstrate fewer repetitive movements after engaging in the jumping activity and it can help some kids to calm and organize their behavior.

3. Play Ball

Simple things can be a great source of pleasure for a child and among the most impressive is a ball. Playing catch may not be realistic as a beginning step but you can work your way up catching over time. Begin by rolling a ball back-and-forth with your child. This simple task develops important eye tracking skills and it can encourage motor planning as the child follows the movement of the ball. Other activities include:

Kickball *Bouncing on a Ball

*Bounce and catch

Dribbling *T-Ball

4. Balancing

Balancing can be very challenging for kids on the autism spectrum and many gross motor tasks demand a good sense of balance. Test to see if your child can stand motionless with her eyes closed without losing balance to gauge how much work is necessary to develop balancing skills. Begin with having your child walk on a line followed by walking on balance beams. Balancing toys like a rocking see saw can improve skills. **Try a see-saw for balance**.

5. Bicycles and Tricycles

<u>Bikes for autistic children</u> don't have to be made especially for kids on the autism spectrum, but some augmented bikes can benefit many. Tricycles and bicycles can help develop balance as well as leg muscles. The task requires the ability to move while focusing on where the bike is going, which can be challenging.

6. Dance

The New York Times article <u>Dance Helps Autistic Children</u> illustrates the importance of this fun motor activity. Parents and therapists can use dancing with music to encourage imitation and it can be a great way to teach daily living skills. Dance ideas include:

Clean It Up *Freeze Dance *Brush Your Teeth *Wiggle the Sillies Out

Continued on page 8.

10 GROSS MOTOR ACTIVITIES CONTINUED....

7. Pretend Play

Pretend play is a considerable challenge in many cases of autism and kids can benefit from moving around while developing their imaginations. Ideas for pretend play that uses motor skills include:

- Fly like an airplane
- Hop like a bunny
- Dress up

8. Box Step

Few things are as impressive as a simple cardboard box when it comes to creating fun activities for children. Encourage your child to step in and out of short box as a beginning task. Gradually make the tasks more challenging by creating step patterns and by using deeper boxes.

9. Tunnel Crawl

Crawling through a tunnel can be an extremely enjoyable activity as the child uses motor skills while developing a sense of object permanence. Incorporate social skills into the activity using peek-a-boo, hide-and-seek, and pretend play. You don't have to buy a tunnel toy to enjoy the crawling activity. Align boxes to create a tunnel or build one using chairs and blankets. The tunnel activity can be transformed into different things, from a train to a campsite.

10. Obstacle Course

An obstacle course is an outstanding activity for improving gross motor skills. The course does not have to be complex to be effective. In fact, parents and therapists can begin with a course consisting of one step and gradually introduce additions to the activity. Simple ideas for an obstacle course include:

- Crab walk
- Frog jump
- Ball toss
- Jump rope
- Walk a line
- Climb over objects
- Beanbag toss



Obstacle course stations offer an opportunity to use different gross motor tasks and they can be excellent sequencing activities for kids. The activity is a great way to reach treatment plan goals that involve following directions.

Create a Gross Motor Plan

Movement activities can be a source of anxiety for many kids on the spectrum. Offer guidance and support by introducing activities gradually. Begin with the least threatening tasks followed by tasks that are more challenging and make sure that the activities you introduce are appropriate to your child's developmental level to ensure that the target motor skills are realistic.

By: Ella Rain https://autism.lovetoknow.com/Ten Gross Motor Activities for Autistic Children

https://www.learningandbehavioralcenter.com/behavior-therapy-blog/10-gross-motor-activities-for-autistic-children/

BOOK REVIEWS



105 Activities for Your Child with Autism and Special Needs: Enable Them to Thrive, Interact, Develop, and Play by Susan Jules

The games and activities in this book will help your child:

- Strengthen and Develop their Gross Motor Skills
- Encourage Social Engagement and Interactions
- Stimulate Sensory Development
- Help with their Mental Dexterity, Focus, and Sharpness

The activities are presented in easy-to-grasp bits to enable you to engage easily with your child and get the tasks completed in no time, and most importantly have fun in the process without

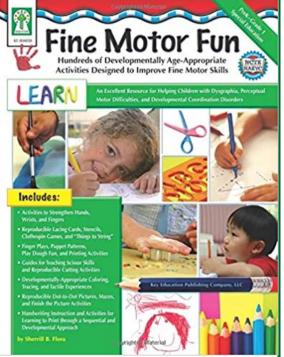
stress. These activities will also help you increase the quantity and quality of interactions with your child, giving you the much-needed bonding you desire.

Fine Motor Fun: Hundreds of Developmentally Age-Appropriate Activities Designed to Improve Fine Motor Skills by Sherrill B. Flora

Facilitate fine-motor development in special-education students, pre-kindergarten—grade 1, using **Fine Motor Fun!** This 160-page book is full of suggestions and reproducible activities that strengthen fine-motor and visual-perception skills. It includes scissors skills, lacing cards, stencils, finger plays, stringing activities, dot-to-dots, tracing, finish-the-picture activities, mazes, and tactile and first-pencil experiences.

Additional resources on the Web:

- https://www.gympanzees.org/our-services/online-resourcehub/autism/1 I-fabulous-fine-motor-activities-for-autism
- https://www.torontochildrenstherapycentre.ca/exploring-ouractions-gross-motor-skills-autism-spectrum-disorder-a-muscular-orchestra/
- https://askidsblossom.com/build-motor-skills-in-autistic-kids/





Linn Benton Lincoln ESD Cascade Regional Inclusive Services Autism Program

905 4th Ave SE Albany, Or. 97321 Tel: 541-812-2600 Fax: 541 926-6047

E-mail: webmaster@lblesd.k12.or.us

Autism Consultants:

Amanda Stenberg—amanda.stenberg@lblesd.k12.or.us

Jill Sellersjill.sellers@lblesd.k12.or.us

Kayla Huntkayla.hunt@lblesd.k12.or.us

Michelle Neilsonmichelle.neilson@lblesd.k12.or.us

Ryan Stanleyryan.stanley@lblesd.k12.or.us

Scott Bradleyscott.bradley@lblesd.k12.or.us



VISUALS



Sensory & Movement Activities

In the Classroom

Heavy Work Activities

Erase or wash chalkboard

Wash desks or tabletops
Carry a box of books
Push or stack chairs
Rearrange bookshelves
Open doors for others
Staple paper onto bulletin board
Sharpen pencils with manual sharpener
Wear heavy backpack
Move trash can to another location
Carry basket of items
Make deliveries to the office
Squeeze stress balls or fidget toys

Cut heavy paper or cardboard with scissors



Sit in a rocking chair when reading or during floor time
Sit on an inflated air cushion placed on a chair or floor
Hand out papers and materials for the teacher
Push your feet into theraband placed around chair legs
Do head, neck and shoulder rolls while sitting
Take a stretch break after sitting for a long time
Breath deeply— in through your nose/out through your mouth



Take movement or stretch breaks throughout the day

Ask your school's OT for equipment to try such as a weighted vest or ball chair

Weight Bearing Activities

- Chair push ups
- O Push on desktop or table top
- Wall push ups
- O Wheelbarrow walk
- Crab walk
- Spider walk
- Wall slides
- Crush paper into a tight ball
- Bounce on a therapy ball
- Jump on a mini-trampoline

Keep your mouth working hard with these mouth tools:

- © Chew straws or coffee stirrers
- © Chew on gum or, if allowed
- Chew on fish tank tubing
- © Chew on licorice or twizzlers
- © Sip water through a sports bottle
- Suck on hard candy or lollipops
- Such applesauce through a straw
- © Each crunchy foods— Dutch pretzels or carrots
- Mints make us more alert!

Mission Control Moves

