



OT Tips for Fine Motor Skills:

Children with ASD or Developmental Delays

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A bit about me

- Paediatric OT and volunteer with Gympanzees.
- Working with children who have neurological differences for around 28 years.
- Have specialist post-graduate training in Cerebral Palsy, ASD, Dyspraxia (DCD), ADHD, Brain Injury, Sensory Processing Disorders.
- Interested in finding ways to enhance the quality of life, having fun and increasing participation - in family life, learning and community activities- for all the youngsters I meet.



Today's session will cover practical ideas for play and learning, self-care and developing pencil skills.

The format will be: theory and interesting background info, followed by practical tips and time for questions and discussion

Let's find out about you and your children....

List of concerns or questions to cover:

How fine motor skills typically develop

- **Shoulders and trunk first- we need stability!**



- **The eye-hand-mouth triangle**

Brain- sensory regions, body awareness, builds more shoulder stability , jaw stability and tongue coordination for weaning and talking, eye-hand coordination... etc



Sensory development

- Touch discrimination- shape, texture, weight, temperature
- Proprioception and kinaesthesia- body map of direction of movement, force and strength used, feedback when a movement has been successful so can repeat and develop as a skill.

Develops an integrated perception of self and the world, eg:

Identify an object without looking

Predict and anticipate what movement or grasp is needed just by looking

Anticipate and control strength and force/ care needed



Release skills and learning about the world

- Let go against a surface first eg your hand, tray
- Pass hand to hand
- Letting go into mid air: casting/ throwing away- do we reinforce this and can it become a habit....?
- Posting and orienting to specific place to achieve a goal = reinforcement. Important stage for learning, enables us to sort like/differences, categorisation and language development.



Developing grasp skills

- Big movements and whole hand grasp first
- Start to mould hand around the object
- Then start to move the object to be held in an optimal position
- Then re-grasp and continually adjust each hand holding in a different way
- Problem solving- holding multiple items at a time

Separation of hand arches and stability

Enables refinement of hand use and prepares for high level use of tools and writing. Stable on little finger side to enable precise movement with thumb and fingers.

Cupping hand to hold soap, small items, manipulating coins etc.



Fine Motor Progression in Play

Bash, swipe, flap, jiggle- spatial awareness of arm and hand in space, eye hand coordination.

Container play- reach, target, letting go

Sorting and posting – grasp, regrasp, position, rotate wrist and fingers

Fixing together – manoeuvre and manipulate, rotation inside the hand

Use of tools: randomly, playfully, purposefully, functionally

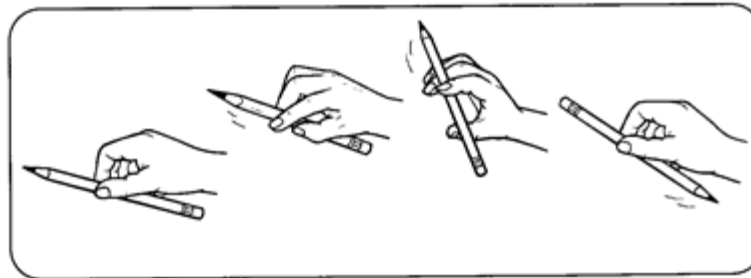
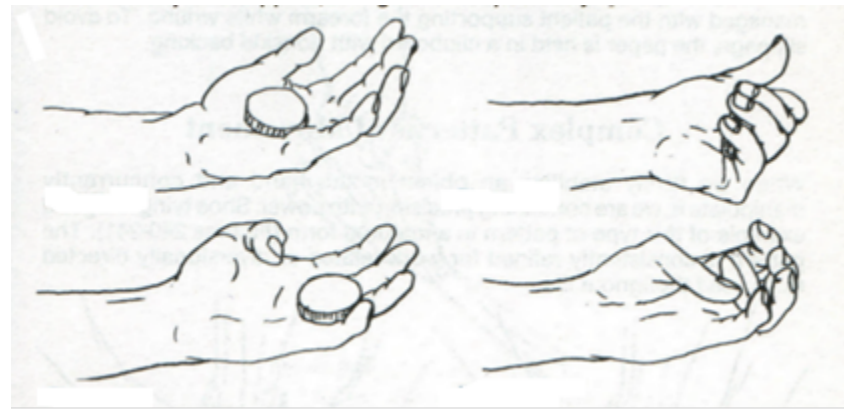
Skill development by practice and refinement eg drawing, writing, ball skills, musical instrument

Developing dominance and coordination

- Both hands do same thing- may see mirror movements- can persist.
- Hands alternate use- pass hand to hand
- One hand moves while other holds
- Both hands can move and adjust separately



In-hand manipulation and squirrelling



A word about thumbs...!

Hypermobility is common



Use of tools- often delayed and so influences:

- Pencil/ crayons/ markers
- Scissors, craft, modelling
- Knife fork spoon / eating implements
- Self care and hygiene- clean teeth, wipe bottom, wipe nose
- Dressing, and fastenings
- Cooking and life skills

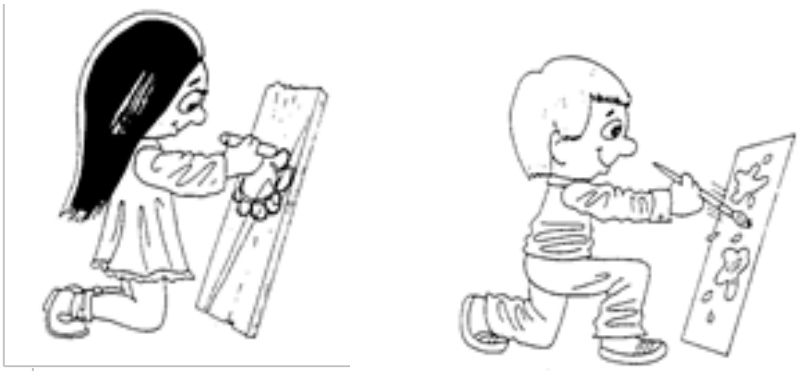
Tips and Ideas

Strategies and ideas I've learned over the years from children and families.

Using the theories of developmental sequences, varying learning styles and sensory processing to match therapy tasks with the motivation and interest of the youngster.

Making activities fun and so more likely to be repeated and used to push skills along to a new level.

Tips and ideas: alternative positions for activities



Tips & ideas: Use big movements first:

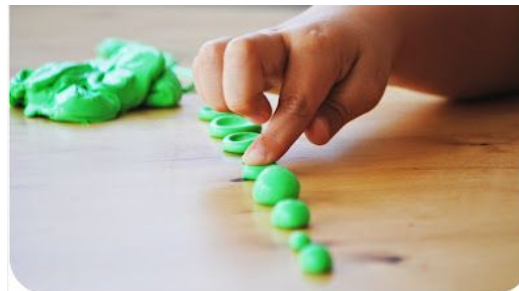


Tips and Ideas: Refining grasp and finger isolation

Push fingers through holes
Small button activated toys

Use: egg boxes, ice cube trays, pill boxes,

Finger painting and printing
Walk like a spider, football fingers



Tips and ideas: grasp strengthening

Squeezing and twisting:

Sponges

Popping and bellows toys,

Resistive materials: therapy putty, play dough, plasticine
Water squirters, squirty bottles

Stapling patterns or fringes round card

Hole punching patterns in card board

Thread pipe cleaners into colander

Popping bubble wrap- ensure the hand/palm is shaped.



Tips and ideas: Using tools

Quick rewards:

Magnetic wands, musical, use ipad stylus, hammer/pounding toys, magnetic fishing

Looking for grasp with index finger down the barrel

More precision:

Tap a peg, water-colouring, paint brush- could be with water onto the ground or wall.

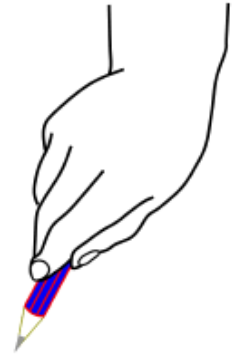
Tongs, tweezers, trainee chopsticks

To develop strength:

Potato masher or scoop, bellows toys- shoot stuff!

Rolling, shape cutting dough

Cut up Velcro fruit, lettuce knife and soft fruit, play doh



Tips and ideas: developing use of both hands

“Do-ing hand, helping hand”

Activities that need stabilising:

Stacking bricks/ cups, clip together trains, pull apart toys (popping, Velcro, suction)

Fix marble run

One hand holds while the other manoeuvres:

Open boxes, zips, twist tops,

Old fashioned mechanical whisks and bubblebath

Cutting out

Both hands cooperatively working:

Threading, button snake, weaving

Tips and ideas: pencil skills

Scribble, stamps and stickers- embellish their efforts

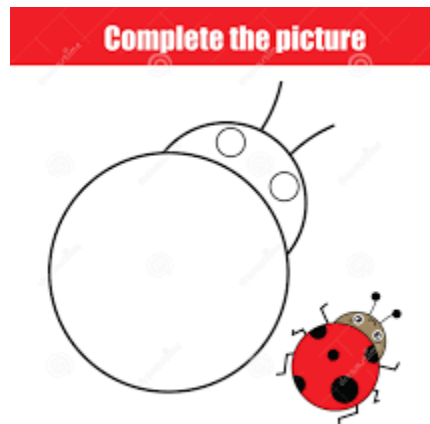
Hair on faces, smoke on Thomas- complete the picture with their marks

Follow my pencil, rainbows, colour my scribble

Vertical surface is helpful- easel, angled surface or old wall paper on the floor- create tracks, a pizza, draw round them or favourite toys- stick or colour on top

Texture rubbing – over patterns, wikki stix

Colour inside an area- wikki stix as an edge (in Aldi)



Tips and ideas: developing pencil grasp...

Thumb push:



Broken chalks/ crayons to refine grasp



Stabilise little finger side of hand to develop tripod grasp:



Pencil skills continued...

- Lolly sticks- giant and coloured



- Try to add marks – use poly pocket and dry wipe pen
- Complete the picture- lines and circles
- Dot to dot, simple mazes, colour by number

Non- pencil ideas: Jedi writing, torch patterns, ribbons, wikki stix, play doh

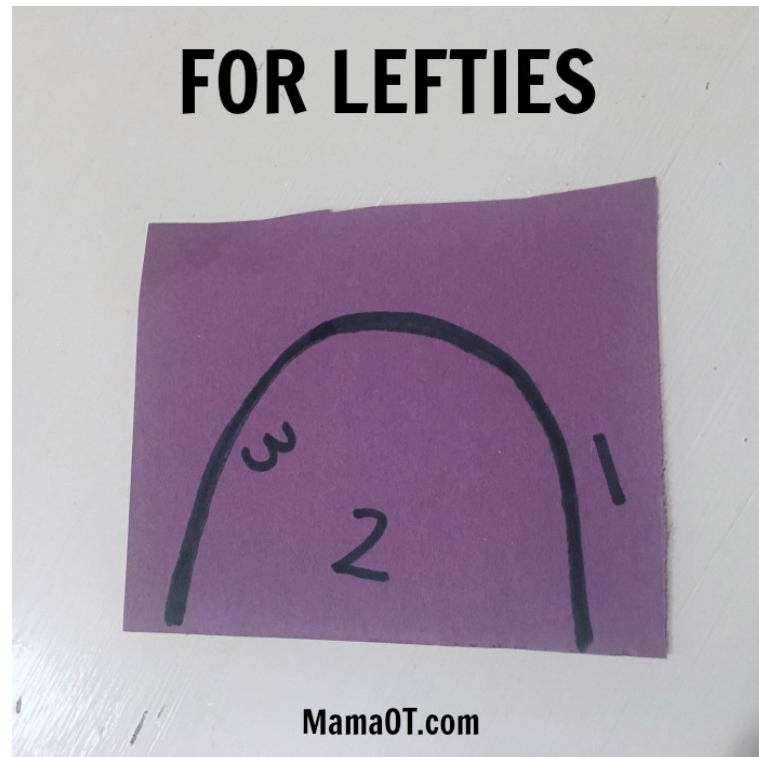
Tips and Ideas: scissors skills

- Thumbs up, index finger out
- Hand strength, eye hand, bilateral coordination
- The skill gives foundation for pencil, knife & fork, use of other tools, attention and persistence.



Scissors continued...

- Re-grasping the paper is an essential step to develop.
- See MamaOT.com for excellent resources:



Tips and ideas: sensory/coping with texture

Watch first. See teddy/ superhero doing it first.

Place in zip lock bag and think about temperature- body temp rather than cold and slimey looking!

Hide fun stuff in the zip lock bag to push around and squish together.

Use dry items before wet.

Hide in food eg dry cereal or pasta, then a bit of wet and dry

Mix with whisk, spoons, masher- play with tools

It's ok to play with food- a good way to introduce something new.

Tips and Ideas: fine motor and food activities

- Snapping & dipping
- Squeezing & wrapping
- Peeling
- Spreading
- Mashing & shaking
- Slicing
- Grating & grinding



Tips and ideas: feeding and eating at the table

Motivation?

Sitting position- stability is important!
Suggest trying a foot box or cushion
behind their back and ensure table
Height is at around bent elbow level.



Make it easier with “chaining”- child does X number of items with cutlery
before allowing fingers- increase and reward.

Or- you assist for most of the task and child does final part of favourite
foods so they succeed and get the most relevant reward.

Tips and ideas: using cutlery

The size and how the cutlery fits in the hand is important- refer to tool use section.

Kura Cutlery, Caring Cutlery (junior and regular sizes available, Clever Grip and Nanas Manners:



Start by using non-food as a play activity.
They try with easy food eg banana, bread,
cheese string



Tips and ideas: self care and household



Discussion:

Gympanzees Website for Fine Motor development resources

Useful search words on Pinterest: Fine motor skills activities; Fine motor OT

A really useful website: <https://www.nhsggc.org.uk/kids/resources/>
(full of excellent downloadable help and suggestions sheets)

Books I like:

