

-ordination

NHS Foundation Trust



Does your child have difficulties with co-ordination?



Children with Co-ordination difficulties...

 Some children find it tricky to organise their movements smoothly, consequently movements and actions may appear awkward and jerky.



 Children with co-ordination difficulties may also find activities such as riding a bicycle and swimming more difficult than their peers. They may also struggle with fine motor skills and find activities such as holding a pencil, using scissors, holding a knife and fork, dressing and tying shoe.



- When a child becomes aware that they are not able to per form tasks as well, or as easily as other children, this can have a negative affect upon their self esteem and confidence, as well as leading to avoidance of taking part in activities.
- Some children also find processing information difficult. This may result in the child being slow in their response to verbal instruction. Limited concentration can also cause tasks to be left unfinished.
- Children with co-ordination difficulties may frequently bump into objects and trip and fall.

It is hoped with the help of this booklet, that you will be able to help your child to develop their abilities. The development of gross and fine motor abilities will prepare your child and give them the confidence they need to learn new skills.



Does your child find it difficult to co-ordinate their 'gross motor' movements?

Do they have difficulties with balance and ball skills?

This part of the booklet will provide you with exercise and activity ideas to help your child develop underlying 'gross motor' abilities, that in turn, will enable them to develop new skills.



Core Stability



Core stability exercises are useful for children who find it difficult to control the muscles around their trunk. Poor or weak core muscles can affect your child's ability to sit still at a desk and the quality of their 'fine motor' skills.



Bridges.

Lie on your back with your knees bent and feet flat on the floor. Place your arms on the floor by your side. Slowly lift your bottom off the floor until your back is strait. Try and keep your knees and hips still. Hold for five seconds and then slowly lower your bottom down to the floor.

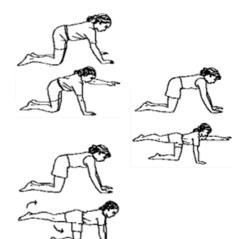
Aeroplanes.

Your hands need to be directly below your shoulders and knees directly below your hips, just like a table. Stretch out one arm in front of you, and hold for five seconds. Return arm to the floor and repeat with your other arm. Lift one leg out behind you, hold for five seconds and return. Repeat with the other leg.

Once you get good at this try lifting one arm and the opposite leg at the same time!

You could play skittles, throw bean bags into a bucket or games like 'Connect Four' in your four point kneeling position.

Page: 2



Activities to Develop Core Stability

- Playing on playground equipment such as swings, climbing frames and merry go round.
- Construct obstacle courses that require crawling and climbing.
- 'Simon Says' (using body parts such as standing on one leg or balancing on one foot and one hand.
- Play with beanbags and balls when child is sitting, kneeling, squatting and standing.
- Encourage your child to complete activities that involve leaning on their arms and putting weight through their arms and shoulders. Complete puzzles or games in side sitting.
- What's the time Mr Wolf?
- Jumping on a Trampoline.
- Dancing.
- Kicking ball in the park or garden.
- Skateboarding, scooting, riding a bicycle.
- Roll out dough/pastry with a rolling pin.

- Swimming.
- Gymnastics.
- Playing tug of war.



- Painting/drawing on an easel/paper pinned to the wall.
- Martial arts such as Tai Chi, Tae Kwondo or Karate.



Proprioception



Proprioception is the term used to describe body awareness.

Proprioception is the process by which information is provided to the child from their muscles, ligaments and joints. Children with poor body awareness have little awareness of where their body's are in space, as a consequence the child may fall frequently and bump into objects. Children with poor body awareness may benefit from taking part in activities that provide their muscles, ligaments and joints with firm pressure as this gives the child feedback about where they are in space.

Activities to increase proprioceptive input.

- Pushing and pulling objects such as toy wagons, heavy boxes.
- Vacuuming.
- Horse riding.
- Jumping on a trampoline.

Page: 3

- Bean Bag chairs.
- Push Ups.
- Wheel barrow walking.
- Carrying backpacks when walking to and from school



Gross Motor Continued...



Hand Eye Coordination



Children with co-ordination difficulties, find it hard to move their arms and legs together in an effective and purposeful way. Your child may find it tricky to plan and time their movements. This may impact upon their confidence when playing games.

Hand Eye Coordination.

In standing or kneeling, you could play throwing and catching. Start off with a big ball, when you get more confident try with a smaller ball or a tennis ball. Try catching in one hand. You could catch the ball, pass it round your tummy or around your legs to make it fun.

You could throw a tennis ball onto a target on the wall and catch it. Start off by allowing the ball to bounce and catch it with two hands. To make it harder use one hand to catch and don't le t the ball bounce on the floor!





Kicking a ball.

Pass a ball to a partner, as you get more confidence you can move further apart. Dribble a ball around cones or just around the garden.

Balance

Kneeling.

Start by high kneeling with two knees on the floor. You could play throwing and catching or reaching games in this position.

When you get good at this, raise one knee off the floor, see how long you can hold this position for, close your eyes to make it harder!





Try balancing on one leg, see how long you can hold it for!





Walking along a line.

Try walking heel to toe along a line, don't fall off!

Gross Motor Continued...

Strength

Wheelbarrows.

Keep your hands flat on the floor, try not to wobble! With adult support, initially hold your child at the knees and then when your child get stronger gradually support further down the leg towards their feet.





Cat Walking.

On your hands and feet, walk around the room or garden like a cat. You could collect objects from around the room!

Squatting.

Bend your knees and pick up beanbags or objects from the floor. You could throw them into a target. To make this harder you could try and stand on a wobble board!





Jumping.

Try jumping with two feet together, jump around the garden or room like a bunny rabbit! Try star jumps, remember to encourage slow and quality movements.

Gym Ball Acitivities

Exercise balls can be very beneficial for developing stability, strength, body awareness and balance.



When sitting on a gym ball it is important for your child's shoulders to be in line with their hips and for their feet to be flat on the floor. You could play throwing and catching, reaching games or throwing beanbags into a target. You could watch TV or play computer games!

Marching.

Make sure you keep one foot on the floor! To make this harder you could tap your raised knee with the opposite hand!



Windmill arms.

Stretch your arms out to the side. Begin by making small rotations with your arms, gradually increase and then decrease the size of rotations! Try to keep your trunk and head still! Try reaching your arms in a 'V' shape. Bring one arm down towards your tummy and then alternate with the other arm!



Does your child find it difficult to co-ordinate their 'fine motor' movements?

Do they have difficulties with handwriting, using a knife and fork and dressing?

This part of the booklet will provide you with exercise and activity ideas to help your child develop underlying 'fine motor' abilities, that in turn, will enable them to develop new skills.



In order to write or use cutlery effectively your child must be able to maintain their own balance and control their trunk and shoulder muscles whilst sitting, without using their hands for support. If they are unable to maintain postural control the child may fidget, wrap their feet around their chair, lean or prop their head up with their hand.



How to promote postural control



- Practising core stability exercises (see page 2 + 3) will help your child to maintain their position whilst writing.
- In order to maintain postural control, children also need to have access to a table and chair that is of the correct height. When sitting on a chair, the child's bottom needs to be right at the back of the seat, hips and knees bent at 90° and feet flat on the floor. The desk should ideally be just above the height of the child's elbows.
- You could place a box under your child's feet if they don't reach to the floor!

Fine Motor Continued...

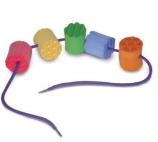
Grasp and fine motor skills

In order to control a pencil, children need to have a well developed hand use. You can check your child's hand use by seeing if they are able to:

- Grasp an object in their whole hand.
- Manipulate objects by turning them over and moving them around in their hand using their fingers.
- Pick up objects using a pincer grip (tips of thumb and index finger).
- Pick up objects using a tripod grasp.

Activities to develop grasp and fine motor skills

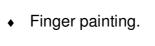
- Peg board activities.
- Building blocks.
- Using tweezers or tongs to pick up small objects.
- Lacing or threading activities.
- Craft activities, including collages, paper mache, gluing and cutting.
- Family games such as Jenga,
 Kerplunk, Operation, Tumbling monkeys.
- · Card games.



- Playing with play-dough.
- Games such as checkers, pick up sticks, marbles.
- Puzzles.
- Lego, Duplo, k.nex and construction toys.
- Dressing up using clothes with buttons, press studs, zips and shoes laces.
- Mixing ingredients in cooking.









Fine Motor Continued...



The tripod grasp

en when a child has well developed fine motor skills and grasp patterns, holding and using a pencil is a new and complex task!

- Ideally a child should use a static or dynamic tripod grasp for writing. This means:
- The pencil is held between the tips of the thumb, index finger and middle finger.
- The pencil is held in a relaxed way without too much pressure on the shaft of the pencil.
- The pencil rests on the hand between the thumb and index finger (webspace).
- The webspace gap should be open (i.e. the thumb and index fingers from a circle).



Activities to develop a tripod grasp

- Threading beads.
- Popping bubble wrap.
- Placing clothes pegs around the edge of a container.
- Posting coins into a box with a slot in the lid.



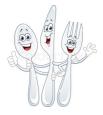


- Making paper clip chains.
- Use thick and short felt tips and crayons.

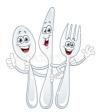




Fine Motor Continued...



Using cutlery



You could begin your practice by using play-dough rolled into sausages.



- Starting off with a blunt knife, the child can hold the sausage with their fingers and then cut the play dough with the knife just in front of their fingers, using backwards and forwards strokes (not tearing).
- When your child gets really good at using the knife, introduce the fork.
- Hold the food still with the fork. Cut with the knife using backwards and forwards strokes. Remind your child what to do as they are carrying out the cutting motion.



 Once your child has got the hang of cutting using play-dough, begin cutting soft foods and then progress onto tougher foods. Slowly build up the amount of food you want your child to cut.

Page: 9

Equipment Suppliers

Gym Ball

55cm: Available in Argos Value Range £4.99

65cm: Available in Argos, Sainsbury's and most sports shops

(prices vary).



Wobble cushion

Available in Sainsbury's and online (prices vary).



• Thera-putty (Rainbow Putty)

www.essentailaides.com £6.89

Medium soft (Red)

Medium (Green)



· Sit and Move Cushion

NRS £17.99

www.nrs-uk.co.uk



Writing Slope

www.taskmasteronline.co.uk £25.99



Junior Caring Cutlery

www.nrs-uk.co.uk

Knife £5.49

Fork £5.49



Equipment also available widely online from sites such as Amazon (prices may vary).

Information correct on 26th March 2012.

References

Bedford Primary Care Trust. Children with Co-ordination Difficulties. Information Booklet. (2004)

Chu, S. (2003) Course notes from *Occupational Therapy for children with hand-writing difficulties*. Ealing PCT.

Dyspraxia Foundation. Www.dyspraxiafoundation.org.uk

Erhardt, R.P. (1994). Developmental hand dysfunction: Theory, assessment and treatment (2nd Ed). Tucson, Arizona: Therapy Skills Builders.

Northamptonshire Teaching and Primary Care Trust. Developmental Coordination Disorder. Information and practical suggestions for working with school age children. Information Booklet.

Portwood, M. (2000). Understanding Developmental Dyspraxia. A Textbook for Students and Professionals. David Fulton Publishers London.

Physiotools Online. www.swft.physiotoolsonline.co.uk