

Developing Hand Strength



Hand Strength is the amount of resistance or tension achievable within the muscles. It includes the ability to initiate and maintain movements/positions within the hands.

Hand strength influences fine motor skills, in particular, pencil grasp and handwriting, cutting with scissors and self-care tasks such as dressing, eating with a knife and fork as well as drinking from a cup.

Some children and young people have increased range of movements in the joints of their fingers and thumbs. This means their joints can look bendy and can move further than other peoples. Muscles have to work harder. Their hands may become more tired during fine motor activity and may become painful. Their joints often become less bendy as they grow older however in the meantime, they can keep their hands healthy and fit through regular exercises and activities.



You can help children to develop their hand strength by incorporating hand strengthening activities into their everyday life.

General tips

- Aim for strength and control not speed! Make sure fingers and thumbs aren't bending the wrong way!
- Ensure your child is sitting with a comfortable and supported posture (e.g., feet on the floor, and elbows resting on the table at a 90-degree angle) or is standing up at a vertical surface.
- Work within their limits and gradually increase the length of sessions. Work on two or three of the following activity ideas daily, or at least 3 times a week, using different activities each day.



Adapted from our colleagues: NHS Greenwich Community Health Services – oxleas.nhs.uk

- If hands become tired or painful, encourage them to shake it out!
- Warm-up the hands with finger exercises or a light massage. Try some of these warmup exercises: -
 - Praying position – push hands together, holding hands close to chest
 - Finger taps – tap fingers one at a time on a tabletop. Tap out a sequence they can try to copy.
 - Finger separation – spread fingers as far apart as possible.
 - Pencil walks – hold the pencil with a tripod grasp then walk fingers up the pencil shaft and back down again using their writing hand only.



Activity ideas

- Animal walks are fun for younger children. Choose animals that encourage them to use their hands as well as their feet to perform the walks. This will help strengthen the muscles in their hands, fingers and wrists. Here are some to get ideas to help you get started.



Bear – Ask your child to go on all fours, keeping arms and legs as straight as possible with a flat back. Ask them to move their left hand/left foot at the same time then move right hand/right foot at the same time.



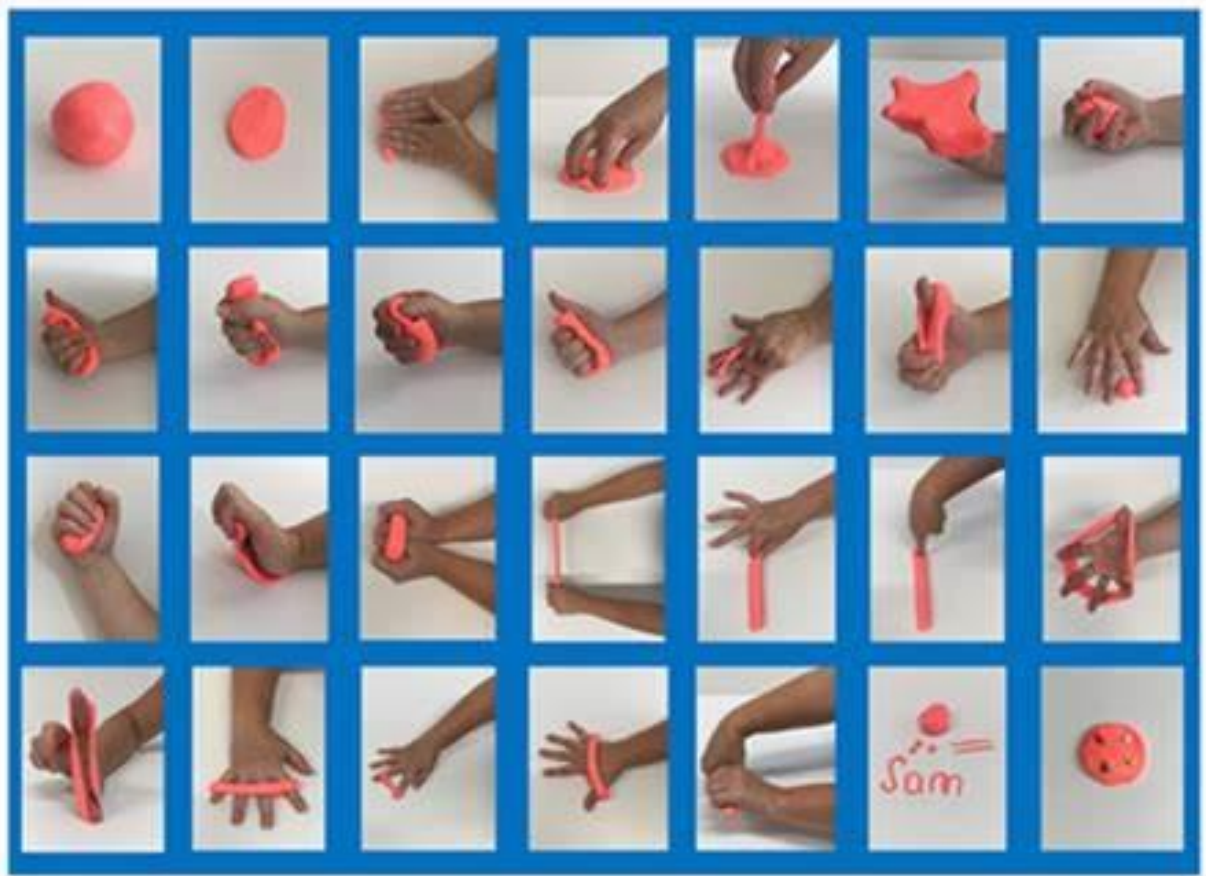
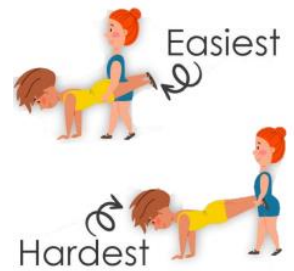
Crab – Ask your child sit on their bottom, with knees bent and hands flat on the floor beside or slightly behind their bottom. Ask them to lift their bottom off the floor and walk forwards, backwards and sideways like a crab!



Frog – Ask your child to crouch down, bend their knees and put their hands on the floor. Ask them to do some “frog hops” by stretching their arms in front of them and hopping their feet in between them.

Images from Tiny Tackers Therapy
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- Squeeze soft balls such as juggling balls, stress balls and rings. Move the ball around with fingertips before squeezing again.
- Opening containers with screw on lids.
- Work in pairs for wheelbarrow walks. Once they improve you can add obstacles they have to go around or increase the distance. You could even have a race if there are a few people. Ask your child to lie on their stomach, support their legs and ask them to walk with their hands. Make sure they keep their hands pointing forwards whilst they walk. If this is too tricky, start by supporting your child at the hips and slowly progressing down their legs.
- Use "TheraPutty". This comes in a choice of strengths and is available from online retailers. Start with the softer versions before moving to medium. Here are some exercises for hand strengthening.



Credit: NHS Greater Glasgow & Clyde – KIDS (www.nhsggc.org.uk/KIDS)

- Elastic band stretches. Place an elastic band around all the fingers of your hand and open hand as wide as possible. Or loop elastic bands between fingers of opposite hands and pull hands apart. The more elastic bands, the harder hands have to work.
- Picking things up with tweezers or clothes pegs.
- Encourage activities such as climbing, basketball, and cricket.
- Playing musical instruments such as piano, flute, guitar.
- Use playdough to make models of animals, people and food. Roll with two hands together into sausage shapes and pinch along the top to add spines or patterns. Push holes into the dough. Press dough firmly with fingers tips then cut out cookies using cookie cutters.
- Construction activities such as Duplo, Lego, Stickle-Bricks, K'nex.
- Squeeze water out of washing up bottles to draw on the paths outside or knock over targets.
- Squeeze out sponger in the bath or clean the car.



Adaptations

- Using chunky pens and pencils may help with grip and regular rest breaks are useful to reduce pain.
- Using an angle board/writing slope can improve wrist position for writing.
- Cutlery with chunky handles can help them improve their grip. You can adapt existing cutlery by adding pipe lagging.
- For dressing, opt for clothing with Velcro fastenings instead of buttons or zips.
- Choose shoes with Velcro or use shoelace alternatives such as elastic.



Further resources:

For more resources to help with developing skills or for further helpful tips and tricks, please visit our website or lookout for our Facebook posts.

www.nhsborders.scot.nhs.uk/cypot

www.facebook.com/CYPOTNHSBorders

