# Children's Occupational Therapy

# **Hypermobile Joints**



This is mainly a condition of children and young adults with extra-flexible (hypermobile) joints who develop aches and pains when they exercise or use their hands e.g. for writing. Hypermobile joints do not usually cause long-term harm, and are sometimes called double jointed.

Having flexible joints can be an advantage and many successful sportsmen and dancers have Hypermobile joints. It's likely that almost all ballet dancers and gymnasts have them. The flexibility makes them extra mobile and agile.

Hypermobile joints can cause some problems. They can be more prone to injury as the joints are less well supported by ligaments that are too stretchy. Sometimes they can cause muscle and joint pain. The pains tend to be worse after exercise – both immediately afterwards and in the evenings or the next day when muscles can be stiff and tender.

Handwriting can become a problem, due to a tight grip, tiring quickly and pain in the hand. Children can be fidgety and tired easily, and their concentration may be affected. Some children get clicky joints which is usually harmless.

Treatment usually involves, strengthening exercises, modifying the task to reduce pain and fatigue, using joint protection principles and in some circumstances, splinting the Hypermobile joint.

#### Modifying the task

- 1. Pacing, with a balance of rest and activity. Activity helps strengthen the muscles to better support the joints. Rest allows the joints to recover and repair. The child should stop before he/she feels tired or is in pain. This is difficult for children to judge and parents will need to try to ensure the child does not overdo things.
- 2. Organise and arrange the space. The work areas should be organised so that everything needed for the activity is there. Things that are used often should be stored in places they are easy to reach. Make sure the child sits with good posture.
- 3. Stop activities if you feel pain e.g. typing work is usually easier than writing. If sitting on the floor is hard in assemblies or carpet time, it is better to sit on a chair.
- 4. Reduce the amount of weight you take through your joints. School bags can be heavy in secondary school. Try to take only what you need that day or use a locker to store books.

#### **Splinting**

In some circumstances it can be beneficial to splint a Hypermobile joint to stabilise it during a specific task such as holding a pen to write. There are different splints available and this will be considered during your Occupational Therapy assessment.



# Finger strengthening exercises

# 1. Squeezing and oozing

Place a ball of playdough in the palm of your hand and squeeze as hard as possible. Make the playdough ooze out between your fingers.



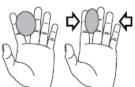
# 3. Pinch the snake

Pinch the snake all the way along, from head to tail.



## 5. Finger scissors

Place a ball of playdough between two fingers and squeeze your fingers together. Repeat with your other fingers.



#### 7. Make a bowl

Place a ball of playdough on the table. Place your thumb in the middle and pinch all the way around to make a bowl.



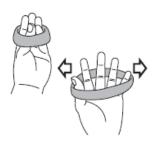
### 2. Make a snake

On the table, roll the playdough into a snake keeping your fingers straight.



# 4. Finger and thumb spreading (Finger and thumb extension and abduction)

Place your thumb and fingers together. Place a ring of putty around the outside of the fingers and thumb. Spread your fingers and thumb as far as possible.



#### 6. Hide 'n' seek

Shape the playdough into a ball. Place your hand and forearm on the table and grasp the playdough with your thumb pointing up. Bend your thumb and press it deeply into the playdough, then pull it out again.



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#### **Joint protection**

- 1. Use joints in a good position. When they are used in the wrong position, such as when twisting, extra force is placed through the joint, causing pain, and the muscles are unable to work as well.
- 2. Avoid activities that don't let you change the position of your hand. When you are in a position for a long time your muscles get stiff and pull the joint into a bad position. The muscles also get tired quickly so the force is taken up by the joint and not the muscles, leading to pain.
- 3. Respect pain. If pain continues for hours after an activity has stopped, this means that the activity was too much and should have been changed or stopped sooner
- 4. Avoid tight grip or gripping for long periods. Gripping tightly may increase your pain. If you grip something that is small or narrow it can require greater power to hold and manipulate it. Some examples of how to decrease strain on joints include;
  - Using thicker pens or rubber grips for writing
  - Resting books on a table or book rest
  - Using a chopping board with spikes to secure vegetables
  - Relaxing your hands during an activity such as writing
  - Many items have been ergonomically designed and are now available in supermarkets or online, e.g. Oxo Good Grips kitchen utensils.
- 5. Avoid activities that could lead to over working the joints.
  - Try to use lightweight mugs with large handles
- 6. Use one large joint or many joints. Stronger muscles protect larger joints so it's better to use large joints where possible, or try to spread the force over many joints
  - Use the palms of your hands not your fingers when you carry plates or a tray
  - Carry light bags from a strap on your shoulder rather than your hands
  - Use your forearms to take the weight of objects when carrying, not your hands

#### For Further reading:

Hypermobility Syndrome Association (HMSA) http://hypermobility.org/help-advice/kids-teens

