

## **SEND Children's Occupational Therapy**

### **Principles of Good Seated Posture and Positioning – promoting positive functional engagement in standard seating**



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## Introduction – seated posture and positioning

A 'good sitting' position will look slightly different for each of us.

Principles of good posture and positioning should be encouraged for everyone to support access and inclusion with daily activities, learning and development, and a reduction in developing undesirable sitting positions which can contribute to longer term physical ailments.

Good, seated posture and positioning play a key role in:

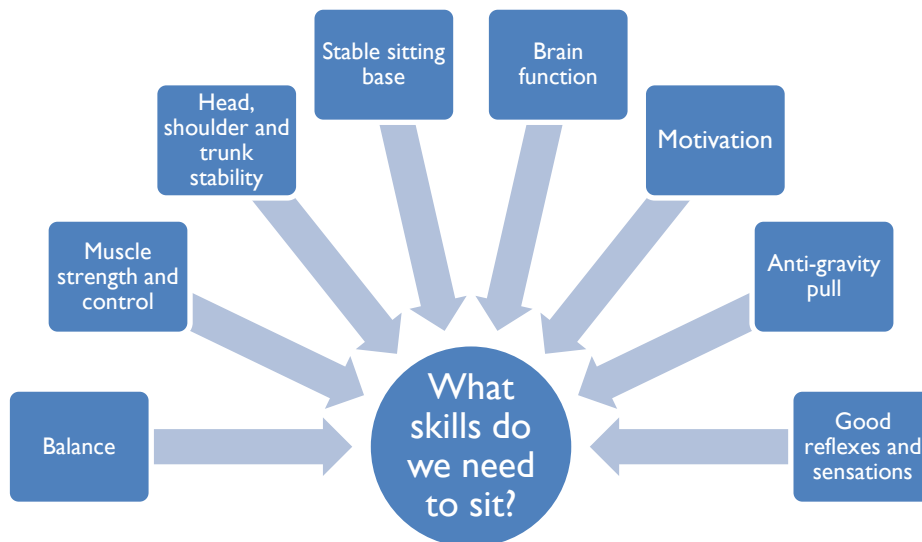
- Increasing independence to complete functional activities and tasks e.g. handwriting, eating, play/development tasks
- Reducing muscle stiffness, headaches, and back pain.
- Supporting breathing, digestion, and circulation - Improving blood flow helping to keep nerves and blood vessels healthy supporting muscles, ligaments, and tendons.
- Minimising fatigue.
- Evenly spreading the 'pressure load' on parts of the body such as the spine and seat to ensure comfort and prevent development of pressure sores or pain.
- Maintaining concentration and focus.
- Aiding effective communication.



## What skills do we need to sit?

Although sitting may seem like a simple task, it takes a great deal of physical effort, cognitive function, and processing to achieve and maintain.

This includes:




- **Balance** – so that we do not fall off the chair.
- **Muscle control and strength** - to maintain and up right sitting posture.
- **Head, shoulder and trunk stability** – to support with core stability and balance and address activities and tasks.
- **Stable sitting base** - to perform fine motor skills e.g. eating, handwriting, reaching for items in front and across the body.
- **Brain function** – being cognitively aware of our body in environmental space, that we are sitting, and we will be functionally attending to activities and tasks.
- **Motivation** – to maintain a good functional postural position and not just slouch.
- **Anti-gravity pull** – to be able to sit upright.
- **Reflexes and good sensations** - to correct our body position unconsciously and consciously when we go out of midline/off balance, maintaining a safe sitting position.

## What does good, seated posture look like?

### Importance of Good Sitting Posture

**Start with Stability**

- In therapy we talk about the **90-90-90 rule**. This means that when seated at a desk, we want to ensure the following:
  - Feet flat on the floor 90 degrees at ankles
  - Knees bent at 90 degrees
  - Hips at 90 degrees

A photograph of a young child sitting at a blue desk on a colorful chair. The child is holding a pencil and writing on a piece of paper. A green diagram is overlaid on the child's body, showing three right-angle symbols (90 degrees) at the ankle, knee, and hip, illustrating the 90-90-90 rule for good sitting posture.

We all sit slightly differently due to individual differences.

But where possible, the aim is to achieve a 90°: 90°: 90° seated position, where the ankle, knee and hip angles are flexed at a right-angle position.

A good functional seated position should ensure that the:

- Back is supported with an appropriate back rest.
- Pelvis/hips should be facing forward in a neutral position.
- Bottom is placed at the back of the chair.
- Seat depth is appropriate to support upper thighs (1 to 2 cm between the backs of the knees and end of seat).
- Feet are supported fully.
- Shoulders are relaxed.
- Food or activity is at an easy to reach distance.

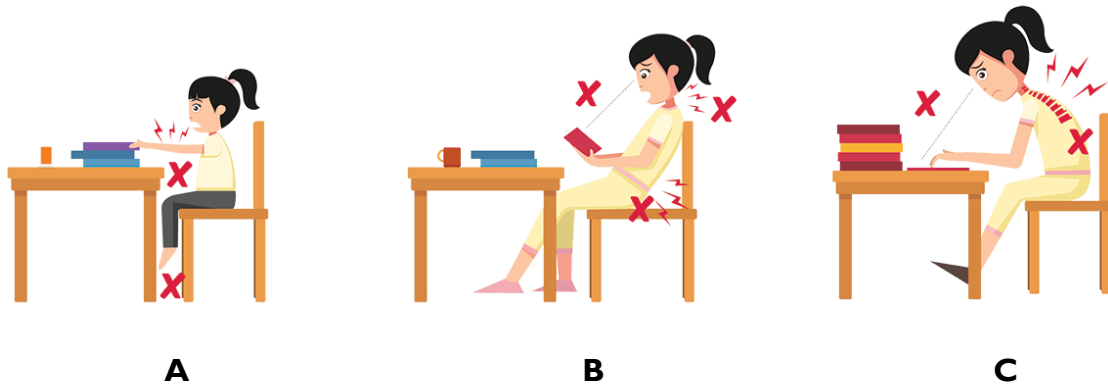
If a laptop is being used, the screen should be at eye level.

## What to avoid and discourage?

Incorrectly sized seating, desk, table, and furniture can contribute to discomfort, increased back pain, and ongoing postural issue.

It is likely that they will also reduce levels of concentration and engagement with an activity or learning task.

Below are examples of things to avoid and discourage, with suggestions to help achieve a good functional seated position.



**A – Seating, table and furniture are too big or too small**

**B – Slouching (posterior tilt of the pelvis)**

**C – Leaning forward (anterior tilt of the pelvis)**

### Presentations:

- Incorrectly sized seating, desk, table which do not allow for a comfortable and supported good, seated position (see picture A)
- Child or young person may stabilise with hands their hands holding on to the sides of seat and/or feet wrapped around the chair legs to enable arms and hands to access functional tasks and activities.
- May cross their ankles.
- Increased curvature in the spine, pressure through the lower back - sacrum, pressure on the shoulder blades – scapula, from leaning hard into the back of the chair, and on the backs of the legs (see pictures B and C).
- Head tilted forward eye gaze to the floor, reduced ability to actively address tasks and information (see picture C).



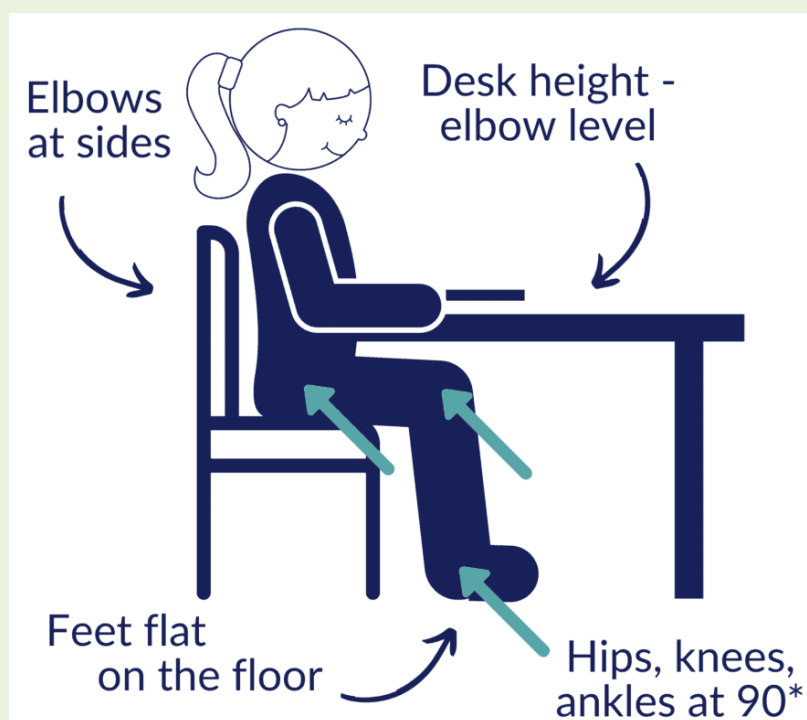
### Suggestions:

- Ensure chair and table or desk height is appropriate to the child or young person.
- Consider a raised foot block/rest for stability, support, and comfort.

- A seat cushion and back wedge can be used to slightly raise the seat height and reduce the seat depth ensuring the upper and lower body are supported appropriately.
- Consider using a sloped surface on the table or desk to raise eye gaze and support better posture and functional positioning.

**REMEMBER:**

- 90°: 90°: 90° of hips, knees, ankles (being mindful that this is the aim; However, this may not be physically or medically achievable for every child or young person, and the best/optimal position may look different for some children and young people; Further advice should be sought from the professional team supporting should this be the case).



- Regular movement breaks should always be encouraged to reduce general muscle stiffness/tightness, encourage circulation, and help maintain concentration/attention.
- Consider items readily available within the environment that could be used to provide comfort and support in achieving a good functional seated posture, appropriate to the age, development and needs of the child or young person.

## Resources

### Items and accessories that may be helpful

The information below is not exhaustive and is meant as a guide to assist you in making an informed parental and carer decision about items you choose to access/purchase.

### Highchairs



For younger children, the most effective piece of equipment is a highchair. It allows your child to maintain a 90:90:90 seated position. A height adjustable highchair is best to enable you to move the chair and child to table height when needed, and ensure the highchair has a footplate to prevent the feet and lower legs from dangling.



### Booster Seats

Help to provide good postural support and stability when out or at home helping to ensure your child is at the correct height and well supported for the table when eating etc.

### Junior Dining Chair

Allows your child to be at the correct height in relation to the table also providing a footrest of some description e.g. bar.





**Foot Block/Raiser**

If your child/young person's feet are not firmly on the ground, you can place a low stool box/footrest under the feet to support a good functional postural position.

**Writing/Activity Posture Pack**

An angled slope/surface (also known as a writing slope) can help improve posture at the table during activities – it can be useful if your child is slumped or hunched when sitting.



## **Funding Items and Accessories**

It would be expected that appropriate commercially available solutions will have been explored if appropriate before seeking specialist assessment.

You may be able to access additional financial assistance via allowances and charities. The links below are not exhaustive and are meant as a guide to assist you in making an informed parental and carer decision:

- [Disability Living Allowance \(DLA\)](#)  
If you are looking after a child with a health condition or disability who is under the age of 16 years, they may be entitled to Disability Living Allowance (DLA).  
This can help towards the extra costs of bringing up a disabled child.
- [Personal independent Payment \(PIP\)](#)
- [Family Fund](#)
- [Caudwell Children](#)
- [Elifar](#)
- [Independence at Home - Towards Independent Living](#)
- [AFK | Home](#)
- [Newlife the Charity - Changing the lives of disabled children](#)
- [Turn2Us - Grant search](#)
- [Disability Grants](#)

## **Useful Company/Manufacturer Links**

- [back in action](#)  
Accessible seating and equipment items.
- [fledglings](#)  
A charity who seeks out appropriate and fair value items to help parents and carers looking after children with a disability. They collaborate with parents to identify products. Profits from sales are used to fund research and development of new products.
- [Amazon](#)
- [Healthcare PRO](#)  
Accessible equipment items.
- [Unique Mobility](#)

If you have any questions or feel a further conversation would be helpful, please contact SEND Children's Occupational Therapy via Families First Children's Services on 01752 668000; Or email the OT Duty Desk – [OTDutyDesk@plymouth.gov.uk](mailto:OTDutyDesk@plymouth.gov.uk)