

**X Partnership
Joint Protocol for the provision of Childrens
Equipment**

TRAINING PROGRAMME

**Children's Core Stock – MODULE A
(Seating, Bathing/showering/toileting, Standing
frames and mobility equipment)**

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Assessment and Provision of Specialised Seating, bathroom, mobility and standing equipment for children

Course Programme

10.00 am	Welcome and Introductions	
10.05 am	Session 1	<ul style="list-style-type: none"> • Normal development • Principals of seating • Assessing a child's seating needs • Assessing for bathing & toileting.
11.15	Tea break	
11.30 am	Session 2	Practical session <ul style="list-style-type: none"> • Assessing a child's seating needs
12.00 pm	Session 3	<ul style="list-style-type: none"> • Features of supportive seating systems • Types of bathing products • Questions
12.30pm	Session 4	Case histories
1pm	Lunch break	
1.30pm	Quick review of morning session and link to assessing for mobility and standing equipment.	
1.40pm	Session 5	Standing frames
	Session 6	Walkers and corner seat
3.40pm	Summary & Evaluation	
4pm	Course end	

Times are guidelines only and will be flexible depending on the needs of the group.

Baseline information needed prior to carrying out a seating assessment.

Prior to an assessment of seating requirements a general medical and functional assessment must be carried out. The information gained during this will provide the basis for the seating assessment.

This assessment should include information about-

This assessment should include information about the child's:-

- **Physical condition**
- **Mental state**
- **Cognitive ability**
- **Medical condition[s]**
- **Functional ability**
- **Aims and objectives of the seating provision. .**

Also

- **Does the child require support and comfort only?**
- **Does the child require postural support?**
- **Does the child have tissue viability problems?**
- **What activities will the child carry out while seated?**

Examples of Conditions that commonly require intervention to provide specialised seating

Cerebral Palsy

“Cerebral Palsy describes a group of disorders of the development of movement and posture causing activity limitation...the motor disorders of cerebral palsy are often accompanied by disturbances of sensation, cognition, communication, perception and/or behaviour” (British Association of Bobath trained therapist's newsletter, 2006).

Cerebral palsy can be described or classified in different ways - by:

- It's impact on movement – spasticity, dyskinesia and ataxia
- The part of the body that it affects – hemiplegia, diplegia and quadriplegia.

The impact of cerebral palsy in terms of motor ability or function is commonly described by:

- Its impact on gross motor skills (e.g. walking) and mobility – see the Gross Motor Function Classification System (GMFCS)
- Its impact on fine motor skills (e.g. the ability to handle objects) – see the Manual Ability Classification System (MACS). (*Cerebral Palsy Alliance, Australia*)

Cerebral Palsy – Implications and considerations for seating

- Proximal Stability is a pre-requisite for distal control i.e. a stable base of support (hips/trunk) is needed for fine motor control (eyes/swallow/hands) Good pelvic/trunk control leads to the need for minimal external support. Poor/trunk control means the need for more external support
- Maintenance of a symmetrical position - reflex inhibiting postures (i.e. hips & knees at 90° reduces extensor thrust), Contractures [fixed and mobile deformities], Leg length discrepancy, Scoliosis.
- Pelvic Position - Strongly influences position of the trunk, head and legs and symmetrical positioning
- Trunk - Influenced by pelvis
- Legs – Windsweep, Dislocated hip, Leg length discrepancy, Increased tone leading to extension pattern.
- Head control – influenced by pelvis and trunk [better pelvic and trunk support will increase head control] also type of head rest, and position of chair e.g. tilt-in-space

N.b. Purpose of seating is NOT to increase range of motion. The child should not be at the limits of ROM e.g. hamstrings

Spina Bifida

- Described as series of birth defects that affect the development of the spine and central nervous system.
- Early in development an embryo grows a primitive tissue structure called the neural tube. As the embryo develops, the neural tube begins to change into a more complicated structure of bones, tissue and nerves that will eventually form the spine and nervous system.
- Development of the neural tube and the spinal column (the ridge of bone that surrounds and protects the nerves) is interrupted and doesn't fully close.

Myelomeningocele - the most serious type of Spina Bifida

- The spinal column remains open along several vertebrae and the membranes and spinal cord push out to create a sac in the baby's back.
- The sac can be covered with membranes called meninges, although it often remains open, leaving the nervous system vulnerable to infections that may be fatal.

Surgical intervention

In most cases of myelomeningocele, surgery can be carried out to close the defect, but extensive damage to the nervous system will usually have already taken place.

Damage causes symptoms including:

- Partial or total paralysis of the lower limbs
- Bowel and urinary incontinence
- Loss of skin sensation

Implications for seating

Children with Spina Bifida may have different degrees of mobility, and seating should augment functional ability i.e.

- Transfers –
Those with ability to mobilise should be supported to do so independently [i.e. be the correct depth and height with arms to promote independence in transfers]
- Pressure care –
Children who use a wheel chair most of the day often with moulded seats or specialised pressure cushions, require to have alternative seating which provides pelvic support and minimises pressure areas as well as

increasing comfort. This is very important for children with high level lesions with difficulty positioning/ re-positioning themselves whilst seated as they are at greatest risk of developing pressure ulcers.

- Scoliosis –
Children with scoliosis need seating which helps to maintain or maximise a symmetrical sitting position.
- Access for other equipment –
Older children who are heavier and require to be lifted from bed/chair/toilet need seating that allows access for the equipment required [i.e. hoist, stand aid etc]

Duchenne Muscular Dystrophy

Duchennes Muscular Dystrophy is an inherited condition that involves worsening muscle wasting and weakness. Duchennes appears in infancy or the childhood, it is the most severe form of dystrophinopathy. It occurs mostly in young boys and is the most common form that affects children.

Symptoms

03yrs-06yrs

- Muscle weakness begins in lower limbs and pelvis area
- Frequent Falls
- Difficulty getting up from sitting or lying down
- Difficulty climbing stairs
- Delay in independent walking
- Enlarged calf muscles
- Walking on toes Waddling gait
- Walking with Shoulders pushed back Lordosis
- Easily Fatigued after routine play activities.

06-12yrs

Difficulty with Gross Motor Skills (Jumping, Hopping, Running)

Decreased Mobility

Progressive difficulty walking

Ability to walk is usually lost by the age of 12yrs

Wheelchair Dependent

12yrs +

Progressive deterioration of upper limb function

Deterioration of respiratory function

'Normal Development' and the effects of delay or arrested development

Children with disabilities can have developmental delay or may never achieve normal milestones in relation to motor development.

Ability to sit independently will usually occur between 4 and 8 months old in normal children and this has a bearing on their ability to carry out upper limb movements effectively.

Children need sitting balance to develop good hand eye coordination, hold objects effectively and concentrate and interact with objects i.e. toys, simple cutlery or hand held food.

Children with disabilities may need to be assisted to have sitting balance and seating plays a significant part in helping them to develop normally and ultimately to maximise functional independence.

Adequate seating can assist children to:-

- Maximise and maintain normal range of movement
- Normalise muscle tone
- Assist in prevention of contractures
- Encourage normal movement

'Play' has an important role in child development and adequate seating is imperative for children who have issues with unsupported sitting.

Additionally good sitting posture helps breathing, digestion and the function of internal organs.

Ultimately sitting balance must be achieved before standing balance will develop.

Useful Reference material for understanding 'Normal Development' in children- Excerpt from:-Mary D Sheridan – *'From birth to five years; The Child's Developmental Progress'*

- Neonatal: Prone - baby turns head to side, buttocks humped with the knees flexed underneath the tummy. Arms are close to chest with elbows flexed. When pulled to sit marked head lag is present. Primitive reflexes (primary walking, Moro, palmar and plantar grasps) present.
- 1 month: supine - lies with head to one side, arm and leg on face side outstretched or both arms flexed. Large, jerk movements of limbs. At rest, hands closed and thumb turned in. Pulled to sit: head lags until body upright when head momentarily held erect. Held sitting, back is one complete curve.

- 3 months: prefers to lie with head in midline. Waves arms symmetrically. Hands loosely open. Brings hands to midline and kicks legs vigorously. Pulled to sit: little or no head lag. Held sitting: back is straight except in lumbar region. Head held erect and steady for several seconds. Prone: lifts head and upper chest well up in midline, using forearms to support, buttocks flat.
- 6 months: supine: raises head to look at feet, lifts legs to hold feet. Sits with support, in cot or buggy turns head to look around when hands grasped, braces shoulders and pull self up. Rolls front to back and back to front. Held sitting head is firmly erect and back straight. Prone: lifts head and chest well up supporting on palms and extended elbows.
- 9 months: sits alone, 10-15 minutes on floor. Can lean forward without losing balance. Progresses in floor by rolling or squirming, attempts to crawl. Pulls to stand holding onto support, cannot lower self, drops to bottom. Held standing, steps purposefully on alternate feet.
- 12 months: sits well on floor for indefinite time. Transitions between positions, lying to sitting, sitting to crawling or standing. Walks around furniture. May stand alone, may walk alone.
- 15 months: walks alone with uneven steps, feet wide apart and arms up. Difficulty stopping and changing direction. May climb onto low furniture.
- 18 months: walks well with feet only slightly apart, starts and stops safely. Can carry large objects while walking. Backs into small chair or slides sideways to seat self. Climbs forward onto adult chair then turns and sits. Squats to pick up object from ground.

Characteristics of Normal Posture when Sitting

Introduction:

Children who sit for long periods on badly designed chairs are likely to adopt poor postural positions which affect them physically and educationally. It can also affect their ability to enjoy their leisure time. Provision of suitable seating is essential to maintain a balanced, symmetrical seated posture. In healthy children sitting is a dynamic rather than static activity as they are likely to change position or stand up when they become uncomfortable.

Seating needs to be provided according to clinical and/or postural needs and sometimes to alleviate pressure issues. The seating requirements for one child can differ from another and depending on whether the need is at home or at school as the functional activity that can be facilitated can change.

Dynamics of seating:

The pelvis is the crucial interface between the body and the seat and its position affects the shape of the spine and the alignment of lower limbs

The two ischial tuberosities are the main contact between pelvis and seat surface. Their round shape limits the amount of time and ability to sit in one stable position and children with fatigue/poor postural stability have insufficient energy and movement to stay upright. The ischial tuberosities become more pointed and sharp as you get older increasing discomfort and pressure damage.

Normal sitting posture:

The head should be directly over the pelvis promoting neutral spinal alignment and maintaining body weight in front of the spine; counteracting forces of gravity with the thighs in neutral alignment and facing forward:

- Hips are at 90°-110° flexion
- Body weight is evenly distributed on both buttocks, centred and well back on the seat
- Feet are flat on the floor /well supported at 90 degrees
- Spine is straight and natural curves are maintained
- Shoulders are level
- Arms are supported
- Head is erect

These are general guidelines however different postures can be adopted depending on the activity being undertaken. It must also be remembered that the body was not designed to be sitting permanently but to be able to get up and to

walk about. For children who do not move about naturally or are no longer able to get up and to walk about then a variety of sitting/lying postures should be considered.

Problems with prolonged sitting:

- Spinal disc pressure is increased
- Abdominal muscles slacken
- Pressure areas develop under gravity points
- Fatigue occurs in back muscles due to static effort
- Development of contractures

A relaxed posture is then usually adopted with the trunk slightly bent forward (to hold the weight of the body in balance) and the pelvis slightly tilted to the rear (to bring the sacral bone upright) However this increases the pressure on the spinal discs and causes conflict between the demands of disc and muscle and increases the need for a good back rest.

Increasing the seat angle reduces the disc pressure but can lead to sliding forward or pressure on knees if they are weight bearing. Alternatively leaning back or leaning forward with arms supported also reduces strain.

It is important to remember that working postures whilst sitting are different from relaxing postures and that chair should be fitted accordingly

Additional considerations for disabled young people and children:

As well as difficulties caused by prolonged sitting/ inability to adjust position in a chair a child may have a number of physical problems that may need to be accommodated :

- Decreased motor function due to spasticity, muscle loss, weakness
- Reduced balance and equilibrium reactions
- Reduced body awareness
- Abnormal curvature of the spine e.g. scoliosis, kyphosis
- Contractures, deformities of the arms and/or legs
- Fatigue

Guidelines for assessment of a the child prior to decision about seating provision

Assessment in supine position

- Lie the child on the floor or on a plinth. The purpose of this is to observe & assess asymmetries; the influence of gravity on posture & tone.
- Note the position the child assumes in supine:
- Head: In midline or to the side, can the child move head voluntarily.
- Arms: Does the child bring hands to midline against gravity or are they 'stuck' against the floor.
- Legs: Are they straight, both knees to one side (note which side), legs abducted (frog) or adducted (scissor)
- Pelvis: Feel the pelvis, does it move freely under your hands or is it fixed. What happens to the legs when you do this?
- Bend the knee into flexion – is it easy or difficult (what is the influence of tone).

Unsupported sitting

- Infant: sit the infant on your knee.
- The older child: sit the child on a stool, or on a chair; or coffee table or on a dining room table with the child's feet resting on a chair.
- Support the child from behind (or have a carer support the child so you can observe from the front).
- How much support does the child require (are your hands at the pelvis, or do you need five hands to keep the child in position)
- What influence does tone & extension patterns have on the child
- Feel for the child's pelvis: Rotation, anterior or posterior tilt (can you correct this)
- Trunk: lateral flexion, forward flexion, scoliosis (which side)
- Can the child sit with hands free or does the child need hands on the table to stay upright
- Head position

Measurement

- Back of pelvis to back of knee
- Back of knee to floor
- Seat to axilla
- Top of shoulder to pelvis
- Across pelvis
- Widest part of thighs

Priority considerations for seating

- Proximal Stability is a pre-requisite for distal control i.e. a stable base of support (hips/trunk) is needed for fine motor control (eyes/swallow/hands) Good pelvic/trunk control leads to the need for minimal external support. Poor/trunk control means the need for more external support
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-

General Principles of Seating and Posture Management

Postural management is the use of any technique or equipment to minimise postural abnormality and enhance function in sitting, lying and standing in order to maintain postural symmetry and comfort, taking any progressive element of a condition into consideration. Good seating can be achieved by considering internal posture control and the external seat configuration.

General Points to Consider in Assessment:

- Space for chair and access within home versus overall size of chair.
- Type of feet on chair versus need to move chair.
- Physical/Postural Assessment
- Presence or absence of postural changes,
- Functional ability, ADL requirements whilst in chair, sitting balance- can the child shift and hold weight from side to side/ back to front,
- Continence status.
- Skin sensation and history of skin condition.
- Altered tone- is there a need for complex positioning due to spasticity
- Involuntary movement- is there a likelihood of the child not being able to maintain position to the point of needing limbs secured.
- Head control - can the child maintain correct head position in mid line and hold visual contact
- Weight transference -compromised sit to stand with difficulty transferring weight forward over the knees, repositioning ability.
- Transfer method required and access for hoist (of at least 5")
- Cognitive ability of the child in using chair functions if appropriate.
- Cognitive ability to understand the reason for movements of the chair.
- Coverings- i.e. Comfort and skin condition indicates need for non-waterproof covering, however the possibility of the recyclability of a chair should be considered where possible
- Comfort - warm, aesthetic, humidity and temperature
- Respiratory problems
- Growth potential of the child
- Provision is based on identified need

Contra indications:

- The child can manage with simple equipment
- The child cannot demonstrate safe use of the equipment
- Chairs should not be issued on grounds of financial difficulty or poor repair
- Need for pressure relieving equipment should be considered and whilst it is not always an OT function within community to provide cushions, mattresses etc. if placed on to a chair this can have an overall effect on seating posture.

Assessment:

STEP 1: Pelvis & Hips (seat):

Good sitting posture can be maintained by sitting on a level surface with hips and knees at 90 degrees flexion and the thighs straight. Ideally the seat width should be about 1" wider than the width of the hips when measured sitting.

The most commonly adopted poor sitting posture is with posterior pelvic tilt and pelvic obliquity. Pelvic stability can be supported by using a solid base of support and an appropriate type of cushion.

- Cushions can come in split seats in order to accommodate leg length discrepancy
- Additions to cushions can provide adductor and abductor supports
- In complex cases lateral build ups can be utilised to raise a lowered pelvic obliquity
- Positioning straps can be utilised to keep pelvis firmly to the back and straight.
A 4 point harness can help with preventing pelvic obliquities or pelvic tilt. A lap strap can also be used but needs to be positioned carefully or individuals can slide forward 'underneath' it.

STEP 2: Knees & Feet (floor/footplates)

- Ideally the seat depth should be 1" shorter than the length of the thigh to the inside of the knee.
- Knees and ankles should be at right angles when sitting upright and the feet should be supported by either footplates or the floor.
- Adjustable foot plates are required if the child requires constant foot support and the chair is going to be moved into reclined position as angling the chair backrest/calf plate will alter the length of the lower leg on its support.
- It is also possible to get knee supports or ankle straps to assist with positioning
- It can be useful to have a gap under the chair to allow the feet to tuck under to assist with bringing weight over them in order to stand up.

- It can be useful to have a leg rest in order to raise legs. For the child with very complex postural problems a leg riser function can be considered.

STEP 3: Trunk (backrest)

- Keeping the trunk erect opens the thoracic cavity and aids digestion and breathing. This also causes the abdominal muscles to tighten thereby assisting with internal postural stability and reduces tension on ligaments.
- Most chairs have a lumbar curve support. However it is necessary to check that the curvature of the chair falls into the natural curve of the child. Adjustable lumbar supports are available as integral to some chairs or lumbar cushions can be purchased separately.
- Complex positioning via lateral thoracic supports may be necessary for the child with marked weakness or lateral curvature of the spine.
- Occasionally the child may require a vest harness in order to maintain trunk position on the backrest.

STEP 4: Head & Neck (head support)

- Wings on chair sides stop the head falling too far to the side and can be used as a general support when there is active movement. However they can block peripheral vision leading to increased isolation of the child depending on positioning in room
- Head supports can maintain head more in midline and can be reclined slightly.
- In complex situations it is useful if they can be adjusted in height and depth
- In some situations it may be useful to have a very small, unobtrusive headrest i.e. if the child is still quite active
- Tilt-in-space can accommodate poor head control

It is important that the previous points of assessment are looked at as a whole to ensure that the provision of seating for one aspect of the child's need does not conflict with another.

Standing Frames, Walkers and Corner Seat

Standing Frames

A Standing Frame with padded supports and straps, holds the individual allowing them to statically weight bear in an optimum upright position

Why we use Standing Frames:

- Ensures a prolonged stretch of all the muscles in the trunk, hips and legs
- Can improve bone mineral density
- Can stimulate development of head and trunk control
- Allows a child an upright position from which to interact with the environment and their peers
- Encourages chest expansion, thus improves breathing and helps to keep the chest clear
- Can stimulate bowel and bladder movements

Types of Standing Frames Available:

- Prone
- Supine
- Upright

The type of standing frame used will depend on the child's abilities and complexities.

STANDING FRAME SELECTION

Upright, Prone or Supine?

The type of standing frame provided for a child is dependent on a number of factors and is based on clinical need. These include:

- Height
- Weight
- Girth
- Abilities/clinical presentation - including contractures, muscle tone, head control
- Environment the frame will be used in
- Abilities of carers
- Method of transfer into & out of equipment (eg hoisted, transferred)

Initial provision of a child's standing frame will always be carried out by a member of the paediatric physiotherapy staff, this would include appropriate training to parents/relevant carers. Once provision has been made, issues which other staff/ professionals may be required to address may include:

- Recognition of poor alignment
- Recognition of discomfort and distress
- Recognition of growth and need for larger equipment
- Equipment fit for purpose

Other Factors to consider.....

- Child specific positioning to promote function E.g. Lower positioning of thoracic support to allow rotation and movement of upper trunk in children with reasonable trunk control
- Leg length discrepancies
- Head supports
- Use of orthoses/gaiters

Good Standing Posture

Head

Upright & midline

Trunk

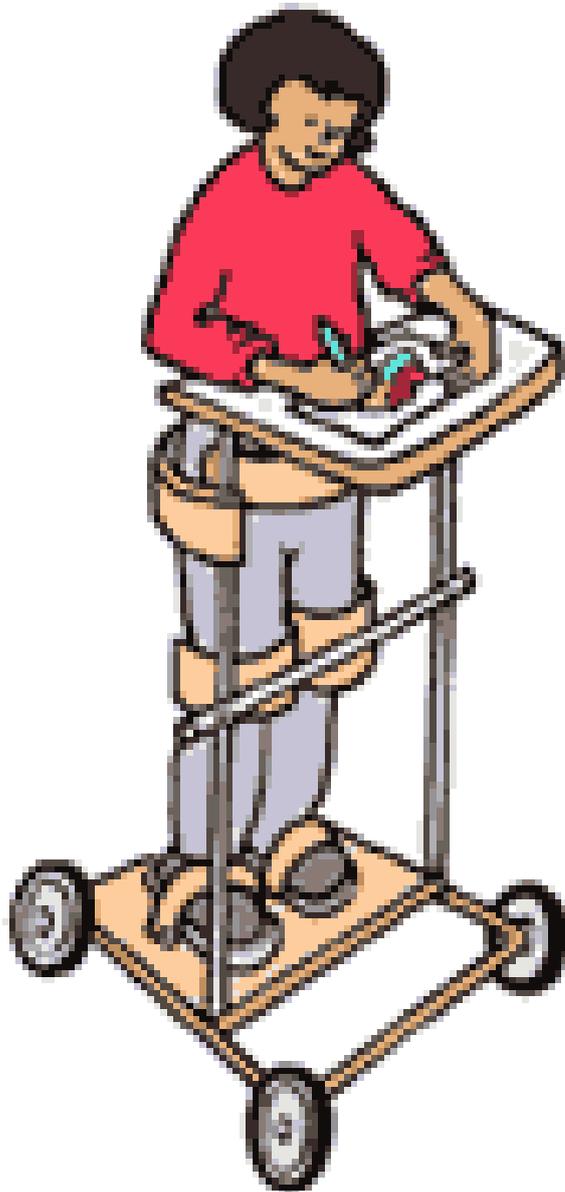
Midline position

Shoulders level and above pelvis

Pelvis

Neutral pelvis

No obliquity



Upper Limbs

Well positioned for function

Lower Limbs

Hips & knees in extension

Knees abducted, in line with pelvis and feet

Feet flat on foot plates & hip width apart

WALKING AIDS

A variety of walking aids are available depending on the level of support required. Many allow supportive attachments to be added or removed, depending on the child's abilities.

Why walking aids are used:

- Encourage independent mobility for those who require additional support.
- Allows child to explore their environment independently and safely
- Encourages active use of muscles and joints, weight bearing and stimulates circulation.
- Allows the child to be at eye level
- Promotes physical fitness and exercise tolerance.
- Improves child's self-esteem and inclusion.

WALKING AID SELECTION

Initial provision of a child's standing frame will always be carried out by a member of the paediatric physiotherapy staff, this would include appropriate training to parents/relevant carers. Once provision has been made, issues which other staff/ professionals may be required to address may include:

- Recognition of poor alignment
- Recognition of discomfort & distress
- Recognition of growth and need for larger equipment
- Recognition of improper use of walking aid
- Equipment no longer fit for purpose

CORNER SEAT SELECTION

The type of corner seat provided for a child is dependent on a number of factors and is based on clinical need. These include:

- Child's size
- Abilities/clinical presentation - including contractures, muscle tone, head control
- Environment the frame will be used in
- Abilities of carers
- Method of transfer into & out of equipment (eg hoisted, transferred)
- Rationale for use of corner seat eg work on sitting posture, allow inclusion in floor activities, promote hamstring length

Initial provision of a child's standing frame will always be carried out by a member of the paediatric physiotherapy staff, this would include appropriate training to parents/relevant carers. Once provision has been made, issues which other staff/ professionals may be required to address may include:

- Recognition of poor alignment
- Recognition of discomfort and distress
- Recognition of growth and need for larger equipment
- Equipment fit for purpose

Appendix 1

Specialist Seating Assessment Proforma

The Child's name	
Assessor	
Date of assessment	
Place of assessment	

Relevant Medical condition[s] [i.e. feeding, epilepsy, deformity, toileting, scoliosis]	
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Physical Function	
Muscle tone [limbs and trunk]	
Head control	
Sitting balance [postural issues, trunk control]	
Mobility [transfers, weight-bearing]	
Mobility [Independent, weight-bearing only, use of equipment, assisted]	

Seating requirements	
Seat height	
Seat width	
Seat length	
Seat angle	
Seat surface	
Seat fabric	
Arm height	

Back height	
Back angle	
Footplate height	
Tissue Viability issues	
Accessories [head support, harnesses, lumbar support, trays,	
Special alterations	

Environmental information [ie. Room capacity; door widths; floor surfaces.]

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Summary of Clinical reasoning for provision of specialised chair

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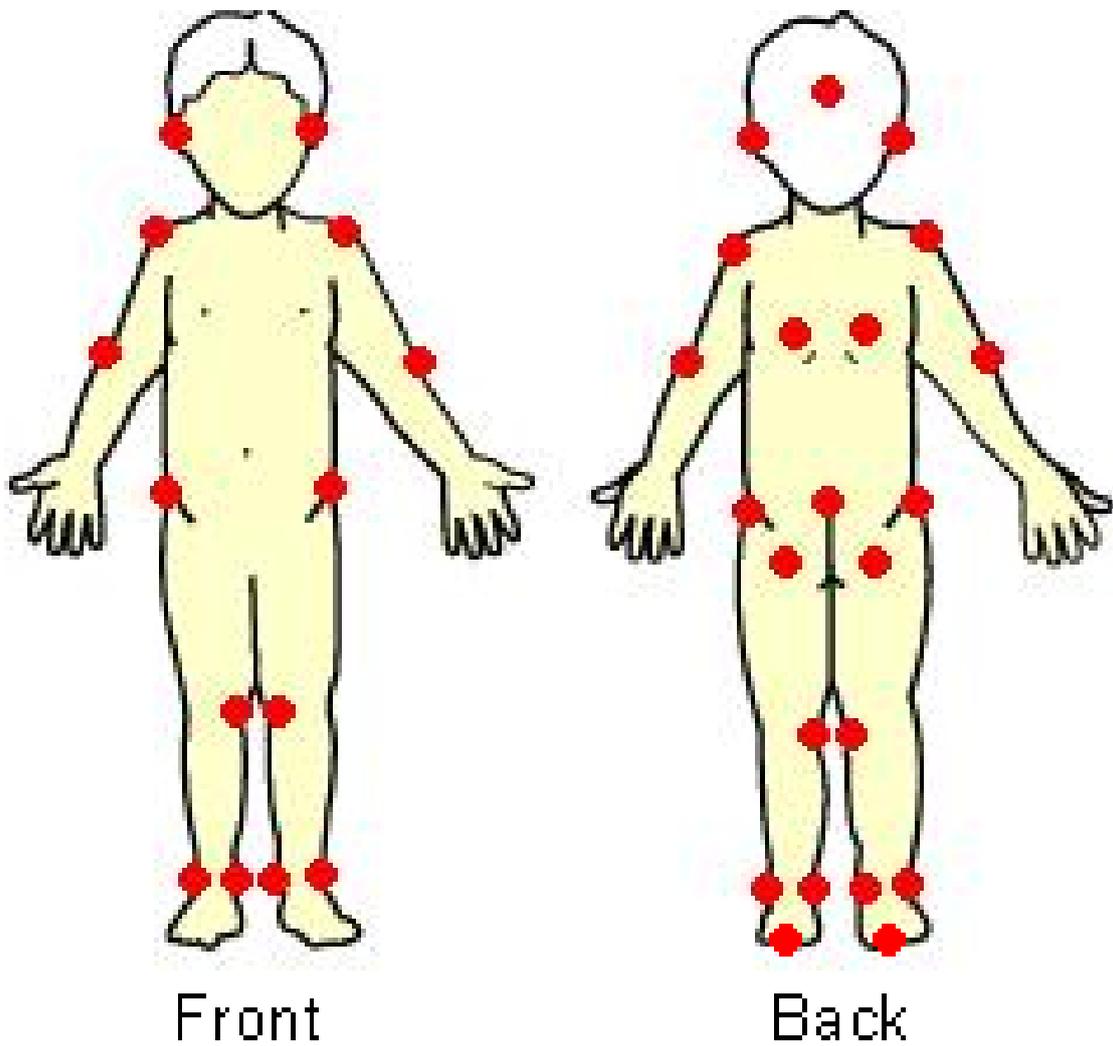
Specialist Chair Prescribed

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Supplier

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Pressure Points that need consideration in seating assessment



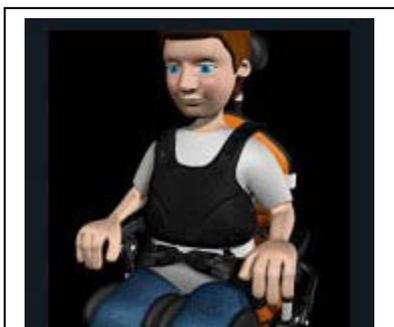
Appendix 3

Scottish Occupational Therapists Cerebral Palsy Network Seating Profile for School



The child's name: Joseph Bloggs		CHI Number: 0101013333	
Date: 01/01/01		Review Date: Aug 10 OR as requested by school/parents.	
Name of Therapist: OT Achamore		Therapist Contact Number: 0123456	
Nominated responsible/contact person within school: Class teacher			
Reasons for Seating: This chair will position Joseph in an upright, symmetrical supported position to provide him with a functional position to carry out classroom work, and to minimise the risk of aspiration/choking during eating and drinking.			
Equipment Details:			
Manufacturer: Leckey	Type: Mygo	Size: N/A	Serial Number: 123/09
Suppliers contact details Leckey Designs Ltd - Kilwee Business Park, Dunmurry, BT17 OHD Northern Ireland - 0800 318 265 Rep Name/contact details Martin Rennie – 07803 186 350		Location of Manufacturer's Instructions School file	
Repair and Breakages contact: If you believe the chair to be faulty in any way, immediately inform EQUIPU on 0141			
Instructions for transferring the child into/out of equipment Please see Glasgow City Council's Moving & Handling Guidelines. If in doubt, contact ...			
Prior to transferring Joseph in/out of equipment, please ensure:			
<ol style="list-style-type: none"> 1. You are familiar with the chair, adjusting straps, fitting/removing accessories as appropriate. 2. Brakes are on. 3. All the straps are loosened. 4. Chair is adjusted to appropriate height (ie most comfortable position for carers for hoisting) 5. Chair is adjusted to appropriate angle of tilt/recline (ie slightly tilted for hoisting). Please remember to lock/unlock the mechanism before & after tilting chair. 6. Remember to re-adjust height & tilt after transfer to ensure Joseph is in the position recommended for function (as in photo on reverse of this page) 			
Also			
<ul style="list-style-type: none"> • When transferring into the equipment always secure Joseph using the pelvic strap first - before any other straps/harness. • When transferring out of the chair, always unfasten the pelvic strap last after you have unfastened all other straps/harness. • After transfers out of the chair, ensure the straps are slackened - ready for the next transfer. • After transfers the chair should be adjusted to an upright/slightly tilted position. Never fully recline for feeding and classroom activities etc unless specified by the Therapist. • PLEASE SEE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR USE ON HOW TO MAKE THE ABOVE ADJUSTMENTS. 			

Positioning Joseph using the features of the equipment



PELVIS:

- Ensure Joseph's bottom is touching the backrest of the chair or the he will be unable to achieve an upright trunk position & his head position for safe eating & drinking may be compromised.
- Ensure that Joseph is positioned with the pelvis touching the backrest before fastening the pelvic strap – allow 1-2 finger spaces between the strap & body to ensure it is secure but not too tight. Failure to do this may lead to Joseph sliding down in the chair & potentially serious harm being caused.
- Ensure Joseph is not weight bearing more through one hip than the other as this can cause him to lean to one side, making sitting and head control difficult.
- Ensure one knee is not further in front than the other. If so, readjust the pelvis.
- Never position the pelvic strap over the pelvic supports – instead the strap should be positioned under or inside the pelvic support pads.

TRUNK:

- Ensure Joseph sits in the middle of the seat.
- Position chest harness and thoracic supports over Joseph's trunk BUT not too close to the neck. These should be adjusted to fit snugly to ensure his shoulders & back touch the backrest and he is not leaning to one side.
- Do a final check to ensure Joseph's breathing is not compromised & that the harness is clear of any feeding tubes etc.

HEAD:

- Ensure Joseph's head is in an upright, midline position (in alignment with trunk) with a slight chin tuck. NEVER allow his head to tip back or the chin to point upwards, as this is likely to increase the risk of choking.

LEGS AND FEET:

- Ensure thighs are resting along the full length of seat base.
- Ensure hips, knees and ankles are at 90°.
- Pay particular attention when moving legs if there is any risk of hip dislocation etc.
- Foot straps should be fastened.

SHOULDERS/ARMS:

- Ensure shoulders/arms are positioned forward on the tray
- Ensure elbows rest on the tray/table and do not slip inside the cut out on the tray

Accessories			
Pelvic strap	<input checked="" type="checkbox"/>	Pommel	
Shoulder/trunk harness	<input checked="" type="checkbox"/>	Knee block	
Pelvic supports	<input checked="" type="checkbox"/>	Footplates/sandals	<input checked="" type="checkbox"/>
Trunk supports	<input checked="" type="checkbox"/>	Tray	<input checked="" type="checkbox"/>
Wrap around trunk support + buckle		Height adjustment	<input checked="" type="checkbox"/>
Head support	<input checked="" type="checkbox"/>	Tilt in space	<input checked="" type="checkbox"/>
		Switch mount	

Positioning the child within environment

Every attempt should be made to position Joseph directly in front of what he is looking at or who he is communicating with, to eliminate the need for Joseph to turn his head. Adjust chair to height of others/the activity to ensure he is at eye level.

Frequency and duration of use

- This piece of equipment should always be used for eating & drinking if Joseph is fed orally.
- It is important to change Joseph's position regularly as he is unable to change position independently. Failure to do this over time could result in tightness of the Joseph's joints resulting in loss of mobility, particularly of the hips, knees and spine. Overtime this can result in loss of functional abilities.
- Discomfort (and in time, pressure sores) can also be caused by failure to change position on a regular basis.

Specific Recommendations for function

- To optimise the use of Joseph's hands - use this chair with full support.
- For looking & listening activities not requiring hand use – Joseph could be positioned on the floor/bench/stool with his peers to work on sitting ability.
- Angle the tray to aid vision as appropriate.
- Ensure a consistent approach between home & school re positioning/toileting program.

Safety checklist Refer to Manufacturer's written instructions for use & safety warnings.

- Before you use this equipment - ensure you are familiar with this chair & its working parts, as well as how to position Joseph safely.
- Joseph should not be left unattended when using chair.
- The chair is for indoor use only, do not use outside.
- TILTING: Take extra care to hold the push handle firmly if Joseph is sitting in the chair when it is being adjusted. Practise using the tilt mechanism before adjusting the tilt with Joseph in the chair. Please remember to lock/unlock the mechanism before & after tilting chair.
- Read & follow the Manufacturer's written instructions, particularly relating to daily/monthly equipment checks, cleaning of the chair & battery care.

PLEASE SEE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR USE ON HOW TO USE/ADJUST ANY OF THE ABOVE FEATURES OF THE EQUIPMENT.

Emergency Procedures

Please ensure you are confident that you are able to get Joseph out of this piece of equipment quickly in case of an emergency before you use it, eg if he is choking.

Be aware of the Joseph's fire evacuation procedure.

Contact OT if

- chair has been outgrown
- you are unable to position Joseph as in photograph/demonstration
- Joseph is distressed or uncomfortable due to positioning
- there is a change in Joseph's needs/condition
- Joseph changes from being orally fed to non-orally fed OR non-orally fed to orally fed

You will know if Joseph has outgrown the chair if you observe any of the following:-

- Bottom touching backrest, but the backs of the knees are more than a 2 finger depths from the front of the seat.
- The top of the trunk supports are lower than 2 fingers under the arms.
- Joseph's shoulders are higher than the top of the backrest.
- His head is no longer supported by the headrest.
- Joseph's knees are higher than his hips (eg thighs no longer rest on the seat base)
- The trunk or pelvic supports are too tight.

Points to note

It is Education's responsibility to ensure that:

- a) That all staff requiring to work with this Joseph are made aware of, have access to, and agree to follow the recommendations contained in this document, its summary and the Manufacturer's written instructions.
- b) That the above three documents and the chair are passed onto new staff when the Joseph moves class/school.
- c) Faults are reported promptly to EQUIPU
- d) Chair is cleaned & maintained in accordance with Manufacturer's instructions.
- e) That no adjustments are made to the chair or accessories removed from use without permission of the Therapist.
- f) That the chair is not used by any other the child in the school unless recommended by the Therapist.
- g) Staff training needs are identified and requested appropriately.
- h) That the summary of this document remain attached to this piece of equipment at all times.
- i) The summary of this document is removed from the chair prior to it being returned to the Store.

Education are responsible for any adjustments made without prior OT consultation.

I have read, understood and agree to follow the recommendations outlined above. The school has received the Manufacturers Instruction Manual & the summary of this document to attach to the chair.

Name..... Designation.....

Signed..... Date:.....

Signed Head teacher for Additional Support Needs Date:.....

Signed (Occupational Therapist)..... Date:.....

