

**LECKEY**



# BeMe

**Clinical Workbook**

Support as Individual as You Are

Supporting Children

# LECKEY BeMe

## A new generation of seating system offering tailored support to suit individual needs

### What is BeMe?

**BeMe** is a revolutionary, highly configurable modular seating system which can be tailored to provide superior and individualised posture, function and comfort for every child, regardless of their need or complexity.

At the heart of **BeMe** is the seat core, from which a range of interchangeable parts (including seats, back supports, medial, lateral, proximal and distal supports) can be quickly and easily fitted. Every part is available in different sizes and complexities and can be used on any size of **BeMe**, to provide a new level of configurability and personalised support without compromise.

**BeMe** is suitable for children with GMFCS III-V. It comes in three seat sizes, with three seat types and three backrest options and can be used with high-low, manual and power wheelchair bases.

This interactive workbook will explore how to choose and use the wide choice of **BeMe** accessories to tailor support and optimise posture, function and comfort for each child.



## Enhancing Postural Stability with Choice of Three Seat Bases

The most important feature of any seating or mobility system is unquestionably its ability to provide pelvic stability as this provides the foundation for: trunk alignment, head control and upper limb function.

BeMe has three seat base options to choose from: **contoured**, **basic** and **split**.

Each of these options utilizes a unique, accordion-like foam design which stretches in length to ensure a child's postural change and growth can be accommodated over time. The foam has been extensively pressure mapped and fatigue tested to ensure it provides effective immersion and comfort with no risk of bottoming out.

The water-resistant fabric used in the seat cover is high stretch to grow with the seat and allow for submersion into the foam.



## Contoured Seat

The benefits of contoured seating have long been recognised in wheelchair design for their ability to enhance pelvic stability and distribute pressure. Leckey BeMe's contoured seat has developed these design principles further for children to create a uniquely contoured cushion which is also growable by 125mm [5"].

At the rear of the cushion, the independently adjustable trochanteric supports, combine with a pre-ischial shelf to create a deep ischial well to prevent forward sliding and maintain optimum pelvic alignment in children with mild to moderate needs.

### Check out our video for contoured cushion set-up

At the front of the cushion, the femoral wells and integral pommel encourage hip abduction and slight external rotation – the natural way to sit - thereby creating the optimum seated posture for hip joint development [1].

This personalised contouring works in partnership with the uniquely growable foam cushion to increase pressure distribution and enhance comfort, allowing children to be seated in a position that suits their specific needs, without the addition of other accessories such as pommels and hip guides.

See how the contoured cushion performs for Grace and Charlie at [leckey.com/clinical#case-stories](https://www.leckey.com/clinical#case-stories)

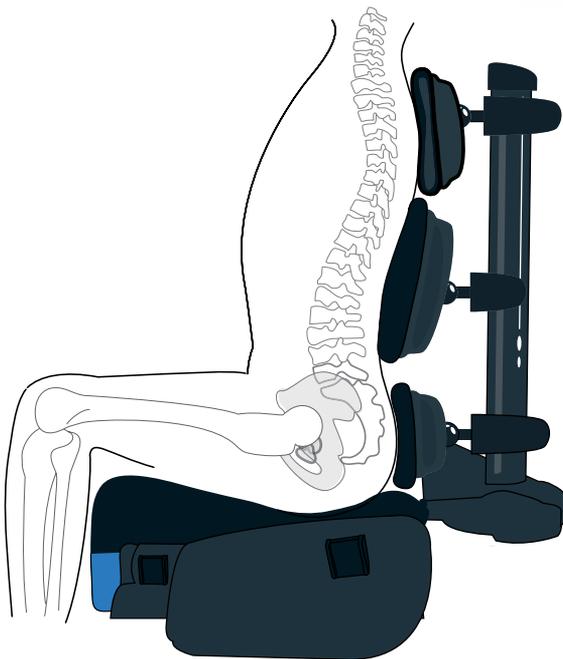


[1] McClean, L; Magnuson, S; Gasior, S [2014]. Positioning for hip health: A clinical resource, Sunny Hill Health Centre for children Vancouver, BC, Canada.



## Basic Seat

The growable basic seat delivers consistent postural support for children with mild to moderate needs. The patent pending stretchable foam cushion overlays a ramped base, and when used in conjunction with an appropriate belt, supports the femurs and pelvis in neutral alignment, preventing posterior pelvic tilt and sliding.

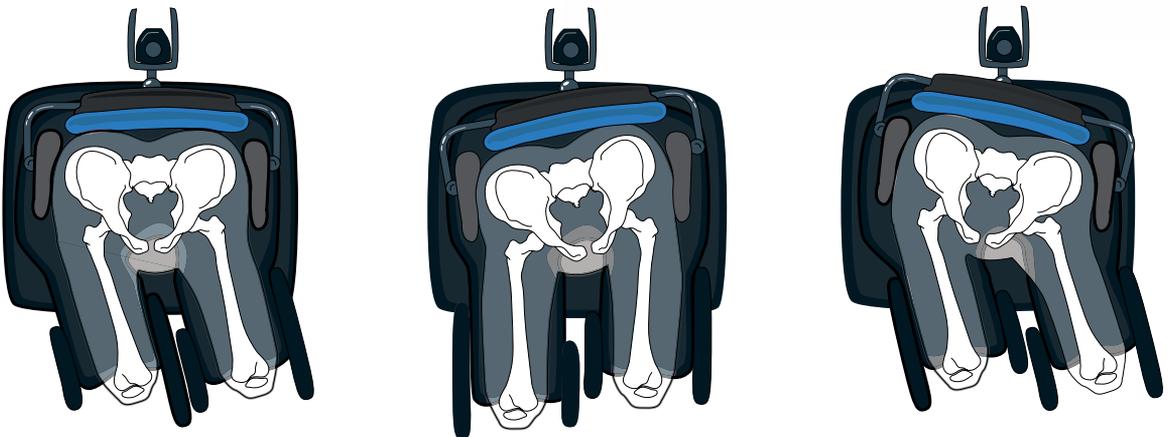


- The basic seat grows along the femoral portion by 125mm
- The femoral ramps prevent forward sliding by ensuring the pelvis remains in neutral alignment with the femurs pointing forward
- The basic seat is compatible with all pelvic positioning belts, the pommel, hip guides and lateral femoral gables



## Split Seat

For children with complex needs the multi-adjustable split seat accommodates a wide range of needs, including leg length difference, pelvic rotation, ab/adduction and windsweeping. The growable cushion, overlays individual femoral supports to ensure the split seat easily adapts to growth or changing needs.

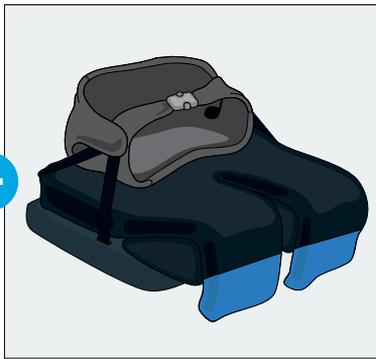
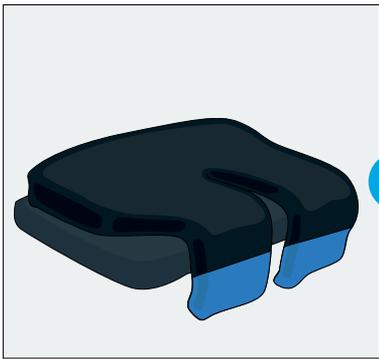


- 25° of abduction or adduction ensure that for windswept postures, the pelvis remains square against the backrest and the head and trunk face forward for maximum function and social inclusion [see picture]
- Depth adjustable femoral supports use stretchable foam to accommodate actual or apparent leg length difference [see picture]
- The split seat is compatible with the hip guides and the medial and lateral femoral gables and all pelvic belts including the pelvic cradle

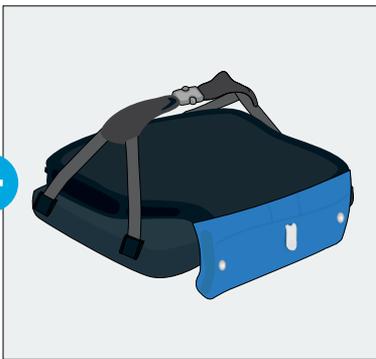


## Perfect Partners

While the seats and belts can be used in any combination, certain arrangements make perfect partners :



**Split seat & pelvic cradle**

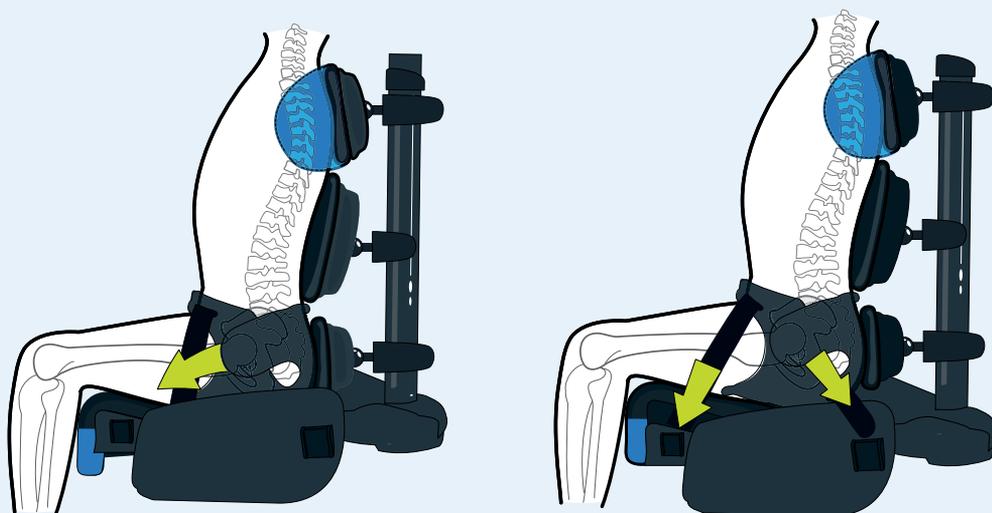


**Basic seat & 4-point belt**

# Enhancing Function with Superior Pelvic Positioning Options

## Pelvic Cradle

Inspired by a windsurfing harness, the innovative pelvic cradle provides unsurpassed pelvic control. With an integrated 4-point positioning system and the additional wrap-around back support, the pelvic cradle can correct pelvic mal-alignment such as pelvic obliquity or posterior pelvic tilt, allowing more complex body shapes to be supported. The 360-degree hug-like support gives proprioceptive feedback making children feel calm and secure. Available in five sizes to ensure the best possible fit.

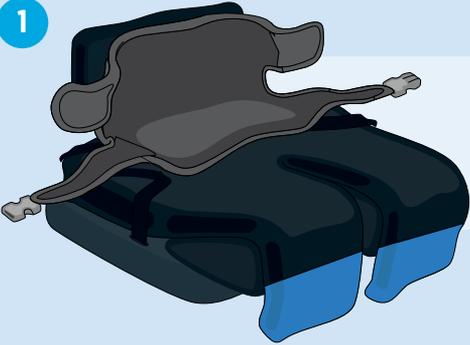


- The adjustable velcro side tabs wrap around the PSIS and iliac rim enabling an individualised set-up: from accommodation of posterior pelvic tilt to an upright neutral or anterior posture [see picture]
- The 4-point attachment ensures the user cannot submarine under the front strap [see picture]

Watch the case story video of Imteyaz benefiting from the pelvic cradle at : <https://bit.ly/3uUXOOA>

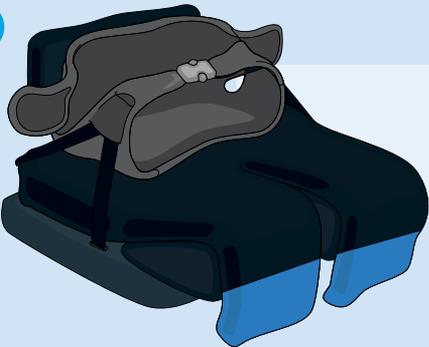


1



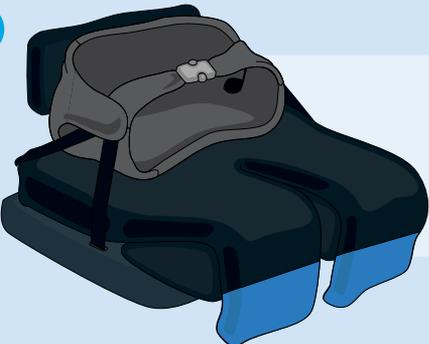
The pelvic cradle opens flat to give clear access for set-up and transfers

2



The front buckle secures children safely in position

3



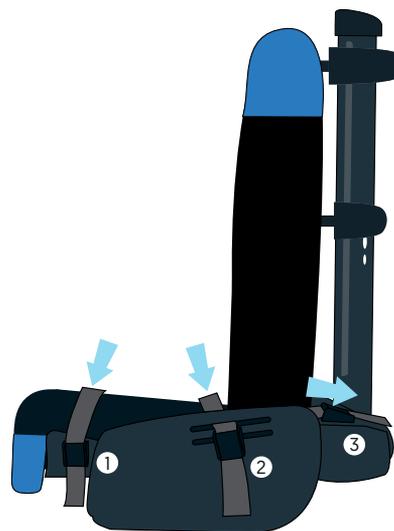
The adjustable velcro side-fastening tabs firmly support a range of positions from a non-correctable posterior tilt to encourage a functional anterior pelvic posture.



## Attention to Detail. Attention to Function.

Three camlocks (one rear and two lateral) provide choice in securing the pelvic belts while the clever slider bar for the central camlock enables the direction of pull to be fine-tuned to individual need.

For more detail on our pelvic position belt, how to choose and how to use, please read our belt poster: <https://bit.ly/3aj6B33>



### 4-point Belt

The four attachment points on a 4-point belt ensures the padded supports stay in the correct anatomical location. Adjusting the strap length and/or direction of pull can bring a pelvic rotation or anterior tilt into midline for optimum trunk and head function.



## Enhancing Function with a Choice of Three Back Supports

A seating system is often the most frequently used piece of daytime equipment in a child's 24-hour postural management programme, and as such care must be taken to maximise functional ability while still providing comfort and support.

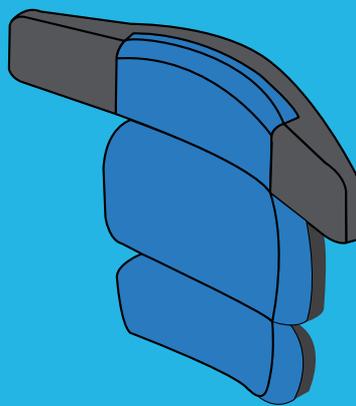
BeMe has three back support configurations: basic, moderate and complex. Its focus on interchangeability allows each of the back supports to be used with any seat base option. Compatibility with any of the lateral and anterior support options offers tailored support for every child and ensures a set-up without compromise.



**Basic**



**Moderate**

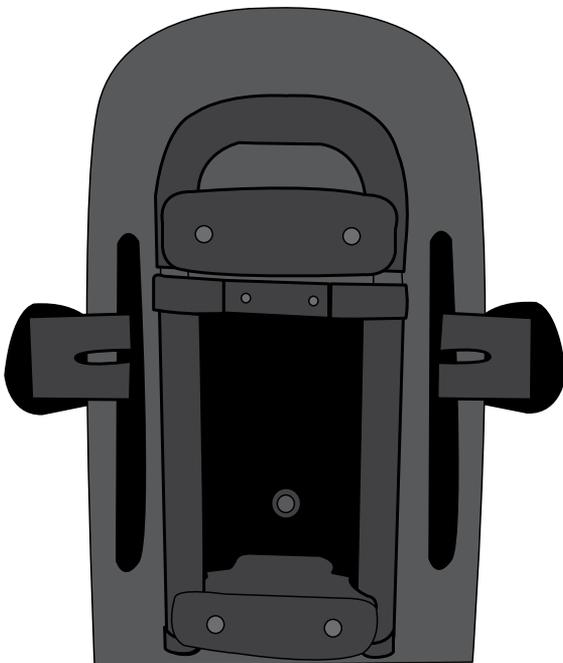
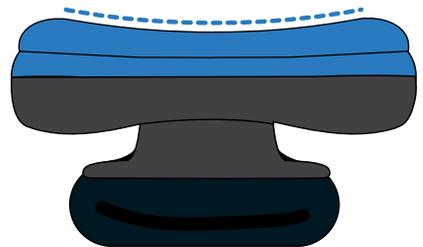
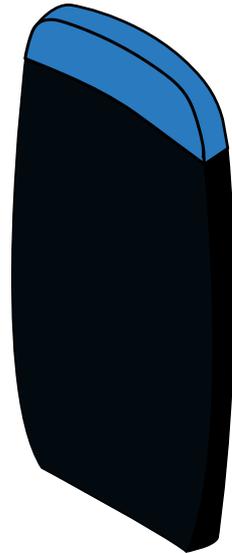


**Complex**

## Basic Back Support

This backrest is particularly beneficial for younger users who can achieve symmetry and are yet to develop mature spinal curves, or those seeking a solution to enhance for upper limb activities, such as feeding or table-top play. The growable cushion provides full posterior support as the child grows and ensures that supports, such as chest harnesses, are at the correct shoulder height.

- The gentle contouring follows the shape of the trunk and provides lateral support for periods of rest
- The simple design gives increased flexibility for lateral support placement (see picture below)

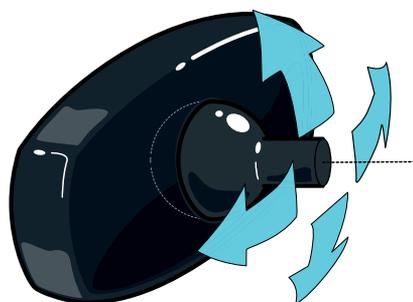
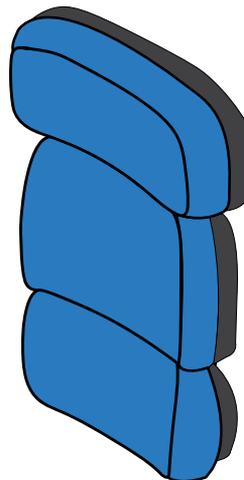


## Moderate Back Support

The three individual segments on the moderate back provide a bespoke solution for children who need increased posterior support. The thoracic and shoulder sections adjust in height while the sacral segment has height, depth and rotational adjustment.

This flexible sacral support accommodates, or corrects, pelvic tilt which in turn will prompt trunk extension and improved head control.

- The ball and socket connection (see picture) on the sacral segment will accommodate, or correct, pelvic alignment depending on individual need
- The sacral and thoracic are connected through a flexible lumbar support which means that manoeuvring the sacral will cause the back to follow the child's spinal shape, either accommodating a kyphosis or supporting an upright trunk



### Case Story

#### Meet Charlie

Watch Charlie's story to see how the moderate back was chosen to meet his needs at <https://bit.ly/2YsGuER>

## Upper Limb Function

Bringing the hands into a midline functional position typically requires an individualised set-up which is why BeMe provides a choice of three options: shoulder wings, tray elbow blockers or lateral protraction pads.

Hinged shoulder wings primarily stabilise the shoulder girdle, either in neutral alignment or slight protraction.

Tray elbow blockers are helpful to prevent arm movement caused by high tone, or low tone during tilt. Lastly, lateral protraction pads often help prompt a mid-line position for tray activities.

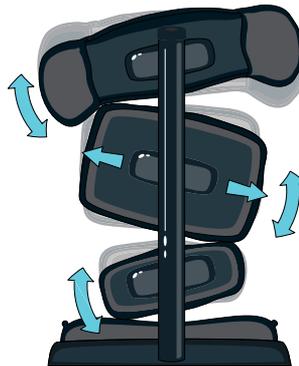
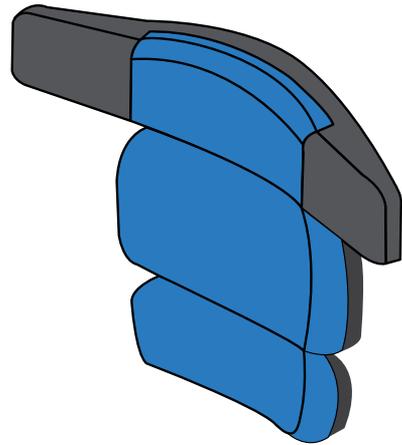
These supports are particularly useful for operating power chair controls or using communication and digital device.



# Complex Back Support

With three independently adjustable padded supports, the complex back support is suitable for children with complex spinal asymmetries who require a high level of postural support. The three segments connect via ball-and-socket joints to an extendable central spine and have height, depth and rotational adjustment. The shoulder section has shoulder protraction wings as standard.

- Individual adjustment of backrest pads ensures kyphotic or lordotic postures can be accommodated from cervical spine right down to sacral level
- Where spinal rotation/ pelvic rotation is non-correctable, the ability of the sacral support to independently rotate (along with femoral support positioning) means that the head and trunk can remain forward for maximum function



## Case Story

### Meet Imteyaz

Read more about how the complex back support was used for Imteyaz to accommodate her kyphoscoliosis at

<https://bit.ly/3vxxNVC>

or watch her Case Story video at

<https://bit.ly/3pnoHK4>

# Bringing Dynamics to Back Support

All the BeMe back supports come with the option of dynamics. Using the unique dynamic back allows the optimum seating position to be maintained while managing tone, providing sensory stimulation or simply catering to a child's preference for movement.

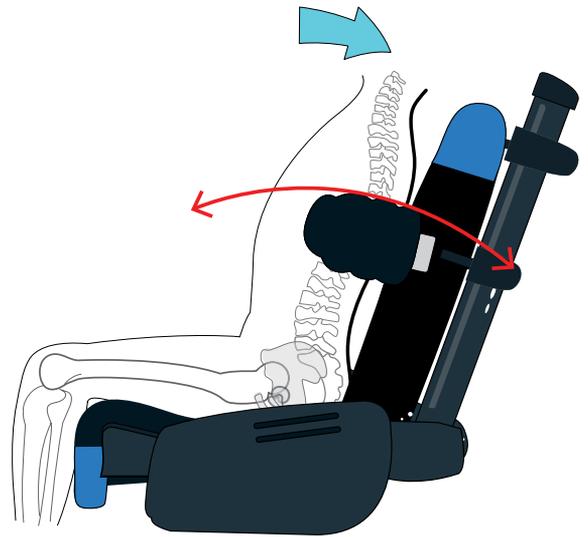
The type and strength of movement on the dynamic back is adjustable in both directions to suit individual need. The axis for the movement is at the base of the back support. This ensures the backrest, laterals and headrest all move as one, that the optimum postural position is maintained and that shear is minimal.

The dynamic back is air-pressure controlled rather than using the commonly seen spring action. The resistance to opening the seat-to-back angle is regulated using the hand pump, and ranges from 50-250psi (344-1724kPa). This controls the resistance the user feels as they extend and return in the chair, enabling BeMe and the child to move smoothly and in a gentle, controlled way.

Similarly, the speed of backrest return can be modulated depending on a range of personal factors. The best way of doing this is to decrease it completely (by rotating clockwise) and test it out by placing the user in the seat. Slowly increase the speed until the user feels comfortable.

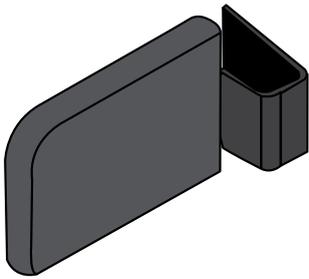
The dynamic function can easily be disabled for feeding, playing, transferring and transportation.

It also enables infinite adjustment of resistance as the child grows or gains strength.



# Lateral Supports

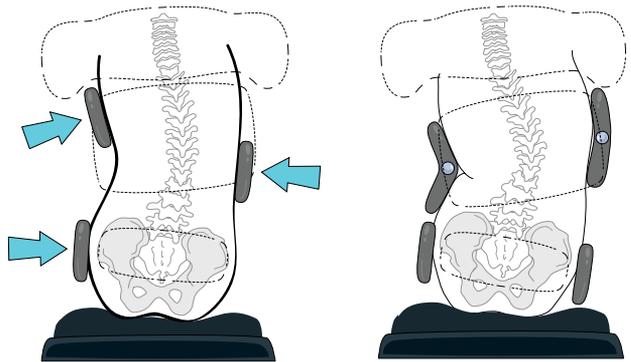
Whether the goal is to reduce a kypho-scoliosis, maintain trunk symmetry or increase upper limb function, the BeMe has lateral supports which will meet every need.



## ***Slim Lateral***

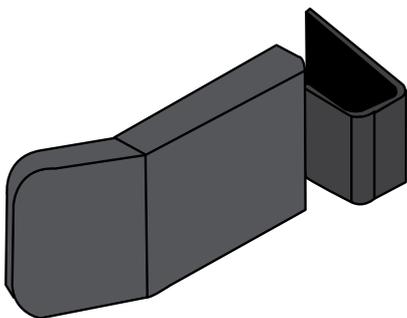
The slim lateral provides a neat fit which does not interfere with arm function. Available in three sizes, it is compatible with all types and sizes of backrest.

Read how 3-point loading was used for Imeteyaz to reduce her scoliosis and increase sitting tolerance.



Slim line laterals provide 3-point loading

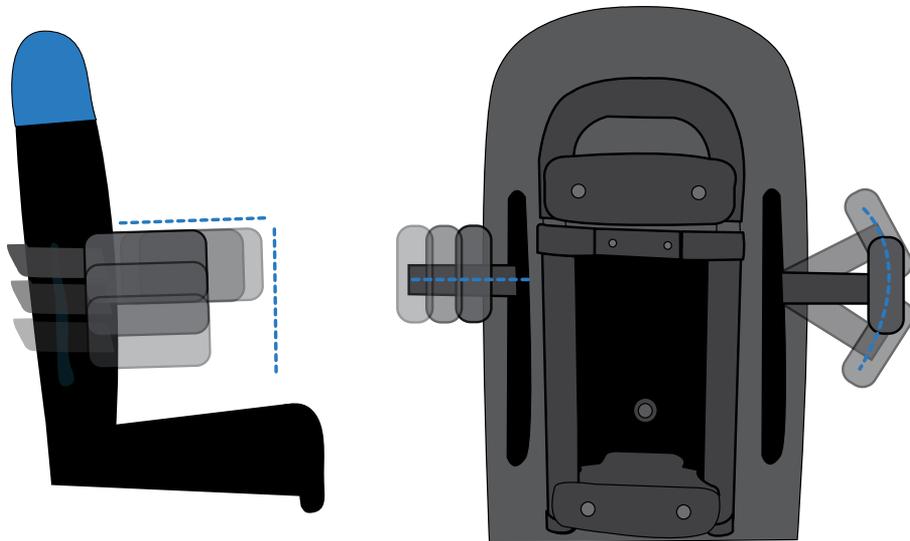
Hinged laterals help open out scoliosis



## ***Hinged Lateral***

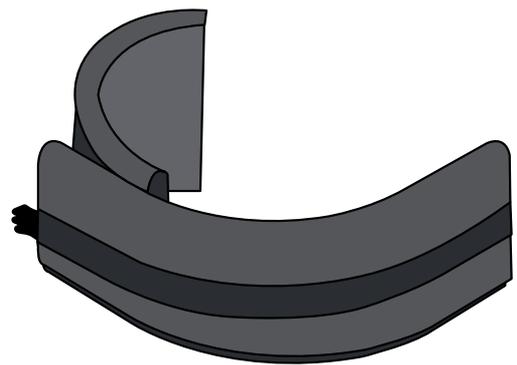
The hinged lateral increases the contact surface area to distribute pressure. It is also used to solve more challenging asymmetrical postures. In a horizontal orientation, the hinged lateral contours around the trunk and thus works well with the flip-away brackets. In a vertical orientation, the hinged lateral provides a greater area to distribute high loads or can even be used to open out a concave scoliosis.

All laterals are height, width, angle and depth adjustable ensuring accurate positioning for all body shapes.



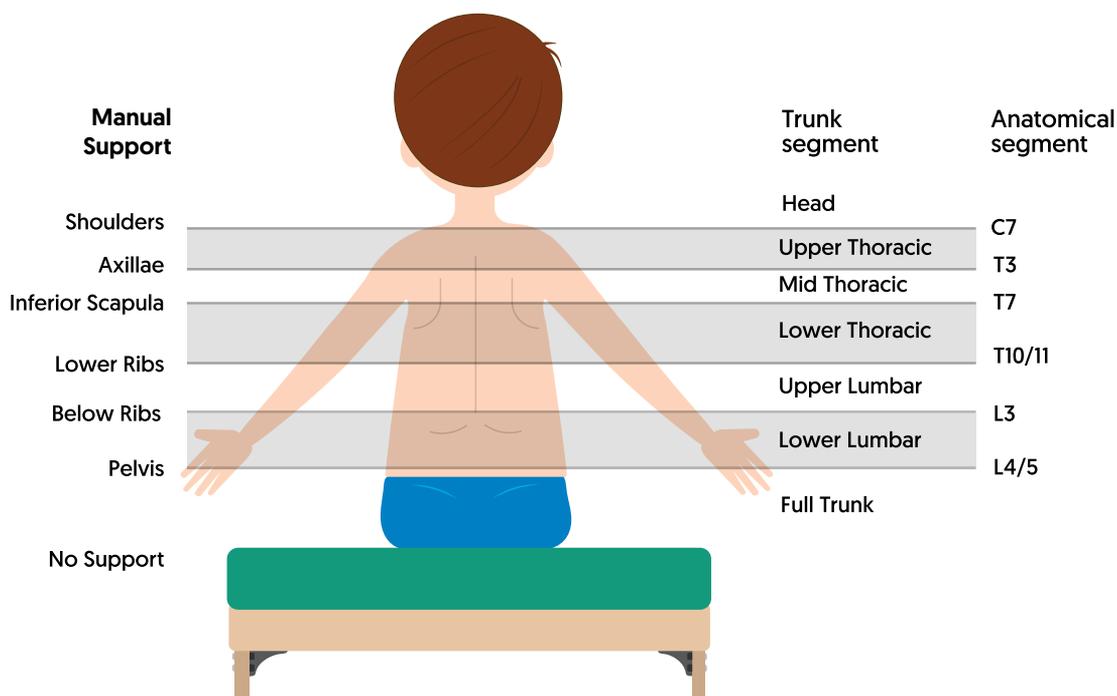
### ***Wraparound Hugging***

The hug-like fit of the flexi lateral gives 360° support to the trunk at a height which best suits the child. Attaching to the small lateral bracket, the wraparound lateral can be tailored to maximise upper limb function, ensuring the child is neither over supported (which can happen if chest harnesses are used inappropriately) or under-supported (if pelvic harnesses are used without full trunk control). The wraparound lateral has been designed with a horizontal profile giving comfortable but firm support to underpin the SATCo principles of developing trunk control.



## Using the SATCo Score to Maximise Function

SATCo is an internationally recognised and validated outcome measure which enables therapists to assess the level of trunk control in a segmented manner. Starting with the head, and working systematically downwards, it identifies the topmost segment at which control of upright posture is poor or not demonstrated.



The SATCo Assessment gives therapists a greater understanding of where to apply postural support to optimise function.

For more information see <https://bit.ly/39G1xWn>

### Case Stories



#### Meet Charlie

Read how the flexi-laterals help to settle Charlie at

<https://bit.ly/3G7NBU8>



#### Meet Imteyaz

Read how the slim laterals were set-up to provide 3-point loading for Imteyaz at

<https://bit.ly/3vxxNVC>

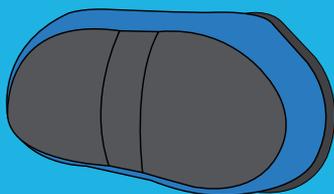
# Head Supports

Stability of the head is crucial for everyday functions such as feeding, swallowing, respiration and communication, and thus the head support is an integral part of any seating solution. Getting hands on with the assessment will provide a better understanding of the amount of force required to optimise head position, balancing the weight of the head over a neutral cervical alignment, while distributing the pressure to ensure comfort.



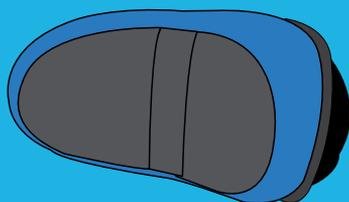
The BeMe head support has been designed to be multi-configurable with a large, padded form, adjustable lateral wings and pocket for custom occipital support, if required. As such it can be configured:

## ***Flat***



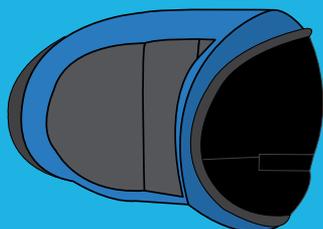
With the wings adjusted back, this shape is useful for children who are developing head control and require a simple posterior end stop or where tone is low and the child is easily fatigued.

## ***Contoured***



Adjusting the wings medially to provide uni or bi-lateral support can help manage high tone or active movement, or simply where increased lateral support is beneficial for function.

## ***Cradled***



Additional padding can be inserted into a pocket at the rear to increase support to the inferior surface of the occiput providing a cradled shape for those who require it. The multi-adjustable bracket enables easy individualised positioning.

For children who require an atypical support the extensive Whitmyer range are compatible with BeMe.

For Whitmyer options visit : <https://www.sunrisedice.com/asset-bank/assetfile/17724.pdf>

**1 Tray**

The black tray provides a high contrast background to improve visual acuity for children with an impairment. The smooth surface is great for attaching suction toys or digital devices to practice fine motor skills.

**2 Harness**

The inherent stretch in the neoprene harnesses enable dynamic trunk movement to increase upper limb function while gently bringing the child back to midline.

**3 Transfer with ease**

Easily removable femoral gables, pommels and armrests, together with flip-away footplates and laterals, and a backrest which enables forward incline, ensure that a set-up which maximises independence and function can be achieved.

**4 Footplates**

For children with tight hamstrings the footplates can be positioned behind the knees to prevent sacral sitting and sliding forward.

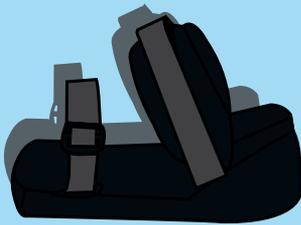




## Lower limbs

Stabilising the lower limbs helps to promote head and upper limb function and is thus an important part of seat set-up. The angle adjustment on the seat base enables the footplate to be positioned directly under the knees, out in front for those with limited knee flexion, or even behind the knees to accommodate short hamstrings.

**BeMe** has the choice of either a one-piece footplate or two individual footplates. Both options are height and angle adjustable to accommodate a fixed dorsi- or plantar flexion. The padded option on the one-piece footplate is helpful for those who like freedom of movement and require less postural support. This option is often used in conjunction with ankle huggers, or for infants along with booties.



**Sandals** which are available on individual footplates can be moved anteriorly, posteriorly, medially and laterally for more precise foot positioning and come with a choice of two straps or an additional ankle wrap.



**Booties** offer a softer, practical solution for delicate infant feet which are unused to positioning. Available in two sizes, the booties wrap around the foot and ankle and are then attached at a self-selected position on the footplate.



Soft neoprene **ankle huggers** are a versatile option when a less secure hold of the foot is required. They are helpful at accommodating AFOs and/or large orthotic boots or provide a comfortable option when footwear is not worn.



**To arrange a product demonstration/assessment or for more information, please contact us:**

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