

CLINICAL JUSTIFICATION OF SIMPLE STUFF WORKS PRODUCTS

Simple Stuff Works have carefully designed a range of products to help therapeutically support people in lying positions. When several products are used together they are often referred to as 'sleep systems' or 'postural management systems' or 'night time therapeutic positioning systems'. However the products can be used in lying positions during the day and when the person is awake.

Consideration of lying postures is essential in 24 hour postural care / protection of body shape. Furthermore, collaboration with the individual and with all those who know him / her best is fundamental to ensure a safe and humane approach.

1) Postural care – what are the current drivers for postural care?

Paper	Main points
Healthcare for all Michael, J. <i>Healthcare for All</i> : report of the Independent Inquiry into Access for Healthcare for People with Learning Disabilities. 2008.	"Overall, it appears that life expectancy is shortest for those with the greatest support needs and the most complex and/or multiple ('co-morbid') conditions. In Hollins'28 study for example, 52% of those who died also had respiratory disease compared to 15-17% in the general population. Early death in the learning disabilities group was significantly associated with cerebral palsy, incontinence, problems with mobility and residence in hospital." "Early interventions are not undertaken to prevent postural deformities from developing. Many families receive no support or advice about how to manage the sleeping position of their child." Recommends reasonable adjustments through QOF, Directed Enhanced Service (DES), Learning Disabilities Observatory and CIPOLD
Raising Our Sights Raising our Sights: Services for adults with profound intellectual and multiple disabilities A Report by Professor Jim Mansell (2010)	Calls for the development of personalised services for people with learning disabilities People should not have to fight for services and support "74. People with profound intellectual and multiple disabilities have substantial, sustained, complicated health care needs. All the problems identified recently in the health care of people with learning

people with non-progressive brain disorders: management of spasticity and co-existing motor disorders and their early musculoskeletal complications. NICE 2012	protection of body shape. "The GDG (Guideline Development Group) consensus was that the movement and positional needs of the child or young person over a 24 hour period should be considered. In assessing the postural management programme account should be taken of sleeping and resting positions" Page 69 "The GDG considered that training and support of family members or carers was key to successful postural management." Page 70
Improving Health and Lives: Learning Disabilities	Acknowledgement of the need to commission specific postural care services
Observatory: Improving the Health and Wellbeing of	postulai cale services
People with Learning Disabilities: An Evidence Based	
Commissioning Guide for Clinical Commissioning Groups	
(CCGs) 2012	
Heslop, P. et al. The Confidential Inquiry into premature	Established the link between a failure to protect body
deaths of people with learning disabilities (CIPOLD) 2013	shape and resultant premature death. The difficulty
Norah Fry Research Centre. IHAL. University of Bristol.	of multiple co-morbidities is also identified.
DoH.	"CCGs must ensure they are commissioning sufficient
http://www.bris.ac.uk/media-	and sufficiently expert, preventative services for
library/sites/cipold/migrated/documents/fullfinalreport.pdf	people with learning disabilities regarding their high
	risk of respiratory illness. This would include expert,
	proactive postural care support, aggressive treatment
	of gastro-esophageal reflux, the ready availability of
	speech and language therapists or other suitably

	qualified nurses able to undertake swallowing assessments , the development of clear clinical pathways for gastrostomy insertion, and the frequent review of patients waiting for a gastrostomy procedure to protect them from risk of aspirating'
Improving the Health and Wellbeing of People with	9.11 Postural care
Learning Disabilities: An Evidence-Based Commissioning	Postural care is a way of preserving and re-
Guide for Clinical Commissioning Groups (CCGs)	establishing body shape for people with movement
The guidance has had significant input from a number of	difficulties. The principles of posture care are about
organisations and groups including the Strategic Health Authority	ensuring that everybody with movement difficulties
Learning Disability Leads group, the Professional Senate, the	has their body shape protected over a 24 hour period,
Faculty of Psychiatry of Intellectual Disability of the Royal College	in all settings, to maintain or regain good body shape
of Psychiatrists, the Valuing People Now Health Steering Group,	and reduce the risk of further deterioration and
the RCGP Intellectual Disability Professional Network and many	secondary complications. This approach challenges
others. It was created in collaboration with the three Pathfinder	the assumption that changes in body shape are
CCGs working with the Improving Health and Lives Learning	inevitable for people who have movement difficulties.
Disability Public Health Observatory. We acknowledge and are	In meeting this need there is a requirement for
grateful for input from the Joint Commissioning Panel for Mental	people to have access to services, equipment and
Health, which brings together the Royal Colleges of GPs, Nursing	training to support the long term management of
and Psychiatrists, the Association of Directors of Adult Social	their body shape.
Services, third sector partners, patients and carers.	Changes in body shape, particularly chest distortion,
Dr Matt Hoghton; RCGP Clinical Champion Learning Disabilities	result in a poor quality of life, including problems with
Sue Turner; Improving Health and Lives Learning Disabilities	breathing and eating, and can lead to premature
Sue Turner; Improving Health and Lives Learning Disability Public	death. Body distortion is also costly in terms of

Dr Ian Hall, Chair, Faculty of Psychiatry of Intellectual Disability, Royal College of Psychiatrists	equipment and increasingly complicated medical intervention. 82 CCGs should consider investing in postural care interventions to improve quality of life and save money.
Biomechanics and prevention of body shape distortion Hill (Clayton), S. and Goldsmith, J., <i>Biomechanics and</i> <i>prevention of body shape distortion</i> . The Tizard Learning Disability Review. 2010. Vol. 15, Issue 2, pgs. 15 – 29	 Peer reviewed publication of the predictable patterns of body shape distortion outlining how the chest and spine respond to gravity over time. This includes a summary of the advantages of symmetrical supine lying and the pattern of rotational distortion caused by unsupported lying postures. <i>"The consequences of a failure to protect body shape are far-reaching and can be life threatening, with reduction of internal capacity of the abdomen and thorax compromising the function of vital organs."</i> Note: people of all ages are subject to the law of biomechanics 24 hour postural care is necessary for ANYONE with a movement difficulty

The Vision of Physiotherapy

- 1) Transforming Lives Enabling people to do amazing things
- 2) Maximising Independence Optimising functional independence and wellbeing
- 3) Empowering Populations Equipping people with self management strategies

2) General points to cover when describing the clinical benefit of a 'sleep system'

- **Duration**: Length of time that the person spends in lying (day and night). This length of time is potential time for therapy / postural care through positioning and is likely to be a longer period of time than the person can spend carrying out active assisted / passive exercise and therefore more effective.
- **Base of support, balance and tone**: The body in lying has a greater base of support than the body in sitting and standing. The body in a supported, symmetrical, supine position has the maximum base of support. As balance and base of support increases muscle tone decreases. Lowering muscle tone is particularly important where high tone contributes to the body being positioned in destructive postures. Re positioning in therapeutic postures becomes more possible. If the person is able to sleep in the supported / therapeutic posture a further reduction in tone may be possible.
- **Base of support and tissue viability:** The body in lying has a greater base of support than the body in sitting and standing. The body in a supported, symmetrical, supine position has the maximum base of support. As base of support increases the 'load' of the body is distributed. Please refer to the pressure mapping studies on www.simplestuffworks.co.uk/downloads
- **Comfort and convenience:** During the 24 hour period a person will inevitably spend time lying. Where the lying posture can be made therapeutic and comfortable the person can have gentle and humane postural care without taking time out of daily routine.
- Improved thermoregulation: Simple Stuff Works products are made of natural, moisture wicking fibres. They are

'thermo- neutral' neither giving heat to the body nor taking heat away from the body. This is essential when the individual is unable to seek or avoid heat and their thermoregulation reflexes may be compromised. Simple Stuff Works products allow the person's body to 'breathe'.

Please note that wedges, supine stabilisers, side lyers and pillows are also available with synthetic wipeable covering. However it must be made clear that these products do not have the thermo- neutral properties of the same products when covered in natural fibres

3) How to use Simple Stuff Works products and their clinical justification

Name of sleep system part	Variations	How to use	Clinical justification
Top to toe stabilising mesh	Cot size –fitted Cot size - flat Single –fitted Single - flat Double – fitted Double - flat	A 'fitted' set will come in 2 pieces with one piece elasticated at the edge and the second piece flat. Place the fitted mesh directly onto the mattress and the flat piece over the top.	Necessary where other pieces of the sleep system such as padded lateral supports and wedges need to held in place. Other loose supports such as pillows may have been tried and found to move or not provide the necessary force to support and align the person's body.
		A 'flat' set will come in 2 pieces with one piece larger than the	The pieces of sleep system which need to be held in place can be put in place silently and taken away silently.

		other. Place the fitted mesh directly onto the mattress and the flat piece over the top.	NB Mesh, topper and sheet used together in the de-rotationtechnique which protects / restores ribcage alignment and henceribcage shape and hence internal capacity.The mesh is impregnated with steri-touch which protects againstMRSA and ecoli
remperate	Cot size Single size	Place on top of the mesh where the length of the person's body (i.e shoulders to sacrum) will be positioned.	Tissue viability – provides a layer over the mesh. Without this in place there is only the sheet between the person's body and the mesh.
			Comfort – provides a soft layer under the person's body where the bulk of their weight is taken. Comfort necessary as postural care must be gentle and humane. If the person is not comfortable – muscle tone may go up. If the person is not comfortable the sleep system is less likely to get used!
			Thermoregulation - made from non-woven fibre and does not retain heat (unlike foam) and so does not heat nor cool the person. Natural fibres also wick away moisture preventing maceration of the skin.
			NB Mesh, topper and sheet used together in the de-rotation technique which protects / restores ribcage alignment and hence ribcage shape and hence internal capacity.
Sheets	Cot size – fitted Single – fitted Double – fitted King size – fitted	Place over the mesh and the topper.	Thermoregulation – 100% cotton / natural fibre. Moisture wicking. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
	(Sheets can also be		Size – slightly larger than standard size cot, single, double, king size.

	flat – for use where fitted a fitted sheet is not suitable or for air flow mattresses (see table 2.)		This allows sheet to be fitted over other items placed between stabilising mesh such as wedges and lateral supports. Four way stretch – the sheet 'moulds' over the sleep system parts that are placed between the mesh. In this way the contours of the parts are not lost ensuring good support and optimising contact with the person's body. Use of a sheet without 2 way stretch can result in the sheet being stretched between the 2 highest points in the bed and the creation of a 'hammock' effect.
Supine Stabiliser	Size 1 (smallest) Size 2 Size 3 Size 4 Size 5 (largest)	Position on top of the sheet. The person's legs rest in the slots provided. The slots can be opened up by undoing each the simple locking 'arms'. The final position of the supine stabiliser should be above the person's knees (i.e. supporting the thigh) with the rounded end of the middle piece towards the groin and the flat end towards the feet. The elastic bands are placed over the locking shapes to provide extra support to the lateral sides of the supine stabiliser. A stabiliser can be placed over a pillow or cylinder or horse shoe	 The supine stabiliser supports the legs to be aligned therapeutically. In children where hip joints are developing use of the supine stabiliser can align the femur so that Coverage by the acetabulum of the femoral head is optimised, normal development of the hip joint encouraged In people of all ages, where the position of the legs is realigned from one of the following habitual / unsupported / destructive positions 'wind sweeping' to right or left both hips internally rotating both hips externally rotating to a position (or more towards a position) where knees and toes are facing the ceiling, the integrity of the hip ligaments can be maintained thus reducing the likelihood of hip subluxation and dislocation. The position of the legs achieved through use of supine stabiliser can improve / maintain the length of the hamstrings

where height needs to be	In people of all ages during immobilisation after surgery the legs can
gained.	be aligned therapeutically to avoid soft tissue shortening (contractures).
A second, smaller supine	
stabiliser can be used to support	In people of all ages where flexor tone and /or shortening of flexors
the calves in a similar way where	is problematic the legs can be supported in a stabiliser which has
the lower legs cross without this	been raised by a pillow or similar. This supports the legs in
support.	symmetry and may allow the muscles to relax / lengthen over time.
	(Where tone is responsible for increased flexion the increased base
	of support can reduce the tone within minutes allowing the person
	to be positioned more therapeutically still).
	In people of all ages where extensor tone is problematic the legs
	can be supported in a stabiliser which has been raised by a pillow.
	Gravity then acts on the legs to encourage knee flexion.
	In people of all ages where botox has been used the supine
	stabiliser can be used to position the legs optimising the effect of
	botox.
	Through one or more of the above effects of the stabiliser on the
	legs and hip joints the person may experience
	reduced pain
	 increased ability to sit / stand / walk
	• improved thermoregulation (when used in place of synthetic
	objects designed for similar purpose)
	 Improved tissue viability (when used in place of more rigid
	objects designed for similar purpose)
	When the legs are supported in midline by the supine stabiliser the

			 rotational force on the chest is reduced / eliminated. This protects the ribcage shape and the alignment of the spine. The person my then experience improved respiratory function improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
Lateral supports with padded covers	Small Medium Large	 Position between the 2 layers of mesh with padded side towards the person's body. In supine positions often used include: either side of pelvis either side of ribcage one or both sides of the head one or both sides of parts placed under legs (e.g. supine stabiliser, horse shoe) where the forces causing the legs to wind sweep or abduct are 	Increasing the person's base of support by extending their support through lateral surfaces can reduce tone and spread load further. When used either side of pelvis - symmetry of pelvis can be maintained / improved. This may have an effect on hip joint alignment, spinal alignment and shape of the rib cage. When used either side of ribcage the alignment of the spine and the shape of the ribcage can be improved. The ribcage can be de-rotated using the sheet, topper and top layer of mesh and then supported with lateral supports with the sternum in the centre on the chest / nearer to the centre of the chest. This protects internal capacity and improves ability of internal organs to function. When used either side of the head, head and neck alignment can be

strong	improved
 strong beside the foot support where further alignment from an externally or internally rotated foot is required. In side lying positions often include in front and behind ribcage behind thigh and in front of shin to encourage flexion in front of thigh and behind calf to encourage 	 improved. Through one or more of the above effects of the lateral supports the person may experience reduced pain improved comfort improved sleep improved thermoregulation improved pressure care and tissue viability increased ability to sit / stand / walk improved respiratory function improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
extensionWhere the forces acting on the person's body cannot be counteracted sufficiently with a soft fibre wedge padded lateral supports may be chose. In some positions and with larger people the height of the lateral support may be the desirable feature – e.g. to support the person's back in side-lying or to maintain alignment at the pelvis in larger	

		people.	
Soft fibre wedges	Small wide Medium wide	Position between the 2 layers of mesh alongside the person's	Increasing the person's base of support by extending their support through lateral surfaces can reduce tone and spread load further.
weuges	Medium narrow Large wide Large narrow	body. In supine positions often used include: • either side of pelvis	When used either side of pelvis symmetry of pelvis can be maintained / improved. This may have an effect on hip joint alignment, spinal alignment and shape of the rib cage.
		 either side of pervis either side of ribcage one or both sides of the head 	When used either side of ribcage the alignment of the spine and the shape of the ribcage can be improved.
		In side lying positions often include	The ribcage can be de-rotated using the sheet, topper and top layer of mesh and then supported with lateral supports with the sternum in the centre on the chest / nearer to the centre of the chest. This protects internal capacity and improves ability of internal organs to function.
		of shin to encourage flexion in front of thigh and behind calf to encourage extension	When used either side of the head, head and neck alignment can be improved. Through one or more of the above effects of the lateral supports the person may experience
		Where the forces acting on the person's body can be counteracted sufficiently with a soft fibre wedge and the person comfortably supported in a more	 reduced pain improved comfort improved sleep improved thermoregulation improved pressure care and tissue viability
		therapeutic position a soft fibre	 increased ability to sit / stand / walk

		wedge is generally chosen above a lateral support or a wipeable foam wedge. I.e. lateral supports and wipeable foam wedges chosen where forces acting on the body are stronger.	 improved respiratory function improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
Wipeable foam wedges	Small wide Medium wide Medium narrow Large wide Large narrow	 Position between the 2 layers of mesh alongside the person's body. In supine positions often used include: either side of pelvis either side of ribcage one or both sides of the head In side lying positions often include in front and behind ribcage behind thigh and in front of shin to encourage flexion in front of thigh and behind calf to encourage extension Where the forces acting on the person's body require shapes 	Increasing the person's base of support by extending their support through lateral surfaces can reduce tone and spread load further. When used either side of pelvis symmetry of pelvis can be maintained / improved. This may have an effect on hip joint alignment, spinal alignment and shape of the rib cage. When used either side of ribcage the alignment of the spine and the shape of the ribcage can be improved. The ribcage can be de-rotated using the sheet, topper and top layer of mesh and then supported with lateral supports with the sternum in the centre on the chest / nearer to the centre of the chest. This protects internal capacity and improves ability of internal organs to function. When used either side of the head, head and neck alignment can be improved. Through one or more of the above effects of the lateral supports the person may experience reduced pain improved comfort improved sleep

		slightly stronger than the soft fibre wedges the wipeable foam wedges may be chosen. Where it is anticipated that the soft fibre wedges are likely to be washed very frequently the wipeable wedges may be chosen. Unlike the soft fibre wedges the wipeable wedges are not thermo neutral and may not be chosen where thermoregulation presents significant challenges	 improved thermoregulation improved pressure care and tissue viability increased ability to sit / stand / walk improved respiratory function improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
Horse shoe shaped temperature regulating pillow	Standard size Small size	 for the person. Mostly used on the bed surface (i.e. not between the layers of mesh) in the following ways Behind the head or head and shoulders in supine Behind the head or head and shoulders in side lying Between legs in side lying Under and around lower legs when used in conjunction with a supine stabiliser 	 When used behind the head, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink When used behind the head and shoulders – can support a kyphotic posture. This may result in: maintenance / correction of thoracic kyphosis maintenance / correction of shoulder protraction reduced pain

			 the shoulder and reduce rotational torque on the ribcage. It may also maintain an improved position of the arm – for example once the body is well supported by other pieces of equipment an arm with high extensor tone may be able to be placed in a more desirable extended posture. Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
Sausage pillow	Large Small	 Mostly used on the bed surface (i.e. not between the layers of mesh) in the following ways under lower legs when used in conjunction with a stabiliser between the legs in side lying to support lower leg in conjunction with the side lyer under a supine stabiliser to raise the height of the supine stabiliser 	 When used in conjunction with a supine stabiliser to support lower limbs the horse shoe will support and spread the load of legs and hence the overall body. This may result in: improved pressure care and tissue viability decreased tone and improved balance When used between legs in side lying – the leg is held level with the pelvis, i.e. the hip joint does not fall into adduction and so the hip ligaments are not stretched. This may result in: maintenance / reduction of hip adduction and so increased ease of providing personal care protection of hip joint reduced pain When used in conjunction with side lyer it can support the lower part of the leg that is also being supported by the side lyer to spread

		Can also be used between the 2 layers of mesh as an alternative	 the load of legs and hence the overall body. This may result in: improved pressure care and tissue viability
		to lateral supports or wedges	decreased tone and improved balance
			When used under a stabiliser it can help the stabiliser work for a person with a high degree of hip and knee flexion (and where the range increases over time can then be taken away). It may also be needed in this way to help the person to achieve more flexion at the knee, for example where there is a high degree of extensor tone, the body is well supported by other parts of the sleep system, the tone reduces and gravity acts to help flex the knees. This may lead to improved ability to sit.
			When used in place of lateral supports the sausage pillow may have the same benefits as those pieces of equipment but would be the article of choice where comfort is required and where the body is not in need of the stronger corrective forces provided by these alternatives
			Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
Temperature regulating pillow	Standard size (the stuffing cannot be taken out or added)	Mostly used on the bed surface in the following ways under the head under head and shoulders 	 When used behind the head, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep

 to support lower leg in conjunction with the side lyer Under and around lower legs when used in conjunction with a supine stabiliser under a supine stabiliser to raise the height of the supine stabiliser 	 improved respiratory function improved swallow / ability to eat and drink When used behind the head and shoulders – can support a kyphotic posture. This may result in: maintenance / correction of thoracic kyphosis maintenance / correction of shoulder protraction reduced pain improved comfort improved sleep improved swallow / ability to eat and drink When used between legs in side lying – the leg is held level with the pelvis, i.e. the hip joint does not fall into adduction and so the hip ligaments are not stretched. This may result in: maintenance / reduction of hip adduction and so increased ease of providing personal care protection of hip joint reduced pain When used under a stabiliser it can help the stabiliser work for a person with a high degree of hip and knee flexion (and where the range increases over time can then be taken away). It may also be needed in this way to help the person to achieve more flexion at the knee, for example where there is a high degree of extensor tone,
	the body is well supported by other parts of the sleep system, the tone reduces and gravity acts to help flex the knees. This may lead to improved ability to sit.

Terry towelling pillow	Small - Standard fill - Extra filled Large - Standard fill - Extra filled	 Mostly used on the bed surface in the following ways under the head under head and shoulders to support lower leg in conjunction with the side lyer Under and around lower legs when used in conjunction with a supine stabiliser under a supine stabiliser to raise the height of the supine stabiliser 	Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person. The clinical justification is the same as for the standard size pillow however the fill of these pillows can be adjusted and so the preferred alignment of body parts achieved.
Soft fibre foot supports	Size 1 (smallest) Size 2 Size 3 (largest)	Place on the foot so that the foot is 'cupped' by the support and where possible the heel 'floats' over the hole provided. The clips when fastened are normally on the outside of the foot.	Relieves pressure off the base of the heel – often necessary when the person is being supported to lie supine and particularly necessary with increasing amounts of hip and knee flexion. Protects the toes from possible shear forces caused by contact with sheets. Supports the ankle in dorsiflexion helping to maintain necessary

		Choose a size that extends beyond the toes so that the person's sheets do not rub or pull on the person's toes. The person's toes should be 'tented'.	 range at the person's ankle for sitting and standing. The pull of the straps and the altered position (possibly with additional support from a small padded lateral) can also help to reduce internal or external rotation or eversion or inversion of the foot. Through one or more of the above effects of the lateral supports the person may experience reduced pain improved comfort improved sleep improved thermoregulation (especially when used in place of synthetic 'boots') improved pressure care and tissue viability increased ability to sit / stand / walk
Side lying leg support	Size 1 Size 2 Size 3	Place on top of the sheet and behind the person's legs when they are lying on their side. Then reposition the upper leg so that it is supported in the 'trough' of the side lying leg support. The top leg will now be behind the bottom leg. Allow the bottom leg to snuggle into the groove on the side of the support. Angle the support to encourage	 Often chosen when the more therapeutic supine position is not safe, comfortable or physically possible and support in side lying is required. The position of the body in the side lying support can result in some or all of the following: the person's body weight is now more spread across the fleshy wider buttock rather than the hip joint the upper hip joint is now no longer directly above the lower hip joint the leg is held level with the pelvis, i.e. the hip joint does not fall into adduction and so the hip ligaments are not

		slightly more flexion or extension as required	 stretched the degree of 'backward rotation' of the pelvis is now matched with the 'backward rotation' of the shoulders reducing the torque or corkscrew effect on the spine the hips and knees can increase range of flexion the hips and knees can increase range of extension Through one or more of the above effects of the side lying support the person may experience reduced pain improved comfort improved pressure care and tissue viability increased ability to sit / stand / walk improved respiratory function improved swallow / ability to eat and drink improved digestion / reduced constipation increased ese of carrying out personal care
Neck support pillow	One size	 Mostly used on the bed surface in the following ways Supporting the neck in supine In children: Under and around lower thighs above knee in place of a supine stabiliser where 	 When used to support the neck, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink

	 the degree of fixed flexion is severe – where necessary, for example where there is significant wind sweeping of the legs it can be held in place by placing a lateral support between the layers of mesh on one or both sides. Below the person's bottom, with the ends coming up alongside either hip Under the upper arm in side lying 	 When used in place of a supine stabiliser will have similar benefit to the stabiliser but does not include the central piece (pommel) and so will not prevent the legs falling into adduction. When used to support the upper arm it may help with alignment of the shoulder and reduce rotational torque on the ribcage. It may also maintain an improved position of the arm – for example once the body is well supported by other pieces of equipment an arm with high extensor tone may be able to be placed in a more desirable extended posture. Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
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Please note that safety questions should be read prior to use and an appropriate safety plan written up and used by all involved in supporting the person with therapeutic positioning in lying.

Please ensure that everyone involved in supporting the individual has an opportunity to learn why the equipment is being used and how to use it safely, gently and effectively.

Name of sleep system part	Variations	How to use	Clinical justification	
Top to toe stabilising mesh	pressure relieving qua	ity of the airflow mattress.	mattresses as this (plus topper and sheet) would compromise the a position that spreads their load and so their tissue viability needs	
	changing the airflow n	nattress for a standard or foam mat	the time they spend in lying it may be appropriate to consider tress. It is advised that any such plans to change the mattress is done ssue viability nurse or district nurse.	
Temperate fibre toppers	We do not advise the use of a temperate topper over airflow mattresses as this (plus mesh and sheet) would compromise the pressure relieving quality of the airflow mattress.			
	may be met this way. I changing the airflow n	f this is the case for the duration of nattress for a standard or foam mat	a position that spreads their load and so their tissue viability needs the time they spend in lying it may be appropriate to consider tress. It is advised that any such plans to change the mattress is done ssue viability nurse or district nurse.	
Sheets	Cot size – fitted or flat Single – fitted or flat Double – fitted or flat King size – fitted or	Place directly over the mattress	Thermoregulation – 100% cotton / natural fibre. Moisture wicking. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.	
	flat Flat sheets are more commonly used over		Size – slightly larger than standard size cot, single, double, king size. This allows sheet to be fitted over other items placed between stabilising mesh such as wedges and lateral supports.	
	airflow mattresses can also be flat – for		Four way stretch – the sheet 'moulds' over the sleep system parts that are placed below it. In this way the contours of the parts are	

	use where fitted a fitted sheet is not suitable or for air flow mattresses (see table 2.)		not lost ensuring good support and optimising contact with the person's body. Use of a sheet without 2 way stretch can result in the sheet being stretched between the 2 highest points in the bed and the creation of a 'hammock' effect.
Supine Stabiliser	Size 1 (smallest) Size 2 Size 3 Size 4 Size 5 (largest)	Position on top of the sheet. The person's legs rest in the slots provided. The slots can be opened up by undoing each the simple locking 'arms'. The final position of the supine stabiliser should be above the person's knees (i.e. supporting the thigh) with the rounded end of the middle piece towards the groin and the flat end towards the feet. The elastic bands are placed over the locking shapes to provide extra support to the lateral sides of the supine stabiliser. A stabiliser can be placed over a pillow or cylinder or horse shoe where height needs to be gained. A second, smaller supine	 The supine stabiliser supports the legs to be aligned therapeutically. In children where hip joints are developing use of the supine stabiliser can align the femur so that Coverage by the acetabulum of the femoral head is optimised, normal development of the hip joint encouraged In people of all ages, where the position of the legs is realigned from one of the following habitual / unsupported / destructive positions 'wind sweeping' to right or left both hips internally rotating both hips externally rotating to a position (or more towards a position) where knees and toes are facing the ceiling, the integrity of the hip ligaments can be maintained thus reducing the likelihood of hip subluxation and dislocation. The position of the legs achieved through use of supine stabiliser can improve / maintain the length of the hamstrings In people of all ages during immobilisation after surgery the legs can be aligned therapeutically to avoid soft tissue shortening (contractures).

stabiliser can be used to support the calves in a similar way where the lower legs cross without this support.	In people of all ages where flexor tone and /or shortening of flexors is problematic the legs can be supported in a stabiliser which has been raised by a pillow or similar. This supports the legs in symmetry and may allow the muscles to relax / lengthen over time. (Where tone is responsible for increased flexion the increased base of support can reduce the tone within minutes allowing the person to be positioned more therapeutically still). In people of all ages where extensor tone is problematic the legs can be supported in a stabiliser which has been raised by a pillow. Gravity then acts on the legs to encourage knee flexion.
	stabiliser can be used to position the legs optimising the effect of botox.
	 Through one or more of the above effects of the stabiliser on the legs and hip joints the person may experience reduced pain increased ability to sit / stand / walk improved thermoregulation (when used in place of synthetic objects designed for similar purpose) Improved tissue viability (when used in place of more rigid objects designed for similar purpose)
	 When the legs are supported in midline by the supine stabiliser the rotational force on the chest is reduced / eliminated. This protects the ribcage shape and the alignment of the spine. The person my then experience improved respiratory function

			 improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
Lateral supports with padded covers with built in mesh	Small Medium Large	 Position between the sheet and the mattress with padded side towards the person's body and the mesh in contact with the mattress. In supine positions often used include: either side of pelvis either side of ribcage one or both sides of the head one or both sides of parts placed under legs (e.g. supine stabiliser, horse shoe) where the forces causing the legs to wind sweep or abduct are strong beside the foot support where further alignment from an externally or internally rotated foot is required. 	Increasing the person's base of support by extending their support through lateral surfaces can reduce tone and spread load further. When used either side of pelvis - symmetry of pelvis can be maintained / improved. This may have an effect on hip joint alignment, spinal alignment and shape of the rib cage. When used either side of ribcage the alignment of the spine and the shape of the ribcage can be improved. The ribcage can be de-rotated using the sheet, topper and top layer of mesh and then supported with lateral supports with the sternum in the centre on the chest / nearer to the centre of the chest. This protects internal capacity and improves ability of internal organs to function. When used either side of the head, head and neck alignment can be improved. Through one or more of the above effects of the lateral supports the person may experience reduced pain improved comfort improved sleep improved thermoregulation

		 In side lying positions often include in front and behind ribcage behind thigh and in front of shin to encourage flexion in front of thigh and behind calf to encourage extension 	 improved pressure care and tissue viability increased ability to sit / stand / walk improved respiratory function improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
		Where the forces acting on the person's body cannot be counteracted sufficiently with a soft fibre wedge padded lateral supports may be chose. In some positions and with larger people the height of the lateral support may be the desirable feature – e.g. to support the person's back in side-lying or to maintain alignment at the pelvis in larger people.	
Soft fibre wedges with	Small wide Medium wide Medium narrow	Position between the sheet and the mattress with cotton side towards the person's body and	Increasing the person's base of support by extending their support through lateral surfaces can reduce tone and spread load further.
in built mesh	Large wide Large narrow	the mesh in contact with the mattress.	When used either side of pelvis symmetry of pelvis can be maintained / improved. This may have an effect on hip joint alignment, spinal alignment and shape of the rib cage.

In supine positions often used	
include: • either side of pelvis	When used either side of ribcage the alignment of the spine and the shape of the ribcage can be improved.
 either side of ribcage one or both sides of the head In side lying positions often include in front and behind ribcage behind thigh and in front of shin to encourage flexion in front of thigh and behind calf to encourage extension Where the forces acting on the person's body can be counteracted sufficiently with a soft fibre wedge and the person comfortably supported in a more 	The ribcage can be de-rotated using the sheet, topper and top layer of mesh and then supported with lateral supports with the sternum in the centre on the chest / nearer to the centre of the chest. This protects internal capacity and improves ability of internal organs to function. When used either side of the head, head and neck alignment can be improved. Through one or more of the above effects of the lateral supports the person may experience • reduced pain • improved comfort • improved sleep • improved thermoregulation • improved pressure care and tissue viability • increased ability to sit / stand / walk • improved respiratory function
therapeutic position a soft fibre wedge is generally chosen above a lateral support or a wipeable foam wedge. I.e. lateral	 improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
supports and wipeable foam wedges chosen where forces acting on the body are stronger.	

Wipeable foam wedges		use of wipeable foam wedges with a e topper covering them.	irflow mattresses as the person is less likely to enjoy the same level
Horse shoe shaped temperature regulating pillow	Standard size Small size	 Mostly used on the bed surface (i.e. above the sheet) in the following ways Behind the head or head and shoulders in supine Behind the head or head and shoulders in side lying Between legs in side lying Under and around lower legs when used in conjunction with a supine stabiliser Under and around lower thighs above knee in place of a supine stabiliser where the degree of fixed flexion is severe – where necessary, for example where there is significant wind sweeping of the legs it can be held in place by placing a lateral support with in-built mesh on one 	 When used behind the head, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink When used behind the head and shoulders – can support a kyphotic posture. This may result in: maintenance / correction of thoracic kyphosis maintenance / correction of shoulder protraction reduced pain improved comfort improved comfort improved sleep improved comfort improved sleep improved comfort improved sleep improved shell the head and drink

	or both sides. Below the person's bottom, with the ends coming up alongside either hip Under the upper arm in side lying	 When used in conjunction with a supine stabiliser to support lower limbs the horse shoe will support and spread the load of legs and hence the overall body. This may result in: improved pressure care and tissue viability decreased tone and improved balance When used in place of a supine stabiliser will have similar benefit to the stabiliser but does not include the central piece (pommel) and so will not prevent the legs falling into adduction. When used below the person's bottom may prevent the person from slipping down the bed. Particularly useful if the person has a high degree of involuntary movement or if the bed needs to be on an incline. When used to support the upper arm it may help with alignment of the shoulder and reduce rotational torque on the ribcage. It may also maintain an improved position of the arm – for example once the body is well supported by other pieces of equipment an arm with high extensor tone may be able to be placed in a more desirable extended posture. Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
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Sausage pillow	Large Small	 When used in conjunction with a supine stabiliser to support lower limbs the horse shoe will support and spread the load of legs and hence the overall body. This may result in: improved pressure care and tissue viability decreased tone and improved balance
		 When used between legs in side lying – the leg is held level with the pelvis, i.e. the hip joint does not fall into adduction and so the hip ligaments are not stretched. This may result in: maintenance / reduction of hip adduction and so increased ease of providing personal care protection of hip joint reduced pain When used in conjunction with side lyer it can support the lower part of the leg that is also being supported by the side lyer to spread the load of legs and hence the overall body. This may result in: improved pressure care and tissue viability decreased tone and improved balance
		person with a high degree of hip and knee flexion (and where the range increases over time can then be taken away). It may also be needed in this way to help the person to achieve more flexion at the knee, for example where there is a high degree of extensor tone, the body is well supported by other parts of the sleep system, the tone reduces and gravity acts to help flex the knees. This may lead to improved ability to sit.

			 When used in place of lateral supports the sausage pillow may have the same benefits as those pieces of equipment but would be the article of choice where comfort is required and where the body is not in need of the stronger corrective forces provided by these alternatives Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.
Temperature regulating pillow	Standard size (the stuffing cannot be taken out or added)	 Mostly used on the bed surface in the following ways under the head under head and shoulders to support lower leg in conjunction with the side lyer Under and around lower legs when used in conjunction with a supine stabiliser under a supine stabiliser to raise the height of the supine stabiliser 	 When used behind the head, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink When used behind the head and shoulders – can support a kyphotic posture. This may result in: maintenance / correction of thoracic kyphosis maintenance / correction of shoulder protraction reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink

				 When used between legs in side lying – the leg is held level with the pelvis, i.e. the hip joint does not fall into adduction and so the hip ligaments are not stretched. This may result in: maintenance / reduction of hip adduction and so increased ease of providing personal care protection of hip joint reduced pain When used under a stabiliser it can help the stabiliser work for a person with a high degree of hip and knee flexion (and where the range increases over time can then be taken away). It may also be needed in this way to help the person to achieve more flexion at the knee, for example where there is a high degree of extensor tone, the body is well supported by other parts of the sleep system, the tone reduces and gravity acts to help flex the knees. This may lead to improved ability to sit. Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or
Terry towelling pillow	- E Large -	Standard fill Extra filled Standard fill Extra filled	 Mostly used on the bed surface in the following ways under the head under head and shoulders to support lower leg in conjunction with the side 	sweating is a problem for the person. The clinical justification is the same as for the standard size pillow however the fill of these pillows can be adjusted and so the preferred alignment of body parts achieved.

		 lyer Under and around lower legs when used in conjunction with a supine stabiliser under a supine stabiliser to raise the height of the supine stabiliser 	
Soft fibre foot supports	Size 1 (smallest) Size 2 Size 3 (largest)	 Place on the foot so that the foot is 'cupped' by the support and where possible the heel 'floats' over the hole provided. The clips when fastened are normally on the outside of the foot. Choose a size that extends beyond the toes so that the person's sheets do not rub or pull on the person's toes. The person's toes should be 'tented'. 	Relieves pressure off the base of the heel – often necessary when the person is being supported to lie supine and particularly necessary with increasing amounts of hip and knee flexion. Protects the toes from possible shear forces caused by contact with sheets. Supports the ankle in dorsiflexion helping to maintain necessary range at the person's ankle for sitting and standing. The pull of the straps and the altered position (possibly with additional support from a small padded lateral) can also help to reduce internal or external rotation or eversion or inversion of the foot. Through one or more of the above effects of the lateral supports the person may experience • reduced pain • improved comfort • improved sleep • improved thermoregulation (especially when used in place of synthetic 'boots')

			 improved pressure care and tissue viability increased ability to sit / stand / walk
Side lying leg support	Size 2behind the person's legs wherSize 3they are lying on their side. The reposition the upper leg so that it is supported in the 'trough' the side lying leg support. The 	behind the person's legs when they are lying on their side. Then reposition the upper leg so that it is supported in the 'trough' of the side lying leg support. The top leg will now be behind the bottom leg. Allow the bottom leg to snuggle into the groove on the side of the support. Angle the support to encourage slightly more flexion or extension	 Often chosen when the more therapeutic supine position is not safe, comfortable or physically possible and support in side lying is required. The position of the body in the side lying support can result in some or all of the following: the person's body weight is now more spread across the fleshy wider buttock rather than the hip joint the upper hip joint is now no longer directly above the lower hip joint the degree of 'backward rotation' of the pelvis is now matched with the 'backward rotation' of the shoulders reducing the torque or corkscrew effect on the spine the hips and knees can increase range of extension
			 Through one or more of the above effects of the side lying support the person may experience reduced pain improved comfort improved sleep improved pressure care and tissue viability increased ability to sit / stand / walk increased ability to sit / stand / walk improved respiratory function

			 improved cardiac function improved swallow / ability to eat and drink improved digestion / reduced constipation
Neck support pillow	One size	 Mostly used on the bed surface in the following ways Supporting the neck in supine In children: Under and around lower thighs above knee in place of a supine stabiliser where the degree of fixed flexion is severe – where necessary, for example where there is significant wind sweeping of the legs it can be held in place by placing a lateral support between the layers of mesh on one or both sides. Below the person's bottom, with the ends coming up alongside either hip Under the upper arm in side lying 	 When used to support the neck, head and neck alignment can be improved. This may result in: reduced pain improved comfort improved sleep improved respiratory function improved swallow / ability to eat and drink When used in place of a supine stabiliser will have similar benefit to the stabiliser but does not include the central piece (pommel) and so will not prevent the legs falling into adduction. When used to support the upper arm it may help with alignment of the shoulder and reduce rotational torque on the ribcage. It may also maintain an improved position of the arm – for example once the body is well supported by other pieces of equipment an arm with high extensor tone may be able to be placed in a more desirable extended posture. Thermoregulation – covered in 100% cotton / natural fibre. Moisture wicking. Stuffed with natural fibres. Thermo-neutral (neither giving heat to the person's body nor taking heat from the person's body). Necessary where thermoregulation and / or sweating is a problem for the person.

Please note that safety questions should be read prior to use and an appropriate safety plan written up and used by all involved in supporting the person with therapeutic positioning in lying.

Please ensure that everyone involved in supporting the individual has an opportunity to learn why the equipment is being used and how to use it safely, gently and effectively.