

**LECKEY**<sup>°</sup>  
sleepform

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# Sleep gives your body a rest and allows it to prepare for the next day, it's like giving your body a mini-vacation. Sleep also gives your brain a chance to sort things out.

Scientists aren't exactly sure what kind of organizing your brain does while you sleep, but they think that sleep may be the time when the brain sorts and stores information, replaces chemicals and solves problems. The amount of sleep a person needs depends a lot on his or her age. Babies sleep a lot - about 14 to 15 hours a day! Most kids between the ages of 5 and 12 years old need 10 to 11 hours of undisturbed sleep each night. Sleep systems are now recognised as a vital component in any 24hr postural care program for children with special needs.



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Using our child centred approach, the Leckey Sleepform Systems can be used in a cot or a bed and are designed specifically for children within three different age groups:

① 0-1 years - cot

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② 1-5 years - cot

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③ 1-5 years - single bed

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④ 5-18 years - single bed

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#### Research and Development

Our Sleep System designs are based on extensive research into the needs of children during their sleep. Our research is based on over 20 case studies throughout the UK and Ireland, some lasting up to two years. It clearly demonstrated that the two main issues relating to the children using sleep systems, beyond health and safety, are Posture and Tolerance.

Our research also focused on the needs of the family and the children's carers. So we set out to design systems which were comfortable, supportive, flexible, easy to use and could be easily transported. We all know sleep is important to our health and well being. As part of their 24hr postural care program we all want to ensure the children are getting the best chance every day.

**The main contributing factors to asymmetry are abnormal tone and gravity. Sleep systems provide an ideal opportunity to harness the potentially positive effect of gravity by supporting the child in a symmetric posture when their tone reduces during sleep.**





Generally speaking there are three sleep postures:

**Supine** lying on their back

**Side** left, right or both

**Prone** lying on their front

There are combinations and there are advantages and disadvantages with all of these postures. Our research shows that where the child's condition permits, Supine lying is the optimum position for achieving undisturbed sleep. This is because, generally, your child will present with their weight distributed across the largest surface area on the bed or support surface. This can minimise the build up of pressure points and hot spots which are a common cause of sleep disturbance.

Supine is also the sleeping posture which generally provides the most symmetric position.

Our studies have shown where the child can develop a tolerance for Supine lying, they may often be able to sleep through the night undisturbed. There are however occasions where Supine lying may not be acceptable or desirable. There may be a medical reason, in particular if they have a respiratory condition where their breathing could be affected. The child may have developed a fixed sleeping pattern where they will not tolerate sleeping in supine.

Additionally another position may be being used as a means of maintaining or correcting an existing asymmetry. In these situations Side lying is generally accepted as the next preferred posture, accepting that it may mean that your child may need to be turned from one side to the other during the night.

Only in rare occasions, possibly as a result of established sleep patterns, would we see children sleeping in prone.

**All decisions relating to sleep systems are best made between the parents and the child's therapist.**

The systems are designed to be easy to use and easily transported. This means they need to be easily adjusted with the minimum of fuss.

During our trials some parents chose to adjust and form the systems each night. Others set the system up and only changed it when their child's condition had changed or they had grown. The system is designed to be easy to transport where it can be set up exactly the same way each time.

The system is easily cleaned and washable and additional covers are available. A full set of user instructions and an instruction video will accompany each system.

# Your child's preferred sleeping position will depend on many things including their condition, age and existing sleep patterns.







# How does the Leckey Sleepform System work?

What are the postural management issues we need to address in sleep systems?

Hip and trunk positioning  
Leg, knee and ankle positioning  
Head and arm positioning



# Hip and trunk positioning

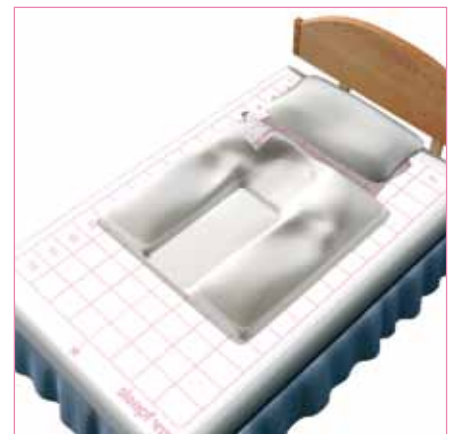
## Sleepform Mattress

Where your child needs positive support to maintain a comfortable and desirable lying posture, either in supine, side or prone, you will use the Sleepform Mattress.

The Sleepform Mattress is mouldable and will conform to any contoured bed in any position.

It can easily be moulded to the shape of your child's body providing contoured support and promoting symmetry. The Sleepform Mattress is a mouldable mattress and by removing the air, in seconds it will retain its shape. In trials some carers preferred to mould the bag each evening, others set it and did not change it.

'Cavities' can also be moulded into the Sleepform Mattress to allow parts of the body to 'fall' back into the cavity when their tone reduces during sleep. This may be done to allow gravity to have a positive affect on an existing asymmetry. The Sleepform Mattress has proven to be the most popular single form of support and works with children of all ages.



### Air-flow Mattress

The Air-flow Mattress is made from a special fibre which provides a free airflow promoting air circulation and keeping your child at a comfortable temperature. It is a cushioned mattress between your child and the Sleepform Mattress.

The Air-flow Mattress must always be used when using the Sleepform Mattress.

### Cushioned Chest and Hip Guides

Additional support can be added using the Cushioned Chest and Hip Guides. These are adjustable and elasticated and can be tensioned to provide the level of support your child needs in these specific areas whilst allowing your child movement.

The Cushioned Chest and Hip Guides can work in conjunction with the Sleepform Mattress or on their own. They work really well and can help your child into a relaxed, comfortable and symmetric posture by providing a degree of elasticated pull on the pelvis.

Where your child only requires a little support or on some occasions to prevent them from adopting a posture from which they find it difficult to recover, the Cushioned Chest and Hip Guides can be used on their own. They are equally suitable for supine, prone or side lying.

The elasticated Guides allow movement and have proven very popular where the children are finding the introduction of a sleep system challenging.

You may choose to use two Chest and Hip Guides to support your child in a comfortable posture at the chest and pelvis.

The cushioned Chest and Hip Guides contain the same special fibre as the Air-flow Mattress. This provides comfortable cushion support and prevents heat from building up.



# Leg, knee and ankle positioning

## Cushioned Leg and Knee Guides

The Cushioned Leg and Knee Guides are designed to offer support to prevent issues related to leg positioning, abduction and adduction such as windsweeping, frogging and scissoring.

Like the Cushioned Chest and Hip Guides these are adjustable and elasticated and can be tensioned to provide the level of support your child needs in these specific areas.

Where your child only requires a little support or on some occasions to prevent them from adopting a posture from which they find it difficult to recover, the Cushioned Leg and Knee Guides can be used on their own.

The elasticated Guides allow movement and have proven very popular where the children are finding the introduction of a sleep system challenging.

The Cushioned Leg and Knee Guides contain the same special fibre as the Air-flow Mattress. This provides comfortable cushion support and prevents heat from building up.

You may choose to use two Leg and Knee Guides at the knees and ankles. This is particularly effective if your child is prone to windsweeping, frogging or scissoring.

## Knee Roll

The Knee Roll is commonly used in conjunction with the Cushioned Leg and Knee Guides and helps the child maintain a symmetric supine posture.

It is also designed to support under the knees where your child presents with contractures or a tightening of the hamstrings.

The Knee Roll can be used on its own, again for support in supine lying and can, on occasions, provide sufficient support to prevent issues related to leg positioning.



### Air-flow Knee Pillow

The Air-flow Knee Pillow is placed between the knees when your child is Side lying.

This is made from the same special fibre as the Air-flow Mattress. This will help your child maintain a comfortable position preventing heat build up and helping maintain a symmetric posture.

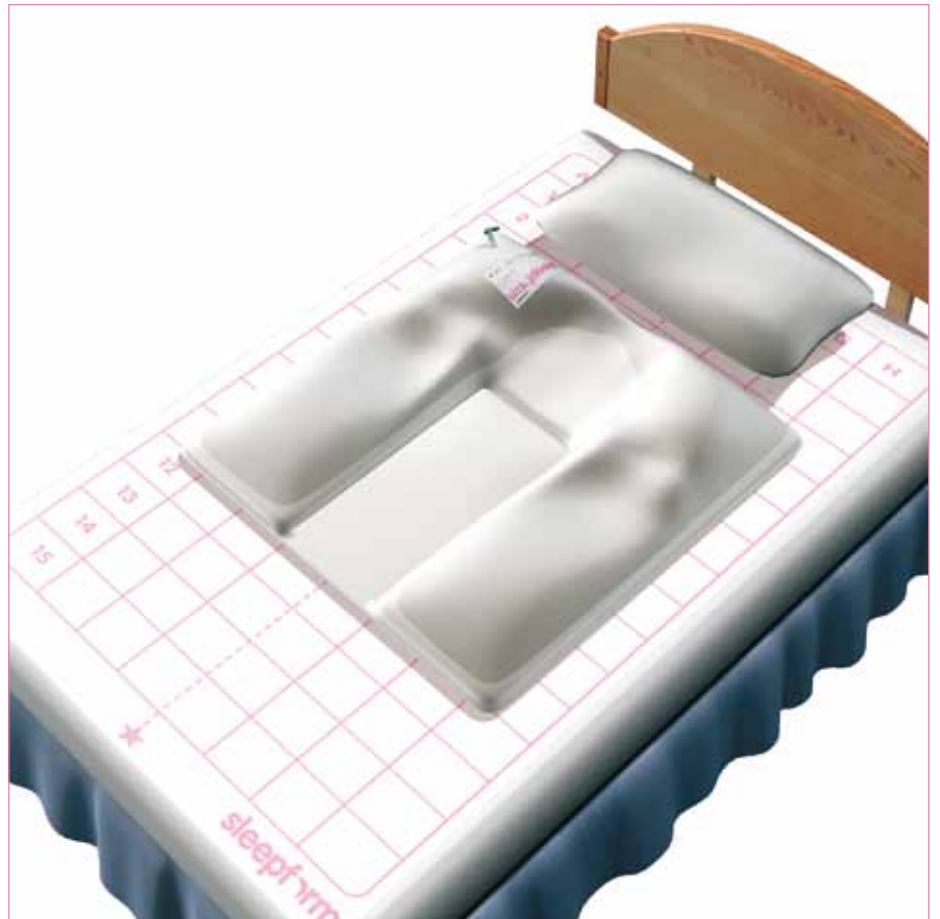
## Head and arm positioning

Where required, head and arm positioning is provided by the Sleepform Mattress. In our experience your child will have a pillow which they are familiar with and happiest to use.

The Sleepform Mattress can be positioned under the pillow area and formed to cradle the head to provide the necessary support.

Arm positioning is achieved by forming a cavity in the Sleepform Mattress and allowing the arms to relax into the channels.

Where your child may present with increased tone this will usually ease when they fall asleep.



# Leckey Sleepform System soft support elements

**The Sleepform Mattress and Air Pump** can form to the individual contours of your child, holding them in a secure and comfortable position in their preferred sleeping posture.

**The Air-flow Mattress** allows air circulation and provides a comfortable cushion between your child and the support surface.

**Cushioned Chest and Hip Guides Cushioned Leg and Knee Guides** (Both products come with Under Mattress Straps). These are cushioned support pads with adjustable elasticated support belts which help your child maintain an optimum position while allowing some movement. This can improve comfort and prevent the build up of pressure and heat.

**The Knee Roll** can be placed under the knees when your child is Supine lying.

**The Air-flow Knee Pillow** can be placed between the knees when your child is Side lying.

**The Sleepform Mattress and Sleepform Air Pump**  
①②③④ 950mm x 950mm



**The Air-flow Mattress**  
①② 560mm x 1180mm  
③④ 1000mm x 2000mm

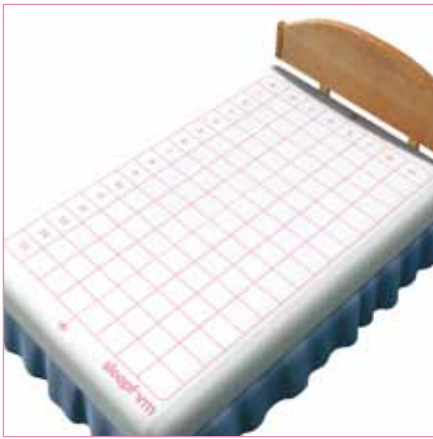


**The Air-flow Knee Pillow**  
①② 230mm x 330mm  
③④ 450mm x 650mm



**The Knee Roll**  
①② 140mm x 500mm  
③④ 195mm x 900mm





**The Fitted Grid Sheet** for single bed and cot is designed to record and maintain the position of the Sleepform System components shown below, that you have chosen to use.

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Single bed

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
8				

Cot

#### Cushioned Chest and Hip Guides

- ① 0-1 years
- ② 1-5 years (cot)
- ③ 1-5 years (single bed)
- ④ 5-18 years



#### Cushioned Leg and Knee Guides

- ① 0-1 years
- ② 1-5 years (cot)
- ③ 1-5 years (single bed)
- ④ 5-18 years



#### Under Mattress Straps

- ①② 630mm length
- ③④ 1020mm length



#### Temperature Control Sheet

- ①② 110-2636
- ③④ 110-3636



#### Waterproof Mattress Protector

- ③④①② NTL27

