

Play
with
purpose

LECKEY[®] 
Squiggles

Playtime

Early Intervention

For babies and infants, playtime is discovery time. Playing helps kids to grow and develop, but for special care babies, their opportunities to play can sometimes be limited.

Designed specifically for infants from birth to 48 months, the **Squiggles Early Activity and Early Sitting Systems** represent our most exciting development of the Squiggles range. With an emphasis on learning through play and preventing problems before they set in, the Early Activity and Early Sitting Systems provide the support and training needed for special care babies.

The Early Activity System comes complete with activity development programmes that can be used by parents and clinicians. Both systems will maximise your child's potential, offering them immediate and long-term benefits, helping them to enjoy the world around them, and allowing you to enjoy giving your child the very best start possible.

James Leckey

early activity system

We never grow more than in the first three years of our lives. It therefore makes sense to ensure that special care babies receive all the help and encouragement they can, right from the word go. Early intervention can help with physical, cognitive and sensory development and can help to maximise a child's future potential.

The Early Activity System* is designed to be used by parents and therapists allowing babies with special needs the opportunity to learn and develop throughout this vital stage of their lives.

Development

Learning to move takes a lot of practice. The Early Activity System has been developed to encourage a range of activities based around five key positions: **Back lying (supine), Tummy lying (prone), Side lying, Floor sitting (long sitting), and Hands and knees (four point kneeling).** The system supports the child in a secure and comfortable position allowing them to engage in a much broader range of activities than they might do otherwise.



Why is Early Intervention Important?

Developing from a baby into a toddler is a fantastically complicated process. Everything a baby sees, hears and touches, helps them to develop, but for special care babies, meeting development milestones can be even more challenging.

We have developed the Early Activity System in conjunction with parents and therapists to help kids maximise their potential at the earliest opportunity. With an emphasis on fun, the System encourages a range of activities within the five key movement positions and the transitions between them.

The Importance of Play

It is easy to forget the importance of play in an infant's development. All too often, babies with special needs are limited in their opportunities to play, so making it easier for them to explore their surroundings through activity is very helpful for their development. Playing not only encourages physical, cognitive and sensory development, but it also boosts your child's self confidence.

Knowledge is Key

It is important for parents to understand the steps in their child's development, encouraging continuous growth and development. Both parents and care workers can participate in the activity programme, working with the infant to capture their interest and entertain them, at the same time as motivating the child to develop.

Parents and therapists can work together to develop a daily play routine, encouraging physical, cognitive and sensory development, always helping the child to develop in the areas which do not necessarily come as easily as others.

**Getting Started**

Your Squiggles early Activity System consists of a series of flexible and versatile positional supports, which can be secured onto a Velcro mat and used to deliver an effective early intervention programme either in the home or pre-school environment.

The system comes with an easy to follow illustrated guide that can be used by the therapist to help develop key physical, sensory, cognitive and transitional

developmental goals such as; trunk control, head control, eye-hand coordination, spatial awareness, balance and strength. There are no limits to the Activity System and the most success is usually gained when you use the various elements of the kit in the way that suits your child best. However, it is important that you work with your therapist to discover the best positions for your child.

At Leckey we encourage parents and therapists to view the system as a simple yet versatile tool. Remember, children learn faster when they are having fun.

How it Works

Offers encouragement and support for carers and parents working together.

Offers the first opportunity for special care babies to experience normal movement patterns.

Encourages developmental progression through play, such as trunk control, head control, eye-hand co-ordination, spatial awareness, balance and strength.

Strengthens and stretches muscles and develops co-ordination.

Tasks can be broken down into manageable steps therefore encouraging progression.

Encourages the development of movement sequences necessary for function.



The Early Activity System

Designed to have an infinite number of combinations, the interchangeable positional supports are listed with some of their most common uses. All the postural supports are contained in a compact Squiggles carrier bag for easy storage.



1 x Cushioned Floor Mat



1 x Trunk Wedge
1 x Sitting Support



1 x Head Support



2 x Positioning Straps



4 x Flexible Rolls



Cushioned Floor Mat

Covered with "fluffy" Velcro so that all the supports can be quickly and easily attached and removed, this comfy floor mat also has Velcro on the underside for additional positioning options.

The floor mat can be washed at 40 degrees and tumble dried at low temperature.

Four Flexible Rolls

The rolls, in two sizes, can be used on or below the floor mat, and on their own or with the other support elements to provide just the right level of postural support.

Positioning Straps

Use these versatile straps in addition to the rolls for extra support when needed at the front, sides or back. Alternatively, use them on their own for a reduced level of support when the rolls are no longer required.

Head Support

Contoured to cradle the head, this support can be used on its own, or with its removable lateral pieces. While particularly useful in back lying or side lying, the lateral supports can also be used with other components for extra positioning possibilities.

Trunk Wedge

Primarily designed for use in tummy lying to provide trunk support, this wedge can also be used below the head in back lying to encourage chin tuck, or below the bottom in floor sitting (along with the sitting support) to give a slight forward or rearward tilt, depending on the position desired.

Sitting Support

This profiled cushion is designed to give your child lower back support, while allowing the hands to be free for activity and function. When used in conjunction with the other elements additional front, rear or side support can be increased.

Fabric

The fabric used on the positional supports is a high grade textile which is almost 100 times more resistant to wear than standard vinyls.

The fabric has permanent anti-fungal and anti-bacterial properties which greatly minimise the risk of cross infection. Bacteria such as MRSA cannot grow on the fabric.

The soft touch fabric is easily cleaned using alcohol wipes so machine washing is not required.

The Early Activity Development Programme

The Development Programme has been specifically designed using the latest research and clinical thinking. It is an essential guide to making the most of the Leckey Early Activity System. It explains in detail the importance of early intervention for special care babies, offering guidance on the use of each element of the product.

Both product and programme have been created to complement each other, offering a comprehensive early intervention solution.

Intended to support therapy, the Development Programme provides a framework for clinicians and parents to understand how to provide special care babies with the support they need.

The first section of the document discusses the research behind the product and the valuable input which therapists have had into the progression of the Early Activity System and the Development Programme.

The second section focuses on the activities required for purposeful play in:
Back lying (supine)
Tummy lying (prone)
Side- lying
Floor sitting (long sitting)
Hand and knees (four-point kneeling)
 and the transitions needed between each position.

Every activity is carefully explained, stating the clinical reasons for each one, along with the physical, cognitive and sensory goals. Guidelines are provided for positioning, although therapists can alter these according to the needs and abilities of the child.

As you use the Activity System more and more, you will learn to improvise with its various components. It is the simplicity of each element that permits the Activity System to be structured around the needs of your child, providing them with the valuable support they need to develop.

To help you keep a record of your child's progression, we have structured the programme to enable the pages to be easily photocopied by your therapist, detailing the duration and frequency of each activity to be practiced at home. In this way, objective setting and goal achieving can be easily recorded both by parents and clinicians.

Example (below opposite) Exercise page from the Activity Development Programme:

- A. The Development Programme is wiral bound for ease of photocopying.
- B. Position - The position the infant should be in to take part in the activity.
- C. Suggested activity number - To identify a particular activity in each position.
- D. Description - A guide on how to carry out each exercise.
- E. Frequency - How often the activity should be carried out on a daily basis.
- F. Duration - How long the activity should last.
- G. Note - Suggested ideas on how to make the activity more fun and in some cases easier for the child.
- H. Illustration - Suggested position to help your child perform the activity.

activity development programme

LECKEY® Squiggles

Play with purpose

A

B C D E F G H

1. Back lying (supine)

Suggested Activity 4

Hold onto baby's feet and help him to kick or "bicycle" his legs. This helps to strengthen tummy, legs and feet, and the reciprocal movement is one which is needed for later weight bearing or movement.

Most activities can incorporate a sensory component with a little thought to the toy or the surface used. Use rattles, squeaky toys, brightly coloured balls, crackly paper etc to encourage baby's vision, hearing and sensation. If your baby will tolerate it, let him carry out his activity sessions in his vest to allow the maximum amount of sensory feedback possible. Your occupational therapist can advise you best about your baby's sensory tolerance.

Duration

Frequency



early sitting system

Specially designed for kids aged 18 to 48 months, the Early Sitting System* is ideal for helping children with special needs to develop and grow. The unit itself has a small footprint, enabling valuable interaction with other kids.

A versatile product, the Early Sitting System can be attached to a dining chair to provide stability for feeding at home or when you're out and about.

Sitting is an incredibly important position for children. Sitting with support encourages the development of head control and provides a stable base from which kids can use their hands. Sitting allows interaction with the surrounding environment and aids communication.

Children are most likely to develop the head, trunk and pelvic stability they need to achieve dynamic sitting balance when they can learn to shift their weight forwards, backwards or sideways, keeping their balance.

This is why Lecky has developed the Early Sitting System. This modular product comprises a seat base, dynamic trunk support, cushioned leg support plus other features which facilitate three key therapeutic seating goals:

Dynamic sitting
Long sitting and flexed sitting
Prone sitting



Dynamic Sitting

Much more than just a seat base, the lightweight structure of the System gives young children the support they need to maintain a stable sitting position. Yet the dynamic trunk support allows enough movement to encourage kids to explore their environment, developing physical, cognitive and sensory skills.

The trunk support can be secured in an upright sitting position, or locked in any prone angle, retaining flexibility. It is also height adjustable, allowing it to be positioned to provide the appropriate level of support for each child.

Adding the abduction pommel to the seat base increases the stability offered, by abducting and externally rotating the femurs. Where additional anterior support is required, an angle and height adjustable padded tray gives the perfect surface for support and function.



Dynamic Sitting



Long sitting and Flexed Sitting



Prone Sitting

Long Sitting and Flexed Sitting

Long sitting, a typical developmental stage, is traditionally a position used in therapy to stretch the hamstring muscles. The Early Sitting System enables this with the attachment of the adjustable leg support. The cushioned leg support is supplied with an abduction pommel and positioning strap, which maintain the legs in symmetrical alignment.

By removing the leg support and placing the flexion roll under the knees, a more flexed sitting position can be provided for the child. The raised seat base helps to prevent the legs from falling into abduction, and the pelvis from falling into posterior tilt, providing a more symmetrical and functional position.

Prone Sitting

Prone sitting refers to the forward tilt of the seat base. When seated in this position, the pelvis is encouraged to also tilt forward. This position can be used to promote development of the spinal curves, stability of the trunk and improved function. The seat base with the leg support attached can be elevated into prone by inserting the prone bar into the underside of the seat base.

Fabric

The fabric used on the positional supports is a high grade textile which is almost 100 times more resistant to wear than standard vinyls.

The fabric has permanent anti-fungal and anti-bacterial properties which greatly minimise the risk of cross infection. Bacteria such as MRSA cannot grow on the fabric.

The soft touch fabric is easily cleaned using alcohol wipes so machine washing is not required.



Early Sitting System		
Age	18 months to 48 months	
Max user weight	17kg	
Stature	Min 800mm	Max 1000mm
Seat shell		
Hip width (seat shell base)	Min 150mm / 5.9 inches	Max 200mm / 7.87 inches
Seat depth (backrest to back of knee)	Min 190mm / 7.48 inches	Max 260mm / 10.23 inches
Backrest height (seat shell)	Standard 100mm / 3.93 inches	
Pelvic harness		
Hip circumference	Min 502mm / 10.7 inches	Max 570mm / 22.44 inches
Leg support		
Leg length (buttock to sole)	Min 552mm / 21.77 inches	
Trunk support		
Chest width (distance within trunk support)	Min 160mm / 6.29 inches (with space pads)	Max 220mm / 11.6 inches
Height	Min 255mm / 10 inches	Max 295mm / 11.6 inches
Trunk support height	Min 190mm / 7.48 inches	Max 255mm / 10 inches
Trunk angle adjustment	75° - 115° (degrees)	
Prone bar		
Pronation (Angle) Use with leg support	15° (degrees)	
Tray		
Area (fully assembled to max tray height)	width 600 x breadth 480 x height 280 mm	width 23.6 x breadth 18.89 x height 11 inches
Area for transport (Tray folded with legs removed)	width 600 x breadth 480 x height 80 mm	width 23.6 x breadth 18.89 x height 0.43 inches
Height adjustment (distance from floor to tray surface)	Min 240mm / 9.4 inches	Max 280mm / 11 inches
Angle adjustment	Range from 180° - 90°	



119-600
Seat shell



119-669
Abduction pommel



119-670
Flexion roll



119-627
Activity tray



119-672
Spacer pads



119-062
Prone bar



119-673
Leg support

Extending leg support



Flexible trunk support



Adjustable chair straps



Case History

At Leckey we are committed to developing the best products we can to meet your child's needs. While we want you to have confidence in our products, we don't expect you just to take our word for it. We want to demonstrate that our products are effective.

That's why we have developed our Case History Programme. Case histories are individual stories about children such as yours, recorded in a structured way by families and clinicians, that allow you to measure the progress your child is making. Case histories are a form of research and have several important benefits:

When shared, other kids, families and therapists can learn from your experiences.

When there is evidence that products work, therapists can obtain funding more easily.

They allow us to identify areas where more detailed research is needed.

Meet Janae

Janae is six months old. She was born 10 weeks premature with serious bleeding in her brain. As a result of her brain haemorrhage and prematurity, Janae has heart and breathing problems, and an MRI scan has shown she is likely to have severe cerebral palsy.

Janae's Assessment

Janae was assessed by her physical therapist. Her muscle tone was increased causing stiffness in her limbs. She was unable to clear her airway in tummy lying, hold her head up against gravity, or turn her head from side to side. In fact, Janae had such a strong preference for keeping her head to the right that problems with the muscles in her neck were suspected. Janae's hands were fisted and she could not bring them to midline, reach or swipe, or bring them to her mouth.

Therapy Aims

Janae's physical therapist's initial aims were to strengthen Janae's neck and trunk muscles, improve her head control, increase her tolerance for tummy lying (so that she could clear her airway), and introduce weight bearing through her hands and arms.

Therapy Goals

The goals were written by Janae's physical therapist, together with her caregivers, and based on the assessment findings and therapy aims.

In tummy lying (prone), Janae will turn her head to the side to clear her airway in every trial. In back lying (supine) and side lying, Janae will bring her hands together in midline (with assistance to achieve this position) and will maintain this position for 3-5 seconds in two out of three trials. In fully supported, slightly reclined sitting, Janae will turn her head through a half circle to track a toy in two out of three trials.

Intervention

Working with her caregivers, Janae's physical therapist devised an individual activity programme using the Early Activity System and its various support elements to reach these goals over a four week period.

1. Tummy lying

Janae's physical therapist used the trunk wedge to support Janae's chest. In this position she was able to weight bear through her upper limbs. The addition of the lateral pad between her knees keeps Janae's legs in a symmetrical position, encouraging the development of her hip joints.

2. Back lying

This position was used to help Janae learn midline vision skills. Positioning of the roll, strap and head support were used on the right side to encourage turning to the left.

3. Side lying

Side lying was used to stretch the muscles in Janae's neck, encourage bilateral gaze and to use gravity to bring the uppermost arm and hand down for finger play in midline.

4&5. Sitting

The first picture shows Janae using the sitting support with additional head support from one of the lateral pads. Toys are attached to the roll to encourage eye gaze.

With regard to her ability to turn her head, Janae's therapist comments, "She increased her left gaze in just two days, coming close to even gaze and head turning in just 3 weeks."

The second picture shows Janae sitting without the rear head support or roll to the front. In this position, Janae's neck and trunk muscles are getting stronger. Her eye control improves. Because her shoulder blades are encouraged forward by the sitting support, Janae's hands came into the midline and she started to reach for toys for the first time.

First review

Within four weeks, because of careful assessment, and joint goal setting and intervention by her caregivers and physical therapist, Janae managed to achieve the therapy goals set for her.

Janae is still using her Early Activity System to work on her next set of goals, and her physical, cognitive and sensory skills continue to improve.

More Information?

If you want to know more, log onto our website at www.leckey.com



Acknowledgements

Leckey would like to thank Janae, her caregivers, and Ginny Paleg (PT, Maryland US), for their kind permission to use their case history.

Case History Information Pack

With a complete Case History Information Pack developed to support you, along with advice and assistance from our occupational therapist, getting started couldn't be simpler. Contact us at playalong@leckey.com to request your Case History Information Pack.

Playalong

Playalong

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