

## Learning new skills with Janae's Early Activity System

Janae was born prematurely with a brain haemorrhage, resulting in a diagnosis of Cerebral Palsy. The development of Janae's head control, strength and hand skills are delayed. Throughout the day she uses various equipment, however spends most of her time in an infant bouncy seat to decrease the reflux associated with her condition. The Early Activity System is designed specifically to enhance babies' and young infants' development. Providing the correct positioning gives Janae the opportunity to participate in therapy, learn new skills and move toward developmental milestones.

### Clinical Assessment

Janae has increased extensor tone and is unable to clear her airway in prone.

- She has total head lag in pull to sit and is unable to hold her head against gravity in fully supported sitting.
- She is unable to rotate her head from side to side, despite full passive range of motion.
- She maintains her hands in a non-functional fist position.
- She is unable to bring her hands into the midline and did not bat or reach toward toys or bring hands to her mouth.

### Approach

The primary aim of Janae's Early Activity System is to develop her strength and head control by facilitating prone positioning and weight bearing through hands and arms. As Janae has such a strong preference for turning right the Early Activity System needs to encourage left head turning and midline visual skills.

The Early Activity System encourages left head turning, in just two days Janae had increased her left gaze and progressed to almost even gaze and head turning within 3 weeks. Janae's hips were abducted to maximise femoral head interaction, encouraging proper formation of the hips. The head pad is used in the early stages for additional support (right), the toys can be attached to the thin roll to encourage tracking and swiping.



Side lying was used to stretch the muscles in Janae's neck (left), encouraging bilateral gaze and to use gravity to bring the top arm and hand into the midline to facilitate finger play. This position was also a comfortable way to avoid plagiocephaly (mis-shapen head common when infants spend all day in supine).



This position encourages Janae to learn midline visual skills and maintain a midline position using the roll to inhibit her pulling to the right. With her scapulae abducted and supported, she could begin to play with her fingers/hands in midline and swipe at toys. She began experiencing the power she had over the environment and opening her hands for the first time, she began to grab at toys.

Here the Early Activity System is used to support her chest and keep her airways clear whilst she weight bears through her upper extremities. This will help strengthen her head control and balance the trunk extensors and flexors. Again her hips are maintained in an abducted position to promote the correct formation of her hip joints.



## Outcome



By supporting Janae upright against gravity the Early Activity System gave her experience and practice of postural control. Her head was supported, so that she could develop vision and control of her eyes in the upright position, this also helped to strengthen her cervical musculature and activate trunk and equilibrium responses. In the supported prone position Janae was encouraged to use flexion. The Early Activity System also assisted with her reflux by using

supported reclined sitting positions whilst at the same time strengthening cervical, shoulder and trunkal musculature.

Janae is making significant progress using the Early Activity System, in just two weeks she gained 2 months' worth of skills on the Mullen Gross Motor Scale.