



CASE STUDY:

Calvin's Story

Calvin was diagnosed with a hole in his diaphragm and required surgery to fix it. He was ventilated and was unable to move by himself for his first 6 weeks of life. Surgery during the neonatal period can lead to delay in development and Calvin showed general weakness following his long time lying still.

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It was important to help Calvin catch up with his development especially as he was showing signs of having a preference to turning his head to one side. Supporting him with the Neo+ allowed him to be positioned to move against gravity to re-establish muscle strength and posture.

Difficulties:

- Poor midline development.
- Central weakness affecting quality of movement.
- Reduced opportunities for developing communication and learning.
- Unable to self soothe due to poor posture.
- No head lifting on his tummy.

Week 1: (at 8 weeks old), the Neo+ was introduced to support Calvin in a slightly flexed midline position to allow him to work against gravity and strengthen his core. Unsupported Calvin struggled to move against gravity with either his arms or legs, his arms were out to the side and his legs were in a frogged leg position. He held his head more to his right.

Supported in the Neo+ he could lift his hands to his mouth and intermittently moved his legs against gravity. He could bring his head to the middle and turn it to either side (Fig 2).

Goals:

- Bring head into midline and hold when lying on his back.
- Take hands to mouth and midline.
- Move legs against gravity and rest in a less frogged legged position.
- Head held in upright position when supported for a sustained period.
- Straight spine in supported sitting.

Week 3: (at 11 weeks old), using Neo+ Calvin was able to;

- Keep his head in the middle when unsupported.
- Take his hands to his trunk and lift his legs intermittently against gravity when unsupported.
- Hold his legs less frogged
- Hold his back straighter in supported sitting with less head bob.
- Sustain activity against gravity for longer and was able to lift his arms up against gravity whilst supported in the Neo+.

Week 5: (at 13 weeks old), Calvin could;

- Take his hands to his trunk and lift his legs against gravity more consistently, legs resting in an age-appropriate posture when unsupported.
- Turn his head freely to both sides.
- Keep his upper limbs forward when lifted and reach above his head easily taking his hands to his mouth.
- Keep his trunk was more upright in sitting.
- Lifting his head when lying on his tummy.

Calvin was discharged home at 15 weeks old with a stronger core ready to take on the challenges of new development.

For further information visit:

www.daytotjourneys.com/daytot-neo

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Fig 1: Unsupported



Fig 2: Supported in Neo+



Calvin at 21 weeks at clinic

