

Case History: Helen

Helen gains comfort and retains independent mobility in the KIT Seating System and Invacare XTR power base

Background

- Helen is a 19 year old girl with quadriplegic cerebral palsy. She used a Spectra Plus powerchair with seat cushion back inserts.
- Spasms cause her to slide forward in the cushion until her ischial tuberosities make contact with the front of the well in the gel cushion.
- Helen has issues with her current lap strap which she finds very uncomfortable. Her therapist has tried a number of different designs without success.
- Helen sits for 12+ hours/day in her powerchair and requires an upright functional posture.



Assessment

- Helen has transverse plane pelvic rotation, forward on the right by 20° relative to her shoulder girdle. Correction causes discomfort.
- Both hip joints are windswept to the right by 20° (right abducted, left adducted), hence with head and shoulders facing forward, both femurs point forward.
- Helen's hamstrings are shortened on both sides. With the knees flexed to 90°, the right hip can be actively flexed to 90° whereas only 110° flexion is possible on left.
- Helen has no scoliosis and requires minimal lateral support from her backrest.



Approach



- The size 2 Pelvic Cradle will wrap around the rotated pelvis and windswept hips, increasing comfort and preventing the pelvis from sliding forward in the seat.



- The sacral pad on the three part backrest will be rotated forward on the right, eliminating the gap on the right hand side of the pelvis.



- The right femoral support will be extended to support the apparent leg length difference and accommodate the open hip angle on the right.



Outcome

- The Pelvic Cradle provided a discreet means to support the pelvis and locate it centrally on the seat base.
- The increased contact area and padding on the cradle improved pressure distribution around the anterior pelvis eliminating discomfort.
- Helen commented that the seat and particularly the Pelvic Cradle were more comfortable than her previous seating.
- The KIT seat was centrally located on the XTR base, optimising manoeuvrability and control.

