

Client: Eddie

Parent(s): Megan

PT/OT/Supplier: Chris Galietta, National Seating and Mobility (NSM)

Location: Braidwood, IL

Eddie is a 16 year old young man with the diagnosis of cerebral palsy and epilepsy. He lives at home with his family in Illinois. He has increased muscle tone throughout his body and often exhibits very forceful and large movements. He frequently displays a rocking movement within his wheelchair, as well. Eddie is non-ambulatory and uses a tilt-in-space manual wheelchair. He is non-verbal. Eddie works with Chris Galietta of National Seating and Mobility.

Eddie began using an adaptive stroller at a young age (Sunrise Medical Kid Kart) and later used a Quickie Zippie IRIS tilt-in-space manual wheelchair. He eventually moved to a PDG Stellar tilt-in-space manual wheelchair, as this was more durable and less likely to tip as a result of Eddie's strong movements. He is currently using a Ride Designs back on this mobility base to accommodate spinal asymmetries and provide increased support. Eddie began using a Seating Dynamics Rocker Back interface (DRBi) in May of 2016.

Client Injury

Before using the Dynamic Back, Eddie frequently injured himself in his manual wheelchair and seating system. He would lean forward and throw himself back, hitting the lateral trunk supports, which led to bruising on his posterior trunk. He would sometimes lean to the side before throwing himself back and actually get stuck on the outside of these lateral supports, causing injury to his lateral trunk from the hardware. Now that Eddie has a Dynamic Back, he no longer leans forward and to the side and throws himself back. Instead, he rocks with the back movement and no longer injures himself.

Eddie would previously extend in his static seating system, leading to friction on his back and a subsequent rash / friction burn due to these shear forces. Since using the Dynamic Back, his skin has returned to normal.

Equipment Breakage

In the past, Eddie has caused repeated damage to the wheelchair seating system and frame. He has broken the lateral trunk supports, the back, and the footplates. This damage was frequent, and Eddie sometimes could not use the wheelchair until it was repaired. This led to time in bed and time away from school. Since receiving the Dynamic Back, Eddie has not broken anything on the wheelchair frame or seating system.



Quick Notes

Challenges:

- ✓ Equipment Breakage
- ✓ High Tone
- ✓ Extension
- ✓ Pain & Tolerance

Areas affected:

- ✓ Back
- ✓ Head
- ✓ Trunk
- ✓ Knees
- ✓ Feet

Equipment Used:

- ✓ [Dynamic Rocker Back](#)
- ✓ [PDG Stellar Impact Wheelchair](#)
- ✓ [Ride Designs Back](#)

Megan
Eddie's Mother
Braidwood, IL

“We are extremely happy with it (the Dynamic Rocker Back). My son has done some serious damage to previous chairs; this has made a huge difference in his life for sure. He enjoys life more now.”

Muscle Tone

Eddie has very high muscle tone and would extend with such force that he was ‘standing’ in the wheelchair seating system at times. Now that he is using the Dynamic Back, this extension force is diffused. Eddie now maintains his posture in the seating system and his caregivers have noticed less force to his movements.

Posture

Eddie’s caregivers have also noted that he no longer loses his position due to extending and moving within a static seating system. Since using a Dynamic Back, he is able to move while

maintaining an appropriate position within the wheelchair seating system. Maintaining position provides an optimal posture for function, as well as distributes pressure.

About the Author

Michelle Lange is an occupational therapist with 30 years of experience and has been in private practice, Access to Independence, for over 10 years. She is a well-respected lecturer, both nationally and internationally and has authored numerous texts, chapters, and articles. She is the co-editor of *Seating and Wheeled Mobility*: a clinical resource guide, editor of *Fundamentals in Assistive Technology*, 4th ed., NRRTS Continuing Education Curriculum Coordinator and Clinical Editor of *Directions* magazine. Michelle is a RESNA Fellow and member of the Clinician Task Force. Michelle is a certified ATP, certified SMS and is a Senior Disability Analyst of the ABDA.
