CASE STUDY
John – Equipment Breakage and a Two-Pronged Approach

Client: ‘John’
PT/OT/Supplier: Suzanne Payne Eason, OT/L
Location: Norfolk, VA

‘John’ is a 22 year old young man who currently resides at St. Mary’s Home in Norfolk, VA. John was shaken as a baby at 6 weeks of age and, as a result, has a brain injury, hydrocephalus, and uncontrolled seizures (Lennox Gestaut syndrome). He lived in foster care until the age of 15 when he started experiencing potine hemorrhages (strokes) in his brain. At that point, he came to St. Mary’s.

Suzanne, an Occupational Therapist with St. Mary’s, has followed John since he first arrived.

A Change in Condition
John was ambulatory using a helmet for head protection (secondary to seizures) before the strokes began. While hospitalized, a tilt in space manual wheelchair and seating system were recommended. Once he arrived at St. Mary’s, John was ‘emerging’ from his strokes with increased tone and movement. A new tilt in space manual wheelchair and seating system were ordered, including a Seating Dynamics Rocker Back interface (DRBi) and Seating Dynamics Dynamic Footrests.

Equipment Breakage
The Dynamic Seating components were ordered on this new manual wheelchair to provide movement and protect the equipment from breakage. John tended to kick with his left leg while rocking at his hips. At 160 lbs., he exerts a great deal of force. John readily moved the new dynamic components and the resistance was sufficient to facilitate a return to a neutral starting posture. However, John’s significant force still led to breakage of the manual wheelchair. The portion of the seat rail which telescopes to increase seat depth is just anterior to the back canes. John broke this area of the frame 5 times! Fortunately, Suzanne has a lot of spare parts in the back room, however, she also needed a new solution.

John recently received a PDG Impact tilt in space manual wheelchair, again with a Seating Dynamics DRBi and Dynamic Footrests. This extremely durable frame also includes a spring under the seat which allows for some rocking movement. This combination of a more durable frame (which also has a lifetime warranty) and Dynamic Seating has prevented further equipment breakage.

Quick Notes
Challenges:
✓ Rocking and banging
✓ Wear and tear on equipment
✓ Tipping risk
✓ Agitation
✓ Decreased alertness

Areas affected:
✓ Back
✓ Legs
✓ Neck

Equipment Used:
✓ Dynamic Rocker Back
✓ Dynamic Footrests
Static Footrests
Dynamic Head Support
Static Head Support
Spreader Mount

Seating Dynamics dynamic components are available on the PDG order forms.
Movement

John seeks out movement. Secondary to his brain injuries, John is ‘sub-aroused’ about 70% of his day. He is then very alert the rest of the day and moving. Movement decreases his agitation and increases his alertness or arousal levels. John truly enjoys moving.

Results

John is getting ready to transition to a group home. His therapist, Suzanne, is happy that he now has equipment that meets his needs and will no longer break or easily get out of adjustment. She is able to see John nearly every day in his current setting, but this will no longer be the case out in the community. Dynamic Seating and a more durable manual wheelchair will allow John to make this transition successfully.

Suzanne Payne Eason, OT/L
St. Mary’s Home
Norfolk, VA

“Because of John’s unique and challenging diagnosis, I believe that had he not had the ability to move, his level of activity or arousal would be significantly diminished.”

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.