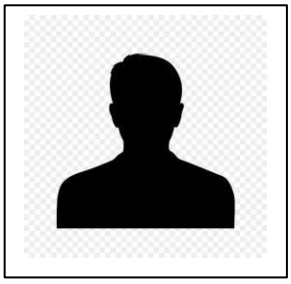
Joe – Maintaining Position and Reducing Extension

Client: Joe

PT/OT/Supplier: Jordan Joslin, ATP/SMS, CRTS, National Seating & Mobility

Location: Erie, PA



'Joe' (not his real name) is a 15 year old young man who has a brain injury and is legally blind due to non-accidental trauma as an infant. He has very high muscle tone and strong patterns of movement. Jordan, a supplier for National Seating & Mobility, has followed Joe for the last 3 years.

Equipment Background

When Jordan first met Joe, he was in a tilt in space manual wheelchair with an off the shelf cushion and back. He had outgrown this configuration and so Jordan recommended a larger tilt in space manual wheelchair with a Jay 2 cushion, Freedom Designs custom back, pelvic positioning belt, anterior trunk support, lateral trunk supports, head support, and ankle huggers.

Static Seating Challenges

Although Joe was well supported in the new seating system, he would quickly extend, display large and forceful patterns of movement, and move out of alignment with the seating system. He was able to get his hips under the pelvic belt, assuming a posterior pelvic tilt, and straighten his entire body like a board. As a result, the lateral trunk supports were now in his armpits and his feet were over the edge of the footplates, despite the ankle huggers which he stretched out with the forces he was exerting. He needed repositioning several times an hour.

After 3 years, Joe had outgrown the recommended manual wheelchair and seating system and his muscle tone had worsened. By this time, Jordan had explored Dynamic Seating interventions and believed this could be helpful for Joe.

Dynamic Seating

Jordan recommended a new tilt in space manual wheelchair and a similar, but larger, seating system to accommodate Joe's growth. This time he added Dynamic Seating – the Seating Dynamics Dynamic Rocker Back, Dynamic Footrests, and Dynamic Head Support hardware. The Dynamic Footrests included telescoping and knee extension movements. Ankle dorsi / plantar flexion was not indicated as Joe has little range of motion in his ankles. The goals of the Dynamic Seating were to absorb extension forces, reduce patterns of movement, and keep Joe in alignment with his seating system.

Quick Notes

Challenges:

✓Extension

✓Patterns of movement

✓Loss of position

✓Agitation

✓ Wear and tear on equipment

Areas affected:

✓Back

✓Legs

✓Head

Equipment Used:

✓Dynamic Rocker Back

✓Dynamic Footrests

✓Dynamic Head Support

Figure 1:

Results

In the new system, Joe extends slightly, the dynamic components absorb these forces, and he then relaxes. He is unable to straighten his body like before. He is remaining in alignment with his seating system and requires only infrequent repositioning. His adoptive parents are very pleased with the results.

Joe expends less energy than he used to in this new system. Joe is also able to use an augmentative communication device.

Jordan Joslin, ATP/SMS, CRTS
National Seating & Mobility
Erie, PA

"As a Seating & Mobility Specialist, I've been very pleased with Seating Dynamics. Well-designed products that are easy to work with and meet the clinical needs of my clients. Quality manufacturing and excellent customer support!"

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.