

**Client:** Amanda

**PT/OT/Supplier:** Tamara Kittelson-Aldred, M.S., OTR/L, ATP/SMS

**Location:** Missoula, MT

Amanda is a 28 year old young woman with the diagnosis of spastic diplegic cerebral palsy who is also legally blind. She lives in a group home and has enough vision to self-propel her ultralight manual wheelchair around the home and yard. Tamara, an Occupational Therapist with over 40 years of experience, has followed Amanda since she was an infant.



### Tipping Risk

Before Amanda received Dynamic Seating, she tended to lean forward and then throw her trunk rearward, colliding with the back of the seating system. She would do so repeatedly. This rocking movement was leading to wear and tear on the wheelchair frame and placing her at risk of the wheelchair tipping over, which could lead to injury. When the wheel locks were engaged, Amanda's rocking led to the wheelchair 'walking' across the room as her forceful movements translated into movement of the frame. If attempts were made to limit her rocking (i.e. anterior trunk support), Amanda would become agitated and less alert. Activity has always been important to her.

### Movement

Amanda seeks out movement. Many clients rock to provide sensory input, specifically vestibular input. This is particularly common in clients with significant visual limitations, as other sensory input is sought out. Movement very often decreases agitation and increases alertness or arousal levels.

When Amanda is not in her manual wheelchair, she spends time in a rocking recliner, which also provides the movement she craves.

Figure 1:



### Dynamic Seating

Amanda first received a Seating Dynamics Dynamic Rocker Back interface (DRBi) at approximately 22 years of age. This component was placed on her TiLite Z ultralight manual wheelchair. Amanda uses a Ride Designs seat and back in this mobility base. As the wheelchair front rigging is rigid, she does not use Dynamic Footrests. Most of her movement does originate at her hips and so Dynamic Footrests are not critical to provide the rocking movement she seeks.

### Quick Notes

#### Challenges:

- ✓ Rocking and banging
- ✓ Wear and tear on equipment
- ✓ Tipping risk
- ✓ Agitation
- ✓ Decreased alertness

#### Areas affected:

- ✓ Back

#### Equipment Used:

- ✓ [Dynamic Rocker Back](#)
- ✓ [TiLite Z](#)
- ✓ [Ride Designs Seat and Back](#)

Figure 2:



Amanda rocks all the time, but instead of the entire wheelchair moving, the back moves with her, providing controlled, safe, and gentle movement. The wheelchair base no longer moves across the floor in response to her movement and is no longer at risk of tipping over. The current manual wheelchair base lasted 6 years, despite her strong and constant movements, in part due to the Dynamic Back. As this frame now finally does require replacement due to wear and tear, a new Dynamic Back is also being ordered. A new ultralight manual wheelchair was selected that is compatible with the Dynamic Rocker Back interface.

## Results

Amanda will continue to be able to move within her new manual wheelchair frame thanks to the ongoing use of a Dynamic Back. Funding issues have impacted clients' ability to obtain needed Dynamic Seating in Montana through Medicaid. This may have prevented Amanda from receiving a Dynamic Back on her new manual wheelchair, however, Tamara has worked tirelessly to ensure provision of this necessary intervention. Additional steps are being taken to improve Dynamic Seating funding by Montana Medicaid.

**Tamara Kittelson-Aldred, M.S., OTR/L, ATP/SMS**  
**Amanda's Therapist**  
**Missoula, MT**

"Dynamic Seating is life changing for people who need it."

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### *About the Author*

Michelle 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.

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