

**Client:** Darcy

**PT:** Amber S., OT

**Supplier:** Jace Goh, OT, Linds Rehab

**Location:** Melbourne, Victoria, Australia

Darcy is a young man in his early 20s who has recently moved into a new supported accommodation setting which provides 24 hour care. He has the diagnoses of cerebral palsy, autism, epilepsy, and vision impairment. Darcy is non-ambulatory and non-verbal, relying on others for all his physical and daily care needs.



### Sensory Seeking

Darcy is known to seek out sensory stimulation such as rocking for vestibular input. When he cannot rock, he seeks out other inputs such as oral chewing to provide him with stimulation throughout the day. When in his PDG Stellar manual tilt wheelchair, Darcy tends to pick and chew on his armrest pads. This behaviour increases when he is uncomfortable or not able to obtain sufficient vestibular input through rocking.

### Decreased Sitting Tolerance

In previous manual wheelchairs, Darcy's sitting tolerance was very limited. He would indicate a desire to get out of the chair through increased rocking or vocalisation. This resulted in Darcy spending most of his day on his activity mat on the floor, where he was the most comfortable.



### Equipment Damage

His rocking has also caused breakage of his wheelchair back canes and led to frequent replacement of wheelchairs due to overall wear and tear.

### Loss of Posture

If he was tired or had slid forward in the seating system, he was unable to rock within this static seating system. His previous wheelchairs provided minimal postural supports, as he tends to slide forward in the seat from his rocking, moving him out of alignment with these supports. Although he is able to independently reposition himself with his arms, he has to do so quite frequently.

### Quick Notes

#### Challenges:

- ✓ Rocking and Banging
- ✓ Wear and Tear on equipment
- ✓ Equipment Damage
- ✓ Sensory Seeking
- ✓ Agitation
- ✓ Decreased Sitting Tolerance
- ✓ Loss of posture
- ✓ 'walking' wheelchair across room

#### Areas affected:

- ✓ Back

#### Equipment Used:

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

## 'Walking' Wheelchair Across the Room

On the occasional instances that he was able to sit in the wheelchair for an hour or two, Darcy has been known to 'move' the chair across the room due to his rocking behaviours. This is a safety concern within the house, as he might "run into" other residents if not constantly supervised

## Dynamic Seating

Based on his presentation and current seating needs, it was recommended that Darcy trial a tilt in space manual wheelchair with a Seating Dynamics Dynamic Rocker Back. Dynamic footrests were not considered as Darcy did not have much active lower limb movement.

## Results

Staff have reported that they and Darcy have found Dynamic Seating to be very helpful and safe for him to use. They also provided the following observations:

- Increased sitting tolerance (he spends at least half the day in the wheelchair), which has allowed Darcy to participate in house activities and be part of tabletop tasks. This has also allowed his OT opportunity to explore further sensory activities due to his improved posture and sitting tolerance.
- Reduced discomfort / frustration / agitation (as measured by reduced negative vocalisations while in the wheelchair) as the Dynamic Rocker Back provides Darcy the sensory input he seeks. The staff reports he is calmer.
- Reduced chewing of armrest pads.
- The wheelchair now stays in one spot, rather than 'walking across the room,' reducing safety concerns to other residents in the house.
- Darcy has not broken anything on the new wheelchair.
- The staff are now able to bring him out for walks and go to the park more often as they feel he is more secure and safe in the wheelchair.

Darcy is now able to tolerate sitting for a reasonable amount of his day without loss of posture. Being able to move through Dynamic Seating has also reduced his agitation and, in turn, improved participation. The wheelchair no longer 'walks across the room' and no further equipment damage has occurred.

### Jace

"Darcy loves his new chair! He enjoys being able to move around and be able to leave the house frequently with carers, which he did only occasionally previously due to safety concerns and poor tolerance in his own chair." – Staff feedback at facility

Please view videos of Darcy using Dynamic Seating [here](#).

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### About the Author

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*Jace is an occupational therapist based in Melbourne, Australia. She has 14 years of experience working across various acute and community settings both in Singapore and Melbourne. She has a special interest in wheelchair prescription and complex seating needs and has been working with Linds Rehabilitation for the past 18 months to help achieve the best outcomes for her clients.*