# Kristen - Extension and Equipment Breakage



Client: Kristen

PT/OT/Supplier: Christine G. Dale, OTR/L, ATP

Location: Oxford, MS

Christine 'Chris' Dale is the Director of Therapy Services at North Mississippi Regional Center. She has successfully used Dynamic Seating components as a part of wheelchair solutions for many of the residents at the center.

Kristen is a 31 year old woman with the diagnosis of cerebral palsy. She has involvement in both legs and one upper extremity, with more involvement in the lower extremities (Triplegia). Kristen has kyphoscoliosis of her spine and has a Baclofen pump. Kristen has recently moved from the Regional Center into a Group Home in the community. She is very happy, social, and is able to communicate verbally.

Chris worked with Kristen while she lived at the Regional Center and will continue to follow her in the community.

# The Problem

Kristen extends her body with force, particularly at her legs. This worsens when she is excited. She has a long history of breaking footrests secondary to this extension.

### The Solution: Lower Extremities

Chris recommended Dynamic Footrests for Kristen to prevent future breakage. The first dynamic footrests that were ordered broke within 2 weeks. Kristen was able to extend fully at the knee, yet was unable to return to a more neutral knee position as the dynamic component did not provide adequate resistance. After continued pressure at full travel, these dynamic footrests failed.

Chris then recommended Seating Dynamics Dynamic Footrests for Kristen. Kristen can extend her knee, though readily returns to a more neutral starting position. These Dynamic Footrests have also been more durable, holding up to her forceful extension. She even stands on the footplates for transfers without an issues. Kristen uses the telescoping, elevation, and plantar dorsi flexion features.

### Recommendations

A Ki Mobility Catalyst manual wheelchair was recommended with a Matrix cushion and Freedom Designs contoured back and lateral trunk supports. Kristen does not use a head support. Seating Dynamics Dynamic Footrests were also recommended. Kristen sits in a persistent posterior pelvic tilt.

### Results

Kristen no longer damages or breaks the footrests on her wheelchair frame. She is able to extend her knees when her overall tone increases and then return to a neutral starting position. The Dynamic Footrests diffuse force and allow movement.



# **Quick Notes**

# **Challenges:**

- ✓ Equipment breakage
- ✓ Lack of movement

#### Areas affected:

Back

✓ Legs

Head

### **Equipment Used:**

Dynamic Rocker Back

✓ <u>Dynamic Footrests</u>

<u>Static Footrests</u>

<u>Dynamic Head Support</u>

<u>Static Head Support</u>

<u>Spreader Mount</u>









- No more breakage
- Movement

Kristen will be evaluated for a new manual wheelchair soon. Chris will be exploring options to accommodate Kristen's kyphosis and better balance her head over her pelvis. Her scoliosis causes her to lean against the left lateral trunk support which eventually broke. The new seating system will address this issue. And, of course, the new system will include Dynamic Footrests.



"How would you like to be stuck in one position all the time? If you have a few things you can move, why not?"

Christine G. Dale, OTR/L, ATP
Director Therapy Services
North Mississippi Regional Center
Oxford, MS

# **About the Author**

Michelle Lange is an occupational therapist with over 35 years of experience and has been in private practice, Access to Independence, for over 15 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. She is the former NRRTS Continuing Education Curriculum Coordinator and Clinical Editor of NRRTS Directions magazine. Michelle is a RESNA Fellow and member of the Clinician Task Force. Michelle is a RESNA certified ATP and SMS.







