



Rehabilitation Strategies and Mobility Devices

Kayla Kotake, PT, DPT, CDP

Cleveland Clinic Lou Ruvo Center for Brain Health

NAF
National Ataxia
Foundation

March 27-29, 2025
Planet Hollywood
Las Vegas, NV

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PRESENTER DISCLOSURES

Kayla Kotake, PT, DPT, CDP

The following personal financial relationships with commercial interests' relevant to this presentation existed during the past 12 months:

No relationships to disclose or list





Role of the Cerebellum

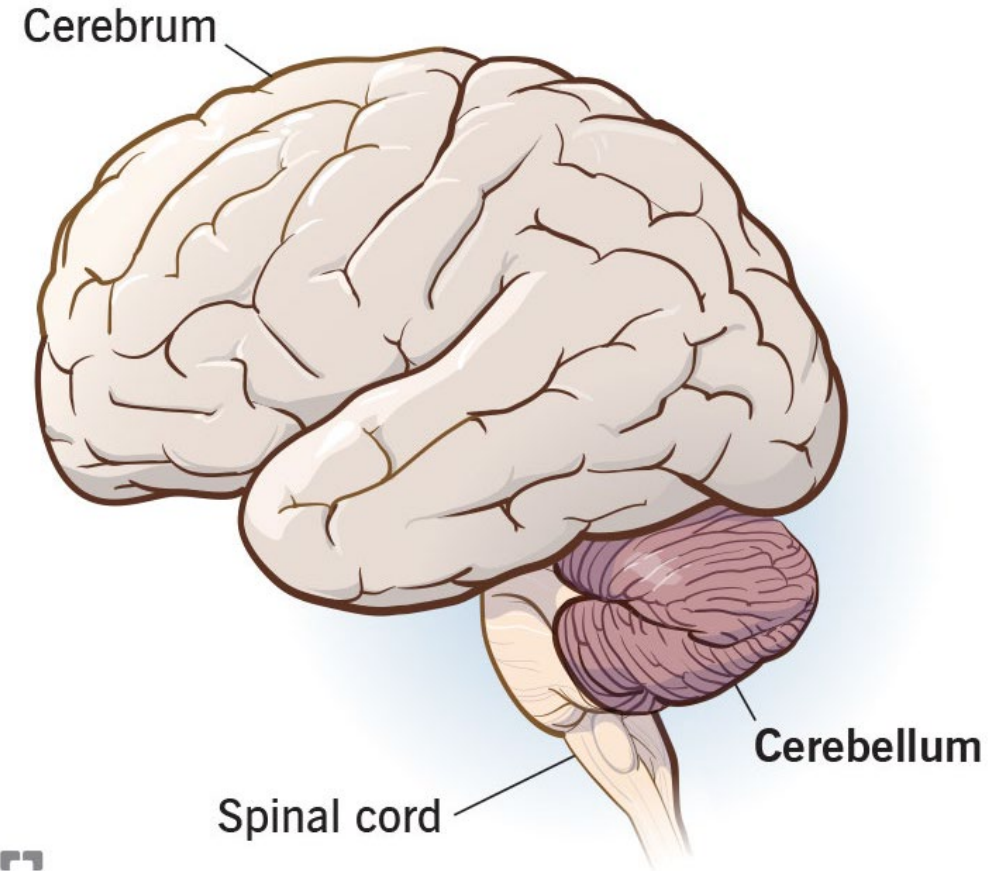


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The Cerebellum

- Influences balance, posture, muscle tone, and coordination
- Motor planning and execution of movement
- Motor learning




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Rehabilitation Team



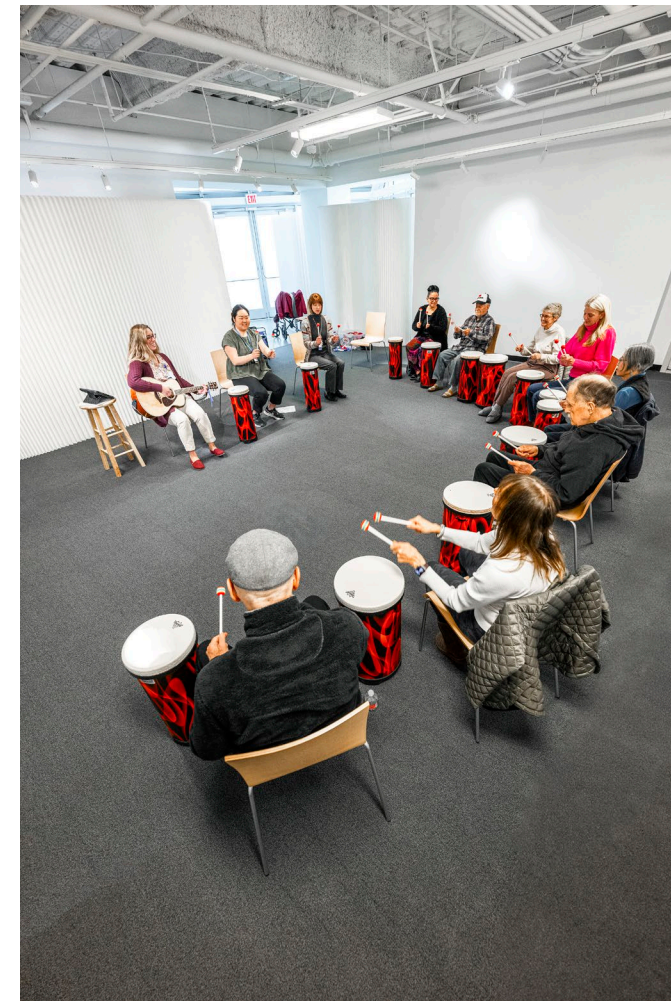
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The Who's Who

- Physical Therapy
- Occupational Therapy
- Speech Therapy

- Music Therapy
- Mental Health
- Social Work

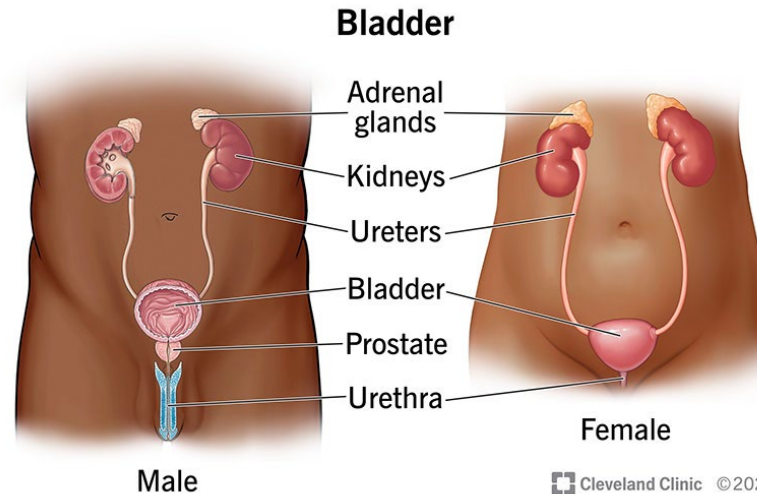


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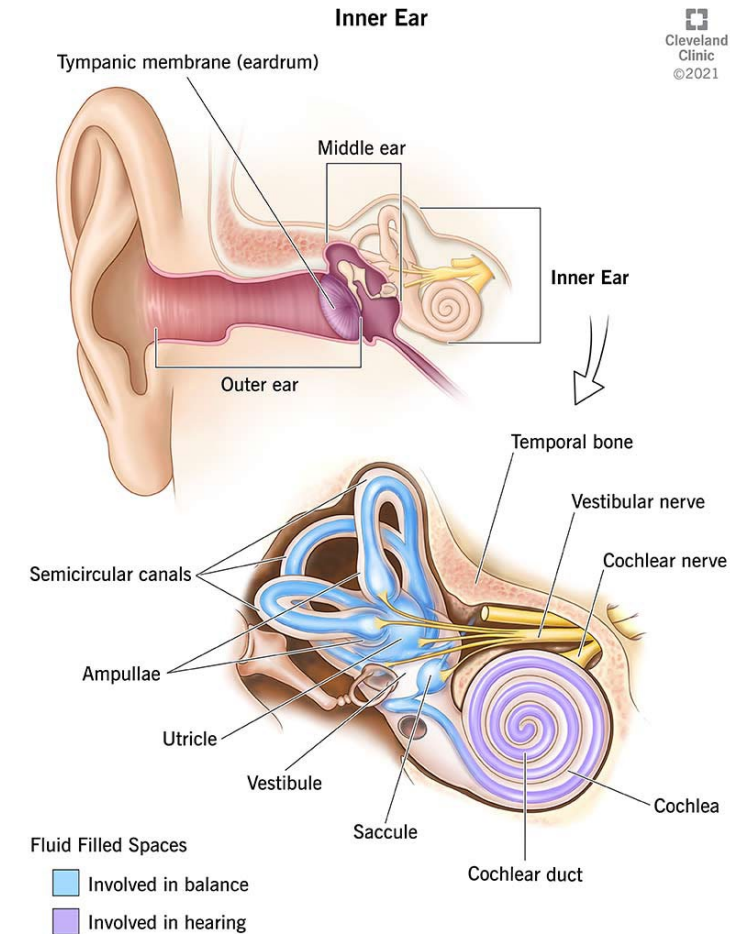


Special Teams

- Neuro ophthalmology
- Physical Therapy
 - Pelvic Health
 - Vestibular



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



Literature Review




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 OPEN ACCESS  Check for updates

Effects of therapeutic exercise on disease severity, balance, and functional Independence among individuals with cerebellar ataxia: A systematic review with meta-analysis

Stanley Winser PhD, MPT, BScPT , Ho Kwan Chan BScPT student, Wing Ki Chen BScPT student, Chung Yau Hau BScPT student, Siu Hang Leung BScPT student, Yee Hang Leung BScPT student, and Umar Muhammad Bello PhD, MScPT, BScPT

16,846
studies identified



26
studies included



Participants:
153 SCA
72 MS
111 Degenerative Cerebellar Disease
38 Cerebellar Stroke
4 TBI
48 Friedreich’s Ataxia

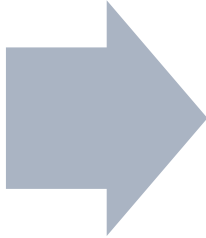


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Interventions:

Balance & Coordination
Functional strength
Core strength
Perturbations
Pilates
Aerobic activity
Gait training (overground & treadmill)
Home exercise program
Fall prevention training
Aquatic therapy
Bed mobility training
Virtual reality and gaming



Conclusions:

1. People participating in therapeutic exercise saw a significant decrease in disease severity (SARA) when compared to controls.
2. Conventional therapeutic exercise with additional therapies were found to have a significant impact on improving balance performance (BBS).
3. To sustain benefits from therapeutic exercise, it is highly recommended to continue a home exercise program



Physical Therapy Evaluation



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What to Expect

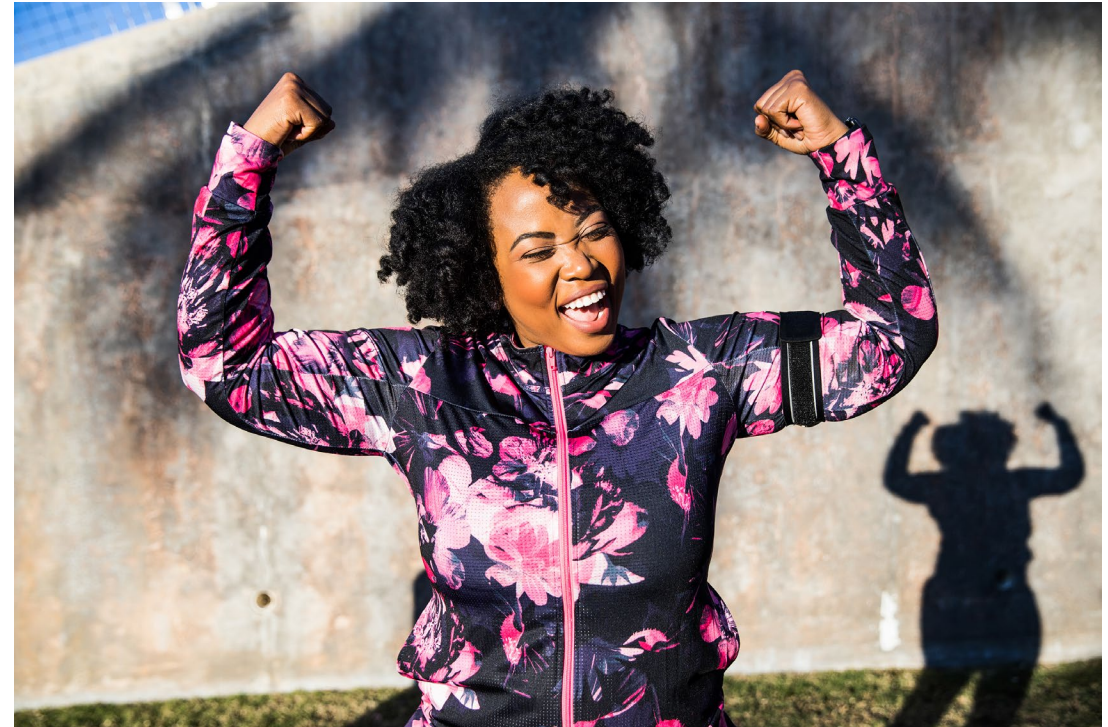


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How To Prepare

- Come dressed to move
- Be engaged
- Bring your assistive device
- Arrive on time



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Things to Ask

- Home exercise program
- What are your therapy goals
- What is the plan for your long term care



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Goals



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What Is Important To You?

- Functional Tasks
- Leisure Activities
- Vacation
- Family



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Exercise Recommendations



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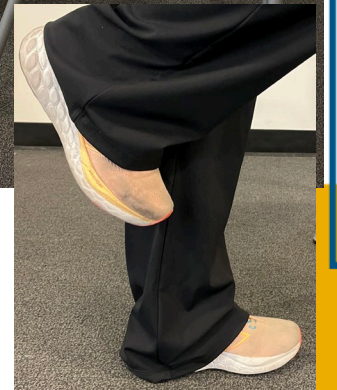
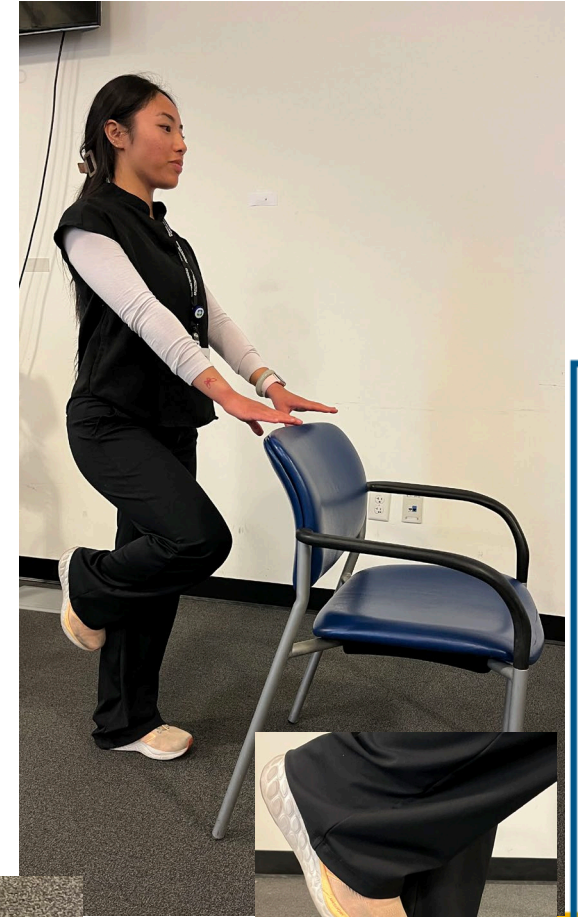
Seated Balance



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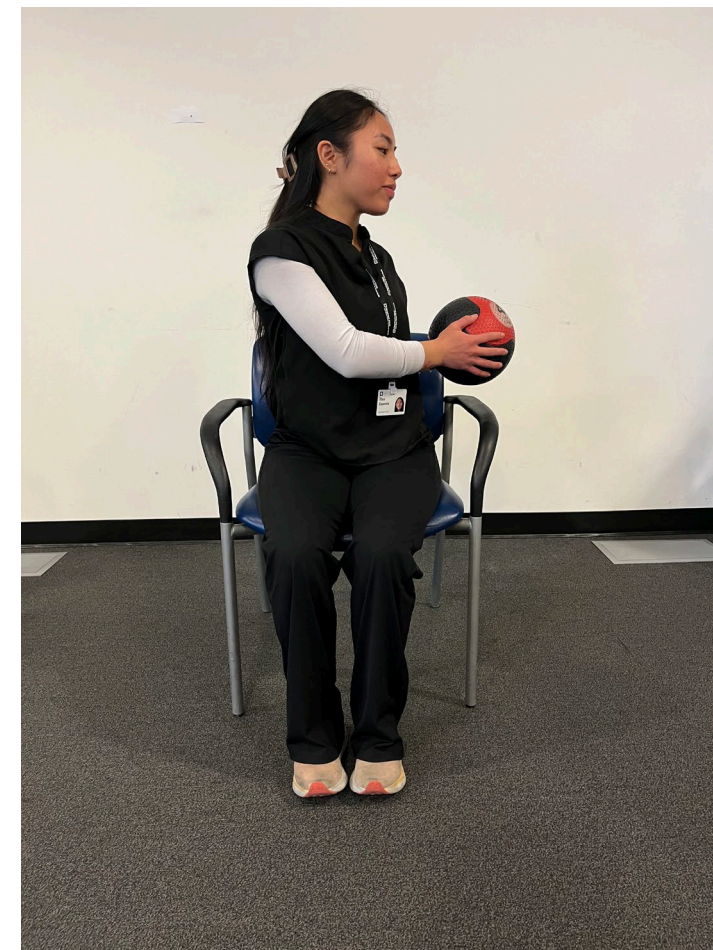
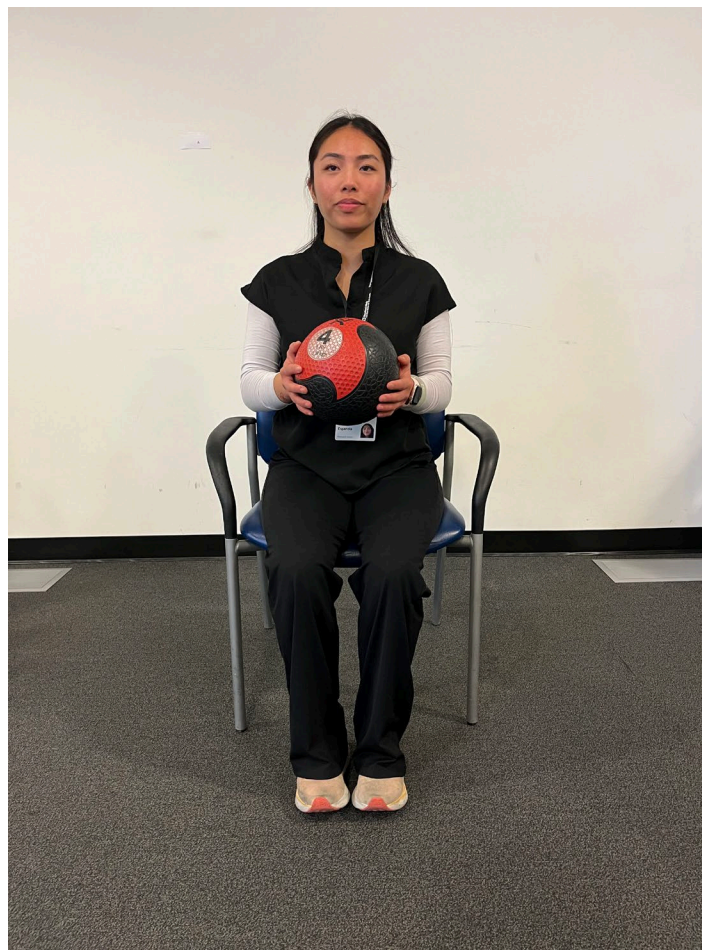


Standing Balance





Core



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Core

- Bicycle kick
- Flutter kick
- “Hand Jive” kick



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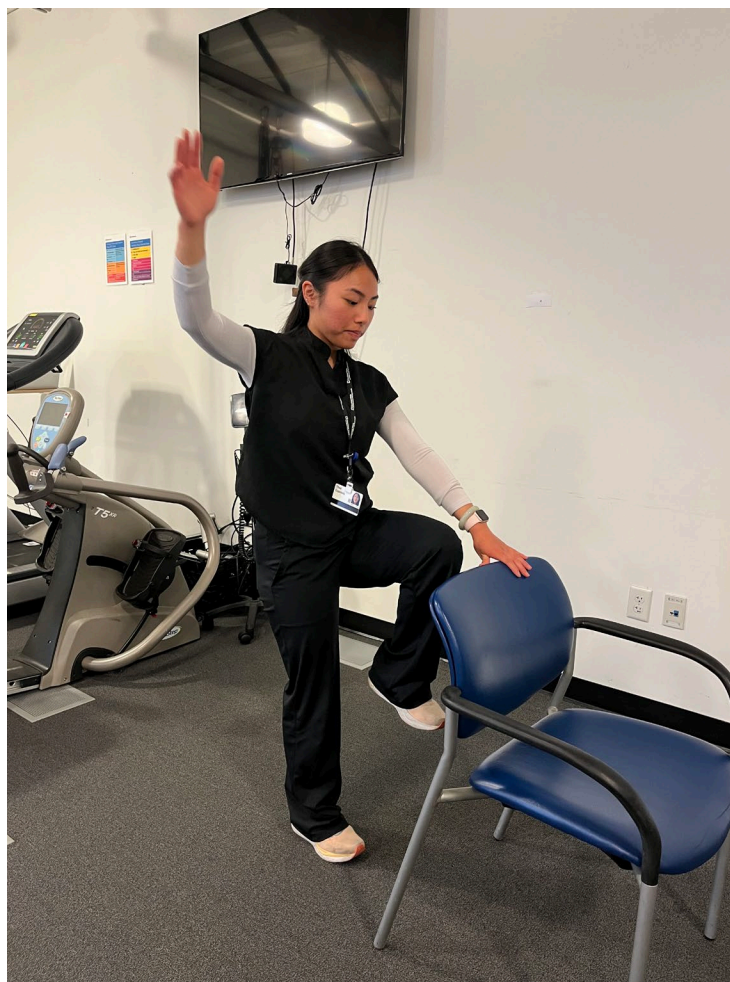
Marching



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Dynamic Marching



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Seated Marching



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Mobility Devices



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Poles and Canes

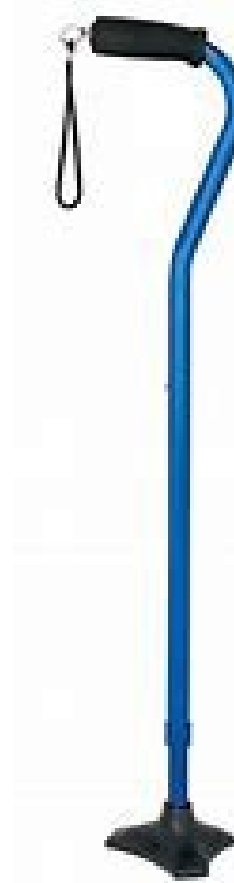
Trekking poles



Single point cane



Able tripod cane



Quad cane



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Walkers

Standard Walker



Rollator



Drive Nitro Rollator



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Walkers

Standard Walker
with Arm Troughs



Upright Walker



U-Step Walker



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Scooters

Ultralight Foldable



3-Wheel



4-Wheel



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Manual Wheelchairs

Ultralightweight chair



Lightweight chair



Transport chair



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Power Wheelchairs



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Accessories

NexStride



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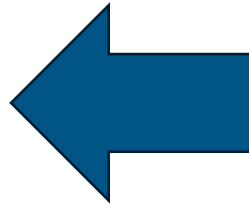
Resources



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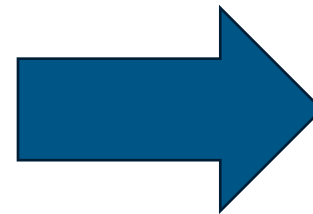


Find a Therapy Provider



Physical
Therapist

Speech
Therapist





The Highlights Reel



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- Consult a physical therapist for a customized exercise plan
- Consistent participation in challenging home exercise
- Arrive prepared to your physical therapy appointments to maximize benefit
- Mobility devices are great tools to gain more independence



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