

HERL

QUARTERLY NEWSLETTER

MEET THE KIRIGAMI RUGBY CHAIR

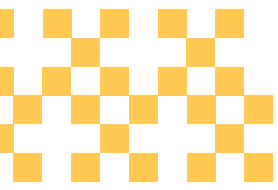
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VOLUME 24, NO. 2 | APRIL - JUNE 2025





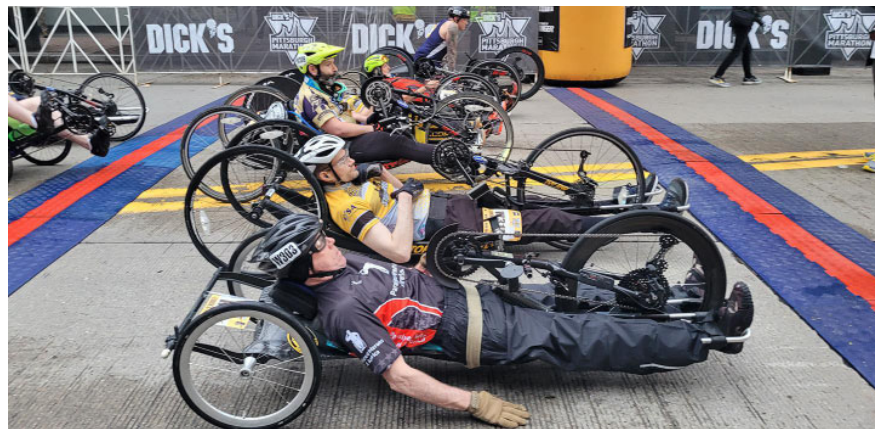
PITTSBURGH MARATHON

HOW PITT KEEPS HAND-CYCLISTS ON THE ROAD TO SUCCESS

Excerpt from *PittWire* - May 15, 2025

On May 4, a dozen hand cyclists crossed the finish line of the 2025 DICK'S Sporting Goods Pittsburgh Marathon — a testament to the mental and physical stamina necessary to traverse 26.2 miles over the city's bridges, through neighborhoods and up a few monster hills.

Hand cycles are bicycles adapted for riders with spinal cord injuries and other disabilities. They contain many of the same components as a bicycle, but a hand cycle is propelled using upper-body strength. A rider, seated or reclined, pushes on pedals attached to a drivetrain similar to a bike's. While a hand cycle's three wheels make it more stable than a bicycle, it still takes extensive practice to learn how to steer the vehicle. They can flip and even eject riders.



That's where Pitt's Hand Cycle Assistance Team (H-CAT) comes in, providing logistical and on-the-ground support for the athletes, from fixing popped hand cycle chains to staffing medical tents.

"We're the pit crew for the racers. The marathon organizers have sufficient volunteers to give out water, but they want somebody who can be responsive and responsible for the hand cycle division, before, during, and after race day," said Dan Fisher, assistant chair for administration and operations in Pitt's School of Health and Rehabilitation Sciences.

He now co-directs H-CAT, which he formed in 2011 with Rory Cooper, an accomplished hand cyclist and founding director and VA senior research career scientist in Human Engineering Research Laboratories. Their goal: Create an infrastructure of support that allows hand cyclists to feel welcome in the Pittsburgh Marathon.

ACCOLADES & EVENTS

Celebrating our best moments and achievements from the past three months.

Director **DR. RORY COOPER** became the Associate Vice Chancellor for Research for STEM-Health Sciences Collaborations last month. He attended the 2025 National Inventors Annual Meeting and Hall of Fame Induction in April, followed by the HAPS Annual Conference in May where he was the Keynote Speaker. In June, he participated in the judges panel for the Invention Connection US Nationals — a showcase for student inventors held at the Henry Ford museum. Dr. Cooper also gave a lecture at the NSF ReDDDoT Workshop in Case Western University that same month, along with HERL researchers **DRS. JON DUVALL** and **SIVASHANKAR SIVAKANTHAN**.

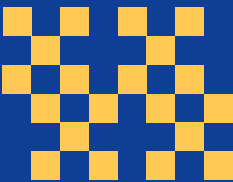
HERL participated in various research and community events this quarter, like the 39th National Disabled Veterans Winter Sports Clinic held at Snowmass, CO, and the Buckeye Wheelchair Games in April (**CLINICAL RESEARCH TEAM** in attendance), and the HighMark Walk for Life in June (**WILLIAM SCHOY** in attendance). Multiple athletes from the labs including **JACKSON WILLIAMS** and **DR. COOPER** competed in the Pittsburgh Marathon in May, where team members **JOSH MARINO, BEN GEBROSKY, JOSEPH YAP, JEFFREY PETIGROW, DRS. BRAD DICIANNO, GARRETT GRINDLE** and **JORGE CANDIOTTI** formed part of the Hand Cycle Assistance Team (HCAT). In April we hosted the 20th annual State of the Science Symposium in Bethesda, MD, on *Rehabilitation in Resource-Limited Environments*. We presented our research at RESNA and the VA Research week in May, and the Rehab Institute Research Day in June.



Page 2 - Dr. Cooper at the Pittsburgh Marathon start line.

Page 3 - Speakers at the 2025 State of the Science Symposium.





DISABILITY AND REHABILITATION: ASSISTIVE TECHNOLOGY
DOI: 10.1080/10617187.2024.2042920

Taylor & Francis
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RESEARCH ARTICLE

OPEN ACCESS

Check for updates

Investigation of stakeholder perceptions of the wheelchair service delivery process

Tyler A. Beauregard^a, Richard M. Schein^a, Theresa F. Berner^a, Gina McKernan^{a,c}, Mark R. Schmeler^a, Brad E. Dicianno^{a,d,e} and Carmen P. DiGiovine^{a,e}

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ABSTRACT
Introduction: The wheelchair service delivery process (SDP) is a large complex system and therefore has many potential points of failure, determining priorities for improvement is challenging. The complexities introduce several barriers to accessing and maintaining wheelchairs for individuals with mobility impairments. Given the breadth and depth of the barriers, it is important to know in which areas to focus future policy reform efforts.
Purpose: The purpose is to explore the perceptions of stakeholders regarding the performance of the wheelchair SDP in the United States and guide future policy reform.
Methods: A cross-sectional, observational, online questionnaire was deployed. Questions were positive statements regarding the wheelchair SDP and participants rated their agreement with the statements on a standard six-point Likert scale. A snowball sampling strategy was used and consisted of emailing 42 organizations representing 5 stakeholder groups: (1) consumers/caregivers, (2) clinicians, (3) manufacturers, (4) payers, and (5) suppliers.
Results: 1052 responses were collected. 41% clinicians, 20% suppliers, 24% consumers/caregivers, 2% manufacturers, 2% payers. Stakeholders view the wheelchair SDP as not performing well. Less than 10% of all responses indicate a positive perception. Funding and procurement were viewed in the least positive light, with 7% positive responses. Follow-up, maintenance, and repair was the second least positive component with 10% positive responses. Fitting, training, and delivery was viewed most positively with over 42% positive responses.
Conclusion: The wheelchair SDP is not viewed as performing well by its stakeholders. Funding, procurement, maintenance, and repair are viewed particularly negatively, representing opportunities for focused system reform efforts.

ARTICLE HISTORY
Received 18 January 2024
Revised 13 September 2024
Accepted 10 December 2024

KEYWORDS
Complex rehabilitation technology; wheelchair; service delivery policy; stakeholder perception; assistive technology; online questionnaire

IMPLICATIONS FOR REHABILITATION
• In the United States, 5.5 million adults use a wheelchair or other form of Complex Rehabilitation Technology (CRT) to interact with the world and perform many of their activities of daily living.
• In the United States, the process of determining what CRT an individual needs, procuring that equipment, and delivering it is viewed as not performing well by multiple stakeholder groups.
• Policies regarding the CRT service delivery process are in need of reform.

Introduction
In the United States, 5.5 million adults use a wheelchair to interact with the world and perform many of their activities of daily living [1]. Receiving a wheelchair that will meet their needs is crucial to maintaining their quality of life [2,3]. The process of determining what equipment an individual needs, procuring that equipment, and delivering it, known as the Wheelchair Service Delivery Process (SDP) [4,5], is complex, multifaceted, and requires specialized clinical and technical knowledge [6-8]. A component of the complexity of the SDP is the myriad of options and configurations for wheeled mobility devices. These specialized and customized wheeled mobility devices include ultralight manual wheelchairs (UMWC), indoor/outdoor power wheelchairs (PWC), and outdoor PWCs, which are commonly referred to as complex rehabilitation technology (CRT), Figure 1 [7-9]. For the purposes of this article, we use the term CRT to address this sub-group of wheeled mobility devices, otherwise we use the term wheelchair or wheeled mobility device. Given the complexity of the wheelchair SDP and the importance of wheeled mobility to support activities of daily living and improve quality of life, stakeholder satisfaction with the process is an important evaluation outcome for the implementation of wheelchair services and devices.
Several conceptual models and frameworks related to wheelchair service delivery exist based on the overarching assistive technology (AT) service delivery models [6]. Recent models have focused on (1) promoting a client-centered decision-making process to determine an appropriate match between a device, the

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Monofilament Testing to Identify Insensate Regions

Living with a lower limb amputation is a life-altering complication. This condition is often associated with a high prevalence of pressure ulcers and skin breakdown at the interface between the prosthetic socket and the residual limb. The purpose of this study was to describe a monofilament test method for identifying areas that lack protective sensation in individuals with transtibial amputation (TTA).

Peterson S, Lee CD, Miknevich MA, Cooper R, Koontz A. Monofilament testing to identify insensate regions of the residual limb of individuals with transtibial amputation. Prosthet Orthot Int. 2025



Original Research Report

Monofilament testing to identify insensate regions of the residual limb of individuals with transtibial amputation

Sara Peterson^a, Cheng Dao Luo^{a,2}, Mary Ann Miknevich^a, Rory Cooper^{a,4} and Alicia Koontz^{a,4}

Abstract
Introduction: Living with a lower limb amputation is a life-altering complication. This condition is often associated with a high prevalence of pressure ulcers and skin breakdown at the interface between the prosthetic socket and the residual limb. The purpose of this study was to describe a monofilament test method for identifying areas that lack protective sensation in individuals with transtibial amputation (TTA).
Methods: Eleven males and 5 females with TTA were evaluated using a standard 5.07/10 g monofilament test, which was adapted to test sensation at 10 locations on the residual limb.
Results: Thirty-five percent of the participants experienced loss of protective sensation on their distal anterior tibial crest, 50% of the participants had absent sensation along their insensate line, and 20% of the participants experienced loss of sensation at the center of the distal end of the leg. The test method showed excellent intratester reliability (kappa = 1).
Conclusions: Implementing a monofilament test is a reliable and practical option for practitioners to use in testing for loss of protective sensation in TTA because of the ease and speed of the test, as well as its low cost and potential for standardization.

Keywords
diabetes mellitus, lower limb amputation, sensation, prosthetics
Date received: 23 April 2024; accepted: 22 February 2025.

Introduction
Nearly 2 million people are living with limb loss in the United States, and the population of people living with amputation is expected to increase to 3.6 million in 2050.¹ Amputation causes a plethora of problems for both the healthcare system and individuals living with amputations, including extra costs for multiple prosthetic devices per amputee because of changes in residual limb shape and additional comorbidities.^{2,3} According to the Amputee Coalition of America, more than half of lower limb amputations are caused by peripheral arterial disease and diabetes.^{4,5} People with diabetes are 8 to 24 times more likely to have lower limb amputation than individuals without diabetes.^{6,7} The high risk of lower limb amputation in the diabetic population is because of peripheral neuropathy, a common complication of diabetes.^{8,9} Peripheral neuropathy significantly increases the risk of lower limb amputation by causing the loss of protective sensation (LOPS).⁴ Individuals with amputation and with LOPS find it challenging to manage their skin and wound care of the residual limb and often miss the appropriate intervention time, which can lead to skin breakdowns, pressure sores, and eventually additional amputations.^{4,10-11}
Pressure ulcers reportedly occur in up to 57% of residual limbs.¹² Individuals with peripheral vascular disease or diabetes mellitus face an increased risk of developing ulcers, and these ulcers in people with these conditions are also more concerning and slower to heal.¹³ Typically originating as a minor abrasion, ulcers often from friction and repetitive pressure caused by an ill-fitting prosthesis, sudden shifts in activity level, or progression from worsening vascular compromise.¹⁴ Many practitioners recommend the amputee continue prosthetic wear after implementing socket and liner adjustments, providing localized wound care, and continuing frequent skin checks. This approach has been deemed safe, with a study reporting that 64% of patient's ulcers healed within 6 weeks, 25% reduced in size, and only 9% exhibited progression or deterioration.¹⁴
After 1 to 3 years, individuals living with amputation diagnosed with diabetes have an increased chance of a second amputation. It is reported that 30-50% of individuals will require additional amputations or revisions of the residual limb.¹⁵ Prosthetics and

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Association Between Adequate Sleep and Participation in Occupational Areas in School-age Children

Adequate sleep tailored to children's age is important for their well-being. This study aimed to examine the association between adequate sleep and children's participation in occupational areas. This study was a retrospective cross-sectional analysis of secondary data obtained from the 2020 National Survey of Children's Health in the United States.

Ha Y, Park S, Roh G, Kim J, Kim E, Hong I. Association Between Adequate Sleep and Participation in Occupational Areas in School-Age Children. OTJR (Thorofare N J). 2025

Check for updates

Article

Association Between Adequate Sleep and Participation in Occupational Areas in School-Age Children

Yaena Ha^a, Sangmi Park^a, Geummi Roh^a, Jiho Kim^a, Eunji Kim^a, and Ickpyo Hong^a

Abstract
Adequate sleep tailored to children's age is important for their well-being. This study aimed to examine the association between adequate sleep and children's participation in occupational areas. This study was a retrospective cross-sectional analysis of secondary data obtained from the 2020 National Survey of Children's Health in the United States. This study included 6,818 children aged 6 to 11 years. The mean age was 8.48 years (standard deviation = 1.72). Multivariate regression models revealed that adequate sleep was significantly associated with increased participation in occupational areas (17% more in leisure, 95% confidence interval [CI] 1.11-1.22, 15% more in play, 95% CI 1.07-1.22, 11% more in education, 95% CI 1.01-1.22) in school-age children, but not with participation in work and social participation. Adequate sleep is associated with increased participation of school-age children in occupational areas.

Plain Language Summary
Children's Adequate Sleep and Occupational Areas: What You Need to Know
Occupation refers to an individual's activities of daily living and all activities in which children participate. Occupational areas are divisions encompassing various activities in which children participate, such as leisure, play, education, social participation, or work. In this study, we analyzed the association between adequate sleep (age-appropriate sleep duration) and participation in various occupational areas among school-age children between 6 and 11 years old. Data from the 2020 National Survey of Children's Health were analyzed. Adequate sleep in children was associated with increased participation in leisure, play, and education. Encouraging children's participation in activities within occupational areas is associated to adequate sleep.

Keywords
children, occupation, participation, pediatric, well-being

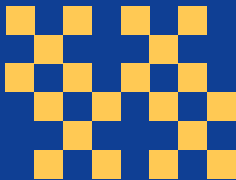
Introduction
Occupational therapy primarily focuses on sleep to enhance rest and recuperation, enabling individuals to actively participate in meaningful occupations and activities (Ho & Siu, 2018; Howell & Pierce, 2008). Occupational areas have been reported to be associated with children's sleep (American Occupational Therapy Association [AOTA], 2020; Case-Smith & O'Brien, 2016). Sleep has been reported as an associated factor with children's activities of daily living (ADLs) and instrumental activities of daily living (IADLs; Dozdemir, 2015; Rasmussen et al., 2019), health management (Fadil, 2021; Waters et al., 2013), education (Pavonen et al., 2010; Ribeiro & Stickgold, 2014), work (Knutson & Lauridsen, 2008; Sadeh, 2007), play (Jancovski et al., 2020; Lin et al., 2018), leisure (Doherty et al., 2018; Sutton-Radick, 2013), and social participation (Hoodmoss et al., 2010).

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HERL QUARTERLY | 2025 Q2 APRIL - JUNE 5



HERL SPOT LIGHT

MEET THE STUDENTS
RESEARCH
EXPERIENCE
SUMMER 2025



AARON GRANT
Saint Vincent College
Mech. Eng. & Poli Sci

PROJECT:
Functional Hand Control
Assist



JONAS WILBUR
University of Pittsburgh
Bio Engineering

PROJECT:
Rapid Prototyping Simple
Devices



JACKSON ROZELL
Clemson University
Mechanical Engineering

PROJECT:
Kirigami Sports Wheelchair



MERYL FREIMAN
Ohio State University
Biomedical Engineering

PROJECT:
VR Applications for
Wheelchair Simulations



JOSEPH DAESCHNER
University of Akron
Aerospace Systems Engineering

PROJECT:
Airplane Wheelchair Docking
System



ARIANNA CIREGNA
Stevens Institute of Technology
Systems Engineering

PROJECT:
Nickel-Zinc Battery Powered
Chair



ASHLEY MINGRINO
Duquesne University
*Biomedical Eng. & Applied
Mathematics*

PROJECT:
OMNIBot



NAJEE JACKSON
Full Sail University
Computer Science

PROJECT:
Airline Travel Board Game



TYLER FRITZ
University of Pittsburgh
Electrical Engineering

PROJECT:
Airline Travel Board Game



RACHEL SAENZ
Clemson University
Mechanical Engineering

PROJECT:
Kirigami Sports Wheelchair



BROC PEARSALL
Robert Morris University
Mechanical Engineering

PROJECT:
Airport Wheelchair



KAYLEE URIBE
University of Pittsburgh
Biomedical Engineering

PROJECT:
VR Applications for
Wheelchair Simulations



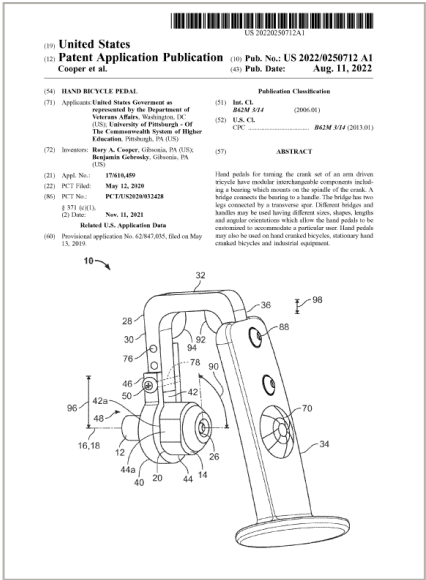
LAUREN STICH
Penn State
Biomedical Engineering

PROJECT:
Air Fluidized Wheelchair
Cushion

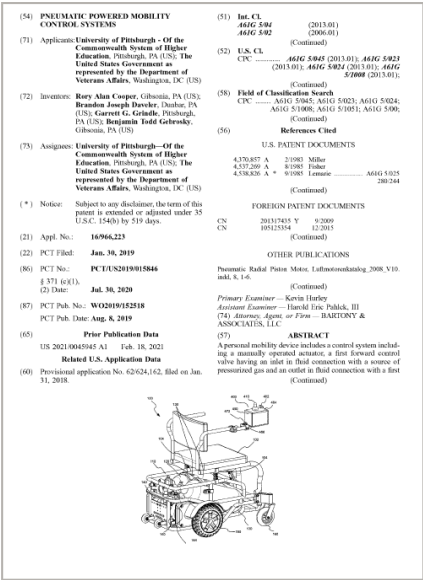


TRAN AN
Georgia Southern
Computer Science & Biology

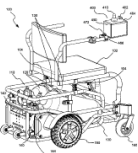
PROJECT:
VR Applications for
Wheelchair Simulations



HAND BICYCLE PEDAL
US 12,208,857



PNEUMATIC POWERED
MOBILITY CONTROL
SYSTEMS
EP 3746022



OUR PROGRESS THIS YEAR

8 prestigious science, engineering, and athletics awards received.

8 manuscripts published in respected, peer-reviewed journals.

2 patents awarded by the USPTO, and Germany, France, UK.

US 12,208,857 & EP 374602

19 lectures and visits from distinguished peers and organizations to our lab.

8 individual scholarships for Veterans funded.

20 media features of our research.

IN 2025, WE'VE PRESENTED LECTURES AND RESEARCH ACROSS

2 continents

3 countries

6 American states + the District of Columbia

Photo Gallery

Left to right, top to bottom: Rosi and Dr. Cooper with members of the Steven A. Cohen Military Family Clinic; Drs. Sivashankar & Styler at VA Rehab Week 2025; Jackson Williams, Rosi, and Dr. Cooper at the Pittsburgh Marathon; Josh Marino, Dan Fischer, and Dr. Cooper with James Dixon; Wei Deng, Marcel Oliart, Drs. Satpute and Candiotti, William Schoy, Rosi and Dr. Cooper at the 2025 Buckeye Games; Sangmi Park, Wei Deng, Drs. Sundaram, Dicianno, Cooper, Satpute, Duvall and Candiotti at an internal promotion ceremony; Joseph Yap and Jeff Petigrow at the Pittsburgh marathon as part of the Handycle Assistance Team (HCAT); Research Experience (REx) program students, Arianna Ciregna and Jonas Wilbur, dressed to spray paint; Dr. Cooper, Rosi Cooper, and PA State Senator, Doug Mastriano; REx student Broc Pearsall tabling for HERL during VA Research Week; Jonas Wilbur and William Schoy at Easterseals' Walk With Me charity event.



MEET THE

KIRIGAMI RUGBY CHAIR



The purpose of the 'Kirigami Wheelchair', from which this spinoff was created, was to create a lightweight, highly customizable wheelchair that is affordable yet fashionable. Named after the eponymous traditional Japanese cut-and-fold art, this lightweight chair is constructed from aluminum sheet metal, laser-cut and bent into shape by a press brake. The mixing of traditional art principles with advanced manufacturing technologies is what makes this design so unique.

Jessica Steinberg, the designer of this chair, explains that the concept stems from a high demand for user-centric mobility devices. She writes:

“Approximately 68,000,000 people worldwide do not have access to an appropriate wheelchair. These chairs tend to have poor ergonomics that restrict people’s function and result in high rates of injury. Conversely, higher quality, customized wheelchairs are very expensive and unlikely to be covered by insurance. A driving factor in their high cost is the use of metal tubes that must be bent and welded together by highly skilled welders or robots.”



Recruiting Participants.

SIGN UP TO OUR **REGISTRY**



A research registry is a collection of individuals interested in learning about research studies that may be of interest to them. We are inviting you to join in the Human Engineering Research Laboratories (HERL) Assistive Technology Registry because you might be interested in participating in our current or future research studies.

1 ACCESSIBLE AIRLINE TRANSPORTATION FOR MOBILITY DEVICE USERS: SURVEY



Purpose: To estimate pent-up demand among mobility device (MD) users to travel on commercial airlines and identify MD users' needs and pain points.

Study Requirements: Complete a survey about your demographics and airline travel experiences. The survey is expected to take no more than 20 minutes to complete.

2 GUIDELINES FOR POWERED WHEELCHAIR AND COMMERCIAL AIRPLANE COMPATIBILITY



Purpose: This small group interview aims to identify the needs and challenges of power wheelchair users (PWUs) in air travel.

Study Requirements: Participate in an interview to share your experiences and perspectives accessing and utilizing air travel-related services.

3 CLINICAL LIMITS OF USE TOOLS (CLOUT) OFF-ROAD MOBILITY DEVICES



Purpose: To develop clinical limits of use tools (CLOUT) for off-road wheelchairs and hand cycles to ensure their safe operation.

Study Requirements: Participate in one visit lasting up to 4 hours to conduct performance testing and mapping of the features of an off-road wheelchair or hand cycles.

4 VIRTUAL PEER COACHING IN MANUAL WHEELCHAIR SKILLS



Purpose: To determine the effectiveness of virtual coaching from a peer to improve manual wheelchair skills.

Study Requirements: Six, weekly peer coaching sessions via Zoom to improve wheelchair skills, access to a library of wheelchair skills training videos, and completion of questionnaires before and after training.

5 ASSESSING THE CAREGIVER ASSISTED TRANSFER TECHNIQUE (CATT) INSTRUMENT



Purpose: To validate the caregiver Assisted Transfer Technique Instrument, a new tool to assess the assisted transfer performance of individuals with disabilities and their caregivers.

Study Requirements: The study takes place over two visits in your home or our lab (your choice), each visit is no longer than two hours.

6 POWERED PERSONAL TRANSFER SYSTEM (PPTS): FOCUS GROUP



Purpose: To study the design of controls to better meet user needs of a robotic, independent-use, Group 3 Powered Personal Transfer System.

Study Requirements: You will be asked to watch a PPTS demonstration video and provide group feedback. The focus group will take no more than two hours.

7 AIRPORT MANUAL WHEELCHAIR: FOCUS GROUP



Purpose: To design a manual wheelchair tailored for airport use, addressing the current practice of airlines requiring wheelchair users to travel in regular passenger seats which poses significant challenges.

Study Requirements: Participation will take no more than two hours.

8 DEVELOPMENT AND EVALUATION OF THE PPAL BEDSIDE COMMUNE



Purpose: To evaluate the PPAL, a new powered bedside commode that facilitates level transfers between a wheelchair or bed and commode seat, reducing effort on the person and their caregivers.

Study Requirements: The study requires one in-person visit during which the participant will be asked to perform a series of transfers with the PPAL and complete surveys and an interview about your experience.

9 EVALUATION OF POWERED EXOSKELETON FOR VETERANS WITH KNEE OSTEOARTHRITIS



Purpose: To compare the performance of the Keeogo knee stress-relief powered exoskeleton to a passive knee brace in people with knee osteoarthritis (OA).

Study Requirements: The study requires the participant to answer questions and perform tasks during two separate visits to HERL.

MEET OUR RESEARCH PARTICIPANT ADVOCATE

WILLIAM SCHOY

At HERL, every participant is a valued partner in discovery. As your **Research Participant Advocate** I, **William Shoy**, see it as my mission to provide a welcoming, respectful, and responsive experience from start to finish.

Because you generously share personal insights to advance care and technology, I prioritize clear communication, prompt assistance, and genuine courtesy at every step. Whether scheduling sessions, answering questions, or guiding you through data-collection visits, I strive to make the process comfortable, efficient, and centered on your needs.

I look forward to meeting you at the community events I'll be attending and to welcoming you as a research participant here at HERL.



QUESTIONS?

CONTACT
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RESEARCH PARTICIPANT ADVOCATE

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In the News

APRIL 7

Our Experts

HERL and Dr. Cooper featured in this retrospective of VA Research's 100 years in 2025.

VA CENTRAL OFFICE

APRIL 7

Live Interview NDVWG

Dr. Cooper is featured on an interview at the National Disabled Veterans Wheelchair Games.

DISABLED AMERICAN
VETERANS

APRIL 9 & MAY 2

Pittsburgh Marathon

A series of features on handcyclists and Dr. Cooper at the 2025 PGH Marathon.

WTAE

PRINT

MAY 15

How Pitt Keeps Handcyclists on the Road

Dr. Cooper interviewed on HCAT and the 2025 Pittsburgh Marathon.

PITTWIRE

MAY 22

Shapiro Pushes for \$50M Innovation Investment

Attendees for this announcement included representatives from key Pittsburgh organizations including HERL's director.

PITTSBURGH
POST-GAZETE

JUNE 2

EasterSeals Walk With Me Pittsburgh

William Schoy featured prominently representing HERL in this feature on the annual event.

RESEARCH ROUNDUP

NEWSLETTER

SAVE THE DATE

JULY 17-22
National Veterans
Wheelchair Games

JULY 18-26
DoD Warrior Games

JULY 25
Research
Experience (REx)
Student Symposium

AUG 22-23
Adaptive Lacrosse
Games PGH

AUG 24-27
PVA Summit

SEP 20
Disability Pride PGH

RUMINATION OF THE QUARTER

"FROM CO-OP, TO RESEARCH ASSISTANT, TO RESEARCH ENGINEER, HERL HAS TAUGHT ME EVERYTHING FROM HANDS-ON ENGINEERING AND PROJECT MANAGEMENT, TO PEOPLE SKILLS AND LAB PRIDE. I WOULDN'T BE HALF THE ENGINEER TODAY WITHOUT THIS OPPORTUNITY."

- Maddi Viteri
Outgoing Research Engineer, Keeogo Exoskeleton



ALL OUR LINKS

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