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NEW MOBILITY



THE MEMBERSHIP PUBLICATION
OF UNITED SPINAL ASSOCIATION

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FORA

Reframing accessibility, Rethinking Hospitality

Fora Travel entered my life just as I was beginning to understand healing differently.

During the pandemic, my world began to narrow. Complications from limb-girdle muscular dystrophy made everyday life smaller, more logistical, more medical. By then, I could no longer pretend I didn't need a wheelchair.

On one of my first trips using a chair, I wheeled alone through an airport terminal, bracing for stares that never really came. I felt free in my wheelchair, moving through an airport alone and without apology. Travel, unexpectedly, offered a form of healing that did not depend on a cure. That was new. And it changed everything.

Fora was a young travel agency at the time, built on a simple but radical idea: that the unpaid planners of the world could become paid travel professionals. In an industry many had declared obsolete, it was entrepreneurial and optimistic. I joined because I knew I was a good traveler. I stayed because I began to see something larger. If we could show what travel looks like alongside perceived limits, perhaps we could influence more than itineraries. Perhaps we could influence who feels entitled to explore at all.

What I did not anticipate was how quickly Fora would move.

About six weeks into my Fora journey, the founders invited a small group of wheelchair users to train its advisors on accessibility and inclusion. We started with mobility, then widened the lens to hearing and vision differences, food allergies, sensory differences, neurological conditions, and chronic illness. We were not building a niche. We were building inclusion fluency.

The company was small then, but it was curious. When I raised accessibility gaps, the response was not defensive or dismissive. It was simple: You're right. Let's fix it. That felt revolutionary.

In under two years, our small accessibility team helped deliver \$75 million in accessible bookings to mainstream hotel and travel partners in 2025 alone — a figure that rivals the



annual volume of some mid-sized travel agencies. Quietly, the market responded. Brands began calling. Not because of compliance pressure, but because they saw loyalty forming. They saw demand. They began to see accessibility not as a cost center, but as a growth strategy.

We chose to lead with possibility, not accusation.

When accessibility is framed as regulatory pressure, conversations stall. When it is framed as hospitality, something opens. Hotels ask better questions. They request training. They want to understand how to welcome more fully. The work becomes less about fear of getting it wrong and more about the opportunity to get it right.

At Fora, we are integrating accessibility as a core business strategy, not an afterthought. Advisor intake forms now routinely include mobility, sensory, and medical considerations — not as special requests, but as standard planning details. Supplier conversations include mobility, sensory needs, and chronic conditions as default topics. For disabled travelers, this means fewer explanations and more experiences. It means being anticipated, not accommodated.

And for agents and travel industry hosts, it feels less like compliance training and more like building confidence in things they can do every day.

Travel did not cure my body, but it changed my relationship to it. It shifted my energy from waiting to participating. And through Fora, that recalibration of what is possible is now extending beyond me — reshaping not just how I move through the world, but how the industry welcomes those of us who move differently.

Karen Morales is a travel entrepreneur and accessibility advocate working at the intersection of hospitality and inclusion. She helps mainstream travel brands integrate accessibility as a growth strategy rather than a compliance obligation. To read more of her story, visit NewMobility.com.

To find out more about Fora, visit foratravel.com.

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Sarah Smith set out on the famous El Camino de Santiago pilgrimage looking for adventure and a challenge. After six strenuous days working with a passionate support team, she emerged with all that and much more. She chronicles her adventure and writes about the deeper value of accessible travel.

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BULLY PULPIT

By Ian Ruder

THE HIDDEN TAX ON DISABLED TRAVEL

After two weeks traversing 2,300 miles across New Zealand and checking off every must-do on my list, when I finally checked into my hotel room back in the states, I didn't have the reaction I expected.

I started to cry. Not tears of joy, but tears of pain and exhaustion.

My first international trip had exceeded all my expectations. Between a helicopter trip onto a glacier, a plane flight over the snow-capped Southern Alps, and too many other unforgettable adventures to list here, my mind overflowed with happy memories.

Unfortunately, none of that did anything to quell the overwhelming mental and physical destruction wrought by a 21-hour travel day, 17+ hours sitting on planes and enough awkward transfers to last a lifetime. The moment I rolled into my room, any adrenaline that had been masking the pain and anxiety wore off.

No hotel bed had ever looked sexier; the prospect of sleep briefly replaced my tears with a smile. Unfortunately, the moment my head hit the pillow, it felt like someone had just stabbed the entire circumference of my neck with thousands of tiny little swords. It took a handful of ibuprofen and 30 minutes of repositioning my pillow before my body finally let me get some rest.

A few hours of sleep and one delicious burrito later, my mind was able to start processing the whirlwind two-week trip and the emotional confusion in its aftermath.

What I came to realize was that while months of planning had resulted in a shockingly problem-free trip, the combined cost of all the stressors, all the worrying and all the extra, anxiety-inducing interactions had worn me down.

As much as I'd succeeded at budgeting for the added costs that come with accessible travel, I'd failed to anticipate the emotional toll from two weeks of worrying about things that most nondisabled travelers take for granted.

The toll started to build the minute I left home. My mind raced up and down my travel checklist, knowing that the equipment and supplies I need will be much harder to find in another country, thousands of miles away.

It ramped up at the airport. I exhaustively explained my needs to the staff hoping that my thoroughness would prevent them from damaging my wheelchair, bags, or, god forbid, me.

The plane was like a pressure cooker, turning my anxiety up a notch: Am I doing enough pressure reliefs? What if I have a bladder or bowel problem at 30,000 ft. in the middle of the Pacific Ocean?

Landing and discovering my wheelchair and bags had all arrived undamaged was a huge relief, but my mind instantly switched to thinking about my hotel and vehicle reservations. I've had providers fail to deliver the promised accommodations so many times that I'm actually more surprised when they do have the room or vehicle I reserved.

Each new destination presented some of these same anxieties. On a trip like this, where I stayed six different places, that added up. Adding two flights on the return trip and revisiting all the travel-day-related issues, and the emotional cost of the whole trip was enough to weary a much more worldly traveler than I.

But I'd do it all again in a heartbeat. The neck and shoulder pain went away with a few more nights of sleep and some more ibuprofen, and the mental pictures of all my adventures will stick with me for the rest of my life.

The unfortunate reality is that as disabled travelers we are inevitably confronted with more obstacles, more uncertainty and more potential problems. But isn't that pretty much the same as what we face every day as disabled people living in an abled society?

Do I wish it had been less stressful to make all those memories? Sure, but if all the stressors I listed earlier were the disability tax required to enjoy my first international trip, it was worth paying.



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February 23, 2026

Dear New Mobility donors and supporters,

The true strength of New Mobility has always been our community. Whether via mail, email, social media or in person, New Mobility readers have guided our work and ensured that we are focused on creating content that is useful, authentic and unique.

In my time as editor-in-chief, I've been continually moved by the passion and thoughtfulness of our readers and our online community. When we launched our first online fundraising campaign last Giving Tuesday I was optimistic you would show up. I never expected we would be nearing \$40,000 raised as we head into the campaign's final week.

To say we're blown away would be an understatement.

The issue you are holding right now would not have been possible without your support. The money raised will go a long way toward bringing back regular print issues and sustaining the high-quality work our small team prides itself on.

As critical as your financial support is, the outpouring of support in the form of comments and messages so many of you have shared alongside your gifts has fueled our commitment in ways no amount of money ever could.

We always knew you cared about New Mobility, but reading your candid, sincere messages — one after another — has been something else entirely. Your words have affirmed that this magazine and this website mean as much to you as they do to us.

Someone asked me recently whether we were disappointed not to have raised \$100,000. The honest answer is no. Of course we have big dreams. Of course the needs are real. But what we've received — what you've given us — is something just as meaningful: proof that this community stands behind us and validation that we are on the right track.

Please know this: every minute we are not creating and curating content for you, we are working behind the scenes — brainstorming, strategizing and searching for sustainable solutions to ensure New Mobility continues to thrive. We are committed to keeping this magazine alive for as long as there are wheelchair users trying to live active lives.

Thank you for your generosity, your encouragement and your belief.

Ian Ruder
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Director of Digital Content

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Advocacy Corner

By Steve Lieberman, Senior Director of Advocacy and Policy

GROWING THREATS TO ACCESSIBLE PARKING

United Spinal Association is fighting a rash of proposed legislation patterned on a recent Florida law allowing all pregnant women to park in accessible parking spaces. While we have no desire to make things harder for those who are pregnant, we don't think it makes sense to grant eligibility to park in accessible parking spaces to people who aren't covered by the ADA when we know there aren't enough of those spaces to meet existing demand.

We believe that states are better off adding more accessible parking spaces to meet demand, while creating new pregnancy parking spaces that are not taken from current accessible parking.

We are working with advocates and organizations in New Jersey, New York, Ohio, South Carolina, Tennessee and Utah to oppose bills copying the Florida law and to educate lawmakers about the problems with accessible parking. We have been successful in stopping the momentum of these bills in each state, and in some states, we are working directly with lawmakers to change the language.

The fact that these state bills are being proposed shows that more awareness is needed about accessible parking. We can start addressing that issue by requiring questions about accessible parking and access aisles on state driving exams. Signage identifying access aisles — and highlighting fines for parking in them — should be far more universal and standardized.

The accessible parking minimum standards should be updated not just to meet the current demand, but future demand.

On enforcement, there's a lot states can do. Cracking down on placard fraud should be made a higher priority, and



states should incentivize local jurisdictions to issue more tickets for blocking access aisles. Eventually, we need a national standard like REAL ID for placards.

States should experiment with different antifraud elements for placards and determine which are most effective. Every state should empower local authorities to enforce parking regulations in private lots and garages, as Illinois and some other states do.

Too often, legislation is developed without consideration of its effect on people with disabilities. That's why we need advocates like you — wheelchair users who are willing to contact your local representatives and speak about your experiences. Join our Grassroots Advocacy Network and help us fight for policies that work for wheelchair users. Together, we can create more accessible parking

spaces, raise public awareness of accessible parking laws, and increase enforcement.

Grassroots Advocacy Network

Join our network of 2,700 dedicated activists across all 50 states who are fighting for disability rights. We offer training to help you be a more effective advocate. You can join any or all of our working groups to help develop solutions for our community's most pressing issues like accessible parking, outdoor access, caregiving support and emergency preparedness. You'll also have a chance to attend one of our signature advocacy events, like the Roll on Capitol Hill or our Virtual Advocacy Day.

Join at: unitedspinal.org/grassroots-advocacy-network



*United Spinal
Association*

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FORWARD.**



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For more information on how you can support United Spinal and become a corporate member, please contact Scott Lavery scott.lavery@unitedspinal.org. Acknowledgements on our website, in *NEW MOBILITY*, in *United Spinal* e-news or any other *United Spinal* publication should not be considered as endorsements of any product or service.

What's New Online

This special edition print issue of New Mobility that you are reading is just the tip of the iceberg when it comes to our content offerings. While we're working on re-establishing a regular print schedule, you can tap into NewMobility.com for our latest content

and our free online archive of almost four decades of authentic reporting, reviews and more — all by wheelchair users, for wheelchair users. Keep up with new stories by signing up for our free monthly newsletters and by following us on Instagram (@newmobilitymag)

and Facebook (facebook.com/newmobility). Also, don't miss our growing collection of videos on YouTube (@NewMobilityMedia).

Here's a peek at what's new on our YouTube channel.

▶ What Wheelchair Users Drive

Just because you use a wheelchair, it doesn't mean you have to drive a minivan. Seth McBride breaks through the misconception and shares colorful conversations with wheelchair users who drive everything from sedans to trucks.



▶ Quadriplegic Builds Huge LEGO Sets

LEGO is not just for kids and nondisabled builders. Ian Ruder shows how he builds complex LEGO structures like the 7,500-piece Millennium Falcon using a couple of simple tools and the right techniques.



▶ MagnaReady Review

Power wheelchair user Paul Amadeus Lane reviews MagnaReady's dress shirt, which has all the style of a quality button-up but with magnet closures that make putting it on a breeze.



A BETTER BOWEL MANAGEMENT SOLUTION

If you live with a spinal cord injury, or any sort of bowel impairment, there's a good chance you think about bowel accidents and your bowel routine regularly. Coloplast's Peristeen® Plus transanal irrigation system offers a bowel management solution that replaces your current, multi-hour routine of suppositories and enemas, and gives you up to 48 hours of bowel continence. I wish I hadn't waited two decades after my spinal cord injury to see if Peristeen Plus would work for me.

Peristeen Plus is a transanal irrigation system that instills water into the colon through a hydrophilic rectal catheter with balloon, promoting evacuation of the contents of the lower colon. Using nothing but standard tap water, in 30-60 minutes Peristeen Plus delivers up to 48 hours of reliable continence. It's the only transanal irrigation device with documented studies and clinical trials that show it reduces fecal incontinence and constipation and improves users' quality of life.

Thousands of users have bowel continence back after using Peristeen Plus. Introduced in the US in 2014, it is now a covered benefit for Medicare & Medicare Advantage beneficiaries, making it widely available.

When I finally tried Peristeen Plus, I had been spending two to three hours every other day

“

I had spent over 9,000 hours on bowel care since my injury — that's over a year of my life. Peristeen Plus gave me continence and confidence, and hours of my life back.

waiting for suppositories and stimulation to work their magic, only to finish my bowel routine exhausted. I had spent over 9,000 hours on bowel care since my injury — that's over a year of my life I would never get back. Peristeen Plus gave me continence and confidence, and hours of my life back.

Changing your routine is never easy and can be nerve-racking, but for me, there are three main benefits of Peristeen Plus that made trying it an easy decision.

1) I'd be freeing up 1-2 hours of my mornings

2) I wouldn't be relying on anything but water and my body's natural rhythms

3) I'd be gaining the confidence that comes with not having to worry about accidents

As a quadriplegic with limited dexterity, when I finally got my hands on Peristeen Plus, I appreciated its thoughtful design. Coloplast incorporated feedback from users of the original Peristeen to make the device more usable for people like me, allowing me to be in control of when and where I empty my bowels, without the help of a caregiver. It is obvious how much thought went into designing a unit that would be easy to use, clean, care for, and even travel with.

Unfortunately for me, I waited too long to try Peristeen Plus. My previous bowel routine caused complications that required I have an ostomy. Years later, I wonder how much easier my life would be, and how many issues I could have avoided if I had started using Peristeen Plus sooner.

If your bowel care routine is negatively impacting your quality of life, or if you are looking for a more manageable bowel continence solution, don't make the same mistake I did by delaying starting Peristeen Plus. Talk with your doctor to see if Peristeen Plus is a solution for you. You can also learn more at www.coloplast.us/Bladder-and-Bowel/bowel-solutions or by calling Coloplast at 1-855-605-7594.

— IAN RUDER, EDITOR-IN-CHIEF NEW MOBILITY MAGAZINE

Peristeen® Plus

Create a bowel routine that works for your body and your schedule



Peristeen® Plus gives you more than control—it gives you freedom



Mattia,
Peristeen® Plus
user

Peristeen Plus is a transanal irrigation system that helps you empty your bowel in a predictable way—so you can plan your day with confidence, not around the nearest restroom.

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DAY IN THE LIFE



Marañon has been all over the globe, including all seven wonders and some of the most recognizable destinations. She usually travels alone and relishes figuring out the challenges that inevitably arise.



MARCELA MARAÑÓN, TRAVEL & LIFESTYLE CONTENT CREATOR

You don't earn partnerships with companies like Google, Toyota and Clinique and build a base of 2 million followers across social media by taking it easy, but one of the top lessons Marcela Marañón has learned working as a lifestyle and travel content creator is that it's all for naught if you don't take care of your body.

So instead of waking up at the break of dawn to work on editing content, when I spoke with her, she was enjoying a late breakfast of avocado toast and matcha tea and letting her body recover from a bad case of jet lag in the kitchen of her Dallas home.

"I am always traveling, and my body is always tired," she says. "I have learned that I have to listen to my body and give it the time for rest. When I'm traveling, that's when I'm working. When I am home, it's my recovery time. I do things that are going to benefit me."

Whatever regimen Marañón adheres to is working for her. Thanks to her savvy marketing and entertaining editing, she has established herself as one of the leading lifestyle and travel content creators who uses a wheelchair. Her content, under the moniker of @thejourneyofabravewoman, reaches millions of viewers every month and has provided a comfortable life for her and her daughter.

Among her many accomplishments, she has traveled to all seven wonders of the world, is the first Latina wheelchair user to summit Mt. Kilimanjaro, and has won numerous awards for her content, including an Emmy. As much as she enjoys being a creator, she values her advocacy work even more.

"What inspired me to create content was the desire to empower others, share diverse perspectives and show that everyone, no matter their circumstances, has a valuable story to tell," she says.

Marañón's story as a wheelchair user began when she was paralyzed in a car accident at age 20 in 2002. Her story as a content creator started in 2014 when she was studying communications at Austin Peay State University. Her professor encouraged her to come up with a brand name to market herself. She instantly knew what to choose.

"I always wanted to make a book and call it, 'The Journey of a Brave Woman,'" she says. "I have always considered myself untamed and brave. Whether it's traveling internationally on my own or succeeding as a single mom, I just go and do it. You have to be fearless, especially with a disability. Even if something bad happens, I will always learn from that."

She started posting on Instagram in 2017. Her initial content mostly focused on lifestyle brands, but she slowly shifted to creating more travel content as she saw the need and desire for more accessibility information. While she occasionally partners with travel brands and destinations and has her accommodations comped, she usually foots the bill herself. "It's very important to stay true to myself and not just sell myself because they pay me a check," she says. "Accessible travel isn't cheap, and it's important to show people how I can travel without breaking the bank."

Between destinations, brand events and other public opportunities, Marañón is constantly on the go. Keeping ahead of the demand for content is critical.

"I have so much content uploaded that people haven't even seen on social media," she says. "So if something happened to me for a year and I cannot work or I cannot travel, I have enough all ready."

Marañón still finds time to engage with her online followers and says she has been fortunate to have a mostly positive and supportive community. "I want to be surrounded by people that really like my work and really love who Marcela is," she says. "I don't care if I only have 10 followers, as long as these 10 followers wish me well, because that's good energy for me."

Marañón draws more support from her college-age daughter, and credits being a disabled mom with getting her where she is today.

"Being a disabled mom helped me to just wake up every morning, breathe in, and be appreciative of what I have — my daughter and my health. Every time I woke up and I felt healthy, I was able to go outside and work and do the things that I wanted to do and take care of my daughter."

Five years of heavy traveling have taken a toll on Marañón's body, but she's not ready to retire the luggage just yet. She didn't want to reveal exactly what she has planned but said she is looking forward to spending more time in Europe and upping her advocacy involvement.

"I have to pay my bills," she says, "but I am not desperate anymore to get anybody's attention or to try to get a trophy or something like that. I feel like I have matured and I am in a place in my life where I do what I want to do. Nobody's telling me what to do."



(L to R) Marañón was 20 when she was paralyzed in a car accident. Some of her earliest online content focused on her usage of a ReWalk exoskeleton. Raising her daughter as a disabled mom has been a source of strength and inspiration for Marañón. No matter how busy her schedule is, Marañón finds time to advocate, shown here at United Spinal's Roll in Capitol Hill.

RETHINKING THE EXCUSES THAT KEPT ME FROM TRAVELING INTERNATIONALLY

BY REGAN LINTON

A few years ago, I set a bucket list goal to go to the United Kingdom for my 40th birthday. Since my SCI in 2002, I've been fortunate to travel internationally a few times for work and leisure, including to Japan, Italy and Dubai. But never the UK. After four decades on the planet, I was jonesing to finally visit the land of my roots and my beloved Shakespeare and Mr. Bean. I wanted to be awash with history and wit, and bask in nuanced accents while drinking a pint at a countryside pub.

I knew it might be challenging to make it a reality amidst my ever-unpredictable work schedule. To amplify its probability, I shouted it to the universe. I asked my siblings if they would join me on the trip. I decorated a wine bottle with the Union Jack flag and placed it prominently on my counter. I started bookmarking accessible UK cottages and asking friends for destination recommendations.

Then COVID. Stopped. Everything.

No biggie, right? Totally valid reason to postpone and make the trip a goal for my 41st.

One year turned into two. Then three. I kept shouting my goal into the ether, but “reasons not to” kept popping up: a work project that might happen, my siblings traveling elsewhere, my checking account needing a boost.

As 2025 arrived — with COVID restrictions now mostly a distant memory — all the people I'd told about my goal continued to excitedly ask when I'd be going. When I responded, “I'm not sure, I have X, Y, Z, blah blah,” their forced smiles communicated what I was feeling inside: It sounded like excuses.



Regan Linton set a goal to travel to England for her 40th birthday. The pandemic made that impossible, and then “reasons not to” kept popping up for years until she finally made the decision to make it happen.

“REASONS” VS. “EXCUSES”

Perhaps it's helpful to quickly differentiate “reason” vs. “excuse.” To me, a reason is a factual explanation why a situation may come to be. A reason morphs into an excuse when the motivation is no longer to understand and deal with the situation, but rather to dismiss. Push it off. Avoid responsibility or opportunity for addressing it.

Now look, as a spinal cord injury survivor, what I call “reasons” might seem like “excuses” to non-paralyzed people. They don't understand the many complexities of life that can easily become deterrents for us wheelers. When these pile up or recur thanks to circumstances beyond our control, they can feel unsolvable or overwhelming — like the thousand cuts that spell death to our dreams.

With travel, for example, the cuts are the weeks of emails, calls, and requested photos it takes only to discover the “accessible shower” at a luxury Rome hotel is actually a dog-spray hose hooked up next to the toilet in an unnavigable cramped closet with peeling walls and cracking tile thrown on the floor (true story). Or the changed flights, unworkable seats, accessibility failures, missed connections ... all of which can esca-

late minor inconveniences to life-threatening situations.

And of course, the “reasons not to” in our daily lives go far beyond travel. Problematic systems, inaccessible spaces, jerk-ass people ... I don't have to name the examples, you know them. I consider myself a pretty darned active, optimistic and adventurous person, but the incessant and necessary problem-solving to deal with all the reasons can get exhausting.

Eventually inertia sets in like a vile monster, and even when we muster the emotional energy to “set our minds to it” (as my dad says) and git-er-done, somehow

it starts to feel more safe, comfortable, and less tiresome to hide inside, give the world the middle finger, and put the blame on anything and everything outside for why something isn't happening. Making excuses eventually becomes less work and allows us to avoid the potential for disappointment ... in ourselves and the world.

THE VALUE OF 2002 REGAN

This makes me think about my headspace just after my SCI accident. The dread and uncertainty that set in amidst sleepless nights staring at the ceiling in rehab, the surgeries, therapies, leaking legbags, and the “oh f*ck, what is my life gonna be.” Talk about overwhelming. And yet, I made it through, as we do, because it's the option we have.

By the time I had pushed through a couple of years of “real life” post-injury, a brand-new *joie de vivre* had emerged ... that of a survivor. I was ready to do ANYTHING I COULD. Hell, I was still breathing! The sun was out! I could get myself around! Sure, the idea of traveling to — I dunno, maybe Edinburgh, Cairo, Tokyo — felt like a terrifying black hole of logistical unknowns, but dammit, I was gonna figure it out.

Over time, I've realized sometimes I need Regan of March 2002, with all her anger and urgent craving to rip out the IVs and get out to live life, to give me a figurative kick in the pants. Regan of 2002 reminds Regan of 2025 not to become complacent; make my life fruitful RIGHT NOW.

In 2025, I learned that an equally powerful impetus is a dear friend who suddenly mentions she has to go to Germany for work, and proposes going to the UK first because she knows it's my goal. When this happened, I could immediately feel the excuses bubbling ... not enough time to plan, can't get the right tickets, don't have enough money...

Luckily, 2002 Regan interjected. "Bugger off!!! Let's do it."

I literally channeled her out loud multiple times whenever "reasons not to" crept up during my planning: "You aren't gonna see everything in one trip, and that's okay!" "If a job comes up that conflicts with the trip, let the job go!" "Just get on the plane. ... It's all a bo-

nus!" Slowly and surely, I felt more powerful to solve the conundrums, throw myself into dealing with reasons and stop making excuses. Eventually, I was on the plane.

THE BEST

Once I got to the UK, there were still plenty of reasons that could have stopped me. I grunted through the cobblestones, travel constipation, drenching rain, bathroom access variability, lugging luggage, terror of highway roundabouts, credit card debt incurred and plenty of bodily discomfort during the ten-hour flights in economy.

But it was the BEST.

I found myself driving a rental car solo with a completely different hand control on the opposite side of the wheel, opposite side of the car, opposite side of the road, grinning full-on like a Mr. Bean-loving idiot.

I got in the warm springwaters of Bath (via an accessible lift, btw) and

scampered around Stratford-Upon-Avon with the aplomb of Shakespeare himself.

I wheeled, bussed and trained around London, Liverpool, Manchester and the coastlines of Lindisfarne, Edinburgh and the Bempton cliffs, discovering accessible spots that even my most UK-experienced traveling friends hadn't ever visited.

I slept in a hip London hotel, a seaside B&B, a football stadium and a rural farmstead — all accessible.

And as I did all of it, man, I was so glad I hadn't waited one more day. One more month. One more year. The hunger I felt so saliently after my injury to get out and live, and do, and not fall into reasons or excuses, was re-stoked.

I know that as I get older, the "reasons not to" will only accumulate and more easily become excuses. But at least for now, I'm reminding myself to keep pursuing "what's next" and make it happen, however it needs to. ❏

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PRODUCT SPOTLIGHT:

VitaGlide

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Designed for anyone ready to stay active, rebuild strength, or regain momentum, the VitaGlide delivers adaptive fitness reimaged. Whether you're rolling into your first workout or leveling up your endurance, this patented push-pull system strengthens the upper body, improves mobility and boosts confidence — all from a seated position.

What is the VitaGlide and how is it different from traditional arm-ergometers?

The VitaGlide is an adaptive exercise machine that uses a natural push-pull motion — similar to transfers and everyday reaches — to engage the entire upper body. It builds chest, arm, back and core strength while reducing shoulder strain that's common with circular crank ergometers. But the best part? From one of our customers: *"I can get a good cardio workout and work up a sweat."*

Who can benefit from using the VitaGlide?

Anyone seeking improved mobility, strength or independence. Wheelchair users, stroke survivors, adaptive athletes, older adults and those with limited mobility use the VitaGlide to stay active at home, in rehab or in the gym. It's designed for real life and real people.

What results can I expect?

Users report stronger arms, increased stamina, smoother transfers, better balance, improved posture and a boost in everyday confidence. Many also enjoy meaningful cardio workouts and weight-loss benefits. But don't take our word for it, hear from Karen who uses the VitaGlide regularly.

"I've been a VitaGlide user for almost 5 years and have become the beneficiary of a quality cardio experience ever since! VitaGlide's well-constructed, durable, steel frame provides a sturdy gym-like equipment feel. Twenty years ago, my back was broken (T-10) in a car accident, leaving me paralyzed from the chest down.

Following the accident, I searched for equipment I could use to work out from a wheelchair, but I was discouraged to find professional gyms didn't offer this and equipment was non-existent.

VitaGlide serves a broad market of users, delivering a robust cardio workout based on a rowing movement. Plus, it delivers professional "gym" equipment for a fraction of a membership cost. VitaGlide's well-constructed system allows metrics and progress to be tracked, enabling me to keep my health goals on track. VitaGlide does not disappoint!"



Is it easy to use?

Yes. Just roll up or pull up a chair — no transfers required. With intuitive controls, quick-adjust resistance and a minimal learning curve, most users are up and gliding in minutes. We provide clear assembly video support and will even join you via phone/video for setup if needed.

What's new in the latest version?

VitaGlide 3.0 adds tablet-powered performance tracking, virtual environments, independent arm resistance (0–10) and the ability to monitor distance, time and goals. You can even stream your favorite shows while you work out.

What about safety and reliability?

Safety comes first. Prototyped for two years in a leading spinal cord injury facility and tested for durability, the VitaGlide is built from high-quality materials and backed by a comprehensive warranty.

How can I learn more?

- Visit www.vitaglide.com to watch videos, read testimonials, explore full features, and schedule a free 20-minute virtual demo.
- Call 305-514-0514 to speak with a specialist.

VitaGlide: Move More. Feel Stronger. Glide Freely.



HANDCYCLE GEAR GUIDE

BY BOB VOGEL

As handcycling continues to grow in popularity, so too do the number and variety of handcycle models. Whether you're looking for a casual ride, trying to break the land speed world record or exploring the latest trails, chances are there is a cycle out there designed to help you achieve that goal.

A good way to give the sport a try is to contact your local adaptive recreation programs to see if they have a cycling program and models you can try. Another good option is to check out your local SCI support group to see if they have an adaptive sports day.

Here is a look at handcycle model options in various categories.



Photo credit: Ben Moon

RECREATION/TOURING ROAD HANDCYCLES

Recreation/touring handcycles are great for those who want to ride on streets and bike paths whether for fun and exercise or long rides and multiday touring. If you can push a manual wheelchair, you can likely ride one of these handcycles, with the caveat that people with limited hand dexterity may need quad grips, which are offered as an option on some models or can be purchased through online vendors.

FREEDOM RYDER E1

The E1 offers a comfortable touring bike for great exercise and 'E' power to enable long distances and climbs, and a road bike with a single-chainring nine-speed cassette for easy shifting, combined with a torque-sensing motor that has five levels of assist. The E1 is great for getting and staying in shape and keeping up with nondisabled friends on longer rides. The E1 also has a thumb throttle for times when you need to start on a steep grade, or are just too exhausted to peddle but still need to get home. It is available in a quad version that gives full control for riders with limited hand dexterity.

"I love getting out and riding every day," says Ben Berliner, who is in his 4th year as a T5 complete para. He appreciates the E1's customizability after starting out using an older used handcycle. "Hills and distance were a big challenge on my old handcycle. The E1 allows me to dial in the amount of assist I need to keep up with my [nondisabled] friends." Berliner says he also likes the adjustable headset that enables him to set the cranks at optimum position for shoulder comfort. "I love getting out and riding every day. My average ride is around 30-miles with 2,100 feet of climbing. It's a great workout with no stress on my shoulders."

Available at freedomryder.com, \$6,349.



TOP END EXCELERATOR

The Excelerator is one of the last readily-available upright handcycles, ideal for riders with difficulty transferring and those interested in mellow rides around the neighborhood and local bike trails. It features an adjustable sliding seat and height bottom bracket for custom fit, an internal 7-speed hub for easy shifting and a reversing drum brake you simply back-peddle to slow or stop. It is available in multiple seat widths and has a weight limit of 350 pounds. Because it has a high center of gravity, suggested speeds are 15mph or below, especially when cornering, to avoid tipping over.

Available at topendsportsllc.com/handcycles/recreational-handcycles, \$4,999.



MADDILINE PRO EVO

The Pro Evo is a high-performance, highly adjustable, recreational touring handcycle that is also good for beginning-to-intermediate racing.

Available at bike-on.com/shop/p/maddiline-pro-evo, \$10,900.



TIARROW KEBNEKAISE

The Kebnekaise (Keb) has an adjustable angle back support and adjustable bottom bracket (where the peddle crank arms attach) for a custom fit. Designed to be ridden on the road, dirt or gravel trails, it has a single chainring with a 12-speed cassette for easy shifting and disc brakes. It comes in two sizes, standard and long. Weighing in at just under 30 pounds, it offers great riding performance and ease of transport in and out of a vehicle.

“I like the Keb because it is so light I can feel it accelerate; I can put body English into making it turn,” says Ryan Barnett, a T3 para and partner in TIArrow. Barnett likes the tight turning radius and how easy it is to transport. “It will fit into a standard bike bag or bike box, so it’s super easy to travel with.”

Available at tiarrowusa.com, \$11,050.



RACING HANDCYCLES

For those that feel the need for speed, covering very long distances, and the thrill of competition, a racing handcycle is the way to go. Because the user sits in an extreme recline position with a low center of gravity, they have great aerodynamics, and are very stable at high speeds and in high-speed cornering. “Recumbent racing handcycles are great for going fast and far,” says Matt Fritsch, 42, who is in his 22nd year as a T6 para.



TOP END FORCE RX

The Force RX is a cross between a high-end road handcycle and an entry level racing bike. It is fully adjustable, made out of 6061-T6 Aluminum and has a carbon fiber backrest. There are multiple options available for the gearing and components.

Matt Fritsch loves his Top End Force RX but says it can be a challenge to transfer in and out of. “Also, although the extreme recline position is great for going fast and far, being low ... isn’t very good for your view. I did the 72-mile ride around Lake Tahoe and my head was so low [that] if there was a guardrail, everybody else got to see amazing scenery, and all I got to see was the guardrail.”

Available at topendsportslc.com/top-end-force-rx-handcycle/, \$9,999.



CARBONBIKE VENTO PRO BY TOP END CARBONBIKE USA

The VENTO PRO is an all-carbon fiber race handcycle that is custom measured and built to the rider’s exact specifications. It is a super light, high-performance bike with high-quality racing components. The VENTO PRO TETRA H1/H2 is the same as the VENTO PRO but with quad adaptations.

Available at topendsportslc.com/new-carbonbike-vento-pro, \$25,950.



MADDILINE CARBIDE 3

The Carbide 3 is a full carbon fiber, high-end custom-made racing handcycle.

Available at maddiline.com/en/handbike/carbide3-en, \$25,900.



GRAVEL HANDCYCLES

Gravel biking is the fastest growing part of the cycling industry and it is starting to take off in handcycling as well. “Part of this reason is there are no cars on places where you ride gravel trails,” says Ryan Barnett. A gravel handcycle is similar to a road handcycle, but built tougher and with treaded tires. A gravel bike requires the same amount of function as riding a recreation/touring handcycle. Since they excel on the road and on dirt and gravel trails, it opens up more terrain to riding.



TIARROW GRAVEL-S

The Gravel-S is a titanium-frame handcycle similar to TiArrow’s Kebnekaise, but with a slightly longer frame for stability at speed. It has an adjustable back support and adjustable bottom bracket for optimal fit, and weighs a mere 32 pounds. “To me it’s the best gravel racing bike by far. It’s super light and super strong. I put the Gravel-S through everything I could, going 40 mph downhill on washboard roads and it held up,” says Joe Pomeroy who has ridden the Gravel-S to victory in his class in the Gravel National Championship the last three years.

Available at tiarrowusa.com, \$11,050.

GRAVEL HANDCYCLES

LASHER SPORT ARC

The ARC (for All Road Cycle) is a magnesium-frame handcycle designed for urban and gravel riding. It features 6" of ground clearance to help get over curbs and obstacles. It has a 12-speed cassette and disc brakes. It is fully adjustable in depth and seat angles.

Available at lashersport.com/arc/, \$9,995.



SPORT-ON XRC GRAVEL

The XRC Gravel is an aluminum-frame handcycle designed for rugged gravel roads and forest paths. It comes with e-assist and options include an attachment for towing your wheelchair and custom quad grips.

Available at bike-on.com/shop/p/sport-on-xcr-gravel, \$10,595.



OFF-ROAD HANDCYCLES

Off-road handcycling has been around since the late '90s, but in the past 15 years the addition of e-assist has enabled the sport to grow by leaps and bounds because e-power enables much longer rides, riding up and down trails at mountain bike parks, and keeping up with nondisabled friends on mountain bike rides. If you can propel a manual chair and do transfers, you can probably ride one.

There are currently four types of popular off-road handcycle designs: Rear-wheel-drive forward-prone-kneeling body position, rear-wheel drive recumbent, front-wheel drive recumbent, and articulating. Articulating handcycles have front or rear wheels that articulate, meaning lean to the side, which allows the bike to lean into a turn or lean into an off-angle hill which provides a feeling and ability similar to an upright bicycle.



REAR-WHEEL-DRIVE FORWARD-PRONE-KNEELING

REACTIVE ADAPTATIONS BOMBER AND HAMMERHEAD

The Bomber and Hammerhead are rear-wheel drive, forward-prone-kneeling body-position handcycles. Steering is accomplished via shifting weight on a chest pad while peddling or by handlebars when gliding. The prone position allows the rider to shift their body for balance in high-speed corners and challenging terrain, and rear-wheel drive provides excellent traction. Many riders (including this writer) find the riding position to be comfortable; others find it uncomfortable. Transferring can be a challenge and requires good hip and leg flexibility, and these bikes may not be compatible for those with limited arm or hand dexterity.

Both bikes have rear suspension. The Bomber has a rigid front end which is great for most riding. The Hammerhead has front suspension which smooths out bumps and rough terrain, but can be locked out when a rigid ride is preferred. Both bikes offer a wide variety of gearing options and the option of adding a Bafang 750-watt e-motor, so you can set the desired amount of assist for the terrain you are riding or to keep up with nondisabled riders or avoid shoulder strain, and still get a great workout.

Available at reactiveadaptations.com, Bomber \$11,950, Hammerhead \$15,100. E-Assist adds an additional \$2,500 to either handcycle.



OFF-ROAD HANDCYCLES

SPORT-ON EXPLORER

The Explorer is a full suspension, rear-wheel drive, forward-prone-kneeling handcycle that has e-assist included in the price.

Available at bike-on.com/shop/p/sport-on-explorer, \$16,325.



SPORT-ON JEETRIKE

The Jeetrike has e-assist, full suspension and optional quad controls.

Available at bike-on.com/shop/p/sport-on-jeetrike, \$18,495.

BOWHEAD ROGUE

The Rogue is a full suspension, front-wheel drive recumbent off-road handcycle with e-assist. Quad control options available.

Available at bowheadcorp.com/bowhead-rogue, \$13,999.



REAR-WHEEL DRIVE RECUMBENT

REACTIVE ADAPTATIONS NUKE AND MAKO

“I like the upright position of recumbents because it’s easier to watch the scenery and it is a better position to talk with people on a hike or ride,” says Brad Parks, who owns a Nuke and a Mako but. He got the Nuke, which has a rear suspension and rigid front, end so he could go hiking in the mountains with his wife, Wendy. “The e-assist enables me to keep up with recreational mountain bike riders.” He reports the Nuke is great for hiking and trail riding. For extreme terrain he prefers the Mako, which has rear- and front-suspension. “The Mako went over big rocky areas so easily, I bought one,” he says. The suspension helps keep the wheels on the ground on rough terrain. In addition, he likes the quick lockout on the front suspension for stability when riding on off-camber sections. The seat heights on the Nuke and Mako are only a few inches lower than his wheelchair, making for easy transfers. Both bikes have a quad grip option.



Available at reactiveadaptations.com, Nuke \$12,800, Mako \$17,800. E-assist adds an additional \$2,500 for either handcycle.

FRONT-WHEEL DRIVE RECUMBENT

LASHER SPORT ATH-FS AND ATH-FSE

The ATH-FS is a full suspension, lightweight magnesium frame, front wheel drive handcycle and the ATH-FSe is the e-power version. Both bikes have a variety of options in shock and drive-train choice and have adjustable seat depth and backrest angle. They are also available with quad grips as an option.

“I got a fantastic price on a used ATH-FS, rode it for a while and then had a bike shop put an e-assist motor on it,” say Fritsch, who was a mountain biker prior to his injury. “Riding Lasher was life-changing. It felt fantastic to be back in the woods, on the dirt, in nature in a way that I would never be able to in a wheelchair. It was amazing.” He reports the independent rear suspension is plush and responsive and great for trails and cross-country. He says the limitations of the bike are that the front wheel loses traction on steep hills (above 10% incline) and loose dirt.



Available at lashersport.com, ATH-FS \$14,995, ATH-FSe \$20,995.



MADDILINE CWX

The CWX is a rear suspension, front-wheel drive handcycle that is adjustable in height and length. Optional e-assist and optional quad grip and braking.

Available at bike-on.com/shop/p/maddiline-cwx, \$14,800.

BOWHEAD RANGER

The Ranger is an all-terrain four-wheel e-powered articulating adaptive handcycle. It is designed for riders with limited balance and/or hand function to get out onto trails and explore the outdoors.

Available at bowheadcorp.com/bowhead-ranger, \$18,999.

SPORT-ON QUANTUM

The Quantum is a full suspension, front-wheel drive e-bike that has articulating rear wheels.

Available at rollinginparadise.com/product-page/sport-on-quantum, \$16,795.



REAR-WHEEL DRIVE RECUMBENT ARTICULATING

BOWHEAD REACH

The Bowhead Reach is a full suspension, all-electric — throttle, no peddles — recumbent rear-wheel-drive off-road bike that has an articulating front-end FLOW™ system which gives the bike the ability to lean into turns and/or off-camber hills similar to a bicycle.

“I was a mountain biker before my injury and I tried the Bowhead Reach. It felt like mountain biking again and allowed me to get creative on the trail and flow with the terrain. It feels par to being on two wheels,” says Joe Stone, who is in his 15th year as a C7 quad. “Because the bike is extremely capable in leaning, turning and power, you can also get yourself in more trouble,” he says, and explains there is a learning curve to riding the bike safely and to getting the most out of it. “When you build up your skills, the Reach is capable of tackling extreme technical terrain, and because it is only 28” wide [most off-road handcycles are 32”-35” wide] and the front-end articulates, it can go on single-track trails including off-camber side hills.”



Available at bowheadcorp.com/bowhead-reach, \$16,999.

BOWHEAD RX

The RX is a full suspension e-bike and has the same FLOW™ articulating front-end as the Reach, but with pedal-power as well. In addition, it has a motocross rear swing arm for extra suspension and has 12-speed electronic (no cables) shifting.

Available at bowheadcorp.com/bowhead-rx, \$17,999.



The author relives his gaming glory days at the Pinball Expo outside of Chicago.

FLIPPING ACCESSIBLE:

THE PEOPLE AND DEVICES TILTING PINBALL TOWARD ACCESS

BY JOHN MOHLER

When i was an arcade rat in the 1980s, my idea of heaven looked just like what I discovered when I attended the 41st Annual Pinball Expo this October in Schaumburg, Illinois, outside of Chicago: a massive, pulsating convention hall lined with hundreds of pinball machines, manned by merry pinballers of all ages, colors and families. It was noisy; it was flashy; it was fun. Rolling up to the entrance, I took a deep breath of excitement. Yes, these are my people ... and I don't need quar-

ters! I launched myself into a carnival-like day I'll never forget.

What I didn't see, however, were many wheelchair users, because the pinball world isn't very accessible. But that's changing fast, thanks in part to Project Pinball, a Florida non-profit that has donated and maintains pinball machines in 82 children's hospitals and Ronald McDonald Houses across 29 states. The donated machines are more than a recreational diversion: They're an incentive for patients to get on their feet and out of their rooms, and provide quality



Innovative gaming arcade at New Mobility expo, featuring Space Hunt immersive experience.



playing-time with visiting family members and others.

Part of bringing pinball to children's hospitals is making sure its spark is accessible and felt by all. So, Project Pinball and its founder/senior director, Daniel Spolar, have expanded their mission into promoting access in the pinball community. "I never want to think about people just sitting on the sidelines, not being able to play," Spolar says. "We've got to do better." Part of that push was taking place behind us at Project Pinball's expo booth, where its third annual Freedom to Play Pinball Tournament was being played. In 2024 the event attracted over 100 entrants, disabled and nondisabled alike.

Contestants played on four pinball machines, each with an accessible controller. The controllers are colorful, hexagon-shaped cylinders of 6-inches-by-3-inches, with a row of three large buttons on one side, and a cord connecting them to their machines so you could take the controllers in your hand or lap. All contestants, regardless of ability, had to use the controllers made by tournament

cosponsor Inclusive GameWerks. The IG controller is a great example of access spreading to the pinball world, with a number of adaptive devices hitting the market in the last few years, even — I would happily discover — ones for complete quadriplegics.

CHANGING ATTITUDES ABOUT PINBALL

"I'm a fairly bold person," says IG co-founder Zack Christofferson, a 35-year-old married father of two who uses a power wheelchair due to muscular dystrophy. One evening in 2022 he and his wife, Alysha, were kicking back with good friends — three married couples in all — enjoying some beers while gathered around a pinball machine. "At one point I go, 'I really don't care about the pinball machine,'" Christofferson says. "It's not something that I can do ... I can't reach around the cabinet. I can't access the buttons." It started a conversation that led to an interesting proposition: What if they could bring the buttons to Christofferson, so he could play from his lap?

Taken with the idea, the group began working on the electronics, wiring and current so as not to harm the pinball machine. They came up with a portable control unit, housed in a bent Plexiglas casing, with a couple of holes drilled out for the buttons, plus a wiring harness to connect the controller to the pinball machine. Their prototype worked for Christofferson, and the group and their families reveled in a couple nights of truly inclusive pinball. Christofferson was still so moved by the experience that he sent a group text in the middle of the night, saying, "Hey, this is more than just a game. ... How many other people could we help with this?"

So began Inclusive GameWerks. Through testing and design improve-

ments, they came up with a 3D-printed hexagonal cylinder as the most versatile and functional shape for differing abilities, allowing users to hold, press or manipulate the unit from all angles in the lap or on another surface, like a chair or on top of the pinball machine. The controller does everything that machine flippers do, without lag, and even has a launch button to begin play. First, a pinball machine must be fitted with a harness, which a layman can do in 10-20 minutes without drilling or hurting the machine. After that, the same controller can be used on all harnessed machines. The machine's original controls remain active.

They placed a controller at Chain Reaction Brewing Company, the Denver microbrewery that Christofferson co-founded and co-owns. Soon other local breweries were trying it in their spaces. It wasn't long before the IG crew learned about Project Pinball and contacted Spolar. The next time Spolar came to Denver, they invited him to bond over pinball and shared experiences: Christofferson had spent considerable time at children's hospitals during his childhood, and Spolar's son also got successful treatments for a rare blood disease as a child. "[There



is] this really cool natural connection we have with him,” Christofferson says. Only a couple weeks later, the whole IG team turned out to hook up the first donated controller with Project Pinball at Children’s Hospital Colorado in Denver in 2023.

“How cool is it to see a kid that’s never got to play pinball in a wheelchair, come with his mom or dad or sibling and just get to be part of the fun?” Christofferson says. “How important it is for them to feel included and doing the thing together.”

Currently, they have shipped over 100 controllers to 19 states, Canada and Europe, including placement in the Dutch Pinball Museum in Rotterdam. Through Project Pinball, the controller is in 15 hospitals and Ronald McDonald Houses, and will be included with all newly donated machines and, eventually, all previously donated ones as well.

The team is proudest about pushing the bounds of their design to accommodate more disabilities. They have put Braille on their controllers for visually impaired players. They can vary the size of the unit and buttons and how they are spaced. “Nothing is ever one-size-fits-all,” Christofferson says. “There’s a lot of conversation that happens [before] getting all that to work for the individual to make sure it’s right for them.” They have even adapted the unit with knobs, goalpost joysticks, and sip-and-puff controls. Typical controller models cost \$375 and include a harness.

BEING HER OWN TEAM

For 43-year-old C5 quad and United Spinal member Angie Hulsebus, a round of pinball used to look more like a game of Twister. She had to paral-

lel park her power wheelchair almost touching the front of the machine. “I can push one of the flipper buttons with one hand, and then almost always my husband has to control the other flipper while leaning over my lap,” she says. “We are in each other’s space.”

In 2024, Hulsebus and her husband made the trek from their home near Des Moines, Iowa, to the Pinball Expo, to try the IG controller at the Project Pinball booth. Laying the unit on her lap, she hit the buttons with her pinky knuckles — and pinball was played. “I was excited,” she says. “It was great.

“Having the controllers, ... we can play two-player games, and we can actually compete a little bit and have more banter, more fun, right?” she says. “I mean, I love my husband, I love playing with him, [but] just being able to go and play with more of our friends, I can be my own team.”

She has met with members of the IG team both in person and on Zoom, and is now ready to purchase a controller of her own. When she played the standard unit, her opposing knuckles kept mashing into one another, so she’s ordering a customized unit 2.5 inches wider to give her more space, plus her choice of colors for the buttons and shell.

Hulsebus also got to play with another adaptive device, the Crazy Flipping Finger, designed to assist one-armed players. She used two such units together and was able to run them through an Xbox Adaptive Controller, to take advantage of its large touchpads. “It felt totally good,” she says. “That was the first time playing pinball by myself.”

Hulsebus looks forward to the portability and convenience of the IG controller, which she can throw in her backpack and go. But she rates both the IG and CFF systems playable and fun. “Pinball machines are not accessible and it’s awesome that people are trying to make them more friendly and inclusive,” she says.

There are at least seven companies offering various access controllers,



Angie Hulsebus, a C5 quad, plays pinball with a couple of adaptive flippers linked through an Xbox Adaptive Controller. Hulsebus loves being able to compete with her husband instead of needing his assistance when they play.

each with its own strengths and weaknesses. For example, the palm-sized Adaptive Flipper Control makes accessible over 100 pinball machines at two The Game Preserve locations in the Houston area. Designed by an electrical engineer who uses a cane because one side is affected by a stroke, the harness/jack sells for \$15 and the controller for \$20, but it does not offer launch button capabilities. The controller was also featured by Project Pinball at a previous Pinball Expo.

THE PINBALL TABLES ARE TURNED

“Have you visited the Hexa Pinball booth? It’s right behind ours,” said Spolar. “I want you to see this.” In his role of access facilitator, he introduced me to Alexandre Mak, cofounder of Hexa Pinball, based near Bordeaux, France. Mak worked two years designing Space Hunt, billed as the first mass-produced pinball machine for the disabled, debuting in France in 2023 and now available in the U.S. and Canada.

“Since the very beginning, we have been in contact with associations in France with the same objective as [Project Pinball],” says Mak. “We listened to them to understand their expectations, and they say if you could work on a system that will allow disabled people to use this, that would be great.” Mak responded by designing a free, optional front panel with conveniently accessible 3.5 millimeter mono jacks for adaptability inputs — no drills or screwdrivers required. A variety of input devices will work, and the Hexa team had on hand the Logitech G Adaptive Gaming Kit, available online for \$79.99. It’s as easy as plugging into a game console. Hexa is including the same features on its next game, *The Three Musketeers*, rolling out next year.

Access is very much an international language and it unfolded during our interview. I function at C4-5 from multiple sclerosis and operate my chair by head array, driving by tapping sensors in my head rest. Spolar called to Project Pinball volunteer



Zack Christofferson developed a portable pinball controller that allows players to control the machine from their lap or another surface.

and occupational therapist Sandy Czernik, who joined a pit crew that included the Hexa team and my wife, to mod my head array for *Space Hunt* using switches from the Logitech kit. On an audio recording, my conversation with Mak gets drowned out by some 90 seconds of crosstalk before my voice breaks in again, saying, “Thank you. Oh man, I’m going to be here all day. ... They got me going, Daniel. ... Thank you so much, guys.”

I wish I could say I came out with paddles blazing, but I played my first game or two like *Rip Van Pinball*. After all, I was working out 40 years of rust since I last played. What was surprising, though, was how quickly the arcade portion of my brain sprang back to life, probably covered by an inch of dust, but cranky as ever: “Dude,” it scolded, “you know you have to stagger the paddles or the ball will drop down the middle!” If right

then the house P.A. had started playing *Pet Shop Boys* or *Take on Me* by Aha, I wouldn’t have been surprised.

The controls were seamless, no lagging, and it wasn’t long before I was capturing the ball with an upraised paddle, and passing it from one paddle to the next. After my second game or so, I was already feeling the competitive juices flow. At Mak’s prompting I started besting previous score after previous score.

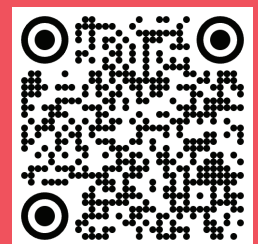
At one point, one of the guys was asking me questions and part of my mind said, “Hey, I’m chasing personal high game over here!” — before the other side of my mind reminded me that I was the interviewer. Look out, I’m in Gamer Mode again.

What a plot twist. I expected to be a writer and observer, and voila, ended up a player. You don’t want to be in the game room — you want to be gaming. ■■



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LEARNING TO LET GO ON EL CAMINO DE SANTIAGO

SARAH SMITH

Photos by Tim Bryant

“You would love the Camino, but there’s no way it would work in a wheelchair.”

My friend had just returned from a grueling but spiritually thrilling pilgrimage on El Camino de Santiago in Spain when he uttered these words to my husband and me on a quiet Sunday morning. He couldn’t have known he had ignited a fire in me.

Unintended challenge accepted. Quest begun.

The first hurdle: How could I, a paraplegic and full-time manual wheelchair user, experience the wonders of this ancient expedition and grasp what millions of pilgrims have felt so deeply for more than 1,000 years?



I consider myself a highly skilled problem solver. The Camino — with its steep hills, rough bridges over rushing streams, ragged paths studded with roots and rocks, and the sometimes-unforgiving sun and rain — would become my next problem to solve.

My husband, James, is also a paraplegic. As a couple, we have traveled together across the United States and on four continents. So, while this quest was unlike any we had taken on, it began like many of the others: on YouTube.

As we watched Camino videos, we learned that there are dozens of routes across Europe, some of them hundreds of miles long, and they all converge in Santiago de Compostela in the northwestern part of Galicia, Spain. At the finish line, in the magnificent Cathedral de Santiago de Compostela, the remains of Jesus' apostle Saint James the Greater lie under the altar.

The routes are infamous for their difficult terrain, even for skilled, non-disabled hikers who embark on this bucket-list adventure. Walkers — or pilgrims as they are often called — must walk a total of 100km (62 miles), collecting daily stamps to earn their Compostela, the official certificate awarded by the Cathedral of Santiago de Compostela to pilgrims who complete the journey.

Our research led us to the discovery of the I'll Push You accessible Camino group trips. Founded and led by best friends Justin Skeesuck (who has used a chair since his teens due to neuromuscular disease) and Patrick Gray, these trips were inspired by the men's groundbreaking completion of the Camino Francés (the French Way) in 2014.

James and I agreed that this program seemed ideal, as it offers a disability-friendly way to complete the Camino and is open to both walkers and rollers. We immediately applied and were elated to later learn that we were two of 42 people selected from a pool of 150 candidates to participate in the June 2024 trip on the Camino Portugués (the Portuguese Way).



Sarah, James and Smudge had months to plan the epic adventure.

Our group consisted of six wheelchair users and 36 “pushers.” The pushers ranged in age from 17-73, hailed from 15 different states and three countries, and held various occupations. Each had completed the application and interview process to join the group with a primary purpose to push, pull and help in any way necessary. We felt both excitement and, let's be honest, a fair amount of trepidation.

Since becoming a paraplegic 30 years ago, I have strived to live as independently as possible. I knew I

would have to rely on the pushers, but wondered whether I'd be able to accept the help I needed. It was another unknown complicating the ultimate question: *Were we ready for this monumental challenge?*

In short, no. We were not. Even with our solid resumes as wheelchair world travelers and the clear communication we had with the trip team from the start, we couldn't begin to grasp the extent of the trials we would encounter or imagine the life-changing lessons we would learn.

Preparing for an Adventure

For months we chatted virtually with the other participants and the team leaders. We secured a grant from the Kelly Brush Foundation to cover specialized wheelchair hiking equipment. We prepared physically, and we meticulously curated our packing list. Everything felt under control until the week before we left.

I faced an emergency root canal and severe ear congestion that had to be resolved before our long flights to Madrid. Then, two days before departure, a vandal smashed James' car window. When we finally made it to the airport, flight delays out of Kansas City cost us our connection in Charlotte by minutes and we were eventually rerouted through Dallas.

Exhausted, we arrived in Madrid. However, we discovered that our luggage, which contained our push handles, leather wheelchair gloves, gear

straps, carabiners and FreeWheel all-terrain attachments, had not. In retrospect, it seems as if the universe had begun sharing its lessons on surrender, a theme that would emerge over and over again on the Camino.

After one last flight, we made it to our final destination of Vigo, Spain and collapsed into bed. The next day, with our luggage still MIA, we bought some basic toiletries and clothing at the nearby mall and crossed our fingers that our luggage would find us before we began the first day on the Camino.

We figured our luck had changed for the better when we saw a courier dropping off "our luggage" at the hotel, but relief quickly turned to panic. The bags weren't ours and the courier insisted in rapid-fire Spanish that we had to return them to the airport. Our pleas in broken Spanish finally convinced her to take them back.

Frustrated and anxious, we realized we might not see our bags — or their crucial contents — any time soon.

Still sporting the same clothes we were wearing when we left KC, we freshened up as best we could and went to meet our group for the first time at the welcome dinner. It was exciting to meet everyone, but when I realized that most of the other individuals in wheelchairs had brought family and friends with them to assist, I worried if anyone would want to push me.

With that question burning in my mind, I listened as our leaders explained that each wheelchair user would dictate the method and amount of pushing they desired. This was reassuring and it aligned with the independent spirit that James and I share. However, with a long-term injury to my right arm, I wondered if I had made a big mistake.



The Smiths' group consisted of six wheelchair users and 36 'pushers,' ranging in age from 17-73 and hailing from 15 different states and three countries.'

**Day 1 – Vigo to Redondela
(15 kilometers; 9.3 miles)**

After a quick group picture near the hotel, the adventure began. My first pusher was a fellow Midwesterner and 911 dispatcher who gamely used the backrest of my chair in lieu of the missing push handles. Excitement and positivity filled the air as we began wheeling over the smooth, paved sidewalk beneath overcast skies. All of us in the group had fastened a matching scallop shell, a traditional Camino symbol of pilgrim status, to our daypacks. The shells swung joyfully as we headed down the road.

Shortly into our journey, we encountered our first steep ascent. The pushers jumped into action, connecting a gear strap with carabiners to the frame of each wheelchair and using a pushing and pulling combination to roll each of us slowly up the hill. Thankfully, one of the pushers loaned me some leather pushing gloves, and others generously loaned us straps.

I marveled at the teamwork and the generosity of my fellow travelers, but guilt crept in as I considered how difficult it was to push me in my everyday chair that lacked any adaptations. I knew the burden would only increase as the hours on the trail increased.



Sarah and James receiving their first Camino stamp

A magical forest awaited us at the top of the hill, and we trekked through towering eucalyptus on a worn dirt path filled with rocks, sticks, and other natural obstacles. The first stamp of the six we needed to receive the Compostela completion certificate came from a woman in a small, garage-like structure on the path. The scenery was majestic with the spectacular Ria de Vigo coast to the west as we traveled, and we stopped to admire a rushing waterfall, smile at a rock outcropping adorned with a whimsical fish mural, and breathe in the lush, colorful flowers.



A fish mural along the Camino



I attempted to soak in the beauty, but my body ached, and I was worried about further aggravating my old arm injury. James' hands had already developed blisters, and he had taken a couple tumbles out of his chair when his casters caught on the uneven ground. As we made the descent into Redondela, several pushers joined forces to anchor us, ensuring that we didn't roll down too quickly.

At the group dinner that night, we ate wood-fired pizza and drank red wine, two of our favorites. Despite the wonderful food and enjoyable company, we left shortly after dessert, anxious to get out of our wheelchairs and put our feet up after a long day.

We made it through day one, but our progress didn't quiet the nagging voice in my head questioning whether we were physically and emotionally strong enough to complete the pilgrimage.

Day 2 – Redondela to Pontevedra (20 kilometers; 12.4 miles)

Bright and early, our group boarded two buses to return to the spot on the Camino where we had stopped the day before. The previous day's route may have had its challenges, but this day would be a turning point for me.

We were traversing part of the Roman Road, built around 300 B.C. and now consisting largely of weathered boulders jutting from the ground. This particular section stretched for one brutal mile, punishing for walkers and impassable for wheelchairs.

I was worried. Fortunately, a mighty, all-female team assembled and after spotting a resting point a few yards ahead, the women lifted me into the air. And here's the big surprise: I, the control freak, completely surrendered to them. Instead of feeling powerless, I felt a surge of power rushing through me as their steady, determined energy and strength carried me step by careful step over the jagged stones. Though it was the most dangerous portion yet, I felt an unexpected ease. I was proud for choosing trust over resistance, a challenge I face often in my daily life.



The terrain grew more difficult on day 2, but with the help of the pushers, the group persisted.



Speaking of women literally supporting women, later that evening in our hotel, we heard a knock on our door and opened it to find a fellow pilgrim bearing gifts and encouragement: a care package that she had put together for us from her own supplies with blister pads, Band-Aids, Tiger Balm muscle rub, and even a fresh pair of underwear for me.

Having those little bits of comfort provided incredible relief. There is a saying, "The Camino Provides," and on this night it did. Her generosity reinforced that James and I weren't in this alone. We had others supporting us, physically and emotionally. Buoyed by this act of kindness, I thought, *we can make it another day.*



Day 3 – Pontevedra to Caldas de Reis (22 km; 13.7 miles)

Day three began in a charming town with the dramatic Santa Maria la Mayor Cathedral rising from the center square. Rolling through the European architecture, the smooth roads felt like silk. At one point in the day, I encountered James waiting for me at one of the makeshift shrines that dot the Camino path. We both cried as he laid one of his late mom’s rosaries on the shrine and we reflected on how she would have loved hearing about this epic adventure. Leaving a little piece of her there offered healing, just as leaving parts of our past selves behind was healing us, too.

Later, as we rested and ate lunch on a grapevine-covered terrace, we were puzzled when a traditional Spanish almond cake, *a tarta de Santiago*, arrived at our table with two lit candles. Had someone mistakenly believed it was one of our birthdays? It was better – our suitcase with our FreeWheels had arrived. Tee Travel, our incredible tour company, delivered them directly to us on the path.

With the long-awaited FreeWheels, the freedom of that first solo downhill was exhilarating! For days, we had relied upon others to manually lift our casters over every obstacle. It felt good to give our pushers some relief.

Later, one of the pushers told me she chose to walk the Camino in honor of her dad, who had been killed in the line of duty 35 years earlier, and to pay tribute to her cousin, a single mom

that had overcome many challenges to raise two sons who both lived with muscular dystrophy.

It gave me pause as I pondered my purpose on the path.

Day 4 – Caldas de Reis to Padron (18 km; 11.2 miles)

At lunch, we feasted on a local delicacy of dark green Galician peppers, and now that James and I finally had our gear, I could somewhat relax and fully embrace the wonders of this life-changing experience.

A flat tire brought my progress to an unexpected halt. Thankfully, we had brought a spare tube, and James has years of practice fixing flats. With the support of my pit crew, I was rolling again in less than 10 minutes.

Day 5 – Padron to Teo (12 km; 7.5 miles)

In addition to passing delicate, silvery olive trees and stopping for an impromptu dance break when we encountered a joyful bagpiper, day five brought the most impactful moment of the trip.

At the ornate Santuario de la Esclavitud, we encountered a huge step to enter the church. I hesitated to enter, unwilling to burden others or deal with the hassle of navigating the step with my chair. I lingered in the courtyard beneath the large shade trees, but I felt a persistent pull on my heart that urged me inside. I knew the group would assist me without pause, and finally, with a mindset softened by vulnerability



from all I'd experienced over the last five days, I accepted help and entered.

Immediately, I felt the strong presence of my brother, whom I had lost nine years prior. I knew instantly that it was at this still, sacred place that I would place the stone I had brought in his memory. I had sought the most meaningful spot on the trail to leave this tribute, and that day, I found it. Gratitude washed over me as I recognized that it was only through accepting help, something I had struggled with mightily before this trip, that I experienced this priceless gift.

Day 6 – Teo to Santiago (13 km; 8 miles)

Our final day on the Camino started with a flat tire, and shortly after its repair, I heard the dreaded thwack of yet another. Two flat tires within a couple of hours? I panicked a little, hoping that the bad luck that had plagued us early in this journey had not returned. We were so close to the finish. Thankfully, Tami, a highly-skilled nurse and military veteran, came to the rescue, scouring the inside of the tire until she discovered a minuscule nail that had evaded us.

The markers along the way showed the shrinking distance to Santiago, our final destination. We wound through the Old Town on the narrow stone streets brimming with other pilgrims and locals. As we approached our final few yards, people shouted “Buen Camino!” and applauded our large group.

When one of our group shouted that we were almost there, without thinking, I shouted back. “I’m not ready!”

Sure, six days of demanding conditions had left me exhausted and physically ready to be done, but emotionally? That was more complicated.

As we turned the corner, James and I left our pushers and wheeled our way into Plaza del Obradoiro. We entered the square, the majestic Cathedral de Santiago de Compostela looming to our right, but my attention was fully on James.

“Can you believe we made it?” I whispered, tearfully.

Overwhelmed, we shared hugs and sobs of happiness with our fellow pilgrims for the next few minutes. As people peeled off to find lunch in the nearby cafes, I didn’t want to leave the square. I had a massive surge of gratitude for all that I had achieved, not on my own but together with this remarkable team. The long and arduous days had molded our diverse group of encouraging, adventurous, fun people, transforming us from strangers into a loving, supportive, fascinating family.

That evening, we reunited for dinner. We received our Compostela certificates and toasted our accomplishment. The rain that had been threatening to fall all week finally arrived, but it could not dampen our spirits.

Post-Camino Day 1

“Why did you want to do the Camino?” someone asked me the following day. A week earlier, I would not have known how to answer that question. Now, with 100km of struggle and frustration and elation behind me, the tearful response came pouring out of me: I needed to learn how to surrender. My







trials, along with the support of our team and my own spiritual growth, had helped me see that when all control has been stripped, I can still be okay. Trusting others to help when I can't help myself isn't weakness. It is essential.

We woke before dawn on our last day, and in those quiet moments I prayed I could carry this growth home. Before parting, Tami surprised me

with a present: a small jar with a tiny metal object in it. It was the minuscule nail that had led to multiple flat tires. It was the perfect parting gift — a reminder that obstacles, like that nail, can slow us down but they can also connect us to the people who help us move forward. Releasing control and letting someone *push me*, after 30 years of resisting, had led to an inner peace I hadn't felt in many years. ❧

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Wheelchair Users' Favorite Home Workout Products

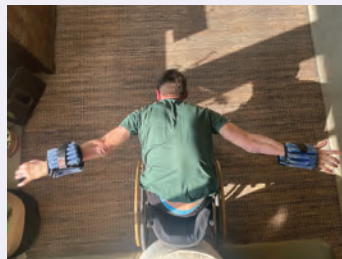
BY SETH M c B R I D E

Whenever we write New Mobility stories about health and fitness, readers always ask about the best workout products for wheelchair users. It makes sense. Commercial gyms often have questionable accessibility and, depending on your situation, getting to one consistently can be a pain. With the right equipment, home workouts eliminate the twin hurdles of access and transport.

STRENGTH EQUIPMENT

Wrist Weights

A good set of adjustable wrist weights is a great place to get started with home strength training. For those with limited hand function, they are a no-grip-required way to work everything from biceps, triceps, shoulders,



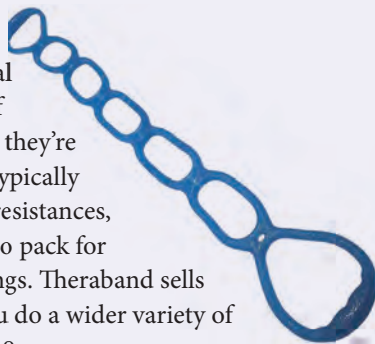
chest and back muscles. Adjustability lets you fine-tune your weight based on your function and what muscles you're working. Wrist weights won't let you lift very heavy, but they are extremely versatile.

"Using wrist weights helped me build up a lot of the hard to isolate shoulder, back and neck muscles that can be tricky for quads." - Ian Ruder

\$20 per pair and up, depending on weight. Search "adjustable ankle weight" on Amazon, Walmart or other online retailers.

RESISTANCE BANDS

Resistance bands are a standard tool for physical therapists for a couple of reasons: They work, and they're inexpensive. Bands are typically available in a variety of resistances, and you can buy a combo pack for versatility and cost-savings. Theraband sells door anchors that let you do a wider variety of exercises for less than \$10.



"Seven ring adjustable resistance bands are my go-to. I can do a variety of exercises and with the rings, dexterity is less of an issue." - Kate Webster

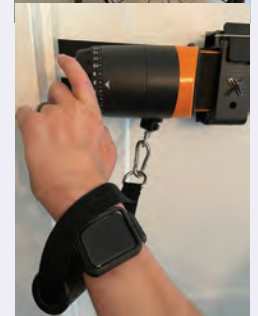
From \$15. Search "resistance band" "theraband" or "seven ring resistance band," on online retailers.

So, we decided to go straight to the source and ask our social media community which fitness products worked the best for them. We got 80 recommendations spread across Facebook and Instagram. The following represent the most-mentioned products, along with a few staff favorites, and we tried to include a mix of price points. For the full discussion, check out @newmobility on Facebook and @newmobilitymag on Instagram.

MAXPRO PORTABLE CABLE MACHINE

The MAXPRO is a fitness device that mimics the action of a gym-based cable weight machine, but in a tiny 10lb package. You can mount it on your door or your wall via an separately). For wheelchair users, the biggest perk of the MAXPRO is its huge range of resistance — you can use it for everything from a rowing style interval workout to heavy, compound strength movements like pulldowns or presses. Plus, it's super quick and easy to adjust the resistance, even for quads. Read my full review at: newmobility.com/maxpro-cable-fitness-machine-reviewed

\$749 from maxprofitess.com



CARDIO

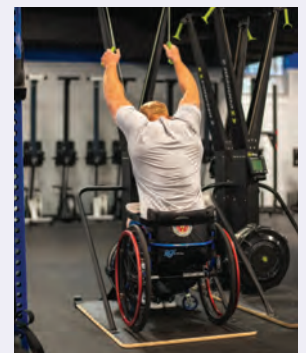
SkiErg

The SkiErg provides an upper-body cross-country skiing motion with a similar style of resistance to a rowing machine. Because it works your back muscles, it provides a nice counter to the daily pushing of a manual wheelchair. Many traditional and cross-fit gyms have SkiErgs if you want to give one a try before committing to this sizeable purchase. Quads often use the SkiErg with a pair of Active Hands gloves or other grip aids.

"It's the best cardio I've found for wheelchair users."

- Jarred Evans

\$850 from concept2.com





MULTI ROPES ADAPTIVE JUMP ROPES

Adaptive jump ropes, also known as split ropes, offer a great way to do a cardio workout from your wheelchair. You hold a rope in each hand, and mimic a jump rope motion, without the having to jump part. Sounds easy, but after 30 seconds, your lungs and shoulders will be telling you otherwise.

“I get bored easily with workouts, but adapted jump ropes provide a fun, great cardio workout, which we all know can be difficult. It’s also a good workout to keep the shoulders strong and flexible!” - Cody Unser
\$99-\$165 from Equipproducts.com



SMART HANDCYCLE TRAINER

For those who already have a handcycle, smart trainers let you ride in bad weather or when you don’t have time for a full outdoor ride. Smart trainers come in a variety of styles including wheel-on units like the Saris M2 (\$199), which are easier to attach to a standard handcycle because they let you keep your front wheel on. Direct-drive models require you take the front wheel of your bike off, and they’re more expensive. But for anyone wanting to get serious about indoor riding, direct-drive trainers provide a much more realistic ride feel. The Wahoo Kickr Core2 consistently gets good reviews, plus it pairs natively with the Zwift subscription app, which has a handcycling avatar you can pedal in online rides and races.



“[With a smart trainer] for my handcycle, I’m not worried about weather, daylight, my dogs or traffic. The various online platforms make riding in my living room or garage much more interesting.” - Erik Corbett
\$550 from zwift.com

ONLINE WORKOUT SERVICES

Adapt to Perform

Quadriplegic personal trainer Ben Clarke has a wealth of knowledge about how to adapt workouts to different levels of function and his videos offer a great mix of explanation and motivation. Clarke has written several home fitness articles for New Mobility and his website offers a paid workout program featuring a video library and live classes. Many workouts can be completed with no specialized equipment.

“[Ben] greatly encourages you to do the exercises to the best of your ability and to adapt them. The philosophy is that however you do it is great and good enough!”

- Liza McCollum

Website: adapttoperform.co.uk, YouTube (free videos): youtube.com/@AdaptToPerform

WHEEL WITH ME ADAPT FIT APP

Wheelchair users Jesi Stracham and Nikki Walsh created an adaptive fitness training app with workout videos and classes covering everything from strength and muscle building to home workouts, gym workouts, cardio routines and more. They offer on demand workouts as well as live classes and most can be completed with simple equipment like dumbbells or resistance bands.

“For a monthly fee you get workouts for wheelchair users by wheelchair users. Nikki and Jesi are powerhouses who encourage us wheelies.” - Stacy Nicole
\$14.99 a month (free trial offered). Search “Wheel With Me Adapt Fit” on Apple or Google App stores.



Stracham and Walsh

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48 HOURS AS A WHEELCHAIR USER IN...

SYLVIA LONGMIRE

Whether she's enjoying a luau, exploring museums and historical buildings or simply taking in a minor league baseball game, Sylvia Longmire has a knack for finding what makes a city tick and then crafting an accessible, affordable and—most importantly—fun itinerary. We've had the privilege of showcasing a number of her favorites over the last few years as part of our "48 Hours In..." online series. Here's a deeper look at three of those iconic trips.

– Ian Ruder, Editor-in-Chief

DES MOINES



MONTREAL



HONOLULU



DES MOINES

Before I arrived in Des Moines, I assumed that Iowa was all about corn. After all, Iowa is the number-one corn producing state in the United States and its nickname is the Tall Corn State.

So perhaps it was more than coincidence that I visited on the same spring weekend as the annual Blue Ribbon Bacon Festival. The festival was not on my itinerary. I'm all about being spontaneous when I travel, so I'd squeezed it into a packed schedule, and I'm so glad I did.

The festival turned out to be everything you could hope for from a Midwest travel experience encapsulated in just a few hours. Rather than being all about corn, the Hawkeye State's capital is all about pork and bacon. In addition to consuming my weight in pork products, the festival exposed me to the kind and friendly spirit of the locals, some great yacht rock music, and a history lesson from a local celebrity.

The whole experience was emblematic of my visit to Des Moines: fantastic and pleasantly surprising. The city offers great levels of wheelchair accessibility and plenty of interesting accessible things to do. Beyond the bacon, I found a city brimming with charm, accessibility, and a wide variety of things



The Des Moines River offers plenty of scenic accessible viewing.

to do. You love food and farmers markets? Check. You like sports, especially baseball? Check. You love history and the arts? Check. You enjoy beautiful outdoor spaces? Check.

Best of all, it's all served up with a side of genuine hospitality. Whether you're here for a festival or just a long weekend, Des Moines makes it easy to explore — and easier still to fall in love with. Here's what an accessible weekend in Des Moines could look like.

DAY ONE

Downtown Des Moines is a fabulous place to stay, with several accessible hotels to choose from. Everything is centrally located, the sidewalks are wide and clear, and you have an array of restaurants, shops, and attractions to visit. Start your first day with a delicious breakfast at the Scenic Route Bakery, which serves

delicious pastries, coffee, lunch, and all kinds of sweet treats, in addition to coffee and tea. Or, if it's a Saturday between early May and late October, you can start at the renowned downtown Des Moines Farmers' Market. Held every Saturday during that period, it's ranked among the nation's top farmers' markets. People come from all over the state for fresh produce, baked goods, artisan food, and locally made art.

With a full stomach and shopping bags, you can roll back across the Des Moines River to the stunning Iowa State Capitol building for a self-guided or timed guided tour. I've been in over a dozen state capitols, and this is by far my favorite. Filled with locally sourced wood, beautiful murals, and marble and gold leaf to spare, it's the only state capitol building with five domes. Don't skip the gorgeous library.

DES MOINES



Pappajohn Sculpture Park



The Iowa State Historical Society has exhibits on everything from early aviation, to Field of Dreams, to Iowa's role in the presidential primaries.

If you didn't get your fill of Iowa history in the Capitol, you can roll just a couple of blocks to the Iowa State Historical Society. The displays were very well done, and the accessibility was excellent. My favorite areas focused on the history of moviemaking in Iowa, including Field of Dreams, and the importance of Iowa in the U.S. political system, specifically as the site of the country's first presidential primary each election season. I also had no idea that Iowa has such a rich bicycling history. The Register's Annual Great Bicycle Ride Across Iowa is the world's oldest, largest and longest recreational bicycle touring event, and handcyclists have completed the tour in years past.

Since you're already in the East Village area of downtown Des Moines, why not do some shopping and support local small businesses? This area is packed with fun and interesting shops and restaurants. My favorite store is a T-shirt shop called Raygun. With thousands of T-shirts featuring any and every quote or saying you could possibly imagine, organized into sections with themes like sports and politics, you're bound to find something, or you can head upstairs and make your own.



Principal Park

For dinner, stash your new Ts, and head over to Clyde's Fine Diner, a somewhat upscale restaurant by Des Moines standards – meaning you can wear your fancy jeans. Featuring upgraded versions of American classics, they're known for delicious brussels sprouts, mojo pork sandwiches, and oysters. The owner's grandfather was an animator for Popeye cartoons, and you'll see some nods to that on the walls.

If you have some energy left for late night entertainment, west side club Noce hosts two ticketed shows a night on the weekend featuring touring jazz musicians and ensembles. Don't miss all-night happy hour with free live music starting every Thursday at 7 p.m.

DAY TWO

Kick off a fun day outdoors by rolling to the stunning Greater Des Moines Botanical Garden.

Located on 12 acres in a lush setting right along the Des Moines River, the botanical garden is a relaxing oasis when you need a break from the city. It's much smaller than many other botanical gardens I've visited, but it packs a lot into the middle of an urban space. I love that you can see the river and the downtown skyline from a large terrace adjacent to the gardens. You can explore tropical plants in the warm and humid dome, or marvel at the beautiful tulips in the spring along the many carefully manicured and accessible outdoor pathways. My favorite feature is a waterfall that you can roll underneath in your wheelchair.

A short accessible taxi ride across the river, you'll find the Pappajohn Sculpture Park. The 4.4-acre park was a key piece of the redevelopment of Des Moines' west end when it opened in 2009 with 24 sculptures. Now with 31 sculptures, it is recognized as one of the most significant collections of outdoor sculptures in the U.S.

Continuing with the art theme, hop back in your taxi and head to the Des Moines Arts Center. The building itself is architecturally impressive and has a fascinating history and a surprisingly rich and diverse art collection inside. You can find paintings by Rothko, Basquiat, Picasso, and Monet, along with works from contemporary artists.

Gray's Lake Park is worth one last taxi ride before you turn in. There's a fully-accessible, 2-mile paved trail that goes around the entire lake, highlighted by a selfie-worthy pedestrian bridge. It's a great spot for packing a picnic, enjoying the sunshine and dog watching. The park also has an accessible playground for the kids.



The library at the Iowa State Capitol is one of the most stunning spaces in the city.

DES MOINES

MONTREAL

I've been a huge hockey fan my whole life, and because I live in Florida, people often stare at me quizzically when they see me wearing a Montreal Canadiens shirt. They couldn't know I grew up visiting Canada with my family and came to love Montreal, thanks to exploring it as a child.

I hadn't visited Montreal since I was a teenager, long before I used a wheelchair. So when I had the opportunity to explore the city's accessibility as a panel judge for the Good Housekeeping Family Travel Awards, I jumped at the chance. However, I was a bit anxious about the trip, as I remember plenty of cobblestones in the city's Old Montreal area. Canada also doesn't have a federal accessibility law like we do here in the U.S., so I was curious about how much I would be able to see and experience as a wheelchair user. Fortunately, it was quite a bit.

I have spent a lot of time in other major Canadian cities, but Montreal is quite different. I'm lucky that I speak decent French, as it is the primary language here. I would recommend brushing up on your French, as you're not going to find much English in the signage, and you're better off saying "hello," "thank you" and "excuse me" in French to a stranger rather than English. However, everyone at hotels, restaurants and tourist attractions speaks perfect English, so you'll be fine if you



Montreal's stunning Notre Dame Basilica was completed in 1865, and the interior is amongst the most dramatic in the world. It's regarded as a masterpiece of Gothic revival architecture.

can't spend some time on Duolingo before your trip.

There are a lot of amazing accessible things to see and do in Montreal, but if your time is limited, here's my suggestion for how to spend 48 hours in the city.

DAY ONE

For easy access to Montreal's bustling downtown and its beautiful historic district, the ultramodern Hotel Monville is a great lodging choice. Robot room service and sweeping panoramic

views go with an abundance of accessible rooms to make for a comfy stay with plenty of attractions within rolling distance.

Begin your 48-hour adventure in the city with a professionally guided or self-guided tour of beautiful Old Montreal, just a 15-minute roll from Hotel Monville. Don't be deterred by the historic nature of this part of town. Yes, there are some cobblestones to deal with, but there are plenty of paved areas to help you get around them as smoothly as possible.

Picturesque squares like Place Vaubiquin and Place Jacques-Cartier are surrounded by enough classic architecture to satisfy even the most ambitious sightseer. Don't miss Montreal's City Hall, the historic residence Château Ramezay and the Bonsecours Market. Most of the restaurants in the area have a step to enter, but during good weather, many of the outdoor eating areas are accessible and make for a scenic lunch.

The Montreal Museum of Archaeology and History, also known as the Pointe-à-Callière Museum, will take you back to the origins of Montreal, and to the lives of the First Nations people who lived in the area before the founding of the city almost four centuries ago. The museum complex stands above several historic and archaeological sites of

The Montreal Botanical Garden has more than 22,000 species of plants from every part of the globe, 10 exhibition greenhouses and 20 thematic gardens spread across 190 acres.





The Montreal Museum of Archaeology and History complex stands above several historic and archaeological sites showcasing major periods in the history of Montreal. Some of the archaeological remains are exposed underneath clear floors that are easy to roll across.



Old Montreal

national significance, showcasing major periods in the history of Montreal.

Some of the archaeological remains are exposed underneath clear floors that are easy to roll across, and you can roll down the length of an old sewer tunnel underneath the street, lit up with ambient music and lighting effects. There are a few rougher surface areas in the main exhibit, but most are still easily rollable and well worth the small trouble to explore this amazing, award-winning museum.

The stunning Notre-Dame Basilica of Montreal is just a short roll from the museum. Completed in 1865, it is regarded as a masterpiece of Gothic revival architecture. Its dramatic interior and stained glass depicting the religious history of Montreal are well worth the visit. Montreal's Notre Dame receives 11 million visitors every year, only 1 million fewer than Notre Dame in Paris, and after your visit, you'll understand why it's so popular. There is a ramp from street level to the basilica level, then flat entry into the basilica itself.

After dinner, return to the Notre-Dame Basilica for a breathtaking sound and light show. The AURA Experience was created by the internationally renowned, immersive multimedia studio

Moment Factory, and uses incredible LED projections and music to highlight the basilica interior's architectural beauty and works of art. The show lasts about half an hour, but you have 15 to 20 minutes before the start of the show to explore the aisles and the illuminated stations. Wheelchair users are admitted roughly five minutes before the general public, and you can take a spot next to the pews anywhere along the main aisle.

DAY TWO

Kick off Day 2's adventures about 5 miles north of Hotel Monville at the Montreal Insectarium and Botanical Gardens. It's less than 30 minutes by car, or you can hop on one of Montreal's fully wheelchair accessible buses. Also, about half of Montreal's metro stations are accessible with elevators.

The Insectarium is considered one of the largest insect museums in North America. It houses both live insects — some free-living — and preserved insects that died naturally in their environments, plus a butterfly house, an ant hill and several other engaging enclosures. To say that I am not a fan of insects is an understatement, but this honestly was one of my favorite experiences in Montreal! During a demonstration, I even got to hold an enormous katydid. It was also

incredible to see thousands of leaf cutter ants going about their business and staying contained to their branch area. All the exhibits were very easy to roll around in, although there were a few spots in the ant hill area that were a bit dark.

It's an easy roll next door from the Insectarium to the Montreal Botanical Garden. This urban oasis has more than 22,000 species of plants from every part of the globe, 10 exhibition greenhouses and 20 thematic gardens across 190 acres. It's considered one of the most important botanical gardens in the world thanks to its extensive collections and facilities. Hit up the Jardín Botanique restaurant for a variety of delicious lunch offerings and snacks to fuel your exploration. If you use a power wheelchair, make sure your battery is fully charged, as you'll cover a lot of ground through a combination of paved and hard-packed dirt/gravel pathways.

Across the road from the botanical garden and inside the Olympic Park complex is Montreal's Biodôme. The complex houses five ecosystems of the Americas under one roof, and it truly is like a roll through nature. The name means "house of life," and it's one of the few places in the world to reproduce so faithfully the complexity of the national natural environment and the interactions between animal and plant species. You can see penguins, monkeys, fish, frogs and every bird imaginable. The accessibility is fantastic, and there are ramps everywhere so you can thoroughly explore all of the environments.

For a fun final meal within rolling distance of the hotel, Time Out Market is sure to have something you'll find interesting. The market brings together the best of Montreal's food scene under one 40,000-square-foot roof. Located inside the Montreal Eaton Centre shopping mall, Time Out Market is a cultural and culinary destination that packs together 15 eateries, seven bars, a cooking school, and cultural spaces for art, installations, music and more. From Spanish to Mediterranean to Asian and more, your taste buds will be very happy here, and it will give you some fuel for last-minute shopping before departing Montreal.

HONOLULU

Hawaii is on almost everybody's bucket list as a dream destination, but Honolulu is particularly special for wheelchair users because of its fantastic accessibility. From its wide sidewalks to public transportation to accessible taxi service and van rentals, and large number of hotels with accessible rooms, visitors with disabilities and family members who use wheelchairs can have a relaxing vacation in Honolulu knowing they'll be able to engage in a variety of activities.

Having experienced all of this during my second visit to Honolulu (my first was before using a wheelchair), I have known for years that I wanted to take my two sons there. On the quest to help them visit all 50 states, I was able to make this trip a reality when their spring break schedules lined up in April 2025.

Because my multiple sclerosis has progressed since my last visit to Hawaii in 2019, I was concerned about my leg spasms on such a long voyage from Florida. Honolulu has plenty of options for wheelchair users who struggle on long flights, with shorter connecting flights from multiple West Coast cities. I decided to break the trip up with direct flights from Orlando to Seattle, then Seattle to Honolulu.

We stayed at the Marriott Vacation Club hotel in Waikiki in a one-bedroom ADA suite with two double beds and a sofa bed in the living room, and it was some of the most comfortable sleep we've ever had. Our room also had a small dining area and kitchenette with a full-size refrigerator and dishwasher. Our suite had an accessible tub because a room with a roll-in shower was not available for the dates of our stay. However, the bathroom was incredibly spacious, with a roll-under sink and an accessible toilet with a deluxe bidet attachment.

DAY ONE

Breakfast is the most important meal of the day, and there's no better place to enjoy it than Castro's in Waikiki. Chef Luis Castro hails from Colombia and offers a wide-ranging menu of Latin American



The beach is great, but when you want a dip, a pool lift makes things a whole lot easier.



Sylvia Longmire was able to access this helicopter by transferring onto a lift seat.

flavors. For a more traditional breakfast sandwich, I highly recommend the Buen Dia. My kids swear by the Tres Leches French Toast with caramel rum sauce and dragon fruit whipped cream. There is limited seating inside, but plenty of easy access tables on the sidewalk in the shade where you can enjoy the lovely Hawaiian breeze.

With a full stomach, now it's time to explore Oahu by air. Take an accessible taxi with Handi-Van to Blue Hawaiian Helicopters on the outskirts of the Honolulu airport. They have a specialized chairlift that allows you to transfer from your wheelchair to the lift seat, then raises you up to the same level as the helicopter backseat. The lift does have armrests, but you'll need to have some upper body control or someone to support you. The staff is more than happy to help you with the transfer and make sure that you can get into the helicopter safely, then they will roll your wheelchair to a hangar until you return.

Blue Hawaiian offers several different tour packages, and we opted for the 50-minute Oahu Island tour that took us over the beaches and inland mountains for an unforgettable experience. I hate flying as it is and I'm always extra-nervous on helicopter flights, but the crew were great at helping calm my nerves, and the jaw-dropping views helped all of my anxiety fade.

After seeing the beach from the air, it's time to enjoy it on the ground. Just two blocks away from the Marriott Vacation Club, you can roll to Fort DeRussy Beach Park for a beautiful afternoon of sun and sand. There are no beach mats here, but there is a paved boardwalk that runs the entire length of the park and gets very close to the water in spots. Free beach wheelchairs are also available. At the end of the boardwalk, there's a small lagoon that has another wooden boardwalk around it, and there are plenty of accessible restaurants and drink shacks for a break from the heat.

When you're done getting cleaned up from your beach afternoon, you can roll for about 15 minutes to the OUTRIGGER Waikiki Beachcomber Hotel for the 'Auana Cirque du Soleil show. Unlike the bigger productions in Las Vegas, this one is in a much smaller theater and has a very intimate feel. We had accessible seats in section 102, and had an amazing view of this stunning acrobatic and musical show that highlights Hawaiian history and culture. It was so exciting and impressive that even my teenage sons were in awe, especially loving the comedic interludes between acts.

You can grab a quick dinner at any number of restaurants along the famed Kalakaua Avenue, then head back to the Marriott Vacation Club for a relaxing night swim in their rooftop infinity pool. The pool lift makes it easy to dip in and enjoy an incredible view of the beach you just visited a few hours ear-

lier, while sipping your favorite cocktail from the rooftop bar.

DAY TWO

Start your day early with a wheelchair-accessible half-day tour to Pearl Harbor with Roberts Hawaii tours. You can call a couple of days before the tour to arrange for an accessible bus, which will pick you up only one block away from your hotel. From there, you'll ride for about 30 minutes to the Pearl Harbor National Memorial visitors center. You'll have some time to visit the museum and learn all about the history of the area and naval base, as well as the attack on Pearl Harbor in 1941. Then you'll take a wheelchair-accessible ferry to the USS Arizona Memorial so you can see the final resting place of over 1,000 sailors who died during the attack. After you board your bus, you'll go on a roughly one-hour historical city



tour and a drive-by of the National Memorial Cemetery of the Pacific.

Souvenir shopping is a must-do in Honolulu. Kalakaua Avenue is the main thoroughfare in Waikiki, and it is world famous for its luxury shopping and restaurants. You can find all the high-end brands, as well as lower-budget souvenir shops. It can get very crowded on weekend evenings, but the sidewalks are extremely wide and all the shops have accessible entry. This is a great place to find that Hawaiian shirt you've been looking for, or even browse some ukuleles. Don't forget to indulge in some pineapple soft serve ice cream, or even a poi doughnut.

You can't visit Honolulu and not go to a traditional Hawaiian luau. The problem is that there are so many options, it can be tough to choose one. There are several that offer shuttle service to their locations from your hotel or one nearby, and some do have accessible shuttle options. Most luaus can be very large with family-style outdoor seating at long tables and a buffet dinner, but you can call ahead of time for accessible seating.

For us, it was easiest to book our luau at The Royal Hawaiian resort just a 15-minute roll from our hotel. It was definitely more expensive, but it was much smaller, with table service right on the beach and a beautiful view of Diamond Head crater. Almost all the tables were in the grass, but they had two set aside on a paved area for wheelchair users. The show itself was fantastic, with beautiful music and dancers who told the story of Hawaii through movement and sound. Make sure you stay until the end for the fire dancers. ■■



Longmire says that no trip to Hawaii is complete without checking out a luau.

DAY IN THE LIFE



Derrick Ross went from GED to college graduate, and now works as a counselor helping young people from his community realize their academic dreams.



Ross' wife Lakisha works as his full-time assistant. "She makes me a better counselor," he says.

DERRICK ROSS, ACADEMIC COUNSELOR/INSTRUCTOR

As an academic counselor and an instructor at Merritt College in Oakland, California, Derrick Ross strives for one primary goal. “I want to see other people succeed. Forget everything else,” he says. “I know it’s possible. I did it, and if I can play any role in helping someone else do it, I’m happy.”

Ross, 60, focuses on relieving students’ anxiety about college and life, and instilling the basic skills and tactics they need to succeed in and out of the classroom. He is guided by a simple motto: You can’t be what you haven’t seen.

For proof of his motto’s validity, Ross needs to look no further than his own life. Shot and paralyzed at 19, he found his way as a C4-5 quadriplegic with the help of a series of role models, mentors and colleagues who pushed him out of his comfort zone and towards something greater.

From the psychologist who helped him see past his post-injury anger, to the social worker who asked if he had considered going back to get his GED, to the disability counselor who urged him to go to college and later helped him land a counseling job, Ross has seen first-hand how caring individuals can make a difference and change someone’s life.

All of those people and all of those experiences led him to his current job, working just miles away from where he was shot, with the community he grew up with. “I never would have thought I’d end up back in that community, but when the opportunity came, I said this is where I need to be. This was supposed to be.”

Ross works full-time, four days a week. Since the pandemic, he splits his work week between campus and his home, an hour-and-a-half away in Vacaville. To make the long commutes more enjoyable and to help maximize his efficiency in both offices, Ross is fortunate to have his wife, Lakesha. She is paid by the college to be his full-time assistant. “She makes me a better counselor,” he says, “She knows what I need to be successful and does the little things so I can be more focused on the students.”

The happy couple just celebrated their 20th anniversary and are proud parents of 16-year-old twins. “I had big dreams,” says Ross, “and I was really blessed to have real good friends and meet a lot of good people,” he says.

Here’s what a typical day on campus looks like for him.

5:30 a.m. My wife usually helps with a quick bed bath and my morning routine. I’m a morning guy. I like to get up and get going. I’ve got a job to do. I’ve got to influence and inspire people. The switch clicks on and I’m happy. I’m ready to go.

6:30 a.m. While my wife and I are getting the kids fed and ready for school, I’m getting my mind together and mapping out my day so I’m all set when I get to work. I try to drink a lot of fluids to flush out my bladder before the busy workday.

7:30 a.m. The long commute to Oakland is time for my wife and me. Sometimes we’ll listen to music or the news, but mostly we just try to keep it positive. We talk about everything — goals, dreams, what needs to be done, or sometimes we just silently meditate.

9 a.m. I start my days on campus with three hours of back-to-back counseling sessions with students. Some years ago, I read that interaction with faculty inside and outside the classroom equates to

success. If we build that rapport, they know we want to help them — that we care. I’m trying to figure out what their lives are like. What are they dealing with? What do they want? Then I can help them find a career path they might be passionate about. Once we do that, then we’re on our way.

12 p.m. The class I teach is called College Success, and it’s full of practical lessons and advice. Most of the students are non-traditional college students, whether that is first generation students or people who haven’t been in school for a while. I want to answer any questions they have about what it takes to succeed in college and show them what a successful student looks like and does.

1:30 p.m. After class, I’m back in my office seeing students and answering emails and such. I’ve got Dragon Naturally Speaking and an accessible setup for my computer. Having my wife around if I need anything helps me maximize my efficiency.

3 p.m. On the days I work from home, I’m on the clock for 8-10 hours, but on campus days I’m headed home at 3.

4:30 p.m. By the time we get home, I can feel the long day wearing on me. A lot of times we’ll grab some food on the way and then eat and catch up with the kids. I like hearing about their days and try to share some of my day.

6 p.m. If I need to follow up on any work, I’ve got a good setup where I can work on my computer in bed. After all that time in my chair, being able to relax and get off my butt feels great. On the days I work from home, I’ll often spend the whole day working from bed to help my body recover.

10 p.m. Whether my wife is busy or not around, my kids are always there to help and assist. My brother comes over to help with my night-time care and gets me ready for bed.

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ADAPTING RECREATION TO AN AGING BODY

WHAT DO YOU DO WHEN YOUR BODY TELLS YOU IT'S TIME TO MOVE ON FROM YOUR FAVORITE ACTIVITY?

BY BOB VOGEL

My 40 years as a T10 para have been infinitely richer thanks to remarkable advances in adaptive recreation equipment and the many adaptive recreation programs I've taken part in. From joining friends on several multiday bike tours climb-

ing over pristine 12,000-foot passes in Colorado's Continental Divide, to handcycling through the Mars-like red cliffs of Utah's Canyonlands and sleeping under the stars in the middle of nowhere outside Moab, Utah, I've been incredibly fortunate to experience wide swaths of the great outdoors that

wouldn't have been accessible to wheelchair users when I was injured.

However, being a wheeler tends to be extra hard on body parts, so much so that it seems shoulders, elbows and spinal discs age and wear in dog years. My wear and tear started with hitting a bump while monoskiing at high

speed, which caused a sacral fracture that didn't heal right and slowly got worse over the years. Later, I sustained severe rotator cuff tears that had been building over years of hard use. After consults with surgeons on the sacral fracture and shoulder tears, in my case the rehab, risk of reinjury, and limitations after repair were not worth risk of surgery. For me, and for many others, this leads to an inevitable reckoning: Should I keep going and risk serious health issues, or hang it up and try to find a new passion or pastime?

I wish the best to those who chose the first route, but I opted for the latter. Giving up one of my favorite things wasn't easy, and as I talked with other wheelers who have done the same, I found out it rarely is. But our conversations also reinforced that it is doable and often very rewarding.

TALES OF RECREATIONAL PASSIONS

Prior to landing in the SCI world because of a ski crash, I was living my wildest dreams as a 25-year-old professional freestyle skier, traveling the world to perform in competitions. When I was injured in 1985, the first commercially available monoski was still a few years out, and without that readily available, I looked elsewhere to fill my recreation needs.

I got involved with everything from hang gliding to scuba diving, but nothing came close to skiing. Skiing was so imbedded in my psyche that not being able to ski was worse than not being able to walk. I could stand and ski in my dreams, but if the skis came off I needed my wheelchair.

When I finally tried monoskiing in the late '80s it was like my ski dreams had come to life. It brought back the same feeling of passion, focus and freedom I remembered. I skied with friends at my favorite resorts and runs, became an adaptive ski instructor, taught my daughter to ski, and skied many areas and runs that had been on my bucket list.

Like monoskiing for me, wheelchair basketball and tennis became



For Jeff Pagels (above and below), XC skiing brought freedom and competition.



all-consuming passions for Wayne Leavitt after he was paralyzed. "I loved the competition, camaraderie, physical and mental battle of sport," says Leavitt, 77, is in his 57th year as a T4 complete para. He played basketball for 35 years starting in 1971 and tennis for 40 years starting in 1981. "I loved the one-on-one battle of tennis and the team aspect and being a part of the team's success in basketball," he says.

Cross-country (XC) skiing and mountain climbing were the recreations of choice for Jeff Pagels, age 77. "For me XC skiing got me into the outdoors, gave me freedom," says the Green Bay, Wisconsin, native in his 41st year as a T10 para. "From a competitive standpoint XC skiing is a great equalizer: I've entered 55-mile able-bodied XC races where I've beaten 70% of the able-bodied racers." Pagels had a 13-hour surgery to remove a

brain tumor in 2007. When he recovered, he climbed Mt. Whitney and Mt. Kilimanjaro. "I did this as a challenge and as a way to show people that the outdoors is good medicine."

Elena Van Loo didn't get hooked on adaptive sports until she moved to California in the 1980s. Now 56, she loves wheelchair tennis, basketball, monoskiing and XC skiing. "I love the competitiveness of sports and loved competing so much it felt like I had to do these sports," says Van Loo, a polio survivor. "I'm also a social person and loved the social part of sports, developing bonds with the people I competed with."

HOW DO YOU KNOW WHEN TO SAY WHEN?

Getting older and realizing that you are unable to enjoy your favorite activities the way you used to without elevating your chances of serious injury can be frustrating. Deciding to give up a beloved pastime or trying to find something to replace it can be even more difficult.

For me, skiing was increasing wear and tear to an old injury on my lumbar spine. In the early years after my injury, my lower back would be sore at the end of a ski day. Over time the soreness turned to pain, then it got more intense and lasted longer, sometimes

days, then weeks. Eventually I would hurt all ski season.

I wanted to avoid ending up like my friends with SCI who had secondary lumbar injuries and needed spinal-rod fusion from hip to chest. By the 2011 ski season, my back pain was causing me to opt out of skiing on all but a few ski days. A year later, at age 52, I begrudgingly sold my ski gear. Although I miss the sport, I'm grateful I had the chance for a "second ski act" after my SCI, and crossed off most of my bucket list ski goals. I still miss it, but enjoy re-playing the highlight reels in my mind.

"Choosing to retire really impacted me because I loved the sports and loved competing so much," says Van Loo, who saw the wear-and-tear writing on the wall early enough to avoid serious injury. By 2013 at age 43, the years of high impact from basketball were taking their toll on her shoulders and elbows. "I had to retire from basketball in order to save my shoulders and elbows from further ligament and tendon issues," she says. She later decided to retire from competitive sports altogether.

Pagels' love of XC skiing kept him going even after two shoulder replacements and an elbow fusion. He finally made the decision to hang up his skis three years ago when a broken arm, the result of a XC ski fall the previous year, didn't heal properly. "My body got too worn out and beat up for me to transfer into my cross-country ski, and too worn out to get upright if I tip over — and the guys I ski with are too old to help me transfer or get me upright after a fall," he says.

"I feel good that I accomplished everything I wanted in the sport and feel it was a good decision to quit."

Leavitt also endured multiple surgeries to stay on the basketball court before he realized it was time to move on. "I loved the competition of basketball but I was working full time and I'd wake up in the morning after a practice and could barely move and hurt

like hell for the next three days," he says. "My body was telling me it's time to quit."

He retired from basketball but kept playing tennis. His competitive streak kept him coming back even when a torn shoulder required surgery and 6–12 months of rehab. He went through that eight times — including two total reverse shoulder replacements — before finally deciding that remaining healthy enough to continue work and put food on the table is more important than competing for another trophy. "My mind was still saying yes, but my body said no," he says now. "[All the wear and tear] started to affect my quality of life."



HOW TO COPE AND ADJUST WITHOUT YOUR PASTIME

Letting go of your recreational pastime can be a difficult challenge. The key is finding something that brings you as much satisfaction.

I still find joy in driving up to the mountains on a crisp winter day and spending time taking in the unique sights, smells and sounds at my old ski resort haunts. But now I don't have to be up at the crack of dawn to beat the rush to the slopes; I can wake up late and arrive at midafternoon to join my ski buddies for a drink and hear about their adventures. Although I still miss skiing, I've made peace with it. My recreation dance card is more than full with activities that are easy on the body: swimming, trail riding on my mountain handcycle with e-assist, riding my road handcycle on a trainer for cardio. Even better, I've been sharing travel adventures and extended road trips with my wife, Debbie. On top of all that, I'm looking at starting two items on my bucket list: advancing my knowledge of dog training to find and train my next service dog, and taking sailplane lessons to earn my glider pilot's license.



Elena Van Loo has found pickleball to be a fulfilling pastime and a great way to make new friends.



Wayne Leavitt (left and above) is loving being an uncle and passing on years of sports knowledge

Although Pagels no longer cross-country skis, he is still very active. “I still enjoy fishing for walleye and perch on both hard (ice fishing) and soft water, and in the fall, I get out hunting for deer, both bow and rifle, so I’m able to keep my freezer full of venison,” he says. He goes to a local gym three times a week to stay in shape. “Starting a gym workout isn’t as fun as starting out on a cross-country journey,” he says. “That first push on the weight bar isn’t too fun, but after a few minutes the endorphins kick in and it feels good to get the cardiovascular workout.” In the summer months he still rides his handcycle.

Van Loo remains active too, focusing on low impact activities. She continues to stay involved in wheelchair basketball as a coach and picked up pickleball as a hobby two years ago. “It’s the same fun as tennis but it isn’t hard on my shoulders and elbows like tennis is,” she says. “It gets me out and about and I have developed a bond with the people I play pickleball with.”

Van Loo has also benefitted from her growing involvement with Environmental Traveling Companions, a San Francisco-based organization dedicated to making the outdoors accessible. Now a board member, she has gone on ETC trips down the Grand Canyon, and has done several sea kayaking trips

with them in the Sea of Cortez in Baja. “ETC plans accessibility on their trips so well. They are low impact on shoulders,” she says.

Leavitt has moved from competing on the court to rooting from the sidelines as a proud uncle. “I’ve found as much or more fulfillment as an uncle helping my relatives raise my 7-year-old niece and 10-year-old nephew as I did with sports,” he says. “My wife and I never had kids and we really enjoy spending time with them and helping raise them.” He helps coach, cheerlead and encourage. “When I was growing up, I wanted to be a teacher and a coach, so I feel I’m finally getting my chance in a certain way. I’m teaching them right from wrong, how to work smart, how to plan, and how learning to be good in sports can translate into everyday life.”

LESSONS LEARNED FROM MOVING ON

Although I still get a longing to go skiing from time to time, I’m reminded of what an SCI peer told me a few months after my SCI: “There are some things my body no longer lets me do. On the other hand there are several lifetimes of things I want to do, and can still try or get better at.” I’ve zeroed in on dog training and sailplane flying.

For Leavitt, sports are still fulfilling, but from different angles, cheering, sharing and coaching his niece and nephew. “Being an uncle is great for a lot of reasons,” he says. “From a sports standpoint I enjoy passing on my love and knowledge of sports, from a non-sports perspective, it feels great to be an example and help them learn to grow up to be a good and responsible individual to society.” And he reports his shoulders feel great and he still gets around in a manual chair with power assist.

Pagels enjoys the feeling and the results of keeping in motion. “The more I work out, the better I feel — even at 77, if I keep at it I can still build up muscle.” Feeling better and building muscle keeps him in shape to be able to get outdoors for hunting and fishing.

Van Loo says that although the 20 years of playing wheelchair basketball were some of the most memorable moments of her life, her new, lower-impact pastimes have become new passions that have led to new friendships. “Now I’m building friendships through pickleball and kayaking, [and] I’m just as competitive on the pickleball court as I was in tennis or basketball,” she says. “Listen to your body — it’s OK to move on to other adventures, don’t feel guilty about it. Look on the positive!” ■■■

TESTING THE STRUTT EV¹: A GLIMPSE INTO THE FUTURE OF POWER CHAIRS

BY SETH McBRIDE

I was a bit skeptical of the Strutt ev¹ when I first heard about it in a press email announcing “a Tesla-level innovation in personal mobility.” I’m all for innovation, but smart wheelchairs have been talked about for decades, and recent advancements in power wheelchairs usually feature similarly soaring language with few true advancements in user experience.

My skepticism was two-fold. One: Would a company with no prior experience in the personal mobility space be able to build a wheelchair that functions well for full-time wheelchair users? Two: Would “advanced sensor systems” and semi-autonomous drive technology be useful for someone looking to navigate their world independently, or would they make you feel like a passenger in a robotaxi — along for the ride but with little say in how you get from A to B?

I took a trip to “Strutt Day” in San Francisco to find out.

THE IMPORTANT PART OF “SEMI-AUTONOMOUS”

It didn’t take long for our taxi driver to illustrate my concerns about autonomous wheelchair systems. My wife and I were on the way to our hotel, and the streets of downtown San Francisco were flush with Waymos, Google’s autonomous vehicle service. Our driver clearly wasn’t happy with them, and not just because they were out to steal his job.

We watched a white sedan with no one inside zip across three lanes of heavy traffic, accelerate into a gap, then cross back again. “They are always changing lanes!” our driver exclaimed. “Left, right, left, right. They don’t stop. They just turn on the signal and go. What can you do? Nothing. You can’t honk at them, ‘cause there isn’t anyone in there!”

Maybe I’m as old-school as the taxi driver, but I worried that the Strutt ev¹



McBride tested the Strutt and was impressed by its thoughtful design and ease of use.

would face similar issues. As a wheelchair user, I don’t want to passively ride along to my destination. I want to have a say in how I get there. The Waymos were like an aggressive cousin to the Whill autonomous wheelchairs I’d seen elderly people riding in at some airports. Every time someone walked in front of the chair, the Whill would stop, wait for the obstruction to clear, then keep going. If the obstruction didn’t clear, they kept waiting. No thanks.

So this was my headspace as I entered the warehouse building where the Strutt team was unveiling the ev¹. But as I rolled inside, it was immediately apparent that this chair had learned some things. A couple of driverless ev¹s rolled laps around the space as a few dozen people milled about. The ev¹s didn’t stop when someone walked in front of them. They subtly course-corrected, went around the person, and kept going.

The chairs certainly looked smart. They are all curving lines and hidden systems, like you would expect a sleek consumer product to look, rather than the rods and wires aesthetic common

among power wheelchairs. You can break the ev¹ into three pieces for transport, and the lithium iron phosphate battery is easily removable.

The seamless exterior hides an array of tech: LiDAR, ultrasonic, light-based and camera-based sensors all combine to create a continuously updating 3D map of the world around the chair. A display above the joystick lets you see that map, which looks like a more basic version of the maps you see on Tesla, or other advanced EV, displays.

Over the course of the event, I learned that the ev¹ has three drive modes. The least assistive means you have near-full control of the chair, but the sensors won’t let you run into anything (or anyone) or drive off a curb or other drop-off.

The next level up lets the wheelchair route-find for you. You press the joystick forward or back and it will find the best route to continue in that direction. Imagine sitting near a door in a cramped room, but not exactly in line with the door. You hit reverse and the chair turns and shim-mies and backs you into the next room, no paint scraped or door trim damaged.

In the third assistance mode, you touch a location on the display map, and the wheelchair navigates to it with no joystick input required. A video showed the founder, Tony Hong, setting waypoints inside his house and then operating the chair via voice control: “Let’s go to the fridge.” “Take me to the couch.”

Strutt’s head of design, Barney Mason, told me the name nods to both the structural strength of a support beam and the confident gait with which the team hopes their technology allows users to move through the world. Or, as Hong put it, “Personal mobility isn’t just about transportation — it’s about confidence, independence, and joy.”

Sounds great, but I still didn’t know if the ev¹ operated as smoothly as the videos made it seem, or how confidence-inspiring it would be for a quad.

TESTING, TESTING

The Strutt team had set up an obstacle course inside the warehouse: a ramp to a platform with a curb, a curving plywood path with a significant side-slope, a curved barricade you were to navigate blindfolded, a series of small speed bumps.

Transferring into the chair was easy. It sits low, like a travel power chair, and one armrest lifts up to offer a clear path to the seat. The demo chairs were outfitted with simple foam cushions, but you can use whatever works best for you. The backrest is simple and not super supportive for full-time power chair users with higher-level injuries. But the team assured me they had a modification on the way that would allow the chair to be fitted with any 3rd-party backrest for those with more complex positioning needs.

I hit the joystick forward toward the curving side slope, which was at enough of an angle that I’d have trouble navigating it in my manual wheelchair. The ev¹ handled it easily, wheels gripping, steering consistent, not trying to dive toward the bottom of the ramp. I simply steered around the curve. The same thing happened with the curb drop: I tried to drive over the edge, and the chair came to an easy stop a couple inches from the ledge.

Next, I tried the mode where you tap the screen to navigate. I hit a corner of the map where the next obstacle — the series of speed bumps — began, and the ev¹ navigated around chairs and people, depositing me right where I’d asked it to. I clicked it back into joystick mode and the ev¹ traversed the speed bumps smoothly. Next up, the blindfolded curve.

To enter the driving mode where you hit the joystick forward or backward and the ev¹ does the route-finding itself, you have to hold a button on the front of the joystick. With my limited finger function, I had to use two hands to hit the button and operate the joystick, which was awkward. Once I got it rolling, the chair handled the curve easily, but the button situation made me wonder if that mode would really be helpful for me, or how the chair would do for anyone who needed alternative controls.

I spotted Hong milling around, so I rolled over and asked him if the controls could be adjusted so you could do a double-tap to enter route-finding mode instead of having to hold the button. “Absolutely,” he said. “It’s already something we’ve thought about. Holding the button might be the most intuitive for most users, but for anyone with grip problems, a secondary control option would make more sense. That’s a simple software update.”

His response made me think of advanced electric vehicles. The Tesla or Rivian you buy today can receive updates and performance improvements without you ever having to take it back to the dealer. As Hong put it, “We hope our users can benefit from a product that keeps getting smarter over time, without needing new hardware.”

The launch version of the ev¹ may be more geared toward higher-functioning powerchair users — people with multiple sclerosis, semi-ambulatory users, those with age-related weaknesses, or lower quads and paras who need power in certain situations, or because of pain, overuse or strength limitations. But the ev¹’s update capabilities mean that the base hardware is highly adaptable to different types of controls. The chair already has some voice-control

capabilities, and the team has experimented with controlling the chair with Apple’s Vision Pro headset. Mason told me that adding the option to control the ev¹ with a sip-n-puff or other, existing switch-based controls is not an issue.

For me as a low quad, the test was cool, but it turned out to be an anticlimax. That’s a good thing. The systems all worked as they were designed to. The chair felt smooth and powerful, thanks to quad motors that provide significantly more torque than most power wheelchairs. I tried to run the ev¹ into people, other chairs, and walls, and it simply eased around them, like the path it took was the one I had intended all along.

Like the update capabilities, the ev¹’s feel was akin to a modern smart vehicle. The driver-assist systems were integrated and well-designed, blending into the background. I felt in control within the parameters that it wasn’t going to let me do anything stupid. Is that a good thing? Depends on who you are. I sometimes enjoy doing stupid stuff in my manual wheelchair, and I know there are power chair users who feel the same way. But there’s no doubt that, like with automotive vehicles, intelligent driving systems are the future for power wheelchairs. Strutt’s ev¹ moves those systems forward.

AND ABOUT THAT FUTURE

So, when can you buy a Strutt, and how much will it cost?

The Strutt is now available for preorder. Go to Strutt’s website, hit the “Join Community” option to join their Facebook group and get access to the preorder list. Strutt hasn’t yet released the price of the ev¹, but the team says it will be comparable to other options on the market. Actual pricing will be available when the ev¹ officially launches in early January.

I was impressed after hearing about the Strutt’s design and technology. I was more impressed after testing the ev¹ myself. It’s not a power wheelchair that will work for those who need advanced seating features like tilt and recline. But for what it is — essentially a super advanced travel chair — it’s an incredibly useful, well-designed piece of technology. ■



HEALTH & WELLNESS

By Seth McBride

SECRETS OF SHOULDER HEALTH FOR WHEELCHAIR USERS

One day last fall, I was out mountain biking, and my dog stopped in front of me on a sloped turn. I flipped my bike trying to avoid her, fell to the bottom of the bank and landed hard on my left shoulder. After a string of expletives, another rider helped flip me upright and I limped down the rest of the trail on adrenaline. When I got back to my truck, the pain really hit. It felt like something was broken or torn. My wife had to help transfer me out of the bike and into the truck.

I've been a wheelchair user for more than 20 years and this was the first major shoulder issue I'd had, despite a Paralympic wheelchair rugby career, multiple long-distance handcycle trips and my inclination to constantly push my physical limits. The sudden shoulder injury was as deflating as it was painful and made me wonder if my shoulders had been living on borrowed time.

After a couple of days struggling around my house, I went to my physiatrist to assess the damage, and the news was surprisingly good. I had a separation in my AC joint, which, though painful, would heal on its own and hadn't compromised the structure of my shoulder. For the next few months, pain would be my limiter, but otherwise I could keep pushing and transferring and living my life.

The second piece of good news came as he explored the rest of my shoulder: He couldn't find a single tear or sign of damage in the rotator cuff muscles. He was so shocked that he checked my right shoulder as well. Same result. "Well, I know you haven't been taking it easy, but whatever you've been doing, keep doing it," he said.

The experience offered one piece of validation and one cautionary lesson. Validation: Activity isn't the enemy for our shoulders. It is possible to be out, pushing your wheelchair, doing difficult transfers, competing in adaptive sports and whatever else you want to do without inevitably blowing your shoulders out. Lesson: Even when you're doing things right, unexpected damage can come in the form of an awkward cattle dog, a crack in the sidewalk or any other random accident. Knowing that, let's look first at how to keep our shoulders healthy for the long haul, and then at what to do when damage does happen.

BALANCED SHOULDERS = HEALTHY SHOULDERS

I have no definitive answers as to why, after decades of wheelchair rugby and generally subjecting my body to more daily abuse than most, my shoulders have managed to stay healthy. But I have a couple of ideas that are echoed by other long-time wheelchair users.

First, if your primary means of activity is pushing your wheelchair, you need to add some variety. I've long felt that the basis of my shoulder health is balanced shoulder strength. For me, that means lifting weights and making sure that I focus equally on the pulling movements that build strength in the plethora of muscles in my upper- and mid-back.

Jerod Warf, an athletic trainer with over a decade of experience working with wheelchair users, says that the shoulder "should move in many directions, horizontally and vertically, or you're not giving the shoulders what they need. Ask yourself: 'When I'm out pushing my chair, what am I doing to re-lengthen those pushing muscles?' You can be highly active, you just need to do supplemental shoulder routines; they're like your daily vitamins that fill in the gaps of what you can't get enough of on a daily basis."

Warf offers a couple of shoulder health routines that can be done sitting in your wheelchair, either independently or assisted, depending on your level of function in "Debunking the Shoulder Blowout Myth." (Ed. Note: See Resources for all articles)

Bob Vogel, our longtime expert on all things shoulder-related, recommends regular handcycling on a stationary trainer, where you're focusing on the pull motion as a way to keep your shoulders balanced. His other go-to: wheeling backward up hills, which works the backs of your shoulders and saves the front of your shoulders from the high-force movements that can lead to damage. For more details and other tips, including how to improve your biomechanics and rest your shoulders while staying active, read his article "Ways to Help Prevent Shoulder Damage."

An underdiscussed aspect of shoulder health is seating position. I sit with a lot of dump, which gives me enough stability to lean over my wheels when pushing up hills. The subtle change in pushing position transfers much



Photo: Erik Mathy

of the propulsive force to my chest and triceps. If I have something on my lap so I can't bend over, I notice my shoulder straining on even a slight incline. For more on getting your wheelchair seating dialed in, check out "How to Get the Best Wheelchair Setup for Your Lifestyle."

WHAT TO DO WHEN YOU'RE HURTING

If you have damaged your shoulders, whether through long-term wear or in a sudden accident, it's time to start assessing treatment options.

The easiest way to categorize them is by level of intrusiveness. On the least intrusive end of the spectrum is physical therapy, followed by injections and finally, surgery. Vogel goes through how he considered the pros and cons of each along with wheelchair users' experiences of different treatments in his article "My Search for the Best Treatment Option When My Shoulders Went South."

Physical therapy can take many forms — from targeted exercises to strengthen supporting muscles and get your shoulders back in proper alignment, to ultrasound

therapy that can help promote your body's natural healing response. PT won't heal muscle or ligament tears, but it can provide relief for strains and inflammation while reducing pain and improving range of motion. Though often performed by a physiatrist instead of a PT, shock-wave therapy is a newer treatment that shows promise in reducing pain and promoting healing of some shoulder issues. My physiatrist performed three shockwave sessions on me following my AC separation. Though I have no objective data on whether the therapy improved healing, it did give instantaneous relief to the tight muscles in my upper shoulder and neck, like a massage turned up to 11.

For years, the next option for relieving shoulder pain was to try cortisone (steroid) injections. They can provide pain relief but it's often temporary and can cause further damage if used regularly. Newer "orthobiologic" treatments — including Platelet Rich Plasma, Micro-fragmented Adipose Tissue and stem cells — involve injecting biologic substances typically derived from

your own body into your injured shoulders to promote healing and reduce pain. While they don't work for every injury, some wheelchair users have had success returning to active lifestyles using orthobiologic therapies combined with PT. Read more at "Orthobiologics: Biological Shoulder Repair Instead of Surgery?"

Shoulder surgery is usually the last option to consider because of the expense, low odds for success, long recovery times, and the fact that for wheelchair users, a loss of an arm means a loss of independence during recovery. If your shoulder damage is bad enough, surgery can be worth it, but it's a decision that shouldn't be taken lightly. One piece of promising news: Some wheelchair users with blown-out shoulders are having success with a newer surgery option called reverse total shoulder arthroplasty, also known as total reverse shoulder replacement. Carol Spiker, 76, a T7-8 para, had RTSA last year and you can read about how she coped with the recovery from this major surgery in the links (right). ❏

RESOURCES

- Debunking the Shoulder Blowout Myth: newmobility.com/debunking-the-shoulder-blow-out-myth
- Handcycle Trainers & Fitness: newmobility.com/handcycle-trainers-fitness
- Ways to Help Prevent Shoulder Damage: newmobility.com/ways-to-help-prevent-shoulder-damage
- How to Get the Best Wheelchair Setup for Your Lifestyle: newmobility.com/how-to-get-the-best-wheelchair-setup-for-your-lifestyle
- Top Upper Back Exercises for Wheelchair Users: youtube.com/watch?v=fEYLg0X21Eo
- My Search for the Best Treatment Option When My Shoulders Went South: newmobility.com/my-search-for-the-best-treatment-option-when-my-shoulders-went-south
- Orthobiologics: Biological Shoulder Repair Instead of Surgery? newmobility.com/orthobiologics
- The Latest in Reverse Total Shoulder Replacement for Wheelchair Users: newmobility.com/the-latest-in-reverse-total-shoulder-replacement-for-wheelchair-users
- RTSA Recovery: newmobility.com/rtsa-recovery

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Members Share How To Get Beautiful Photos As a Wheelchair User

Thanks to fancy new cell phones and affordable high-end editing software, it's easier (and more affordable) to be an ace photographer than ever before. Here are tips from some of the aspiring aces in United Spinal Association's Outdoor Recreation Working Group so you can start snapping pics like a pro from your wheelchair.

United Spinal's Outdoor Recreation Working Group is made up of wheelchair users from all over the country who meet regularly online to strategize ways to improve access to outdoor recreation. Members have created robust community resources on topics such as Beach Access and Mobility, Accessible Camping and Accessible Winter Activities and Recreation. Join or find out more about this group or United Spinal's other working groups at unitedspinal.org/working-groups.



Photographer: Scott M. Crawford

My History With Photography: I started in college, working for the school newspaper and managing their darkroom. Back then, we used black-and-white film and it would take all weekend to develop and print just a few photographs.

My Advice: Never say "no" to getting outside whenever you can. Bring your camera everywhere, because you never know what opportunity may arise. Some of my best photos were unplanned. I highly recommend cameras with GPS location-mapping turned on. It helps to later know exactly where you were when the photo was taken.



How I Got the Photo: I was in Savannah, Georgia, to participate in the Multiple Sclerosis Challenge Walk. One morning, I saw this view of the Tybee Island lighthouse from across a foggy bog just as the sun was rising ... This morning, I had a Nikon D700 with me. I propped my elbows on the arms of my wheelchair to assist with the camera weight and got the shot. Other days I use a monopod and tripod to stabilize the camera while I get the shot.



Photographer: JP Bruce

My History With Photography: I started back in the late '60s with film, and lost interest for a while. I worked with computers, so in the 2000s when digital photography came out, I combined the two and have been active since. Mainly my love of nature and wanting to share its beauty.

My Advice: Take your time, look for patterns, learn your subject and have fun. Remember, if you like it, it is a good photo.

How I Got the Photo:

This photo was taken at Arizona-Sonora Desert Museum during the Raptor Free Flight program, where birds native to the region fly untethered. The handler stayed after the show so we could get closer images. I used a Canon digital SLR and a monopod for this image but have switched to OM SYSTEM equipment. I feel that they are equal in quality but OM is considerably lighter so it's easier to control.



Photographer: Leon Saeland

My History With Photography: My interest in photography comes from when I was a kid. I was fascinated with a camera and how it works, and the fact that a picture captures a moment in time.

My Advice: Have patience and keep looking for the perfect pictures. Taking pictures distracts my mind from my other complaints.

How I Got the Photo: This picture is of Roy Lake and Roy Lake River which I've lived by most of my life. I often take pictures of the same trees, leaves and flowers every year. I use my iPhone camera with a mouth stick and, or with, the Voice Control and accessibility features. I hold the phone with the Jaco robot arm. I operate the robot arm with the chin control that also operates my power wheelchair.





Photographer: Rebekah Thomas

My History With Photography: Photography allows me to share how I see the world, quite literally from where I roll! I'm drawn to capturing the quiet, everyday moments that bring peace, connection and reflection. Each photo I take offers a glimpse into my own wheel-life views — a perspective that reveals beauty in places others might overlook.

My Advice: Don't be afraid to start. Experiment, practice and learn through doing. Some of the best shots come when you stop worrying about perfection and simply focus on the moment in front of you.

How I Got the Photo: One afternoon, while wheeling along the sidewalk near a park, I came across a flowering bush that had grown out into the path. As I gently moved it aside, I noticed bees feeding on the blooms right at my eye level. They didn't seem to mind my presence, so I sat quietly, watching and waiting for the perfect shot. That simple moment reminded me why I love photography: It helps me slow down and appreciate the beauty that exists when you pause to see the world from a different angle. I captured this photo with my old iPhone 11, using its built-in 12-megapixel wide-angle camera. It's lightweight, accessible and always with me.



Photographer: Annie Streit

My History With Photography: I have always had a creative and artsy side prior to being a wheelchair user. That side of me is still very present despite my limited mobility from my spinal cord injury. My view and perspective from a sitting position is completely different than someone who is standing, so I think that unique perspective is an advantage and can introduce people to my world.

My Advice: Just have fun with it and when you find what setup works for you, practice really does help. My photos are not complete right after I take them. I use free photograph editing apps to get the final product and image that I was going for.

How I Got the Photo: I roll around this lake daily as long as the weather permits, and these chairs caught my eye. Even though there is nobody sitting in them, it still portrays the relaxing and beautiful views that the lake offers.

I used my iPhone 13 Pro Max and Apple Watch camera remote. I use a RAM Mount attached to my armrest to hold my phone. It is tightened enough so it does not move too much, but loose enough that I can adjust the angle by pushing it forward or pulling it toward me. I can also raise and lower my wheelchair and use the tilt option to change the angle of the camera.



Photographer: Catherine Denny



My History With Photography: I have always loved taking pictures and I've been taking pictures since I could hold a camera.

I'm a C5 quad and I don't rely on any special adaptations or tools, just my iPhone and my wobbly hands.

How I Got the Photo: My son (pictured) and I were downtown in Chicago and accidentally got off the train where there was no accessible exit. We then explored the tunnels and made our way to the next station.



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KALOGON SEATING SYSTEM: ORBITER MED + BONDAR

Q: What is the Kalogon seating system?

A: The Kalogon seating system combines Orbiter Med, a Medicare-coded smart wheelchair cushion, with Bondar, a 3D-printed, adjustable back support. Together, they create a fully coded, custom seating solution designed to support posture, stability, skin integrity, and overall seated health.

Q: What is Orbiter Med?

A: Orbiter Med is a Medicare-coded wheelchair cushion built to an individual's measurements and needs. It is powered by Kalogon's Advanced Pressure Management System (APMS), which uses independent offloads to help restore blood flow in seated tissue while supporting posture and comfort.



adjustable back support, creating a seating experience that responds to the user rather than forcing the user to adapt to the seat.

Q: Who may benefit from the Kalogon seating system?

A: People who use wheelchairs and need support for skin integrity, posture, stability, or pressure management may benefit. A clinician or provider can help determine whether Orbiter Med and Bondar are appropriate based on individual needs and risk factors.

Q: How can Orbiter Med and Bondar be used to support seating needs?

A: Kalogon's Orbiter Med cushion can be used on its own to help manage pressure, support skin integrity, and influence posture through independent and automatic offloads. Bondar, Kalogon's 3D-printed back support, can be used separately to provide adjustable postural support, alignment, and comfort. Together, they can be combined as a fully custom seating system, offering integrated support for skin integrity, posture, stability, and overall daily use.



Q: What is Bondar?

A: Bondar is a 3D-printed wheelchair back support designed to pair with Orbiter Med. It offers adjustable postural support, alignment, and comfort, allowing clinicians to fine-tune seating without complex hardware or repeated remakes.

Q: What makes this seating system different from traditional seating?

A: Traditional seating is static. Kalogon's system is designed to adapt. Orbiter Med actively manages pressure through independent offloads, while Bondar offers

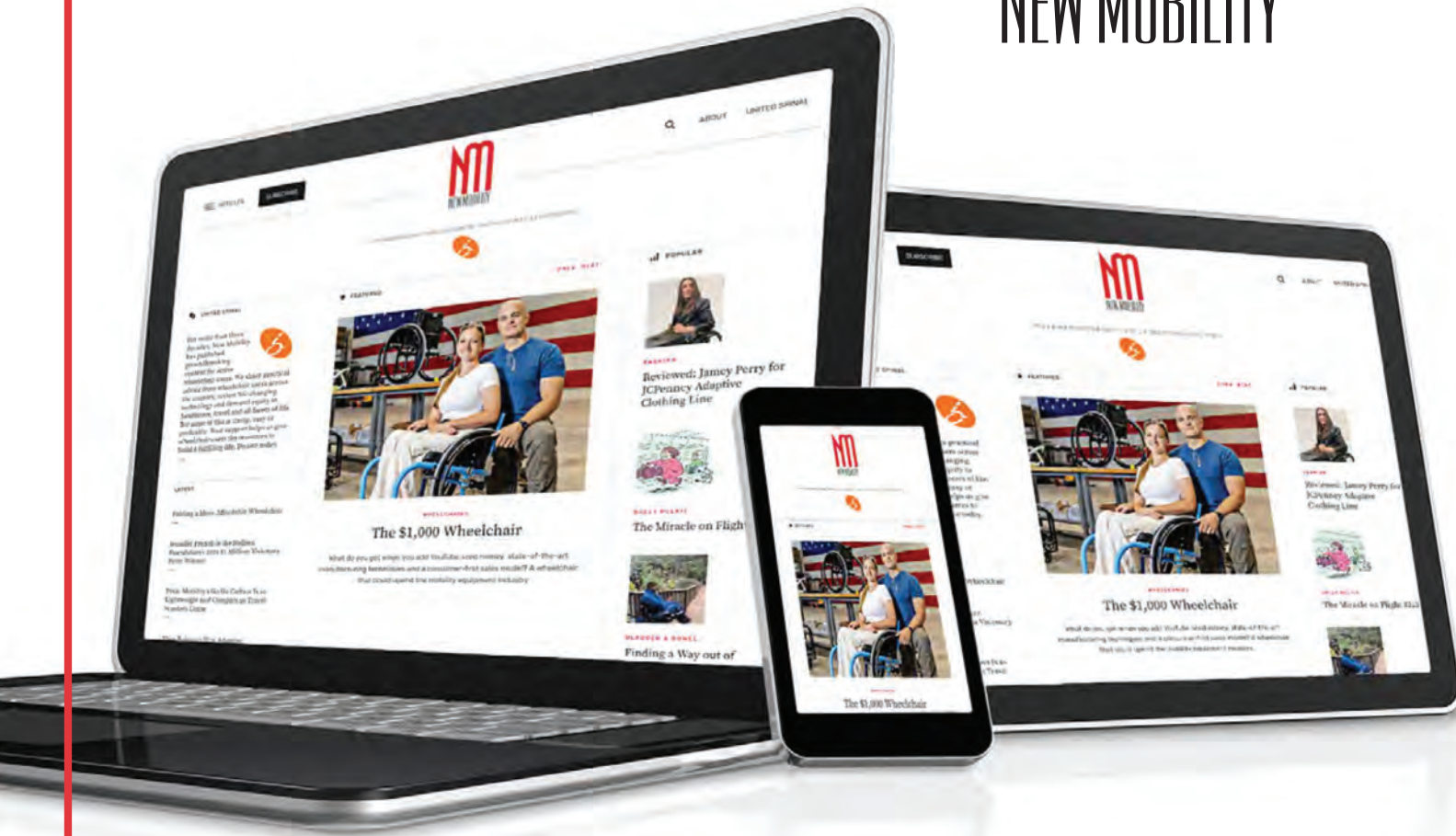
Q: Is the Kalogon seating system Medicare-coded?

A: Yes. Orbiter Med and Bondar are Medicare-coded and designed to integrate into a clinically coded seating solution, helping simplify the path to reimbursement when prescribed by a provider.



Q: How can I learn more or see if this system is right for me?

A: To learn more about Orbiter Med and Bondar, visit kalogon.com or speak with a Kalogon team member at 321.465.4504.



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