



Fall Issue | November 2022

GREAT OUTDOORS

Do you enjoy communing with nature and visiting outdoor spaces? Find out what's happening to make Canada's national parks more accessible (page 6)

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ParaTracks is s publication of Spinal Cord Injury Manitoba

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Thank you to the Manitoba Paraplegia Foundation for their continued financial support of ParaTracks and Manitobans living with spinal cord injury.

Meet Mark Stouffer

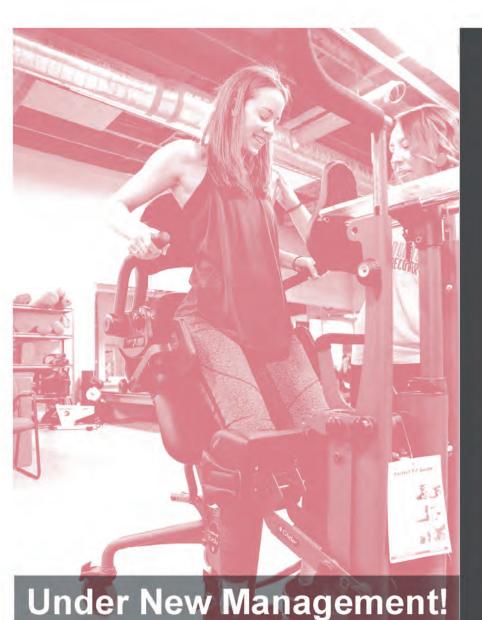


My name is Mark Stouffer, and Spinal Cord Injury of Manitoba recently hired me as a Rehabilitation Counsellor – Vocational Enhancement to serve Manitobans living with spinal cord injury in the journey to reintegrate and resume meaningful participation in the community. I graduated from Portland State University in 2018 with a Master of Science in Clinical Rehabilitation Counselling. I'm a Certified Canadian Counsellor with the Canadian Counselling and Psychotherapy Association, and a Clinical Rehabilitation Counsellor with the Commission on Rehabilitation Counsellor Certification. I have worked in nursing, health information technology, and as a Vocational Rehabilitation Counsellor.

Being a counsellor is an honour. I love helping people become empowered and witnessing them achieve more fulfilling lives. The most rewarding thing about being a counsellor is knowing I had a part in helping someone else transform their life. I'm committed to encouraging healing and transformation. I approach counselling through a holistic lens and believe counselling should offer a safe container to explore old patterns and experiment with new ones, heal past hurts, and grow in your relationship with yourself and others. I love being in outdoor settings in my free time, including hiking, kayaking, and cycling.

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Parks Accessibility Conference 2022

As a person with a disability and an active SCIM member, I recently participated in the Parks Accessibility Conference 2022, which was an opportunity for Canadians to learn about and provide feedback about the accessibility of Canada's national parks, and I would like to share with you some important information.

I would like to start with a message from the principal investigator, Dr. Tilak Dutta, who has been working to develop a set of recommendations to help guide the organization responsible for proposing accessibility standards for outdoor spaces under the Accessible Canada Act (enacted in 2019):

What does park accessibility mean to you? National parks are a source of pride and enjoyment for many, yet many of the activities offered in these parks are not accessible.

Accessibility means different things to different people. For someone who is blind, braille descriptions of the scenery could help make a lookout more accessible as could a scale model of the landscape that is available to touch and feel. Some wheelchair users may need washrooms that include adult-size changing tables and powered lifts before they can consider spending the day at a park. Someone with low vision may need a wayfinding solution to help them find a bathroom and then back to their campsite in the middle of the night. And someone with a hearing impairment might need a sign language interpreter available for nature walks.

Canada's national parks are an integral part of our identity and they provide enjoyment to more than 16 million visitors each year, yet there has been a surprising lack of focus on making these parks accessible for individuals with disabilities.

Forty-seven national parks represent 31 of Canada's 39 terrestrial regions and protect approximately 342,456 square km of Canada's lands. One in five Canadians over the age of 15 and one in twenty children under the age of 15 have a disability. The Accessible Canada Act requires that our national parks become accessible to these individuals and their caregivers by 2040. The long-term vision is to ensure individuals with disabilities and

their caregivers can participate in all activities offered at Canada's national parks. The specific objective of this multi-year project is to develop recommendations for making the national parks barrier-free by 2040.

The Accessible Parks Canada project is an interdisciplinary research project being conducted by the Engineering Health Lab (part of The KITE Research Institute) and affiliated researchers. The goal of this project is to revise guidelines for making Canada's national parks more accessible. This research is supported by funding from Accessibility Standards Canada.



Next, I would like to share with you some key issues and initiatives that were discussed at the conference:

1. Information is key

The current lack of information means that people with disabilities must become online sleuths, checking out blogs, social media posts, and websites, and making phone calls if they can even find a phone number, to find out what they might encounter, even on socalled "accessible" trails since that term



typically means wheelchair accessible and discounts other types of access needs. The information needs to be detailed and easily accessible so that people with disabilities can determine for themselves if a park will meet their access needs. When this information is also readily available to park staff, they can easily respond to an inquiry which in turn sends a message to the person inquiring that their needs have been thought about and will also make that individual feel welcome at that park. It also helps prevent staff from giving erroneous access info that could negatively impact the visitors' experience. Also, we have to recognize not everyone has computer access or internet access. We know that nature is not inherently accessible. Transportation is a big barrier for people with disability. Often public transit doesn't go to parks and often there is no physical address for a trailhead or visitor center which means that paratransit won't drop you off without an address.

2. Some outdoor spaces are inherently inaccessible

Some trails and activities will never be accessible to all, so what does that mean? It means that sometimes the natural environment is not conducive to accessibility because maybe it's too steep, or maybe there are rocks or trees that can't be moved. It could also be a question of safety. And in some cases it's just the particular conditions of a specific location – things simply cannot be changed because of the seasons or because it's protected by UNESCO (United Nations Educational, Scientific and Cultural Organization), which make it inaccessible to all and not just people with disabilities. When an outdoor space is not accessible, consider looking into what is available for solutions. Sometimes we think that it's not possible but by just looking at other parts, other areas that are similar to ours, we can find solutions that we didn't know existed. For example, let's say there's a nice waterfall and people can get to the waterfall by walking there, one option could be to have a nice viewpoint of the waterfall nearby. People are sometimes not aware of the possibilities and if they've never been to a park, they may not really know what they need in the park. Sometimes it could be because people didn't get the right information or didn't know how to get the information even before going to the park. It could also be that a park appears easily accessible to them so they go to the park and discover during their visit that they fatigue quickly because of the uneven terrain or steep hills.

3. Transportation

One of the biggest barriers to accessing parks, in general, is the lack of affordable and accessible transportation. Another barrier people with disabilities face is the lack of affordable and accessible places to stay. When people with disabilities have the support they want and need, they can do anything from hiking to kayaking, to skiing, but that means little if they can't get to the park in the first place, and/or can't find a place to stay within the park.

Trisha Kaplan is the National Manager of Programs and Inclusion Initiatives at Trans Canada Trail and oversees national programs related to inclusion and engaging communities who often face barriers to trails and the trail sector. The following information about the Trans Canada Trail was shared by Trisha during the conference.

What is Trans Canada Trail?

Sometimes referred to as the TCT, the Trans Canada Trail is a national trail from coast to coast to coast. It is over 28,000 km on land and water, and it connects 15,000 communities. 80% of Canadians live within 30 minutes of the TCT. When the trail was connected in 2017, we asked ourselves what we could do to improve it and make it accessible to more Canadians, which has become a priority, so we've been thinking about how we can improve the accessibility over such a huge network of trails. Today I'll share some information on the accessible trail projects that we support, and I'll share some survey results with you.

What do we mean by "accessible trails"?

A universal design approach is "the needs of as many people as possible are considered in the design, construction, and maintenance of a trail". However, we also want to provide access to the range of trail experiences that are being desired, because everyone's interests and desires are different. We struggle to accomplish universal design principles while at the same time considering the broad range of interests that exist among trail users who have disabilities. So, we are always asking ourselves "how do we ensure that the Trans Canada Trail is available to the range of people, needs and desires out there.

Accessible Trail Projects

Trans Canada Trail is involved in the funding and implementation of trails across Canada, including accessible trails. One example of our work is around All Persons Trails. These are trails that are accessible to everyone, regardless of disability. They typically have hard-packed surfaces, accessible signage and wayfinding, accessible amenities, and other accessible elements, like guide ropes, audio tours, tactile elements, sensory gardens, and more. We have been involved in two different All Persons Trails – one in BC and one in Saskatchewan.

We also provide funding and support to groups who are implementing accessible trail features and amenities. For example, installation of accessible trail features, accessible trail washrooms, and accessible picnic areas. We've worked with two different organizations to install Blindsquare Technology along a trail – one in Ontario and one in Alberta.

National Trail Accessibility Survey

TCT undertook the National Trail Accessibility Survey just a few months ago, with support from AccessNow, and Trisha highlighted some the findings from the effort.

The purpose of the survey was to learn about how the disability community accesses trail opportunities, and the tools needed to do so safely. These results will help us and others in the trail sector understand better how to develop and manage accessible trails.

Although it was intended to be a national survey, and it was distributed nationally, TCT received 360 responses from 20 different countries around the world. Here are some of the results:



- How often do you use recreational trails? Most said monthly or weekly.
- Why do you use trails? Most said nature, physical, or mental health.
- How long are most of your trail outings? Most said 1-3 hours.
- What is your preferred format for trail classification? Over half prefer to have detailed information about the trail.
- If you don't use trails, why not? Over half said because they don't know which trails are accessible.
- If you had easy access to information on accessible trails, would you use trails more often? Well over half said yes. This is particularly interesting, because it suggests that the gap is partly about accessible trails, which are becoming more and more common in urban areas, but also about access to information about accessible trails.

Lessons Learned

We have learned several lessons through our involvement in many accessible trail projects. Here are a few of those lessons:

- Provide a range of experiences along a trail network that meet a variety of needs and interests
- Account for a range of users with all types of disabilities
- Communicating detailed trail information is critical, rather than using accessibility designations or an effort scale
- Sharing maps and distances online is important so users can familiarize themselves before heading out on the trail
- Engage people with lived experience in the trail development process, from design to construction and even maintenance and stewardship.

National parks should be clear about their accessibility levels and have explicit signage saying this trail is for beginners, this trail has a steep slope, and any other details that would be informative for the person who wants to come and visit the park. Communication is essential for making sure that everybody understands what they can and can't do and how they can get to the park. Parks should be sure to have a dedicated section on their website that is identified for accessibility information. Every detail and every map that can be accessed ahead of time - before going to the park - is key. This way, barriers will become less significant and hopefully, people with disabilities will more readily be able to get outdoors and thus more likely have a greater sense of land stewardship.

– Artem Dolia, Rehabilitation Counsellor, WCB, Seniors, and Community Services



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Helping Others

My name is Andrea McKay-Mason. I am originally from the Pine Creek First Nation, but I have made Fisher River Cree Nation my home for the last 22 years.

In 2004, an MRI showed a tumour growing in my spine and putting pressure on my spinal cord, causing paralysis from my waist down in a matter of six months. At the time, I was devoting all my time to working as a substitute teacher at Charles Sinclair School. However, with the loss of my ability to walk, I was left unemployed and a stay-at-home mom to three young sons. But no matter how tough times got, I never lost my inspiration in life. After my surgery in November 2004, it took two and a half



months to learn how to crawl, then eventually walk again. After hearing the doctor say the tumour was benign, I saw it as a second chance at life. I grasped every learning opportunity thrown at me, I challenged myself every time I faced adversity, and I figured, "what do I have to lose?"

Since then, I married my husband, Delaney Mason, in 2007, and had one more son in 2015, Dalton. I graduated in 2008 with a Para-Educator Diploma, a fancier name for an Educational Assistant, followed by a Bachelor of Arts degree in 2019, and then a Bachelor of Education degree in 2022. I do not plan on stopping there, I plan on furthering my education in the counselling field.

What motivated me? My young sons struggling without their mom for that short period of time! I wanted to show them by my example that anything is possible if you put your mind to it, no matter what life throws at you. I was also inspired and encouraged by my desire to work with the youth in our First Nations community. You become attached to them and want to do everything you can when working with these youth.



If I can pass on one message to others, it would have to be, "help others no matter what the cost, and be empathetic!" I have never looked at others living with a disability more empathetically than I do now. I have always considered myself empathetic, but after my own experience, I have learned to slow down, take my time, and enjoy every step of the way.

Meegwetch! (thank you in Ojibway) Ekosi! (thank you in Cree) Thank you!

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Exploring the Options

A spinal cord injury can pose a significant challenge to daily living, especially when it is accompanied by drastic changes in mobility and bodily functions. In most cases, improvements to function happen within the first two years of recovery with a significant amount of time being spent in various professional therapies. Without appropriate supports, the journey to health and wellness can be daunting and even seem unattainable at times.

Spinal Cord Injury Manitoba's goal is to work collaboratively with members in order to identify service needs and to develop a realistic plan that will empower each unique individual to move forward and achieve their life goals. This work typically focuses on achieving specific outcomes, such as, for example, being able to independently manage (with or without assistance) an effective bladder voiding routine that will support them in their return-to-work process.

This was just the case with a recent SCI Manitoba member. Supporting this member in exploring, considering, and navigating options for treatment aimed at managing bladder continence and overall health of the urinary system created an opportunity for the member to participate in a course of treatment using high-intensity focused electromagnetic stimulation (HIFEM) technology, which is a noninvasive modality that uses electrical stimulation to strengthen pelvic floor muscles. The goal of this 8-session treatment plan was to decrease incontinence and increase confidence while returning to work.

The following statement shares what was achieved from the member's perspective: "I chose HIFEM treatment because I thought it could help me manage issues related to bladder continence, and possibly improve my libido. Physically, my pelvic floor muscles felt stronger during treatment. Unfortunately, each treatment caused intense pain, tingling, and numbness, but these symptoms were short-lived and eased off after one or two days. My incontinence has improved greatly, and my sex life has also improved. If this treatment can help me, then it might be beneficial to others in a similar situation. I'm maintaining results just fine by doing pelvic floor exercises at home and trying to stay active."

Although the member had a very good outcome with HIFEM treatment, it is important to understand that each person is unique and every spinal cord injury is different, therefore it is essential to consult an appropriately qualified health care provider before commencing any new treatment. However, knowledge of your spinal cord injury and how it impacts your functioning, awareness of potential treatment options, and being an 'informed consumer' will all help you make the best decisions possible about your own care.

- Natasha Schreyer, Rehabilitation Counsellor, Transitional Services

Pushing On

Imagine being a young adult apprenticing to become a plumber. Life seems very stable, almost routine. But after an automobile accident that leaves you with a spinal cord injury, you realize you're beginning a new life in a different body. Christopher Frank is an SCI Manitoba member who I met with recently to learn more about his recovery and journey.

Hi Christopher. Could you please tell us a little about yourself?

I'm 28 years old and living with an incomplete spinal cord injury. I was involved in a car accident in 2019. At that time, I was a plumber's apprentice and after the accident, continued my apprenticeship eventually attaining red seal status. I'm a physical person who enjoys working with my hands. I'm also sports minded, athletic, and goal driven. I'm not a person who can sit around for long periods and much prefer doing things that boost my selfesteem. I choose to push on as I want to make a positive contribution to the world!

What helped you to manage the challenges of living with a spinal cord injury?

First, I'm thankful that I am receiving replacement income from Manitoba Public Insurance as it helps me with my daily living expenses. For myself, I wanted to see the positive side of living with a spinal cord injury. I wanted to put myself out in the world. I also appreciate the help from my counsellor at Spinal Cord Injury Manitoba. He provided me with good information on educational programs, post-secondary schools, and labour market information on the career I wanted to pursue. This made me feel more informed about my career choice.

What was your occupation before your injury?

During high school, I realized that I always enjoyed working physically, but wasn't sure what I wanted to do. After researching various things, I selected plumbing as my vocational goal. I wasn't sure at first, but grew to like it when I got my first job. That experience encouraged me to enter the five-year apprenticeship program. I enjoyed working Monday to Friday at regularly scheduled hours. I also enjoyed helping my family and friends with their plumbing needs.

What made you decide to pursue post-secondary education?

I was feeling isolated prior to my decision. All my friends were working and I was feeling I wasn't doing much. After talking with one of my friends, I decided that an administrative position within the pipe fitting industry would allow me to take my skills and transfer them into an office position. I made the decision to enroll in the *Business Administration Diploma* program at **Red River College Polytech**. I felt this to be a good match for me!

What supports or services helped you in your return to school?

There are a few services that helped me. Spinal Cord Injury Manitoba helped inform me about the college program and labor market outlook, including securing educational funding from the *Employability Assistance for People with Disabilities* (EAPD) program. I also appreciated the great help given by *Accessibility Services* at **Red River College Polytech**.

As a new student with Red River College Polytech, what were some of your experiences and

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how did you manage them?

When I first started classes, it was tough. I had to learn the layout, time schedules, and the large mount of school work involved. This was all new to me, but I kept pushing forward. *Accessibility Services* at **Red River College Polytech** and Spinal Cord Injury Manitoba helped me through it. Especially when they worked together to get me increased tutoring services. Tutoring is helpful because there is a lot to learn!

What are your long-term career goals?

I want to take my experience as a plumber and combine it with my business administration education so I can continue working in the pipe fitting industry.

It's quite an adjustment when making the decision to return to school. Do you have some tips to offer our readers who are considering post-secondary education?

It can be tough reaching out to someone when you need help. No matter the situation, it's important to ask for help. It's important to push forward and get the support you need!

Any final thoughts you'd like to share?

Well, I'm young and feel I can still achieve more in life. There's more you can do in life if you know your options. It's tough and I do struggle at times, but I know that I have nothing to lose and everything to gain.

- Darell Hominuk, Rehabilitation Counsellor, Vocational Services



Not All Catheter Coatings Are the Same



The Truth is . . . intermittent catheterization can add up

Intermittent catheterization (IC) can add up - catheterizing six times every day equals 2,190 catheterizations each year. This can add up financially too; balancing the financial burden and frequency of catheterization leads many Canadians to re-use single-use catheters.

Canadian clinicians recommend single-use

As of 2020, Canadian urologists and nurses recommend single use intermittent catheters, ideally those that are hydrophilic or pre-lubricated.^{1,2} In fact, Canadian nurses no longer support the re-use of intermittent catheters at all.¹

Why single use?

Re-using catheters can also be inconvenient and cumbersome. Having to spend time washing, sanitizing, drying and storing your catheters only makes your bladder management routine longer. Re-using catheters also adds extra steps when you prepare to leave the house. Whether going to work, going shopping, or visiting loved ones, having to pack supplies to wash, sanitize and store used catheters can be an inconvenience. Having a catheterization routine that you find convenient and are satisfied with can help you stick to your schedule and empty your bladder as recommended by your doctor,³ which supports your bladder health.^{4,5,6}

Finally, and perhaps most importantly, re-using catheters may lead to a change of physical properties of the catheter material and there is a risk of introducing harmful bacteria, which may result in a urinary tract infection (UTI).^{7,8}





You may already be covered

Product reimbursement in Canada can be complex and overwhelming. You may not be aware that your private insurance or provincial support covers catheters or that you may even qualify for a hydrophilic or compact solution. In Manitoba, possible funding options can include *Employment and Income Assistance* (EIA), *Worker Compensation Board of Manitoba* (WCB Manitoba), *Non-Insured Health Benefits* (NIHB), *Jordan's Principle* (developed and made available by *Assembly of First Nations*), *Public Service Health Care Plan*, and *Veterans Affairs Canada* (VAC), as well as possible municipal programs and Canada tax credit/financial support programs. Private coverage is another option and many benefit plans offer better catheter coverage than you may think. Often, all you need is a prescription, or Letter of Recommendation from your doctor. The **Coloplast Letter of Recommendation** can provide additional support for your claim, by giving providers a rationale as to why you need a specific catheter. The **Coloplast Letter of Recommendation** has successfully helped Canadian catheter users access reimbursement for their intermittent catheters.

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To receive a copy of the Coloplast Letter of Recommendation and for help identifying reimbursement options for your intermittent catheters. Learn more about reimbursement support at www.coloplast.ca/catheter-coverage.

- 1. Clean Intermittent Urethral Catheterization in Adults Canadian Best Practice Recommendations for Nurses. Developed by Nurses Specialized in Wound, Ostomy and Continence Canada, Canadian Nurse Continence Advisors, Urology Nurses of Canada, and Infection Prevention and Control.1st Ed. 2020.
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Synchronized Stimulation

Open loop electrical stimulation has already shown promise as a treatment to improve neurogenic bowel for people with SCI. Researchers at Texas A&M University are hoping for even better results and close-to-normal bowel function via closed loop stimulation.

[Reprinted with permission from Spinal Cord Injury BC's **The Spin** magazine, Fall 2022 edition]

It probably seems like we're always fixated on bowel function here at *The Spin*. But the reality is that survey after survey of people with SCI make one thing clear: bowel routines are one of the biggest challenges you face, and you believe research in this area should be a high priority.

A couple of issues ago, we wrote about work being done in this area at Dr. Reggie Edgerton's UCLA lab. Using their own proprietary technology, the SpineX SCONE transcutaneous stimulation device, Edgerton, along with Dr. Parag Gad and other colleagues, demonstrated that electrical impulses delivered by electrodes attached to target areas on the skin above the spinal cord were able to restore some sensation and induce contractions in the rectum. And in a case study of one person, a stimulation training regimen of one hour daily for one week resulted in a dramatic reduction of time needed to complete a bowel routine—from 75 minutes to 15 minutes.

This study, and others like it, have been performed with what's known as an open loop stimulation system. It's called open loop because the participants receive a predetermined stimulation set determined by the researchers involved.

The stimulation parameters the timing, duration, strength and frequency of the pulses are preset and remain constant throughout the treatment. It's only after the results of the stimulation become apparent that the parameters can be adjusted for subsequent treatments.

These type of open-loop stimulation systems are relatively successful and wellestablished. But it may be that there is potential for better results using closed loop stimulation.

In a closed loop system, there are two components. Like an open loop system, closed loop systems have a stimulation device and electrodes that work together to deliver electrical pulses to the target nerve or muscle to trigger the desired outcome. But closed loop systems also have a component that senses, in real time, the effect of the stimulation and, after analyzing that feedback, automatically and dynamically adjusts the stimulation parameters as required to increase the effectiveness of the therapy—and to reduce troublesome side effects.

At Texas A&M University, Dr. Hangue Park and his colleagues are developing this type of closed loop stimulation system in an effort to replicate the natural rhythm of the digestive system and more normal bowel function after SCI.

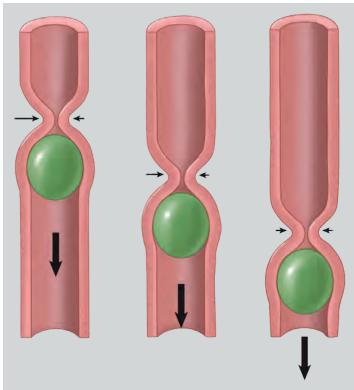
"Although the effect of electrical stimulation on promoting effective colon movement has been previously investigated, no previous study has yet investigated the result of closed loop electrical stimulation on promoting colon movement," says Park, an assistant professor in the Department of Electrical and Computer Engineering. "The motivation of this work is to offer people with SCI, as well as their caregivers, a higher quality of life."

The underlying mechanism of a normal bowel peristalsis—a natural. movement is mass sequential and rhythmic constriction and relaxation of the muscles in the colon that propels stool to the rectum prior to voiding. It's this process that is often compromised in people with SCI. The result is neurogenic bowel—constipation, incontinence, and the need for a routine that can take hours to complete.

Finding a way to safely trigger mass peristalsis in people with SCI would, in essence, cure neurogenic bowel. But how to do that? Despite promising results, the open loop stimulation using the SCONE device that we referred to above does not fully restore peristalsis. It appears to be more of a blunt instrument that stimulates the vagus and pelvic nerves to induce some peristaltic contractions in one part of colon.

The approach taken by Park and his colleagues at Texas A&M is to surgically-implant highly flexible electrodes at key points on the surface of the colon itself. These electrodes can trigger the adjacent rings of smooth muscles in the colon in a sequence that mimics peristalsis—and also seem to "reawaken" the nervous system's central pattern generator for peristalsis. Meanwhile, sensors that are also implanted on the colon provide electrocolonogram monitoring to determine what's happening with the colon in real time. Information from these

sensors is assessed by a computer and used to immediately change the stimuli as required to continue peristalsis and propel stool to the rectum. In 2019, Park and his colleagues published a paper for a conference titled *A Real-time Electrocolonogram Monitoring and*



Mass peristalsis occurs when the ring muscles of the colon contract sequentially in a wave-like rhythm to gently propel waste to the rectum. This function is impaired with neurogenic bowel.

Electrical Stimulation System for Promoting Mass Peristalsis of the Colon. Here's what the authors wrote in the paper's conclusion: "We have developed a real-time electrocolonogram monitoring and stimulation system and evaluated its efficacy on promoting peristaltic movement with a mouse model. The results obtained during benchtop tests and animal experiments clearly showed that the presented system could simultaneously record electrocolonogram and induce colonic activity and initiate peristaltic movements of the colon with electrical stimuli."

Since that paper was presented, Park and his team have continued to refine their system and research methodology. Much of the work has focused on the timing of stimulation—determining when is the best time to initiate stimulation, which is a complex problem as the colon is still a mystery to researchers in many ways.

"With a series of experiments, we learned that e-stimulation should be carefully applied with a closed-loop optimization, based on the reading

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from the colon," says Park, adding that timing of closed-loop stimulation is what gives it the potential to be a more effective therapy than the open loop stimulation.

"Timing of stimulation," he asserts, "is a critical part for the efficacy of E-stim, and therefore closed-loop operation is inevitable."

Another priority is to determine the optimal intensity of stimulation so that the effect is maximized, but without damaging the colon.

Recently, the Craig H. Neilsen Foundation announced financial support to Park and his colleagues so that they can move forward with their research.

"With the funding from Craig H. Neilsen Foundation, we are investigating how to optimize e-stimulation to recover the compromised colon motility after SCI, again using an animal model," he says. "I would say this is a very important step to increase the efficacy of e-stimulation, which is necessary for the translation into a human clinical study. Investigation onto the potential side effects is also necessary to move forward for the clinical trials. I expect we need three to five years until the clinical trial."

He cautions that there are other hurdles to clear before human clinical trials will be possible.

"Miniaturization is a critical part for translation to human studies," says Park. "And installing electrodes to the colon may require an abdominal operation, which carries its own risks."

Meanwhile, researchers using non-surgical

transcutaneous stimulators such as SpineX's SCONE system are pushing forward with their own research to build on recent successes in bowel function stimulation, and approval for actual real world use by Health Canada and the FDA appears more and more likely in the foreseeable future. If this happens, and if people with SCI experience significant improvement in bowel function by using these devices that require no surgery, the closed-loop system being investigated by Park and his colleagues may have to offer a far more effective solution to be viable, given the potential complications of any surgically- implanted device.

Only time will tell if the closed loop system will offer people with SCI a normal bowel experience. At the very least, Park's work is likely to contribute to our collective understanding of the digestive system after SCI—and what it takes to resolve one of its most troublesome secondary complications.

It should be noted that Park and his colleagues are currently working to publish new results of this ongoing project by year's end. If the results are noteworthy, we'll provide an update in a future issue of *The Spin*.

> This article has been reprinted with permission from Spinal Cord Injury BC's **The Spin** magazine, Fall 2022 edition. Photo and illustration courtesy of SCI BC.

SCI Manitoba extends its sympathies to the families of the following loved ones who recently passed away:

Victoria Diaz Jim Derksen Theresa Graham Barry Inkster Won Jang Barbara Millward

Mildred Picklyk Orville Prokopchuk Christine Taylor

Manitoba Paraplegia Foundation (MPF) News

MPF Trustees:

Doug Finkbeiner, Q.C. (President) James Richardson Jr. (Treasurer) Dr. Lindsay Nicolle John Wallis Dr. Kristine Cowley (Vice-President) Dr. Jan Brown Leonard Steingarten Lyall Hallick MPF funds go to work in four main areas that are not supported by any other sources in Manitoba: special projects, product testing, research, and direct aid to Manitobans living with spinal cord injury who do not have the necessary financial resources for equipment and/or services. All requests for direct aid are initiated through SCI Manitoba. Individuals must provide information on their finances, explain why they cannot meet the expense within their own budget, and identify any other potential sources to support the request, including potential for contribution from family.

SCI Manitoba thanks MPF for its continued support and

commitment to improving the quality of life of Manitobans living with spinal cord injury.

MPF has approved several requests for financial support during the past several months. Since the last issue of ParaTracks, financial support totaling \$12,919 has been granted. Some of the highlights follow:

- Funding was provided for the purchase of a lock box and cell phone SIM card for an SCI Manitoba member. The lock box will allow home care staff to enter and exit the member's independent housing unit if they are still in bed when home care staff attend. The cell phone SIM card is required for personal safety while the member is in the community.
- Funding was granted for EMSELLA treatment, which harnesses the power of HIFEM (high-intensity focused electromagnetic) technology to stimulate pelvic floor muscles non-invasively. This novel treatment will provide the member the opportunity to better manage elimination and erectile dysfunction.
- Funding was granted for the cost of a service repair call for an SCI Manitoba member's wheelchair. The repair will help maintain the member's independence and prevent unnecessary health complications such as skin breakdown or other physical injuries.
- Partial funding was provided for the purchase of a battery-powered wheelchair attachment for an SCI Manitoba member. This add-on will enable the member to commute to and from work at a manual wheelchair level, and will also add to the member's leisure activities by giving them access to the community, thereby enhancing their quality of life.
- Funding was provided for the purchase of prescription eyeglasses for an SCI Manitoba member. The eyeglasses will allow the member to obtain their GED and return to meaningful employment, allowing them to live independently and improve overall quality of life.

Visit MPF's website for more information at www.scimanitoba.ca/mpf. Applications for assistance are available by contacting the SCI Manitoba office at info@scimanitoba.ca or 204-786-4753 (toll-free 800-720-4933 within Manitoba).



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