POLIO NEWS

Presented by
WILDROSE POLIO SUPPORT SOCIETY

STAYING POSITIVE FOR OUR FUTURE

PRESIDENT'S MESSAGE

Hi Everyone:

Well, we have made it through a late spring, wet early summer and now it looks like a typical Alberta fall. Get out and enjoy before Winter.

Your new board of directors has been busy updating our bylaws and reimbursement policy to match the current board practices. Approval of by law changes is needed at a general meeting. So…in November we will be having a special meeting. Since we don't schedule activities in the winter months due to mobility issues, we'll call our lunch in November a 'Christmas lunch' (a real turkey dinner). We're also working on some entertainment.

I hope you enjoy the newsletter Bernd has prepared for us.

John Sugden, President

https://polioalberta.ca

IN THIS ISSUE

LAUGHTER IS GOOD MEDICINE

"Judging by the size and frequency of these droppings, we've found the campaign trail."

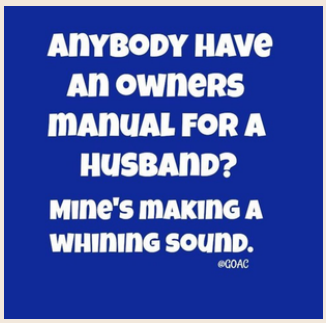
I signed up for an exercise class and was told to wear loose fitting clothing. If I HAD any loose fitting clothing, I wouldn't have signed up in the first place!

Don't argue with an idiot; people watching may not be able to tell the difference.

Wouldn't it be nice if whenever we messed up our life we could simply press 'Ctrl Alt Delete' and start all over? AMEN, AMEN!

Wouldn't you know it...
Brain cells come and brain cells go, but FAT cells live forever.

FREE PUPPIES.
Mother is a Kennel Club registered German Shepherd.
Father is a Super Dog, able to leap tall fences in a single bound.



EDITOR'S NOTES

This is the first edition of Polio News in the new format! Goodbye to the old! I was planning to introduce the new Polio News for the January issue but find myself ahead of schedule so here it is!! Below I have given you a brief explanation as to the process of making the transition from Microsoft Publisher to Canva. I have also experimented with the use of AI (Artificial Intelligence) in the making of the new newsletter template and also in its' application in doing content research.

After much experimentation and negotiating a rather steep learning curve I have become somewhat familiar with the new design program, CANVA. There are lot of new ways of doing things which I must still learn but all in all it has been a relatively painless transition.

To build this edition I used a template from within the program and then modified it into a format which I feel fits the WPSS brand. Once this was completed I saved the format as a new template which I can now open and use for each new issue of the newsletter. There is an AI function within this program which allows me to ask for help in creating specific elements for the template pages. For example, I had trouble building the contents table on this page so I directed AI to build it for me. I gave a description for what I wanted and it produced an interpretation of that. I had to modify my description several times before I was presented with a table I felt was acceptable. This process was quite the eye opener for me.

I must say that using the AI feature was very helpful in building this template. I have already used AI for doing research for articles in the previous issue and found that very helpful. It greatly reduces the time spent on searching out information. I still must read and edit the material but I don't have to spend hours searching for it. I want you to know that what you read in Polio News may be AI assisted but the final words will always be checked and verified and/or written by me or members helping me.

Whether we like the idea of AI in our lives or not, I believe it is here to stay and we likely will have to embrace it or get left behind in this new and fast paced world we are finding ourselves in. I will buckle up and look forward to the ride! I hope you choose to join in.

Bernd Schwanke, Editor

NEWS and UPDATES

REIMBURSEMENT & MEMBERSHIP STATISTICS

As of November1, 2025 WPSS has reimbursed members $13,727.00 on physical therapy and $19,035.00 on aids and devices. Our memberships statistics show that we currently have 29 single and 35 couple memberships.

MEMBERSHIP REMINDER

Memberships are due January 1, 2027 and are valid from January 1 through December 31 of 2027. Memberships are still $20.00 per single and $30.00 per couple.

Please do renew your memberships by January 1 or as soon as possible thereafter!

TRANSPORTATION REIMBURSEMENT

Do you have issues with getting to our events? WPSS will reimburse you for 75% of your transportation costs if you use Uber or a taxi to get to a WPSS event. Uber, Co-op Taxi, Yellow Cabs, and perhaps other taxi services as well, have Wheelchair Assist Vehicles (WAV) if you need that type of transportation. You should book ahead and let the service know if you need WAV.

See the 3d Quarter, 2026 edition of the Polio News for directions for using UBER or LYFT

Please use the regular claim form and provide the receipt. These claims do not count against your $3,000.00 yearly reimbursement limit.

EXECUTIVE

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DIRECTORS

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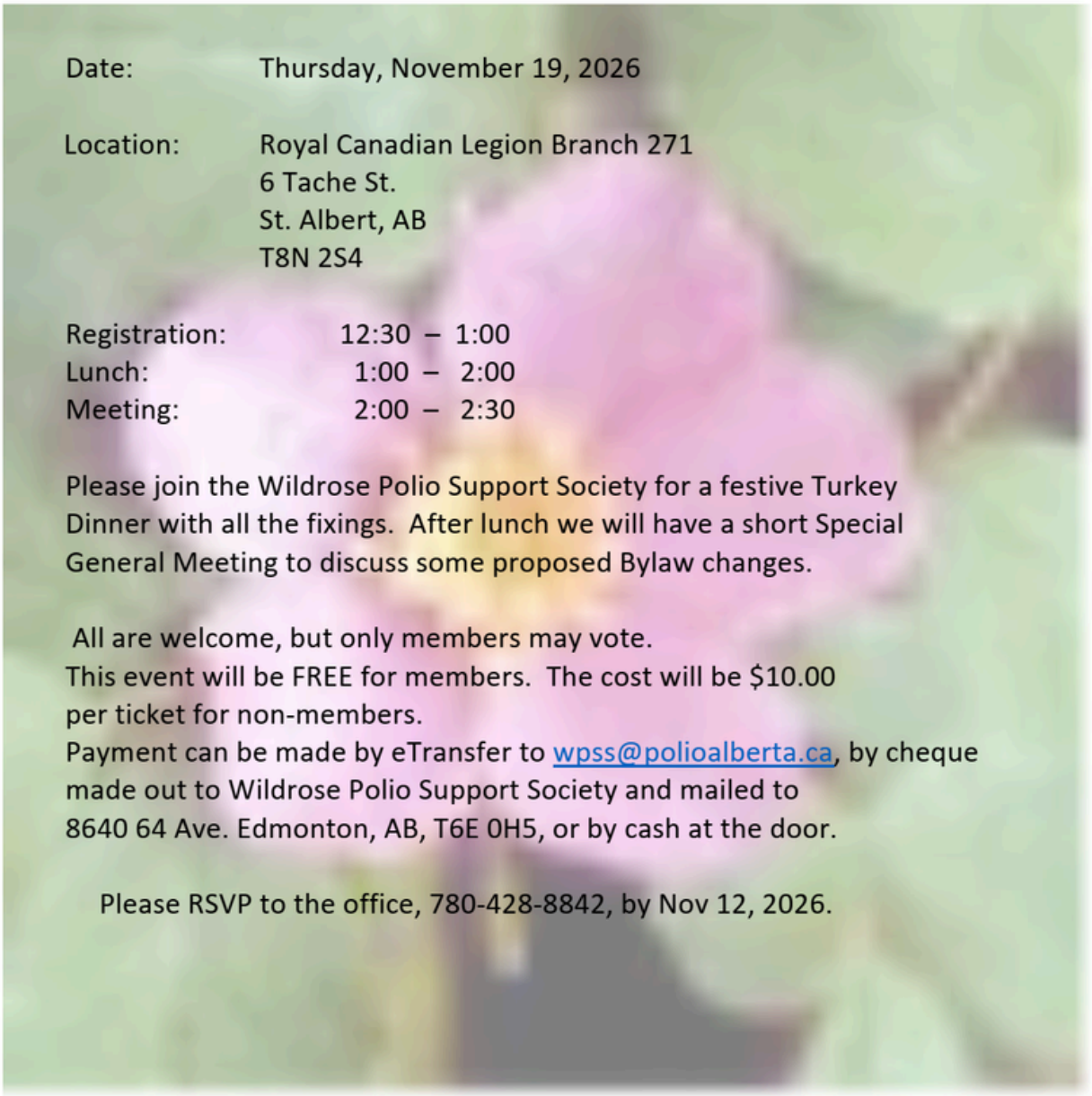
DISCLAIMER

Information published in the Polio News and/or the Wildrose Polio Support Society web site may not represent the opinion of the Society. It is not to be regarded as the Society's endorsement of treatment, products or individuals. If you have or suspect you may have a health problem, please consult your health care professional.

UPCOMING EVENTS

Christmas in November
and
Special General Meeting



Date: Thursday, November 19, 2026

Location: Royal Canadian Legion Branch 271
6 Tache St.
St. Albert, AB
T8N 2S4

Registration: 12:30 – 1:00
Lunch: 1:00 – 2:00
Meeting: 2:00 – 2:30

Please join the Wildrose Polio Support Society for a festive Turkey Dinner with all the fixings. After lunch we will have a short Special General Meeting to discuss some proposed Bylaw changes.

All are welcome, but only members may vote.
This event will be FREE for members. The cost will be $10.00 per ticket for non-members.
Payment can be made by eTransfer to wpss@polioalberta.ca, by cheque made out to Wildrose Polio Support Society and mailed to 8640 64 Ave. Edmonton, AB, T6E 0H5, or by cash at the door.

Please RSVP to the office, 780-428-8842, by Nov 12, 2026.

8640–64 Ave, Edmonton, AB, T6E 0H5 wpss@polioalberta.ca 780-428-8842

UPCOMING EVENTS

MOVIE DAY

The Legion (6 Tache street, St. Albert) hosts a movie day on the first Monday of every month, and we have been invited to attend.
There will be popcorn and other snacks, and maybe even sandwiches!

The event will be on **October 5**, and we are asked to be there by **12:30**.
This is a **free event**! We don't know what the movie will be - but at any rate it will be a good chance for us to get together for a visit.

Please let Pat know by replying to this email if you would like to attend. "Secretary WPSS" <wpss@telus.net>

RESEARCH

Overcoming obstacles: AI-powered app flags mobility barriers for people with disabilities

Rehabilitation medicine, engineering researchers team up for pilot project to help navigate accessibility challenges on U of A campus.

April 08, 2025 By Geoff McMaster

For his master's project, Arne Andres is working with a team developing an app using AI to help people with disabilities navigate mobility barriers in public spaces. (Photo: Geoff McMaster)

Arne Andres has spent a lifetime confronting barriers to mobility.

Growing up in the Philippines, he was struck by a childhood bout of polio that left him in leg braces. Friends and family had to carry him in a little wooden box to get from the street to his classroom.

As a computer science instructor later in life, he struggled to climb the stairs in the building where he taught. Accessibility was much better when he immigrated to Canada in 2001, but in a cruel stroke of bad luck, he was rear-ended in a car accident in 2015, leaving him severely disabled. He has been using a motorized wheelchair ever since.

(continued on page 26)

RECENT EVENTS

Annual Picnic in The Park

On Wednesday, July 8th WPSS hosted our annual Picnic in the Park at our old familiar site #1, Hawrelak Park from 10:00 AM to 2:00 PM. It was a happy reunion enjoyed by a nice turnout of around 30 members and guests. Thanks to Rick and Ann Meunier for the firewood which allowed us to have a roaring blaze in time for the lunch hour. It was great to have a dry and sunny mid day after experiencing the wettest June in Edmonton history! We were happy to see many familiar faces and exciting to have some new ones present. A special shout out to Dennis and Diane Turner and Darlene Prochysyn whom we have not seen at this event for some time. Also, a hearty welcome to new members Ray and Janice Heit who joined us all the way from Vermilion! It was a pleasure meeting you both and having a great chat!

RECENT EVENTS

JUBILATIONS DINNER THEATER - Golden Girls Vegas Vacation

On Wednesday, August 18 WPSS went to Vegas with the Golden Girls! It was a great ride with “Neil Diamond” as the featured artist. We were there in full force with 40 seats sold and we were not disappointed!

Everyone’s favorite golden group of lovely ladies hit the Las Vegas strip in this Jubilations Dinner show! The girls decided that it was finally time to take that bachelorette trip that none of them got to take in their youth. It’s never too late when you’re young at heart. There were big laughs and amazing music from all the greatest singers that have hit the strip through the years.

Stunning live vocals, a nice meal and great visits made this another very successful and fun event for our group! It was great to have such a great turnout

IN THE NEWS

ALBERTA REFERENDUM

Alberta is going to the poles for a 10 question referendum on October 19, 2026.

As a minority group dealing with disabilities the direction this province moves in the foreseeable future can have huge impacts on our wellbeing. I believe it is imperative for us to be very careful as to how we answer the referendum questions.

I have gone to AI (Chat GPT) to help create an analysis of the questions as well as the possible answers. I also asked Chat GPT to provide an opinion as to what the government interpretation of the answers might be and how it may affect government policy.

The link to the article is here

https://polioalberta.ca/articles/alberta-referendum-october-19-2026/

Another insightful analysis of the referendum questions can be found here:

https://beforevoting.ca/how-to-vote

ARTICLE

Polio should have been eradicated by now. What's Plan B?

NEWS FEATURE
22 July 2026

By Aisling Irwin

Amid funding cuts and political barriers, researchers are asking whether the campaign can ever succeed, and what to do next.

Female health workers are a crucial part of polio-vaccination campaigns, but have been banned in parts of Afghanistan. Credit: Shahzaib Akber/EPA-EFE/Shutterstock

Ten years ago, the virus that causes polio seemed to be on its way to extinction. In August 2016, Nigeria experienced its last two cases of the wild virus, leaving it circulating only in Afghanistan and Pakistan. Amid global excitement, Hamid Jafari, who at the time directed polio operations and research at the World Health Organization (WHO) predicted of Pakistan: “We may be looking at months — months, not years — before we eradicate polio in this country”.

Polio is on the brink of eradication. Here’s how to keep it from coming back

Since then, however, eradication targets have come and gone: 2019, 2023, 2025. Last month was the latest missed target to stop transmission. In the past decade, more than US$3 billion has been spent fighting the virus in Afghanistan and Pakistan, where billions of doses of oral vaccine have been administered. Campaign leaders hoped that polio would finally disappear during last winter’s low-transmission season. But that didn’t happen; 14 new cases have been reported so far this year.

Fresh challenges now threaten the endgame, such as an unprecedented funding shortfall, and, from New York to rural Pakistan, a growing hesitancy towards vaccines.

Although the WHO said last January that eradication was “within reach”, most researchers interviewed by Nature for this article are very concerned about the chances of success. “In theory, eradication is possible, but in practice, it is not,” says Kimberly Thompson, who studies health economics at Kid Risk, a non-profit consultancy in Orlando, Florida, that models polio transmission and eradication.

So will we ever rid the world of polio, or is it time for plan B?

Ambitious effort

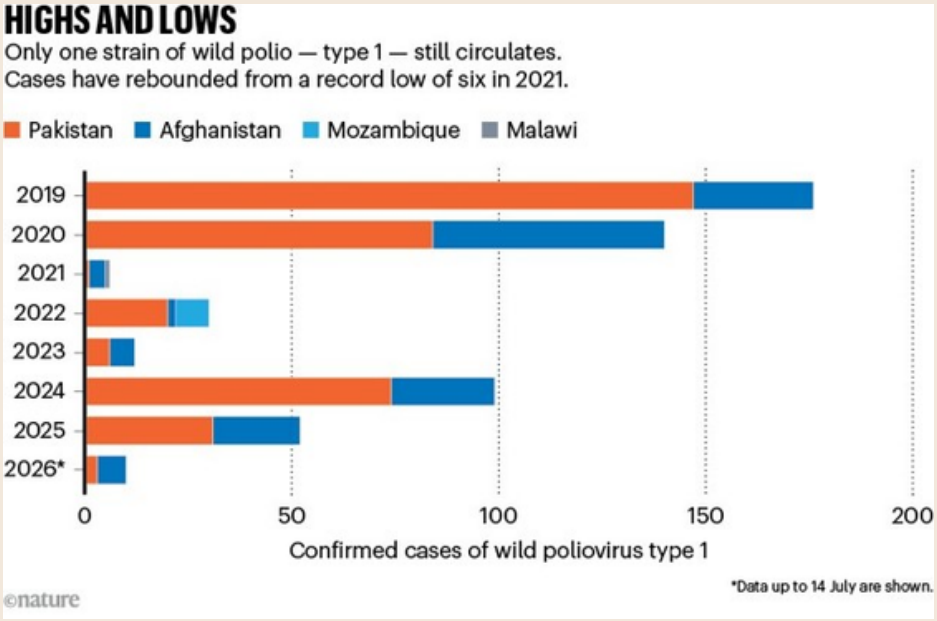
The effort to eradicate polio relies on the oral polio vaccine (OPV) — a drop of liquid containing live, attenuated poliovirus. Giving it to children both protects them from disease and stops the virus from spreading by blocking its replication in the gut. A population immunity level of about 90% is needed in vulnerable areas for the virus to peter out. A different vaccine, the inactivated polio vaccine (IPV), contains killed strains and is given as an injection. It is administered globally, in both vulnerable and polio-free areas, and protects against disease but doesn’t stop transmission.

In rare cases, the attenuated virus in OPV can mutate to regain virulence, meaning that it can lead to cases of vaccine-derived polio and paralysis. Where immunity is poor, vaccine-derived polio can spread through communities. Ultimately, the strategy is to eradicate wild poliovirus with oral vaccine and then to carefully withdraw that vaccine without triggering vaccine-derived polio, while using IPV to insure against such outbreaks.

On the face of it, the approach is working well. When the Global Polio Eradication Initiative (GPEI) began nearly 40 years ago, there were 350,000 cases of wild polio each year across 125 countries. By 2025, the GPEI, a partnership of national governments and international organizations, had reduced wild polio to a mere 52 new cases — a 99.98% drop. What’s more, modellers calculate that its work has prevented between 2.5 million and 6 million cases of paralysis1.

And leaders still say they are upbeat. At present, says Arshad Quddus, acting director of the GPEI, progress is still being made towards zero: polio is transmitted less often and in smaller areas. Some places previously regarded as ‘core reservoirs’ have seen no cases in more than a year, he adds.

But the data tell a different story: polio cases rise and fall. For example, the number of wild cases dipped to 22 in 2017 but rose to 176 in 2019, fell to 6 in 2021 but rebounded to 99 in 2024 (see ‘Highs and lows’). The pattern is similar for detection of the virus in the environment. It’s enough for Thompson to conclude: “We’re not heading towards success.”



Source: World Health Organization

The key to polio eradication is high population immunity, particularly gut immunity, which blocks transmission. It has been achieved in the most difficult of geographies: now, of the three types of wild polio that used to circulate, only type 1 remains.
If the rest of the world has managed to stop transmission, why isn't that happening in the two remaining hide-outs? Is there something about type 1 that makes it harder to quash than the others? "The answer to that, I think, has to be no," says David Salisbury, chair of the GPEI's Global Commission for Certification of Poliomyelitis Eradication, citing its successful eradication elsewhere. Some researchers have suggested that the oral vaccine is failing to trigger the level of immunity in Afghanistan and Pakistan that it did elsewhere2, but most say that the problem is not a scientific one.

"We know the tools, we know the key reservoir areas," says Isobel Blake, who models polio epidemiology at Imperial College London. The challenges, she says, are "operational".

Despite Herculean efforts, there remain 100,000 unvaccinated children in inaccessible districts of the two countries, and average immunization rates in some districts are below 50%, says Zulfiqar Bhutta, a paediatrician at Aga Khan University in Karachi, Pakistan. And yet much of what they face has been dealt with in other parts of the world, says Salisbury.

This year, violence erupted between Pakistan and Afghanistan, and conflict-ridden areas in south Pakistan have become unreachable, says Quddus; many people continually cross the border between Pakistan and Afghanistan, replenishing viral reservoirs, and mistrust of vaccinators has grown. At least four police guards have been killed while accompanying vaccinators just this year in Pakistan, and in south Afghanistan, female and house-to-house vaccinators, who have been crucial to global success, are banned.

Yet in northeast Nigeria, Salisbury says, polio was eradicated despite the rebel group Boko Haram actively resisting polio campaigns between 2009 and 2016, killing vaccinators and destroying health facilities. And the war in Gaza did not prevent negotiation in 2024 of a humanitarian pause to allow emergency polio vaccination of 640,000 children. Religious opposition, too, has been overcome in other places, he says.

Polio is on the brink of eradication. Here's how to keep it from coming back.

But Quddus maintains that some problems in Afghanistan and Pakistan are unique. In Gaza, it's clear who is in conflict and from whom to seek approval for a campaign. But in the southern part of the Khyber Pakhtunkhwa province in northwest Pakistan, "it's a messy situation. There's not a very specific group or groups" to negotiate with. And in south Afghanistan, concedes Salisbury, the prohibition on house-to-house and female vaccinators is "a fundamental difficulty".

Polio workers are constantly innovating in these regions, says Quddus. "What is abundantly clear," says Kathleen O'Reilly, an epidemiologist at the London School of Hygiene & Tropical Medicine and WHO polio adviser, "is that they will try anything and everything".

There are some challenges making today's campaign even more difficult. The novelty of this global mission has waned; polio cases are rarer than other health problems, which erodes communities' enthusiasm for vaccination. Polio funding flows to the Afghan authorities "no matter how badly the programme is run", the GPEI's Independent Monitoring Board noted last year. "For the first time in the history of polio eradication, it does not feel as if Afghanistan is, or wants to be [involved]."

Falling funds

The other major issue is that the campaign has had to contend with a 30% budget cut this year. The upheaval in US engagement with global health is partly responsible. There remains support in the United States for polio eradication, both among the public and in Congress, and the disease was one of a small number to make it into the country's new global-health strategy, published last year.

But changes over the past year or so — including the US withdrawal from the WHO and the dismantling of the US Agency for International Development under the administration of President Donald Trump — have disrupted the infrastructure and technical expertise that the United States contributed towards eradication.

Instead, the United States has brokered bilateral health agreements with 34 countries that receive US global-health assistance, but it is unclear how much support these will provide for polio campaigns.

A health worker administers a polio vaccine to a child in Pakistan, one of two countries where wild poliovirus cases persist.Credit: Muhammad Sajjad/AP via Alamy

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Other nations, such as the United Kingdom, have ceased their contributions to the GPEI, although the Gates Foundation, a non-profit organization in Seattle, Washington, and other donors pledged $1.2 billion last December, reducing the shortfall over the next few years.

Because of the reduction to its budget, the GPEI has cut back on some of its activities — most notably OPV immunization in areas that are not currently experiencing outbreaks. Modellers say that this is risky for areas vulnerable to wild or vaccine-derived polio.

Cases of vaccine-derived polio have been dropping year on year since 2022, when there were 882 cases, ostly in sub-Saharan Africa. Case numbers surged as a result of a botched alteration to the global vaccine programme in 2016, when the type 2 oral vaccine was discontinued, after that strain was eradicated3. Quddus says that the recent fall is due to rapidly ramping up vaccination in areas affected by outbreaks.

But both Blake's and Thompson's models show that, to successfully stamp out outbreaks, it is essential to pre-emptively vaccinate in vulnerable populations that are currently polio-free — the very activity that has been scaled back this year.

Uncertain future

No one Nature interviewed for this article said that eradication is impossible — in theory. But most did not think it was imminent, and many thought it could not be achieved with business-as-usual approaches.

"If the programme did everything right and resources were not an issue, then it could be done," says Thompson. But after so many years of missed targets, and in the current funding climate, she says, "I think it has already failed."

ARTICLE

Will Stoko Leggings Help Every Polio Survivor? My Personal Perspective
Submitted by Riki Roy

After our discussion several meetings ago, I became interested in the Stoko Supportive Leggings. I read about their innovative design and the many positive reviews from athletes, hikers, skiers and people with knee instability. Like many of us living with the late effects of polio, I am always looking for new technology that might help me remain active and independent.

After researching the product, carefully comparing it with my own medical history, and discussing it with my doctor, I came to an important conclusion: while Stoko may be an excellent solution for some polio survivors, it is not automatically the right solution for every one of us.

So, here are my two cents' worth. (I wrote this as an article in case Bernd thinks it might be useful for the newsletter! 🤪)

I am one of the relatively rare survivors of four-limb polio. Despite the severity of my childhood illness, I continue to walk independently, drive, travel, work with a personal trainer, and live a very active life. However, that independence has not come easily. It has been achieved through decades of learning, adapting and understanding a body that functions very differently from the average person.

My challenges include:

- Four-limb polio with lifelong muscle weakness.
- A double-S scoliosis.
- A left leg that is approximately ¾ of an inch longer than the right.
- A right foot that is almost two shoe sizes smaller than the left.
- Previous surgeries, including fusion of my left great toe to stabilize foot drop and reconstruction (triple arthrodesis) of my right foot.
- Arthritis affecting my knees, fingers, toes and feet, with the right foot and ankle being the most severely affected because it is my stronger side and has carried the greater workload throughout my life.
- Knock knees and altered lower-limb alignment.
- A walking pattern that has evolved over decades to compensate for all of the above.

On a good day, I walk independently.

AOn more difficult days, I may use walking poles, an ankle brace, a knee sleeve, a walker or a mobility scooter, depending on the activity. These are not signs of giving up—they are simply tools that allow me to continue participating in life. My goal has never been to prove that I can do everything unaided. My goal has always been to keep doing the things I love.

When I looked closely at how Stoko works, I realized something important.

The leggings are designed primarily to improve support around the knees and hips through an adjustable cable system. That makes excellent sense for many people whose primary problem is ligament instability or mild joint weakness.

My situation is very different.

My right ankle—not my knee—is my limiting factor.

Because of the fusion in my right foot and the arthritis that has developed over time, my ankle no longer moves normally. I bear weight predominantly on the outside of my right foot, while the pad beneath my big toe has carried very little weight throughout my life. As I become fatigued, my ankle becomes painful first. My knee and hip then begin to compensate, creating a chain reaction throughout my body.

In other words, my knee is not the beginning of the problem—it is simply one link in a much larger mechanical chain.

I also discovered something else over the years. Expensive custom orthotics actually made my gait worse. A Schroth therapist here in Edmonton carefully assessed my posture and movement and recommended that I stop wearing them because they were forcing my legs into an alignment that did not suit my body.

That experience taught me an important lesson.

Correcting one part of a complex post-polio body without understanding the whole body can sometimes create new problems rather than solving old ones.

Today I wear shoes with a wide toe box that allow me to feel the ground beneath my feet. That sensory feedback is part of how I maintain my balance. For me, preserving that connection with the ground is more important than forcing my feet into what might appear to be a more "normal" position.

After discussing my situation with my doctor and reviewing the available information on Stoko leggings, I realized there is currently no evidence that this type of garment addresses the unique combination of challenges created by four-limb polio, fused joints, scoliosis, leg-length difference and more than sixty years of neurological compensation.

That does not mean the leggings are ineffective.

Nor does it mean they won't help some people with post-polio syndrome.

It simply means that, for my particular body and my particular biomechanics, I could not justify investing in them without evidence that they would address the source of my problems.

The lesson I hope to share with fellow polio survivors is this:

Please don't assume that any new product—no matter how innovative or well-reviewed—is automatically suitable for your body.

Our community includes people with vastly different histories:

- Different muscles affected.
- Different surgeries.
- Different joint fusions or replacements.
- Different spinal alignment.
- Different gait patterns.
- Different compensations developed over a lifetime.
-

What works brilliantly for one survivor may do very little for another.

Before investing in an expensive device, ask yourself:

- Where does my pain actually begin?
- Which joint is doing the extra work?
- Am I trying to solve the correct problem?
- Has someone assessed my whole gait rather than focusing on just one joint?

Technology is advancing rapidly, and that is exciting. Products like Stoko may become an important part of the mobility toolbox for many people. But they are just that—a tool, not a universal solution.

Every post-polio body tells a different story.

Listen to yours.

Riki Roy
1 780 708 2919

Thanks to Riki for the above analysis. I feel that a bit of background would be useful for those of our group who may be interested in this product. I did an AI search/evaluation for pros and cons for the products.

Below is the link to the Stoko web site. The QR code on the right is for those of you with smart phones or tablets. Just open your phone/tablet camera and move in close on the code, then take a picture. The link should appear. Click/touch it and the site should open. You can also type this link into your browser to go to the site.

https://ca.stoko.com/?utm_source=stoko.com&utm_medium=geo-redirect&utm_campaign=geopro

SKOO (formerly Stoko), manufacture supportive garments (particularly the supportive tights) which can be an interesting option for people with Post-polio syndrome (PPS). However, they have not been specifically studied in people with PPS, so the benefits and drawbacks have to be inferred from research on bracing, compression garments, and biomechanical support in other populations.

Potential advantages for people with PPS:

1. May reduce muscle fatigue
One of the biggest challenges in PPS is muscle overuse.
The garments use adjustable tension cables to provide assistance around the hips, knees, and lower limbs.
This may:
- reduce the effort required by weakened muscles
- improve walking efficiency
- lessen fatigue during short periods of activity

This is probably the greatest potential benefit.

2. Better knee stability
Many PPS patients experience:

- knee buckling
- hyperextension
- instability on uneven ground
-

The adjustable support may:

- increase confidence while walking
- reduce unexpected knee collapse
- improve proprioception (awareness of joint position)
-

If your weakness is mild to moderate, this may be sufficient without requiring a rigid brace.

3. Less bulky than traditional braces

Compared with a conventional knee-ankle-foot orthosis (KAFO) or ankle-foot orthosis (AFO), they:

- fit under clothing
- weigh much less
- are easier to transport
- avoid pressure points from rigid plastic

Many people who dislike braces appreciate these advantages.

4. Adjustable

Unlike fixed braces:

- support can be increased for longer walks
- reduced indoors
- adjusted as symptoms fluctuate

That flexibility could be particularly useful in PPS.

5. May improve confidence

People sometimes become less fearful of falling when they feel their joints are more stable, which can encourage safer movement.

Possible disadvantages:

1. Not a substitute for a brace

If you have:

- severe quadriceps weakness
- complete foot drop
- marked knee instability

the garment probably won't provide enough support.
A properly fitted orthosis is likely to provide much greater mechanical assistance.

2. Risk of overdoing activity

This is perhaps the biggest concern.
PPS experts consistently advise avoiding overuse.
If the garment makes walking easier, there's a risk of:

- walking farther
- standing longer
- exceeding your muscles' capacity

This can lead to increased fatigue or pain later in the day or the following day.
The support should be viewed as helping you perform necessary activities more comfortably, not as a reason to push harder.

3. Cost
These garments are relatively expensive and may not be covered by insurance or provincial health plans unless prescribed under specific circumstances.

4. Heat
Compression garments can become warm, particularly in summer, and may be uncomfortable during prolonged wear.

5. Requires careful adjustment
Too much support can:
- alter your walking pattern
- shift stress to the hips or back
- create discomfort

Adjustment often requires experimentation.

Unknowns

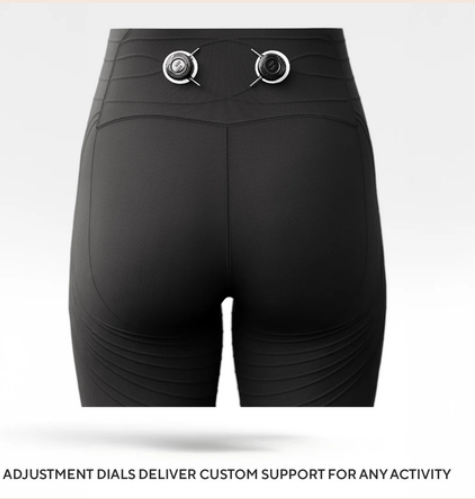
There are currently no published clinical trials specifically in people with post-polio syndrome evaluating these garments.

That means we don't know:
- whether they reduce fatigue over months
- whether they improve walking speed in PPS
- whether they reduce falls
- whether they prevent overuse injuries
-

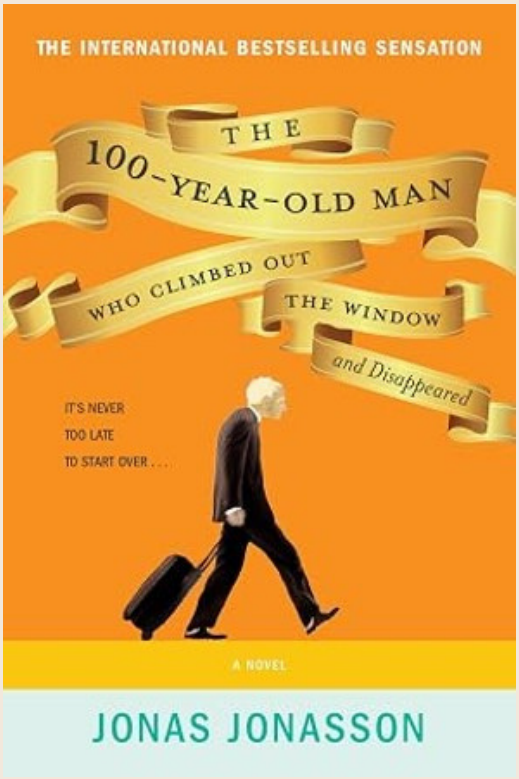
Who might benefit most?

They seem most promising for someone with PPS who has:
- mild to moderate leg weakness
- occasional knee instability
- the ability to walk independently or with a cane
- fatigue that develops after prolonged walking rather than immediate collapse

They are probably less helpful for someone who already requires:
- a KAFO
- locked knee brace
- wheelchair for most mobility



BOOK REVIEW



The 100-Year-Old Man Who Climbed Out The Window And Disappeared

Jonas Jonasson (Author)
Format: Paperback and on E readers

Submitted by Ann Meunier

Rick and I have both read this very entertaining novel and enjoyed it immensely. Long title but that is part of the greatness.
It is overflowing with humour! I highly recommend this to anyone with a sense of humour!
There is a follow up novel by Jonas Jonasson which sounds quite interesting, but I have not read it yet.

The international publishing sensation—over two million copies sold.

A reluctant centenarian much like Forrest Gump (if Gump were an explosives expert with a fondness for vodka) decides it's not too late to start over ...
After a long and eventful life, Allan Karlsson ends up in a nursing home, believing it to be his last stop. The only problem is that he's still in good health, and in one day, he turns 100. A big celebration is in the works, but Allan really isn't interested (and he'd like a bit more control over his vodka consumption). So he decides to escape. He climbs out the window in his slippers and embarks on a hilarious and entirely unexpected journey, involving, among other surprises, a suitcase stuffed with cash, some unpleasant criminals, a friendly hot-dog stand operator, and an elephant (not to mention a death by elephant).

It would be the adventure of a lifetime for anyone else, but Allan has a larger-than-life backstory: Not only has he witnessed some of the most important events of the twentieth century, but he has actually played a key role in them. Starting out in munitions as a boy, he somehow finds himself involved in many of the key explosions of the twentieth century and travels the world, sharing meals and more with everyone from Stalin, Churchill, and Truman to Mao, Franco, and de Gaulle.

Quirky and utterly unique, *The 100-Year-Old Man Who Climbed Out the Window and Disappeared* has charmed readers across the world.

GALLERY

In August 2009, six months before beginning my PPS journey, I was honored to serve as the official photographer for a two week medical mission to Ecuador. During the first week, I documented medical procedures, clinic activities, and patients' experiences. The second week was devoted to adventure: zip-lining above the forest canopy, hiking through the rainforest, visiting remote villages, and riding ATVs in the backcountry. I took more than 8,000 photographs and have chosen to share a selection in this edition's GALLERY. Narrowing them down was no easy task. My favorite images feature the people, though urban street scenes and landscapes are also included. I hope you enjoy the photographs I selected.

Bernd Schwanke, Editor

Clockwise from Top Left: 1) typical Ecuadorian village, 2) Yours truly posing for the camera for a change, 3) Young girl in the market, 4) three kids in a rural village curious about the strange people who have descended on them, 5) market vendor pitching his handicrafts.

GALLERY

Clockwise, from top left:
1) young girl at the clinic, waiting to be seen by the doctor,
2) young child in a village after receiving a gift teddy,
3) woman in the market, contemplating her wares, 4) man in a fine hat; he was reading a newspaper in the market,
5) Street cafe/Kiosk. Just a small nook in the wall, 6) Chair and shadow in the village square. The light was brilliant !

INSPIRATION

ROCKS , PEBBLES , and SAND

A philosophy professor stood in front of his class one day with a display of items. He took a large empty jar and filled it with rocks about the size of golf balls. He asked the class if the jar was full. They nodded and agreed that it was full.

The professor then took a box of pebbles and added them to the jar, giving it a shake allowing the pebbles to find a space into the open areas around the rocks.
The professor again asked if the jar was full. Again the class agreed, but with some reservation.

The professor then reached for a box of sand, and began adding sand to the jar, filling all the spaces between the rocks and pebbles. He asked again, "Now, is the jar full?"
The students laughed and agreed that it was indeed full.

"This jar could represent your life,". the professor explained. "The big rocks signify really important things in your life, such as your health, your family, and your friends."
"The pebbles are other things that matter in your life, such as work or school. The sand signifies the remaining small stuff such as material possessions."

"If you were to reverse the order of filling the jar and you added the sand first, there would not be room for rocks or pebbles."
"The same principle applies to your life. If you spend too much time on the small stuff , you will not have enough space or time to focus on things that are truly important--the big rocks."
"Prioritize the big rocks. Practise self-care and spend quality time with the people you love. The rest is just pebbles and sand.
It will always find some space."

****

"Things which matter most must never be at the mercy of things which matter the least."

---Johann Wolfgang von Goethe (1749--1832) Was widely regarded as the most influential writer in the German language.

DON'T SWEAT THE SMALL STUFF.

Perhaps someone gifted you with this somewhat small, and about one centimetre thick book when it became common about 30 years ago. When I was teaching, I received three of these books for Christmas that year! I'm not too sure what that meant about my job, but it did bring many smiles as I pondered.

The complete title of the book is ”DON’T SWEAT the SMALL STUFF….and IT’S ALL SMALL STUFF”.
This is the most famous quote on this topic made by popular author Richard Carlson. He offers simple ways to keep the little things from taking over your life by choosing “your battles “wisely.
The title itself invites a good debate. The author’s advice guides us to NOT let minor annoyances or petty problems upset us for an unreasonable amount of time. No need for minor inconveniences or petty details such as a spilled drink or a minor traffic delay to cause extreme anxiety. Don’t make mountain out of a mole hill. Instead, ask yourself, “Will it matter in 5 seconds? 5 minutes? 5 hours? 5 days? or 5 years?” Try not overthink unnecessary details since it is the big picture that really counts and overthinking will cause you to stray from your goal.

INSPIRATION

We are encouraged to save our mental energy for things that truly matter in life. Don't worry about anything that is not a major life changing experience.

On the other hand, THERE WILL BE TIMES when YOU DO NEED to sweat the small stuff. There will be situations where details really matter, and you need to take them seriously if you want the big picture to be a success. Reading the fine print, answering test questions, putting the proper effort to truly finish a job and make it look as perfect as you can, asking if you are not sure, and taking a breath before answering will allow you to avoid regretting your quickly chosen words or actions.
Sometimes, challenges are too big to change, or we can see that one voice will not be sufficient to make any difference.

Sometimes the small stuff can escalate and change into big stuff. Obviously, it's all about relevant circumstances and how our experiences with previous successes and failures continue to guide us.

[A foolish person thinks they can learn only from their own mistakes.....
a wise person also learns from the mistakes of others.]

REDUCE YOUR STRESS: Ignore trivial annoyances allowing your mind to stay clear for what truly matters.

SAVE YOUR MENTAL and PHYSICAL ENERGY: Letting go of minor frustrations leaves you with more energy for creativity, kindness, and joy.

KEEP YOUR PERSPECTIVE: Most daily "emergencies "feel huge "in the moment" but they fade away when you have spent some quality time looking at the bigger picture.

CALLING ALL JEOPARDY FANS!!!!!!!!!

Who knows how often a polio related question has been asked on the quiz show?
How many polio related questions have "stumped "participants?
Who is Eleanor Abbot and how did she become famous?
While hundreds of general trivia clues touch on polio, Jonas Salk or Franklin D. Rosevelt's paralysis are noteworthy.

April 23--2026 (Category: The 1950s): "The announcement declaring this safe and effective product was made April 12--1955, the 10th anniversary of the death of a famous American."
Correct Response: What is the polio vaccine?

June 10th --2026 (Category: Pittsburghers): "While director of the Virus Research Lab at the Pittsburgh School of Medicine, he began to develop a polio vaccine.
Correct Response: Who is Jonas Salk?

July 12th, 2024 (Category: Names in Medicine): " A clue in this category references a man who received a special presidential citation in 1955 and passed away in 1995. This individual was known as " the man who saved children."
Correct Response: Who is Jonas Salk? (Salk developed a vaccine to prevent polio).

May 23--2022(Category: Medicine): "Post-this disease syndrome affects many survivors, of which the U.S. is estimated to have 300,000, the vast majority over age 65."
Correct Response: What is polio? [None of the contestants answered correctly.]

INSPIRATION

Classic Archive Clue(Category: Health & Medicine): "Australian nurse Sister Elizabeth Kenny was famous for her methods in treating this often paralyzingly disease.
Correct Response: What is polio?

There were also clues about Albert Sabin, the March of Dimes, and Franklin D. Roosevelt's personal battle with the illness.

June 22–2026, a question was asked referring to the board game CANDYLAND. [Many of us had(have) this game).
It was created by Eleanor Abbot, in 1948, for kids confined to Polio Wards. Eleanor was a retired schoolteacher who herself was recovering from polio in a hospital in San Diego, California. She designed a simple, color-matching board game as a colourful, imaginative distraction for the children also confined to the polio ward.

On the advice of friends and children who tested it, Abbot submitted the game to Milton Bradley Company. They published it in 1949. It became a massive, unprecedented success, selling over 50 million copies and eventually being inducted into the National Toy Hall of Fame in 2005. Royalties were given to schools in San Diego and to children with polio.

NOTE:
Go to the following link to learn more about Eleanor Abbott

https://en.wikipedia.org/wiki/Eleanor_Abbott

Submitted by Marie Kunec

NEW COLUMN IDEA

Dr. Chan continually admonishes us to keep moving, keep active, keep a positive attitude!

With that in mind I took an introspective look at my life as it is today, with PPS driving everything I do, and I tried to list what I do to maintain mobility, maintain attitude and maintain a happy and positive life. It was an interesting exercise for me in that it pushed me to look at positives, at acceptance, at adjustments and at innovation. I used to do this but now I can't - is there another way to do it? Is there something else I can do which gives similar results. It's a challenge and I have to accept that challenge on a daily basis.

We all have our own journey and challenges with the same goals in mind - to live the best life we possibly can.

A number of years ago we produced a book of our polio journeys. It was really well received and deemed a huge success. What I would like to do is follow up on that with a page in each edition of the newsletter in which we feature one or two polio survivor's journeys focused on what they have done in their life, how they have coped and how they are dealing with pps today. Tell us how you are staying active physically and mentally, maintaining mobility and staying positive.

I would love to get some feedback on this. Let me know if you like the idea or not. Let me know if you would be willing to participate in the project. If there is positive feedback then I'd like to start the page in the January newsletter! I will put my own story in as one of two and hopefully one other member will step up and join me on the Polio News pages!!

Please reach out to me by e-mail or phone/text:

bdsch@hotmail.com *(please put WPSS NEWSLETTER in the subject line)*
780-935-5241 (if I do not answer, please leave a message identifying yourself by name and as a WPSS member)

Bernd Schwanke, Polio News Editor

RESEARCH

Mobility Aids Utilizing AI (Artificial Intelligence)

AI-Powered Wheelchairs and Smart Mobility Devices

Modern wheelchairs are integrating artificial intelligence and sensor technologies to assist users in navigating complex environments with greater ease and precision. These smart wheelchairs can detect obstacles, recognize terrain changes, adjust routes dynamically, and even monitor health metrics such as heart rate, posture, and pressure points in real time to prevent injuries like pressure sores. Some advanced models feature voice control, facial recognition, and gesture-based commands, offering intuitive and hands-free operation. Integration with mobile apps allows users to plan routes, receive maintenance alerts, track battery life, and even share real-time location with caregivers or family members for added peace of mind. In some designs, wheelchairs can be programmed to follow a companion or return to a designated location autonomously. By merging mobility with cutting-edge technology, these innovations are enhancing user autonomy, safety, and confidence, paving the way for a more accessible and inclusive future.

Robotic Exoskeletons: Enhancing Mobility and Rehabilitation

Robotic exoskeletons are wearable, powered devices that assist individuals with mobility impairments in standing, walking, and performing daily tasks with greater independence. Designed to support and augment lower-body movement, these systems are equipped with sensors, motors, and real-time feedback mechanisms that synchronize with the user's natural gait and intentions. Companies like ReWalk Robotics and Ekso Bionics have pioneered technologies that not only aid in mobility but also play a critical role in rehabilitation for individuals recovering from strokes, spinal cord injuries, and neurodegenerative conditions such as multiple sclerosis. Clinical studies have shown that exoskeleton-assisted rehabilitation can improve muscle strength, circulation, and even neural plasticity.
As the technology continues to evolve, these devices are becoming lighter, more ergonomic, and increasingly affordable. Some models are now designed for home use and are even eligible for Medicare reimbursement in the U.S., marking a major step toward wider accessibility. Emerging innovations include AI-driven motion prediction, customizable settings for different mobility levels, and integration with virtual reality for immersive physical therapy. With applications expanding beyond clinical environments to include workplaces, sports rehabilitation, and elder care, robotic exoskeletons are redefining what it means to move freely and independently.

Soft Exoskeletons: Flexible Support for Daily Activities

Unlike traditional rigid exoskeletons, soft exoskeletons—or exosuits—are made from lightweight, flexible materials that conform to the user's body, offering assistance without restricting natural movement or adding excessive bulk. These devices utilize soft actuators, often made of fabric-based pneumatic or cable-driven systems, along with integrated sensors that detect subtle biomechanical cues such as muscle activation, joint angle, and motion intent. By responding in real time, soft exoskeletons provide targeted support to specific muscle groups, improving gait efficiency, balance, and posture while reducing physical fatigue and strain during walking or repetitive tasks.
Soft exosuits are especially beneficial for individuals with mild to moderate mobility impairments, such as those caused by stroke, muscular dystrophy, or age-related muscle weakness. Their low-profile and wearable design makes them ideal for daily use in real-world environments, including at home, in workplaces, or during physical therapy sessions. Some models are being developed for athletic performance enhancement and workplace injury prevention, particularly in industries that require prolonged standing or heavy lifting. As research progresses, future iterations are expected to feature wireless connectivity, AI-based motion adaptation, and seamless integration with other wearable health technologies, making soft exoskeletons a transformative solution in both healthcare and human performance enhancement.

(continued on page 24)

Smart Walkers and Canes: Navigational Assistance and Safety

Smart walkers and canes are evolving into high-tech mobility aids by incorporating sensors, GPS technology, and connectivity features to enhance user safety and independence. These intelligent devices can detect obstacles such as curbs, uneven terrain, or approaching objects using ultrasonic or infrared sensors, alerting the user through audio, visual, or haptic feedback. Integrated GPS systems not only assist in navigation but also enable geofencing, which can send alerts to caregivers if a user wanders outside of a predefined area—an especially valuable feature for individuals with cognitive impairments like dementia or Alzheimer's disease.
Some smart canes can also monitor vital signs such as heart rate, blood pressure, and walking speed, transmitting data to mobile apps or healthcare providers for remote monitoring. Others include built-in flashlights, emergency buttons, or voice assistants that respond to verbal commands for added convenience. Advanced models even use machine learning to adapt to a user's walking patterns over time, providing personalized feedback to improve stability and reduce fall risk.
By combining mobility support with health monitoring and real-time communication features, smart walkers and canes are becoming essential tools in aging-in-place strategies and rehabilitation programs, empowering users to navigate their environments with greater confidence, dignity, and autonomy.

3D Printing: Customization and Accessibility

The use of 3D printing in mobility aids is revolutionizing how assistive devices are designed, manufactured, and personalized, offering greater accessibility and affordability for individuals with disabilities. This technology allows for the creation of highly customized solutions tailored to each user's unique anatomy, lifestyle, and preferences. From prosthetic limbs with intricate, anatomically precise fittings to lightweight, ergonomic wheelchair components, 3D printing facilitates the rapid prototyping and on-demand production of mobility aids that enhance both comfort and functionality.
Customization extends beyond fit and function—3D-printed devices can also be aesthetically personalized with colors, textures, and designs that reflect the user's personality, fostering a greater sense of ownership and dignity. In low-resource or remote areas, 3D printing offers a cost-effective and scalable method for producing essential devices locally, reducing reliance on complex supply chains and enabling faster delivery times.
Innovations in materials, such as biocompatible polymers and carbon fiber composites, are further enhancing the strength, durability, and responsiveness of printed aids. Additionally, open-source design platforms and collaborations between engineers, healthcare providers, and makers are democratizing the design process, encouraging continuous improvement and community-driven innovation. As 3D printing technology continues to evolve, it holds immense promise in making personalized mobility aids more accessible, affordable, and empowering for users around the world.

Internet of Things (IoT): Connected Mobility Solutions

The integration of Internet of Things (IoT) technology in mobility aids is transforming these devices into smart, connected systems that offer real-time monitoring, enhanced safety, and continuous support. IoT-enabled devices—such as smart wheelchairs, walkers, and prosthetics—can collect and transmit data on usage patterns, user behavior, location, and device performance. This connectivity allows healthcare providers to remotely monitor a user's condition, detect early signs of health issues such as fatigue, pressure sores, or changes in mobility, and intervene proactively to prevent complications.
Smart mobility aids can also sync with mobile apps or cloud-based dashboards, enabling users and caregivers to receive alerts, track progress, and customize settings for improved usability. Software updates can be pushed over the air to enhance functionality, fix bugs, or introduce new features without the need for physical servicing. Some systems can integrate with smart home devices, allowing users to control their environment—such as opening doors or adjusting lights—directly from their mobility aid.
Additionally, IoT connectivity supports emergency response features, such as automatic fall detection or SOS alerts that notify caregivers or emergency services with real-time location data. As IoT ecosystems become more sophisticated, these smart mobility aids are evolving into comprehensive health and mobility management tools, offering users not only greater independence and safety but also a seamless link to their broader care networks.

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Advancements in Power Wheelchair

Recent innovations in power wheelchairs have significantly enhanced their performance, safety, and user experience. One of the most impactful advancements is the incorporation of high-capacity lithium-ion batteries, which provide longer ranges—often exceeding 20 miles on a single charge—along with faster and more efficient charging times. These modern batteries also contribute to reduced overall weight and improved energy efficiency, making the chairs more portable and environmentally friendly.

In addition to extended battery life, cutting-edge power wheelchairs now feature advanced obstacle detection systems using sensors such as LiDAR, ultrasonic, or infrared technologies. These systems help users navigate tight spaces, avoid hazards, and maneuver safely in both indoor and outdoor environments. Automatic braking functions add another layer of protection, preventing collisions and assisting users in stopping on slopes or uneven terrain.

Ergonomic seating systems are also becoming more sophisticated, offering customizable support to reduce pressure points, improve posture, and accommodate users with complex medical needs. Some models offer dynamic seating options such as tilt, recline, and elevation adjustments—all programmable and controllable via joystick, touchscreen, or even eye-tracking systems for users with limited hand mobility.

Furthermore, smart integration allows users to connect their power wheelchairs to mobile apps and voice assistants, enabling functions such as route planning, battery monitoring, remote diagnostics, and control of smart home devices. As these innovations continue to evolve, power wheelchairs are transitioning from basic mobility tools into intelligent, responsive systems that promote greater independence, comfort, and quality of life.

Future Outlook

As technology continues to evolve, mobility aids are becoming more intelligent, personalized, and seamlessly integrated into users' daily routines. From AI-powered navigation to IoT-enabled health monitoring, these next-generation devices are no longer just tools for movement—they are holistic systems that adapt to the unique needs of each individual. With real-time data analytics, adaptive support, and customizable interfaces, mobility aids can anticipate user behavior, respond to environmental changes, and facilitate communication with caregivers and healthcare providers.

These advancements not only improve physical mobility but also empower users with greater autonomy, confidence, and social participation. For many individuals with disabilities, modern mobility aids open doors to education, employment, travel, and recreation that were previously difficult to access. They also reduce caregiver burden, enabling more independent lifestyles and promoting mental and emotional well-being.

As accessibility, affordability, and awareness continue to grow, the future of mobility technology promises even greater inclusivity, bridging the gap between medical necessity and human empowerment. With ongoing research and innovation, mobility aids are set to play a pivotal role in building a world that is not only more mobile, but also more equitable and connected for everyone.

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Mobility Aidsresource

Share

RESEARCH

(continued from page 5)

One day while recovering in Edmonton's Glenrose Rehabilitation Hospital, Andres saw a flyer advertising an open house at the University of Alberta's Faculty of Rehabilitation Medicine. That's where he met the Click&Push Accessibility research team that would change his life.

Click&Push was developing a free, community-sourced navigation app called The Atlas to help users access public spaces more easily, using a crowd-sourced map to show them in real time the barriers they should avoid — such as elevators out of order, construction sites or other obstacles. Much like a traffic report, the app would allow people to avoid unnecessary frustration by planning their day before leaving the house.

Andres immediately signed up to help test the app and ended up becoming a director at the startup. That led him into a second master's degree, this time a cross-disciplinary study in rehabilitation medicine and engineering that uses artificial intelligence — machine and deep learning — to identify and classify mobility barriers around the U of A's North Campus.

He also uses object detection and image segmentation technologies — as well as GPS tagging and cameras — all aimed at fostering a more inclusive higher education environment for people living with disabilities.

"The challenge is to ensure information on the app is up to date," says Martin Ferguson-Pell, Andres' co-supervisor along with Mustafa Gul and Maziar Jamshidi of the Department of Civil and Environmental Engineering.

"This way, scooter and bike riders, as well as wheelchair users, can upload images to The Atlas and seamlessly provide information about barriers that affect all wheeled mobility users."

For his pilot study, Andres has attached a GoPro camera to his wheelchair, collecting images and feeding them into his data set. The barriers on campus are many, cropping up as soon as he leaves his lab in the Edmonton Clinic Health Academy and attempts to board a train at the LRT station.

"I have these small wheels at the front of my wheelchair that are not power-driven, like casters. They always get caught between the train and the ramp, so I have to shout for people to push me."

Andres is tracking mostly physical barriers so far, but equally irksome are ableist attitudes and assumptions about accommodating disability, he says. Even his instructors are no exception, however well-meaning.
"In every course I have to explain the accommodations I need — they're not automatic. Instructors don't know what to do, like offering extensions for course work, or an adjustable desk in the classroom because the tables are too low."

Andres would like to continue his project at the doctoral level, widening his scope to include ableist assumptions. In the meantime, he hopes to make all of his findings available to campus planners, architects and builders, eventually scaling up his work to encompass Macewan University, NAIT and other Edmonton locations, as well as the University of Calgary.

"There will be a dashboard — a tool for stakeholders — with suggested modifications and retrofits, including how much accessibility is going to cost so construction companies can prioritize things. Because right now, there's nothing."

According to Ferguson-Pell, such information could also give companies an edge in bidding for projects.
"It's becoming more and more important in Canada that you address accessibility issues if you're running a business," he says. "It gives the company a competitive advantage if they can demonstrate they're working with an organization like Click&Push in Alberta."

(continued on page 24)

RESEARCH

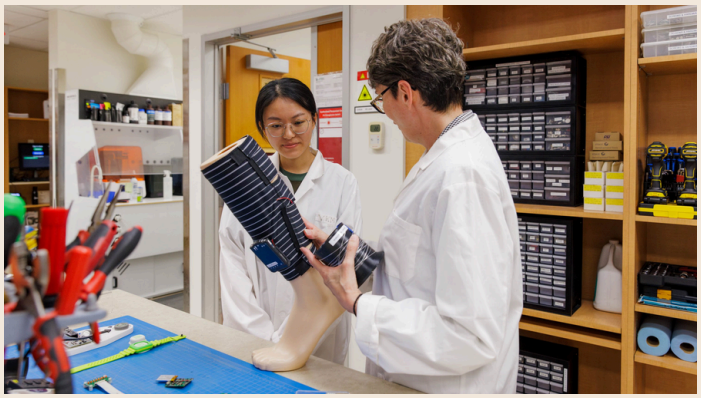
Andres' research and the work of Click&Push is supported by an NSERC CREATE grant, the Digital Research Alliance of Canada and the U of A 5G Living Lab, which gives researchers, innovators and their industry and community partners access to a virtual 5G "sandbox" to test next-generation telecommunications infrastructure.

This article is reprinted from the University of Alberta magazine "FOLIO"

The 'smartwear revolution' begins: clothing with built-in sensors will improve balance, reduce injuries and support people with muscle weakness

Interdisciplinary U of A team wins $24-million federal grant to advance the frontier of assistive technology.

March 19, 2025 By Gillian Rutherford



Vivian Mushahwar, director of the U of A's iSMART and ST Innovations, leads a large interdisciplinary research team that received $24 million from the New Frontiers in Research Fund - Transformation program to develop smartwear clothing that will assist with joint injury repair, posture, balance, arm movements, and even standing and walking. (Photo: Alex Pugliese)

imagine wearing clothing that could change its shape and stiffness to help you recover from a shoulder injury, reduce your risk of falling or assist with muscle weakness so you could be more active in your community.

It sounds like the stuff of science fiction, but an interdisciplinary team led by the University of Alberta has just been given the green light to make it a reality.

The federal government recently announced that it's giving the team $24 million over six years to work on technology that could increase independence and quality of life for millions of people.

"We're starting a smartwear revolution to create light, washable, affordable assistive technology that will be indistinguishable from your current clothing," says project lead Vivian Mushahwar, professor of medicine, Canada Research Chair in Functional Restoration and director of the Institute for Smart Augmentative and Restorative Technologies and Health Innovations (iSMART) and Smart Technology (ST) Innovations.

Mushahwar is a global expert in neural and rehabilitation engineering with a track record of leading successful interdisciplinary teams and commercializing adaptive devices.

With this project, Mushahwar brings together 64 researchers and collaborators from the U of A and across Canada, the United States and Europe. The team includes fashion designers, disability advocates, clothing manufacturers, visual artists, even a choreographer, as well as researchers from eight faculties across the College of Health Sciences, the College of Natural and Applied Sciences, and the College of Social Sciences and Humanities.

Mushahwar says the U of A's core facilities, well-equipped laboratories and strong support for interdisciplinary research allowed the project to win one of just six transformation grants from Canada's New Frontiers in Research Fund for high-risk, high-reward research this year.

"Collectively the time was just right for all of us to come together," Mushahwar says. "We have the resources, we have the skills, we have the expertise to do this work in a very productive fashion."

Putting users at the centre

Twenty-five per cent of Canadians have some form of muscle weakness for a variety of reasons ranging from sprains and broken bones to spinal cord injuries, strokes and aging. Current adaptive technologies such as exoskeletons, braces or electrical stimulation devices are often expensive, uncomfortable and impractical.

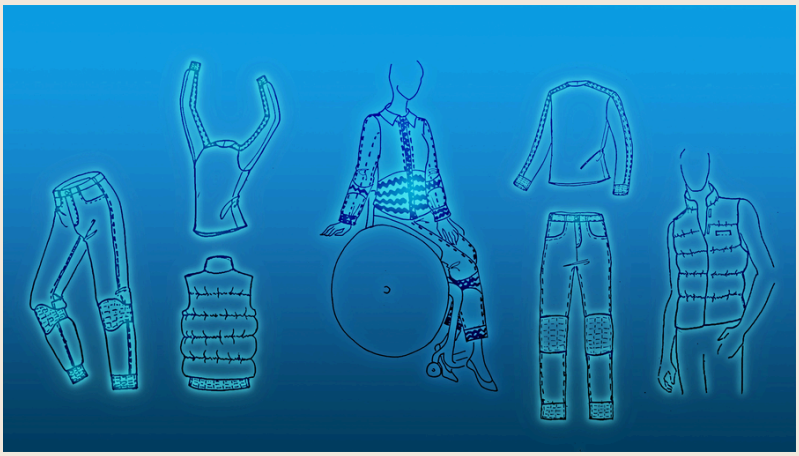
"There really is a lot of need out there," says Verna Yiu, professor of pediatrics and provost and vice-president (academic) of the U of A. "Smartwear will improve quality of life for those individuals, but also — if we can keep people healthy and out of hospital — then it will also make our health-care system more sustainable."

RESEARCH

The team is taking an innovative co-design approach that puts future users at the centre of development, starting at the concept stage five years ago. Three groups of users — older adults who are at risk of falls and mobility loss, people with disabilities who could use additional support to complete daily activities, and health-care workers at risk of workplace injury — have been included.

This is very different from many research projects that begin with scientists creating prototypes based on their own interests and capacities, says Danielle Peers, associate professor of kinesiology, Canada Research Chair in Disability and Movement Cultures and member of the Women and Children's Health Research Institute.

"The timing of user engagement (from the beginning), the depth and impact of our engagement on both process and product, and the purposeful engagement with the broadest possible range of end users are all unusual and transformative approaches to this kind of work," Peers says.



From the conceptual stage onward, the research team has taken an innovative approach to designing the technology, putting future users at the centre of development. (Illustration: Supplied)

The team will share its progress in developing the new technology through two art and technology festivals in year three and year six.

"It's about trying to innovate and find new techniques for really centring the people with lived experience in the creation of this technology," says Marilène Oliver, associate professor of art and design with extensive experience depicting the impact of medical technology on people.

Stretching scientific boundaries

Think of Batman's cape made of memory cloth in the 2005 hit movie Batman Begins. Lucius Fox shows Bruce Wayne how he can simply touch his power glove to the cape to make it stiff so he can fly around Gotham City.

The research team has already invented several classes of composite materials that can sense temperature, strain and pressure and change their shape, size and stiffness. The challenge now is to create fibres from those materials to be woven into clothing. Sensors that use artificial intelligence will be embedded to determine user intentions — to move an arm, lift a heavy object or stand — and actuators that change the fabric as needed will make those intentions a reality, all of it powered by tiny batteries that look like buttons.

"Those multi-material fibres will eventually function as artificial muscles or stiffness-switching materials," explains Dan Sameoto, professor of mechanical engineering. "There's a lot of things that are technically quite challenging for us to do, but we have a team to pull it off. And hopefully this project will be a springboard for many more transformative projects to come, so we can develop expertise within Alberta for smart manufacturing technologies."

The project will provide unique training opportunities for 120 undergraduate summer students and nearly 70 graduate and postdoctoral students over the six years.

The other co-principal investigators on the project are Patricia Dolez, associate professor of human ecology; Anastasia Elias, professor of chemical and materials engineering and associate dean of research strategy in the Faculty of Engineering; Chester Ho, professor of medicine; Reisa Klein, adjunct academic colleague in modern languages and cultural studies; Mahdi Tavakoli, professor of electrical and computer engineering and director of mechatronics engineering; Adalberto Loyola-Sanchez, assistant professor of medicine; and Lingzi Sang, assistant professor of chemistry.

"This meaningful investment underscores the University of Alberta's commitment to pushing the boundaries of interdisciplinary research. By bringing together experts from diverse fields, we are poised to significantly enhance the quality of life for many people," says Aminah Robinson Fayek, vice-president (research and innovation). "This project exemplifies our dedication to translating innovative research into real-world solutions that benefit our communities."

This Article reprinted from the University of Alberta magazine "FOLIO"

For further reading about local research into mobility and neuroscience go to
https://www.ualberta.ca/en/newtrail/research/the-impossible-made-possible.html

ADAPTIVE DEVICES AND AIDS

Adjustable Standing Assist Aid Tool, 17.05" to 21.06" 5 Level Height Non Slip Mobility Aids Tool Lift & Stand Supports Equipment Handicap Accessories for Senior to Help Elderly Get Up from Floor Ground Stair (Black)

$26.99 - Amazon

【Widen Anti Slip Base for Maximum Stability】Crafted from aluminum alloy , plastic , foam and rubber , this standing aid features a heart shaped base/handle and a widened anti slip base with rubber pads . It stops tipping when switching between sitting and standing , delivering unshakable stability for daily activities

【5 Gear Height Adjustable for Effortless Standing】Stand assist device with 5 adjustable heights transfers pressure from weak lower limbs to stronger upper body muscles , enabling smooth transitions between kneeling and standing . Adjust to the perfect height in seconds with 5 built in buttons , no installation required

【220LBS (100KG) Load Bearing and Ergonomic Grip】Lightweight mobility aid boasts an impressive 220LBS weight capacity and an ergonomic grip that ensures a comfortable , firm hold . It provides stable support for standing up from the floor/chair or carrying items , empowering independent daily movements

Vive Car Handle Assist for Elderly - Scratch Proof Latch - Auto Grab Bar Cane Support Aid - Standing Mobility Safety Tip to Help Get Out - Portable Assistive Device for Seniors, Handicapped

EASILY EXIT VEHICLE: Providing stabilizing assistance, the Vive Car Assist Handle allows you to exit your car, truck or SUV independently. The strong support handle is for the handicapped elderly, and those with limited mobility. FOR ALL VEHICLES: Designed to slide into the vehicle's u-shape door latch, the car assist handle is compatible with most vehicles including compact and mid-sized cars, trucks and sport utility vehicles. The compact car handle assist fits neatly in the glove box or door compartment when not in use.
($25.20 - Amazon)

ANNOUNCEMENTS

POOL SCHEDULE

ACT Aquatic and Recreation Center

In the heart of Rundle Park

2909 - 113 Avenue NW Edmonton, Alberta
780-496-1494

Tuesdays from 5:00 pm to 6:00 pm
No charge for WPSS members and guests.

We have a Certified Therapist leading the exercise program
Family and friends are welcome

Welcome to New Members

Laura Hyrich

In Memory Of

LOVE LIVES ON
Those we love remain with us
For love itself lives on,
And cherished memories never fade
Because a loved one's gone.
Those we love can never be
More than a thought apart,
For as long as there is memory,
They'll always live on in our hearts

HAPPY BIRTHDAY!

Rick Meunier	Oct. 1
Corinne Reid	Oct. 1
Keith Belanger	Oct. 5
Sandra Mooney	Oct. 5
Leo Boisvert	Oct. 11
Pat Murray	Oct. 11
Bhavin Gajjar	Oct. 15
Marion Chomik	Oct. 30
Alla Ternikova	Oct. 30
Charlotte Slipchuk	Oct. 31
Marie Kunek	Nov. 9
Loraine Carlson	Nov. 11
Dianne Pimm	Nov. 22
Linda Stefanyk	Dec. 7
John Sugden	Dec. 7
Colleen Sydor	Dec. 18
Gil Sandhu	Dec. 25
Ken Wiebe	Dec. 26

We're on the Web
https://polioalberta.ca

WILDROSE POLIO SUPPORT SOCIETY

8640 - 64th Avenue NW
Edmonton AB T6E 0H5

Phone: (780) 428-8842
E-mail: wpss@polioalberta.ca
wpss@telus.net

Providing support for Polio survivors

The Wildrose Polio Support Society (WPSS) was formed in 1999 to provide information and support to Polio survivors.

The objects of the WPSS are:

1. **To provide education to members in respect to post polio syndrome**
2. **To provide group and therapeutic support to polio survivors and to provide other support as approved by the Board of Directors**
3. **To disseminate information concerning research and treatment about post polio syndrome**
4. **To raise monies for research into post polio syndrome and to donate same to such institution that is conducting research into post polio syndrome as the members of the Society shall decide**
5. **To develop awareness, communication and education between the Society and the Community.**

Do you have an announcement that you would like us to publish?

Send an email to: wpss@polioalberta.ca
Telephone: 780-428-8842
Mail: 8640 - 64th Avenue NW
Edmonton AB T6E 0H5

8640 – 64th Avenue NW
Edmonton AB T6E 0H5
Telephone 780-428-8842 Web Page https://polioalberta.ca

Wildrose Polio Support Society

2027 Membership / Donor Form
[Membership year is January 1 to December 31]

NAME(S): MEMBER_____ ASSOCIATE MEMBER_____
[Polio Survivor] [Husband/Wife/Caregiver]

ADDRESS:_____
CITY:_____ POSTAL CODE: _____
PHONE (Land):_____ PHONE(Cell):_____
POLIO YEAR: _____

E-MAIL:_____ BIRTHDAY: MONTH:_____ DAY:_____

SENIOR [60 or over] Member Yes___ No ___
Associate Yes___ No ___

MEMBERSHIP:
□ Individual ($20.00) $_____
□ Couple ($30.00) $_____
DONATION: $_____
TOTAL ENCLOSED: $_____
DATE: _____ [ ] cheque payable to Wildrose Polio Support Society
[ ] e-transfer to wpss@polioalberta.ca

I would like to receive my newsletter by: email [ ] by regular mail [ ]

HOW DID YOU HEAR ABOUT WPSS?

The Wildrose Polio Support Society will use this information solely for the express purpose of the functions of the Society. We will not disclose personal information for commercial purposes without your permission.

_____

_____

Registered Charity No. 867883985RR001

FOR OFFICE USE ONLY:

TOTAL PAID:_____ RECEIPT NO:_____
DATE:_____ RECEIVED BY:_____