Christmas 2023

Polio Regina Incorporated

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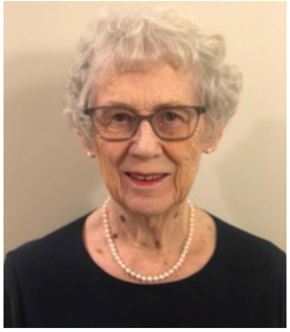
Season's Greetings

MY POLIO STORY

Gilda Treleaven-Graham is one of our newer members. She joined Polio Regina after she attended a presentation about Post-Polio Syndrome by David Cotcher at her local Rotary Club meeting. The following is Gilda Treleavan-Graham's Polio Story.



I was born in Nipawin, Saskatchewan, in 1937 and grew up in the village of Codette, about 5 miles south of Nipawin. I attended Public School in Codette and High School in Nipawin. I contracted poliomyelitis in November of 1954 during my Grade 12 year in school.

My father came home from a business trip to find I had not been in school for a week due to flu-like symptoms and extreme tiredness. By this time, I was experiencing some paralysis on the left side – particularly my hand and left leg. I saw the doctor the same afternoon and he confirmed that I had polio. He referred me to a specialist in Saskatoon. We travelled to Saskatoon the next week and received the same confirmation. It was not necessary for me to go to hospital and I was told to get plenty of rest, stay home from school and do as much exercise as possible with the affected areas.

In the 1950's, families were extremely concerned about polio. There was no vaccination available and no cure. Two girlfriends who lived next door were both severely crippled and spent long periods of time in an iron lung.

I was a very busy and active 17-year-old. In addition to my academic load, I was studying advanced piano, preparing to perform my Grade 10 Royal Conservatory exam the next spring. I played for church and Sunday School every week and also was the School pianist for all programs and assemblies. It was almost impossible for me to practice but I managed to play for church – sometimes only with one hand.

I did not go back to school until early February of the following year. The school was very accommodating with work assignments and a place for me to rest when necessary. I made a steady recovery, graduating in 1955 and passing my Grade 10 Piano exam.

My family convinced me to stay home for a full year after Grade 12 during which I completed my Associateship in Piano from the Royal Conservatory in Toronto. The next year I went to the University of Saskatchewan and completed a 3-year Bachelor of Arts.

I was married in 1959 to Robert Treleaven, a lawyer in Nipawin, and we were blessed with 2 daughters. In 1970, I decided to go to law school because it proved very difficult to find a lawyer to come to Nipawin to join the practice. This required me to be in Saskatoon for 3 years from September to May. Fortunately, we were able to find live-in care for our 2 young children in their own home. I graduated in 1973.

I practiced law with my late husband in Nipawin until 1988 when his health became precarious and he was unable to practice law. We moved to Regina where I found employment with a small firm for 4 years before I went to a position with the Provincial Government. I worked in several areas until retirement.

I have been fortunate to have had a very mild case of polio. I have had very few problems due to polio during my lifetime. It is very hard to pinpoint when I actually started having symptoms relating to Post Polio Syndrome. It is also not easy to have symptoms recognized as Post Polio Syndrome. In my experience, most medical caregivers pay no attention when you ask if a symptom may be related to the fact that you had polio.

I now experience difficulties with pain, cramps and weakness on my left side as well as recurring dizziness. I have always required a lot of rest and it is more pronounced as I age. I would say that I am extremely fortunate to have very few issues.

My husband passed away in 2001 and I have been fortunate to find a new partner in Stewart Graham. He also lost his partner and we have been married since 2005. Stewart and I have 4 children in our blended family (2 in California, 1 in Wisconsin and 1 in Northern Alberta; 6 grandchildren and 4 great-grandchildren.) We have travelled many places together and we look forward to many years ahead.

IN THIS ISSUE

Message from the President

Diane Lemon

Winter came early this year. I hope everyone managed to harvest their garden produce and are now enjoying the pickles, relishes, fruit, jams and jellies.

With winter comes icy sidewalks, parking lots and entrances to homes and businesses. Please take extra precautions with sturdy footwear and well-maintained assistive devices. A fall which results in an injury could put one in an immobilization situation where the recovery results in more muscle weakness.

Now that we are heading into the Influenza season and the COVID virus seems to have reemerged we need to be sure to get the vaccinations. The Respiratory Syncytial Virus (RSV) is said to be extra virulent this year, so it is recommended that those over 65 receive the vaccination, especially if they have a history of chest infections such as bronchitis or pneumonia. When the comment is made that the $280 plus $20 administrative fee for the vaccination is prohibitive the response by health care workers is "How valuable is your life?"

Several of our members have moved into Assisted Living facilities. It is a far superior choice rather than struggling to function in a household which is not completely accessible at all times.

It has been well documented that social engagement is very important in staying healthy. I encourage everyone to participate in holiday festive occasions keeping your fatigue level in mind. Give family and friends the opportunity to spoil you because you deserve it!

Merry Christmas and Happy New Year to All

At the Meetings

May 2023 – Nicky's Café - **Odds and Ends:** Diane Lemon reported on the Rotary Disability Advisors Group. It has a mix of Rotarians and non-Rotarians. It is set up to advocate for those with Post Polio Syndrome to Doctors and to the community at large. Diane was asked to be on the committee.

Bill 103 the Saskatchewan Accessible Act has passed which is Accessibility Legislation for Saskatchewan.

Our May meeting was our Spring Picnic. We enjoyed a picnic style supper with hamburgers, fries and all the fixings.

September 2023 – Green Falls Landing and Zoom - The Government of Saskatchewan is accepting applications to serve on the Accessibility Advisory Committee to support the implementation of Bill 103, *The Accessible Saskatchewan Act*. The Accessibility Advisory Committee will provide advice related to the regulation and administration of *The Accessible Saskatchewan Act,* including proposing accessibility standards to identify, remove, and prevent accessibility barriers that persons with disabilities experience.

Post-Polio Advocacy Group – Diane Lemon is a member of this group which has a goal of educating doctors and other medical professionals on Post-Polio Syndrome. They meet once a month.

Odds and Ends: Wes Hazlitt, President of Polio Manitoba passed away August 13, 2023.

Open Forum: Kelsey Barnes, McKercher LLP law firm, provided information on estate planning documents, specifically the basics of Wills, Powers of Attorney, and Health Care Directives. A summary of her presentation is included later in this newsletter.

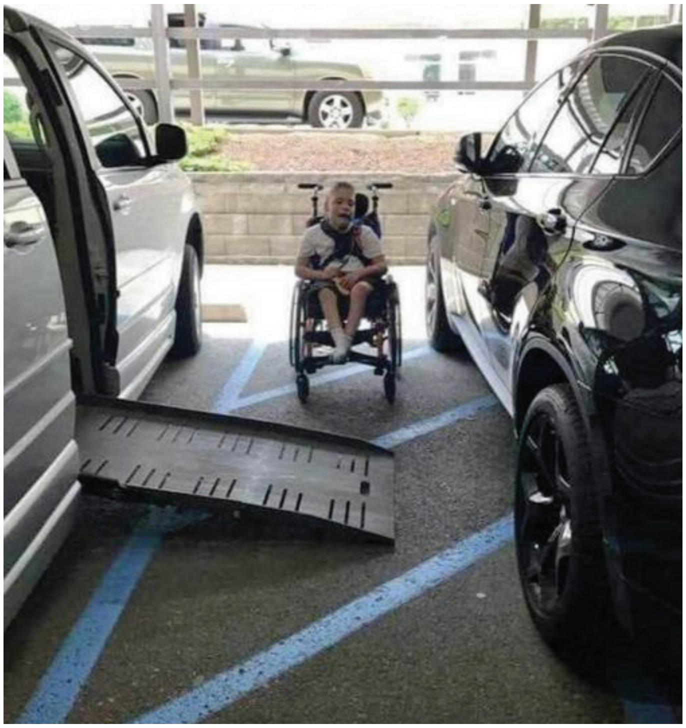
October 2023 - Green Falls Landing and Zoom - October 24th was World Polio Day. The March of Dimes Canada hosted a "Virtual Polio Conference" with guest speakers: Dr. Hannah Wunsch, who is the author of "Autumn Ghost", Professor Michael Kossove, and Susan Schoenbeck, RN., who will be our guest speaker at our February virtual meeting. They also joined a Panel Discussion. The panel consisted of two Polio survivors and a care giver. Diane Lemon was one of the panelists.

The Regina Rotary Clubs had a fund raiser on October 24th. They raised $2,600.00 towards Polio initiatives.

October was Disability Employment Awareness Month. There were several advertisements on TV encouraging businesses to hire disabled people.

Odds and Ends: Post-Polio Advocacy Group wants to hear from people about things that could be improved like ice on entrances to businesses.

Open Forum: Ken and Cecile Holliday gave an informal presentation on their experience checking out retirement facilities and why they chose Green Falls Landing. A summary of their presentation is included later in this issue.



Wills and Estates

Summary of a presentation by Kelsey Barnes, Lawyer, McKercher LLP, to Polio Regina, September 28, 2023

Basic Estate Planning Documents

- Will – Documents your testamentary intentions after you pass away
- Power of Attorney – Permits another person to act for you during your life
- Health Care Directive – Permits another to make health care decisions for you if you are unable to

Key Elements of a Will

- Executor / Trustee – The person who controls your Estate after you pass away, collects/distributes your property, pays debts owed by your Estate
- Beneficiaries – The people or organizations that you want to benefit from your Estate

Key Elements of a Power of Attorney

- Power of Attorney – who you want to act for you while you are still alive
- Authority – what types of decisions can they make for you?
    - Normally, both personal and property/ financial
    - Can be more restricted or specific
- Authority of more than one Power of Attorney
    - Can be named jointly, severally, or successively
- Contingent on mental incapacity or not

Key Elements of a Health Care Directive

- Proxy – the person you want to make health care decisions for you if you are unable to
- Health Care Directions – Specific directions to your proxy
    - DNR (Do not resuscitate)
    - Organ Donation
    - Blood transfusion

Estate Planning Strategies

- Joint property ownership
    - Land
    - Bank Accounts
- Naming beneficiaries of Registered Investment Accounts
- Naming beneficiaries of Life Insurance
- All of the above can be easily transferred to the surviving joint owner or named beneficiary upon death without requiring Letters Probate

Basics of Estate Administration

- Executor will need to determine Estate assets and debts
- Executor may require Letters Probate:
    - If there are significant estate assets; or If there is solely owned land
- Executor will pay just debts of the Estate
- Executor will distribute remaining assets to the beneficiaries

Estate Administration Costs

- If the Estate requires Letters Probate then there will be Courthouse fees, lawyer fees (if you choose to use one to assist you), and potentially land titles fees
- Courthouse fees are:
    - $200 base fee +$25 is there is solely owned land in the Estate +$7 for every $1,000 of Estate assets
- Lawyer fees are:
    - $1,500 base fee + 1% of first $500,000 of Estate assets + ¾% of the next $500,000 of Estate assets + ½% of any remaining Estate assets

Distributing Estate Assets

- Have all debts been paid?
    - May require a Notice to Creditors
- CRA tax clearance certificate
- Have you provided an accounting to the beneficiaries?
- Have the beneficiaries agreed to release you from any claims and the requirement to have the Court approve an accounting?

Intestacy – decision maker

The Administration of Estates Act – Section 11
Priority to apply for Letters of Administration:

- spouse; children; grandchildren; parents; siblings; nephews and nieces; next of kin of equal degree of consanguinity; creditors; the public guardian and trustee.

Intestacy – distributing property

The Intestate Succession Act, 2019 – a scheme for distributing property when there is no valid will

- a spouse and one or more descendants (all of which are children of both the intestate and the spouse), the entire estate goes to the spouse
- a spouse and one or more descendants (at least one of which are not children of both the intestate and the spouse) and the net value of the estate is less than $200,000, the entire estate goes to the spouse
- a spouse and one or more descendants (at least one of which are not children of both the intestate and the spouse) and the net value of the estate is greater than $200,000: the spouse is entitled to his or her preferential share of the estate (plus interest from the date of death), which is the greater of $200,000 or one-half of the value of the estate; and the remainder of the estate will be distributed as follows:
  - where there is one child, one-half of the remainder will go to the spouse and one-half will go to the child *per stirpes*
  - where there is more than one child, one-third of the remainder will go to the spouse and two-thirds will be distributed evenly between the children *per stirpes*
- a spouse but no descendants, the entire estate goes to the spouse
- no spouse and no descendants, the estate goes to the intestate's surviving parent
- no spouse, no descendants, and no parents, the estate goes to the intestate's parent's descendants *per stirpes*
- no parents or parent's descendants (e.g., the intestate's siblings, nieces, nephews, etc.), the estate goes to the intestate's grandparents *per stirpes*
- no grandparents or grandparent's descendants (e.g., the intestate's aunts, uncles, first cousins, etc.), the estate goes to the intestate's great-grandparents *per stirpes*

Summary of presentation by:
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CLEARING A PATH
FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!

Finding a Retirement Residence

By Ken and Cecile Holliday

Ken has some mobility issues and uses a scooter. He has decided to move to a retirement residence where there are services available to him. They recommended having a checklist which included priorities like emergency call button, sufficient hallway width, and accessible suite. Ken and Cecile visited several facilities, and the following are some of their assessments of them.

White City – No services.

Brightwater – Is becoming just a long-term care home.

Trinity Manor -Don't allow scooters.

College Park I – Room layout not meant for scooters, the corners are too sharp and at 90 degrees. Their tables are too low.

College Park II – No suites available.

Williston – Senior apartments, suites are smaller. No paid staff for services or housekeeping.

Green Falls Landing – Has several levels of services and suites offered.

Wintergreen – did not see services we want.

Broadway Terrace – No suite available.

Pioneer – Very reasonable price. No suites available.

Prices generally range from $3,000 to $4,000 per month plus the cost of meals.

Ken moved into Green Falls Landing in October. They charge $390 per month for suppers with no refund for missed meals. Ken decided just to pay for meals individually at $12.50 for dinner and $15.00 for supper. His suite contains a kitchenette with a 4-burner stove, with oven, a fridge and a microwave. It also is very scooter accessible - with a roll in shower.

Green Falls is the only place that even provides some sort of valet service - $5.00 per use Ken has used it successfully.

Parking – some have indoor parking but no space for his large suburban. Green Falls charges $75.00 per month for an outside electric site – no charge outside with no service - snow removal is a charge - This is a service to check carefully.

One of the things Ken looked for was a place where they cater to those who want to do wood carving – no place was set up for that and none we looked at were prepared to accommodate - it would require tables with vacuum, and air exhaust for wood burning - a big part of the hobby.

The Polio Regina executive would like to wish all our members and their families a Merry Christmas and a Healthy and Happy New Year!

Updated Respiratory Ventilator

By David Cotcher

I had polio at about 18 months and at age seven I started to develop a double curvature of my back called kyphoscoliosis. As I grew my muscles were weaker on one side than the other causing my back and rib cage curvature. This restricts my lung volume. Muscle weakness also affects my breathing. The problem is worsened when laying down and I was not breathing deeply enough when sleeping. I was prescribed supplementary oxygen usage starting in 1995 after I had pneumonia. This allows me to get sufficient oxygen with less effort, but this can compound the problem of my lungs not getting rid of the CO2 build up in my blood.

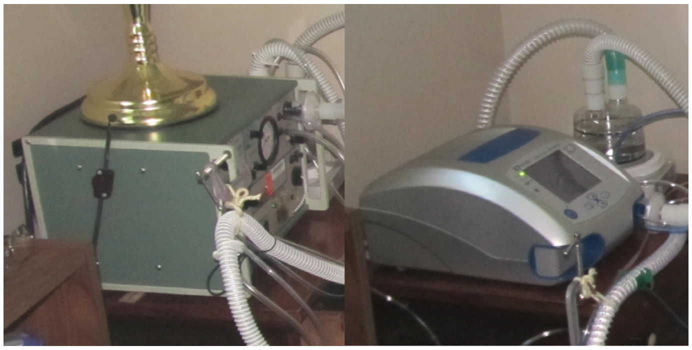
In 2007, I ended up in hospital in January, again in early February with worsening respiratory condition, and then back in hospital with respiratory failure from high CO2 in my blood later in February. I ended up with a tracheostomy and on a respiratory ventilator at night to help keep my CO2 level under control. I was there recovering until mid-April. I wrote about this in "My Polio Story" in the May 2009 Polio PostBox newsletter.

I still have a trach and continue using a respiratory ventilator at night to keep a proper balance of oxygen and CO2 in my system. It is a volume ventilator that gives a measured volume of air on each breath, and ensures I breathe at least 10 times per minute. At night it is connected through tubing to my trach. Extra oxygen is added to the ventilator to bring the 21% oxygen in room air up to 30%.

My first ventilator was a Philips Respironics PLV 100 ventilator. I used that model of ventilator each night for five years starting when I was in the hospital in 2007 until 2012. The PLV 100 ventilator model was out of date and no longer supported by the manufacturer. It was a simple and reliable machine, that kept pumping out the breaths that stabilized my health. Then in 2012, the provincial health department acquired new ventilators. The machine was a Covidien Puritan Bennett PB 560 (now Medtronic). After being used to the feel and sound of the older machine it took some getting used to sleeping with a newer one. I wrote an article about my experience changing to the PB 560 ventilator, "High Tech Breathing", in the Christmas 2012 Polio Postbox newsletter.

I continued to use a PB 560 ventilator until October 2023 when my respiratory therapists switched me to a Resmed Astral 150 ventilator. The picture shows me connected to the Astral 150 ventilator for the night. On the other side of the ventilator is a heater humidifier that humidifies the air I breathe. I have used the same type of humidifier on my previous ventilators. For comparison, below is a picture with the PLV 100 ventilator (on left) used 2007 to 2012 and the PB 560 ventilator (on right) used 2012 to 2023. Actually, for those periods I used ventilators of the same type, with machines swapped every 2 years with another the same to allow for regular maintenance.

David connected to the Resmed Astral 150 ventilator



L – PLV 100 ventilator 2007 – 2012   R – PB 560 ventilator 2012 - 2023

After using a PB 560 ventilator every night for eleven years, switching to the Astral 150 ventilator took some getting used to the different sounds and feel to breathing with it while trying to relax to sleep. Both the PB 560 and the Astral 150 are much quieter then the PLV 100 was. The PLV 100 ventilator we called a "steam engine" with the sound of a large piston cycling back and forth with each breath, along with a few clunks, honks and rattles. Both the PB 560 and Astral 150 ventilators have a small turbine that has a quiet whirring sound as it pumps out each breath, and a puff each time the exhalation valve opens as I exhale.

The feel of the breathing cycle is different for each type of ventilator. For me, the main difference is the sensitivity for triggering breaths. The ventilator ensures a minimum of 10 breaths per minute and triggers additional breaths when it senses me starting to inhale. Setting the sensitivity balances between too sensitive with faster breaths than I want, and less sensitive with more effort to trigger breaths. The biggest change for me was going from the PLV 100 to PB 560 in 2012. In trying the ventilator with the respiratory therapist, it was hard to get the right sensitivity. The first few nights I would wake up feeling like I could not get my breath. Night by night this gradually improved. Later, after PEEP setting (positive pressure while exhaling) was added the breathing with the PB 560 was very smooth and I was very comfortable with it at night for 11 years.

Switching to the Astral 150 ventilator in October 2023 was not as difficult as my transition to the PB 560 in 2012. The same settings were set up on the Astral 150 ventilator, and the sensitivity for triggering breaths was adjusted to what seemed good. But after years of using the PB 560 it still took several nights to get used the different feel to the breathing cycles. For the Astral 150, each time after connecting and after any disturbance (such as suctioning) or movement, it takes several cycles of triggering breaths with a little more effort before settling into a steady breathing rhythm. I am now used to this and quite comfortable with sleeping with this ventilator at night.

One big advantage of the newer ventilators is that they are much lighter to take with us when we travel. The PLV 100 machine weighed 12.8 kg (28 lbs) and over 18 kg (40 lb) with the steel framed shipping case we used when traveling by air. The PB 560 ventilator is 4.5 kg (11 lb), and the Astral 150 is 3.2 kg (7.1 lb). Not having to take the heavy PLV 100 ventilator when we travel made us very happy.

The Astral 150 has a nice touch screen with menus that are easy to use. It has displays of real time pressure, volume and breathing rate, and wave forms similar to the PB 560. The Astral 150 has trends showing the high, low and median values for each day for each quantity which I find interesting. I look at that every morning to see if there are any changes from previous days. Resmed Airview is available to transmit wirelessly the data on the ventilator and my breathing remotely to the respiratory therapists to monitor. I will get this, but it is not installed yet.

Each time I transitioned it took some time to get used to a different ventilator. But after 16 ½ years of having a tracheostomy and using a ventilator at night I am thankful I can sleep comfortably with stable health with my high-tech breathing assistance.

The following is Randy Dove's "Report from the President" of the Saskatchewan Seniors Mechanism reprinted from the Volume 27 Issue 3 – Fall 2023 issue of "Gray Matters".
https://skseniorsmechanism.ca

Home: Is Real Choice Possible?

When asked to contribute to this issue of Gray Matters, I began to ask myself about what "choices" really means when we are considering our future as older adults. Resorting to my favourite dictionary, the definition was "the right or ability to make, or possibility of making a selection, or a range of possibilities from which one is selected".

In considering the definitions, my mind wandered to consider how SSM has presented the concepts of "Home Supports" over the last while. When we have tagged this with "Real Options-Better Outcomes-Lower Costs", we are suggesting to all stakeholders that there are "choices" that can and should be made to better respond to the interests of older adults.

In a post-pandemic world, we appear to be continuing with the same approaches that were in place before COVID turned the world upside down for three plus years. Sliding back to continue with the same choices with similar programming, funding and reliance on the medical care industry cannot be the only choice.

Older adults continue to resist the belief that the care industry is the best answer as a "home" as one ages. Many research studies have shown that there are alternatives that are more attractive, cheaper and result in enhanced mental and physical health for older adults.

Real options means looking beyond the current state and considering a future where the concept of a “home” has multiple outcomes, as determined by the people directly affected by how and where they choose to live. The younger generation has “social media influencers” with huge followings. We can grow an audience of older adults as the “influencers” not the “recipients” of housing and care decisions as a clear “choice” that continues to be overlooked.

As Saskatchewan moves towards 2024, we encourage all older adults to consider your options for where and how you choose to live. Your needs for a place to call home matter. It’s important that each of us recognize that there are “choices” and that we need not be dependent on others making decisions without our involvement with meaningful participation.

Real change starts with awareness and understanding; SSM will continue to advocate with governments and work to build more public awareness and support for alternatives to the status quo. Choices about one’s home are best left to older adults and their families to make informed decisions that work for everyone. Working together, as older adults, we will continue to move forward on this issue, important to all of us.

Randy Dove

Health plays a role in older adults’ vulnerability to scams, poll suggests

People age 50 to 80 who are in worse mental or physical health, and those with worse memory or a disability, more likely to experience fraud than others their age.

10-Nov-2023, by

Michigan Medicine - University of Michigan

Newswise — Three out of every four older adults say they have experienced a fraud attempt by phone, text, email, mail or online in the last two years, a new poll shows. Three in ten say they’ve been victims of at least one scam.

The poll reveals an especially strong link between an older adult’s health and their vulnerability to scams – both being able to spot one and becoming the victim of one.

Across the board, people aged 50 to 80 who reported being in fair or poor physical or mental health, those with disabilities, and those who rate their memory as fair or poor were more likely than others their age to say they’d experienced fraud.

Whether or not they’d actually experienced fraud, older adults with health issues were more likely to lack confidence in their ability to spot a scam.

The results from the University of Michigan National Poll on Healthy Aging also suggest vulnerability among older adults who live alone or have lower incomes.

“Our findings of a strong connection between scam vulnerability and health adds important new data to ongoing efforts to reduce the devastating toll of scams on older adults’ finances and well-being,” said poll director Jeffrey Kullgren, M.D., M.P.H., M.S. “We also found that no matter what their health status, older adults feel strongly that government and businesses should do more to educate and protect against scams.”

The poll is based at the U-M Institute for Healthcare Policy and Innovation and supported by AARP and Michigan Medicine, the University of Michigan’s academic medical center.

The poll team asked a national sample of adults age 50 to 80, and an additional group of adults in this age range in Michigan, about scam-related experiences in the last two years and about attitudes toward scam awareness and prevention. The Michigan-specific polling was supported by the Michigan Health Endowment Fund as a prelude to a Michigan Poll on Healthy Aging launching in spring 2024. A summary of Michigan-specific findings is also available.

In general, 75% of respondents reported experiencing a scam attempt at least once in the last two years, and 39% of this group said the scammers had succeeded in one or more ways.

Differences in scam experiences by health status and more

Specifically, 25% of those who experienced a scam attempt said scammers had compromised their bank or credit card account, or another type of account, 15% said they had an account get hacked, 9% lost money and 3% had their identity stolen.

When the poll team broke down the results by health status among those who had experienced a scam attempt, they found stark differences.

About 50% of older adults who had been targeted by a scam and who called their physical or mental health fair or poor, or said they have a health problem or disability that limits daily activities, reported experiencing fraud, compared with 35% to 38% of those in better health or with no limits on their daily activities.

There was also a gap in scam experiences by income, with 46% of those who have annual household incomes under $60,000 more likely to report that they'd experienced fraud from a scam, compared with 36% of those with higher incomes.

Older adults who say their mental health is fair or poor were much more likely to say that experiencing a scam had a major impact on their financial, mental, or physical well-being, with 41% saying so compared with 10% of those who rated their mental health as good or excellent.

The difference in scam impact was smaller, but still significant, between older adults who said they have fair or poor memory and those who do not, those who have a health problem or disability that limits daily activities and those without such limitations, those with household incomes under $60,000 compared with those with higher incomes, and those who live alone compared with those who live with others.

Recognizing scams and wanting more protection

More than half (57%) of older adults expressed uncertainty about their ability to spot a scam.

Again, health status mattered, with more than 65% of those in fair or poor physical or mental health, or with fair or poor memory, reporting this uncertainty compared with about 55% of those in better health or with better self-rated memory. Also, 63% of women said they're somewhat, not very confident, or not at all confident they can spot a scam, compared with 49% of men.

When the poll team asked older adults about their interest in learning more about how to spot and avoid scams, and their feelings about needing more protection from scams, the response was nearly universal.

In all, 83% of people age 50 to 80 said they want to know more about how to protect themselves – including 90% of those who said they aren't very confident they can spot a scam. And 97% of older adults agreed that policymakers need to do more to protect people from scams, while 96% agreed that companies should do more. Even those who said they were confident they can spot a scam, and those who said they had not experienced fraud in the past two years, were just as likely as their peers to agree with these statements.

"It stands to reason that older adults with health challenges experience fraud more than those without these challenges," said Kathy Stokes, AARP's director of fraud prevention programs. "Fraud criminals are master manipulators of emotion, and anyone can experience a scam regardless of age, education, or income. When it comes to fraud susceptibility it's less about who you are and more about how you are when you are targeted."

AARP offers information and support for fraud victims through its Fraud Watch Network program. Learn more at https://aarp.org/fraudwatchnetwork.

The poll report is based on findings from a nationally representative survey conducted by NORC at the University of Chicago for IHPI and administered online and via phone in July and August 2023 among 2,657 adults aged 50 to 80. The sample was subsequently weighted to reflect the U.S. population. The Michigan-specific poll included 551 adults aged 50 to 80; 314 Michigan respondents in the national sample were combined with an additional 237 Michigan respondents, and the Michigan sample was separately weighted to reflect Michigan population figures from the US Census.

Extroverts More Likely to Resist Vaccines, Study Shows

Scientists examine 'big five' personality traits and association with COVID-19 vaccine hesitancy, refusal.

2-Aug-2023 5:00 AM EDT, by
University of Texas at El Paso

A health care provider prepares a dose of the COVID-19 vaccine.

Newswise — EL PASO, Texas (Aug. 2, 2023) – Which types of personalities were more hesitant about COVID-19 vaccination during the pandemic's peak? Extroverts — according to a new study on more than 40,000 Canadians.

"We expected that people who were especially high in extroversion would be more likely to get the vaccine," said Melissa Baker, Ph.D., lead author and assistant professor at The University of Texas at El Paso. "We figured those people would want to get back out in the world and socialize, right? It's actually the opposite."

The findings, published in the journal *Frontiers in Psychology*, can help with future public health messaging and vaccination campaigns, according to the team of scientists, based at UTEP and the University of Toronto. It also offers a unique perspective in vaccine hesitancy research, a field that has largely focused on political affiliation.

"We wanted to look at vaccine hesitancy a different way," said Baker who is a member of the Department of Political Science and Public Administration. "Of course, politics can help explain some of it, but there are personal differences between people, too — and that led us to this personality aspect."

The study is based on surveys of more than 40,000 Canadian adults, taken between November 2020 and July 2021. Online questions evaluated each participant's personality, based on a model known as "big five," which gauges an individual's openness, conscientiousness, extraversion, agreeableness and emotional stability.

Additional questions probed how respondents felt about vaccination. One question, for example, asked, "When a COVID-19 vaccine becomes available, will you be vaccinated?" As the vaccine rollout began, questions were altered to reflect their availability.

Most of the team's hypotheses were supported. For instance, people who were more open and agreeable were more likely to get the vaccine.

"Those are the kind of people who are open to new things, new information and just like to go with the flow," Baker said. "We also expected that for people with high conscientious because they are detail-oriented and big planners."

On the other hand, those with low emotional stability — or those who experience extreme emotions — were less likely to be vaccinated. And extroverts, to their surprise, were 18 percent more likely to refuse the vaccine.

While the pandemic is over, the team said the findings could help with future public health messaging strategies for vaccination from various diseases, not just COVID-19.

Baker explained, "If we know you need to reach a certain type of personality, we can think about the message that will actually reach and persuade that person.

https://www.newswise.com/coronavirus/extroverts-more-likely-to-resist-vaccines-study-shows/?article_id=796814&sc=mwhn&user=10021807

The following is a link to an excellent video from Polio Australia Inc. that is well worth watching and sharing.

A complete 4 minute graphic presentation for Docs & PTs (and us!).

https://www.youtube.com/watch?v=OwOACqrdMwA

Bruno Bytes

By Richard L. Bruno, HD, PhD

https://www.papolionetwork.org/bruno-bytes.html

Bruno Bytes are Q&As with Dr. Richard L. Bruno, the Director of the International Centre for Polio Education, author of The Polio Paradox, and host of The Post-Polio Coffee House on Facebook. Here Dr. Bruno answers a variety of questions on PPS-related topics and provides information and insights from his professional perspective.

Post-Polio Pain

Question: Friends of mine don't understand the pain I have in my back and neck. I don't know how to explain why PPS causes pain that can't be fixed. Can you help me?

Dr. Bruno's Response: PPS doesn't cause pain. Pain is a symptom of PPS. Work with your doctor to find the source of the pain.

PPS – Is it Progressive?

Question: I had Polio in 1950 at age 3. I was active in sports, outdoors activities and hobbies until about four years ago when PPS set in. Balance, weakness and fatigue issues progressed pretty quickly especially with my left 'power' leg. I went to a cane, then walker and then now a portable power chair. I feel like I've hit a period of stasis over the last 12-18 months. What happens with the periods of 'plateaus' vs. progressive deterioration of muscular capabilities? I realize now that my PPS prognosis factors heavily in our decisions over the next few years.

Dr. Bruno's Response: I think you've answered your own question. Sixty-six years of being "Active in sports, outdoors activities and hobbies" has extracted a price, notably in your left 'power' leg. Your reduced number of remaining overworked, poliovirus-damaged motor neurons don't last forever.

The good news is that, when you started using a cane, then walker and now a power chair, you feel like you've hit 'stasis' over the last 12-18 months. That stasis is a result of your using those devices and "Conserving to Preserve" remaining, poliovirus-damaged neurons. There is no separate process causing progressive deterioration of muscular capabilities; deterioration is caused by overuse abuse that you have stopped.

Listen to your body. It will tell you what to do. . . and not do.

"Non-Paralytic" Polio

Original Post: Why is it when polio is discussed in literature only "paralytic" is mentioned: Bulbar and Bulbar/Spinal. Is "Non-Paralytic" the ugly stepchild?? Talking to a doctor today he said that there is NO SUCH THING as Non-Paralytic. He made me feel small.

Additional Post: It has only been in latter years that asymptomatic polio has been properly recognized and this has only occurred when patients started to present with PPS. That certainly took a mindset change as PPS is a diagnosis of exclusion - one of the first prerequisites was someone having a history of paralytic poliomyelitis! It is now recognized, (certainly in Europe through medical centers and the European PolioUnion) that asymptomatic polio can result in PPS.

Without question, this should be the case when we realized that under WHO (World Health Organization) definitions: a single paralytic case is counted as an epidemic. Therefore, up to 1,000 persons may have had the virus pass through the gut. Only the few were paralyzed by this "gastro-enteritis virus". The Poliovirus enters the body through the intestinal route, e.g. most commonly by mouth (although in rare occasions it has been shown to enter the bloodstream directly through an open wound such as a cut).

Those who have had asymptomatic polio are just as much a part of the "polio family" as those affected with paralysis.

Dr. Bruno's Response: "Non-paralytic" polio can mean that you had:

1) No poliovirus invasion of neurons and no neuron damage;

2) Widespread neuron damage that was not severe enough in any spinal cord or brain area to cause symptoms that could be detected but that now leaves you vulnerable to Post-Polio Sequelae;

3) Neuron damage that was severe enough in a spinal cord or brain area to cause symptoms, symptoms that were not obvious but could be detected had someone tested you.

Two studies during the polio epidemics found that as many as 40% of "non-paralytic" polio survivors had detectable muscle weakness WHEN THEY WERE TESTED in hospital. Once again, as with "the 3 types of polio," there is a semantic problem, here is the difference between the physiology and clinical findings:

"Non-paralytic" polio meaning no neurons damaged and

"non-paralytic" polio meaning nobody bothered to see if you HAD muscle weakness caused by neuron damage.

Additional Post (from original): I understand now. You have made so much sense of my insensible youthful experience. No one tested me. The weakness must have shown itself later, and always confused me.

Paralytic or Non-Paralytic – How do you know?

Dr. Bruno's Response: The weakness was probably there at the beginning and nobody took the time to do a manual muscle test. Sadly, some polio survivors weren't "bad enough" to get care at the peak of the two epidemics.

And even more sad? Some parents realized there were weakness issues and didn't want to discuss them.

Sleep Apnea Treatment for Polio Survivors – Is INSPIRE It?

From Dr. Bruno:

More than three dozen studies of polio survivors have found higher rates of sleep disorders – than in the general population.

- sleep apnea in 7% to 65%,
- hypoventilation (shallow breathing and apneas causing carbon dioxide retention and low oxygen levels) in 15% to 20%
- and restless legs in 28% to 63%

As many of you know too well, the treatment usually prescribed for apnea and hypoventilation is CPAP, a machine that continuously blows air into your mouth and/or nose to keep your airway open. Although we recommend BiPAP - which blows air at a higher pressure when you breathe in and at a lower pressure to let you exhale carbon dioxide - several Post-Polio Coffee House members recently have asked whether the Inspire electronic nerve stimulator being advertised to treat obstructive sleep apnea would be appropriate for polio survivors.

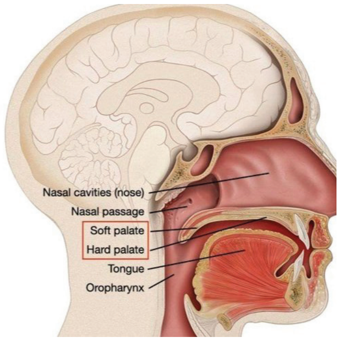
I didn't know. So, I did some research and called the company.

The Inspire Sleep Apnea system has three parts:

- a monitoring device implanted like a pacemaker in your chest,
- a stimulator wire surgically implanted under your chin.
- and a handheld remote control.

The monitor and stimulator work together to monitor your breathing and deliver electrical pulses to the nerve that controls your tongue's movement. These pulses force your tongue to the front of your mouth, moving the "floppy" tissue obstructing your airway and clearing space for more air to pass.

Is Inspire for You?



Here are the inclusions and exclusions for use of Inspire:

- OSA diagnosis: You must have an obstructive sleep apnea diagnosis with 75% obstructive apneas, central + mixed apneas <25% of the total percentage of apneas, and between 15 and 65 apneas per hour.
- Failed CPAP therapy: This treatment is only intended for those who have already tried CPAP therapy and found it unsuccessful or intolerable.
- BMI under 32: Inspire has not been tested on people with a body mass index (BMI) over 32.
- Other restrictions and side effects: Inspire is not appropriate for those with complete concentric collapse of the soft palate, that is total blockage by the soft tissue (soft palate) behind the solid roof of the mouth due to collapse of both the soft palate itself and the soft tissue on both sides of the throat (see graphic).
- Exclusion: any condition or procedure that has compromised neurological control of the upper airway.

Whoa! "Any condition that has compromised neurological control of the upper airway." Isn't that what bulbar polio did, "compromised neurological control of the upper airway" by attacking the cranial nerves that come from the brainstem, especially those controlling the soft palate and throat, including our old friend the vagus nerve? (Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases (Eighth Edition), 2015)

I called an Inspire company representative to ask if having had polio was an exclusion for using Inspire. After a little stumbling she said, "We didn't study polio survivors. The doctor would have to make her own decision."

So, is Inspire for you or for any polio survivor? Unlike the manufacturer of the vagus nerve stimulator, which has excluded polio survivors, the Inspire manufacturer is not taking a stance. So, you *have* to do your homework. First, keep in mind that many polio survivors dislike electrical stimulation of any kind. And if you talk to an Inspire–trained physician, ask about potential adverse effects of Inspire stimulation on polio-damaged nerves that may have caused "compromised neurological control" of the muscles in your throat.

Talk to your doctor before making any decision.

Sources: https://www.inspiresleep.com/ and

https://www.sleepfoundation.org/sleep-apnea/what-is-inspire-sleep-apnea-treatment

Medical History and Medications List

Dr. Bruno's Original Post: Many of you have had recent medical problems, doctor and even ER visits. It's vital that everyone have a MEDICAL HISTORY & MEDS LIST with:

1) Diagnoses (most recent first)

2) Past surgeries

3) Medications (name, dose amount and doses/day)

4) "SENSITIVE TO ANESTHESIA CARD" and list of drug "allergies"

5) Recent blood work and test results (if you have had a recent exam)

6) Names and phone numbers of your own docs

7) Download Symptom Checkklist

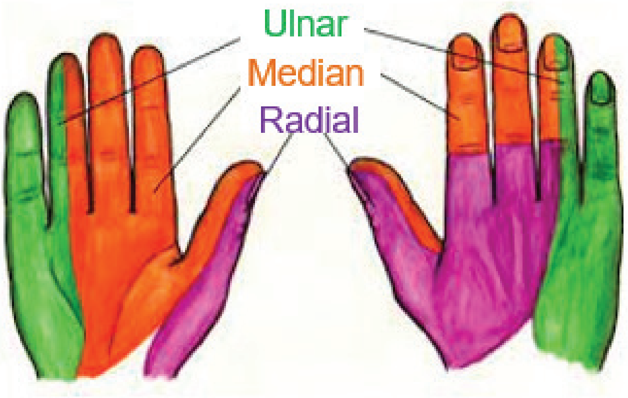
https://polionetwork.org/anesthesia-card/#checklist

This is an easily printable document for you to give to your family and physician.

You can place this information with your important "care" documents and share with your primary care physician. The trouble (and maybe the life) you save will be yours.

Abnormal Feelings or Numbness in Arms and Hands

Question: I have many symptoms of PPS and am experiencing severe pins and needles in my left hand. Sometimes in my thumb and next 2 fingers. Sometimes only in my ring and pinkie fingers. Sometimes all 5 fingers. Feelings are there all the time now, just slightly. But sometimes my entire hand is completely numb and can last up to 4 hours. When this happens, "waking "my hand up is extremely painful. My left elbow is really sore as well. Could this have to do with polio or be part of PPS. I have an appointment with a neurologist soon, thought knowing one way or



the other if PPS could be involved would help.

Dr. Bruno's Response: Many, if not most, polio survivors with leg muscle weakness have compensated for years by stressing their arms and hands using canes or crutches, pushing a wheelchair or just by using their arms to push themselves up and out of a chair. This kind of arm and hand overuse can cause pinching of sensory (feeling) nerves in the neck, arms or wrists, producing numbness, a cold sensation and pins and needles. The best-known type of pinching Causing hand symptoms is carpal tunnel syndrome, where tendons forming the tunnel "squeeze" the nerves as they travel across the wrist.

Abnormal feelings in your thumb and the next two fingers are common with pinching the median nerve (orange colour).

Abnormal feelings in your ring and pinkie fingers can result from pinching the ulnar nerve (green color) as it crosses the elbow through the tendons forming the cubital tunnel, called cubital tunnel syndrome. If your entire hand feels "completely dead" and your left elbow is sore, there also could be pinching of the median nerve across your elbow.

It may be time to talk to your rehabilitation physician or neurologist about having a nerve conduction velocity study, which uses electrical pulses to see if the nerves are being pinched.

Muscle "Shaking"

Question: My left hand and forearm shake at random times. Yesterday, I walked on a rocky area and admit I over did it. I fully understand that the pain I had was a result. What was new was a wobbly hip. I was so unstable, I barely made it back to the car. It was very scary.

I'm used to "spaghetti legs", but I have never experienced hand and arm shaking or wobbly hips. My physician did a brain scan that didn't show any signs of other causes. Can this be due to PPS? Can my forearm crutches be causing this? What can I do when this happens?

Dr. Bruno's Response: The forearm crutches are likely causing you to overuse your arm and hand muscles to compensate for muscle weakness in your "wobbly hips". What you're describing is called a "physiological tremor" and can be seen in anyone who overworks a muscle, for example competitive weightlifters. The poliovirus damage and PPS makes it easier for your muscle fibers to become overworked and cause shaking. What's more, if you are experiencing new weakness in your hips, you are likely putting more stress on your arms to walk with the crutches, which is why the shaking is showing up now.

What can you do when your muscles shake? Rest the muscles and, while you're resting, log activities that caused the arm and hand shaking and "wobbly hips" then stop those activities, pace them or do much less of them.

Weakened Calf Muscles

Question: I had non-paralytic polio when I was 3. My left calf is underdeveloped and has very little working muscle. I have had a right knee replacement and left ankle fusion. Muscle fatigue and atrophy are setting in now, my foot rolls off to the right and I have a lot of balance problems. The operation helped, but my foot had other ideas! My Doctor thinks it is related to post-polio syndrome.

Dr. Bruno's Response: Did anyone suggest a short leg brace before surgery. . . or now?

Answer: Nobody has suggested a short leg brace. I have used custom made AFO's for both legs. They helped, but my left foot keeps trying to turn out.

Dr. Bruno's Response: An AFO (ankle foot orthosis) is a short leg brace but there are different types. One type surrounds your ankle and can help to stop your foot from rolling. It might be worth another visit to your rehabilitation doc and the brace maker to see if a different type of AFO would help.

Sleeping Pills

Original Post: Is it safe for polio survivors to take sleeping pills?

Dr. Bruno's Response:

- To get to sleep, sometimes and only briefly. An example would be getting used to Bi-Pap.
- Medication to stay asleep? No. You need to know *why* you're not staying asleep; so you should talk to your physician about having a sleep study.

When muscle "twitching" is the culprit, we have had success at the Post-Polio Institute with low doses of alprazolam. Please read the article(s) under the topic of "Sleep" and "Restless Legs" found in the Index of the https://www.polionetwork.org/encyclopedia.

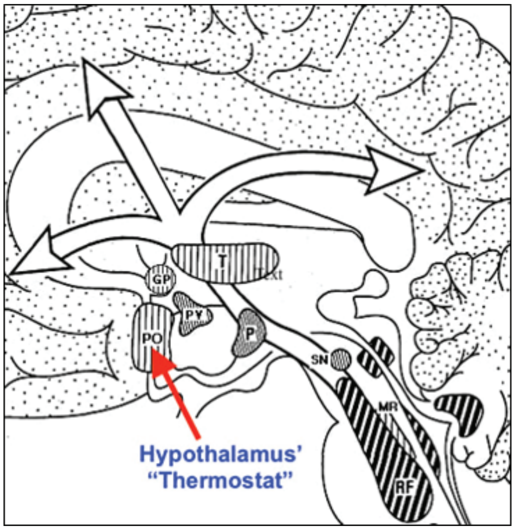
Inability to Manage the Heat

Question: I'm always reading about polio survivors being miserable in the cold weather. I seem to be the opposite. I feel hot, even indoors in the winter. When the temperature goes up, I sweat and soak my clothes. I feel like I'm cooking inside. Is my problem with temperature a post-polio thing?

Dr. Bruno's Response: You aren't alone. This question is coming up more and more.

Here's what we think is going on:

The poliovirus damaged the neurons in the brain and spinal cord that control body temperature by controlling the sympathetic nervous system. Your brain's thermostat (in the hypothalamus) should turn on sympathetic nerves to cause skin veins and arteries to constrict when it's cold, to keep warm blood away from the skin surface thereby preventing loss of body heat. The reason polio survivors have cold and purple "polio feet" is that there isn't a signal from the brain thermostat that reaches skin blood vessels to tell them to constrict. So hot blood flows to the vessels near the surface of the skin, heat in the blood radiates away from your body and your skin gets cold, which passively makes the arteries clamp down, trapping cold, purple blood in the little veins and, voilà, "polio feet."



But if the poliovirus damaged neurons that control body temperature, shouldn't polio survivors have trouble with heat as well as cold? Over the course of decades, I had not heard one polio survivor report being overcome by heat the way they were being frozen stiff by the cold. So, while I studied blood flow and the effects of cold on polio survivors, I never studied the effects of heat. But I should have. Back in 1985, in our own first Post-Polio Survey, about 1/3 of polio survivors said that they were adversely affected by the heat.

Why didn't I study heat intolerance? Truth be told, I think I was frightened by the first polio survivor I studied. He said that his polio-affected foot was always much colder than the other foot, even when he was in a room where others were comfortable. I was shocked and worried when he removed his sock to reveal a reddish-purple calf and a deep purple foot. I was afraid he had a blood clot, maybe even a clogged artery. But her veins were clear and there were bounding pulses in both feet. The real shock came when I placed an electronic thermometer on his skin. The room temperature was 75°F (24°C). I watched as the numbers on the thermometer dropped and dropped, until they stopped at 72°F (22°C). His foot was actually *colder* than the room temperature! I had to put his foot up on a stool and cover it with a hot pack for half an hour before it began to warm just slightly. And when the foot finally did heat up, the skin became as red as a lobster. It didn't take a rocket scientist to see that there was something radically wrong with blood flow in this polio survivor's leg. So that's where our research focused, on the effects of cold.

It's not that I wasn't interested in the effects of heat. The mechanism for sweating was one that I had studied fairly extensively as the autonomic nervous system fellow at Columbia-Presbyterian and before even seeing a polio survivor. The first research I presented at a national conference was on the mechanism of decreased sweating in Parkinson's patients. We knew that the brain's thermostat and sympathetic nerves not only control blood vessels but also control sweating, which cools your body by evaporation of sweat on your skin when the nerves' opening of blood vessels doesn't "dump" enough body heat via radiation. Given our finding of polio survivors' arteries not getting a signal to constrict, I would have expected poliovirus damage to the brain's thermostat and sympathetic nerves would cause polio survivors always to sweat too little. And I would have been wrong. Polio survivors have trouble with temperature regulation at both ends of the thermometer.

In a 2021 survey in the Post-Polio Coffee House, six-dozen polio survivors reported difficulties with temperature, specifically heat intolerance. When asked about sweating, a minority reported "little to no sweating" associated with heat intolerance, while three times as many reported "hot flash-like" sweating, especially about the neck and face. "Comfortable" indoor or outside temperatures were reported to range from 61°F (16°C) to 72°F (22°C), while heat intolerance symptoms began from 72°F (22°C) to 85°F (29°C). The most common symptoms of heat intolerance were "nausea," "feeling faint or dizzy," being "itchy," fatigued and even anxious. Surprisingly, only three polio survivors reported that their skin became red when they felt overheated, suggesting an inability of blood vessels to open and dump enough body heat so that sweating wasn't necessary. Also surprising were polio survivors who reported having "hot flash-like" sweating from the neck up at the same time as they were experiencing painfully cold legs and feet.

With these findings, we may have come full circle. We know that polio survivors have cold legs and feet ultimately because arteries clamp down and prevent hot blood from the body's core heating the skin's surface. Perhaps the inability to get rid of excess body heat results from the same problem - surface arteries not opening - that leads to symptoms of heat intolerance and triggers sweating above the waist to try to cool the body.

So, at least for some polio survivors, cold feet cause hot heads. It seems clear that if you can't stand the heat, you *may* be a polio survivor.

Plant Based Polio Vaccines

From Dr. Bruno: I found this article fascinating.

Plant-Made Poliovirus Vaccines – Safe alternatives for global vaccination

By: Omayra C. Bolaños-Martínez and Richard Strasser*

Department of Applied Genetics and Cell Biology, Institute of Plant Biotechnology and Cell Biology, University of Natural Resources and Life Sciences, Vienna, Austria. October, 2022

"Human polioviruses are highly infectious viruses that are spread mainly through the fecal-oral route. Infection of the central nervous system frequently results in irreversible paralysis, a disease called poliomyelitis. Children under five years are mainly affected if they have not acquired immunity through natural infection or via vaccination. Current polio vaccines comprise the injectable inactivated polio vaccine (IPV, also called the Salk vaccine) and the live-attenuated oral polio vaccine (OPV, also called the Sabin vaccine). The main limitations of the IPV are the reduced protection at the intestinal mucosa, the site of virus replication, and the high costs for manufacturing due to use of live viruses. While the OPV is more effective and stimulates mucosal immunity, it is manufactured using live-attenuated strains that can revert into pathogenic viruses resulting in major safety concerns and vaccine-derived outbreaks. During the last fifteen years, plant-based poliovirus vaccines have been explored by several groups as a safe and low-cost alternative, and promising results in protection against challenges with viruses and induction of neutralizing antibodies have been obtained. However, low yields and a high frequency in dose administration highlight the need for improvements in polioviral antigen production. In this review, we provide insights into recent efforts to develop plant-made poliovirus candidates, with an emphasis on strategies to optimize the production of viral antigens. . . . "

Introduction

"Poliomyelitis (polio) is a viral disease which is caused by polioviruses that are transmitted by the fecal-oral route and predominantly affects children under five years. The severity ranges from asymptomatic occurrence to meningitis and acute flaccid paralysis. Polio has the peculiarity to seriously affect the central nervous system (CNS) and damage the motor neurons located in the anterior horn of spinal nerve roots. This harm leads to muscular dysfunction or even death when vital body functions such as deglutition or respiration are compromised (Sabin, 1956).

Post-polio syndrome (PPS) is a non-contagious and slowly progressive appearance of a variety of symptoms that occur many years or decades after virus infection and involves symptoms like muscular weakness, limb paresis with muscle atrophy, paresthesia, joints pain, fatigue, physical and mental activity deterioration. The cause of PPS remains poorly understood, it may be related to the slow degeneration of individual nerve terminals in the motor units (Pastuszak et al., 2017).

Polio has a huge impact on developing countries with poor sanitation and weak public health systems. Due to worldwide vaccination efforts that began in the late '80s with the creation of the Global Polio Eradication Initiative (GPEI), polio has been considered almost completely eradicated. To date, polio remains endemic in two countries: Afghanistan and Pakistan (Greene et al., 2019). However, recent cases of paralytic poliomyelitis in the US, the UK and Israel highlight that poliovirus is still a worldwide threat that needs attention in all countries (Hill et al., 2022). These new cases in countries deemed polio-free were reported in under vaccinated communities which emphasizes the need to improve vaccination coverage for global polio eradication. . . . "

Future directions

"To achieve global poliomyelitis eradication, innovative vaccines are needed since the actual vaccines are produced with infectious or attenuated poliovirus strains that raise safety concerns. Endemic and vaccine-derived polio cases are mainly observed in developing or low-income countries which urges the need to develop affordable and accessible vaccines. Transient expression in plants provides a fast and flexible approach to produce vaccines in case of newly emerging viral pathogens as shown by the current COVID-19 pandemic or in cases where a vaccine has to be adapted quickly to a mutating virus. For genetically more stable viruses, transgenic expression could be cheaper and provide a constant supply for vaccination. . . . ."

Article abbreviated from the original.

PPS – Does Everyone Get It?

Question: Does everyone who had polio as a child, and have it seemingly go away, always see symptoms return as PPS later in life? Does PPS occur only in certain polio survivors?

Dr. Bruno's Response: The degree of initial damage by the polio infection and the degree of RECOVERY OF FUNCTION is the best predictor of PPS. The worse the damage and the better the recovery with the acute polio, "the harder you fall" with PPS.

Our years of research makes me think that all polio survivors who had neuron damage -- muscle weakness evident or not -- will have some symptom that can be related to the original poliovirus-damage to neurons.

Pecans give obesity and diabetes a slim chance

Study shows the health benefits of pecans, which may curb obesity and reduce inflammation

1-Aug-2023, by Texas A&M AgriLife

BYLINE: Adam Russell

Newswise — Daily consumption of pecans have been shown to prevent obesity and a host of related health issues like fatty liver disease and diabetes, according to a collaborative study by Texas A&M AgriLife scientists.

"Obesity and diabetes numbers are increasing in modern society worldwide, and the trend in high fat diet consumption is one of the main reasons besides lifestyle and genetic predisposition," said Luis Cisneros-Zevallos, Ph.D., professor of horticulture and food science in the Department of Horticultural Sciences in the Texas A&M College of Agriculture and Life Sciences and affiliate scientist in the Institute for Advancing Health Through Agriculture. "People are searching for healthier options, and we have now shown pecans are a healthy tool consumers have in their hands."

Cisneros-Zevallos, principal investigator for the study, published "Pecans and Its Polyphenols Prevent Obesity, Hepatic Steatosis and Diabetes by Reducing Dysbiosis, Inflammation and Increasing Energy Expenditure in Mice Fed a High-Fat Diet" in *MDPI*.

Cisneros-Zevallos's work provides scientific evidence supporting the traditional knowledge in the Americas that pecans are highly nutritious, said Amit Dhingra, Ph.D., head of the Department of Horticultural Sciences.

"Thanks to Dr. Cisneros-Zevallos' work, we now know what potential mechanisms underlie that nutritional benefit," he said. "Our department is focused on the areas of sustainability, wellness and food security, and this research illustrates the relevance of horticultural crops for human health."

Pecans provide health benefits

The study was conducted by an interdisciplinary collaborative team including Claudia Delgadillo-Puga, Ph.D., and Ivan Torre-Villalvazo, Ph.D., at the National Institute of Medical Sciences and Nutrition Salvador Zubiran, Mexico.

Cisneros-Zevallos said researchers applied pecans and high fat diets to mice models and found that pecans increased energy expenditure and reduced dysbiosis and inflammation. The study confirmed that pecans modulate adipose tissue lipolysis and mitochondrial oxidative metabolism in liver and skeletal muscle.

He also noted the anti-inflammatory properties of pecans observed in the study reduced low-grade inflammation that leads to chronic inflammation and the development of a range of prevalent diseases. He added that this also shows pecans maintain body weight and prevent diabetes despite consuming a high fat diet.

The new functionality can make pecans a superfood, which can be consumed directly or utilized in the growing markets of functional foods and dietary supplements.

Identifying new ways to consume pecans

"This observation is key when designing strategies for studies, the more we know of unique functionalities of pecans, the more possibilities to create healthier products," Cisneros-Zevallos said. "Pecans are of economic and historical importance to Texas and the U.S., and their production provides stability to farmers. This work will aid in the development of novel uses and products from pecans."

This study was supported by the Texas Pecan Board, the Texas Department of Agriculture and the Institute for Advancing Health Through Agriculture at Texas A&M AgriLife.
https://www.newswise.com/articles/pecans-give-obesity-and-diabetes-a-slim-chance?sc=mwn&user=10021807

Disclaimer

Information published in the Polio Postbox may not represent the opinion of Polio Regina. It is not to be regarded as Polio Regina's endorsement of treatment, products, or individuals. If you have or suspect you may have a health problem, please consult your health care professional.

You Are Invited

Polio Regina is inviting people who have had poliomyelitis and are now experiencing new symptoms such as fatigue, muscle weakness and cold intolerance, to join our self-help support group to learn how they can cope with post-polio syndrome. Spouses, partners, and family members are also welcome. Polio Regina Inc. was formed to help people from Saskatchewan.

Our Objectives:

- To develop, promote and increase awareness of Post Polio Syndrome.
- To disseminate information concerning research and treatment pertaining to Post Polio Syndrome.
- To provide support to survivors of polio, other than financial aid.

Where to Meet

Recently we have been conducting some of our meetings by Zoom, some in person and some hybrid in person-Zoom. There are no meetings in January, June, July, August, or December. We usually have our Spring Picnic in May and our Christmas party in November, at a restaurant. For more information on meetings phone 306 757-8051 or check out our website: http://nonprofits.accesscomm.ca/polio/ for more information on Polio Regina and links to other useful related information or you can just Google **Polio Regina.** Our email address is: ivan.jorgensen@sasktel.net

Alternative methods of payment: Canadahelps.org

There is the option to use Canadahelps.org website which has a Polio Regina page. This will be arranged to deposit the membership/donation directly into the Polio Regina bank account.

1. Go to the website link www.canadahelps.org/charities/polio-regina-inc
2. OR on the Canadahelps.org website enter Polio Regina Inc in the charity search.
3. Enter the amount, your name, address, email address and payment information.
4. Canadahelps issues a receipt directly to the donor by email. They take 4% administration fee and deposit the net amount directly in the Polio Regina bank account.
5. The Polio Regina treasurer, David Cotcher will be able to access the information and acknowledge the membership/donation.

Bank e-transfer

We do not currently have the ability to directly deposit e-transfers in the Polio Regina bank account. However, some have sent e-transfers to treasurer David Cotcher and he takes that amount in cash and deposits in the Polio Regina bank account. Then a receipt will be issued and mailed for the amount. Please contact David Cotcher at email cotcher@sasktel.net or phone 306-949-1796 for these arrangements.

MEMBERSHIP APPLICATION POLIO REGINA Inc.

Name____

Active ( ) if you had polio Associate ( ) New ( ) Renewal ( )

Address ____

____

Postal Code_________________________Phone: ___________________

Annual membership fee: (Jan.- Dec.) Membership Fees are due January 8, 2024

$10 Single; $15 family $__________

My donation to Polio Regina Inc.: $__________

Total $__________

Please make cheque payable to: **Polio Regina Inc.** and mail this application form and cheque to:
Polio Regina Inc., 78 Petersmeyer St., Regina, SK S4R 7P7 (Official receipt for income tax purposes will be mailed.)