

I would like to dedicate this issue of the Polio Postbox in memory of Georgina Heselton who passed away August 2<sup>nd</sup>, 2022. Georgina was one of Polio Regina's founding members and was influential in the drafting of our constitution. She was a remarkable woman who overcame every obstacle that life threw in her way and paved the way for women in the workplace as well as advocating for the disabled, working on international development projects and being Godmother to eight Nicaraguan children. I would like to thank Georgina's husband, Allan for contributing the following story of Georgina's life.

Georgina's obituary follows the article.

## **Georgina Heselton**



Georgina Heselton was born on a farmstead north of Churchbridge, Saskatchewan on June 9, 1940. It was a dark and stormy night so the doctor who came out the farmhouse had to stay the night. Georgina grew up with cows and draft horses as her friends. She went to a nearby one room school about a mile from home usually walking but in winter often on a sleigh.

In September 1953 Georgina contracted polio and was taken to the Yorkton Hospital. That night she became completely paralyzed and the next day she was sent by air ambulance, not expected to live the next day without use of the iron lung. She did not end up using the iron lung but did end up spending a year in the Regina General Hospital. She was sent home with leg braces and a wheelchair and was not able to walk. After several months without any therapy, she finally went to see a doctor (who was also a chiropractor) in Melville. He taught her to walk with crutches, so she became more mobile. Georgina hitch-hiked to the University of Saskatchewan and lived in the Student Dorms while enrolled in the College of Commerce. She received nine scholarships and four awards for her grades then graduated in May 1962 with a Degree of Bachelor of Commerce with Distinction.

She worked for the Government of Saskatchewan for 25 years in various positions: Research Officer, Accountant, Auditor, Senior Programmer Analyst, Senior Management Analyst, and Systems Coordination then taking Disability Leave due to the onset of Post Polio Syndrome in 1996 and retiring in 1997. She had been working on crutches all this time but in 1998 Post Polio Syndrome necessitated a wheelchair (she called it her Freedom Machine).

Georgina was dedicated to making the world a better place for people with disabilities. She was an active volunteer acting as an advocate/activist for herself and all people with disabilities. She was strongly committed to ensure people with disabilities were treated equally, with dignity and were fully participating, contributing citizens in an inclusive society.

Georgina became actively involved in the disability movement in 1980 -- 42 years ago. She was a Canadian delegate at the Founding Conference of Disabled People's International held in Singapore At the time of her passing she was in 1981. provincial Chairperson and Regina Chairperson of DisAbled Women's Network (DAWN). She was also a member of STOPS to Violence and the National Women at High Risk to Violence. Over the years she served on and presented papers at several local, provincial, national, and international boards including Coalition of People with Disabilities locally, provincially, nationally, and inter-nationally at numerous conferences and consultations.

Georgina was a member of the Saskatchewan Premiers Disabled Persons Advisory Committee 1992-1997.

Internationally she has been the Consultant to three Canadian International Development Agency (CIDA) funded projects in Dominica. They were "Education and Training for Persons with

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Disabilities in Dominica)" (2 parts) and "Draining Dominica District Training Program". As well she was the Consultant to four CIDA funded projects in Nicaragua, "Training Promoters for Integral Rehabilitation". She continued to go to Nicaragua, working with people with disabilities and poor people. She funded herself, 5 consecutive wheelchair basketball tournaments for the country. She then stressed education and empowerment for women. She has 8 Nicaraguan Godchildren. Accessibility was always a big issue in all her projects the last one was helping a home for children with disabilities called the "Bluebird House" Georgina visited Nicaragua 21 times with her projects.

## **Georgina Heselton**

#### Obituary

09-June-1940-02-August-2022

It is with great sadness we announce the passing of Georgina on Tuesday, August 2, 2022, at her home in White City.

Georgina was born June 9, 1940, on the family farm near Churchbridge where she grew up. In 1953, Georgina contracted polio and was admitted to hospital in Yorkton and subsequently flown by air ambulance to Regina General Hospital. Though Georgina was completely paralyzed, she did not require the iron lung. After one year in hospital, Georgina returned home to the farm. Thanks to a physician who was also a chiropractor, Georgina learned to walk with crutches and completed her schooling. Georgina enrolled in the faculty of Commerce at the University of Saskatchewan, earning her degree with distinction. Upon graduation, Georgina moved to Regina and began working for the provincial government as an economist. In 1967, she met her future husband, Allan on a blind date. Soon after, Georgina and Allan were married and welcomed two sons, Brian and Kevin. During Georgina's career with the government, she spent 35 years working with SaskPower and Sask Health, retiring in 1997. Georgina was an advocate for people with disabilities locally, nationally, and internationally. During her retirement years, Georgina continued her work with the disabled community.

Georgina is survived by Allan, her loving husband of 55 years; son Brian (Susan) with grandchildren Cody and Lee of Denver, CO; son Kevin (Christy) of Edmonton, AB; brother Jerry and sister Janet; as well as many nieces and nephews.

As per Georgina's wishes, a private ceremony was held with her immediate family. Donations may be made in Georgina's honor to the Regina Humane Society, 79 Armour Road, RM of Sherwood, SK S4K 0A8.

## **Georgina and Amigo**



Georgina received Amigo, German a Shepherd Cross) from the Regina Humane Society on April 5, 2010. He was one year old at the time. The Humane Society took Georgina into а room and brought in various dogs for her to check out.

Amigo came in and sniffed around the checked out her wheelchair front and back then went to one of the wheels, lifted his leg and did a minor pee. Georgina said immediately, "well I guess I belong to him" and we brought him home. Amigo became her Guard Dog, with her all time of the day, in the morning before she transferred to her wheelchair he was at her side at the edge of the bed and when nighttime came, he was always in the hallway waiting to be petted as she wheeled down to the bedroom. Sadly after 12 years with Georgina, Amigo's hind quarters gave out and there was nothing the vet could do but put Amigo to sleep for good. This happened June 23, 2022, just a month before Georgina passed away. Our son, Kevin is moving into the house, and we are selling off all the excess furniture we have in the house with the money raised (\$1,400.00) going to the Regina Humane Society in memory of Georgina.

## Message from the President

#### Diane Lemon

Greetings To A Special Group of Survivors and Their Families.



Winter started early this year. It means we will have to be careful navigate as we icy sidewalks and streets. Ι hope everyone has been able to have their COVID and 'flu vaccinations.

The COVID restrictions prompted Post-Polio Support Groups around the world to meet virtually as we have done. There is the opportunity to join and learn from members in Canada, USA and Australia. If anyone is interested, I will be pleased to provide contact information.

It has been suggested that Polio Survivors have a Titre blood test to determine whether they had Type 1, 2 or 3 of the polio virus. We would then be able to have a vaccination for the types we did not have. Polio has not disappeared. This is evident in the discovery of a man who was diagnosed with polio in New York State this past year.

The Rotary Clubs continues to raise millions of dollars for Polio eradication in third world countries. The Rotary Foundation has established a committee called "Greater Global Awareness of Post-Polio Syndrome Advocacy Group." The aim is to disseminate information about Post-Polio to nations and groups who have little knowledge of the disease and it's after effects. Thanks to our member, David Cotcher, who gave an excellent presentation to a Rotary club in Regina.

I wish everyone a wonderful Christmas and all the Best for 2023.

Diane

## At the Meetings

May 2022 – Nicky's Café - Carole Tiefenbach, on behalf of Polio Regina, presented Diane Lemon a "Polio Regina Life Membership" for her dedication and work for Polio Regina over the years.



Ivan Jorgensen, on behalf of Polio Regina, presented Carole and Wilf Tiefenbach a bouquet of flowers as a thank you for the work they have done for Polio Regina over the years and as farewell gift since they will be moving to Winnipeg in July. **October 2022** – Zoom Meeting – Our September meeting was cancelled due to the illness of some of our executive members.

Diane Lemon attended a March of Dimes Zoom meeting where a doctor said there were two research projects done in Ireland which indicated that mRNA vaccines were less effective for Post-Polio survivors and we should request non mRNA. When Diane requested the Nova vaccine the nurse giving the injection checked and found that the non mRNA vaccine was effective only to age 70. She therefore gave her the Moderna which is a mRNA vaccine.

Wes Hazlitt talked about some of the efforts of Rotary International to control Polio which has spread to several countries which were previously Polio free.

Diane Lemon had booked tables at Renaissance Retirement Residence and Green Falls Landing Retirement Residence for a health information session on September 20<sup>th</sup> and 21<sup>st</sup>. Unfortunately, Diane was ill and unable to attend, and Ivan Jorgensen was out of town, but we did drop off information about Polio Regina and Post-Polio Syndrome for people to pick up.

Wes Hazlitt talked about siblings of Post-Polio survivors getting symptoms of Post-Polio Syndrome later on in life. Apparently, they had a mild case of Polio at the same time as their sibling but did not suffer any paralysis at the time but did have damage.



After the meeting we enjoyed a picnic style supper with hamburgers, fries and all the fixings.



The following article from last summer is reprinted with the permission of Post-Polio Health International

# Polio Case Reported in the U.S. This Month

By now, many in our polio survivor neighborhood have already heard the news that a case of acute polio has recently been confirmed in Rockland County, New York. More information will likely come forward, but what we currently know is that one of the United States' newest polio survivors is an adult male who was unvaccinated, developed the first symptoms about one month ago, and was infected with an oral polio vaccine-derived type 2 poliovirus.

Reportedly he had not traveled abroad, but the type of poliovirus that caused his paralysis is what is called "circulating vaccine-derived poliovirus—cVDPV" and that means it was imported into the U.S. from somewhere in the world where the oral polio vaccine is still used. It has become more common, although still rare, in parts of the world where the oral (Sabin) polio vaccine is used and where there are large numbers of unvaccinated or undervaccinated individuals and especially where there is inadequate sanitation and access to clean water.

Globally, there were 1,113 children diagnosed with paralysis from polio caused by the cVDPV viruses in 2020, 689 in 2021, and year-to-date in 2022 two hundred thirty. These individuals, mostly children, are just as paralyzed as they would have been had they been infected with the "wild"/occurring-innature polioviruses.

This NY case demonstrates that we, in the developed world, can still see cases of acute polio anywhere that there is inadequate herd immunity to polio. A recent report that sewage samples in London had shown presence of circulating vaccine-derived poliovirus type 2 (a similar type to that implicated in the NY case) stimulated concern that polio could show up in parts of the world that have not seen polio for decades. Organizations dedicated to polio eradication such as Rotary International and the Global Polio Eradication Initiative (GPEI) often quote the sayings, "Any form of poliovirus anywhere is a threat to children everywhere" and "Polio is just an airplane ride away." Most polio survivors do not need to be convinced of the value of polio vaccines because they have seen the devasting effects these nasty viruses can have. A course of three doses of any form of polio vaccine has been demonstrated to be 99% effective in preventing polio.

There are some advantages to using the oral polio vaccine. A novel oral polio vaccine type 2 (nOPV2) has been developed that is much less likely to mutate when out in the environment and then cause vaccinederived disease. The United States stopped using all oral polio vaccine in 2000 and switched back to the injectable (killed) (Salk) polio vaccine. There is NO risk of cVDPV when the polio shots are used instead of oral polio vaccine drops (or remember the "sugar cubes" with the polio vaccine drops were placed on a sugar cube?)

Some of you who have traveled to developing countries in the past few years may have been surprised to learn that an additional booster dose of polio vaccine was recommended before travel to certain countries even though you had had the disease and had been fully immunized for polio. This is an extra precaution because of the theoretical risk of exposure to wild poliovirus or the circulating vaccine-derived poliovirus. For the past five years, wild poliovirus cases (all recently have been type 1) have been confined to Pakistan and Afghanistan. Circulating vaccine-derived polioviruses (mostly type 2) have been reported in nearly 30 countries including in many parts of Africa, Southeast Asia, Israel, Ukraine, and the Arabian Peninsula.

The bottom line is that this case presents no threat to those who have been immunized but is a reminder that polio is not yet "gone". It is unfortunate that this man now is suffering from a vaccine-preventable illness!

For up-to-date information about polio including the cVDPV go to <u>https://polioeradication.org</u>

Marny Eulberg, MD is a member of PHI's board of directors, a family physician, and the chairperson for Rotary District 5450's Polio Committee.

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## Global leaders commit US\$ 2.6 billion at World Health Summit to end polio

More than 3000 scientists and health experts from 115 countries urge the world to fully fund eradication strategy following resurgence of disease

18 October 2022 News release Berlin, Germany

Today, global leaders confirmed US\$ 2.6 billion in funding toward the Global Polio Eradication Initiative's (GPEI) 2022-2026 Strategy to end polio at a pledging moment co-hosted by Germany's Federal Ministry for Economic Cooperation and Development (BMZ) at the World Health Summit in Berlin.

The funding will support global efforts to overcome the final hurdles to polio eradication, vaccinate 370 million children annually over the next five years and continue disease surveillance across 50 countries.

"No place is safe until polio has been eradicated everywhere. As long as the virus still exists somewhere in the world, it can spread - including in our own country. We now have a realistic chance to eradicate polio completely, and we want to jointly seize that chance," said Svenja Schulze, Federal Minister for Economic Cooperation and Development, Germany. "Germany will remain a strong and committed partner in the global fight against polio. This year, it is providing EUR 35 million for this cause. And next year we plan to further strengthen our efforts and support GPEI with EUR 37 million - pending parliamentary approval. By supporting the GPEI, we are also strengthening national health systems. That leads to healthier societies, far beyond the polio response."

Wild poliovirus is endemic in just two countries – Pakistan and Afghanistan. However, after just six cases were recorded in 2021, 29 cases have been recorded so far this year, including a small number of new detections in southeast Africa linked to a strain originating in Pakistan. Additionally, outbreaks of cVDPV, variants of the poliovirus that can emerge in places where not enough people have been immunized, continue to spread across parts of Africa, Asia and Europe, with new outbreaks detected in the United States, Israel and the United Kingdom in recent months.

"The new detections of polio this year in previously polio-free countries are a stark reminder that if we do not deliver our goal of ending polio everywhere, it may resurge globally," said Dr. Tedros Adhanom Ghebreyesus, WHO Director-General. "We are grateful for donors' new and continued support for eradication, but there is further work to do to fully fund the 2022-2026 Strategy. We must remember the significant challenges we have overcome to get this far against polio, stay the course and finish the job once and for all."

At a challenging time for countries around the world, governments and partners have stepped forward to demonstrate their collective resolve to eradicate the second human disease ever. In addition to existing pledges, new commitments to the 2022-2026 Strategy this fall include:

- Australia pledged AU\$ 43.55 million
- France pledged EUR 50 million
- Germany pledged EUR 72 million
- Japan pledged US\$ 11 million
- Republic of Korea pledged KRW 4.5 billion
- Luxembourg pledged EUR 1.7 million
- Malta pledged EUR 30 000
- Monaco pledged EUR 450 000
- Spain pledged EUR 100 000
- Turkey pledged US\$ 20 000
- United States pledged US\$ 114 million
- Bill & Melinda Gates Foundation pledged US\$S 1.2 billion
- **Bloomberg Philanthropies** pledged US\$50 million

- Islamic Food and Nutrition Council of America pledged US\$ 1.8 million
- Latter-day Saint Charities pledged US\$ 400 000
- Rotary International pledged US\$ 150 million
- UNICEF pledged US\$ 5 million

The pledging moment in Berlin marked the first major opportunity to pledge support toward the US\$ 4.8 billion needed to fully implement the 2022-2026 Strategy. If the Strategy is fully funded and eradication achieved, it is estimated that it would result in US\$ 33.1 billion in health cost savings this century compared to the price of controlling outbreaks. Further, continued support for GPEI will enable it to deliver additional health services and immunizations alongside polio vaccines to underserved communities.

"Children deserve to live in a polio-free world, but as we have seen this year with painful clarity, until we reach every community and vaccinate every child, the threat of polio will persist," said UNICEF Executive Director Catherine Russell. "UNICEF is grateful for the generosity of our donors and the pledges made today, which will help us finish the job of eradicating polio. When we invest in immunization and health systems, we are investing in a safer, healthier future for everyone, everywhere."

In addition to the funding for GPEI announced today, a group of more than 3 000 influential scientists, physicians, and public health experts from around the world released a declaration endorsing the 2022-2026 Strategy and calling on donors to stay committed to eradication and ensure GPEI is fully funded. The group points to new tactics contained in the program's strategy, like the continued rollout of the novel oral polio vaccine type 2 (nOPV2), that make them confident in GPEI's ability to end polio. Five hundred million doses of nOPV2 have already been administered across 23 countries, and field data continue to show its promise as a tool to more sustainably stop outbreaks of type 2 cVDPV. The group further asserts that support for eradication significantly strengthens immunization systems and pandemic preparedness around the world-pointing to GPEI's support for the COVID-19 response-and urges endemic and polio-affected country leadership to stay committed to expanded vaccination and disease surveillance activities.

"Pakistan has made incredible progress against polio, but recent challenges have allowed the virus to persist," says Dr. Zulfi Bhutta (Chair of Child Global Health, Hospital for Sick Children, Canada, and Distinguished University Professor, Aga Khan University, Pakistan). "Polio, like any virus, knows no borders; its continued transmission threatens children everywhere. Stopping this disease is not just urgently needed now, it's within our grasp. That's why I've joined more than three thousand health experts from around the world to launch the 2022 Scientific Declaration on Polio Eradication. With strong financial and political commitments, our longawaited vision of a polio-free world can become a reality."

#### Additional quotes from the pledging moment

Mark Suzman, CEO, Bill & Melinda Gates Foundation, said: "The question is not whether it's possible to eradicate polio—it's whether we can summon the will and the resources to finish the job. The Bill & Melinda Gates Foundation is grateful to Germany, Rotarians, donors, countries, scientists, and partners who stood together today to show that we are united in this goal. We look forward to working together to create a polio-free future and build more equitable and resilient health systems for all."

Seth Berkley, CEO, Gavi, the Vaccine Alliance, said: "As we work together to stop the transmission of all polioviruses globally, we are more grateful than ever for the generosity of our donors, the leadership of governments and the mobilization of communities. Today's pledges will support GPEI's new strategy which correctly focuses on mass vaccination campaigns, concerted efforts by partners to strengthen essential immunization and integration with other critical health interventions and a further roll out of next-generation oral polio vaccines. These three measures combined are essential if we are to eradicate polio once and for all."

Franz Fayot, Minister for Development Cooperation and Humanitarian Affairs, Luxembourg, said: "Luxembourg is proud to be a longstanding supporter of global efforts to eradicate polio. Building on the remarkable progress achieved so far, Luxembourg will continue to support the fight against polio until we ensure the protection of every child."

Ian Riseley, Chair, Rotary Foundation, said: "While polio exists anywhere, it is a threat everywhere. This is an opportune moment for the global community to recommit to the goal and ensure the resources and political will are fully available to protect children from polio paralysis while building stronger health systems. That is why today, Rotary is reaffirming its commitment of an additional USD 150 million to the global effort to eradicate polio."

His Excellency Abdul Rahman Al Owais, Minister of Health and Prevention. United Arab Emirates. said: "Polio outbreaks this year have emphasized that polio anywhere is a threat to communities everywhere. While we are encouraged by steady progress in Pakistan and Afghanistan in the drive towards polio eradication, we know that there is a ways to go to finish the job. We also know that this progress would not have been possible without the courageous contributions of frontline health workers, who have remained steadfast in their commitment to protecting their communities from polio in the face of the pandemic, natural disasters and threats to their physical safety. Under the leadership of His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE, we join our international partners in reiterating our commitment to a polio free world."

#### Notes for editors

The Global Polio Eradication Initiative is a publicprivate partnership led by national governments with six core partners – Rotary International, the World Health Organization (WHO), the US Centers for Disease Control and Prevention (CDC), UNICEF, the Bill & Melinda Gates Foundation and Gavi, the Vaccine Alliance. For more information on the global effort to end polio, visit polioeradication.org.

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



# Gates Foundation pledges \$1.2B to eradicate polio globally

**The Associated Press** Publishing date: Oct 16, 2022

BERLIN (AP) — The Bill and Melinda Gates Foundation says it will commit \$1.2 billion to the effort to end polio worldwide.

The money will be used to help implement the Global Polio Eradication Initiative's strategy through 2026. The initiative is trying to end the polio virus in Pakistan and Afghanistan, the last two endemic countries, the foundation said in a statement Sunday.

The money also will be used to stop outbreaks of new variants of the virus. The announcement was made Sunday at the World Health Summit in Berlin.

The foundation says in a statement on its website that it has contributed nearly \$5 billion to the polio eradication initiative. The initiative is trying to integrate polio campaigns into broader health services, while it scales up use of the novel oral polio vaccine type 2.

The group also is working to make national health systems stronger so countries are better prepared for future health threats, the statement said.

"The last steps to eradication are by far the toughest. But our foundation remains dedicated to a polio-free future, and we're optimistic that we will see it soon," said foundation CEO Mark Suzman.

The eradication initiative is a public-private partnership led by a group of national governments that includes the Gates Foundation, Rotary International, the World Health Organization and the U.S. Centers for Disease Control and Prevention.

## Facemask can detect viral exposure from a 10-minute conversation with an infected person

#### 19-Sep-2022 4:50 PM EDT, by Cell Press

Newswise — Scientists have created a face mask that can detect common respiratory viruses, including influenza and the coronavirus, in the air in droplets or aerosols. The highly sensitive mask, presented September 19 in the journal *Matter*, can alert the wearers via their mobile devices within 10 minutes if targeted pathogens are present in the surrounding air. "Previous research has shown face mask wearing can reduce the risk of spreading and contracting the disease. So, we wanted to create a mask that can detect the presence of virus in the air and alert the wearer," says Yin Fang, the study's corresponding author and a material scientist at Shanghai Tongji University.

Respiratory pathogens that cause COVID-19 and H1N1 influenza spread through small droplets and aerosols released by infected people when they talk, cough, and sneeze. These virus-containing molecules, especially tiny aerosols, can remain suspended in the air for a long time.

Fang and his colleagues tested the mask in an enclosed chamber by spraying the viral surface protein containing trace-level liquid and aerosols on the mask. The sensor responded to as little as 0.3 microliters of liquid containing viral proteins, about 70 to 560 times less than the volume of liquid produced in one sneeze and much less than the volume produced by coughing or talking, Fang says. The team designed a small sensor with aptamers, which are a type of synthetic molecule that can identify unique proteins of pathogens like antibodies. In their proof-of-concept design, the team modified the multi-channel sensor with three types of aptamers, which can simultaneously recognize surface proteins on SARS-CoV-2, H5N1, and H1N1.

Once the aptamers bind to the target proteins in the air, the ion-gated transistor connected will amplify the signal and alert the wearers via their phones. An ion-gated transistor is a novel type of device that is highly sensitive, and thus the mask can detect even trace levels of pathogens in the air within 10 minutes. "Our mask would work really well in spaces with poor ventilation, such as elevators or enclosed rooms, where the risk of getting infected is high," Fang says. In the future, if a new respiratory virus emerges, they can easily update the sensor's design for detecting the novel pathogens, he adds.

Next, the team hopes to shorten the detection time and further increase the sensitivity of the sensor by optimizing the design of the polymers and transistors. They are also working on wearable devices for a variety of health conditions including cancers and cardiovascular diseases.

"Currently, doctors have been relying heavily on their experiences in diagnosing and treating diseases. But with richer data collected by wearable devices, disease diagnosis and treatment can become more precise," Fang says.



The Washington Post has published the winning submissions to its yearly contest, in which readers are asked to supply alternate meanings for common words.

And the winners are:

1. Coffee, n. The person upon whom one coughs.

2. **Flabbergasted**, adj. Appalled by discovering how much weight one has gained.

3. Abdicate, v. To give up all hope of ever having a flat stomach.

4. **Esplanade**, v. To attempt an explanation while drunk.

5. Willy-nilly, adj. Impotent.

6. **Negligent**, adj. Absent mindedly answering the door when wearing only a nightgown.

7. Lymph, v. To walk with a lisp.

8. Gargoyle, n. Olive-flavored mouthwash.

9. **Flatulence**, n. Emergency vehicle that picks up someone who has been run over by a steamroller.

10. Balderdash, n. A rapidly receding hairline.

11. **Testicle**, n A humorous question on an exam.

12. **Rectitude**, n. The formal, dignified bearing adopted by proctologists.

13. Pokemon, n. A Rastafarian proctologist.

14. **Oyster**, n. A person who sprinkles

his conversation with Yiddishisms.

15. Frisbeetarianism, n. The belief that, after death, the soul flies up onto the roof and gets stuck there.16. Circumvent, n. An opening in the front of boxer shorts worn by Jewish men.

# Coffee drinking is associated with increased longevity

by European Society of Cardiology Newswise — Sophia Antipolis, 27 September 2022

Drinking two to three cups of coffee a day is linked with a longer lifespan and lower risk of cardiovascular disease compared with avoiding coffee, according to research published today in the European Journal of Preventive Cardiology, a journal of the ESC.<sup>1</sup> The findings applied to ground, instant and decaffeinated varieties.

"In this large, observational study, ground, instant and decaffeinated coffee were associated with equivalent reductions in the incidence of cardiovascular disease and death from cardiovascular disease or any cause," said study author Professor Peter Kistler of the Baker Heart and Diabetes Research Institute, Melbourne, Australia. "The results suggest that mild to moderate intake of ground, instant and decaffeinated coffee should be considered part of a healthy lifestyle."

There is little information on the impact of different coffee preparations on heart health and survival. This study examined the associations between types of coffee and incident arrhythmias, cardiovascular disease and death using data from the UK Biobank, which recruited adults between 40 and 69 years of age. Cardiovascular disease was comprised of coronary heart disease, congestive heart failure and ischaemic stroke.

The study included 449,563 participants free of arrhythmias or other cardiovascular disease at baseline. The median age was 58 years and 55.3% were women. Participants completed a questionnaire asking how many cups of coffee they drank each day and whether they usually drank instant, ground (such as cappuccino or filtered coffee), or decaffeinated coffee. They were then grouped into six daily intake categories, consisting of none, less than one, one, two to three, four to five, and more than five cups per day. The usual coffee type was instant in 198,062 (44.1%) participants, ground in 82,575 (18.4%), and decaffeinated in 68,416 (15.2%). There were 100,510 (22.4%) non-coffee drinkers who served as the comparator group.

Coffee drinkers were compared to non-drinkers for the incidence of arrhythmias, cardiovascular disease and death, after adjusting for age, sex, ethnicity, obesity, high blood pressure, diabetes, obstructive sleep apnoea, smoking status, and tea and alcohol consumption. Outcome information was obtained from medical records and death records. The median follow up was 12.5 years.

A total of 27,809 (6.2%) participants died during follow up. All types of coffee were linked with a reduction in death from any cause. The greatest risk reduction seen with two to three cups per day, which compared to no coffee drinking was associated with a 14%, 27% and 11% lower likelihood of death for decaffeinated, ground, and instant preparations, respectively.

Cardiovascular disease was diagnosed in 43,173 (9.6%) participants during follow up. All coffee subtypes were associated with a reduction in incident cardiovascular disease. Again, the lowest risk was observed with two to three cups a day, which compared to abstinence from coffee was associated with a 6%, 20%, and 9% reduced likelihood of cardiovascular disease for decaffeinated, ground, instant coffee, respectively.

An arrhythmia was diagnosed in 30,100 (6.7%) participants during follow up. Ground and instant coffee, but not decaffeinated, was associated with a reduction in arrhythmias including atrial fibrillation. Compared with non-drinkers, the lowest risks were observed with four to five cups a day for ground coffee and two to three cups a day for instant coffee, with 17% and 12% reduced risks, respectively.

Professor Kistler said: "Caffeine is the most wellknown constituent in coffee, but the beverage contains more than 100 biologically active components. It is likely that the non-caffeinated compounds were responsible for the positive relationships observed between coffee drinking, cardiovascular disease and survival. Our findings indicate that drinking modest amounts of coffee of all types should not be discouraged but can be enjoyed as a heart healthy behaviour."



## Feeling chirpy: Being around birds is linked to lasting mental health benefits

27-Oct-2022 12:45 PM EDT, by King>s College London

Newswise — New research from King's College London has found that seeing or hearing birds is associated with an improvement in mental wellbeing that can last up to eight hours.

This improvement was also evident in people with a diagnosis of depression – the most common mental illness worldwide – indicating the potential role of birdlife in helping those with mental health conditions.

Published in *Scientific Reports*, the study used smartphone application Urban Mind to collect people's real-time reports of mental wellbeing alongside their reports of seeing or hearing birdsong.

Lead author **Ryan Hammoud**, Research Assistant at the Institute of Psychiatry, Psychology & Neuroscience (IoPPN), King's College London, said: "There is growing evidence on the mental health benefits of being around nature and we intuitively think that the presence of birdsong and birds would help lift our mood. However, there is little research that has actually investigated the impact of birds on mental health in real-time and in a real environment. By using the Urban Mind app we have for the first time showed the direct link between seeing or hearing birds and positive mood. We hope this evidence can demonstrate the importance of protecting and providing environments to encourage birds, not only for biodiversity but for our mental health."

The study took place between April 2018 and October 2021, with 1,292 participants completing 26,856 assessments using the Urban Mind app, developed by King's College London, landscape architects J&L Gibbons and arts foundation Nomad Projects.

Participants were recruited worldwide, with the majority being based in the United Kingdom, the European Union and United States of America.

The app asked participants three times a day whether they could see or hear birds, followed by questions on mental wellbeing to enable researchers to establish an association between the two and to estimate how long this association lasted.

The study also collected information on existing diagnoses of mental health conditions and found hearing or seeing birdlife was associated with improvements in mental wellbeing in both healthy people and those with depression. Researchers showed that the links between birds and mental wellbeing were not explained by co-occurring environmental factors such the presence of trees, plants, or waterways.

Senior author, **Andrea Mechelli**, Professor of Early Intervention in Mental Health at IoPPN, King's College London said: "The term ecosystem services is often used to describe the benefits of certain aspects of the natural environment on our physical and mental health. However, it can be difficult to prove these benefits scientifically. Our study provides an evidence base for creating and supporting biodiverse spaces that harbour birdlife, since this is strongly linked with our mental health. In addition, the findings support the implementation of measures to increase opportunities for people to come across birdlife, particularly for those living with mental health conditions such as depression."

Research partner & Landscape Architect **Jo Gibbons**, of J & L Gibbons said: "Who hasn't tuned into the melodic complexities of the dawn chorus early on a spring morning? A multi-sensory experience that seems to enrich everyday life, whatever our mood or whereabouts. This exciting research underpins just how much the sight and sound of birdsong lifts the spirits. It captures intriguing evidence that a biodiverse environment is restorative in terms of mental wellbeing. That the sensual stimulation of birdsong, part of those daily 'doses' of nature, is precious and time-lasting."

The study, 'Smartphone-based ecological momentary assessment reveals mental health benefits of birdlife' was published in *Scientific Reports*.

This study has been funded by the Medical Research Council, the National Institute for Health and Care Research (NIHR) Biomedical Research Centre at South London and Maudsley NHS Foundation Trust and King's College London and the NIHR Applied Research Collaborative South London.

## **Bruno Bytes**

## Bits and Tidbits from the Post-Polio Coffee House

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

From Dr. Richard Bruno, HD, PhD Director, International Centre for Polio Education and author of The Polio Paradox

## On the topic of Caregivers with Disabilities Needing Support

#### **Dr. Bruno's Original Post:** <u>From the University of</u> <u>Pittsburgh</u>, July 22, 2022

"Caregivers with their own disabilities face significant problems while trying to care for aging or ailing partners, including physical and mental health issues and financial and healthcare strains according to a University of Pittsburgh study. The study found that spousal caregivers were more likely to report a disability and were generally older, with close to half over the age of 65. Older spousal caregivers also had higher rates of chronic disease and often reported worse physical health. Researchers found that spouse caregivers had the highest rates of:

- obesity/overweight (71%),
- high blood pressure (51%),
- high cholesterol (50%),
- arthritis/gout/lupus/fibromyalgia (48%),
- diabetes (19%),
- skin cancer (13%) or other type of cancer (14%)

Spousal caregivers with disabilities were about twice as likely to have anxiety or depression and to report financial and physical difficulties compared to those without disabilities. The majority of caregivers with a disability said they received training following the hospitalization of their partner and were more likely to use assistance such as paid care, respite services and support groups. Still, use of such support services was relatively low – less than 10% of caregivers with or without disabilities."



## On the topic of Medications for Muscle Weakness

**Question:** My physician has recommended mestinon (Pyridostigmine) for my muscle weakness. Does it help?

**Dr. Bruno's Response:** There have been a number of limited quality studies of pyridostigmine's effect on North American and European polio survivors. The title of this 2003 study says it all: "Pyridostigmine in Post-Polio Syndrome: No decline in fatigue and limited functional improvement." There wasn't a decrease in fatigue nor any significant increase in muscle strength on drug.

## On the topic of "Minor" Illness being Undiagnosed Polio

**Dr. Bruno's Original Post:** Symptoms of a "minor" illness that could be polio but possibly not be diagnosed. "The CDC states most people infected with polio will not have weakness or paralysis. One in four infected people will have flu-like symptoms that include:

- Sore throat;
- Headache;
- Fever;
- Nausea;
- Fatigue;
- Stomach pain.

Symptoms typically last two to five days and then go away without treatment and are not followed by neuron damage, muscle weakness or paralysis."

**Question:** Is having these flu-like symptoms the same as "non-paralytic" polio?

**Dr. Bruno's Response:** No. Flu-like symptoms would be considered "abortive polio" where the virus doesn't enter the central nervous system or cause any damage. "Non-paralytic polio", is where the virus can enter the central nervous system, causes neuron damage and measurable muscle weakness in about 40% of patients.

## On the topic of Muscle Weakness Affecting the Eyes

Question 1: I have paralysis of the 7th cranial nerve causing the left side of my face, neck, and

shoulder to be paralyzed. Bulbar Polio was the cause. Could this be affecting the vision in my left eye? **Question 2:** I also have eye problems from polio when I was one. My left eye has always had a problem, I call it a "wandering eye". My eye muscles are weak. Now, my right eye is getting weak as well and my vision has changed.

**Dr. Bruno's Response:** Polio can affect the muscles that move the eyes and eyelids. This article may help you and your ophthalmologist: Abnormal Eye Movements and PPS. You can find it in the Encyclopedia of Polio and PPS under the topic of Muscle Weakness.

## On the topic of Poliovirus Antibody Testing to Determine Immunity

**Dr Bruno's Original Post:** Testing for Types 1 and 3 Antibodies

The case of paralytic polio in lower New York State, caused by the mutated Type 2 vaccine, has prompted survivors to ask whether they had been fully vaccinated and have antibodies to all three types of poliovirus. Commercial laboratories will test for the presence of poliovirus antibodies but only for Type 1 and Type 3, since wild Type 2 poliovirus is no longer circulating. Unfortunately, it is the mutated Type 2 oral vaccine strain that currently is circulating and being found in wastewater.

The CDC states, "Demonstrating antibodies to poliovirus types 1 and 3 does not reliably indicate protection against poliovirus type 2. In the absence of the availability of testing for antibodies to all 3 serotypes, serologic testing is no longer recommended to assess immunity."

**Source:** www.cdc.gov/mmwr/volumes/66/wr/pdfs/ mm6601a6.pdf

What's more, infectious disease specialist Dr. Paul Offit stated that laboratories can «find» poliovirus antibodies that are in fact antibodies against "cousin" non-polio enteroviruses, making antibody testing worthless.

## On the topic of Polioviruses – Types vs Strains

Dr. Bruno's Original Post: You often hear doctors

on television news make a simple mistake: confusing the "types" of virus with "strains" of virus.

It's really simple. Each **TYPE** of virus requires its own specific antibody to subdue it. But within each **TYPE** of virus there can be many **STRAINS** that are genetically different (because of mutations) but still succumb to an attack by its **TYPE**'s antibody. Dr. David Bodian discovered that there were 3 **TYPES** of poliovirus. A committee of scientists was formed and collected samples of poliovirus from North America and around the world to be certain that there were only 3 **TYPES** and therefore only 3 individual formulations of polio vaccines would be needed.

The findings confirming that there were just 3 TYPES of poliovirus were presented in 1952 at the Second International Poliomyelitis Conference. But also presented was the finding that there were 255 STRAINS of TYPE 1 poliovirus, 36 STRAINS of TYPE 2 and 9 STRAINS of TYPE 3. TYPE 1 STRAINS were by far the most numerous and virulent; so it's not surprising that they were responsible for the majority of polio epidemics.

### On the topic of Steroids

**Question:** In the Polio Paradox, you advise against polio survivors being given steroids. Does this include steroid injections for pain? I fell and have a torn shoulder ligament. Despite physio and osteo treatments, the pain is still there. I am considering asking my doctor for a steroid injection next week.

**Dr. Bruno's Response:** The problems reported by our Post-Polio Institute patients - weakness, fatigue - when they were given oral steroids for the long-term treatment of arthritic pain, which is not an appropriate use of steroids. Steroid injections do not cause the same problems. But steroid injections should be limited in number because they damage the bone. Ask for the injection to be the steroid combined with a local anesthetic. **Additional Comment:** I have a lot of neck pain and regularly use physical therapy and at home traction. Two years ago, my rehabilitative physician (aware of the side effects) felt I should take a single dose pack of oral steroids (lasting only 1 week) to reduce the increased pain and inflammation in my neck. You've written previously about oral steroids for pain. Your article "Steroids – the Good and the Bad" helped me a lot, as did the week of steroids. Just being aware that fatigue could be a side effect, I wasn't afraid of it nor was I surprised on the 3rd day when I felt like a rag doll. I used it as an opportunity to rest, which was probably what I needed anyway. (You can find the article mentioned above and more information on steroids under the topic of Muscle Weakness in the Encyclopedia of Polio and PPS.)

## On the topics of the "Summer Grippe", "Mild Case of Polio" and Type Two Poliovirus

Question: What's happening in New York is raising awareness of children who have the poliovirus but only have flu-like symptoms, are not being diagnosed and thus can spread it. The more I learn about Polio and PPS the more interested I get. I was sick in 1954 with the Summer Grippe. Recovered on my own, no doctors. My drop foot gradually appeared over the years. How many of us were not diagnosed (initially) with polio, but with the Summer Grippe? Albert Sabin described it in 1946. (Pages: 277 – 283 in The Polio Paradox.)

Additional Post: Polio hit me like a ton of bricks and I've always been puzzled by people in these groups who don't know when they got it and were never in a hospital. I have run into people who never had to wear special shoes or like you said never went to the hospital but yet they say they had polio. I know polio affected us all differently, but the fact that my foot dropped, toes curled, and noticeable limp and size of leg, makes it hard to imagine not knowing!

Additional Post: I can see why someone might not ever know they had polio at the time. I had a girlfriend who had gotten it in one of her legs. Her leg never was shorter, she never had to wear a brace or different size shoes. When she was reaching age 50, then she needed a brace because her foot on that leg was staring to drop. We are all so different, yet the same.

Additional Post: My whole family came down with «Summer Grippe» in 1948. Seven kids, I was the youngest at 1 year. No doctor was called till I started walking again and dragging one foot. We were some

of the lucky ones; no iron lungs or long hospital stays. Dealing with PPS now is tough, having all sorts of problems with pain in the back and legs. My siblings have also had PPS problems. I'll always wonder how many Summer Grippe children have developed muscle weakness issues that have never been attributed to polio.

**Dr. Bruno's Response:** All three types of poliovirus caused paralysis. The Type I poliovirus is the epidemic virus that paralyzed(es) most people. Albert Sabin discovered that it was the Type II poliovirus that apparently caused «the Summer Grippe" (and it was also the cause of the polio epidemic in Iceland the next year). Unfortunately, we will never know how many Summer Grippe children there were nor how many children went undiagnosed with "non-paralytic" polio. (There are numerous articles about "non-paralytic" polio under the topic of "poliovirus" in the Encyclopedia of Polio and PPS.)

## On the topic of Anesthesia

**Question:** I know that polio survivors report being over anesthetized during surgery and not waking up for hours. I have never had surgery and I will be torn if it happens;

• on the one hand I would want to avoid the danger of excessive anesthesia

• but on the other hand, what if am under aestheticized and under the effect of muscle immobilizing agent?

That must be a concern for many polio survivors who have never had surgery.

**Dr. Bruno's Response:** Anesthesiologists routinely monitor a patient's level of consciousness using a BIS (bispectral index) monitor so that they can adjust the dosages of anesthesia – this keeps you from waking up. If you are overly concerned, talk to your physician/anesthesiologist prior to them putting you under.

Source: From the National Library of Medicine

### On the topic of Compromised Immune System and Viruses

**Question:** Weren't polio survivors' immune systems compromised when we got the poliovirus? Why else

would it take hold rather than being fought off, as would be the flu?

Dr. Bruno's Response: Being infected with and having neurons damaged by the poliovirus does not mean that your immune system was compromised. Unlike the flu viruses, to which people are exposed at least yearly, you were a "poliovirus virgin" having never before been exposed to any of the three polioviruses. Your immune system (as with COVID today) had no antibodies or B cells or T cells to fight them. But your immune system learned quickly to attack the poliovirus. Had you been immune compromised during the acute polio infection you quite likely would have died. The purpose of the polio vaccines was to expose the immune system to the polioviruses without causing neuronal damage, to teach it to attack the polioviruses before they could cause neuron damage and death.

## On the topic of the COVID Vaccine and Polio Survivors

**Question:** I feel as though I have been pressured heavily into both

- wearing a mask and
- getting vaccinated for COVID

I think I already am immune, having contracted COVID earlier this year would give me a natural immunity. What are your thoughts on polio survivors being forced to get the vaccine.

**Dr. Bruno's Response:** You are not being forced to get the COVID vaccine or wear a mask. But you are doing yourself a tremendous disservice to yourself and others if you don't do both. Antibodies levels are lower after you have had the COVID virus than they would be if you also were vaccinated. This is no different than the situation with the polio vaccine. Polio survivors received boosted immunity, plus immunity against the types of polio they did not have, when they were given the vaccine. Now, especially with so many of the unvaccinated allowing the development of COVID variants, everyone needs as many antibodies as possible.

As for wearing a mask, since COVID is a respiratory virus that grows in your throat, you are protecting yourself against reinfection and, even if you are reinfected without symptoms, the mask prevents you from passing the virus growing in your throat to someone else.

## On the topic of Isometric Exercises and Polio Survivors

**Question:** Exercise for polio survivors is always a tricky subject and one that is different for each of us. What is your experience with isometric exercise?

**Dr. Bruno's Response:** Isometric exercises cause muscles to contract without changing muscle length or causing movement. But, the muscles still require remaining overworked, poliovirusdamaged motor neurons to contract. Isometric exercises are said to "help maintain strength" in nonpolio survivors. But unfortunately, there are no good studies of isometric exercise in polio survivors.

As Dr. Jim Agre warned about exercise in 1995: "One must protect muscles and joints experiencing the adverse effects of overuse or body areas with very significant chronic weakness. Study Source: The Role Of Exercise In The Patient With Post-Polio Syndrome



## 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 by direct financial aid.

## Where to Meet

Recently we have been conducting some of our meetings by ZOOM and some in person. 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.

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APPARED AND LOATION DOLLO DECIMA

Please make cheque payable to: **Polio Regina Inc.** and mail this application form and cheque to: Polio Regina Inc., 825 McDonald St. Regina, Sk. S4N 2X5

\*(Official receipt of donation for income tax purposes will be mailed.)